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INNOVATIVE**

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e-commerce-system
including selection-
program

see overleaf

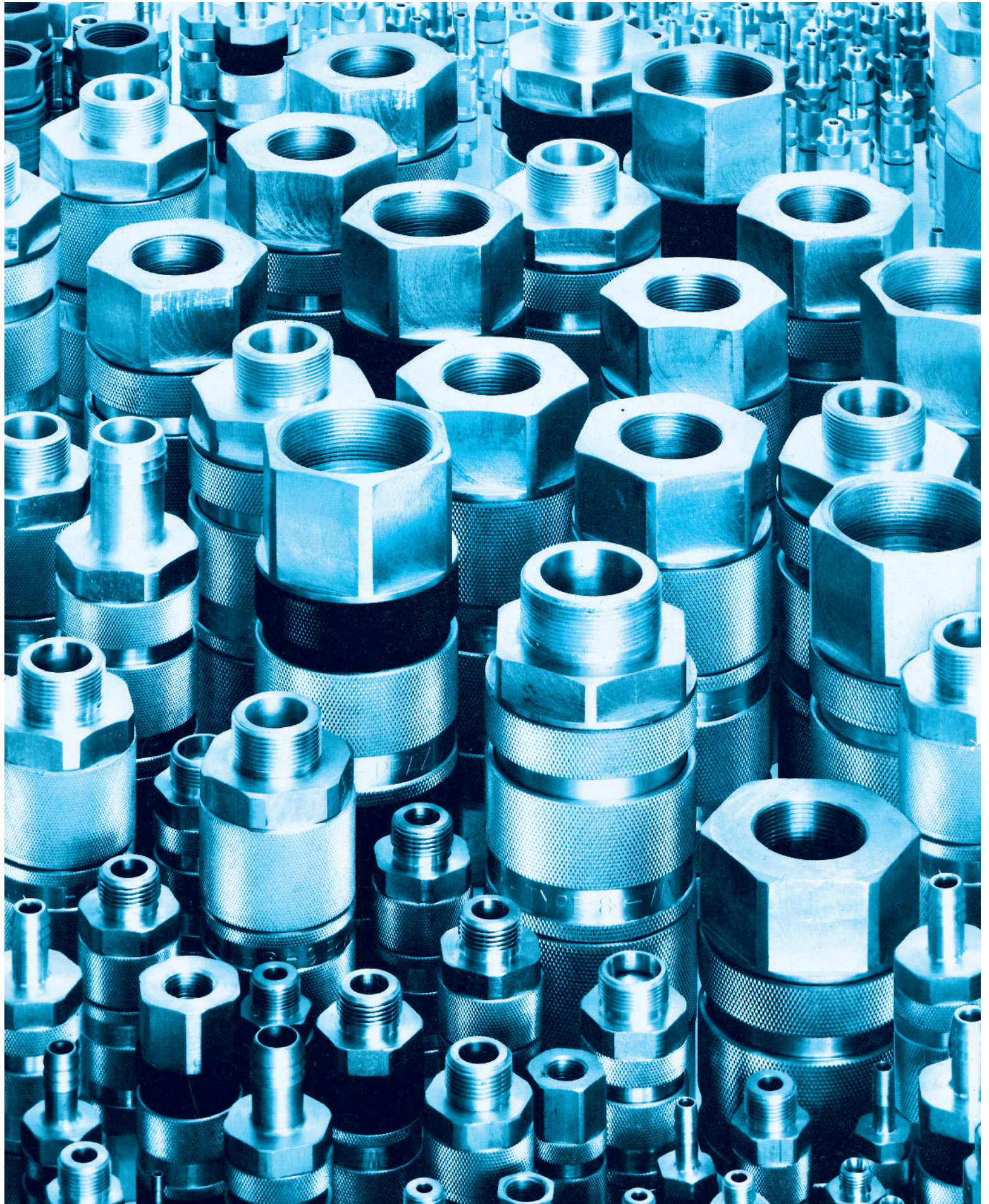


**walther
präzision**
Quick Coupling Systems

Technical Catalogue



Quick connect couplings in more than 300,000 variants



Quick coupling systems

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Page

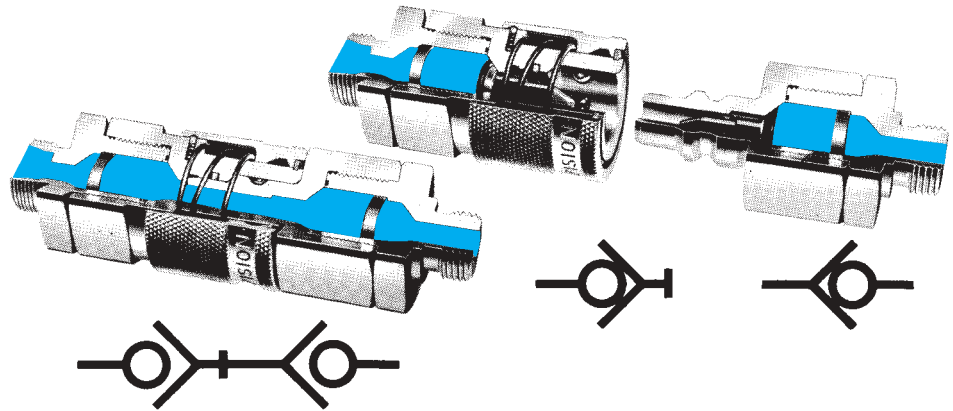
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Low pressure	Series LP	9 - 34
	Working pressure $p_{max. (stat.)}$ 100 bar. LP-032 and LP-050 not for vacuum Materials: steel, brass, aluminium stainless steel	
	Series KL	35 - 40
	Working pressure $p_{max. (stat.)}$ 12 bar not for vacuum Materials: polyamide, polyacetal resin	
	Series UF	41 - 48
	Non-interchangeable, UF-032 not for vacuum, Working pressure $p_{max. (stat.)}$ 40 bar Materials: brass, stainless steel	
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Special programme	Some examples from 300,000 variants Multi-couplings systems, Ball-Face-couplings, Slip-in couplings, Proximity sensors, PTFE seals, break-away couplings etc.	101 - 106

2 Mono-Couplings, Design

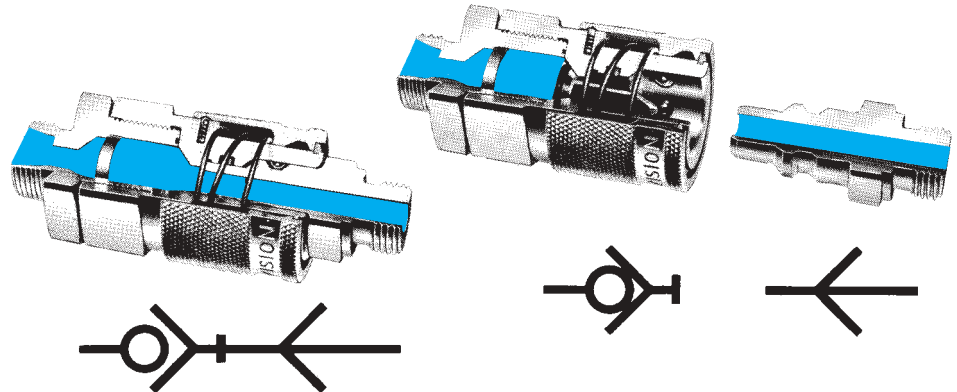
The system of WALTHER Quick Release Self-Sealing Couplings is made up from four basic units.



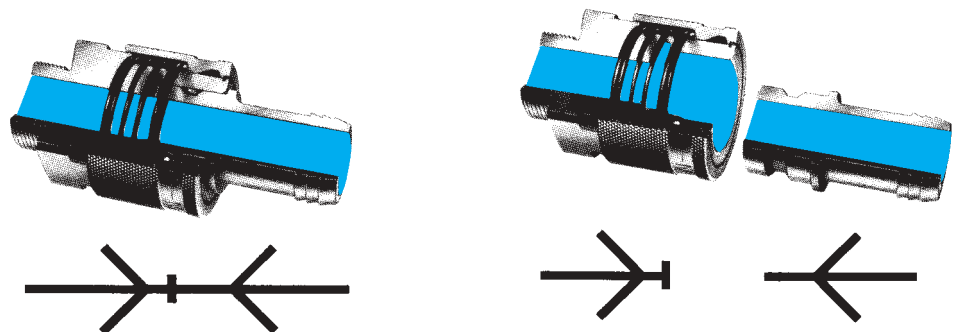
Self-Sealing Coupling and Self-Sealing Adaptor = sealing on both sides.
Upon disconnection the valves of Self-Sealing Coupling and Self-Sealing Adaptor close simultaneously.



Self-Sealing Coupling and Thru-Type Adaptor = sealing on one side.
Upon disconnection the coupling valve closes.
The combination of thru type coupling and self sealing adaptor is usually not available, however it can be realized for the types LP-006, -007, -012 and -019 as thru type coupling with valve opening tappet.



Thru-Type coupling and Thru-Type Adaptor = full flow.
Upon disconnection both sides are open.



According to the nature of the application either the Self-Sealing Coupling or the Self-Sealing Adaptor can be fitted to the supply line.

By insertion of the adaptor into the coupling the connection is made similar to a plug contact.

As the valves are locked in the open position when coupled, the direction of flow is of no consequence.

Protection rights:

Many patents, registered designs and applications for patents in Germany and abroad prove the technical lead of WALTHER-Mono-Couplings, Multi-Couplings and Docking-Systems.

Part number principle

with annex for optional additional features per example of low pressure self-sealing coupling in stainless steel with additional features

Technical information

Series or Type		LP (oder LV, SP, 06, 07)		KL, UF, MD (oder SG), HP etc.																
Nominal bore / Nominal size																				
Kind of product or component see type sheets																				
0 = self-sealing coupling		6 = dust plug																		
1 = thru-type adaptor		7 = thru-type coupling with valve plunger																		
2 = self-sealing adaptor		8 = thru-type adaptor with valve plunger																		
4 = thru-type coupling		9 = airguns and other untypical variations																		
5 = dust cap																				
Series + nominal bore = type			End connection type see part number																	
			WR021 = end connection G 1/2 A to DIN ISO 228 = 1/2" BSPP male (XX001 to XX999) = special connections) dified XX connection numbers of one type, cannot be used for other nominal bores / nominal sizes or series																	
			regarding content variable area		regarding content and number of digits variable annex															
LP - 006 - 0 -			WR021 - 01 - 2 -		GL - OV - SI															
Material and finish			for optional additional features																	
see numbering key in the head of the type sheets see corrosion resistance table on page 6 + 7			see special technical explanations on page 5. Partly several additional features can be used at the same time, some additional features exclude others. Regarding this see explanations in the head of the individual type pages.																	
For special materials or special seal types a 4 figure identification is taken by using letter combinations from AAAA to ZZZZ			<table border="1"> <tr> <td colspan="3">Seal type</td> </tr> <tr> <td>NBR</td> <td>=</td> <td>1</td> </tr> <tr> <td>FKM</td> <td>=</td> <td>2</td> </tr> <tr> <td>EPDM</td> <td>=</td> <td>4</td> </tr> <tr> <td colspan="3">See table of characteristic features and compatibility on page 6 + 7</td> </tr> </table>			Seal type			NBR	=	1	FKM	=	2	EPDM	=	4	See table of characteristic features and compatibility on page 6 + 7		
Seal type																				
NBR	=	1																		
FKM	=	2																		
EPDM	=	4																		
See table of characteristic features and compatibility on page 6 + 7																				

Special Designs

Over the years WALTHER-PRÄZISION as specialist for quick coupling systems has been confronted with many tasks which could be solved with customized designs only.

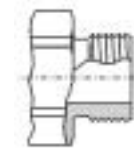

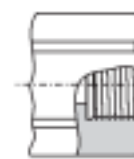
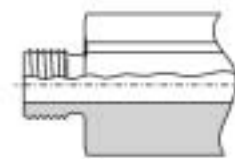
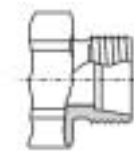
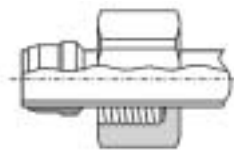
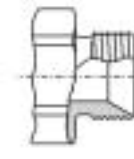
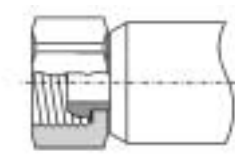
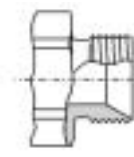
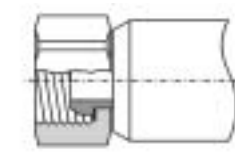
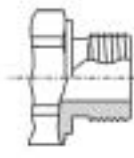
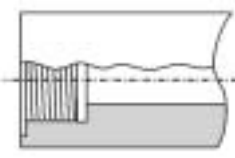
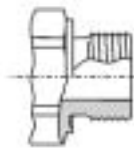
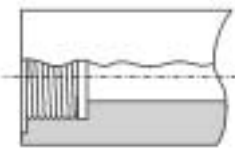

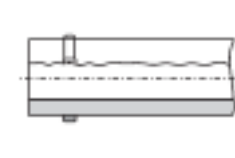
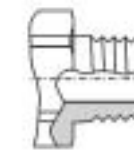
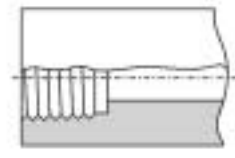
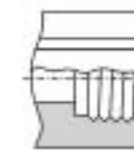
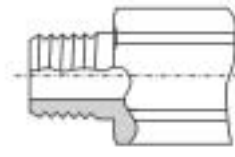
This lead to many special types besides the standardized product programme.

Wherever special features of the quick coupling lead to deviations from the standard designs these are exactly defined by letter/number combinations within the

variable part number annex. A "Z" in this place means the connectability with the standard is maintained. When the letter "Y" is used, there is no possibility to connect with the standard designs. However, these special designs are not listed in this catalogue.

Example for the arrangement of the letter/number combination in the variable part number annex for special designs: LP-006-0-WR021-01-2-Z14...

4 Standard End Connections applicable to all Standard Series

	Part no. code	end connection Walther	customer's side
British standard pipe parallel (BSPP) male thread to DIN ISO 228	-WR0.. -		
British standard pipe parallel (BSPP) female thread to DIN ISO 228	-WR5.. -		
Metric male thread with 24° sealing cone to DIN 2353, for cutting ring to DIN 3861 and swivel nut to DIN 3870 also elongated for panel mounting	light duty series -L....- heavy duty series -S....-		
Metric male thread with 60° sealing cone to DIN 7631, for sealing cone to DIN 3863 and swivel nut to DIN 3870 also elongated for panel mounting	-D....-		
BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	-VR0.. -		
British standard pipe parallel (BSPP) male thread to DIN ISO 228, with small sealing edge to DIN 3852-2 profile "B"	-WB0.. -		
British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring	-WE... -		
Hose connections	-SL0.. -		
conical pipe male thread NPT to US standard	-NP0.. -		
conical pipe female thread NPT to US standard	-NP5.. -		

venting valves "VE" It is recommended to use self sealing couplings and self sealing adaptors with venting valves for long air lines. Thus the return shock on disconnection is considerably reduced and the air escapes from the hose slowly.

Strengthened springs "VF" It is necessary to equip self sealing couplings and self sealing adaptors with stronger valve springs if vacuum occurs in the disconnected position.

Ring grips "GG" In some applications, e. g. in difficult locations, high operating temperature etc., additional ring grips can simplify the handling of the couplings.

Ring valves "RV" When self sealing couplings and self sealing adaptors are employed under strong pulsating pressure, their durability and abrasion resistance can be improved considerably when equipping them with ring valves. These valves can not be connected with standard valves.

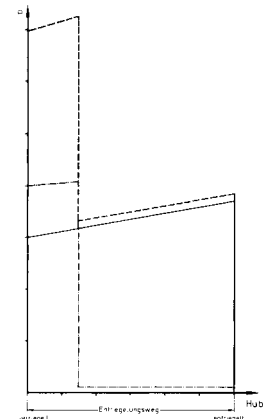
DVGW-Register-No. "GW" The observance of the DVGW-regulations requires careful measures in particular and special markings. Due to this fact it is necessary to state in the order that they are supposed to be employed under these regulations. DVGW is the German Association for gas and water applications.

Radial safety lock

Spring characteristics

- locking spring
- - - - - safety spring
- · - · - · - locking + safety spring

The graph shows the locking forces P, dependent on the release movement of the sleeve for conventional couplings and couplings with additional radial safety lock. The dashdotted line shows that great locking forces are only effective with locked couplings. As soon as the locking sleeve leaves the locking positions and the additional locking device is not active any more, only the friction forces between locking and locking sleeve inside wall are effective. Couplings with radial safety lock are foolproof and easy to handle.



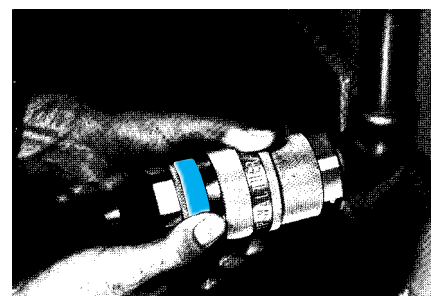
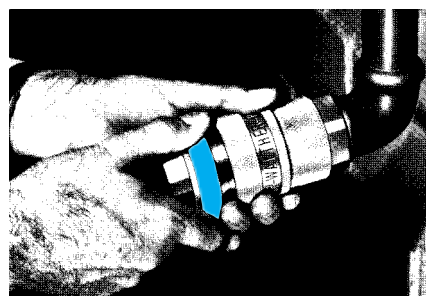
Locking aid "VH"

For easier operation the locking sleeve can be primed in retracted position. When mating both halves the locking sleeve is released and springs into locking position to the front. Thus it must not be held or hindered otherwise during this action.

Axial safety locking device "SI"

All couplings can be supplied with an additional axial positive safety device. Disconnection can only be effected when both locking components – locking sleeve and locking ring – are pulled back against spring force and turned against each other by 90 °C. Both final positions – locked and unlocked – are fixed by springloaded cams.

The operator can check the correct locking position, by trying to pull back the locking sleeve. This is not possible in the secured position.



6 Seals, Materials

Extract from our tables of seals and materials.

Other indications on request.

The following standard seal types are available:

NBR

main properties:

Resistant to oil and petrol

good ageing characteristics, high abrasion resistance.

FKM

main properties:

Outstanding heat resistance performance, excellent resistance to oils, chemicals, solvents, active oxygen and weather

EPDM Ethylene Propylene

main properties:

High mechanical strength, excellent resistance to high and low temperatures and to active oxygen and weather

good resistance to chemical media

For very aggressive media special constructions with PTFE seals are available.

All specifications for general information only. They apply to 1. pure substances, 2. unless otherwise indicated at room temperature, 3. for salt, acids etc. for hydrous solution of moderate concentration.

The zinc plated surfaces usually used by us are free from hexavalent chrome (Cr VI).

Table of resistance					Table of seals			Quality to DIN / ISO 1629
steel zinc plated	brass passivated	ss AISI 316 ti or similar	Polyamide 11/12	Polyacetal POM	NBR	FKM	EPDM	
+	+	+	+	+				● = compatible
+	+	+	+	+				Acetate (Ethyl Acetate & Amyl Acetate)
	-	+	-	+				Acetic acid 10 %
+	+	+	+	+				Acetone
+	+	+	+	+	●	●	●	Acetylene
+	+	+	+	○	●	●		Aero Engine Fuel BP, ESSO, Avgas 100/130
+	+	+	+	○	●	●		Aero Engine Oil BP: AIRO-120, ESSO: AVIATION-120 Shell: AIRO-120, DERD 2487 DERD 2497, DTD 585
+	-	+	-	-			●	SKYDROL
+	-	+	-	-			●	ORONITE
+	+	+	+	+	●	●		Air, compressed
+	+	+	○	○	●	●		Air, hot up to 120°C
+	+	+	-	-	●			Air, hot up to 200°C
+	+	+	+	+	●			Alcohol
	-	+		+	●	●	●	Alum
-	○	+	+	○	●		●	Alkalies
○	-	+	+	-			●	Ammonia, liquid
-	-	+	+	○	●	●	●	Ammonium Sulphate Solution

Table of resistance					Table of seals			Quality to DIN / ISO 1629
steel zinc plated	brass passivated	ss AISI 316 ti or similar	Polyamide 11/12	Polyacetal POM	NBR	FKM	EPDM	
+	+	+	+	+		●		Amyl Alcohol
+	-	+	○			●		Aniline
+	+	+	+	+		●		Benzole
+	+	+			●	●		Borax
+	+	+	+	+	●	●		Bultane
+	+				●	●		Butene
-	+	+	+	+			●	Butyl Alcohol
-	+	+	+	+	●	●	●	Carbon Dioxide
	+	+	+		●	●	●	Carbon Dioxide, dry
-	+	+	+	○	●	●	●	Carbon Dioxide, liquid
+		+				●		Carbonic Bisulphide
	+	○	+	+	●	●	●	Chloride of Barium
-	-	○	○	-		●		Chromic Acid
-	○	+	-	○		●	●	Citric Acid
+		+				●		Creosote
○	+	+	-	-		●		Cresol
+		+				●		Cresol, Cresylic Acid
+		○	-		●	●	●	Cupric Chloride
+	+	○	+			●		Cyclohexane
+		+				●		Dimethylamine
○	+	+	+	+	●	●		Emulsion (Water/Oil)
+	+	+	+	+		●		Ether
+		+	+	+	●		●	Ethyl Alcohol
+	+	+	+	+		●		Ethylene
+	+	+		○	●	●	●	Formalin
-	○	+	-	-			●	Formic Acid
+	+	+	+	+	●	●		Frigen / Freon F 11-12
+		+			●	●		Gasoline, Refined
○	+	+	-	○		●		Gas, Blast Furnace
	+	+	+	+		●		Gas, Coal
○	+	+	○	○	●			Gas, Coke Oven,
+	+	+	+	+	●	●		Gas, Lighting
+	+	+	+	○	●	●		Gas Naphtalene content
+	+	+	+	+	●	●		Gas, Natural
+	+	+	+	+	●			Gas, Town
+		+		+	●	●		Gear Oil
	+	+	+	+	●	●	●	Glucose
+	+	+	+	+	●	●	●	Glycerine
+	+	+	+	+	●		●	Glycol
+	+	+	+	+	●	●	●	Helium
+		+	○		●	●		Hexane
+	+	+	+	+	●	●		Hydrocarbone
+	+	+	+	○	●	●		Hydrogen
+		+			●	●		Hydrogen Gas
	○	+	+	-			●	Hydrogen Sulphide, Humid
	+	+		+			●	Hydrogene Sulphide, dry

Table of resistance					Table of seals			Quality to DIN / ISO 1629
fully resistant	partly resistant	non-resistant	+	○	+	○	-	
steel zinc plated	brass passivated	ss-AISI 316 ti or similar	Polyamide 11/12	Polyacetal POM	NBR	FKM	EPDM	● = compatible
-	-	+	+	-		●		
+		+	○	+	●	●	●	Isopropyl Alcohol
+	+	+	+	+	●	●		Kerosene, JP 1
+	+	+	+	+			●	Ketone, Methyl Ethyl
+	+	+	○	○	●			Latex, liquid up to 130°C
+	+	+	+	○			●	Lubricating Oil
-	+	+	+	+			●	Lye Caustic
-	-	+	-	○				Lye, Hypochlorous Acid
-	MS 60	+	○	○		●		Lye, Pickling
+		+	+	+	●	●	●	Magnesium Carbonate
+	+	+	+	+	●	●	●	Magnesium Hydroxide
	-	+	+	+	●	●	●	Magnesium Sulphate
+	-	+	+	+	●	●	●	Mercury
+	+	+	+	+	●	●		Methane
+	+	+	+	+	●		●	Methanol
+	+	+	○	+	●		●	Methyl Alcohol
+		+	+	+			●	Methyl Ethyl Kentone
+		+				●		Methyl Benzene
+	-	+	+	+	●	●	●	Milk
+		+		+	●	●		Naphta
+	+	+	+	+		●		Naphtalene
+		+			●	●		Naphtenic Acid
+		+			●	●	●	Nitrate of Ammonium
-	+	+	-	-		●		Nitric Acid, up to 35 %
+	+	+	+	+	●	●	●	Nitrogen
+	+	+	-	+			●	Nitro-Solution (no synstehtiv resin thinners)
+		+	+	○		●		Oil, Coal Tr.
+	+	+	+	+	●	●		Oil, Crude
+	+	+	+	+	●			Oil, Diesel
	+	+	○	-		●		Oil, Diesel up to 120°C
+	+	+	○	-	●	●		Oil, Fuel up to 120°C
○	○	+	-	-	DF 150 R			Oil, up to 200°C / up to 300°C special type
+	+	+	○	+		●		Oil, Fuel 5 x 5
○	○	+	-	○		●		Oil, Hydraulic Chlorinated
+	+	+	○	○	●	●		Oil , Hydraulic up to 120°C
+	+	+	+	+	●	●		Oil Linseed
○	+	+	+	+	●	●		Oil, Mineral
○	○	+	+	○	●			Oil, Transformer
+	-	+	+	+	●	●		Oleic Acid
○	○	+	+	+		●	●	Oxalic Acid
-	+	+	+	○			●	Oxygen, Fat free
+	+	+	+	+	●			Paraffin
+	+	+	+	+	●			Paraffin, (Wax)
+						●		Pentachlorphenole

Table of resistance					Table of seals			Quality to DIN / ISO 1629
fully resistant	partly resistant	non-resistant	+	○	+	○	-	
steel zinc plated	brass passivated	ss-AISI 316 ti or similar	Polyamide 11/12	Polyacetal POM	NBR	FKM	EPDM	● = compatible
	+	+	+	+	●			
+	+	+	+	+	●	●		Petrol
○	+	+	+	-				Phenol Solution
		+	-	-		●	●	Phosphoric Acid 10 %
+	-	+	+	○		●	●	Potassium Cyanide
+	-	+	-	○		●	●	Potassium Dichromate
+		+			●	●	●	Potassium Sulphate
+		+	+	○			●	Potassium Hydroxide
+	+	+	+	+	●	●		Propane
+	-	+				●		Prussic Acid
-	○	○	+	○		●		Salt Solution
	-	○		+	●	●	●	Sea Water
-	+	+	+	+	●	●	●	Soap Solution
-	○	+	+	○	●	●	●	Soda Solution
		+	+	+	●		●	Sodium Acetate
		○	+	+		●	●	Sodium Bicarbonate
+		+	+	+	●	●	●	Sodium Carbonate
+		+	+	+	●	●	●	Sodium Chloride
+		+	-	○			●	Sodium Cyanide
+	○	+				●	●	Sodium Sulphide
○	○	+	-	-			●	Steam up to 150°C
○	○	+	-	-	PTFE			Steam, up to 250°C
+	○	+	+		●	●	●	Sulphide of Barium
	+	+					●	Sulphur Dioxide, Gas
	+	+	-	+		●		Sulphuret of Carbon
+	+	+	○	○		●		Synthetic Resin Thinners, (no nitrosolution)
+	+	+	+	+	●	●		Tar
+		+				●		Tetrachloride of Titanium
○	+	+	+	+		●		Toluol, dry
+	○	+	+	-		●		Trichlorethylene
								Turbine Fuel BP: ATK 2494, ESSO: MIL-F-56/16, Shell: ATF 650
+	+	+	+	○	●	●		Turbine Oil, ESSO: 35
○	○	+	+	○	●	●		Turb-oil 1 S (MILL 7808)
+	+	+	+	+				Vacuum (Strenghtende Valve Springs)
+		+	+	+	●	●	●	Vegetable Oils
		+	+	+		●	●	Water Distilled
		+				●	●	Water Deionized
		+				●		Water Demineralised
○	+	+	○	○	●	●	●	Water, up to 80°C
○	+	+	○	-		●	●	Water, over 80°C
○	○	+	+	○		●	●	Water, Cooling
+	+	+	+	+		●		Xylene

QA-system-certification to DIN / EN / ISO 9001 by TÜV-Rheinland

Bundesanstalt für Materialforschung und -prüfung BAM, Berlin; Approval or type UF-019 for acetylene lines up to 24 bar gauge pressure.

Bundesbahnenamt, Minden; Walther quick connect self-sealing coupling, low pressure series, for air pressure-, water- and cleaning lines.

Bundesmarine/Blohm & Voss AG, Hamburg; Shock test report of the Bundesmarine/Blohm & Voss AG, Hamburg, of WALTHER quick connect self-sealing couplings, series MD, under high accelerations and shocks.

Centrale Dienst der Arbeidsinspectie, S-Gravenhage; WALTHER quick connect self-sealing coupling or air-, oxygen-, acetylene- and propane lines etc.

Daimler-Benz Aerospace; Approval according to quality requirements of the Federal Association of German Aerospace Industry e. V. (BDLI) to QSF-C on the basis of ISO 9001.

DVGW-Forschungsstelle, Karlsruhe; Expertise for WALTHER quick connect self-sealing couplings, type LP-006, LP-007, LP-012, LP-019, SP-006, MD-006, MD-007, MD-012 and MD-019, for use in engineered gas applications of industry.

Fachausschuß Chemie bei der Zentralstelle für Unfallverhütung des Hauptverbandes der gewerblichen Berufsgenossenschaften, Köln; WALTHER quick connect self-sealing couplings for high pressure liquid jets.

Insitut für Baustoffkunde und Stahlbetonbau der Technischen Universität Braunschweig; Application of Walther quick connect self-sealing couplings, series MD and

HP, in hydraulic circuits of test machines with high pressure alternations.

RWTÜV Anlagentechnik GmbH, Essen; WALTHER quick connect self-sealing couplings, type 07-003 and SH-004, in TÜV design approved as test connections in nuclear power stations.

Schweizerische Unfallversicherungsanstalt SUVA; Approval of Walpresta series LS (different nominal bores) as safety coupling in the air pressure sector.

Schweizerischer Verein für Schweißtechnik, Basel; WALTHER quick connect self-sealing couplings, low pressure series – non – interchangeable type, as plug connection for oxygen- and burner gas lines in the welding sector.

Schweizerischer Verein des Gas- und Wasserfaches, SVGW, Zürich; Recommendation of WALTHER couplings type LP-019, LP-032 and LP-050 as solid and appropriate connection between blowing burner and gas line for natural gas, city gas, propane/air and liquified petroleum gas up to 5 bar working pressure.

Siemens AG, Zentralabteilung Reaktortechnik, Erlangen; Walther quick connect self-sealing couplings, medium pressure series, for radioactive contaminated liquid waste and demineralized water circuits, also with particle contamination and high temperature.

Siemens AG, Unternehmensbereich KWU, Erlangen; Confirmation for production of quick connect self-sealing couplings, multi-couplings and dockings systems for nuclear facilities on the basis of the QSP4a and KTA 1401.

Verkehrsanlagen e.V. STUVA, Düsseldorf;

Walther quick connect self-sealing couplings used in propane gas lines in underground installations (tunnel constructions).

Verband für Flüssiggas e.V., Frankfurt; WALTHER quick connect self-sealing couplings used in liquified petroleum gas lines.

Material certificates according to EN 10204-2.1 to 3.1 and factory certificates for quantities, parts, material certification, pressure test, leakage test up to 10⁻⁹ mbar x l/sec., function test, guarantee, possible against sharing of expenses.

Documented production according to specification of nuclear engineering, for military use, for medical applications, for offshore technique etc...

Special test to be agreed upon

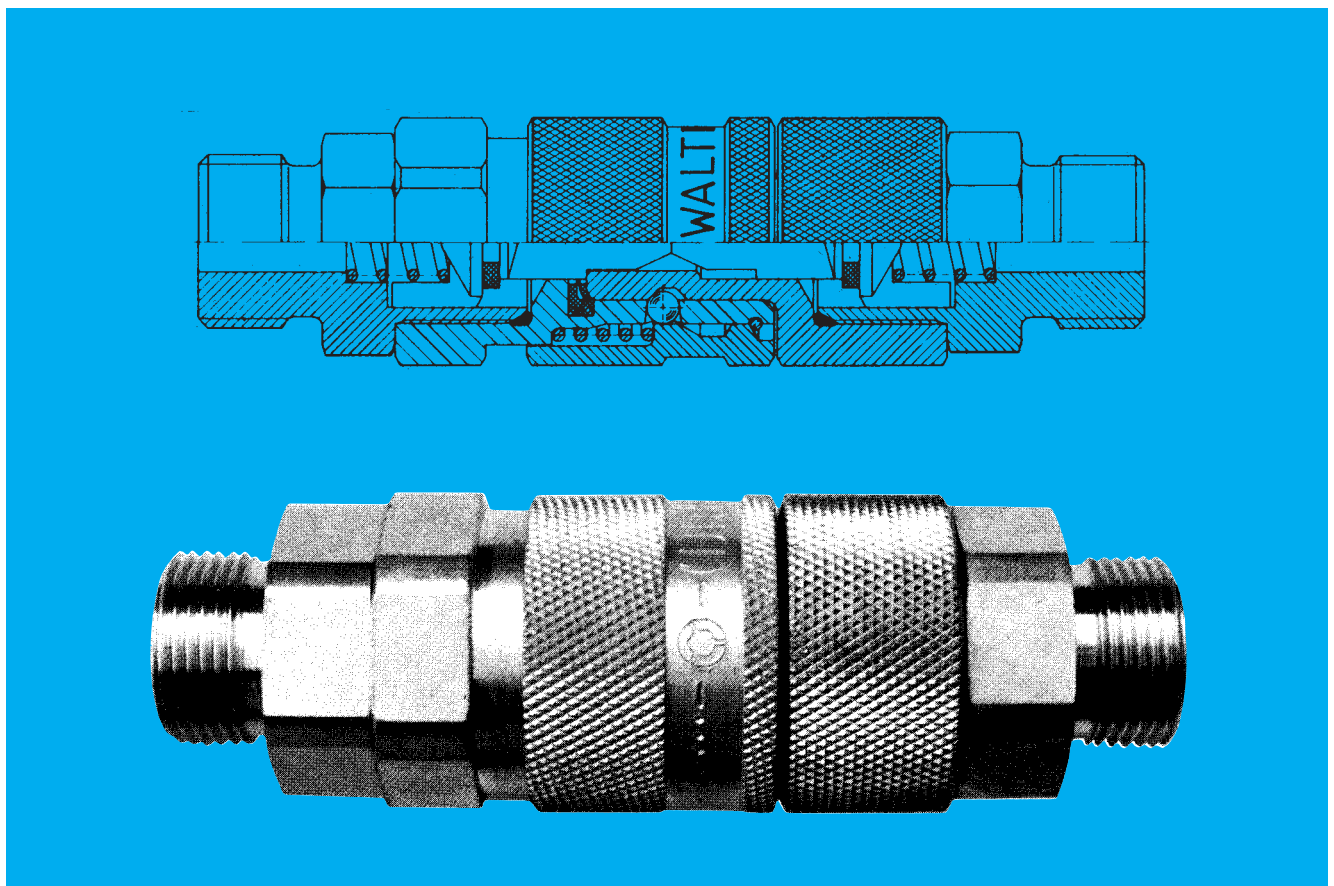
CE-Sign
No special EU-manufacturer declaration is necessary for hydraulic products for the groups hose and pipe connections etc., other hydraulic fittings as well as pneumatic products for the groups screwed connections and lines.

Guide line for pressure devices (DGRL)
The self sealing couplings which are listed in this catalogue are not subject to the guide line for pressure devices and therefore a CE-marking shall not be carried out.

Special test and approval conditions must be stated when placing an order.

Nom. bore	Type	Max. static working pressure [bar/psi]			C _v value		Cross section [mm ²]	Page
		steel	brass	st. st.	both sides self sealing	one side self sealing		
2.5	06-003	–	100	–	–	0.165	5	11
3	LP-003	–	200	–	–	0.21	8	12
3	07-003	–	200	200	0.14	–	7.1	13
4	LP-004	60	20	20	0.3	0.36	13	14
4	LV-004	–	20	20	0.3	–	13	15
6	LP-006	60	40	40	0.73	1.13	30	16 – 17
6	SP-006	100	60	60	0.77	1.1	30	18 – 19
7	LP-007	50	40	40	1.17	1.5	40	20 – 21
9	SP-009	100	40	40	2.1	2.41	64	22 – 23
12	LP-012	50	30	30	3.28	4.34	120	24 – 25
19	LP-019	50	30	30	8.4	11.6	300	26 – 27
32	LP-032	30	30	30	23.8	29.4	800	28 – 29
50	LP-050	30	20	20	59	68	2000	30 – 31
Performance diagrams								32 – 33
Multiway connectors								34

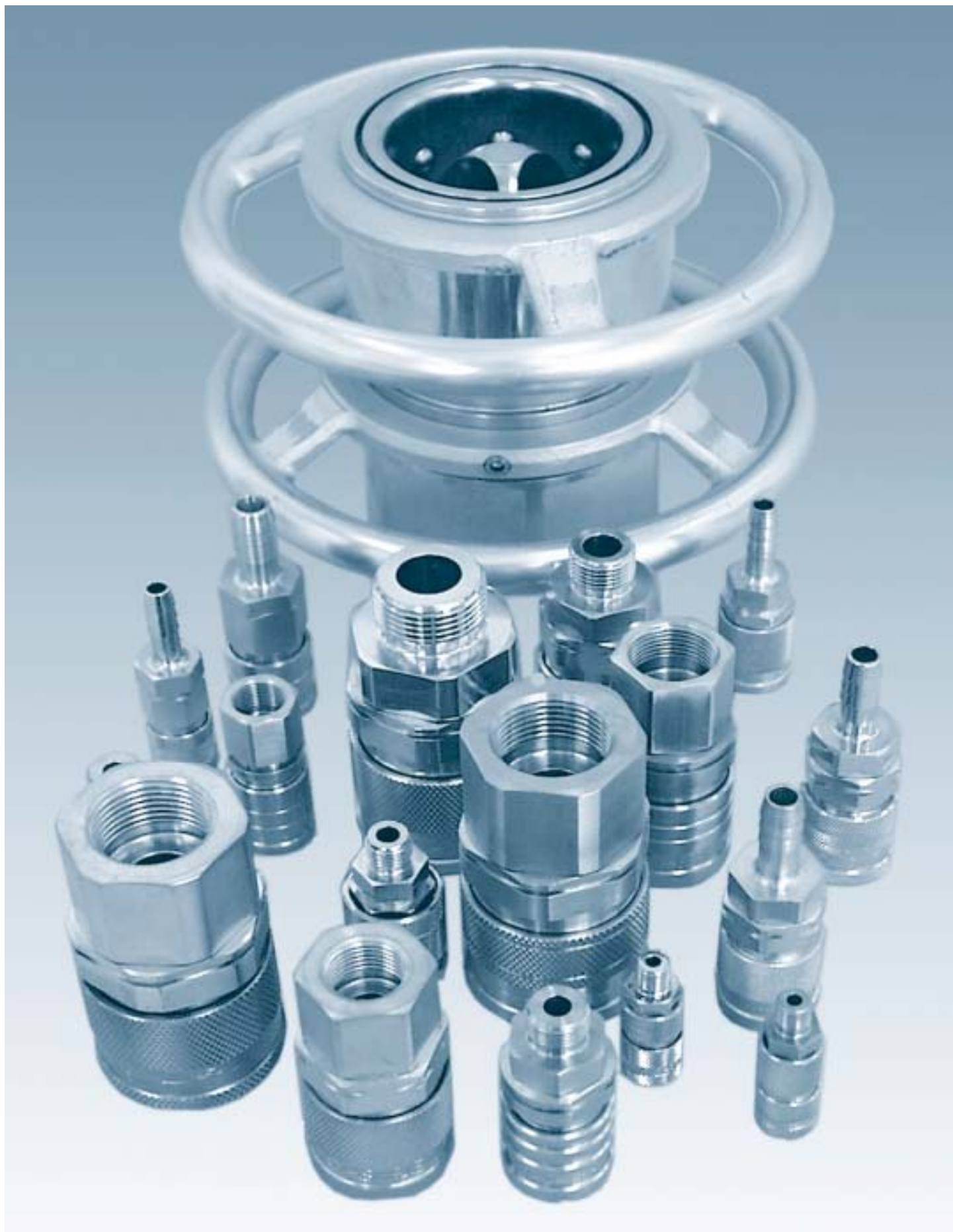
Types LV-004, LP-006, SP-006, LP-007, SP-009 and LP-012 in stainless steel are supplied with gripping grooves instead of knurling as a standard feature



10 Low pressure Series LP

The series LP offers couplings with one side or both sides self sealing and valves in nominal bore 2.5 to 50 mm. This series is supplied in different materials and surface coatings.

With the exception of types LP-032 and LP-050 the LP series is also suitable for vacuum applications (in connected condition).



characteristic features:
 - automatic lock (one hand operation)
 - mini coupling

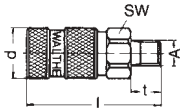
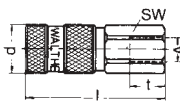
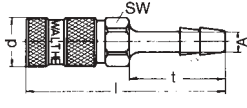
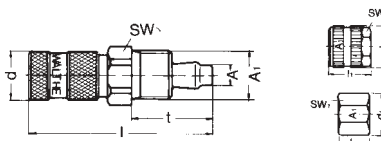
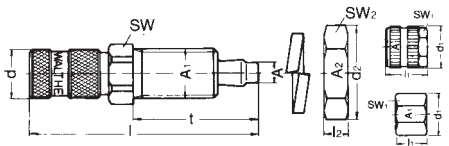
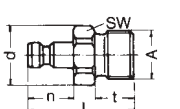
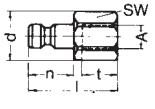

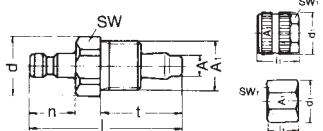
materials:
standard:
 23 = brass, nickel plated

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

optional features:
 OV = without valve
 (no one hand operation)

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	brass nickel plated	A ₁	SW	SW ₁	l	l ₁	d	d ₁	t	n	weight [g]
				A ₂		SW ₂		l ₂		d ₂			
Self sealing couplings	 male thread	06-003-0-XX001-23-	●		9		26,5		10		6		8
		06-003-0-XX010-23-	●		11		30,5		10		10		12
	 female thread	06-003-0-XX015-23-	●		9		28		10		7		11
	 hose connection	06-003-0-SL004-23-	●		9		39,5		10		19		10
	 re-usable hose connection with swivel nut for plastic pipes	06-003-0-SW003-23-	●	M 7 x 0,5	9	7	32,5	9	10	8	12		11
		06-003-0-SW004-23-	●	M 10 x 1	11	13	36,5	13,5	10	14,3	16		21
 re-usable hose connection with swivel nut for plastic pipes and with counternut for bulkhead mounting, max. thickness 4 mm	06-003-0-XX017-23-	○	M 7 x 0,5 M 7 x 0,5	9	7 11	45,5	9 3	10	8 12	25		24	
	06-003-0-XX006-23-	●	M 10 x 1 M 10 x 1	11	13 17	45,5	13,5 5	10	14,3 18,9	25		25	
Thru type adaptors	 male thread	06-003-1-XX001-23	●		9		19		9,9		6	9	4
		06-003-1-WR010-23	○		11		21		12		8	9	6
	 female thread	06-003-1-XX015-23	○		9		18		9,9		7	9	5
	 hose connection	06-003-1-SL004-23	●				29,5		6		19	9	3
	 re-usable hose connection with swivel nut for plastic pipes	06-003-1-SW003-23	●	M 7 x 0,5	8	7	25	9	8,9	8	12	9	5
06-003-1-SW004-23		○	M 10 x 1	11	13	29	13,5	12	14,3	16	9	17	

characteristic features:
- automatic lock (one hand operation)

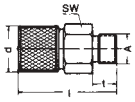
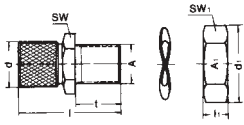
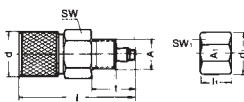
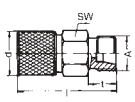
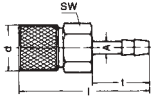
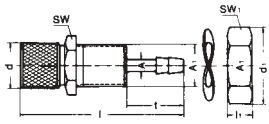
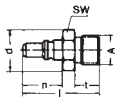
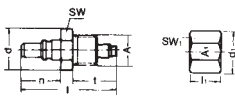
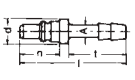
materials:
standard:
23 = brass, nickel plated

seal qualities:
1 = NBR
2 = FKM
4 = EPDM

optional features:
OV = without valve

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

Availability: ● Short ○ Medium ○ Long

	Part No.	Connection A/A ₁	brass nickel-plated	pipe od	n.b.	SF/SF ₁	l	l ₁	d	d ₁	t	n	Weight [g]	
Self sealing couplings	 British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-003-0-WR010-23-.	BSPP 1/8"	●			14	32,5	15		8		32	
	 male thread to DIN ISO 228 for bulkhead mounting (max. thickness 2 mm), complete with counternut	LP-003-0-XX016-23-.	BSPP 1/4"	○			17	34	6	15	23,9	15		46
	 re-usable hose connection with swivel nut for plastic pipes	LP-003-0-SW004-23-.	OD 6 ID 4 mm M 10 x 1	○			14	40,5	13,5	15	14,3	16		50
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L)	LP-003-0-L0612-23-.	M 12 x 1,5	○	6	4	14	34,5		15		10		38
	 hose connection	LP-003-0-SL004-23-.	4 mm	●			14	44,5		15		19		36
	 male thread with 4 mm hose connection for bulkhead mounting (max. thickness 2 mm) complete with counternut	LP-003-0-XX004-23-.	4 mm M 14 x 1,5	●			17	54,5	6	15	25,4	19		50
Thru type adaptors	 British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-003-1-WR010-23	BSPP 1/8"	●			12	25		13,8		8	13	9
	 re-usable hose connection with swivel nut for plastic pipes	LP-003-1-SW004-23	OD 6 ID 4 mm M 10 x 1	○			12	33	13,5	13,2	14,3	16	13	17
	 hose connection	LP-003-1-SL004-23	4 mm	●				35		8		19	13	4

characteristic features:
- automatic lock (one hand operation)

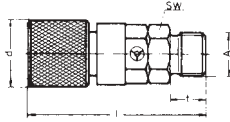
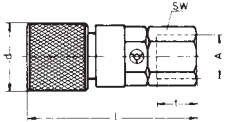
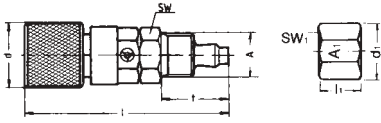
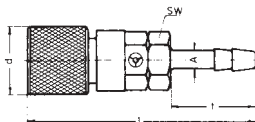
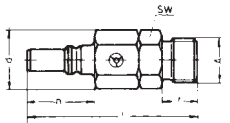
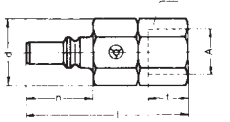
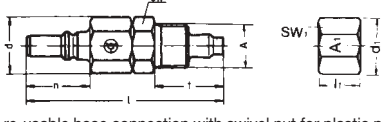
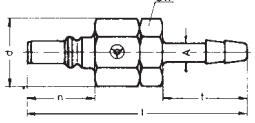
materials:
standard:
23 = brass, nickel plated

seal qualities:
1 = NBR
2 = FKM
4 = EPDM

special materials:
1 = stainless steel 1.4404/1.4571 or similar

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

Availability: ● Short ◐ Medium ○ Long

	Part No.	Connection A/ A ₁	brass nickel plated	AISI 316 ti//1.4571	pipe od	n.b.	d	d _i	SW SW _i	l	l _i	t	n	Weight [g]
Self sealing couplings	 British standard pipe parallel (BSPP) male thread to DIN ISO 228	07-003-0-WR010-...-	BSPP 1/8"	●	○		15		12 —	39,8		8		32
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228	07-003-0-WR510-...-	BSPP 1/8"	○	○		15		12 —	37,8		9		30
	 re-usable hose connection with swivel nut for plastic pipes	07-003-0-SW004-...-	OD 6 ID 4 mm M 10 x 1	○	○		15	14,3	12 13	47,8	13,5	16		41
	 hose connection	07-003-0-SL004-...-	4 mm	○	○		15		12 —	51,8		19		32
Self sealing adaptors	 British standard pipe parallel (BSPP) male thread to DIN ISO 228	07-003-2-WR010-...-	BSPP 1/8"	●	○		13,2		12 —	38		8	15	18
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228	07-003-2-WR510-...-	BSPP 1/8"	○	○		13,2		12 —	36		9	15	15
	 re-usable hose connection with swivel nut for plastic pipes	07-003-2-SW004-...-	OD 6 ID 4 mm M 10 x 1	○	○		13,2	14,3	12 13	46	13,5	16	15	27
	 hose connection	07-003-2-SL004-...-	4 mm	○	○		13,2		12 —	50		19	15	17

optional features:
OV = without valve

see also type LV-004 in extended version and with non squirt feature (in stainless steel or alternatively brass passivated)

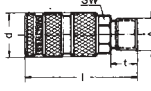
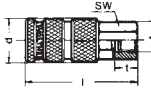
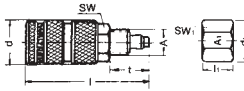
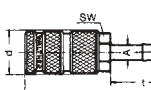
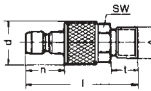
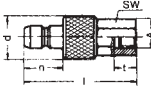
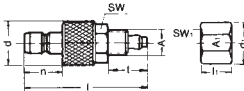
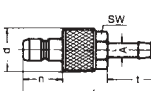
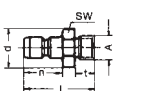
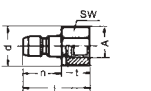
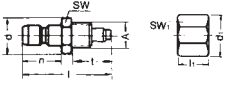
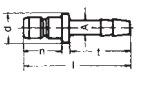
materials:
standard:
11 = steel, zinc plated
21 = brass, passivated
23 = brass, nickel plated

special materials:
31 = aluminium anodized silver
13 = steel, chem. nickel plated
24 = brass, chem. nickel plated

seal qualities:
1 = NBR
2 = FKM
4 = EPDM

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

Availability: ● Short ● Medium ○ Long

	Part No.	Connection A/ A ₁	steel zinc-plated	brass passivated	brass nickel-plated	pipe od	n.b.	d	d ₁	SF/SF ₁	l/l ₁	t	n	Weight [g]
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-004-0-WR010-...	BSPP 1/8"	●	●	●		18		14/—	45,5/—	8		50
		LP-004-0-WR013-...	BSPP 1/4"	●	●	○		18		14/—	46,5/—	11		55
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-004-0-WR510-...	BSPP 1/8"	●	●	●		18		14/—	45,5/—	9		55
		 <p>re-usable hose connection with swivel nut for plastic pipes</p>	LP-004-0-SW004-...	OD 6 ID 4 mm M 10 x 1		●	○		18	14,3	14/13	51,5/13,5	16	
	 <p>hose connection</p>		LP-004-0-SL004-...	4 mm	●	●	●		18		12/—	50/—	19	15
		LP-004-0-SL006-...	6 mm	●	●	●		18		14/—	60,5/—	25		50
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-004-2-WR010-...	BSPP 1/8"	●	●	●		18		14/—	45/—	8	16	36
		LP-004-2-WR013-...	BSPP 1/4"	●	●	○		18		14/—	46/—	11	16	41
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	P-004-2-WR510-...	BSPP 1/8"	●	●	●		18		14/—	45/—	9	16	41
		 <p>re-usable hose connection with swivel nut for plastic pipes</p>	LP-004-2-SW004-...	OD 6 ID 4 mm		●	○		18	14,3	14/13	51/13,5	16	16
	 <p>hose connection</p>		LP-004-2-SL004-...	4 mm	●	●	●		18		14/—	53/—	18	16
		LP-004-2-SL006-...	6 mm	●	●	●		18		14/—	60/—	25	16	36
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p> <p>metric ISO fine-pitch thread, male to DIN 13 with pitch 1,0 mm</p>	LP-004-1-WR010-...	BSPP 1/8"	●	●	●		16,2		14/—	29/—	8	16	15
		LP-004-1-WR013-...	BSPP 1/4"	●	●	○		16,2		14/—	32/—	11	16	20
		LP-004-1-4M010-...	M 10 x 1		●	○		14,8		13/—	28/—	8	16	17
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-004-1-WR510-...	BSPP 1/8"	●	●	●		16,2		14/—	29/—	9	16	18
		 <p>re-usable hose connection with swivel nut for plastic pipes</p>	LP-004-1-SW004-...	OD 6 ID 4 mm		○	○		13,2	14,3	12/13	37/13,5	16	16
	 <p>hose connection</p>		LP-004-1-SL004-...	4 mm		○	○		12			37/—	18	16
LP-004-1-SL006-...		6 mm	●	●	●		12			44/—	25	16	11	

characteristic features:

- extended version
- non squirt feature
- stainless steel version 1.4404/1.4571 or similar in smooth variant with gripping grooves instead of knurling

materials:

- standard:**
 21 = brass, passivated
 01 = stainless steel 1.4404/1.4571 or similar

seal qualities:

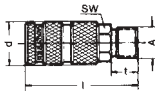
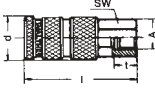
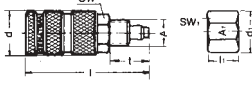
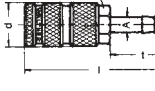
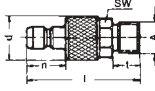
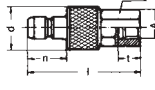
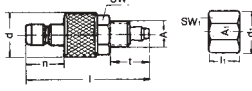
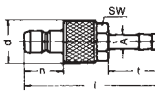
- 1 = NBR
- 2 = FKM
- 4 = EPDM

optional features:

OV = without valve

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

Availability: ● Short ○ Medium ○ Long

	Part No.	Connection A/A ₁	brass	AISI	pipe od	n.b.	d	d ₁	AF	l	l ₁	t	n	Weight [g]
			passivated	316 ti/1.4571					AF ₁					
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LV-004-0-WR010-...-	BSPP 1/8"	●	○		18		14	50,5		8		55
		LV-004-0-WR013-...-	BSPP 1/4"	●	○		18		14	51,5		11		60
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LV-004-0-WR510-...-	BSPP 1/8"	●	○		18		14	50,5		9		60
		 <p>re-usable hose connection with swivel nut for plastic pipes</p>	LV-004-0-SW004-...-	OD 6 ID 4 mm	●		6	4	18	14,3	14 13	56,5	13,5	16
	 <p>hose connection</p>		LV-004-0-SL004-...-	4 mm	●	○		18		14	58,5		18	
		LV-004-0-SL006-...-	6 mm	●	○		18		14	65,5		25		55
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LV-004-2-WR010-...-	BSPP 1/8"	●	○		18		14	50		8	21	38
		LV-004-2-WR013-...-	BSPP 1/4"	●	○		18		14	51		11	21	43
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LV-004-2-WR510-...-	BSPP 1/8"	●	○		18		14	50		9	21	42
		 <p>re-usable hose connection with swivel nut for plastic pipes</p>	LV-004-2-SW004-...-	OD 6 ID 4 mm M 10 x 1	●			18	14,3	14 13	56	13,5	16	21
	 <p>hose connection</p>		LV-004-2-SL004-...-	4 mm	●	○		18		14	58		18	21
		LV-004-2-SL006-...-	6 mm	●	○		18		14	65		25	21	38

characteristic features:
 - non squirt feature
 - can be coupled with type KL-006 (plastic version)
 - stainless steel version 1.4404/1.4571 or similar
 in smooth variant with gripping grooves instead of knurling

optional features:
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 29 mm)
 VH = with locking aid

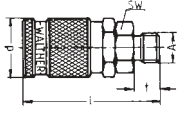
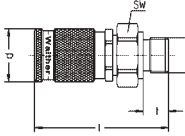
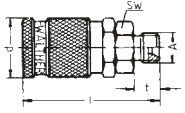
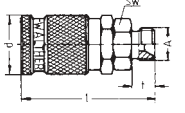
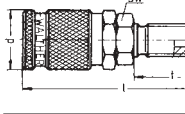
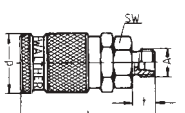
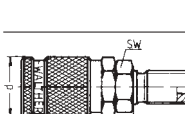
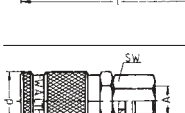
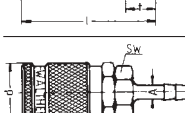
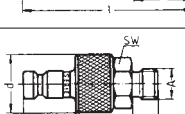
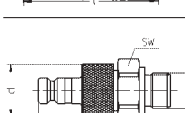
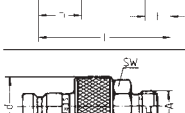
materials:
standard:
 11 = steel, zinc plated
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated
 31 = aluminium anodized silver

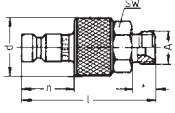
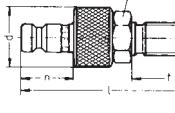
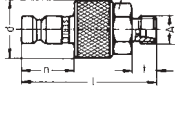
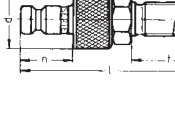
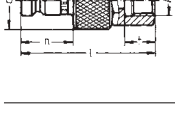
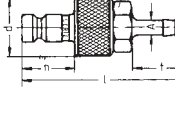

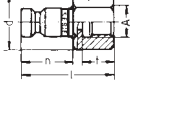

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel zinc	brass	brass chrome	AISI 316 Ti/	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]		
			plated	passivated	plated	1.4571											
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-006-0-WR013-... LP-006-0-WR017-... LP-006-0-WR021-...	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ●	● ● ●	● ● ●	○ ○ ○			25 25 25	19 19 22	58 59 62	11 12 15		110 120 140		
		 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	LP-006-0-WE017-...	BSPP 3/8"	●						25	27	64	12		160	
		 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	LP-006-0-VR013-... LP-006-0-VR017-...	BSPP 1/4" BSPP 3/8"	○ ○			○ ○			6 6	25 25	19 19	58 59	11 12		110 120
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	LP-006-0-D0614-...	M 14 x 1,5	●			○			6	25	19	57	10		110	
	 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	LP-006-0-DV008-...	M 14 x 1,5	○			○			6	25	19	79	32		130	
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	LP-006-0-L0612-... LP-006-0-L0814-... LP-006-0-L1016-... LP-006-0-L1218-... LP-006-0-S0816-... LP-006-0-S1018-... LP-006-0-S1220-...	M 12 x 1,5 M 14 x 1,5 M 16 x 1,5 M 18 x 1,5 M 16 x 1,5 M 18 x 1,5 M 20 x 1,5	● ● ● ○ ○ ● ●			○ ○ ○ ○ ○ ○ ○	L L L L S S S	6 8 10 12 8 10 12	4 6 8 10	25 25 25 25 25 25 25	19 19 19 19 19 19 22	57 57 58 58 59 59 59	10 10 11 11 12 12 12		110 110 110 110 120 120 130	
		 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S), extended thread, max. bulkhead thickness 10 mm</p>	LP-006-0-LV008-... LP-006-0-XX211-...	M 14 x 1,5 M 16 x 1,5	● ○			○ ○	L L	8 10	6 8	25 25	19 19	79 79	32 32		130 140
		 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-006-0-WR513-... LP-006-0-WR517-...	BSPP 1/4" BSPP 3/8"	● ●	● ●	● ●	○ ○			25 25	19 22	57 58	13 14		120 120	
			 <p>hose connection</p>	LP-006-0-SL006-... LP-006-0-SL009-... LP-006-0-SL011-... LP-006-0-SL013-...	6 mm 9 mm 11 mm 13 mm	● ● ● ●	● ● ● ●	● ● ● ●	○ ○ ○ ○			25 25 25 25	19 19 19 19	72 77 77 77	25 30 30 30		110 110 120 130
		Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-006-2-WR013-... LP-006-2-WR017-... LP-006-2-WR021-...	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ●	● ● ●	● ● ●	○ ○ ○			25 25 25	19 19 22	56 57 60	11 12 15	20 20 20	85 90 110
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>				LP-006-2-WE017-...	BSPP 3/8"	●						25	27	62	12	20	130
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	LP-006-2-VR013-... LP-006-2-VR017-...			BSPP 1/4" BSPP 3/8"	○ ○			○ ○			6 6	25 25	19 19	56 57	11 12	20 20	85 90

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel zinc	brass	passivated	brass chrome	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
			plated			plated											
Self sealing adaptors	 metric male thread with 60° sealing cone to DIN 7631	LP-006-2-D0614-...-	M 14 x 1,5	●				○			6	25	19	55	10	20	85
	 metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	LP-006-2-DV008-...-	M 14 x 1,5	○				○			6	25	19	77	32	20	100
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	LP-006-2-L0612-...-	M 12 x 1,5	●				○	L	6	4	25	19	55	10	20	80
		LP-006-2-L0814-...-	M 14 x 1,5	●				○	L	8	6	25	19	55	10	20	85
		LP-006-2-L1016-...-	M 16 x 1,5	●				○	L	10	8	25	19	56	11	20	85
		LP-006-2-L1218-...-	M 18 x 1,5	○				○	L	12	10	25	19	56	11	20	85
		LP-006-2-S0816-...-	M 16 x 1,5	○				○	S	8	4	25	19	57	12	20	90
		LP-006-2-S1018-...-	M 18 x 1,5	●				○	S	10	6	25	19	57	12	20	90
	LP-006-2-S1220-...-	M 20 x 1,5	●				○	S	12	8	25	22	57	12	20	100	
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S), extended thread, max. bulkhead thickness 10 mm	LP-006-2-LV008-...-	M 14 x 1,5	●				○	L	8	6	25	19	77	32	20	100
LP-006-2-XX211-...-		M 16 x 1,5	○				○	L	10	8	25	19	77	32	20	110	
 British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-006-2-WR513-...-	BSPP 1/4"	●	●	●	○					25	19	55	13	20	90	
	LP-006-2-WR517-...-	BSPP 3/8"	●	●	●	○					25	22	56	14	20	95	
 hose connection	LP-006-2-SL006-...-	6 mm	●	●	●	○					25	19	70	25	20	80	
	LP-006-2-SL009-...-	9 mm	●	●	●	○					25	19	75	30	20	85	
	LP-006-2-SL011-...-	11 mm	●	●	●	○					25	19	75	30	20	90	
	LP-006-2-SL013-...-	13 mm	●	●	●	○					25	19	75	30	20	100	
 British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-006-1-WR010-..	BSPP 1/8"	●	○	○	○					15,5	14	34	8	20	22	
	LP-006-1-WR013-..	BSPP 1/4"	●	●	●	○					15,5	14	38	11	20	25	
	LP-006-1-WR017-..	BSPP 3/8"	●	●	○	○					21	19	40,5	12	20	39	
 British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-006-1-WR510-..	BSPP 1/8"	○	○	○	○					16,5	15	31	9	20	20	
	LP-006-1-WR513-..	BSPP 1/4"	●	●	●	○					18,9	17	36	13	20	28	
	LP-006-1-WR517-..	BSPP 3/8"	●	●	●	○					24	22	38	14	20	44	
 hose connection	LP-006-1-SL006-...	6 mm	●	●	●	○					12		46		20	16	
	LP-006-1-SL009-...	9 mm	●	●	●	○					12		51		20	20	
	LP-006-1-SL011-...	11 mm	●	●	●	○					16		53		20	31	
	LP-006-1-SL013-...	13 mm	●	●	●	○					16		53		20	41	

characteristic features:
 - stainless steel version 1.4404/1.4571 or similar
 in smooth variant with gripping grooves instead
 knurling

optional features:
 OV = without valve

materials:
 standard:
 11 = steel, zinc plated
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

special materials:
 31 = aluminium anodized silver
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated

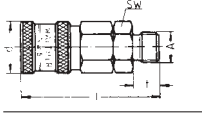
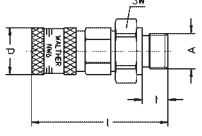
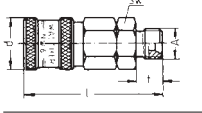
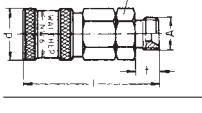
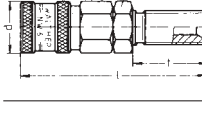
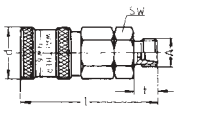
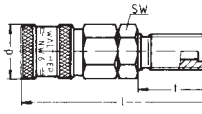
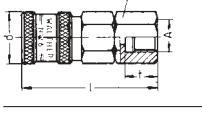
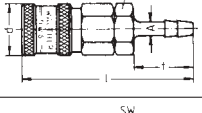
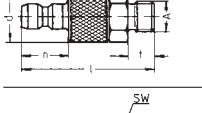
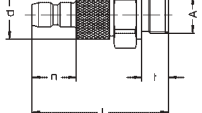
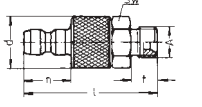
seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

Please note the
 technical data on
 pages 2 - 7, 32 - 33 and the
 max. working pressures
 on page 9

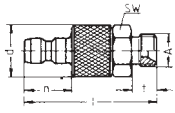
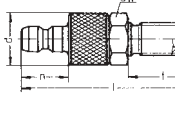
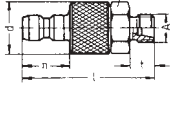
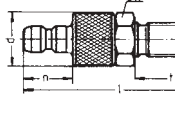
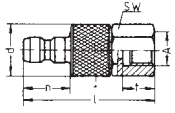
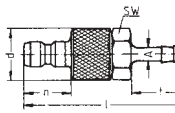
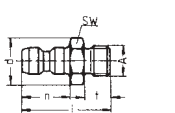
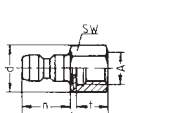
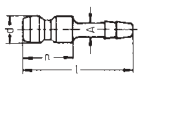
Availability: ● Short ○ Medium ○ Long

Self sealing couplings

Self sealing adaptors

	Part No.	Connec- tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	SP-006-0-WR013-...-	BSPP 1/4"	●	●	●	○				22	19	58	11		90
	SP-006-0-WR017-...-	BSPP 3/8"	●	●	●	○				22	19	59	12		95
	SP-006-0-WR021-...-	BSPP 1/2"	●	●	●	○				22	22	62	15		120
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	SP-006-0-WE017-...-	BSPP 3/8"	●							22	27	64	12		130
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	SP-006-0-VR013-...-	BSPP 1/4"	○			○			6	22	19	58	11		90
	SP-006-0-VR017-...-	BSPP 3/8"	○			○			6	22	19	59	12		95
 <p>metric male thread with 60° sealing cone to DIN 7631</p>	SP-006-0-D0614-...-	M 14 x 1,5	○			○			6	22	19	57	10		85
 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	SP-006-0-DV008-...-	M 14 x 1,5	○			○			6	22	19	79	32		105
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	SP-006-0-L0612-...-	M 12 x 1,5	●			○	L	6	4	22	19	57	10		85
	SP-006-0-L0814-...-	M 14 x 1,5	●			○	L	8	6	22	19	57	10		85
	SP-006-0-L1016-...-	M 16 x 1,5	●			○	L	10	8	22	19	58	11		90
	SP-006-0-L1218-...-	M 18 x 1,5	○			○	L	12	10	22	19	58	11		90
	SP-006-0-S0816-...-	M 16 x 1,5	○			○	S	8	4	22	19	59	12		90
	SP-006-0-S1018-...-	M 18 x 1,5	○			○	S	10	6	22	19	59	12		95
	SP-006-0-S1220-...-	M 20 x 1,5	●			○	S	12	8	22	22	59	12		100
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S), extended thread, max. bulkhead thickness 10 mm</p>	SP-006-0-LV008-...-	M 14 x 1,5	●			○	L	8	6	22	19	79	32		100
	SP-006-0-XX211-...-	M 16 x 1,5	○			○	L	10	8	22	19	79	32		110
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	SP-006-0-WR513-...-	BSPP 1/4"	●	●	●	○				22	19	57	13		95
	SP-006-0-WR517-...-	BSPP 3/8"	●	●	●	○				22	22	58	14		100
 <p>hose connection</p>	SP-006-0-SL006-...-	6 mm	●	●	●	○				22	19	72	25		85
	SP-006-0-SL009-...-	9 mm	●	●	●	○				22	19	77	30		90
	SP-006-0-SL011-...-	11 mm	●	●	●	○				22	19	77	30		95
	SP-006-0-SL013-...-	13 mm	●	●	●	○				22	19	77	30		110
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	SP-006-2-WR013-...-	BSPP 1/4"	●	●	●	○				22	19	56	11	20	70
	SP-006-2-WR017-...-	BSPP 3/8"	●	●	●	○				22	19	57	12	20	75
	SP-006-2-WR021-...-	BSPP 1/2"	●	●	●	○				22	22	60	15	20	100
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	SP-006-2-WE017-...-	BSPP 3/8"	●							22	27	62	12	20	110
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	SP-006-2-VR013-...-	BSPP 1/4"	○			○			6	22	19	56	11	20	70
	SP-006-2-VR017-...-	BSPP 3/8"	○			○			6	22	19	57	12	20	75

Availability: ● Short ○ Medium ○ Long

	Part No.	Conne- tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
Self sealing adaptors	 metric male thread with 60° sealing cone to DIN 7631	SP-006-2-D0614-... M 14 x 1,5	○			○			6	22	19	55	10	20	70
	 metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	SP-006-2-DV008-... M 14 x 1,5	○			○			6	22	19	77	32	20	90
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	SP-006-2-L0612-... M 12 x 1,5	●			○	L	6	4	22	19	55	10	20	70
		SP-006-2-L0814-... M 14 x 1,5	●			○	L	8	6	22	19	55	10	20	70
		SP-006-2-L1016-... M 16 x 1,5	●			○	L	10	8	22	19	56	11	20	70
		SP-006-2-L1218-... M 18 x 1,5	○			○	L	12	10	22	19	56	11	20	70
		SP-006-2-S0816-... M 16 x 1,5	○			○	S	8	4	22	19	57	12	20	75
		SP-006-2-S1018-... M 18 x 1,5	○			○	S	10	6	22	19	57	12	20	75
		SP-006-2-S1220-... M 20 x 1,5	○			○	S	12	8	22	22	57	12	20	85
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S), extended thread, max. bulkhead thickness 10 mm	SP-006-2-LV008-... M 14 x 1,5	○			○	L	8	6	22	19	77	32	20	85
SP-006-2-XX211-... M 16 x 1,5		○			○	L	10	8	22	19	77	32	20	95	
 British standard pipe parallel (BSPP) female thread to DIN ISO 228	SP-006-2-WR513-... BSPP 1/4"	●	●	●	○				22	19	55	13	20	75	
	SP-006-2-WR517-... BSPP 3/8"	●	●	●	○				22	22	56	14	20	80	
 hose connection	SP-006-2-SL006-... 6 mm	○	○	○	○				22	19	70	25	20	70	
	SP-006-2-SL009-... 9 mm	●	●	●	○				22	19	75	30	20	70	
	SP-006-2-SL011-... 11 mm	○	○	○	○				22	19	75	30	20	80	
	SP-006-2-SL013-... 13 mm	○	○	○	○				22	19	75	30	20	90	
 British standard pipe parallel (BSPP) male thread to DIN ISO 228	SP-006-1-WR010-... BSPP 1/8"	●	●	●	○				15,5	14	34	8	20	20	
	SP-006-1-WR013-... BSPP 1/4"	●	●	●	○				15,5	14	37	11	20	23	
	SP-006-1-WR017-... BSPP 3/8"	●	●	●	○				21,9	19	38	12	20	37	
 British standard pipe parallel (BSPP) female thread to DIN ISO 228	SP-006-1-WR513-... BSPP 1/4"	●	○	○	○				19,6	17	36	13	20	26	
	SP-006-1-WR517-... BSPP 3/8"	○	○	○	○				24	22	37	14	20	40	
 hose connection	SP-006-1-SL006-... 6 mm	●	○	○	○				11		46		20	13	
	SP-006-1-SL009-... 9 mm	●	○	○	○				11		51		20	18	

characteristic features:
 - non squirt feature
 - stainless steel version 1.4404/1.4571 or similar
 in smooth variant with gripping grooves instead knurling

optional features:
 OV = without valve
 S = with additional axial safety lock
 (outer diameter 34 mm)
 VH = with locking aid

materials:
standard:
 11 = steel, zinc plated
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated

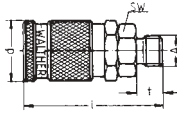
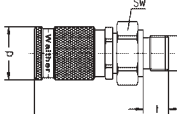
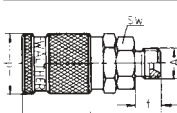
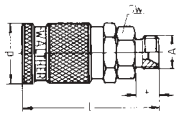
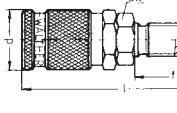
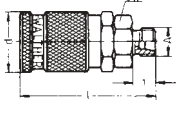
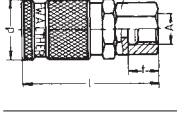
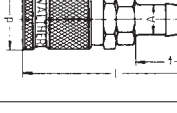
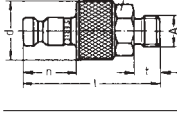
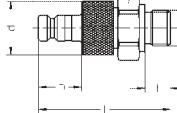
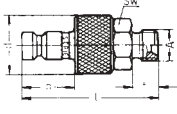
seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

Availability: ● Short ○ Medium ○ Long

Self sealing couplings

Self sealing adaptors

	Part No.	Connec- tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-007-0-WR017-... LP-007-0-WR021-...	BSPP 3/8" BSPP 1/2"	● ●	● ●	● ●	○ ○				30 30	24 24	68 71	12 15		200 210
	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	LP-007-0-WE017-...	BSPP 3/8"	●						30	27	71	12		220
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>		LP-007-0-VR017-...	BSPP 3/8"	○					7	30	24	68	12		190
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	LP-007-0-D0816-...	M 16 x 1,5	○					8	30	24	67	11		200
 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>		LP-007-0-DV010-...	M 16 x 1,5	○					8	30	24	89,5	33,5		210
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	LP-007-0-L1016-... LP-007-0-L1218-... LP-007-0-S1018-... LP-007-0-S1220-...	M 16 x 1,5 M 18 x 1,5 M 18 x 1,5 M 20 x 1,5	● ● ● ●			○ ○ ○ ○	L L S S	10 12 10 12	8 10 6 8	30 30 30 30	24 24 24 24	67 67 68 68	11 11 12 12	
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>		LP-007-0-WR517-... LP-007-0-WR521-...	BSPP 3/8" BSPP 1/2"	● ●	● ●	● ○				30 30	24 27	68 71	14 17		210 230
		 <p>hose connection</p>	LP-007-0-SL009-... LP-007-0-SL011-... LP-007-0-SL013-...	9 mm 11 mm 13 mm	● ● ●	● ● ●	● ● ●	○ ○ ○			30 30 30	24 24 24	86 86 86	30 30 30	
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>			LP-007-2-WR017-... LP-007-2-WR021-...	BSPP 3/8" BSPP 1/2"	● ●	● ●	● ○				30 30	24 24	66 69	12 15	23,3 23,3
	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>		LP-007-2-WE017-...	BSPP 3/8"	●						30	27	69	12	23,3
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>		LP-007-2-VR017-...	BSPP 3/8"	○					7	30	24	66	12	23,3	150

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
																metric male thread with 60° sealing cone to DIN 7631
Self sealing adaptors	LP-007-2-D0816-...-	M 16 x 1,5	○			○			8	30	24	65	11	23,3	150	
	LP-007-2-DV010-...-	M 16 x 1,5	○			○			8	30	24	87,5	33,5	23,3	160	
	LP-007-2-L1016-...-	M 16 x 1,5	●			○	L	10	8	30	24	65	11	23,3	140	
	LP-007-2-L1218-...-	M 18 x 1,5	●			○	L	12	10	30	24	65	11	23,3	140	
	LP-007-2-S1018-...-	M 18 x 1,5	●			○	S	10	6	30	24	66	12	23,3	150	
	LP-007-2-S1220-...-	M 20 x 1,5	●			○	S	12	8	30	24	66	12	23,3	150	
	LP-007-2-WR517-...-	BSPP 3/8"	●	●	●	●				30	24	66	14	23,3	160	
	LP-007-2-WR521-...-	BSPP 1/2"	●	●	●	○				30	27	69	17	23,3	180	
	LP-007-2-SL009-...-	9 mm	●	●	●	○				30	24	84	30	23,3	150	
	LP-007-2-SL011-...-	11 mm	●	●	●	○				30	24	84	30	23,3	150	
LP-007-2-SL013-...-	13 mm	●	●	●	●				30	24	84	30	23,3	160		
Thru type adaptors	LP-007-1-WR013-...-	BSPP 1/4"	●	○	○	○				18,9	17	40,5	11	23,3	35	
	LP-007-1-WR017-...-	BSPP 3/8"	●	○	○	○				21	19	41,5	12	23,3	45	
	LP-007-1-WR021-...-	BSPP 1/2"	●	●	●	○				26,7	24	44,5	15	23,3	70	
	LP-007-1-WR513-...-	BSPP 1/4"	●	○	○	○				18,9	17	40,5	13	23,3	37	
	LP-007-1-WR517-...-	BSPP 3/8"	●	●	●	○				24	22	41,5	14	23,3	55	
	LP-007-1-WR521-...-	BSPP 1/2"	●	●	●	○				30	27	44,5	17	23,3	75	
	LP-007-1-SL009-...-	9 mm	●	●	○	○					14		54,5	30	23,3	29
	LP-007-1-SL011-...-	11 mm	●	●	●	○					18		56,5	30	23,3	37
	LP-007-1-SL013-...-	13 mm	●	●	●	○					18		56,5	30	23,3	46

characteristic features:
 - stainless steel version 1.4404/1.4571 or similar
 in smooth variant with gripping grooves instead
 knurling

optional features:
 OV = without valve

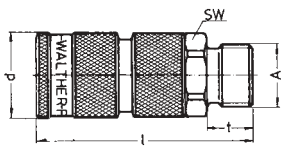
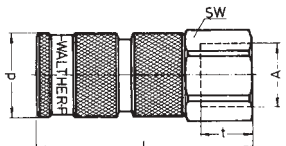
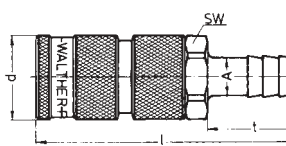
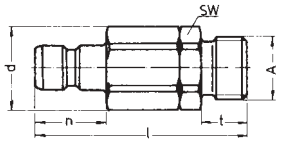
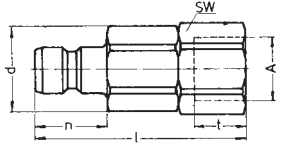
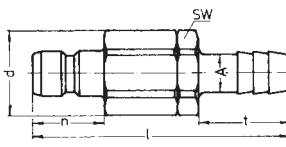
materials:
 standard:
 11 = steel, zinc plated
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated

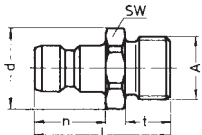
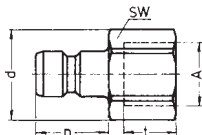
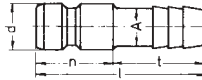
seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

Please note the
 technical data on
 pages 2 - 7, 32 - 33 and the
 max. working pressures
 on page 9

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel zinc	brass	brass chrome	AISI 316 Ti/	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
			plated	passivated	plated	1.4571									
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	SP-009-0-WR017-...- SP-009-0-WR021-...-	BSPP 3/8" BSPP 1/2"	● ●	● ●	○ ○	○ ○			28 28	25 25	71 71	12 15		180 190
		 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	SP-009-0-WR521-...-	BSPP 1/2"	●	●	○	○			28	27	71	17	
	 <p>hose connection</p>	SP-009-0-SL013-...-	13 mm	●	●	○	○			28	25	86	30		180
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	SP-009-2-WR017-...-Z02 SP-009-2-WR021-...-Z02	BSPP 3/8" BSPP 1/2"	● ●	● ●	○ ○	○ ○			28 28	25 25	69,5 69,5	12 15	23,5 23,5	120 130
		 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	SP-009-2-WR521-...-Z02	BSPP 1/2"	●	●	○	○			28	27	69,5	17	23,5
	 <p>hose connection</p>	SP-009-2-SL013-...-Z02	13 mm	●	●	○	○			28	25	84,5	30	23,5	130

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel zinc	brass	passivated	brass chrome	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
			plated			plated										
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p> <p>SP-009-1-WR017-... SP-009-1-WR021-...</p>	BSPP 3/8" BSPP 1/2"	●	●	○	○					21,9 24	19 22	41,5 46,5	12 15	23,5 23,5	40 60
			 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p> <p>SP-009-1-WR521-...</p>	BSPP 1/2"	●	○	○	○					30	27	45	17
	 <p>hose connection</p> <p>SP-009-1-SL013-..</p>	13 mm	○	●	○	○						15		55	30	23,5

characteristic features:
 - non squirt feature
 - can be coupled with type KL-012 (plastic version)
 - stainless steel version 1.4404/1.4571 or similar
 in smooth variant with gripping grooves instead of knurling

optional features:
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 44 mm)
 VH = with locking aid

materials:
standard:
 11 = steel, zinc plated
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated

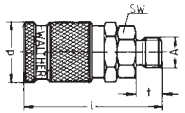
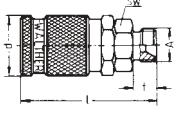
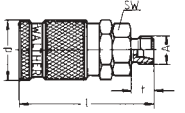
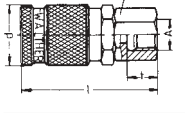
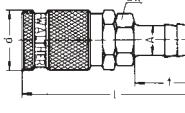
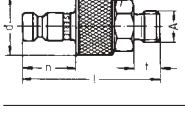
seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

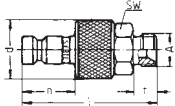
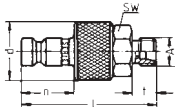
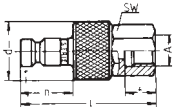
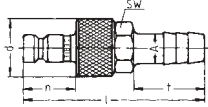
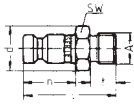
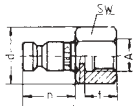
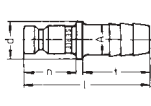
Availability: ● Short ○ Medium ○ Long

Self sealing couplings

Self sealing adaptors

	Part No.	Connec- tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-012-0-WR021-... LP-012-0-WR026-... LP-012-0-WR033-...	BSPP 1/2" BSPP 3/4" BSPP 1"	● ● ●	● ○ ○	○ ○ ○	○ ○ ○				40 40 40	32 32 36	82 84 88	15 17 20		380 410 470
	LP-012-0-WE021-...	BSPP 1/2"	●							40	32	84	14		390
	LP-012-0-VR021-... LP-012-0-VR026-...	BSPP 1/2" BSPP 3/4"	● ●			○ ○			12 12	40 40	32 32	82 84	15 17		380 400
 <p>metric male thread with 60° sealing cone to DIN 7631</p>	LP-012-0-D1018-... LP-012-0-D1222-...	M 18 x 1,5 M 22 x 1,5	● ●			○			10 12	40 40	32 32	78 79	11 12		370 380
	LP-012-0-DV015-...	M 22 x 1,5	○			○			12	40	32	106	39		430
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	LP-012-0-L1218-... LP-012-0-L1522-... LP-012-0-S1624-...	M 18 x 1,5 M 22 x 1,5 M 24 x 1,5	● ● ●			○ ○ ○	L L S	12 15 16	10 12 12	40 40 40	32 32 32	78 79 81	11 12 14		370 380 390
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-012-0-WR521-... LP-012-0-WR526-...	BSPP 1/2" BSPP 3/4"	● ●	● ●	○ ○	○ ○			40 40	32 32	81 83	17 19		420 400
		 <p>hose connection</p>	LP-012-0-SL016-... LP-012-0-SL019-...	16 mm 19 mm	● ●	● ●	○ ○	○ ○			40 40	32 32	102 102	35 35	
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-012-2-WR021-... LP-012-2-WR026-... LP-012-2-WR033-...	BSPP 1/2" BSPP 3/4" BSPP 1"	● ● ●	● ○ ○	○ ○ ○	○ ○ ○				40 40 40	32 32 36	80 82 86	15 17 20	29,5 29,5 29,5	290 320 380
	LP-012-2-WE021-...	BSPP 1/2"	●							40	32	82	14	29,5	300
	LP-012-2-VR021-... LP-012-2-VR026-...	BSPP 1/2" BSPP 3/4"	● ●			○ ○			12 12	40 40	32 32	80 82	15 17	29,5 29,5	290 310

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
Self sealing adaptors	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	LP-012-2-D1018-... LP-012-2-D1222-...	M 18 x 1,5 M 22 x 1,5	● ●					10 12	40 40	32 32	76 77	11 12	29,5 29,5	280 290	
		LP-012-2-DV015-...	M 22 x 1,5	○						12	40	32	104	39	29,5	340
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	LP-012-2-L1218-... LP-012-2-L1522-... LP-012-2-S1624-...	M 18 x 1,5 M 22 x 1,5 M 24 x 1,5	● ● ●				L L S	12 15 16	10 12 12	40 40 40	32 32 32	76 77 79	11 12 14	29,5 29,5 29,5	280 290 290
		 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-012-2-WR521-... LP-012-2-WR526-...	BSPP 1/2" BSPP 3/4"	● ●	● ●	● ●	○ ○			40 40	32 32	79 81	17 19	29,5 29,5	330 310
			 <p>hose connection</p>	LP-012-2-SL016-... LP-012-2-SL019-...	16 mm 19 mm	● ●	● ●	● ●	○ ○			40 40	32 32	100 100	35 35	29,5 29,5
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-012-1-WR017-... LP-012-1-WR021-... LP-012-1-WR026-...	BSPP 3/8" BSPP 1/2" BSPP 3/4"	● ● ●	○ ● ●	○ ○ ○	○ ○ ○			30 30 33	27 27 30	49,5 54,5 54,5	12 15 17	29,5 29,5 29,5	90 100 140	
		 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-012-1-WR521-... LP-012-1-WR526-...	BSPP 1/2" BSPP 3/4"	● ●	○ ○	○ ○	○ ○			30 35,5	27 32	50,5 52,5	17 19	29,5 29,5	100 120
			 <p>hose connection</p>	LP-012-1-SL013-... LP-012-1-SL016-... LP-012-1-SL019-...	13 mm 16 mm 19 mm	● ● ●	● ○ ●	● ○ ●	○ ○ ○			21 21 25		61 66 68,5	30 35 35	29,5 29,5 29,5

Series LP

characteristic features:
 - non squirt feature
 - stainless steel version 1.4404/1.4571 or similar
 in smooth variant with gripping grooves instead of knurling

optional features:
 GG= with ring grips (cast aluminium)
 OV= without valve
 SI = with additional axial safety lock
 (outer diameter 58 mm)
 VH= with locking aid

materials:
standard:
 11 = steel, zinc plated
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated

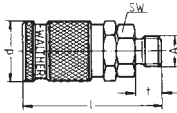
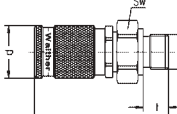
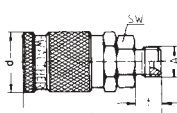
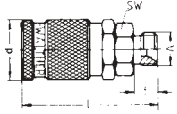
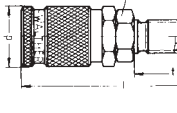
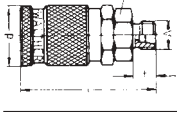
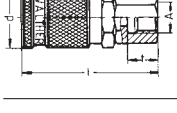
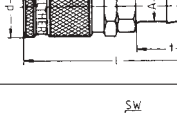
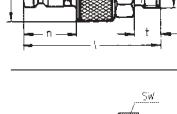
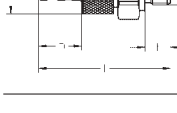

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

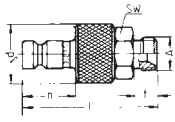
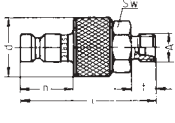
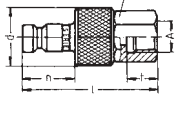
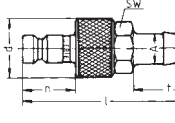
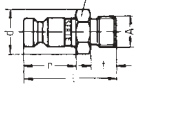
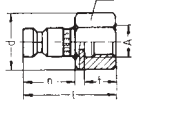

Availability: ● Short ○ Medium ○ Long

Self sealing couplings

Self sealing adaptors

Part No.	Connec- tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
 British standard pipe parallel (BSPP) male thread to DIN ISO 228 LP-019-0-WR026-... LP-019-0-WR033-...	BSPP 3/4" BSPP 1"	●	○	○	○				54	46	100	17		840
		●	●	●	○				54	46	103	20		870
 British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring. LP-019-0-WE026-...	BSPP 3/4"	○							54	46	102	16		850
 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone LP-019-0-VR026-... LP-019-0-VR033-...	BSPP 3/4" BSPP 1"	○			○			19	54	46	100	17		830
		○			○			19	54	46	103	20		870
 metric male thread with 60° sealing cone to DIN 7631 LP-019-0-D1526-... LP-019-0-D1930-...	M 26 x 1,5 M 30 x 1,5	○			○			15	54	46	95	12		830
		○			○			19	54	46	97	14		830
 metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm LP-019-0-DV022-...	M 30 x 1,5	○			○			19	54	46	128	45		920
 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) LP-019-0-L1826-... LP-019-0-L2230-... LP-019-0-S2030-... LP-019-0-S2536-...	M 26 x 1,5 M 30 x 2 M 30 x 2 M 36 x 2	○			○	L	18	16	54	46	95	12		830
		○			○	L	22	20	54	46	97	14		830
		○			○	S	20	16	54	46	99	16		850
		○			○	S	25	20	54	46	101	18		860
 British standard pipe parallel (BSPP) female thread to DIN ISO 228 LP-019-0-WR526-... LP-019-0-WR533-...	BSPP 3/4" BSPP 1"	●	●	○	○				54	46	94	19		890
		●	●	○	○				54	46	98	23		880
 hose connection LP-019-0-SL019-... LP-019-0-SL025-... LP-019-0-SL028-...	19 mm 25 mm 28 mm	○	○	○	○				54	46	118	35		850
		○	○	○	○				54	46	123	40		870
		○	○	○	○				54	46	128	45		930
 British standard pipe parallel (BSPP) male thread to DIN ISO 228 LP-019-2-WR026-... LP-019-2-WR033-...	BSPP 3/4" BSPP 1"	●	○	○	○				54	46	96	17	32,5	690
		●	●	○	○				54	46	99	20	32,5	720
 British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring. LP-019-2-WE026-...	BSPP 3/4"	○							54	46	98	16	32,5	700
 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone LP-019-2-VR026-... LP-019-2-VR033-...	BSPP 3/4" BSPP 1"	○			○			19	54	46	96	17	32,5	690
		○			○			19	54	46	99	20	32,5	720

Availability: ● Short ○ Medium ○ Long

	Part No.	Conne- tion A	steel zinc	brass	passivated	brass chrome	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
			plated			plated											
Self sealing adaptors	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	LP-019-2-D1526-... LP-019-2-D1930-...	M 26 x 1,5 M 30 x 1,5	● ●						15 19	54 54	46 46	91 93	12 14	32,5 32,5	680 680	
		LP-019-2-DV022-...	M 30 x 1,5	○				○			19	54	46	124	45	32,5	770
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	LP-019-2-L1826-... LP-019-2-L2230-... LP-019-2-S2030-... LP-019-2-S2536-...	M 26 x 1,5 M 30 x 2 M 30 x 2 M 36 x 2	● ● ● ●				L L S S	18 22 20 25	16 20 16 20	54 54 54 54	46 46 46 46	91 93 95 97	12 14 16 18	32,5 32,5 32,5 32,5	680 670 690 710	
		 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-019-2-WR526-... LP-019-2-WR533-...	BSPP 3/4" BSPP 1"	● ●	● ●	● ●	○ ○				54 54	46 46	90 94	19 23	32,5 32,5	740 730
			 <p>hose connection</p>	LP-019-2-SL019-... LP-019-2-SL025-... LP-019-2-SL028-...	19 mm 25 mm 28 mm	● ● ●	● ● ●	● ● ●	○ ○ ○				54 54 54	46 46 46	114 119 124	35 40 45	32,5 32,5 32,5
		Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-019-1-WR021-... LP-019-1-WR026-... LP-019-1-WR033-...	BSPP 1/2" BSPP 3/4" BSPP 1"	● ● ●	● ● ●	● ● ●	○ ○ ○				40 40 40	36 36 36	57,5 59,5 62,5	15 17 20	32,5 32,5 32,5
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-019-1-WR526-... LP-019-1-WR533-...			BSPP 3/4" BSPP 1"	● ●	● ●	● ●	○ ○				40 45	36 41	57,5 61,5	19 23	32,5 32,5	240 250
	 <p>hose connection</p>			LP-019-1-SL019-... LP-019-1-SL025-...	19 mm 25 mm	● ●	○ ●	○ ●	○ ○				32 32		68,5 73,5	35 40	32,5 32,5

Series LP

optional features:
 SI = with additional axial safety lock
 (outer diameter 89 mm)
 GG = with ring grips (cast aluminium)

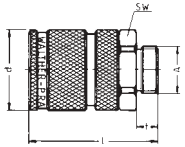
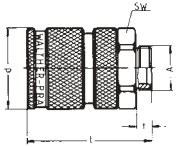
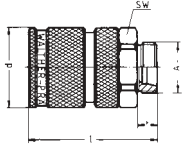
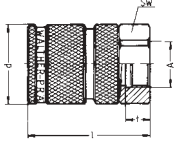
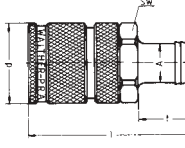
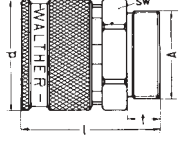
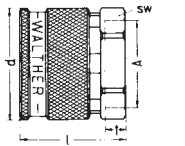
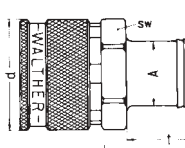
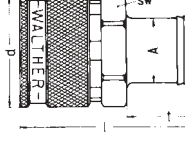
materials:
 standard:
 11 = steel, zinc plated
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

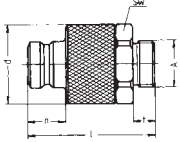
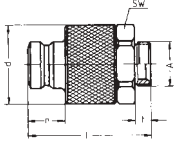
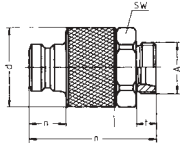
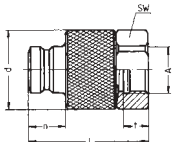
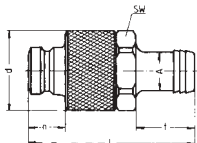
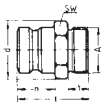
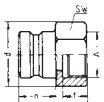

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated
 31 = aluminium anodized silver

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel zinc	brass	brass	AISI 316 L/	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
			plated	passivated	chrome plated	1.4571									
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-032-0-WR048-... LP-032-0-WR060-...	BSPP 1 1/2"	●	○	○				82	75	139	22		2930
				○	○	○									
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	LP-032-0-D3245-...	M 45 x 1,5	○	○	○				32	82	75	128	16	2720
				●	○	○									
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	LP-032-0-S3852-...	M 52 x 2	○	○	○				32	82	75	134	22	2770
●				○	○										
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-032-0-WR548-... LP-032-0-WR560-...	BSPP 1 1/2"	○	○	○					82	75	130	29		2760
			●	○	○										
Thru type couplings	 <p>hose connection</p>	LP-032-0-SL042-...	42 mm	○	○		○				82	75	178	61	
				○	○	○									
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-032-4-WR048-... LP-032-4-WR060-...	BSPP 1 1/2"	○	○	○					82	70	109	22	
				○	○	○									
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-032-4-WR542-... LP-032-4-WR548-... LP-032-4-WR560-...	BSPP 1 1/4"	○	○	○					82	70	89	25	
○				○	○										
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-032-4-WR542-... LP-032-4-WR548-... LP-032-4-WR560-...	BSPP 1 1/2"	○	○	○						82	70	89	29	
			○	○	○										
 <p>hose connection</p>	LP-032-4-SL042-...	42 mm	○	○	○						82	70	143	61	
○	○	○													

Availability: ● Short ● Medium ○ Long

		Part No.	Conne- tion A	steel zinc plated	brass passivated	brass chrome plated	AlSi 316 ti/ 1,4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
Self sealing adaptors		British standard pipe parallel (BSPP) male thread to DIN ISO 228 LP-032-2-WR048-... LP-032-2-WR060-...	BSPP 1 1/2" BSPP 2"	● ○	● ○	● ○	○ ○				82 82	75 75	135,5 139,5	22 26	39 39	2460 2500
		metric male thread with 60° sealing cone to DIN 7631 LP-032-2-D3245-...	M 45 x 1,5	●						32	82	75	124,5	16	39	2220
		metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) LP-032-2-S3852-...	M 52 x 2	●				S	38	32	82	75	130,5	22	39	2280
		British standard pipe parallel (BSPP) female thread to DIN ISO 228 LP-032-2-WR548-... LP-032-2-WR560-...	BSPP 1 1/2" BSPP 2"	● ●	● ●	● ●	○ ○				82 82	75 75	122,5 126,5	25 29	39 39	2390 2260
		hose connection LP-032-2-SL042-...	42 mm	○	○	○	○				82	75	174,5	61	39	2610
Thru type adaptors		British standard pipe parallel (BSPP) male thread to DIN ISO 228 LP-032-1-WR048-... LP-032-1-WR060-...	BSPP 1 1/2" BSPP 2"	● ○	○ ○	○ ○	○ ○				60 72,5	55 65	74,5 78,5	22 26	39 39	600 650
		British standard pipe parallel (BSPP) female thread to DIN ISO 228 LP-032-1-WR542-... LP-032-1-WR548-... LP-032-1-WR560-...	BSPP 1 1/4" BSPP 1 1/2" BSPP 2"	● ● ○	○ ○ ●	○ ○ ●	○ ○ ○				60 65 78	55 60 70	71 71 75	25 25 29	39 39 39	610 640 790
		hose connection LP-032-1-SL042-..	42 mm	○	○	○	○				54		105	61	39	620

optional features:

- SI = with additional axial safety lock (outer diameter 116 mm)
- GG = with ring grips (cast aluminium)

materials:

- standard:
- 11 = steel, zinc plated
 - 21 = brass, passivated
 - 22 = brass, chrome plated
 - 01 = stainless steel 1.4404/1.4571 or similar

seal qualities:

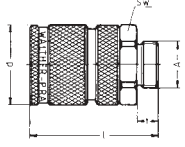
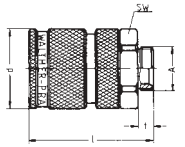
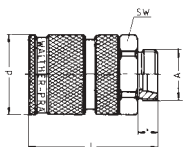
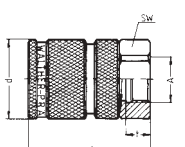
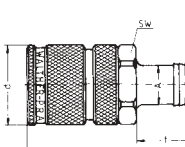
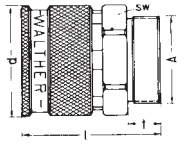
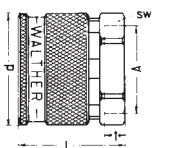
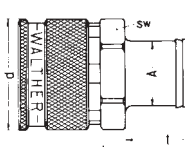
- 1 = NBR
- 2 = FKM
- 4 = EPDM

special materials:

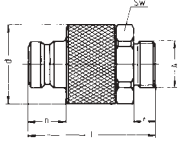
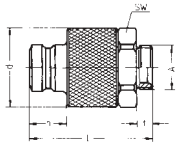
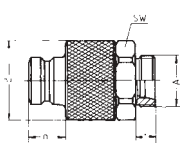
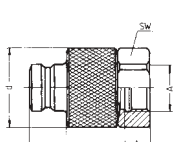
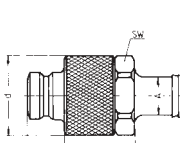
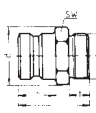
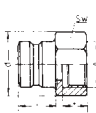

- 13 = steel, chem. nickel plated
- 24 = brass, chem. nickel plated
- 31 = aluminium anodized silver

Please note the technical data on pages 2 - 7, 32 - 33 and the max. working pressures on page 9

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel zinc	brass	brass	AISI 316 Ti/	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
			plated	passivated	chrome plated	1.4571									
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-050-0-WR060-...- LP-050-0-WR075-...-	BSPP 2"	●	○	○				112	100	162	26	5550	
				BSPP 2 1/2"	○	○				○	112	100	164	30	5560
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	LP-050-0-D4965-...-	M 65 x 2						49	112	100	159	18	5440	
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	LP-050-0-L4252-...-	M 52 x 2	●			L	42	36	112	100	158	16	5380	
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-050-0-WR560-...- LP-050-0-WR575-...-	BSPP 2" BSPP 2 1/2"	●	○	○	○			112	100	158	29	6150	
 <p>hose connection</p>	LP-050-0-SL065-...-	65 mm							112	100	209	75	5970		
Thru type couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LP-050-4-WR060-...- LP-050-4-WR075-...-	BSPP 2"	○	○	○				112	100	132,5	26	3950	
				BSPP 2 1/2"	○	○				○	○	112	100	136,5	30
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LP-050-4-WR560-...- LP-050-4-WR575-...-	BSPP 2" BSPP 2 1/2"	●	○	○	○			112	100	106,5	27	3800	
 <p>hose connection</p>	LP-050-4-SL065-...-	65 mm							112	100	181,5	75	4050		

Availability: ● Short ● Medium ○ Long

		Part No.	Conne- tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
Self sealing adaptors		British standard pipe parallel (BSPP) male thread to DIN ISO 228 LP-050-2-WR060-... LP-050-2-WR075-...	BSPP 2" BSPP 2 1/2"	●	○	○	○				112 112	100 100	158 160	26 30	46 46	5010 5020
		metric male thread with 60° sealing cone to DIN 7631 LP-050-2-D4965-...	M 65 x 2							49	112	100	155	18	46	4900
		metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) LP-050-2-L4252-...	M 52 x 2	●				L	42	36	112	100	154	16	46	4840
		British standard pipe parallel (BSPP) female thread to DIN ISO 228 LP-050-2-WR560-... LP-050-2-WR575-...	BSPP 2" BSPP 2 1/2"	●	○	○	○				112 112	100 100	154 163	29 33	46 46	5610 5400
		hose connection LP-050-2-SL065-...	65 mm								112	100	205	75	46	5430
Thru type adaptors		British standard pipe parallel (BSPP) male thread to DIN ISO 228 LP-050-1-WR060-...	BSPP 2"	●	○	○	○				92	85	88	26	46	1590
		British standard pipe parallel (BSPP) female thread to DIN ISO 228 LP-050-1-WR560-...	BSPP 2"	●	○	○	○				92	85	82	29	46	1850
		hose connection LP-050-1-SL065-..	65 mm		○	○	○	○			90		131	75	46	2050

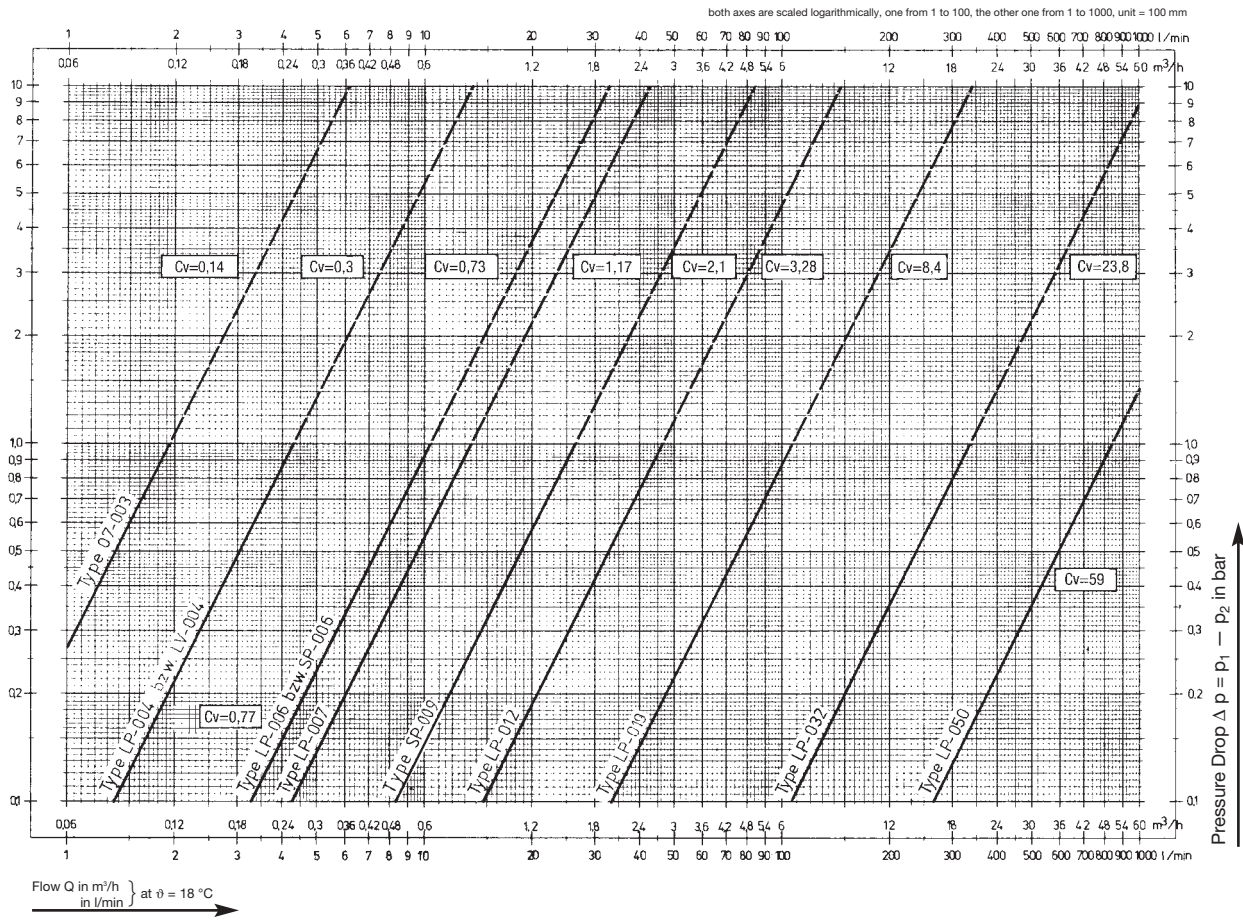
Series LP

Measurement of flow coefficients Cv according to DIN EN 60534

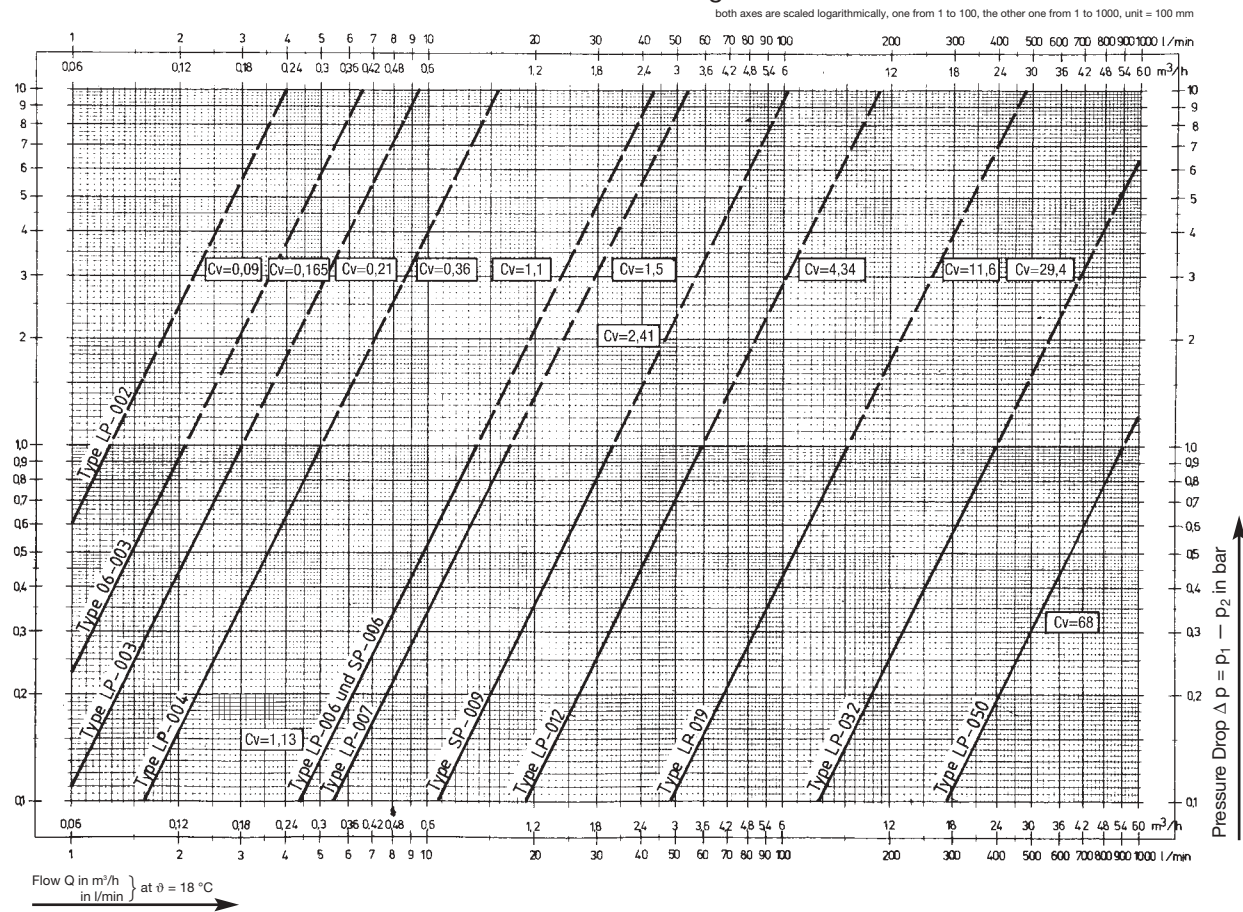
Flow speeds of 8 m/sec should not be exceeded

1 bar = 14,5 PSI

Both sides self sealing



One side self sealing

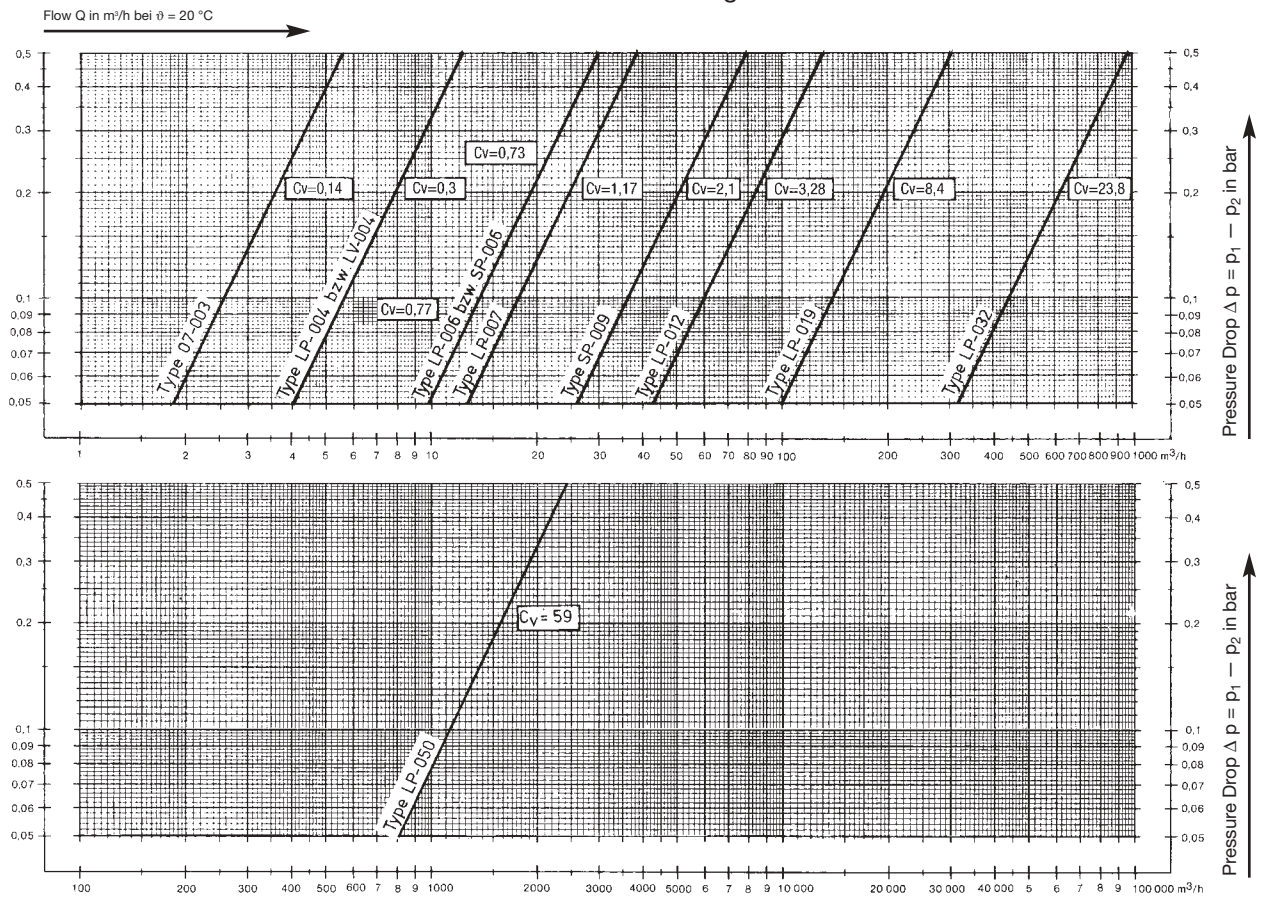


Measurement of flow coefficients C_v according to DIN EN 60534

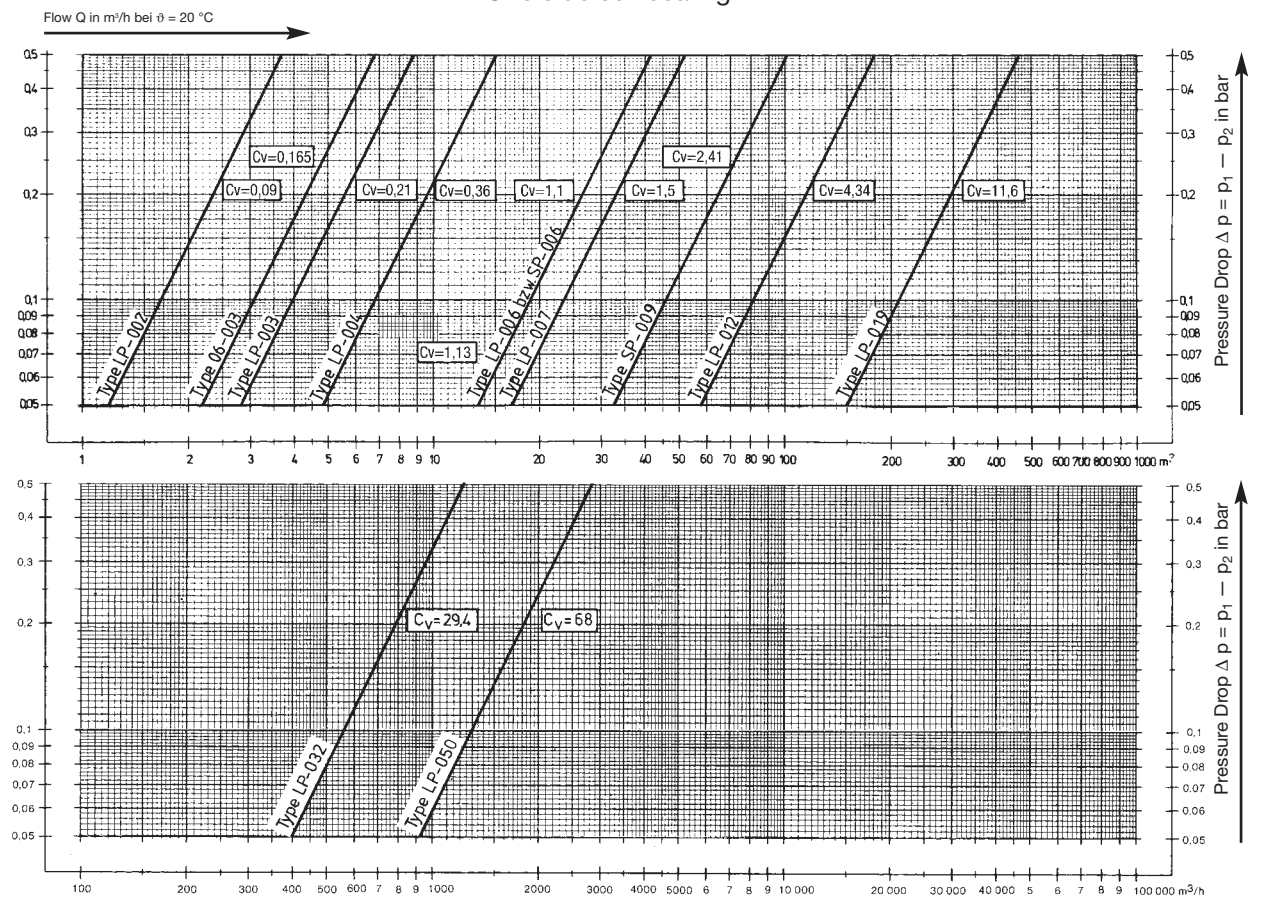
Working pressure 6 bar gauge pressure

1 bar = 14,5 PSI

Both sides self sealing



One side self sealing

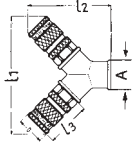
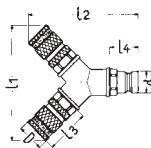


materials:
 standard:
 11 = steel, zinc plated

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

special materials:
 21 = brass, passivated
 01 = stainless steel 1.4404/1.4571 or similar
 50 = polyamide 11/12, grey (PA)

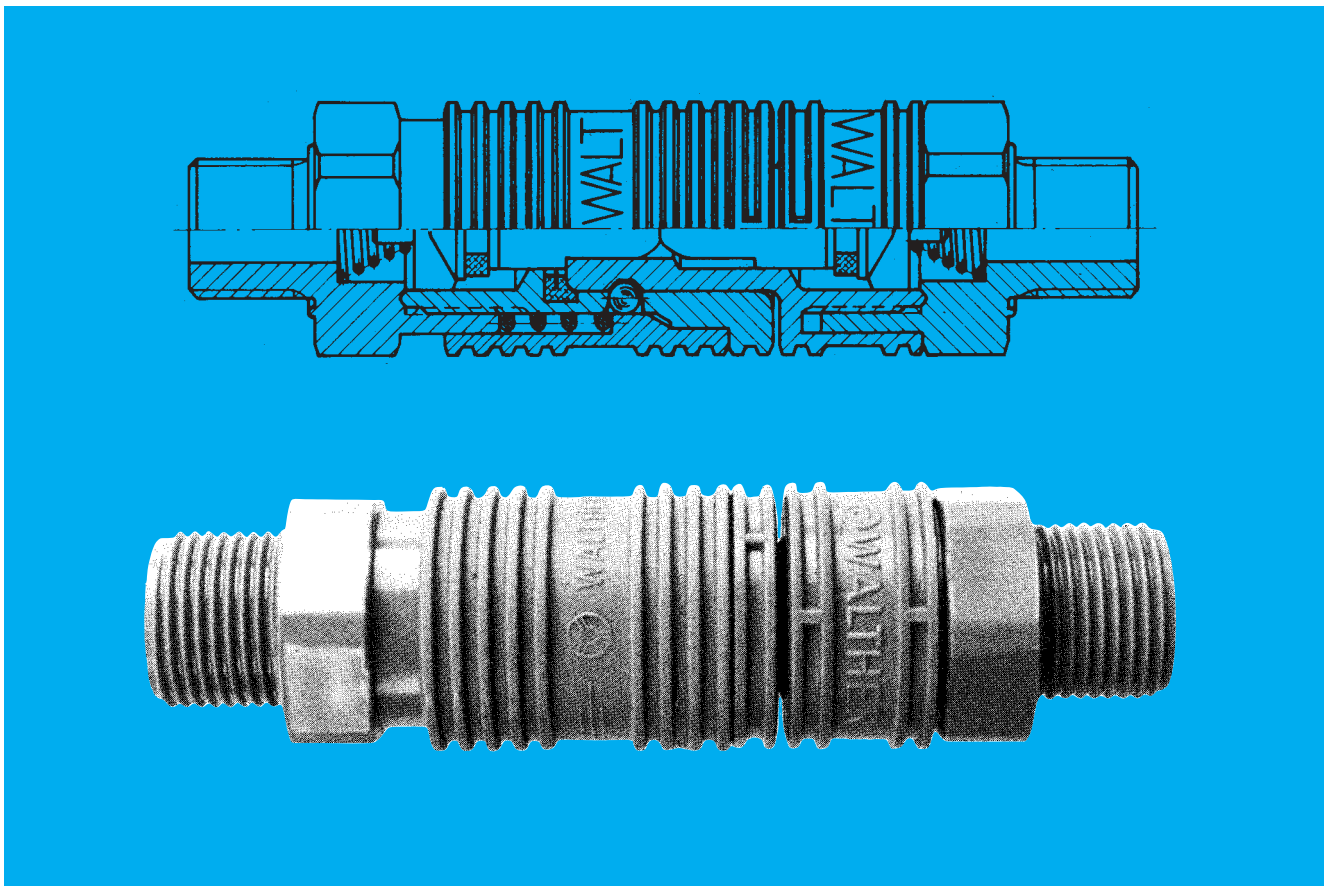
Availability: ● Short ○ Medium ○ Long

	Part No.	equipped with	steel zinc-plated	D	n.b.	d	d1	l	l1	l2	l3	l4	Weight [g]
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228 and 2 self sealing couplings</p>	2R-006-0-WR517-...-	3/8" BSPP, 2 ssc LP-006	○	25	6				116	81	47,5		430
	2R-007-0-WR521-...-	1/2" BSPP, 2 ssc LP-007	○	30	7				140	96	57		710
	2R-012-0-WR533-...-	1" BSPP, 2 ssc LP-012	○	40	12				178	128	65		1440
 <p>1 thru type adaptors and 2 self sealing couplings, type LP-006</p>	2S-006-0-WR517-...-	1 tta, 2ssc, LP-006	○	25	6	12			116	110	47,5	26	430



Nom. bore	Type	Material pressure at 20° C	Max. static working		C _v value		Cross section [mm ²]	Page
			both sides [bar]	one side [psi]	both sides self sealing	one side self sealing		
6	KL-006	polyamide 11/12 grey (PA)	12	170	0.73	1.0	30	36
12	KL-012	polyacetal grey (POM)	10	145	2.32	3.1	120	37
30	KL-030	polyacetal resin (POM)	10	145	23.3	30.46	710	38
Threaded hose connectors, double and reducing connectors								38
Performance diagrams								39 - 40

Materials: other materials e. g. PVDF, PP, ... as special types on request



characteristic features:
- can be coupled with type LP-006

special version:
Z14 = self sealing couplings and self sealing adaptors in polypropylene (PP) anthracite (p max. static 3 bar at 20° C)

optional features:
OV = without valve
SI = with additional axial safety lock (outer diameter 29 mm)

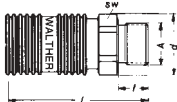
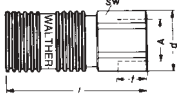
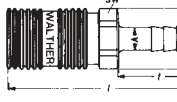
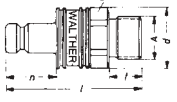

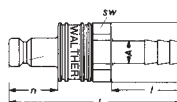
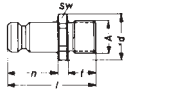
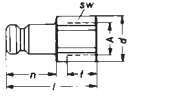
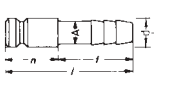
materials:
standard:
50 = polyamide 11/12, grey (PA)

special materials:
other materials as special types on request

seal qualities:
1 = NBR
2 = FKM
4 = EPDM

Please note the technical data on pages 2 - 7, 39 - 40 and the max. working pressures on page 35

Availability: ● Short ◐ Medium ○ Long

		Part No.	Conne- tion A	PA grey						d	SW	l	t	n	weight [g]	
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	KL-006-0-WR013-50-	BSPP 1/4"	●					24	22	55,3	12			16	
		KL-006-0-WR017-50-	BSPP 3/8"	●					24	22	55,3	12				17
		KL-006-0-WR021-50-	BSPP 1/2"	●					24	22	55,3	12				18
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	KL-006-0-WR513-50-	BSPP 1/4"	●					24	22	57,3	14			19	
		KL-006-0-WR517-50-	BSPP 3/8"	●					24	22	57,3	14				18
	 <p>hose connection</p>	KL-006-0-SL007-50-	7 mm	●					24	22	68,3	25				16
		KL-006-0-SL009-50-	9 mm	●					24	22	73,3	30				17
		KL-006-0-SL011-50-	11 mm	●					24	22	73,3	30				18
		KL-006-0-SL013-50-	13 mm	●					24	22	73,3	30				19
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	KL-006-2-WR013-50-	BSPP 1/4"	●					24	22	53,5	12	20		10	
		KL-006-2-WR017-50-	BSPP 3/8"	●					24	22	53,5	12	20		10	
		KL-006-2-WR021-50-	BSPP 1/2"	●					24	22	53,3	12	20		11	
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	KL-006-2-WR513-50-	BSPP 1/4"	●					24	22	55,5	14	20		13	
		KL-006-2-WR517-50-	BSPP 3/8"	●					24	22	55,5	14	20		12	
	 <p>hose connection</p>	KL-006-2-SL007-50-	7 mm	●					24	22	66,5	25	20		10	
		KL-006-2-SL009-50-	9 mm	●					24	22	71,5	30	20		10	
		KL-006-2-SL011-50-	11 mm	●					24	22	71,5	30	20		11	
		KL-006-2-SL013-50-	13 mm	●					24	22	71,5	30	20		12	
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	KL-006-1-WR010-50	BSPP 1/8"	●					16	15	32	7	20		3	
		KL-006-1-WR013-50	BSPP 1/4"	●					20,5	19	35	9	20		4	
		KL-006-1-WR017-50	BSPP 3/8"	●					24	22	38	11	20		6	
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	KL-006-1-WR510-50	BSPP 1/8"	○					18,5	17	36	13,5	20		4	
		KL-006-1-WR513-50	BSPP 1/4"	●					18,5	17	36	13,5	20		4	
	 <p>hose connection</p>	KL-006-1-SL007-50	7 mm	●					12		46	25	20		3	
		KL-006-1-SL009-50	9 mm	●					12		51	30	20		3	
		KL-006-1-SL011-50	11 mm	●					16		53	30	20		4	
		KL-006-1-SL013-50	13 mm	●					16		53	30	20		5	

characteristic features:
- can be coupled with type LP-012

special version:
Z01 = for partial vacuum couplings with O-ring seal

optional features:
OV = without valve
SI = with additional axial safety lock
(outer diameter 44 mm)

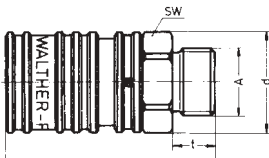
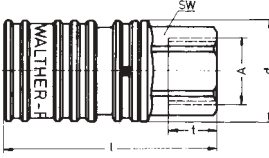
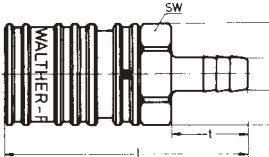
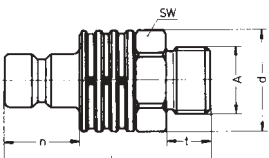
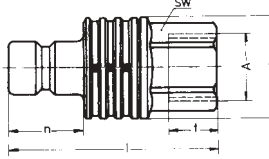
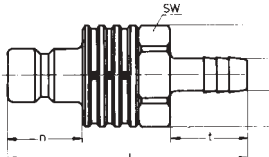
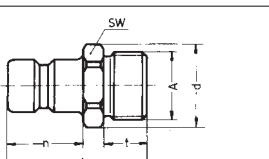
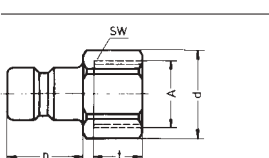
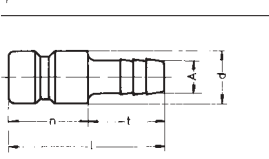
materials:
standard:
40 = polyacetal resin POM, grey

special materials:
other materials as special types
on request

seal qualities:
1 = NBR
2 = FKM
4 = EPDM

Please note the technical data on pages 2 - 7, 39 - 40 and the max. working pressures on page 35

Availability: ● Short ○ Medium ○ Long

	Part No.	Conne- tion A	PA grey						d	SW	l	t	n	weight [g]
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	KL-012-0-WR021-40- KL-012-0-WR026-40-	BSPP 1/2" BSPP 3/4"	● ○					40 40	30 30	88 90	15 17		90 90
		 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	KL-012-0-WR521-40- KL-012-0-WR526-40-	BSPP 1/2" BSPP 3/4"	● ○					30 30	82,5 84,5	15 17	17 19	
	 <p>hose tailpiece with hose nozzle</p>		KL-012-0-SL016-40- KL-012-0-SL019-40-	16 mm 19 mm	● ●					40 40	30 30	98 102	35 35	
Self sealing adaptors		 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	KL-012-2-WR021-40- KL-012-2-WR026-40-	BSPP 1/2" BSPP 3/4"	● ○				40 40	30 30	86 88	15 17	29,5 29,5	60 60
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>		KL-012-2-WR521-40- KL-012-2-WR526-40-	BSPP 1/2" BSPP 3/4"	● ○					40 40	30 30	82,5 82,5	15 17	29,5 29,5
		 <p>hose tailpiece with hose nozzle</p>	KL-012-2-SL016-40- KL-012-2-SL019-40-	16 mm 19 mm	● ●					40 40	30 30	96 100	35 35	29,5 29,5
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>		KL-012-1-WR021-40 KL-012-1-WR026-40	BSPP 1/2" BSPP 3/4"	● ○				33,1 33,1	30 30	54,5 56,5	15 17	29,5 29,5	17 23
		 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	KL-012-1-WR521-40 KL-012-1-WR526-40	BSPP 1/2" BSPP 3/4"	○ ○					33,1 33,1	30 30	49 51	15 17	29,5 29,5
	 <p>hose tailpiece with hose nozzle</p>		KL-012-1-SL013-40 KL-012-1-SL016-40 KL-012-1-SL019-40	13 mm 16 mm 19 mm	● ● ○						21 21 25	59,5 69,5 68,5	30 35 35	29,5 29,5 29,5

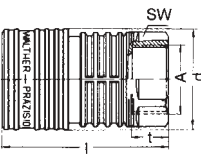
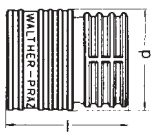
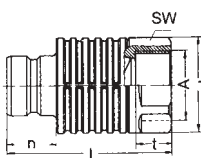
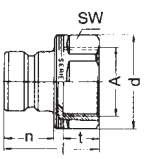
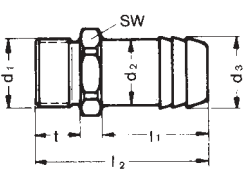
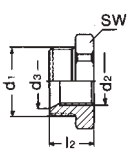
optional features:
OV = without valve

materials:
standard:
40 = polyacetal resin POM, grey
43 = polyacetal resin POM, olive

seal qualities:
1 = NBR
2 = FPM
4 = EPDM

special materials:
other materials as special types
on request

Please note the
technical data on
pages 2 - 7, 39 - 40 and the
max. working pressures
on page 35

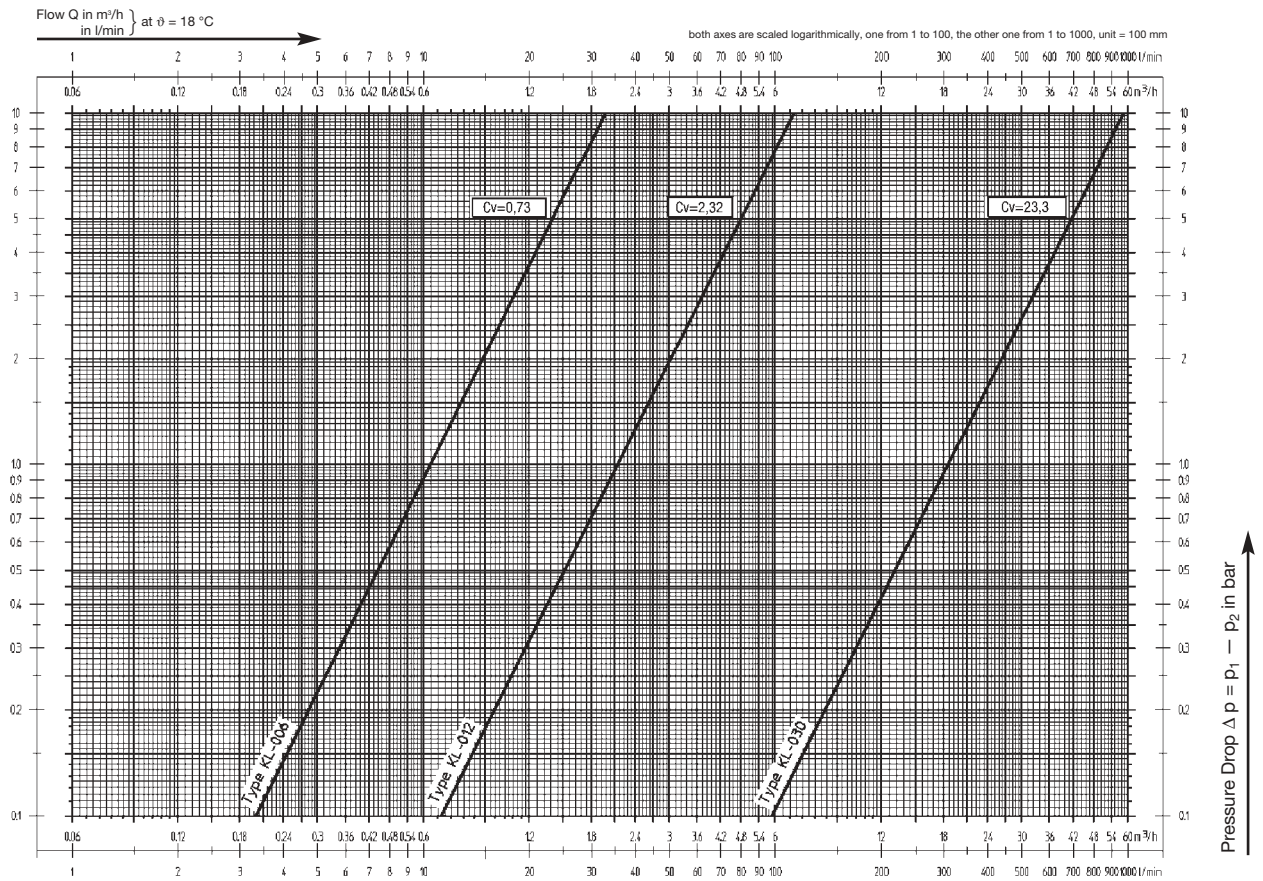
	Part No.	Connection A	POM grey	POM olive	d	SW	l	t	n		Weight [g]
Self sealing couplings 	British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-030-0-WR548-40- KL-030-0-WR560-40-	BSPP 1 1/2" BSPP 2"	● ○	70 70	60 65	114 116	23,5 26			330 320
	Thru type couplings 	British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-030-4-WR548-40- KL-030-4-XX002-43-	BSPP 1 1/2" round thread for Vacuflex-hoses	○ ○	70 70		84 84	18 40		
Self sealing adaptors 		British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-030-2-WR548-40- KL-030-2-WR560-40-	BSPP 1 1/2" BSPP 2"	● ○	66 66	60 60	114 116	23,5 26	35 35	
	Thru type adaptors 	British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-030-1-WR548-40 KL-030-1-XX003-43	BSPP 1 1/2" i. hexagon AF 36,4 inner cone 0°50'34"	● ○	66 51	60 46	66 44	25 7	35 35	
Threaded hose connectors 			d1		t	d2	d3	l1	l2	SW	n. b.
	5-AN0-0SL-025-WR048-40	BSPP 1 1/2"	●	18	25	27	40	73	50	19	65
	5-AN0-0SL-032-WR048-40	BSPP 1 1/2"	●	18	32	34	44	77	50	22	90
	5-AN0-0SL-038-WR048-40	BSPP 1 1/2"	●	18	38	40	61	94	50	28	95
	5-AN0-0SL-042-WR048-40	BSPP 1 1/2"	●	18	42	45	61	94	50	32	95
Reducing connectors 	5-AN0-0XX-008-WR533-40	BSPP 1 1/2"	●	G 1	38		30,5	60			55

Measurement of flow coefficients C_v according to DIN EN 60534

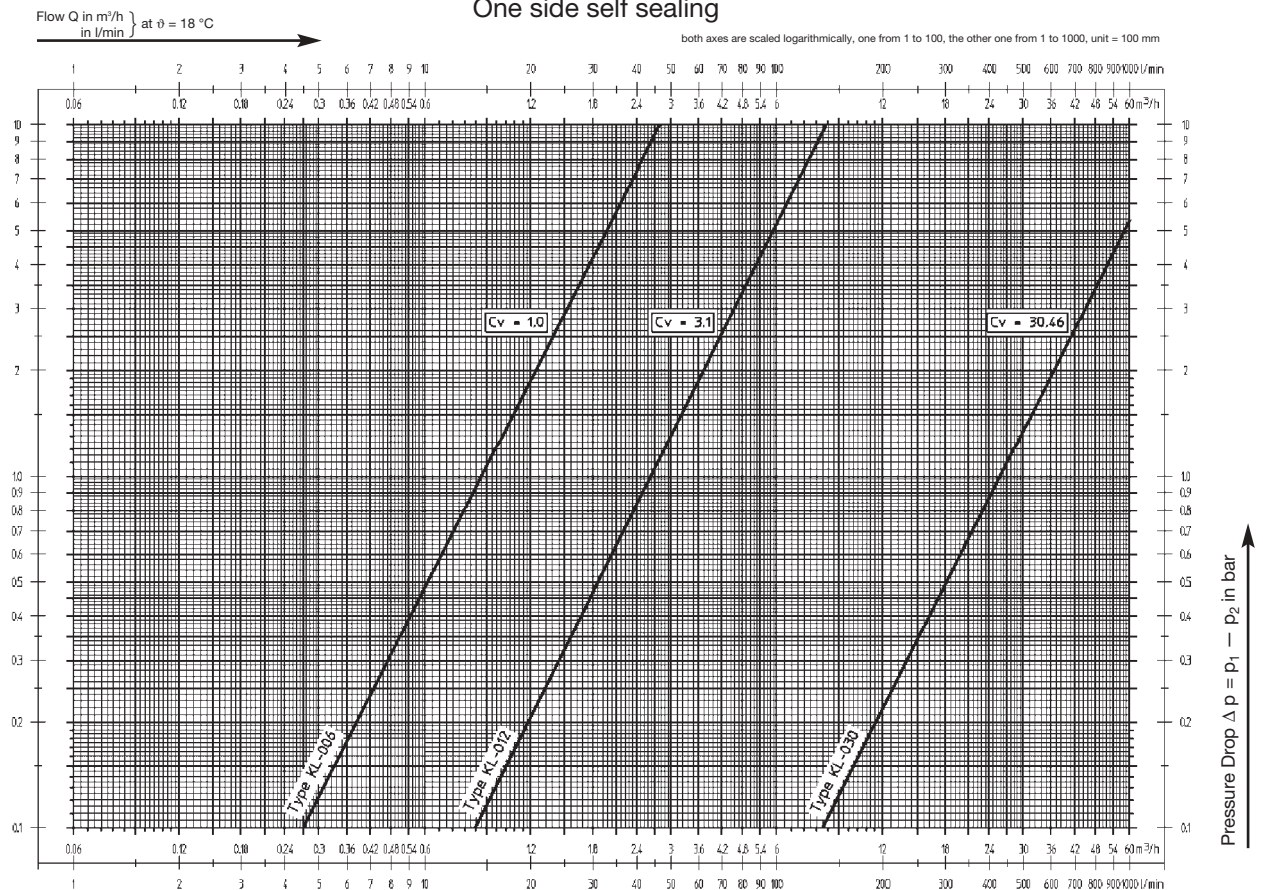
Flow speeds of 8 m/sec should not be exceeded

1 bar = 14,5 PSI

Both sides self sealing



One side self sealing

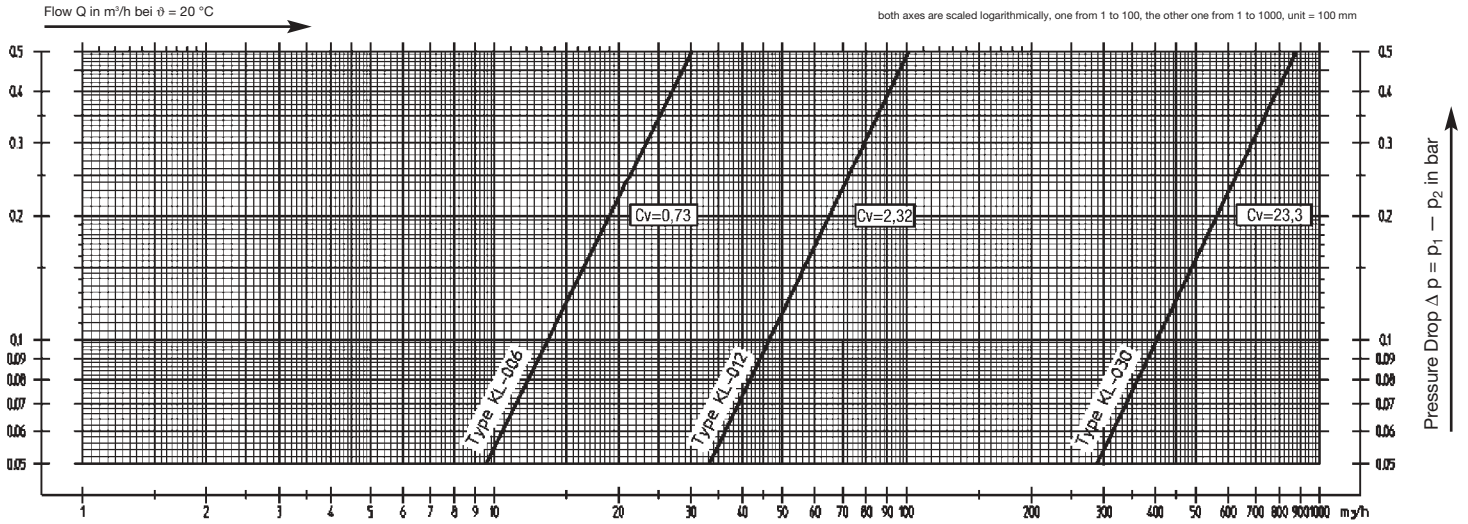


Measurement of flow coefficients C_v according to DIN EN 60534

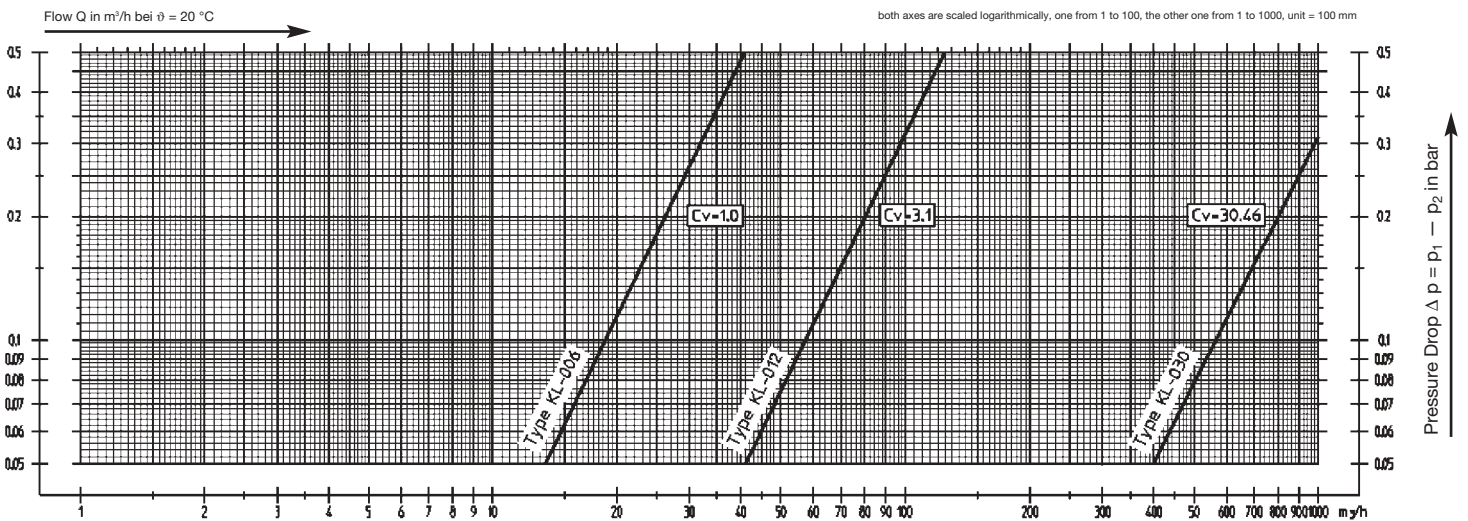
Working pressure 6 bar gauge pressure

1 bar = 14,5 PSI

Both sides self sealing



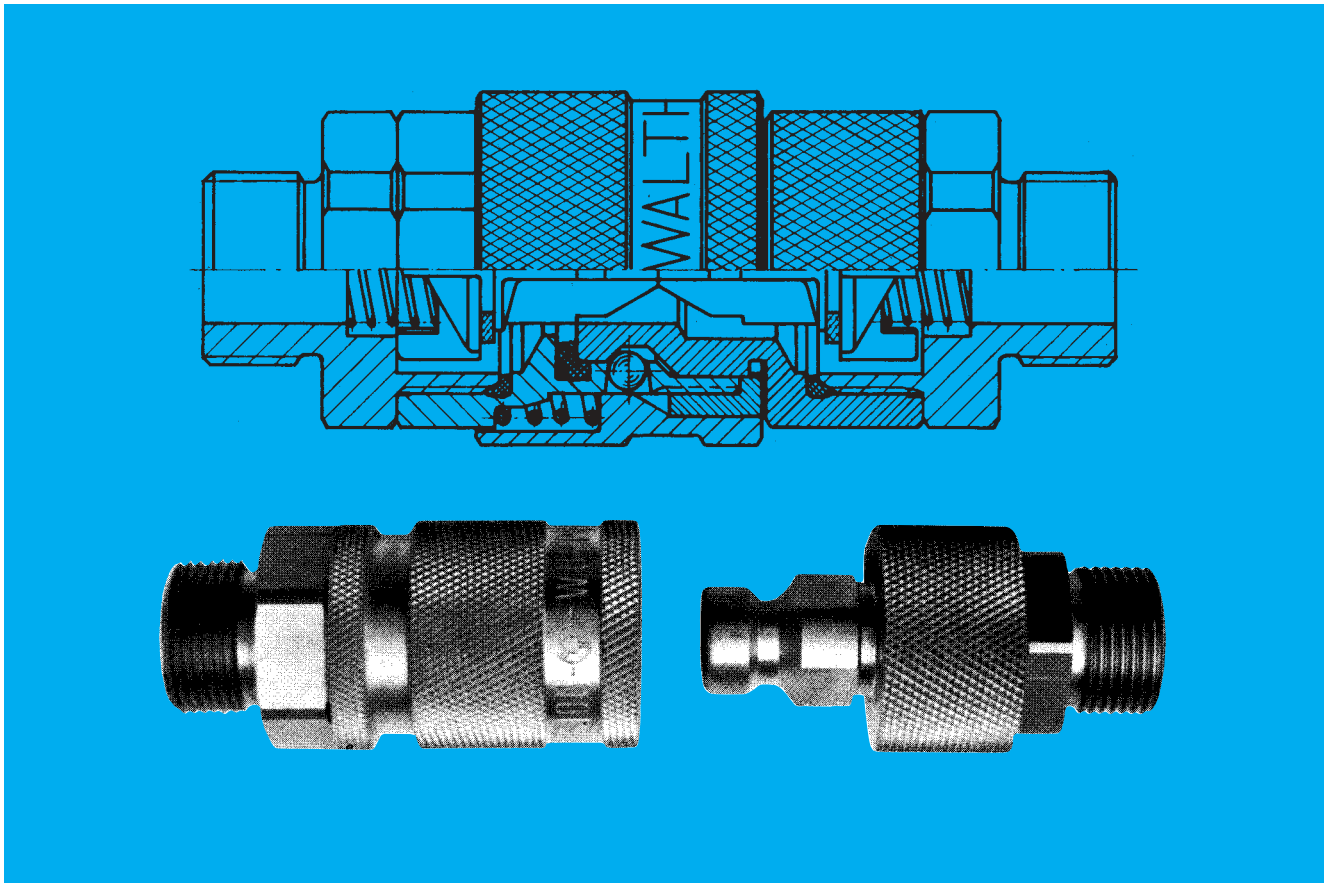
One side self sealing



Nom. bore	Type	Max. static working pressure brass and st. st. [bar/psi]		C _v value		Cross section [mm ²]	Page
		for liquids	for gases	both sides self sealing	one side self sealing		
6	UF-006	40 / 580	30 / 435	0.77	1.1	30	42
7	UF-007	40 / 580	25 / 360	1.07	1.4	40	43
12	UF-012	30 / 435	20 / 290	3.25	4.34	120	44
19	UF-019	30 / 435	20 / 290	7.5	11.2	300	45
32	UF-032	30 / 435	10 / 145	23.8	29.4	800	46
Performance diagrams							47 - 48

Features: due to the different shape of the guiding parts (triangular, square, round) of coupling and adaptor only coupling halves with equivalent shapes can be connected.
Further forms – on request.
Colour or letter marking – on request.

In stainless steel the version is partially smooth instead of knurled.



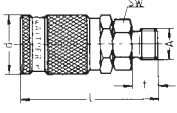
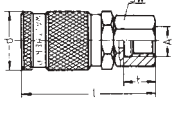
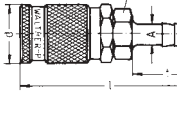
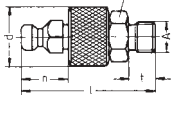
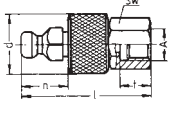
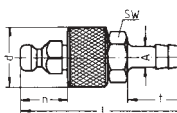
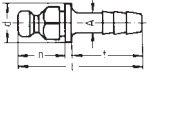
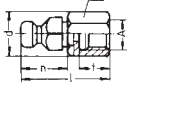
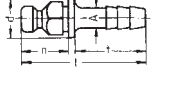
characteristic features:
 ▲...DR = with triangular fitting
 ■...VI = with square fitting
 (non-interchangeable versions)
 special keys on request
 - stainless steel version 1.4404/1.4571 or similar
 in smooth variant with gripping grooves instead of knurling
optional features:
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 29 mm)

materials:
standard:
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar
special materials:
 24 = brass, chem. nickel plated
 31 = aluminium anodized silver

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

Please note the technical data on pages 2 - 7, 47 - 48 and the max. working pressures on page 41

Availability: ● Short ○ Medium ○ Long

	Part No.	Conne- tion A	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571				d	SW	l	t	n	weight [g]	
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-006-0-WR013-...-DR	▲ BSPP 1/4"	●	●	○			25	19	58	11		120	
		UF-006-0-WR013-...-VI	■ BSPP 1/4"	●	●	○			25	19	58	11		120	
		UF-006-0-WR017-...-DR	▲ BSPP 3/8"	●	●	○			25	19	59	12		130	
		UF-006-0-WR017-...-VI	■ BSPP 3/8"	●	●	○			25	19	59	12		130	
		UF-006-0-WR021-...-DR	▲ BSPP 1/2"	●	●	○			25	22	62	15		150	
		UF-006-0-WR021-...-VI	■ BSPP 1/2"	●	●	○			25	22	62	15		150	
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-006-0-WR513-...-DR	▲ BSPP 1/4"	●	●	○			25	19	57	13		120	
		UF-006-0-WR513-...-VI	■ BSPP 1/4"	●	●	○			25	19	57	13		120	
		UF-006-0-WR517-...-DR	▲ BSPP 3/8"	●	●	○			25	22	58	14		130	
		UF-006-0-WR517-...-VI	■ BSPP 3/8"	●	●	○			25	22	58	14		130	
	 <p>hose connection</p>	UF-006-0-SL006-...-DR	▲ 6 mm	●	●	○			25	19	72	25		120	
		UF-006-0-SL006-...-VI	■ 6 mm	●	●	○			25	19	72	25		120	
		UF-006-0-SL009-...-DR	▲ 9 mm	●	●	○			25	19	77	30		120	
		UF-006-0-SL009-...-VI	■ 9 mm	●	●	○			25	19	77	30		120	
		UF-006-0-SL011-...-DR	▲ 11 mm	●	●	○			25	19	77	30		130	
UF-006-0-SL011-...-VI		■ 11 mm	●	●	○			25	19	77	30		130		
UF-006-0-SL013-...-DR		▲ 13 mm	●	●	○			25	19	77	30		140		
UF-006-0-SL013-...-VI		■ 13 mm	●	●	○			25	19	77	30		140		
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-006-2-WR013-...-DR	▲ BSPP 1/4"	●	●	○			25	19	56	11	20,1	90	
		UF-006-2-WR013-...-VI	■ BSPP 1/4"	●	●	○			25	19	56	11	20,1	90	
		UF-006-2-WR017-...-DR	▲ BSPP 3/8"	●	●	○			25	19	57	12	20,1	100	
		UF-006-2-WR017-...-VI	■ BSPP 3/8"	●	●	○			25	19	57	12	20,1	100	
		UF-006-2-WR021-...-DR	▲ BSPP 1/2"	●	●	○			25	22	60	15	20,1	120	
		UF-006-2-WR021-...-VI	■ BSPP 1/2"	●	●	○			25	22	60	15	20,1	120	
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-006-2-WR513-...-DR	▲ BSPP 1/4"	●	●	○			25	19	55	13	20,1	95	
		UF-006-2-WR513-...-VI	■ BSPP 1/4"	●	●	○			25	19	55	13	20,1	95	
		UF-006-2-WR517-...-DR	▲ BSPP 3/8"	●	●	○			25	22	56	14	20,1	100	
		UF-006-2-WR517-...-VI	■ BSPP 3/8"	●	●	○			25	22	56	14	20,1	100	
		 <p>hose connection</p>	UF-006-2-SL006-...-DR	▲ 6 mm	●	●	○			25	19	70	25	20,1	85
			UF-006-2-SL006-...-VI	■ 6 mm	●	●	○			25	19	70	25	20,1	85
UF-006-2-SL009-...-DR	▲ 9 mm		●	●	○			25	19	75	30	20,1	90		
UF-006-2-SL009-...-VI	■ 9 mm		●	●	○			25	19	75	30	20,1	90		
UF-006-2-SL011-...-DR	▲ 11 mm		●	●	○			25	19	75	30	20,1	95		
UF-006-2-SL011-...-VI	■ 11 mm		●	●	○			25	19	75	30	20,1	95		
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-006-1-WR013-...-DR	▲ BSPP 1/4"	○	○	○			18,9	17	37,5	11	20,1	29	
		UF-006-1-WR013-...-VI	■ BSPP 1/4"	○	○	○			18,9	17	37,5	11	20,1	29	
		UF-006-1-WR017-...-DR	▲ BSPP 3/8"	○	○	○			21	19	38,5	12	20,1	41	
		UF-006-1-WR017-...-VI	■ BSPP 3/8"	○	○	○			21	19	38,5	12	20,1	41	
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-006-1-WR513-...-DR	▲ BSPP 1/4"	○	○	○			18,9	17	37,5	13	20,1	31	
		UF-006-1-WR513-...-VI	■ BSPP 1/4"	○	○	○			18,9	17	37,5	13	20,1	31	
	 <p>hose connection</p>	UF-006-1-SL006-...-DR	▲ 6 mm	●	○	○			16		48,5	25	20,1	20	
		UF-006-1-SL006-...-VI	■ 6 mm	●	○	○			16		48,5	25	20,1	20	
		UF-006-1-SL009-...-DR	▲ 9 mm	●	○	○			16		53,5	30	20,1	25	
		UF-006-1-SL009-...-VI	■ 9 mm	●	○	○			16		53,5	30	20,1	25	
		UF-006-1-SL011-...-DR	▲ 11 mm	○	○	○			16		53,5	30	20,1	32	
		UF-006-1-SL011-...-VI	■ 11 mm	○	○	○			16		53,5	30	20,1	32	

characteristic features:
 ▲...DR = with triangular fitting
 ■...VI = with square fitting
 (non-interchangeable versions)
 special keys on request

materials:
standard:
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

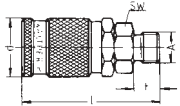
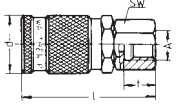
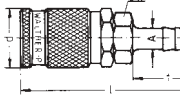
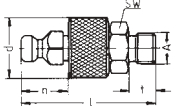
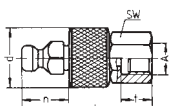
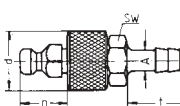
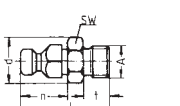
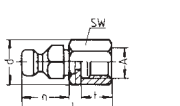
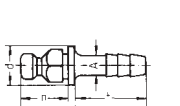
seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

optional features:
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 34 mm)

special materials:
 24 = brass, chem. nickel plated

Please note the technical data on pages 2 - 7, 47 - 48 and the max. working pressures on page 41

Availability: ● Short ● Medium ○ Long

	Part No.	Con- nection A	brass passivated	brass chrome plated	AlSi 316 Ti/ 1.4571					d	SW	l	t	n	weight [g]
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-007-0-WR017-...-DR	▲	BSPP 3/8"	●	●	●			30	24	68	12		210
		UF-007-0-WR017-...-VI	■	BSPP 3/8"	●	●	●			30	24	68	12		210
		UF-007-0-WR021-...-DR	▲	BSPP 1/2"	●	●	○			30	24	71	15		230
		UF-007-0-WR021-...-VI	■	BSPP 1/2"	●	●	○			30	24	71	15		230
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-007-0-WR517-...-DR	▲	BSPP 3/8"	●	●	●			30	24	68	14		230
		UF-007-0-WR517-...-VI	■	BSPP 3/8"	●	●	●			30	24	68	14		230
		UF-007-0-WR521-...-DR	▲	BSPP 1/2"	●	●	○			30	27	71	17		240
		UF-007-0-WR521-...-VI	■	BSPP 1/2"	●	●	○			30	27	71	17		240
	 <p>hose connection</p>	UF-007-0-SL009-...-DR	▲	9 mm	○	○	○			30	24	86	30		210
		UF-007-0-SL009-...-VI	■	9 mm	○	○	○			30	24	86	30		210
		UF-007-0-SL011-...-DR	▲	11 mm	○	○	○			30	24	86	30		210
		UF-007-0-SL011-...-VI	■	11 mm	○	○	○			30	24	86	30		210
UF-007-0-SL013-...-DR		▲	13 mm	●	●	●			30	24	86	30		220	
UF-007-0-SL013-...-VI		■	13 mm	●	●	●			30	24	86	30		220	
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-007-2-WR017-...-DR	▲	BSPP 3/8"	●	●	●			30	24	67,5	12	23,5	170
		UF-007-2-WR017-...-VI	■	BSPP 3/8"	●	●	●			30	24	67,5	12	23,5	170
		UF-007-2-WR021-...-DR	▲	BSPP 1/2"	●	●	○			30	24	70,5	15	23,5	190
		UF-007-2-WR021-...-VI	■	BSPP 1/2"	●	●	○			30	24	70,5	15	23,5	190
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-007-2-WR517-...-DR	▲	BSPP 3/8"	●	●	●			30	24	67,5	14	23,5	180
		UF-007-2-WR517-...-VI	■	BSPP 3/8"	●	●	●			30	24	67,5	14	23,5	180
		UF-007-2-WR521-...-DR	▲	BSPP 1/2"	●	●	○			30	27	70,5	17	23,5	200
		UF-007-2-WR521-...-VI	■	BSPP 1/2"	●	●	○			30	27	70,5	17	23,5	200
	 <p>hose connection</p>	UF-007-2-SL009-...-DR	▲	9 mm	○	○	○			30	24	85,5	30	23,5	170
		UF-007-2-SL009-...-VI	■	9 mm	○	○	○			30	24	85,5	30	23,5	170
		UF-007-2-SL011-...-DR	▲	11 mm	○	○	○			30	24	85,5	30	23,5	170
		UF-007-2-SL011-...-VI	■	11 mm	○	○	○			30	24	85,5	30	23,5	170
UF-007-2-SL013-...-DR		▲	13 mm	●	●	●			30	24	85,5	30	23,5	180	
UF-007-2-SL013-...-VI		■	13 mm	●	●	●			30	24	85,5	30	23,5	180	
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-007-1-WR017-...-DR	▲	BSPP 3/8"	○	○	○			21	19	41,5	12	23,5	48
		UF-007-1-WR017-...-VI	■	BSPP 3/8"	○	○	○			21	19	41,5	12	23,5	48
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-007-1-WR517-...-DR	▲	BSPP 3/8"	○	○	○			24	22	43	14	23,5	60
		UF-007-1-WR517-...-VI	■	BSPP 3/8"	○	○	○			24	22	43	14	23,5	60
	 <p>hose connection</p>	UF-007-1-SL009-...-DR	▲	9 mm	○	○	○			18		57,5	30	23,5	31
		UF-007-1-SL009-...-VI	■	9 mm	○	○	○			18		57,5	30	23,5	31
		UF-007-1-SL011-...-DR	▲	11 mm	○	○	○			18		57,5	30	23,5	41
		UF-007-1-SL011-...-VI	■	11 mm	○	○	○			18		57,5	30	23,5	41
		UF-007-1-SL013-...-DR	▲	13 mm	○	○	○			18		57,5	30	23,5	50
UF-007-1-SL013-...-VI	■	13 mm	○	○	○			18		57,5	30	23,5	50		

characteristic features:
 ▲...DR = with triangular fitting
 ■...VI = with square fitting
 (non-interchangeable versions)
 special keys on request

materials:
 standard:
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

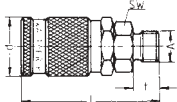
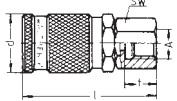
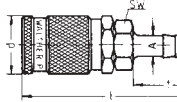
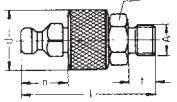
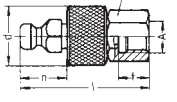
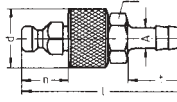
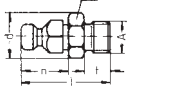
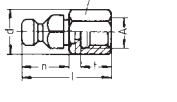
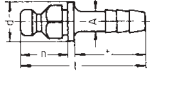
seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

optional features:
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 44 mm)

special materials:
 24 = brass, chem. nickel plated

Please note the technical data on pages 2 - 7, 47 - 48 and the max. working pressures on page 41

Availability: ● Short ○ Medium ○ Long

	Part No.	Conne- tion A	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571					d	SW	l	t	n	weight [g]	
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-012-0-WR021-...-DR ▲	BSP 1/2"	●	○	○			40	32	82	15			410	
		UF-012-0-WR021-...-VI ■	BSP 1/2"	●	○	○			40	32	82	15				410
		UF-012-0-WR026-...-DR ▲	BSP 3/4"	●	○	○			40	32	84	17				440
		UF-012-0-WR026-...-VI ■	BSP 3/4"	●	○	○			40	32	84	17				440
		UF-012-0-WR033-...-DR ▲	BSP 1"	○	○	○			40	36	88	20				510
		UF-012-0-WR033-...-VI ■	BSP 1"	○	○	○			40	36	88	20				510
Self sealing couplings	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-012-0-WR521-...-DR ▲	BSP 1/2"	●	○	○			40	32	81	17			450	
		UF-012-0-WR521-...-VI ■	BSP 1/2"	●	○	○			40	32	81	17				450
		UF-012-0-WR526-...-DR ▲	BSP 3/4"	●	●	○			40	32	83	19				430
		UF-012-0-WR526-...-VI ■	BSP 3/4"	●	●	○			40	32	83	19				430
Self sealing couplings	 <p>hose connection</p>	UF-012-0-SL016-...-DR ▲	16 mm	●	○	○			40	32	102	35			420	
		UF-012-0-SL016-...-VI ■	16 mm	●	○	○			40	32	102	35				420
		UF-012-0-SL019-...-DR ▲	19 mm	●	○	○			40	32	102	35				440
		UF-012-0-SL019-...-VI ■	19 mm	●	○	○			40	32	102	35				440
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-012-2-WR021-...-DR ▲	BSP 1/2"	●	○	○			40	32	80	15	29,5		330	
		UF-012-2-WR021-...-VI ■	BSP 1/2"	●	○	○			40	32	80	15	29,5			330
		UF-012-2-WR026-...-DR ▲	BSP 3/4"	●	○	○			40	32	82	17	29,5			360
		UF-012-2-WR026-...-VI ■	BSP 3/4"	●	○	○			40	32	82	17	29,5			360
		UF-012-2-WR033-...-DR ▲	BSP 1"	○	○	○			40	36	86	20	29,5			320
		UF-012-2-WR033-...-VI ■	BSP 1"	○	○	○			40	36	86	20	29,5			320
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-012-2-WR521-...-DR ▲	BSP 1/2"	●	○	○			40	32	79	17	29,5		360	
		UF-012-2-WR521-...-VI ■	BSP 1/2"	●	○	○			40	32	79	17	29,5			360
		UF-012-2-WR526-...-DR ▲	BSP 3/4"	●	●	○			40	32	81	19	29,5			340
		UF-012-2-WR526-...-VI ■	BSP 3/4"	●	●	○			40	32	81	19	29,5			340
Self sealing adaptors	 <p>hose connection</p>	UF-012-2-SL016-...-DR ▲	16 mm	●	○	○			40	32	100	35	29,5		340	
		UF-012-2-SL016-...-VI ■	16 mm	●	○	○			40	32	100	35	29,5			340
		UF-012-2-SL019-...-DR ▲	19 mm	●	○	○			40	32	100	35	29,5			360
		UF-012-2-SL019-...-VI ■	19 mm	●	○	○			40	32	100	35	29,5			360
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-012-1-WR021-...-DR ▲	BSP 1/2"	○	○	○			30	27	52,5	15	29,5		110	
		UF-012-1-WR021-...-VI ■	BSP 1/2"	○	○	○			30	27	52,5	15	29,5			110
	Thru type adaptors	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-012-1-WR521-...-DR ▲	BSP 1/2"	○	○	○			33,5	30	52,5	17	29,5		150
UF-012-1-WR521-...-VI ■			BSP 1/2"	○	○	○			33,5	30	52,5	17	29,5			150
Thru type adaptors	 <p>hose connection</p>	UF-012-1-SL016-...-DR ▲	16 mm	○	○	○			25		68,5	35	29,5		95	
		UF-012-1-SL016-...-VI ■	16 mm	○	○	○			25		68,5	35	29,5			95

characteristic features:
 ▲...DR = with triangular fitting
 ■...VI = with square fitting
 (non-interchangeable versions)
 special keys on request

materials:
standard:
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

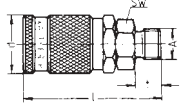
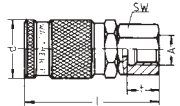
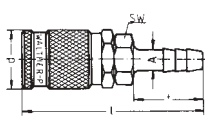
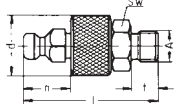
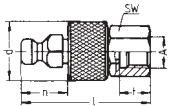
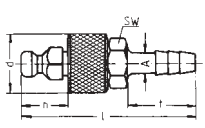
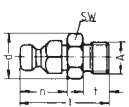
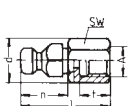
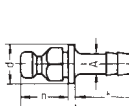
seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

optional features:
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 62 mm)

special materials:
 24 = brass, chem. nickel plated

Please note the technical data on pages 2 - 7, 47 - 48 and the max. working pressures on page 41

Availability: ● Short ● Medium ○ Long

	Part No.	Con- nection A	brass passivated	brass chrome plated	AlSi 316 Ti/ 1.4571	d	SW	l	t	n	weight [g]		
												▲	■
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-019-0-WR026-...-DR	▲	BSPP 3/4"	●	○	○	60	46	100	17	1080	
		UF-019-0-WR026-...-VI	■	BSPP 3/4"	●	○	○	60	46	100	17	1080	
		UF-019-0-WR033-...-DR	▲	BSPP 1"	●	○	○	60	46	103	20	1110	
		UF-019-0-WR033-...-VI	■	BSPP 1"	●	○	○	60	46	103	20	1110	
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-019-0-WR526-...-DR	▲	BSPP 3/4"	●	○	○	60	46	94	19	1130	
		UF-019-0-WR526-...-VI	■	BSPP 3/4"	●	○	○	60	46	94	19	1130	
		UF-019-0-WR533-...-DR	▲	BSPP 1"	●	○	○	60	46	98	23	1120	
		UF-019-0-WR533-...-VI	■	BSPP 1"	●	○	○	60	46	98	23	1120	
	 <p>hose connection</p>	UF-019-0-SL019-...-DR	▲	19 mm	●	○	○	60	46	118	35	1110	
		UF-019-0-SL019-...-VI	■	19 mm	●	○	○	60	46	118	35	1110	
		UF-019-0-SL025-...-DR	▲	25 mm	●	○	○	60	46	123	40	1170	
		UF-019-0-SL025-...-VI	■	25 mm	●	○	○	60	46	123	40	1170	
UF-019-0-SL028-...-DR		▲	28 mm	●	○	○	60	46	128	45	1200		
UF-019-0-SL028-...-VI		■	28 mm	●	○	○	60	46	128	45	1200		
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-019-2-WR026-...-DR	▲	BSPP 3/4"	●	○	○	54	46	96	17	32,5	760
		UF-019-2-WR026-...-VI	■	BSPP 3/4"	●	○	○	54	46	96	17	32,5	760
		UF-019-2-WR033-...-DR	▲	BSPP 1"	●	○	○	54	46	99	20	32,5	790
		UF-019-2-WR033-...-VI	■	BSPP 1"	●	○	○	54	46	99	20	32,5	790
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-019-2-WR526-...-DR	▲	BSPP 3/4"	●	○	○	54	46	90	19	32,5	830
		UF-019-2-WR526-...-VI	■	BSPP 3/4"	●	○	○	54	46	90	19	32,5	830
		UF-019-2-WR533-...-DR	▲	BSPP 1"	●	○	○	54	46	94	23	32,5	760
		UF-019-2-WR533-...-VI	■	BSPP 1"	●	○	○	54	46	94	23	32,5	760
	 <p>hose connection</p>	UF-019-2-SL019-...-DR	▲	19 mm	●	○	○	54	46	114	35	32,5	790
		UF-019-2-SL019-...-VI	■	19 mm	●	○	○	54	46	114	35	32,5	790
		UF-019-2-SL025-...-DR	▲	25 mm	●	○	○	54	46	119	40	32,5	860
		UF-019-2-SL025-...-VI	■	25 mm	●	○	○	54	46	119	40	32,5	860
UF-019-2-SL028-...-DR		▲	28 mm	●	○	○	54	46	124	45	32,5	890	
UF-019-2-SL028-...-VI		■	28 mm	●	○	○	54	46	124	45	32,5	890	
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-019-1-WR026-...-DR	▲	BSPP 3/4"	○	○	○	45,5	41	59,5	17	32,5	280
		UF-019-1-WR026-...-VI	■	BSPP 3/4"	○	○	○	45,5	41	59,5	17	32,5	280
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-019-1-WR533-...-DR	▲	BSPP 1"	○	○	○	45,5	41	61,5	23	32,5	310
		UF-019-1-WR533-...-VI	■	BSPP 1"	○	○	○	45,5	41	61,5	23	32,5	310
	 <p>hose connection</p>	UF-019-1-SL025-...-DR	▲	25 mm	○	○	○	38	81	40	32,5	270	
		UF-019-1-SL025-...-VI	■	25 mm	○	○	○	38	81	40	32,5	270	

characteristic features:
 ▲...DR = with triangular fitting
 ■...VI = with square fitting
 (non-interchangeable versions)
 special keys on request

materials:
standard:
 21 = brass, passivated
 22 = brass, chrome plated
 01 = stainless steel 1.4404/1.4571 or similar

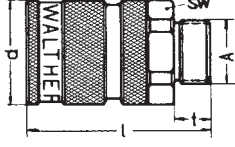
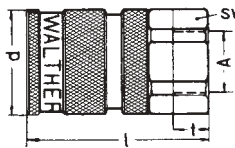
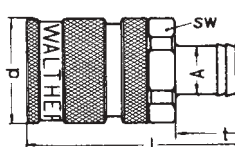
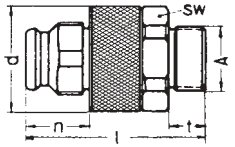
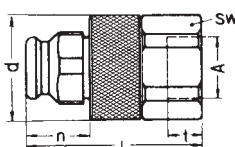
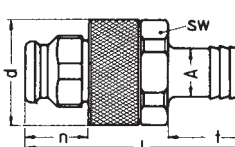
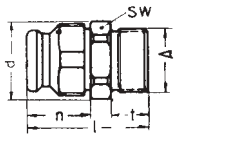
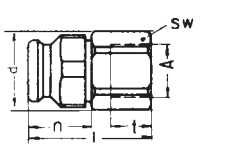
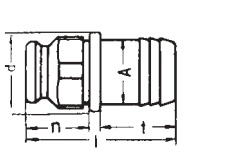
seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

optional features:
 GG = with ring grips (cast aluminium)
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 89 mm)

special materials:
 24 = brass, chem. nickel plated

Please note the technical data on pages 2 - 7, 47 - 48 and the max. working pressures on page 41

Availability: ● Short ○ Medium ○ Long

	Part No.	Con- nection A	brass passivated	brass chrome plated	AISI 316 Ti/ 1.4571					d	SW	l	t	n	weight [g]	
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-032-0-WR048-...-DR	▲ BSPP 1 1/2"	●	○	○			82	75	139	22			3290	
		UF-032-0-WR048-...-VI	■ BSPP 1 1/2"	○	○	○			82	75	139	22				3290
		UF-032-0-WR060-...-DR	▲ BSPP 2"	○	○	○			82	75	143	26				3510
		UF-032-0-WR060-...-VI	■ BSPP 2"	○	○	○			82	75	143	26				3510
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-032-0-WR548-...-DR	▲ BSPP 1 1/2"	●	○	○			82	75	126	25				3280
		UF-032-0-WR548-...-VI	■ BSPP 1 1/2"	○	○	○			82	75	126	25				3280
		UF-032-0-WR560-...-DR	▲ BSPP 2"	○	○	○			82	75	130	29				3130
		UF-032-0-WR560-...-VI	■ BSPP 2"	○	○	○			82	75	130	29				3130
	 <p>hose connection</p>	UF-032-0-SL042-...-DR	▲ 42 mm	○	○	○			82	75	178	61				3460
		UF-032-0-SL042-...-VI	■ 42 mm	○	○	○			82	75	178	61				3460
		UF-032-0-SL053-...-DR	▲ 53 mm	○	○	○			82	75	182	70				3840
		UF-032-0-SL053-...-VI	■ 53 mm	○	○	○			82	75	182	70				3840
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-032-2-WR048-...-DR	▲ BSPP 1 1/2"	●	○	○			82	75	135,5	22	39		2750	
		UF-032-2-WR048-...-VI	■ BSPP 1 1/2"	○	○	○			82	75	135,5	22	39			2750
		UF-032-2-WR060-...-DR	▲ BSPP 2"	○	○	○			82	75	139,5	26	39			2980
		UF-032-2-WR060-...-VI	■ BSPP 2"	○	○	○			82	75	139,5	26	39			2980
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-032-2-WR548-...-DR	▲ BSPP 1 1/2"	●	○	○			82	75	122,5	25	39			2740
		UF-032-2-WR548-...-VI	■ BSPP 1 1/2"	○	○	○			82	75	122,5	25	39			2740
		UF-032-2-WR560-...-DR	▲ BSPP 2"	○	○	○			82	75	126,5	29	39			2600
		UF-032-2-WR560-...-VI	■ BSPP 2"	○	○	○			82	75	126,5	29	39			2600
	 <p>hose connection</p>	UF-032-2-SL042-...-DR	▲ 42 mm	○	○	○			82	75	174,5	61	39			2940
		UF-032-2-SL042-...-VI	■ 42 mm	○	○	○			82	75	174,5	61	39			2940
		UF-032-2-SL053-...-DR	▲ 53 mm	○	○	○			82	75	178,5	70	39			3320
		UF-032-2-SL053-...-VI	■ 53 mm	○	○	○			82	75	178,5	70	39			3320
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-032-1-WR048-...-DR	▲ BSPP 1 1/2"	○	○	○			61,3	55	74,5	22	39		680	
		UF-032-1-WR048-...-VI	■ BSPP 1 1/2"	○	○	○			61,3	55	74,5	22	39			680
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-032-1-WR548-...-DR	▲ BSPP 1 1/2"	○	○	○			66,5	60	72	25	39		720	
		UF-032-1-WR548-...-VI	■ BSPP 1 1/2"	○	○	○			66,5	60	72	25	39			720
	 <p>hose connection</p>	UF-032-1-SL042-...-DR	▲ 42 mm	○	○	○			60		108	61	39		730	
		UF-032-1-SL042-...-VI	■ 42 mm	○	○	○			60		108	61	39			730

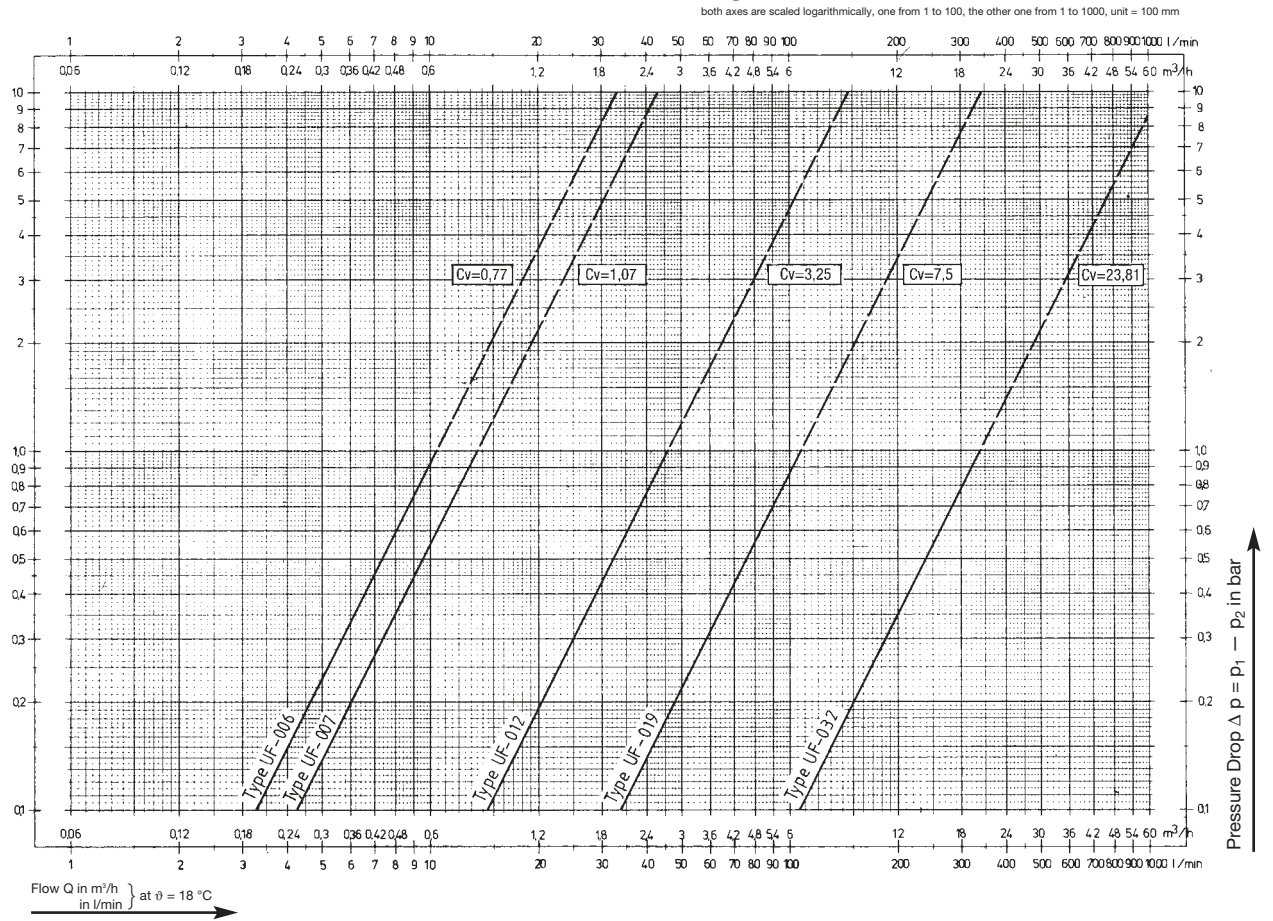
Non-interchangeable version

Measurement of flow coefficients C_v according to DIN EN 60534

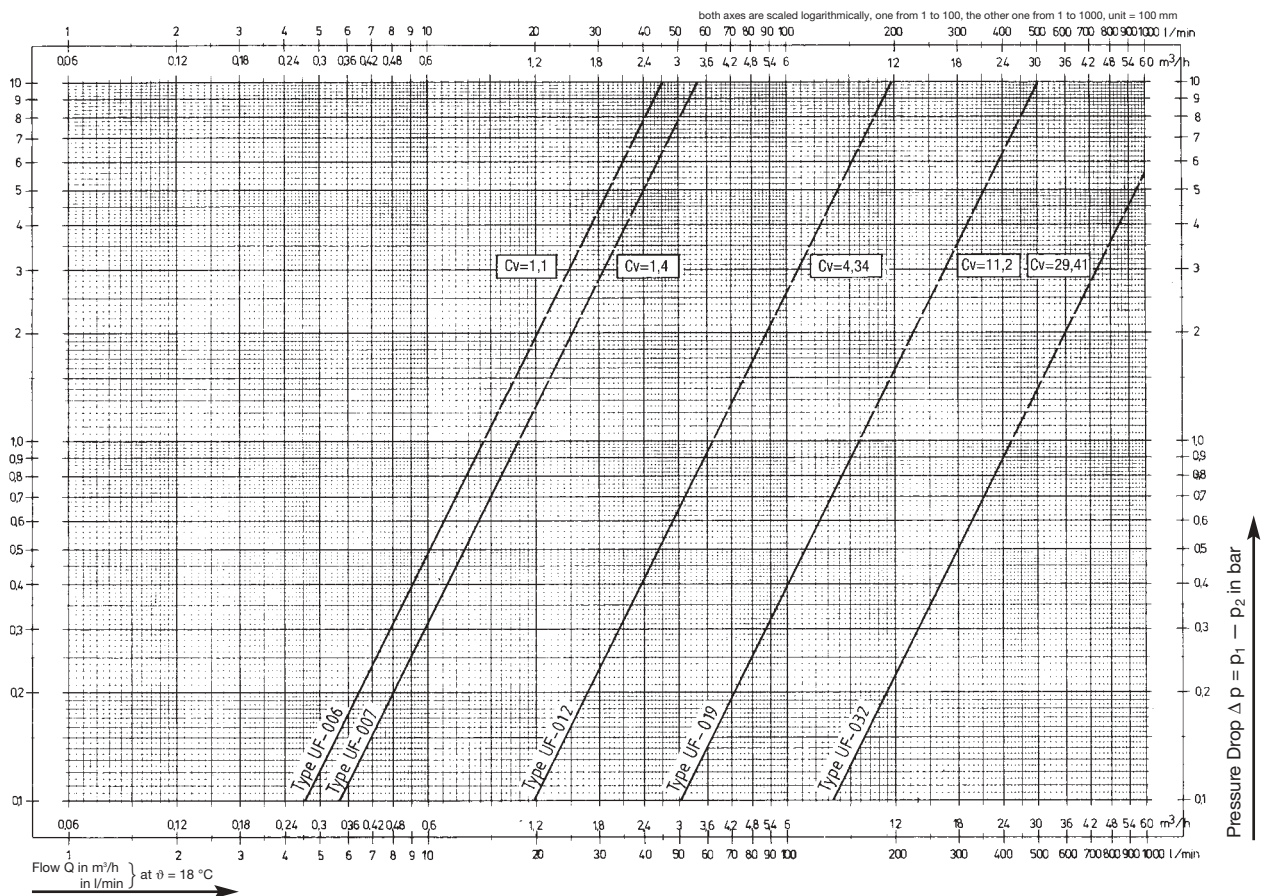
Flow speeds of 8 m/sec should not be exceeded

1 bar = 14,5 PSI

Both sides self sealing



One side self sealing



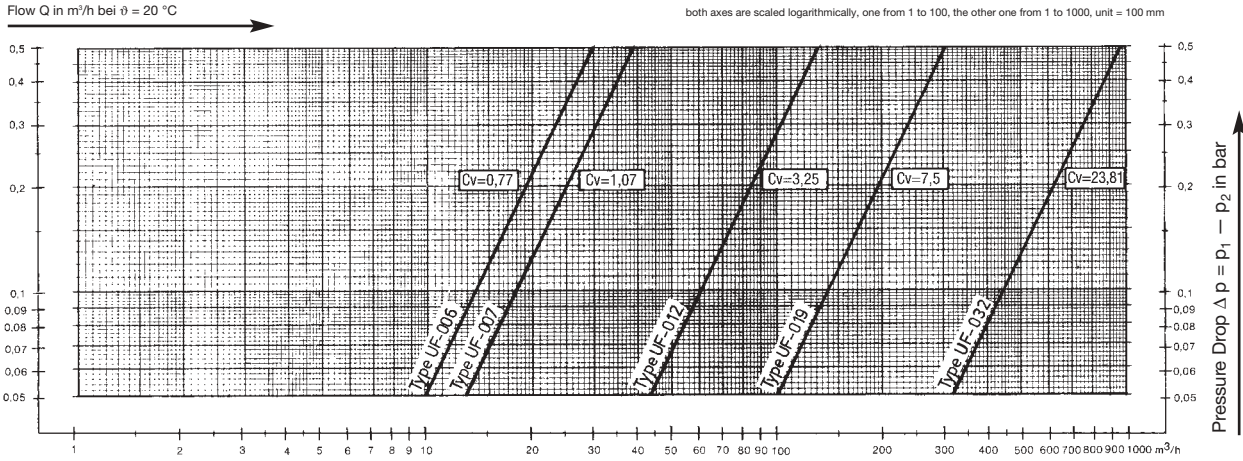
Non-interchangeable version

Measurement of flow coefficients C_v according to DIN EN 60534

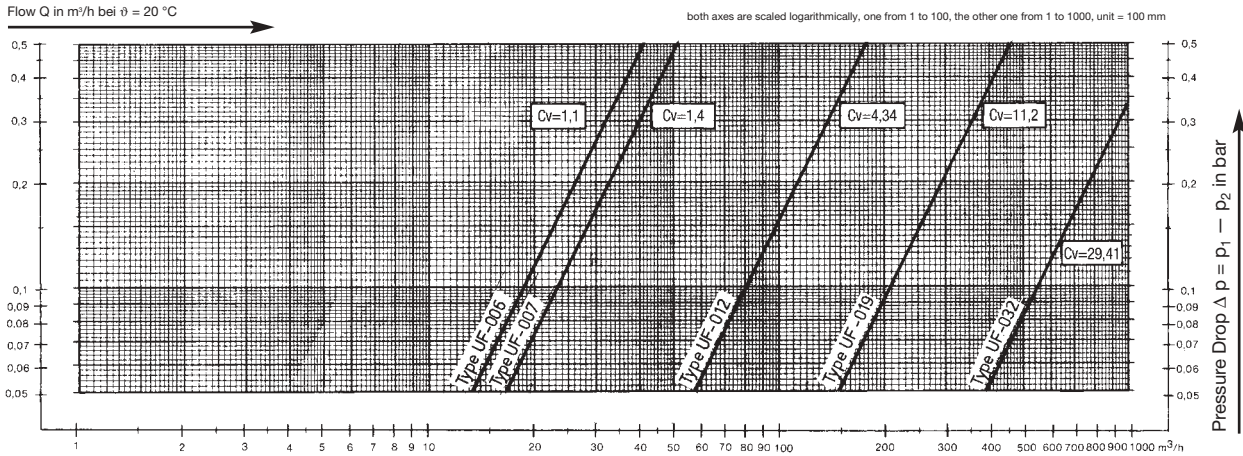
Working pressure 6 bar gauge pressure

1 bar = 14,5 PSI

Both sides self sealing



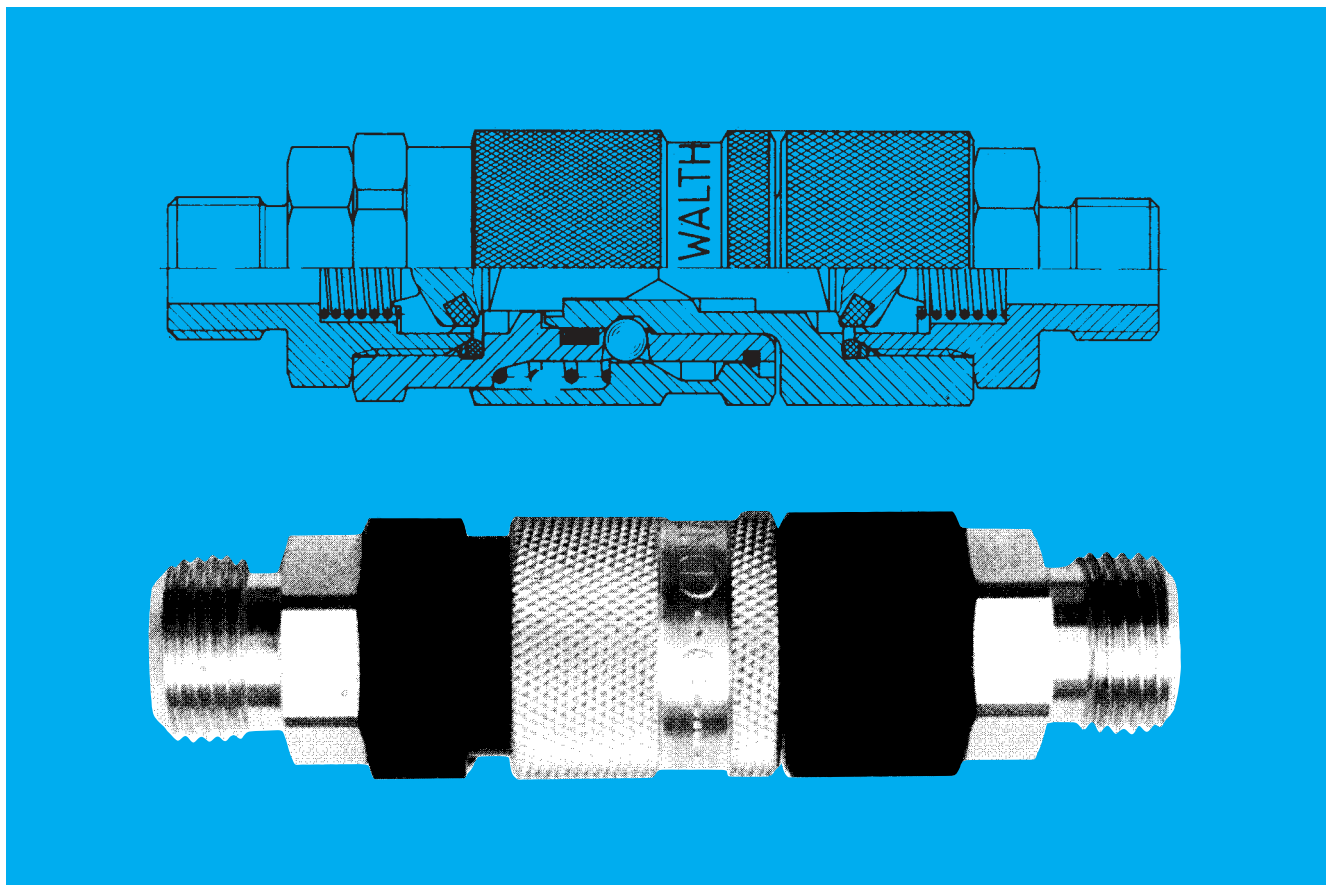
One side self sealing



Nom. bore	Type	Max. static working pressure [bar/psi]			Min. burst pressure for steel [bar/psi]	C _v value		Cross section [mm ²]	Page
		steel	brass	st. st.		both sides self sealing	one side self sealing		
6	SG-006	250/3625	–	–	1400/20300	0.73	1.0	30	50 - 51
6	MD-006	200/2900	40/580	100/1450	1000/14500	0.73	–	30	52 - 53
7	MD-007	250/3625	40/580	100/1450	800/11600	1.07	–	40	54 - 55
12	MD-012	250/3625	40/580	100/1450	750/10900	3.25	–	120	56 - 57
19	MD-019	250/3625	40/580	50/725	750/10900	7.5	–	300	58 - 59
25	MD-025	220/3190	40/580	50/725	750/10900	13.5	–	490	60
32	MD-032	200/2900	40/580	40/580	700/10100	23.8	29.4	800	61 - 62
50	MD-050	100/1450	30/435	30/435	450/6500	59	68	2000	63 - 64
Performance diagrams									65 - 66

When determining the working pressure of the coupling the max. permissible working pressure of the end connection is to be taken into account if standardized threads are used. In case of pulsating pressure the use of HP-Series is recommended.

In stainless steel the version is partially smooth instead of knurled.



optional features:
OV = without valve

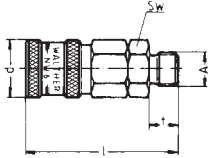
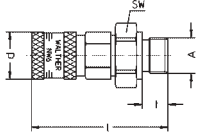
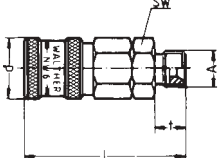
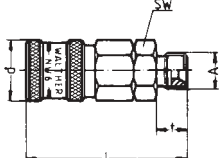
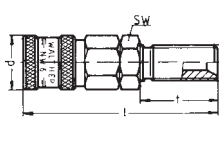
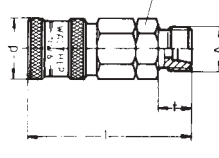
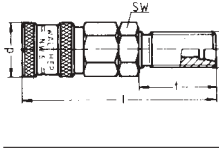
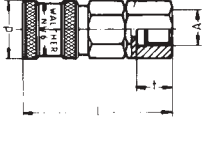
materials:
standard:
19 = steel zinc plated, partially oil burnished
12 = steel, oil burnished
(only valid for thru type adaptor)

seal qualities:
1 = NBR
2 = FPM
4 = EPDM

special materials:
13 = steel, chem. nickel plated

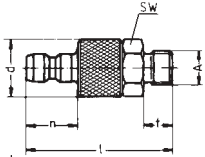
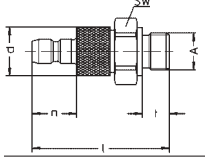
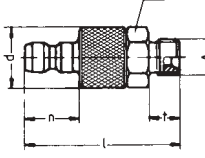
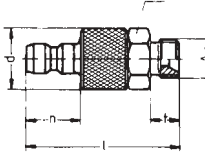
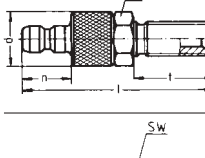
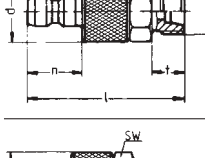
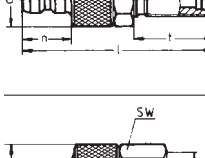
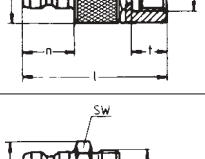
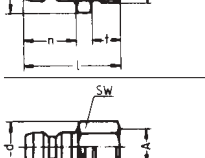

Please note the technical data on pages 2 - 7, 65 and the max. working pressures on page 49

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel zinc/ oil burn.	steel oil burnished			series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	SG-006-0-WR013-...-	BSPP 1/4"	●							22	19	58	11		90
	SG-006-0-WR017-...-	BSPP 3/8"	●							22	19	59	12		95
	SG-006-0-WR021-...-	BSPP 1/2"	●							22	22	62	15		120
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	SG-006-0-WE017-...-	BSPP 3/8"	○							22	27	64	12		130
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	SG-006-0-VR013-...-	BSPP 1/4"	○					6	22	19	58	11		90	
	SG-006-0-VR017-...-	BSPP 3/8"	○					6	22	19	59	12		95	
 <p>metric male thread with 60° sealing cone to DIN 7631</p>	SG-006-0-D0614-...-	M 14 x 1,5	●					6	22	19	57	10		90	
	 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	SG-006-0-DV008-...-	M 14 x 1,5	○				6	22	19	79	32		110	
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	SG-006-0-L0612-...-	M 12 x 1,5	●			L	6	4	22	19	57	10		85	
	SG-006-0-L0814-...-	M 14 x 1,5	●			L	8	6	22	19	57	10		85	
	SG-006-0-L1016-...-	M 16 x 1,5	●			L	10	8	22	19	58	11		90	
	SG-006-0-L1218-...-	M 18 x 1,5	○			L	12	10	22	19	58	11		90	
	SG-006-0-S0816-...-	M 16 x 1,5	○			S	8	4	22	19	59	12		90	
	SG-006-0-S1018-...-	M 18 x 1,5	●			S	10	6	22	19	59	12		95	
SG-006-0-S1220-...-	M 20 x 1,5	○			S	12	8	22	22	59	12		100		
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S), extended thread, max. bulkhead thickness 10 mm</p>	SG-006-0-LV008-...-	M 14 x 1,5	○			L	8	6	22	19	79	32		110	
	SG-006-0-XX211-...-	M 16 x 1,5	○			L	10	8	22	19	79	32		120	
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	SG-006-0-WR513-...-	BSPP 1/4"	●							22	19	57	13		95
	SG-006-0-WR517-...-	BSPP 3/8"	●							22	22	58	14		100

Self sealing couplings

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel zinc/ oil burn.	steel oil burnished		series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	SG-006-2-WR013-...-.	BSPP 1/4"	●					22	19	56	11	20	70	
		SG-006-2-WR017-...-.	BSPP 3/8"	●						22	19	57	12	20	75
		SG-006-2-WR021-...-.	BSPP 1/2"	●						22	22	60	15	20	100
	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	SG-006-2-WE017-...-.	BSPP 3/8"	●					22	27	62	12	20	110	
		 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	SG-006-2-VR013-...-.	BSPP 1/4"	○				6	22	19	56	11	20	70
	SG-006-2-VR017-...-.		BSPP 3/8"	○					6	22	19	57	12	20	75
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	SG-006-2-D0614-...-.	M 14 x 1,5	●					6	22	19	55	10	20	70
		 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	SG-006-2-DV008-...-.	M 14 x 1,5	○					6	22	19	77	32	20
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>		SG-006-2-L0612-...-.	M 12 x 1,5	●		L	6	4	22	19	55	10	20	70
			SG-006-2-L0814-...-.	M 14 x 1,5	●		L	8	6	22	19	55	10	20	70
SG-006-2-L1016-...-.			M 16 x 1,5	●		L	10	8	22	19	56	11	20	75	
SG-006-2-L1218-...-.			M 18 x 1,5	○		L	12	10	22	19	56	11	20	75	
SG-006-2-S0816-...-.			M 16 x 1,5	○		S	8	4	22	19	57	12	20	75	
SG-006-2-S1018-...-.		M 18 x 1,5	●		S	10	6	22	19	57	12	20	80		
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S), extended thread, max. bulkhead thickness 10 mm</p>	SG-006-2-LV008-...-.	M 14 x 1,5	○		L	8	6	22	19	77	32	20	90		
	SG-006-2-XX211-...-.	M 16 x 1,5	○		L	10	8	22	19	77	32	20	100		
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	SG-006-2-WR513-...-.	BSPP 1/4"	●					22	19	55	13	20	75		
	SG-006-2-WR517-...-.	BSPP 3/8"	●					22	22	56	14	20	80		
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	SG-006-1-WR010-...-.	BSPP 1/8"	●					15,5	14	34	8	20	23	
		SG-006-1-WR013-...-.	BSPP 1/4"	●					19,6	14	37	11	20	26	
		SG-006-1-WR017-...-.	BSPP 3/8"	●					21,9	19	38	12	20	37	
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	SG-006-1-WR513-...-.	BSPP 1/4"	●					19,6	17	36	13	20	26		
	SG-006-1-WR517-...-.	BSPP 3/8"	●					24	22	37	14	20	40		

characteristic features:
 - stainless steel version 1.4404/1.4571 or similar
 in smooth variant with gripping grooves instead of knurling

optional features:
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 29 mm)

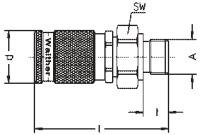
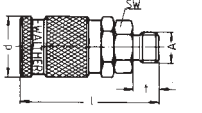
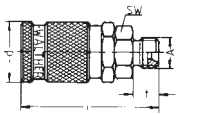
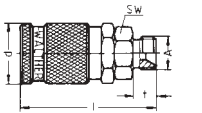
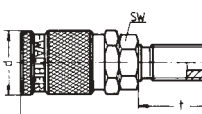
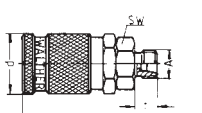
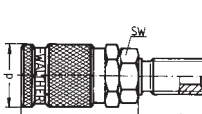
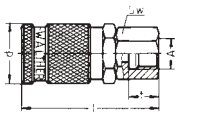
materials:
standard:
 19 = steel zinc plated, partially oil burnished
 21 = brass, passivated
 01 = stainless steel 1.4404/1.4571 or similar

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated
 22 = brass, chrome plated

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

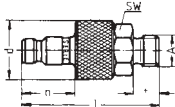
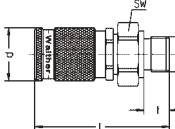
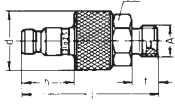
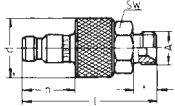
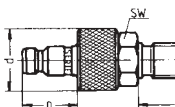
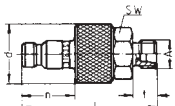
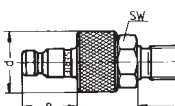
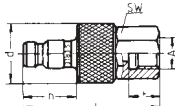
Please note the technical data on pages 2 - 7, 65 and the max. working pressures on page 49

Availability: ● Short ○ Medium ○ Long

Part No.	Connec- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
 British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring. MD-006-0-WE017-...	BSPP 3/8"	●						25	27	64	12		157
 British standard pipe parallel (BSPP) male thread to DIN ISO 228 MD-006-0-WR013-... MD-006-0-WR017-... MD-006-0-WR021-...	BSPP 1/4"	●	●	○				25	19	58	11		110
	BSPP 3/8"	●	●	○				25	19	59	12		120
	BSPP 1/2"	●	●	○				25	22	62	15		140
 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone MD-006-0-VR013-... MD-006-0-VR017-...	BSPP 1/4"	○		○			6	25	19	58	11		110
	BSPP 3/8"	●		○			6	25	19	59	12		120
 metric male thread with 60° sealing cone to DIN 7631 MD-006-0-D0614-...	M 14 x 1,5	●		○			6	25	19	57	10		110
	 metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm MD-006-0-DV008-...	M 14 x 1,5	○					6	25	19	79	32	
 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) MD-006-0-L0612-... MD-006-0-L0814-... MD-006-0-L1016-... MD-006-0-L1218-... MD-006-0-S0816-... MD-006-0-S1018-... MD-006-0-S1220-...		M 12 x 1,5	●		○	L	6	4	25	19	57	10	
	M 14 x 1,5	●		○	L	8	6	25	19	57	10		110
	M 16 x 1,5	●		○	L	10	8	25	19	58	11		110
	M 18 x 1,5	○		○	L	12	10	25	19	58	11		110
	M 16 x 1,5	○		○	S	8	4	25	19	59	12		120
	M 18 x 1,5	●		○	S	10	6	25	19	59	12		120
	M 20 x 1,5	●		○	S	12	8	25	22	59	12		130
 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S), extended thread, max. bulkhead thickness 10 mm MD-006-0-LV008-... MD-006-0-XX211-...	M 14 x 1,5	○			L	8	6	25	19	79	32		130
	M 16 x 1,5	○			L	10	8	25	19	79	32		140
 British standard pipe parallel (BSPP) female thread to DIN ISO 228 MD-006-0-WR513-... MD-006-0-WR517-...	BSPP 1/4"	●	●	○				25	19	57	13		120
	BSPP 3/8"	●	●	○				25	22	58	14		130

Self sealing couplings

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel zinc/ oil burn.	brass passivated	AlSi 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	MD-006-2-WR013-... MD-006-2-WR017-... MD-006-2-WR021-...	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ○	● ● ○				25 25 25	19 19 22	57,5 58,5 61,5	11 12 15	21,7 21,7 21,7	85 90 110	
		 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	MD-006-2-WE017-...	BSPP 3/8"	○					25	27	63	12	21,7	127
		 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	MD-006-2-VR013-... MD-006-2-VR017-...	BSPP 1/4" BSPP 3/8"	○ ○					6 6	25 25	19 19	57,5 58,5	11 12	21,7 21,7
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	MD-006-2-D0614-...	M 14 x 1,5	●					6	25	19	56,5	10	21,7	85
	 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	MD-006-2-DV008-...	M 14 x 1,5	○					6	25	19	78,5	32	21,7	100
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	MD-006-2-L0612-... MD-006-2-L0814-... MD-006-2-L1016-... MD-006-2-L1218-... MD-006-2-S0816-... MD-006-2-S1018-... MD-006-2-S1220-...	M 12 x 1,5 M 14 x 1,5 M 16 x 1,5 M 18 x 1,5 M 16 x 1,5 M 18 x 1,5 M 20 x 1,5	● ● ● ○ ○ ● ●	○ ○ ○ ○ ○ ○ ○	L L L L S S S	6 8 10 12 8 10 12	4 6 8 10 4 6 8	25 25 25 25 25 25 25	19 19 19 19 19 19 22	56,5 56,5 57,5 57,5 58,5 58,5 58,5	10 10 11 11 12 12 12	21,7 21,7 21,7 21,7 21,7 21,7 21,7	85 85 85 85 90 90 100	
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S), extended thread, max. bulkhead thickness 10 mm</p>	MD-006-2-LV008-... MD-006-2-XX211-...	M 14 x 1,5 M 16 x 1,5	○ ○		L L	8 10	6 8	25 25	19 19	78,5 78,5	32 32	21,7 21,7	100 110	
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	MD-006-2-WR513-... MD-006-2-WR517-...	BSPP 1/4" BSPP 3/8"	● ●	○ ○				25 25	19 22	56,5 57,5	13 14	21,7 21,7	90 95	

Series MD

optional features:
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 34 mm)

materials:
 standard:
 19 = steel zinc plated, partially oil burnished
 21 = brass, passivated
 01 = stainless steel 1.4404/1.4571 or similar

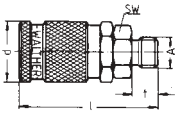
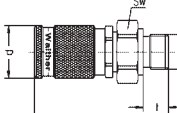
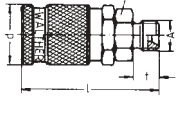
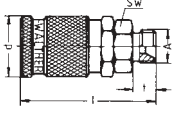
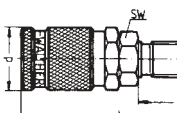
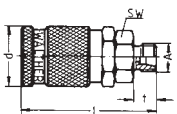
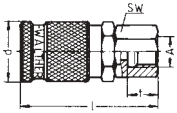
seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated
 22 = brass, chrome plated

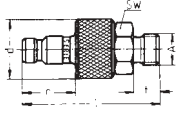
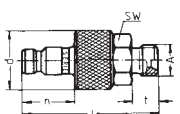
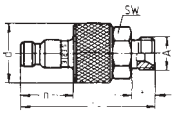
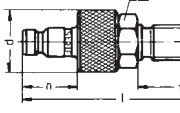
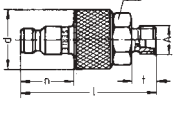
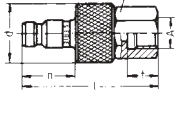
Please note the technical data on pages 2 - 7, 65 and the max. working pressures on page 49

Availability: ● Short ○ Medium ○ Long

Self sealing couplings

	Part No.	Connec- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	MD-007-0-WR017-...-	BSPP 3/8"	●	○	○				30	24	68	12		200
	MD-007-0-WR021-...-	BSPP 1/2"	●	○	○				30	24	71	15		220
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	MD-007-0-WE017-...-	BSPP 3/8"	○	○	○				30	27	71	12		220
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	MD-007-0-VR017-...-	BSPP 3/8"	○	○	○			7	30	24	68	12		210
 <p>metric male thread with 60° sealing cone to DIN 7631</p>	MD-007-0-D0816-...-	M 16 x 1,5	●	○	○			8	30	24	67	11		200
 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	MD-007-0-DV010-...-	M 16 x 1,5	○	○	○			8	30	24	89,5	33,5		220
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	MD-007-0-L1016-...-	M 16 x 1,5	●	○	○	L	10	8	30	24	67	11		190
	MD-007-0-L1218-...-	M 18 x 1,5	○	○	○	L	12	10	30	24	67	11		190
	MD-007-0-S1018-...-	M 18 x 1,5	●	○	○	S	10	6	30	24	68	11		200
	MD-007-0-S1220-...-	M 20 x 1,5	●	○	○	S	12	8	30	24	68	12		200
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	MD-007-0-WR517-...-	BSPP 3/8"	●	○	○				30	24	68	14		210
	MD-007-0-WR521-...-	BSPP 1/2"	●	○	○				30	27	71	17		230

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]							
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	MD-007-2-WR017-... MD-007-2-WR021-...	BSPP 3/8" BSPP 1/2"	● ●	● ●	○ ○									30 30	24 24	66,5 69,5	12 15	25 25	150 170	
		MD-007-2-WE017-...	BSPP 3/8"	●	○	○										30	27	68	12	25	170
	 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	MD-007-2-VR017-...	BSPP 3/8"	○	○	○			7	30	24	66,5	12	25	150						
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	MD-007-2-D0816-...	M 16 x 1,5	●	○	○			8	30	24	66,5	11	25	140						
	 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	MD-007-2-DV010-...	M 16 x 1,5	○	○	○			8	30	24	88	33,5	25	170						
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	MD-007-2-L1016-... MD-007-2-L1218-... MD-007-2-S1018-... MD-007-2-S1220-...	M 16 x 1,5 M 18 x 1,5 M 18 x 1,5 M 20 x 1,5	● ○ ● ●	○ ○ ○ ○	○ ○ ○ ○	L L S S	10 12 10 12	8 10 6 8	30 30 30 30	24 24 24 24	65,5 65,5 66,5 66,5	11 11 12 12	25 25 25 25	150 150 160 160						
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	MD-007-2-WR517-... MD-007-2-WR521-...	BSPP 3/8" BSPP 1/2"	● ●	● ●	○ ○										30 30	24 27	66,5 69,5	14 15	25 25	160 180

Series MD

optional features:
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 44 mm)

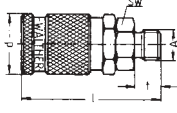
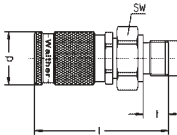
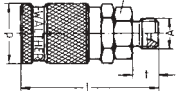
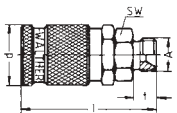
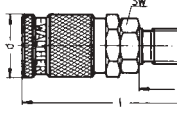
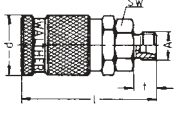
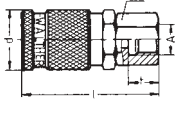
materials:
 standard:
 19 = steel zinc plated, partially oil burnished
 21 = brass, passivated
 01 = stainless steel 1.4404/1.4571 or similar

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated
 22 = brass, chrome plated

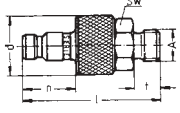
Please note the technical data on pages 2 - 7, 65 and the max. working pressures on page 49

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	MD-012-0-WR021-...-	BSPP 1/2"	●	○	○				40	32	82	15		390
	MD-012-0-WR026-...-	BSPP 3/4"	●	○	○				40	32	84	17		420
	MD-012-0-WR033-...-	BSPP 1"	●	○	○				40	36	88	20		480
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	MD-012-0-WE021-...-	BSPP 1/2"	○	○	○				40	32	84	14		400
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	MD-012-0-VR021-...-	BSPP 1/2"	●	○	○			12	40	32	82	15		390
	MD-012-0-VR026-...-	BSPP 3/4"	○	○	○			12	40	32	84	17		410
 <p>metric male thread with 60° sealing cone to DIN 7631</p>	MD-012-0-D1018-...-	M 18 x 1,5	○	○	○			10	40	32	78	11		380
	MD-012-0-D1222-...-	M 22 x 1,5	○	○	○			12	40	32	79	12		390
 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	MD-012-0-DV015-...-	M 22 x 1,5	○	○	○			13	40	32	106	39		440
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	MD-012-0-L1218-...-	M 18 x 1,5	●	○	○	L	12	10	40	32	78	11		380
	MD-012-0-L1522-...-	M 22 x 1,5	●	○	○	L	15	12	40	32	79	12		390
	MD-012-0-S1624-...-	M 24 x 1,5	●	○	○	S	16	12	40	32	81	14		400
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	MD-012-0-WR521-...-	BSPP 1/2"	●	○	○				40	32	81	17		430
	MD-012-0-WR526-...-	BSPP 3/4"	●	○	○				40	32	83	19		410

Self sealing couplings

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Self sealing adaptors</p>	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	<p>MD-012-2-WR021-... MD-012-2-WR026-... MD-012-2-WR033-...</p>	<p>BSPP 1/2" BSPP 3/4" BSPP 1"</p>	<p>● ● ● ● ● ● ○ ○ ○</p>	<p>○ ○ ○</p>				40 40 40	32 32 36	82 84 88	15 17 20	31,5 31,5 31,5	300 330 390
		<p>MD-012-2-WE021-...</p>	<p>BSPP 1/2"</p>	<p>●</p>					40	32	84	14	31,5	310
		<p>MD-012-2-VR021-... MD-012-2-VR026-...</p>	<p>BSPP 1/2" BSPP 3/4"</p>	<p>● ○</p>	<p>○ ○</p>			12 12	40 40	32 32	82 84	15 17	31,5 31,5	300 320
	<p>MD-012-2-D1018-... MD-012-2-D1222-...</p>	<p>M 18 x 1,5 M 22 x 1,5</p>	<p>● ●</p>	<p>○ ○</p>			10 12	40 40	32 32	78 79	11 12	31,5 31,5	290 300	
	<p>MD-012-2-DV015-...</p>	<p>M 22 x 1,5</p>	<p>○</p>				13	40	32	106	39	31,5	350	
	<p>MD-012-2-L1218-... MD-012-2-L1522-... MD-012-2-S1624-...</p>	<p>M 18 x 1,5 M 22 x 1,5 M 24 x 1,5</p>	<p>● ● ●</p>	<p>○ ○ ○</p>		L L S	12 15 16	10 12 12	40 40 40	32 32 32	78 79 81	11 12 14	31,5 31,5 31,5	290 300 310
	<p>MD-012-2-WR521-... MD-012-2-WR526-...</p>	<p>BSPP 1/2" BSPP 3/4"</p>	<p>● ●</p>	<p>● ● ●</p>	<p>○ ○ ●</p>			40 40	32 32	81 83	17 19	31,5 31,5	340 320	

Series MD

optional features:
 GG = with ring grips (cast aluminium)
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 58 mm)

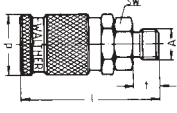
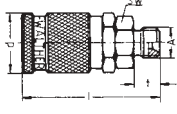
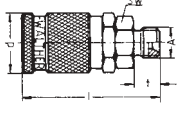
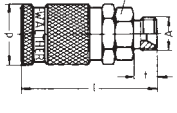
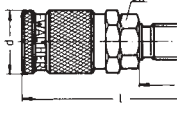
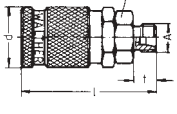
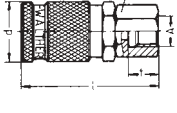
materials:
standard:
 19 = steel zinc plated, partially oil burnished
 21 = brass, passivated
 01 = stainless steel 1.4404/1.4571 or similar

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

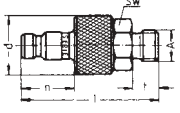
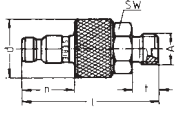
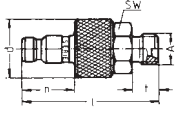
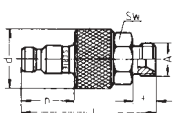
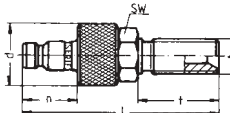
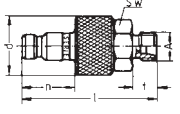
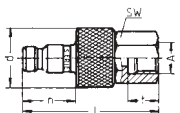
special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated
 22 = brass, chrome plated

Please note the technical data on pages 2 - 7, 65 and the max. working pressures on page 49

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	MD-019-0-WR026-...-.	BSPP 3/4"	●	○				54	46	100	17		840
		MD-019-0-WR033-...-.	BSPP 1"	●	○				54	46	103	20		870
	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	MD-019-0-WE026-...-.	BSPP 3/4"	●					54	46	102	16		850
		 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	MD-019-0-VR026-...-.	BSPP 3/4"	●	○			19	54	46	100	17	
	MD-019-0-VR033-...-.		BSPP 1"	●	○			19	54	46	103	20		880
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	MD-019-0-D1526-...-.	M 26 x 1,5	●	○			15	54	46	95	12		830
		MD-019-0-D1930-...-.	M 30 x 1,5	●	○			19	54	46	97	14		830
	 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	MD-019-0-DV022-...-.	M 30 x 1,5	○				19	54	46	128	45		920
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	MD-019-0-L1826-...-.	M 26 x 1,5	●	○		L	18	16	54	46	95	12	830	
	MD-019-0-L2230-...-.	M 30 x 2	●	○		L	22	20	54	46	97	14	830	
	MD-019-0-S2030-...-.	M 30 x 2	●	○		S	20	16	54	46	99	16	850	
	MD-019-0-S2536-...-.	M 36 x 2	●	○		S	25	20	54	46	101	18	870	
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	MD-019-0-WR526-...-.	BSPP 3/4"	●	○				54	46	94	19		900	
	MD-019-0-WR533-...-.	BSPP 1"	●	○				54	46	98	23		880	

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]								
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	MD-019-2-WR026-...-.	BSPP 3/4"	●	●	○									54	46	99	17	35,5	710		
		MD-019-2-WR033-...-.	BSPP 1"	●	●	○										54	46	102	20	35,5	740	
	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.</p>	MD-019-2-WE026-...-.	BSPP 3/4"	●												54	46	101	16	35,5	720	
		 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	MD-019-2-VR026-...-.	BSPP 3/4"	●		○									19	54	46	99	17	35,5	710
	MD-019-2-VR033-...-.		BSPP 1"	●		○										19	54	46	102	20	35,5	740
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	MD-019-2-D1526-...-.	M 26 x 1,5	●		○										15	54	46	94	12	35,5	700
		MD-019-2-D1930-...-.	M 30 x 1,5	●		○											19	54	46	96	14	35,5
 <p>metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm</p>	MD-019-2-DV022-...-.	M 30 x 1,5	○												19	54	46	127	45	35,5	790	
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	MD-019-2-L1826-...-.	M 26 x 1,5	●		○	L	18	16	54	46	94	12	35,5	700								
	MD-019-2-L2230-...-.	M 30 x 2	●		○	L	22	20	54	46	96	14	35,5	700								
	MD-019-2-S2030-...-.	M 30 x 2	●		○	S	20	16	54	46	98	16	35,5	720								
	MD-019-2-S2536-...-.	M 36 x 2	●		○	S	25	20	54	46	100	18	35,5	740								
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	MD-019-2-WR526-...-.	BSPP 3/4"	●	●	○										54	46	93	19	35,5	770		
	MD-019-2-WR533-...-.	BSPP 1"	●	●	○											54	46	97	23	35,5	750	

characteristic features:
 - stainless steel version 1.4404/1.4571 or similar
 in smooth variant with gripping grooves instead
 knurling

optional features:
 GG = with ring grips (cast aluminium)
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 58 mm)

materials:
standard:
 19 = steel zinc plated, partially oil burnished
 21 = brass, passivated
 01 = stainless steel 1.4404/1.4571 or similar

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated
 22 = brass, chrome plated

seal qualities:
 1 = NBR
 2 = FPM
 4 = EPDM

Please note the
 technical data on
 pages 2 - 7, 65 and the
 max. working pressures
 on page 49

Availability: ● Short ○ Medium ○ Long

Self sealing couplings

Self sealing adaptors

	Part No.	Connec- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
	MD-025-0-WR048-...	BSPB 1 1/2"	●	○	○				62	55	132	22		1710
	MD-025-0-VR048-...	BSPB 1 1/2"	●		○				62	55	132	22		1640
	MD-025-0-D2538-...	M 38 x 1,5	●		○			25	62	55	124	14		1650
	MD-025-0-S3042-...	M 42 x 2	●		○	S	30	25	62	55	130	20		1610
	MD-025-0-WR548-...	BSPB 1 1/2"	●	○	○				62	55	138,5	25		1740
	MD-025-2-WR048-...	BSPB 1 1/2"	●	○	○				62	55	133	22	45	1370
	MD-025-2-VR048-...	BSPB 1 1/2"	●		○				62	55	133	22	45	1300
	MD-025-2-D2538-...	M 38 x 1,5	●		○			25	62	55	125	14	45	1310
	MD-025-2-S3042-...	M 42 x 2	●		○	S	30	25	62	55	131	20	45	1280
	MD-025-2-WR548-...	BSPB 1 1/2"	●	○	○				62	55	139,5	25	45	1400

optional features:
 GG = with ring grips (cast aluminium)
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 89 mm)

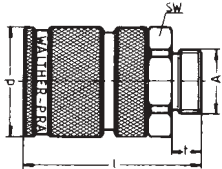
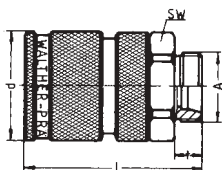
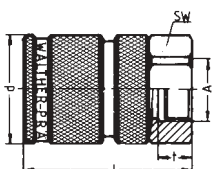
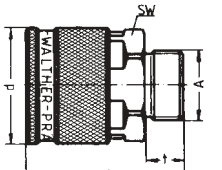
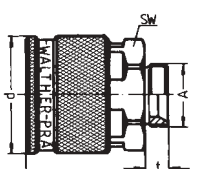
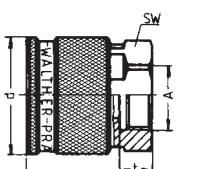
materials:
standard:
 19 = steel zinc plated, partially oil burnished
 21 = brass, passivated
 01 = stainless steel 1.4404/1.4571 or similar

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated
 22 = brass, chrome plated
 31 = aluminium anodized silver

Please note the technical data on pages 2 - 7, 65 and the max. working pressures on page 49

Availability: ● Short ◐ Medium ○ Long

	Part No.	Conne- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	MD-032-0-WR048-... MD-032-0-WR060-...	BSPP 1 1/2" BSPP 2"	● ○	◐ ○	○		82 82	75 75	139 143	22 26		3080 3290	
		MD-032-0-D3245-...	M 45 x 1,5	○	○	○		32	82	75	128	16		2880
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	MD-032-0-S3852-...	M 52 x 2	◐	○	○	S	38	32	82	75	134	22	2940
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	MD-032-0-WR548-... MD-032-0-WR560-...	BSPP 1 1/2" BSPP 2"	● ◐	◐ ◐	○		82 82	75 75	126 130	25 29			3050 2920
Thru type couplings		 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	MD-032-4-WR048-... MD-032-4-WR060-...	BSPP 1 1/2" BSPP 2"	○ ○	○ ○	○		82 82	70 70	110 113	23 26		2190 2390
	MD-032-4-D3245-...		M 45 x 1,5	○	○	○		32	82	70	103	16		2140
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	MD-032-4-S3852-...	M 52 x 2	○	○	○	S	38	32	82	70	109	22	2200
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	MD-032-4-WR548-... MD-032-4-WR560-...	BSPP 1 1/2" BSPP 2"	○ ○	○ ○	○		82 82	70 70	87 87	25 27			1890 1700

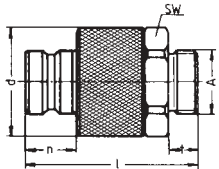
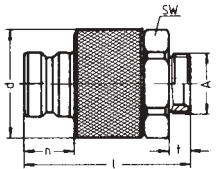
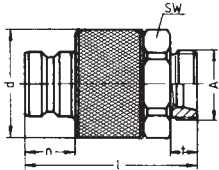
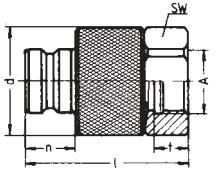
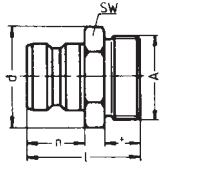
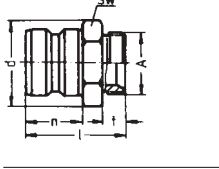
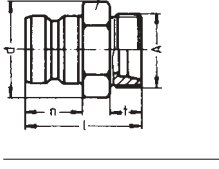
optional features:
OV = without valve

materials:
standard:
19 = steel zinc plated, partially oil burnished
21 = brass, passivated
01 = stainless steel 1.4404/1.4571 or similar
12 = steel, oil burnished
special materials:
13 = steel, chem. nickel plated
24 = brass, chem. nickel plated
22 = brass, chrome plated
31 = aluminium anodized silver

seal qualities:
1 = NBR
2 = FKM
4 = EPDM

Please note the technical data on pages 2 - 7, 65 and the max. working pressures on page 49

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 ti/ 1.4571	steel oil burnished	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
			○	●	○	○									
Self sealing adaptors	 British standard pipe parallel (BSPP) male thread to DIN ISO 228 MD-032-2-WR048-... MD-032-2-WR060-...	BSPP 1 1/2"	●	●	○					82	75	137,5	22	41	2600
		BSPP 2"	○	○	○					82	75	141,5	26	41	2810
	 metric male thread with 60° sealing cone to DIN 7631 MD-032-2-D3245-...	M 45 x 1,5	○						32	82	75	126,5	16	41	2400
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) MD-032-2-S3852-...	M 52 x 2	●				S	38	32	82	75	132,5	22	41	2460
Thru type adaptors	 British standard pipe parallel (BSPP) female thread to DIN ISO 228 MD-032-2-WR548-... MD-032-2-WR560-...	BSPP 1 1/2"	●	●	○					82	75	124,5	25	41	2570
		BSPP 2"	●	●	○					82	75	128,5	29	41	2440
	 metric male thread with 60° sealing cone to DIN 7631 MD-032-1-D3245-...	M 45 x 1,5		○	○	○			32	61,3	55	70,5	16	41	510
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) MD-032-1-S3852-...	M 52 x 2		○	○	○	S	38	32	66,9	60	82	22	41	630
 British standard pipe parallel (BSPP) female thread to DIN ISO 228 MD-032-1-WR548-... MD-032-1-WR560-...	BSPP 1 1/2"		○	○	○					66	60	75	25	41	700
	BSPP 2"		○	○	○					78	70	77	27	41	820

optional features:
 GG = with ring grips (cast aluminium)
 OV = without valve
 SI = with additional axial safety lock
 (outer diameter 116 mm)

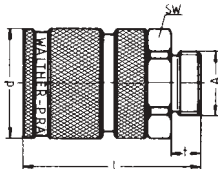
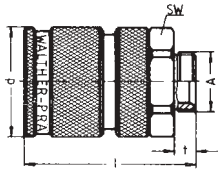
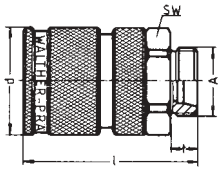
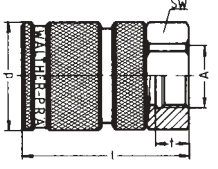
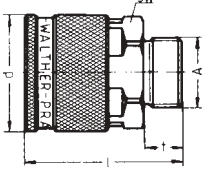
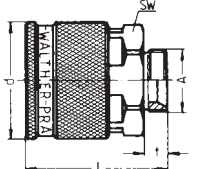
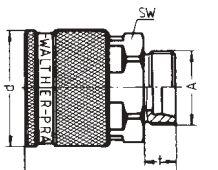
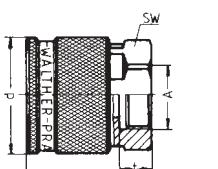
materials:
standard:
 19 = steel zinc plated, partially oil burnished
 21 = brass, passivated
 01 = stainless steel 1.4404/1.4571 or similar

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

special materials:
 13 = steel, chem. nickel plated
 24 = brass, chem. nickel plated
 22 = brass, chrome plated
 31 = aluminium anodized silver

Please note the technical data on pages 2 - 7, 65 and the max. working pressures on page 49

Availability: ● Short ◐ Medium ○ Long

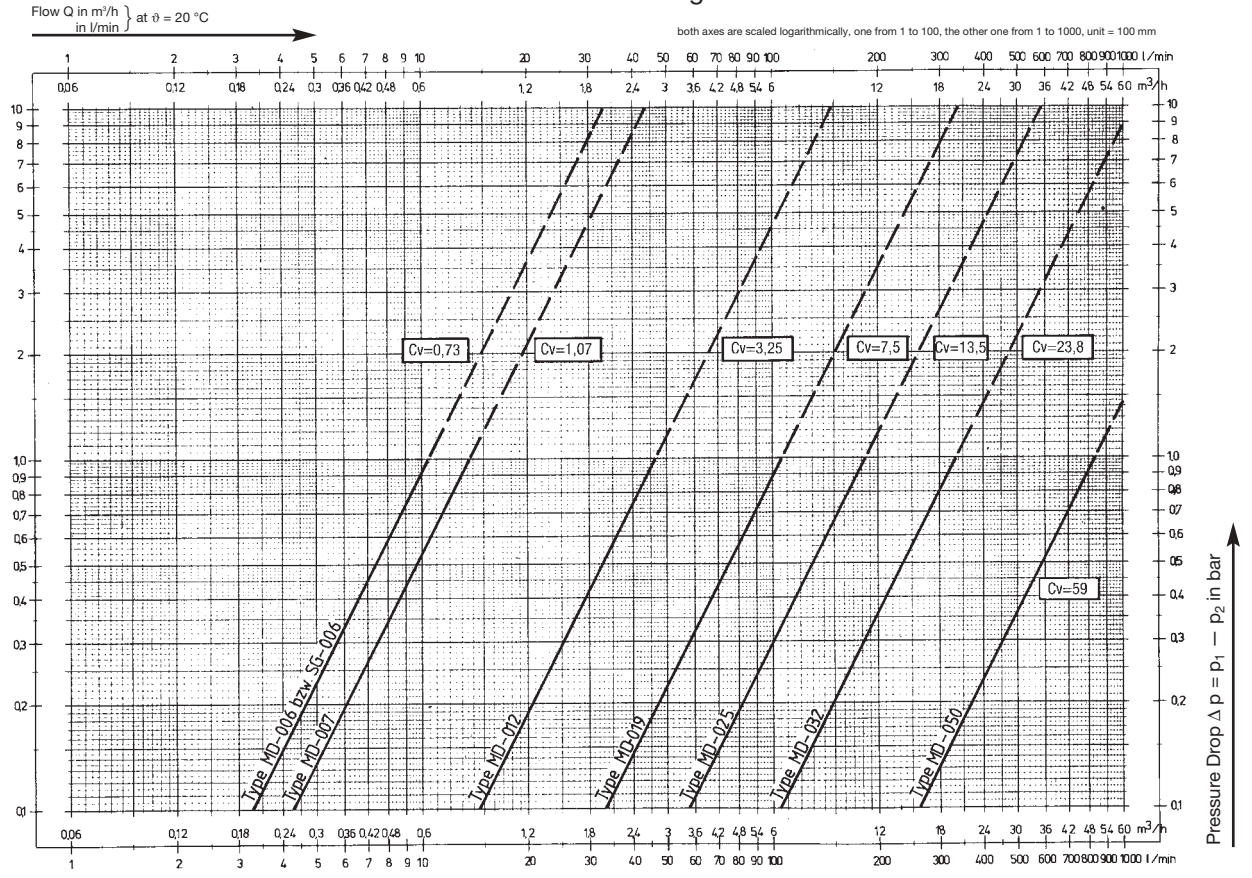
	Part No.	Conne- tion A	steel zinc/ oil burn.	brass passivated	AISI 316 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
Self sealing couplings	 British standard pipe parallel (BSPP) male thread to DIN ISO 228 MD-050-0-WR060-... MD-050-0-WR075-...	BSPP 2"	●	○	○				112	100	162	26		5530	
		BSPP 2 1/2"			○				112	100	164	30		5540	
	 metric male thread with 60° sealing cone to DIN 7631 MD-050-0-D4965-...	M 65 x 2							49	112	100	159	18		5460
		 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) MD-050-0-L4252-...	M 52 x 2		○		L	42	36	112	100	158	16		5410
 British standard pipe parallel (BSPP) female thread to DIN ISO 228 MD-050-0-WR560-... MD-050-0-WR575-...	BSPP 2"		●	○	○				112	100	158	29		6140	
		BSPP 2 1/2"	○	○	○			112	100	167	33		5930		
Thru type couplings	 British standard pipe parallel (BSPP) male thread to DIN ISO 228 MD-050-4-WR060-... MD-050-4-WR075-...	BSPP 2"	○	○	○				112	100	132,5	26		4090	
		BSPP 2 1/2"	○	○	○			112	100	137,5	30		4340		
	 metric male thread with 60° sealing cone to DIN 7631 MD-050-4-D4965-...	M 65 x 2							49	112	100	125,5	18		3980
		 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) MD-050-4-L4252-...	M 52 x 2				L	42	36	112	100	122	16		3920
 British standard pipe parallel (BSPP) female thread to DIN ISO 228 MD-050-4-WR560-... MD-050-4-WR575-...	BSPP 2"		○	○	○				112	100	112	29		4600	
		BSPP 2 1/2"	○	○	○			112	100	112	33		4100		

Measurement of flow coefficients Cv according to DIN EN 60534

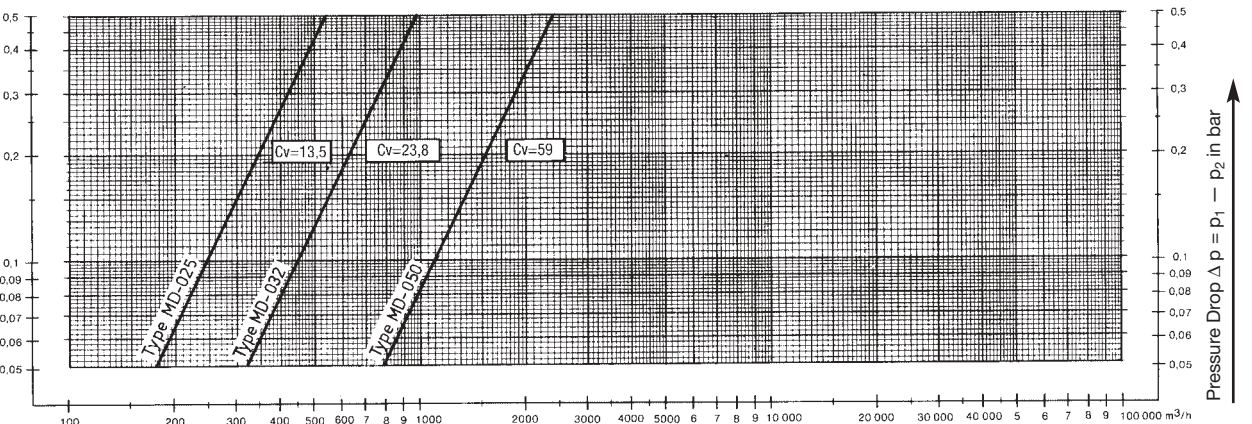
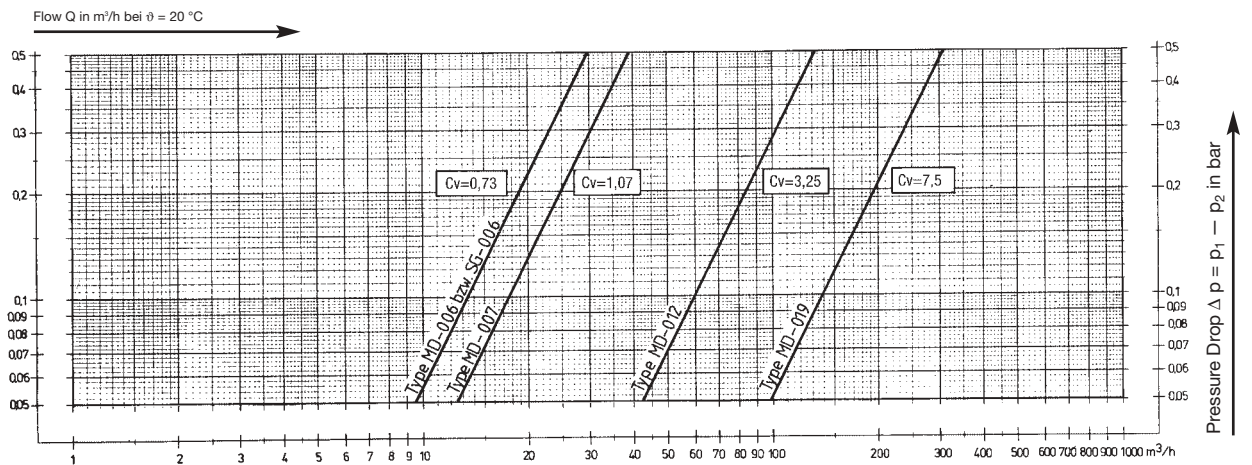
Flow speeds of 8 m/sec should not be exceeded

Medium Water
both sides self sealing

1 bar = 14,5 PSI

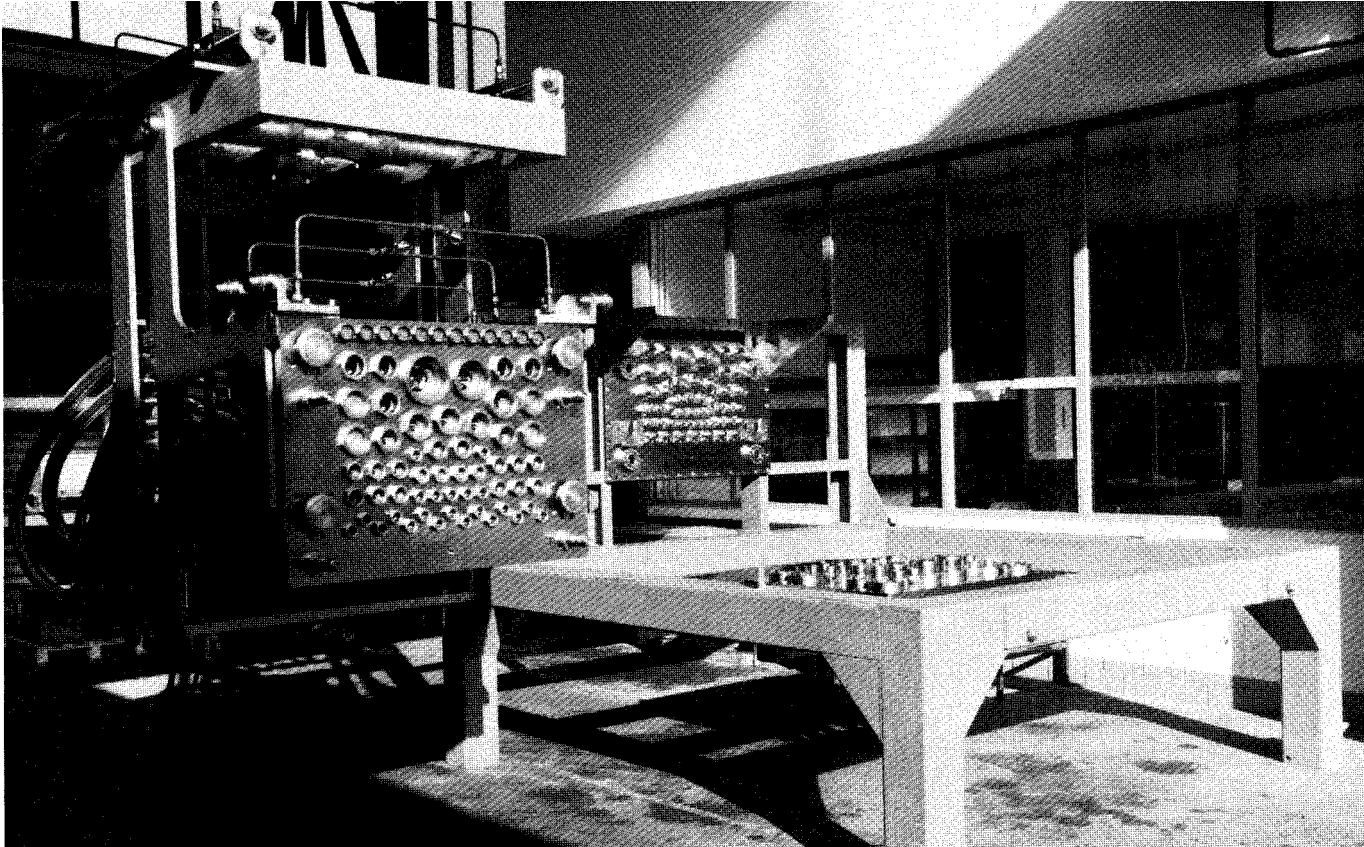


Medium Air working pressure 6 bar gauge pressure
both sides self sealing



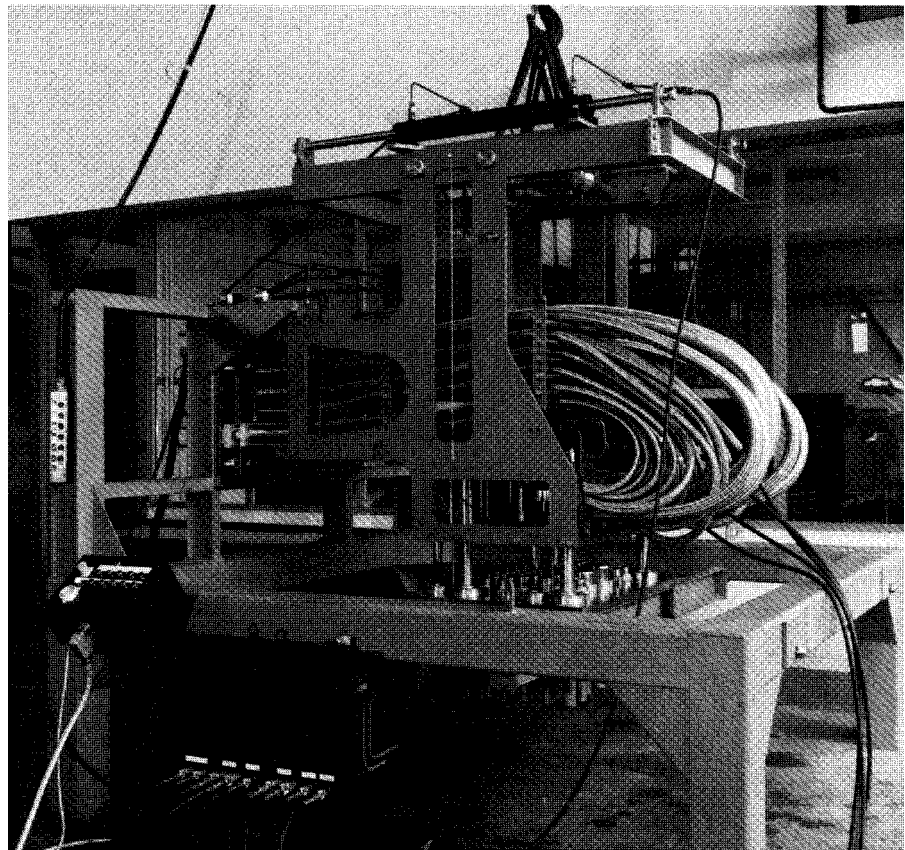
Know-how:

WALTHER Quick Release Coupling Systems for Nuclear Technology



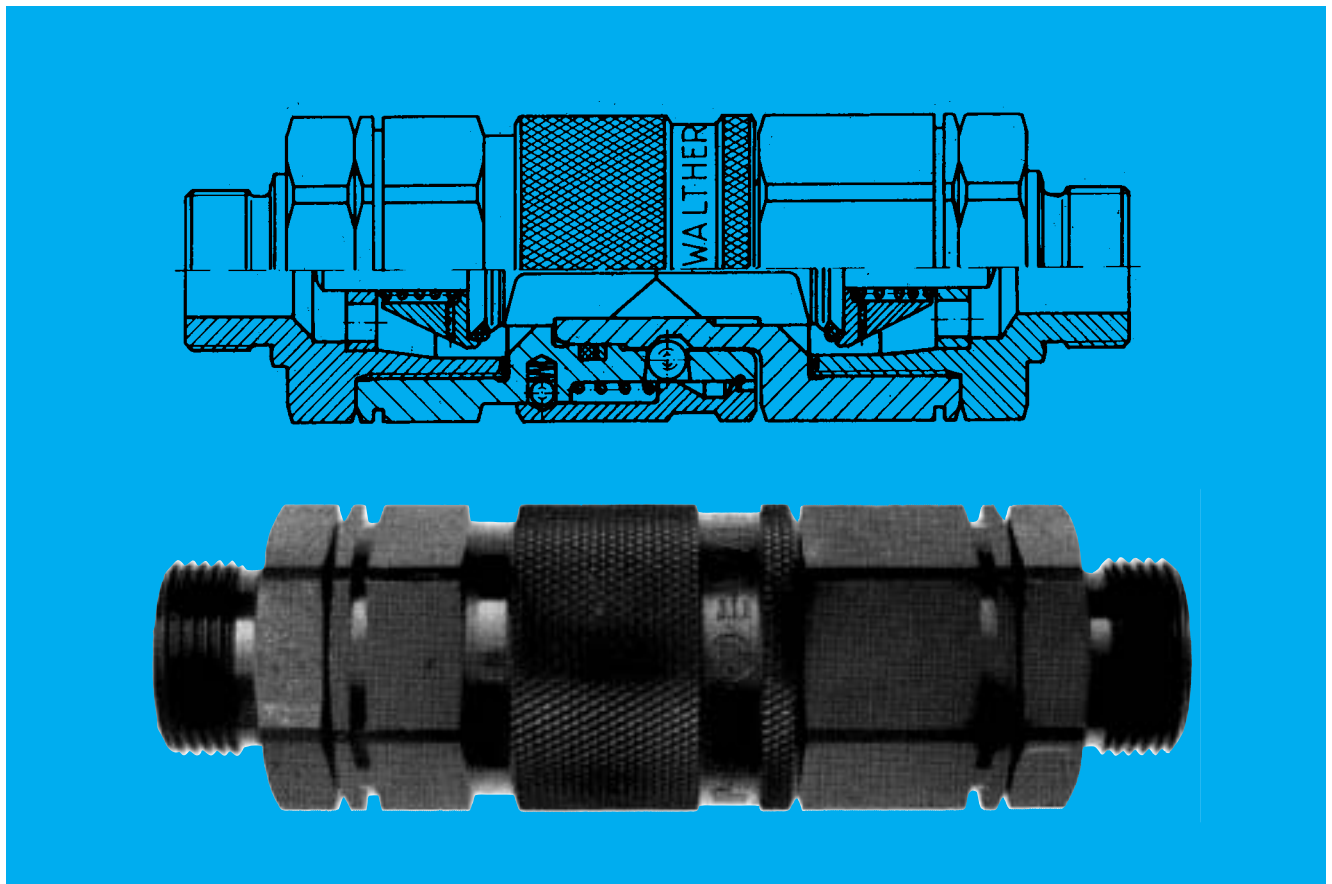
Examples: Two way docking system which is seismic shock proof and forms part of power supply and regulating system to Modules.

WALTHER quick release coupling systems have been approved for many years. Monocouplings and multicouplings are incorporated in equipment for routine applications or forming part of extremely complex



Nom. bore	Type	Max. static working pressure [bar/psi]			Min. burst pressure for steel [bar/psi]	C _v value		Cross section [mm ²]	Page
		steel	1.4404/1.4571 ss	1.4404/1.4571 ss with 1.4418 QT900		both sides self sealing	one sides self sealing		
2.5	02-003	500/7250	–	–	2350/34075	0.10	–	5	68
4	HP-004	2000/29000	500/7250	1000/14500	4000/58000	0.24	0.4	13	69
6	HP-006	1000/14500	320/4640	650/9425	2300/33350	0.65	1.0	30	70
10	HP-010	600/8700	300/4350	470/6815	2000/29000	1.9	2.5	80	71
16	HP-016	500/7250	250/3625	450/6525	1800/26100	5.5	8.1	200	72
20	HP-020	400/5800	180/2610	350/5075	1600/22700	8.5	13.0	315	73
32	HP-032	300/4350	180/2610	250/3625	1300/18850	23.8	29.4	800	74
50	HP-050	200/2900	–	–	1000/14500	65	–	2000	75
Performance diagrams									76
Fitted hose lines, nom. bore 2.5; p. n. 500									68

When determining the working pressure of the coupling the max. permissible working pressure of the end connection is to be taken into account if standardized threads are used.



characteristic features:
- can only be used self sealing both sides

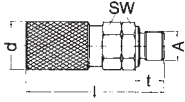
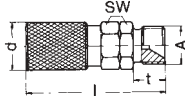
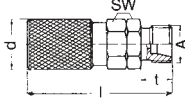
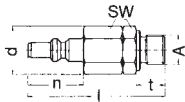
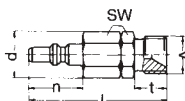
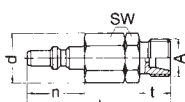
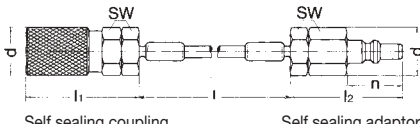
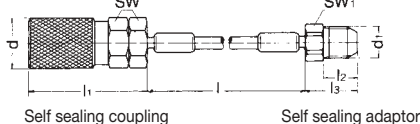
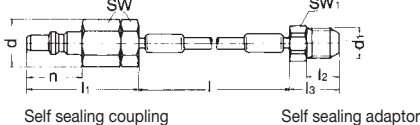
materials:
standard:
12 = steel, oil burnished

special materials:
13 = steel, chem. nickel plated

seal qualities:
1 = NBR
2 = FKM
4 = EPDM

Please note the technical data on pages 2 - 7, 76 and the max. working pressures on page 67

Availability: ● Short ○ Medium ○ Long

	Part No.	Con- nection A	steel oil burnished	d	d _i	SW	SW ₁	l	l _s	l ₁	l ₂	t	n	weight [g]	
Self sealing couplings		British standard pipe parallel (BSPP) male thread to DIN ISO 228/BS 5200, screwed plug to DIN 3852-2 form B	02-003-0-WB010-...-	BSPP 1/8"	●	16,2		14		46			9,5	42	
		BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	02-003-0-VR013-...-	BSPP 1/4"	●	16,2		14		47,5			11,5	45	
		metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	02-003-0-L0612-...-	M 12 x 1,5	●	16,2		14		46,5			10	42	
Self sealing adaptors		British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	02-003-2-WB010-...-	BSPP 1/8"	●	16,2		14		45,5			9,5	18,5	30
		BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	02-003-2-VR013-...-	BSPP 1/4"	●	16,2		14		47			11	18,5	33
		metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	02-003-2-L0612-...-	M 12 x 1,5	●	16,2		14		46			10	18,5	30
Hose lines fitted with:		Self sealing coupling Self sealing adaptor	95021-0-LG020-...- 95021-0-LG040-...- 95021-0-LG063-...- 95021-0-LG080-...- 95021-0-LG100-...-	self sealing coupling + sealing adaptor	○	16,2 16,2 16,2 16,2 16,2		14 14 14 14 14		200 400 630 800 1000		38 38 38 38 38	37,5 37,5 37,5 37,5 37,5	18,5 18,5 18,5 18,5 18,5	75 80 80 85 90
		Self sealing coupling Self sealing adaptor	95020-0-LG020-...- 95020-0-LG040-...- 95020-0-LG063-...- 95020-0-LG080-...- 95020-0-LG100-...-	self sealing coupling + thread connection	○	16,2 16,2 16,2 16,2 16,2	M10x1 M10x1 M10x1 M10x1 M10x1	14 14 14 14 14	11 11 11 11 11	200 400 630 800 1000	19 19 19 19 19	38 38 38 38 38	11 11 11 11 11		60 65 65 70 75
		Self sealing coupling Self sealing adaptor	95020-2-LG020-...- 95020-2-LG040-...- 95020-2-LG063-...- 95020-2-LG080-...- 95020-2-LG100-...-	self sealing adaptor + thread connection	○	16,2 16,2 16,2 16,2 16,2	M10x1 M10x1 M10x1 M10x1 M10x1	14 14 14 14 14	11 11 11 11 11	200 400 630 800 1000	19 19 19 19 19	37,5 37,5 37,5 37,5 37,5	11 11 11 11 11	18,5 18,5 18,5 18,5 18,5	44 48 50 55 60

characteristic features:

- with vibration lock
- with ring valve

test pressure 3000 bar / 43500 PSI
when using a suitable steel end connection

materials:

standard:
12 = steel, oil burnished

special materials:

13 = steel, chem. nickel plated
W1 = AISI 316 ti/1.4571, adaptor front part 1.4418 QT900
01 = stainless steel 1.4404/1.4571 or similar

seal qualities:

- 1 = NBR
- 2 = FKM
- 4 = EPDM

Please note the technical data on pages 2 - 7, 76 and the max. working pressures on page 67

Availability: ● Short ● Medium ○ Long

	Part No.	Conne- tion A	steel oil burnished	AISI 316 ti/ 1.4571	1.4404/ 1.4418 QT900	d	SW	SW ₁	l	t	n	weight [g]	
Self sealing couplings	end connection male thread G 1/4 A with 60° sealing cone	HP-004-0-XX001-...	BSPP 1/4" male 60° sealing cone	●	○		30	27	22	69,5	12	220	
	end connection UNF 9/16 male thread with 58° sealing cone	HP-004-0-XX002-...	UNF 9/16" male 58° sealing cone	●	○		30	27	22	75,5	18	220	
	conical pipe thread NPT, male	HP-004-0-NP013-...	NPT 1/4"	●	○		30	27	22	71,5	14	220	
	conical pipe thread NPT, female	HP-004-0-NP513-...	NPT 1/4"	●	○		30	27	22	68,5	14	230	
Self sealing adaptors	end connection male thread G 1/4 A with 60° sealing cone	HP-004-2-XX001-...	BSPP 1/4" male 60° sealing cone	●	○	○	30	27	22	69,5	12	25,5	160
	end connection UNF 9/16 male thread with 58° sealing cone	HP-004-2-XX002-...	UNF 9/16" male 58° sealing cone	●	○	○	30	27	22	75,5	18	25,5	160
	conical pipe thread NPT, male	HP-004-2-NP013-...	NPT 1/4"	●	○	○	30	27	22	71,5	14	25,5	160
	conical pipe thread NPT, female	HP-004-2-NP513-...	NPT 1/4"	●	○	○	30	27	22	68,5	14	25,5	170
Thru type adaptors	end connection UNF 9/16 male thread with 58° sealing cone	HP-004-1-XX002-...	UNF 9/16" male 58° sealing cone	●	○	○	18,9	17	51	18	25,5	45	

characteristic features:
- with vibration lock

optional features:

- OV = without valve
- SI = with additional axial safety lock (outer diameter 38 mm)
- RV = with ring valve (cannot be coupled with standard valve)
Recommended for high pulsating pressures and rough working conditions.

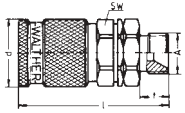
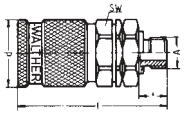
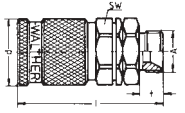
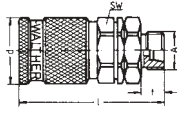
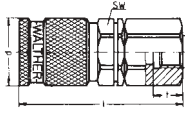
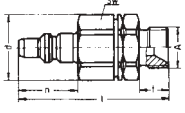
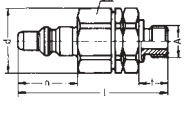
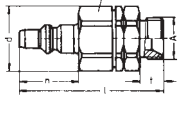
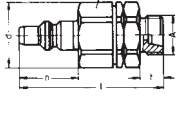
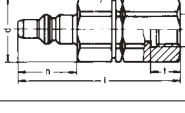
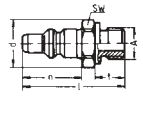
materials:
standard:
12 = steel, oil burnished

special materials:
13 = steel, chem. nickel plated
W1 = AISI 316 ti/1.4571, adaptor front part 1.4418 QT900
01 = stainless steel 1.4404/1.4571 or similar

seal qualities:
1 = NBR
2 = FKM
4 = EPDM

Please note the technical data on pages 2 - 7, 76 and the max. working pressures on page 67

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel oil burnished	AISI 316 ti/ 1.4571	1.4404/ 1.4418 QT900	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
Self sealing couplings	 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone conical pipe thread NPT male	HP-006-0-VR017-...-	BSPP 3/8"	●	○			6	34	30	77,5	12		250	
		HP-006-0-NP017-...-	NPT 3/8"	●	○			6	34	30	80,5	15		260	
	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-006-0-WB017-...-	BSPP 3/8"	●	○			6	34	30	80	14,5		320	
		 metric male thread with 60° sealing cone to DIN 7631	HP-006-0-D0614-...-	M 14 x 1,5	●	○			6	34	30	75,5	10		300
	HP-006-0-D0816-...-		M 16 x 1,5	○	○			8	34	30	76,5	11		300	
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	HP-006-0-S0816-...-	M 16 x 1,5	●	○		S	8	4	34	30	77,5	12		320
		HP-006-0-S1018-...-	M 18 x 1,5	●	○		S	10	6	34	30	77,5	12		310
		HP-006-0-S1220-...-	M 20 x 1,5	●	○		S	12	8	34	30	77,5	12		330
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228 conical pipe thread female	HP-006-0-WR517-...-	BSPP 3/8"	●	○				6	34	30	75	15		350
		HP-006-0-NP517-...-	NPT 3/8"	○	○				6	34	30	81,5	15		320
Self sealing adaptors	 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone conical pipe thread NPT male	HP-006-2-VR017-...-	BSPP 3/8"	●	○			6	34	30	77,5	12	30,5	210	
		HP-006-2-NP017-...-	NPT 3/8"	●	○			6	34	30	80,5	15	30,5	220	
	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-006-2-WB017-...-	BSPP 3/8"	●	○			6	34	30	80	14,5	30,5	210	
		 metric male thread with 60° sealing cone to DIN 7631	HP-006-2-D0614-...-	M 14 x 1,5	●	○			6	34	30	75,5	10	30,5	190
	HP-006-2-D0816-...-		M 16 x 1,5	○	○			8	34	30	76,5	11	30,5	190	
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	HP-006-2-S0816-...-	M 16 x 1,5	●	○		S	8	4	34	30	77,5	12	30,5	210
		HP-006-2-S1018-...-	M 18 x 1,5	●	○		S	10	6	34	30	77,5	12	30,5	200
		HP-006-2-S1220-...-	M 20 x 1,5	●	○		S	12	8	34	30	77,5	12	30,5	220
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228 conical pipe thread female	HP-006-2-WR517-...-	BSPP 3/8"	●	○				6	34	30	75	15	30,5	270
		HP-006-2-NP517-...-	NPT 3/8"	○	○				6	34	30	81,5	15	30,5	240
Thru type adaptors	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-006-1-WB017-..	BSPP 3/8"	●	○			6	25	22	54	14,5	30,5	70	

characteristic features:

- with vibration lock

optional features:

OV = without valve

SI = with additional axial safety lock

(outer diameter 50 mm)

RV = with ring valve

(cannot be coupled with standard valve)

Recommended for high pulsating pressures and rough working conditions.

special version:

2 non-interchangeable versions

materials:

standard:

12 = steel, oil burnished

special materials:

13 = steel, chem. nickel plated

W1 = AISI 316 ti/1.4571, adaptor front part 1.4418 QT900

01 = stainless steel 1.4404/1.4571 or similar

seal qualities:

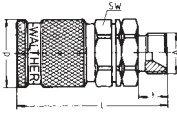
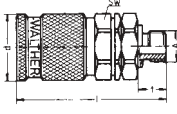
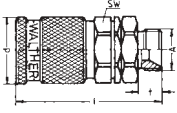
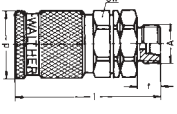
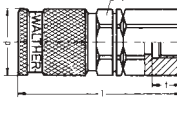
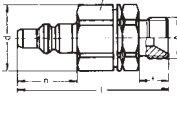
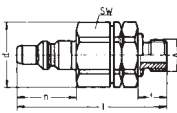
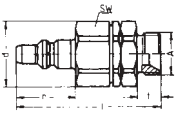
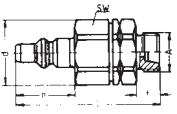
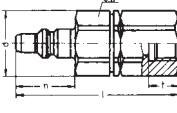
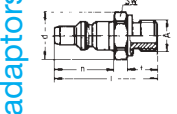

1 = NBR

2 = FKM

4 = EPDM

Please note the technical data on pages 2 - 7, 76 and the max. working pressures on page 67

Availability: ● Short ◐ Medium ○ Long

	Part No.	Conne- ction A	steel oil burnished	AISI 316 ti/ 1.4571	1.4404/ 1.4418 QT900	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
Self sealing couplings	 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone HP-010-0-VR021-...-	BSPP 1/2"	◐	○				10	46	41	95,5	15		680	
	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B HP-010-0-WB021-...-	BSPP 1/2"	●	○				10	46	41	97,5	17		690	
	 metric male thread with 60° sealing cone to DIN 7631 HP-010-0-D1018-...- HP-010-0-D1222-...-	M 18 x 1,5 M 22 x 1,5	○	○				10	46	41	91,5	11		670	
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) HP-010-0-S1220-...- HP-010-0-S1422-...- HP-010-0-S1624-...-	M 20 x 1,5 M 22 x 1,5 M 24 x 1,5	●	○			S	12	8	46	41	92,5	12	670	
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228 HP-010-0-WR521-...-	BSPP 1/2"	◐	○				10	46	41	96,5	17		840	
 conical pipe thread NPT female HP-010-0-NP521-...-	NPT 1/2"	○	○				10	46	41	100,5	18		850		
Self sealing adaptors	 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone HP-010-2-VR021-...-	BSPP 1/2"	◐	○	○			10	46	41	95,5	15	36	460	
	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B HP-010-2-WB021-...-	BSPP 1/2"	●	○	○			10	46	41	97,5	17	36	470	
	 metric male thread with 60° sealing cone to DIN 7631 HP-010-2-D1018-...- HP-010-2-D1222-...-	M 18 x 1,5 M 22 x 1,5	○	○	○			10	46	41	91,5	11	36	450	
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S) HP-010-2-S1220-...- HP-010-2-S1422-...- HP-010-2-S1624-...-	M 20 x 1,5 M 22 x 1,5 M 24 x 1,5	●	○	○		S	12	8	46	41	92,5	12	36	460
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228 HP-010-2-WR521-...-	BSPP 1/2"	◐	○	○			10	46	41	96,5	17	36	620	
 conical pipe thread NPT female HP-010-2-NP521-...-	NPT 1/2"	○	○	○			10	46	41	100,5	18	36	630		
Thru type adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B HP-010-1-WB021-...-	BSPP 1/2"	◐	○	○			10	30	27	63	17	36	130	

characteristic features:
- with vibration lock

optional features:

OV = without valve

SI = with additional axial safety lock
(outer diameter 62 mm)

RV = with ring valve

(cannot be coupled with standard valve)

Recommended for high pulsating pressures
and rough working conditions.

materials:

standard:

12 = steel, oil burnished

special materials:

13 = steel, chem. nickel plated

W1 = AISI 316 ti/1.4571, adaptor front part 1.4418 QT900

01 = stainless steel 1.4404/1.4571 or similar

seal qualities:

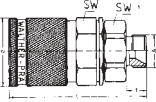
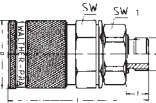
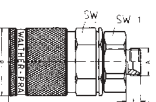
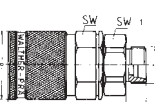
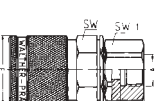
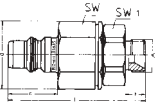
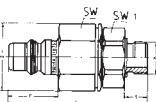
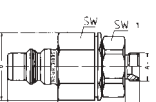
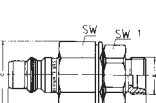
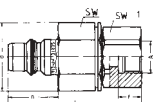
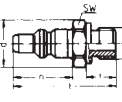
1 = NBR

2 = FKM

4 = EPDM

Please note the
technical data on
pages 2 - 7, 76 and the
max. working pressures
on page 67

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel oil burnished	AISI 316 ti/ 1.4571	1.4404/ 1.4418 QT900	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
Self sealing couplings	 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	HP-016-0-VR026-...-	BSP 3/4"	●	○			16	56	46	113,5	17		1130	
	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-016-0-WB026-...-	BSP 3/4"	●	○			16	56	46	115,5	19		1140	
	 metric male thread with 60° sealing cone to DIN 7631	HP-016-0-D1222-...-	M 22 x 1,5	○	○			12	56	46	108,5	12		1110	
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	HP-016-0-S1624-...- HP-016-0-S2030-...-	M 24 x 1,5 M 30 x 2	●	○		S S	16 20	12 16	56 56	46 46	110,5 112,5	14 16		1120 1140
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228	HP-016-0-WR526-...-	BSP 3/4"	○	○			16	56	46	110,5	19		1360	
Self sealing adaptors	 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	HP-016-2-VR026-...-	BSP 3/4"	●	○	○		16	56	46	112,5	17	41	780	
	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-016-2-WB026-...-	BSP 3/4"	●	○	○		16	56	46	114,5	19	41	790	
	 metric male thread with 60° sealing cone to DIN 7631	HP-016-2-D1222-...-	M 22 x 1,5	○	○	○		12	56	46	107,5	12	41	760	
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	HP-016-2-S1624-...- HP-016-2-S2030-...-	M 24 x 1,5 M 30 x 2	●	○	○	S S	16 20	12 16	56 56	46 46	109,5 111,5	14 16	41 41	770 790
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228	HP-016-2-WR526-...-	BSP 3/4"	○	○	○		16	56	46	109,5	19	41	1000	
Thru type adaptors	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-016-1-WB026-...-	BSP 3/4"	●	○	○		16	56	36	72	19	41	250	

characteristic features:
- with vibration lock

optional features:

GG = with ring grips (cast aluminium)
OV = without valve
SI = with additional axial safety lock (outer diameter 68 mm)
RV = with ring valve (cannot be coupled with standard valve)
Recommended for high pulsating pressures and rough working conditions.

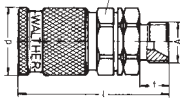
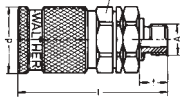
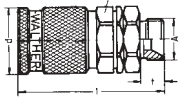
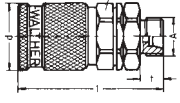
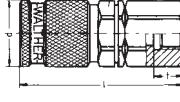
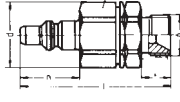
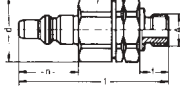
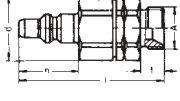
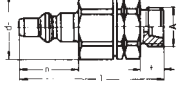


materials:
standard:
12 = steel, oil burnished

special materials:
13 = steel, chem. nickel plated
W1 = AISI 316 ti/1.4571, adaptor front part 1.4418 QT900
01 = stainless steel 1.4404/1.4571 or similar

seal qualities:
1 = NBR
2 = FKM
4 = EPDM

Please note the technical data on pages 2 - 7, 76 and the max. working pressures on page 67

Availability: ● Short ◐ Medium ○ Long

	Part No.	Conne- tion A	steel oil	AISI 316 ti	1.4571	1.4404/	1.4418 QT900	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
			burnished	1.4571	1.4404/	1.4418 QT900											
Self sealing couplings	 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	HP-020-0-VR033-...-	BSPP 1"	○	○					20	62	55	118,5	20		1450	
	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-020-0-WB033-...-	BSPP 1"	●	○						20	62	55	119,5	21		1450
	 metric male thread with 60° sealing cone to DIN 7631	HP-020-0-D1526-...- HP-020-0-D1930-...-	M 26 x 1,5 M 30 x 1,5	○ ●	○ ○						15 19	62 62	55 55	110,5 112,5	12 14		1400 1410
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	HP-020-0-S2030-...- HP-020-0-S2536-...-	M 30 x 2 M 36 x 2	○ ●	○ ○			S S	20 25	16 20	62 62	55 55	114,5 116,5	16 18		1410 1440	
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228	HP-020-0-WR533-...-	BSPP 1"	○	○						20	62	55	123	23		1720
Self sealing adaptors	 BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	HP-020-2-VR033-...-	BSPP 1"	○	○	○				20	62	55	118,5	20	43	1070	
	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-020-2-WB033-...-	BSPP 1"	●	○	○					20	62	55	119,5	21	43	1070
	 metric male thread with 60° sealing cone to DIN 7631	HP-020-2-D1526-...- HP-020-2-D1930-...-	M 26 x 1,5 M 30 x 1,5	○ ●	○ ○	○ ○					15 19	62 62	55 55	110,5 112,5	12 14	43 43	1030 1040
	 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	HP-020-2-S2030-...- HP-020-2-S2536-...-	M 30 x 2 M 36 x 2	○ ●	○ ○	○ ○		S S	20 25	16 20	62 62	55 55	114,5 116,5	16 18	43 43	1030 1060	
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228	HP-020-2-WR533-...-	BSPP 1"	○	○	○					20	62	55	123	23	43	1340
Thru type adaptors	 British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-020-1-WB033-...-	BSPP 1"	○	○	○				20	45	41	74	21	43	310	

characteristic features:
- with vibration lock

optional features:

- GG = with ring grips (cast aluminium)
- OV = without valve
- SI = with additional axial safety lock (outer diameter 96 mm)
- RV = with ring valve (cannot be coupled with standard valve)
Recommended for high pulsating pressures and rough working conditions.

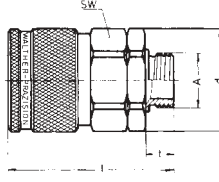
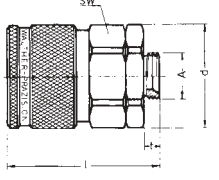
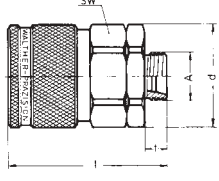
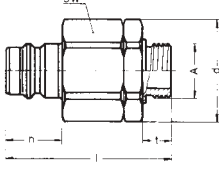
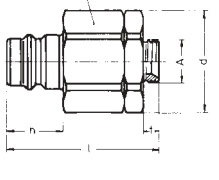
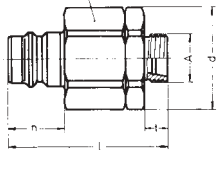
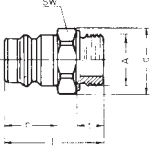
materials:
standard:
12 = steel, oil burnished

special materials:
13 = steel, chem. nickel plated
W1 = AISI 316 ti/1.4571, adaptor front part 1.4418 QT900
01 = stainless steel 1.4404/1.4571 or similar

seal qualities:
1 = NBR
2 = FPM
4 = EPDM

Please note the technical data on pages 2 - 7, 76 and the max. working pressures on page 67

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	steel oil burnished	AISI 316 ti/ 1.4571	1.4404/ 1.4418 QT900	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]
Self sealing couplings	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B</p>	HP-032-0-WB048-...-.	BSPP 1 1/2"	○	○			32	90	80	144,5	25		3790
		HP-032-0-WB060-...-.	BSPP 2"	○	○			32	90	80	149,5	30		4290
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	HP-032-0-D2538-...-.	M 38 x 1,5	○	○			25	90	80	133,5	14		3690
	HP-032-0-D3245-...-.	M 45 x 1,5	○	○			32	90	80	135,5	16		3680	
Self sealing adaptors	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	HP-032-0-S3042-...-.	M 42 x 2	●	○	S	30	25	90	80	139,5	20		3730
		HP-032-0-S3852-...-.	M 52 x 2	●	○	S	38	32	90	80	141,5	22		3790
	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B</p>	HP-032-2-WB048-...-.	BSPP 1 1/2"	○	○			32	90	80	144	25	49,5	2740
	HP-032-2-WB060-...-.	BSPP 2"	○	○	○		32	90	80	149	30	49,5	3240	
Self sealing adaptors	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	HP-032-2-D2538-...-.	M 38 x 1,5	○	○			25	90	80	133	14	49,5	2630
		HP-032-2-D3245-...-.	M 45 x 1,5	○	○	○		32	90	80	135	16	49,5	2620
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	HP-032-2-S3042-...-.	M 42 x 2	●	○	○	S	30	25	90	80	139	20	49,5
	HP-032-2-S3852-...-.	M 52 x 2	●	○	○	S	38	32	90	80	141	22	49,5	2730
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B</p>	HP-032-1-WB048-...-.	BSPP 1 1/2"	○	○			32	61,5	55	90,5	25	49,5	690
	HP-032-1-WB060-...-.	BSPP 2"	○	○	○		32	86	75	92,5	27	49,5	1190	

characteristic features:
 - with vibration lock
 - with ring grips (cast aluminium)

optional features:
 OV = without valve
 RV = with ring valve
 (cannot be coupled with standard valve)

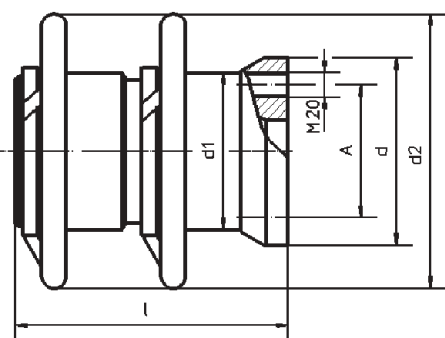
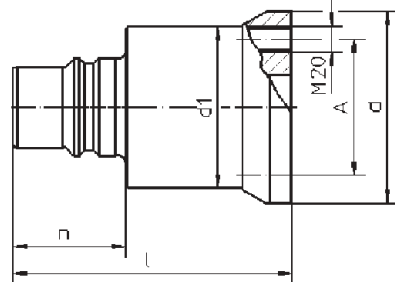
materials:
standard:
 12 = steel, oil burnished

special materials:
 13 = steel, chem. nickel plated

seal qualities:
 1 = NBR
 2 = FKM
 4 = EPDM

Please note the technical data on pages 2 - 7, 76 and the max. working pressures on page 67

Availability: ● Short ◐ Medium ○ Long

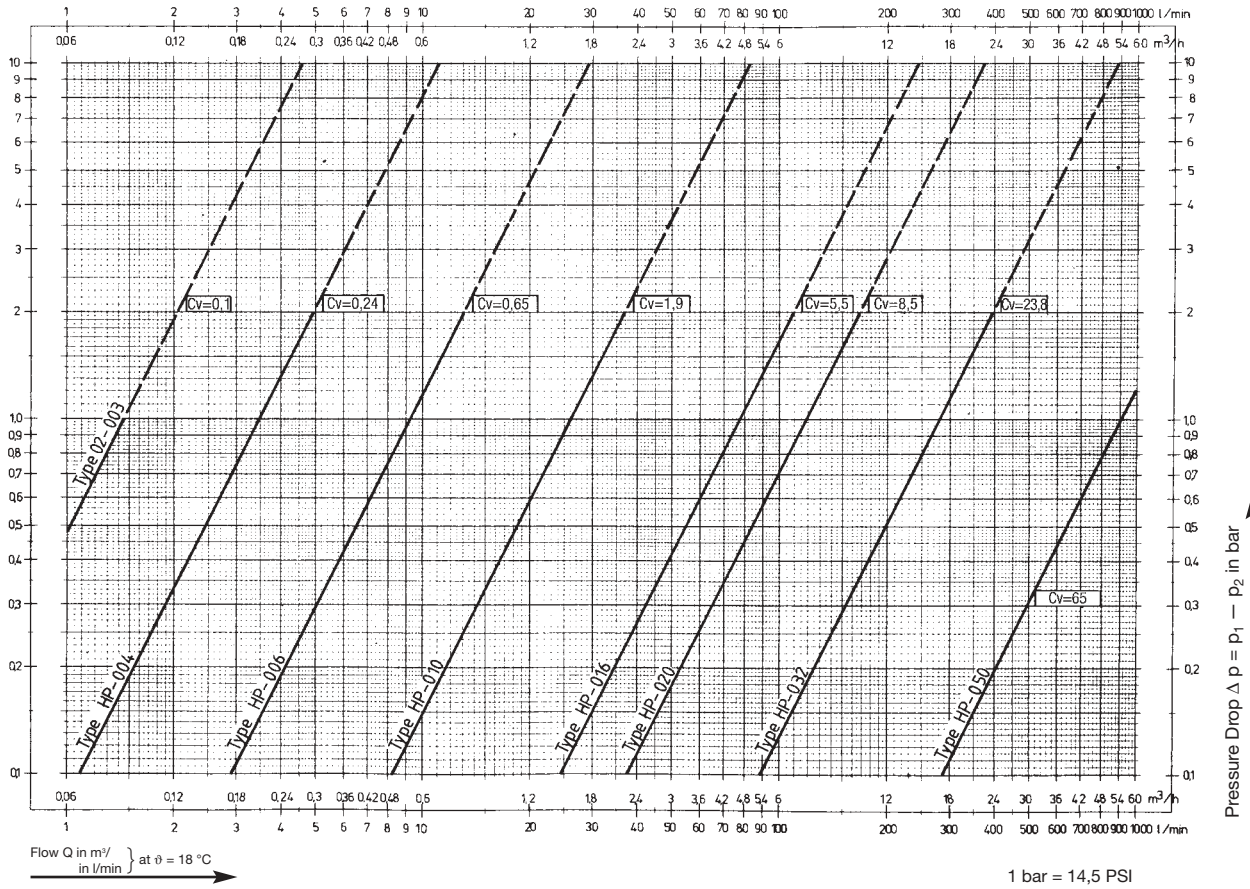
	Part No.	Connection A	steel oil burnished	series	pipe OD	n. b.	d	d ₁	d ₂	l	n	weight (kg)
<p>Self sealing couplings</p> 	HP-050-0-XX007-...	SAE-flange for pipe OD 65 4xM20 44,5x96,8			65	50	150	126	220	219		15,3
<p>Self sealing adaptors</p> 	HP-050-2-XX007-...	SAE-flange for pipe OD 65 4xM20 44,5x96,8			65	50	150	126		217,5	87,5	11,4

Measurement of flow coefficients C_v according to DIN EN 60534

Flow speeds of 8 m/sec should not be exceeded

Both sides self sealing

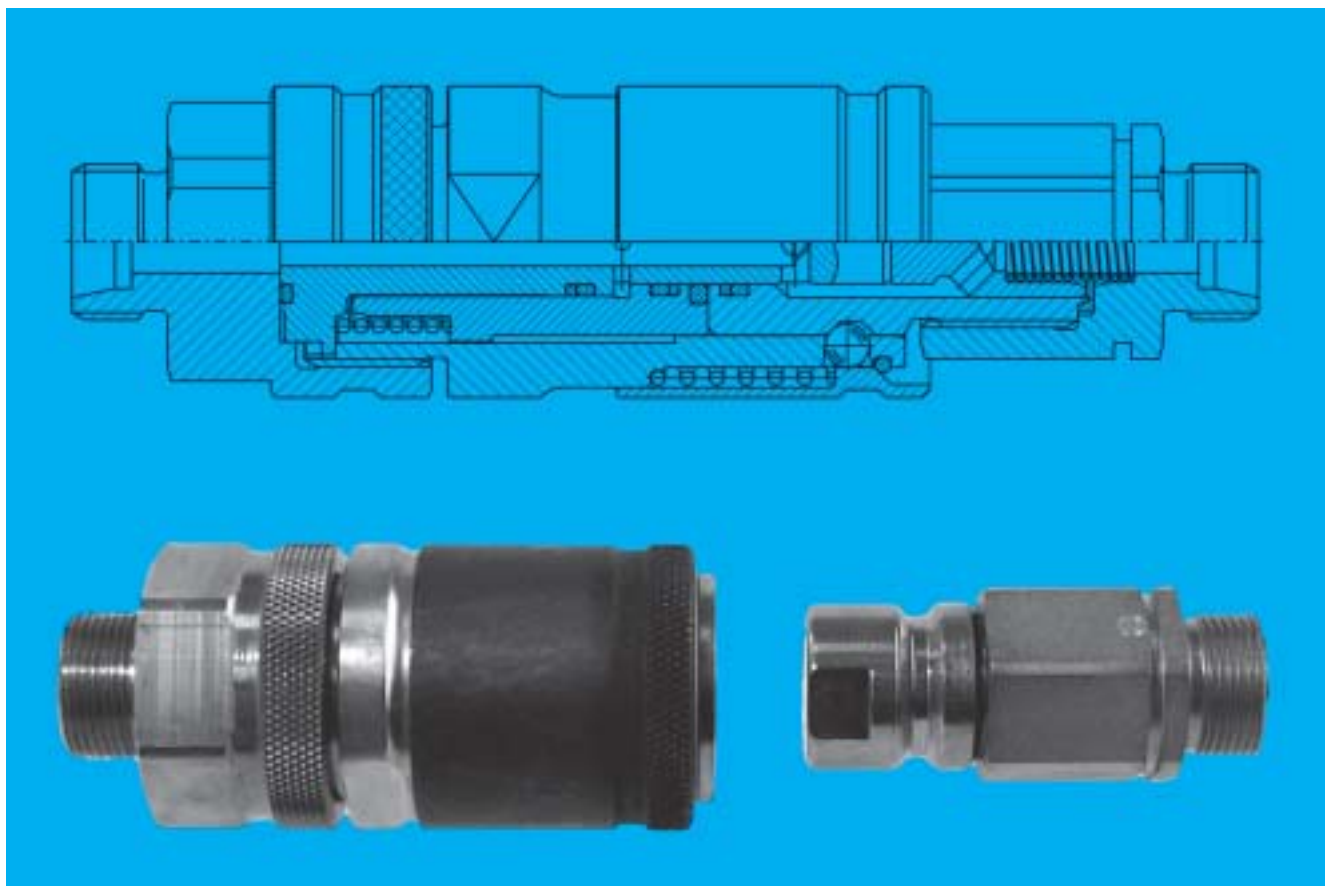
both axes are scaled logarithmically, one from 1 to 100, the other one from 1 to 1000, unit = 100 mm



Nom. bore	Type	Max. static working pressure [bar/psi] steel	C _v value both sides self sealing	Page
6	HC-G06	650/9500	0.5	78
8	HC-G08	600/8700	1.0	78
12	HC-G12	600/8700	2.3	78
16	HC-G16	600/8700	3.4	78
20	HC-G20	600/8700	5.7	78
performance diagrams				79

- Features:**
- disconnection without loss of medium and connection without air inclusion
 - for self lubricating media
 - automatic lock (one hand operation)
 - squirt free operation also at residual pressures

When determining the working pressure of the coupling the max. permissible working pressure of the end connection is to be taken into account.



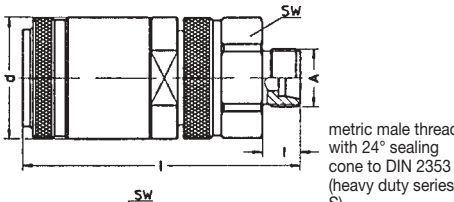
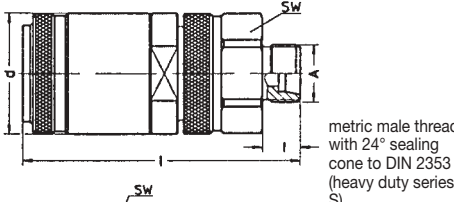
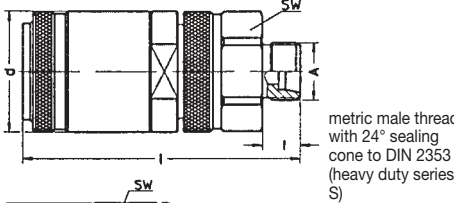
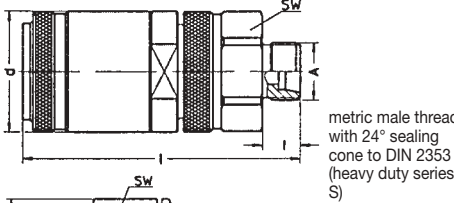
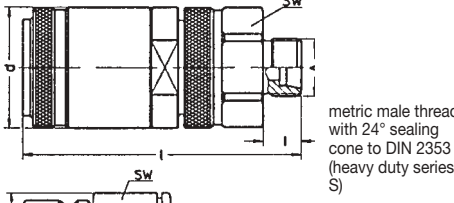
characteristic features:
 - automatic lock (one hand operation)
 - disconnection without loss of medium
 - connection without air inclusion

materials:
standard:
 - steel, zinc plated, yellow chromated
 locking sleeve, black phosphatized

seal qualities:
 - special seals
 suitable for hydraulic fluids
 on mineral oil basis, HFA and
 HFB liquids

Please note the
 technical data on
 pages and the 2 - 7, 79
 max. working pressures
 on page 77

Availability: ● Short ○ Medium ○ Long

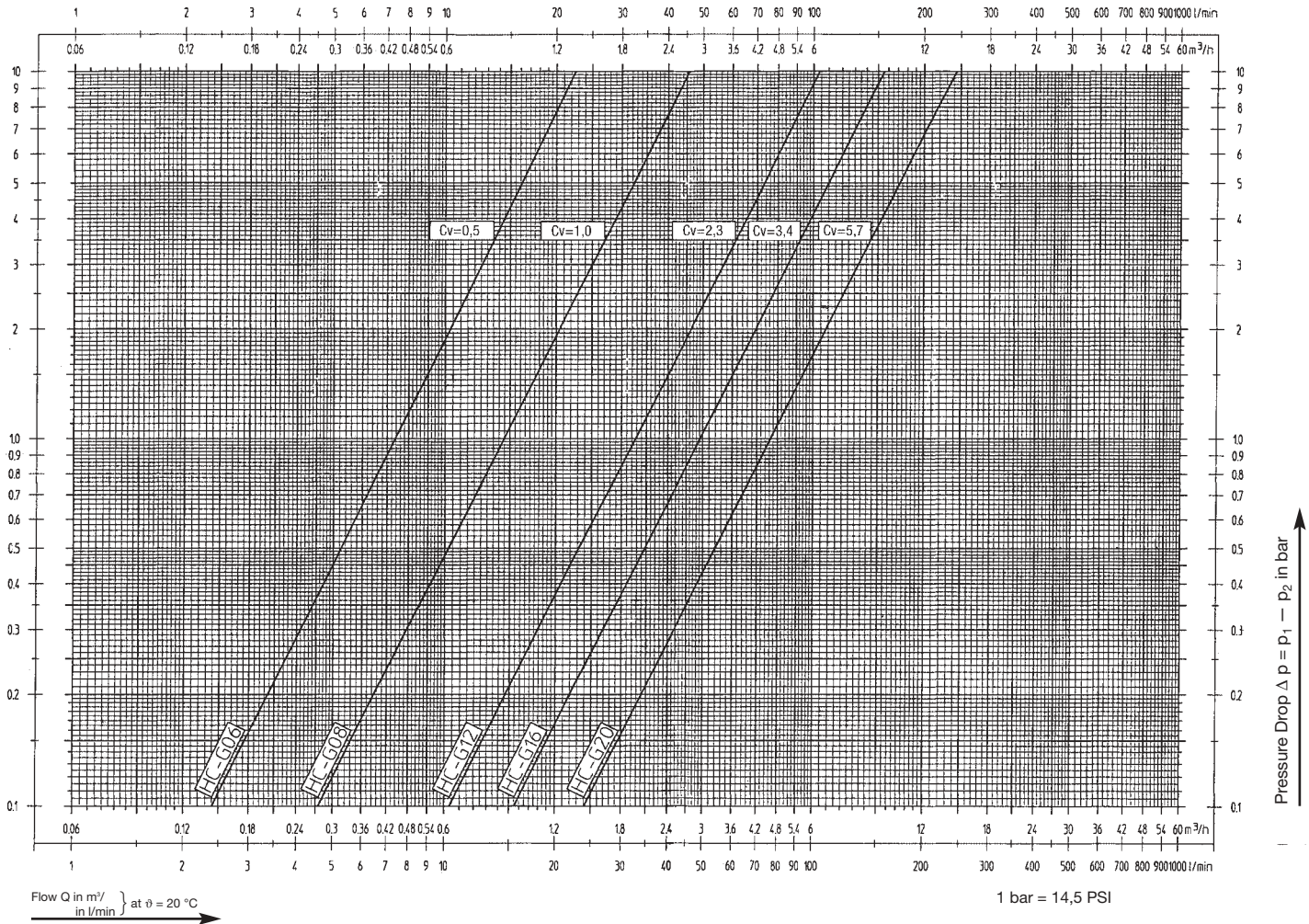
	Part No.	Connec- tion A	steel zinc plated	series	pipe OD	d	SW	l	t	n	weight [g]
 <p>metric male thread with 24° sealing cone to DIN 2353 (heavy duty series S)</p>	HC-G06-0-S1018-AABA-Z10	M 18 x 1,5	●	S	10	34	27	98,8	12		455
	HC-G06-2-S1018-AABB-Z10	M 18 x 1,5	●	S	10	30,1	27	69	12	23,4	177
 <p>metric male thread with 24° sealing cone to DIN 2353 (heavy duty series S)</p>	HC-G08-0-S1220-AABA-Z10	M 20 x 1,5	●	S	12	42,4	32	104,8	12		660
	HC-G08-2-S1220-AABB-Z10	M 20 x 1,5	●	S	12	30,1	27	69,2	12	26,8	220
 <p>metric male thread with 24° sealing cone to DIN 2353 (heavy duty series S)</p>	HC-G12-0-S1624-AABB-Z10	M 24 x 1,5	●	S	16	47,2	41	102,6	14		818
	HC-G12-2-S1624-AABB-Z10	M 24 x 1,5	●	S	16	33,5	30	74,2	14	28,5	251
 <p>metric male thread with 24° sealing cone to DIN 2353 (heavy duty series S)</p>	HC-G16-0-S2030-AABA-Z10	M 30 x 2	●	S	20	57,8	50	112,4	16		1406
	HC-G16-2-S2030-AABB-Z10	M 30 x 2	●	S	20	45,6	41	80,4	16	31	487
 <p>metric male thread with 24° sealing cone to DIN 2353 (heavy duty series S)</p>	HC-G20-0-S2536-AABA-Z10	M 36 x 2	●	S	25	63,2	50	137,1	18		2005
	HC-G20-2-S2536-AABB-Z10	M 36 x 2	●	S	25	51,2	46	111,5	18	36	909

Measurement of flow coefficients C_v according to DIN EN 60534

A flow speed of 8 m/sec should not be exceeded

Both sides self sealing

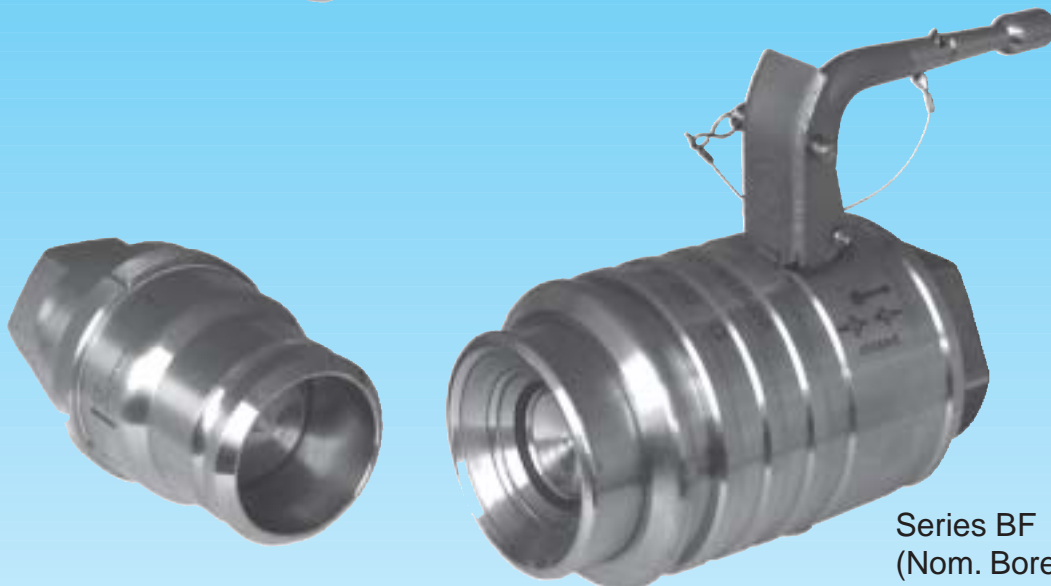
both axes are scaled logarithmically, one from 1 to 100, the other one from 1 to 1000,



Series HC
(Nom. Bore 6, 8, 12, 16, 20 mm)



Series BF
(Nom. Bore 5, 9, 12 mm)

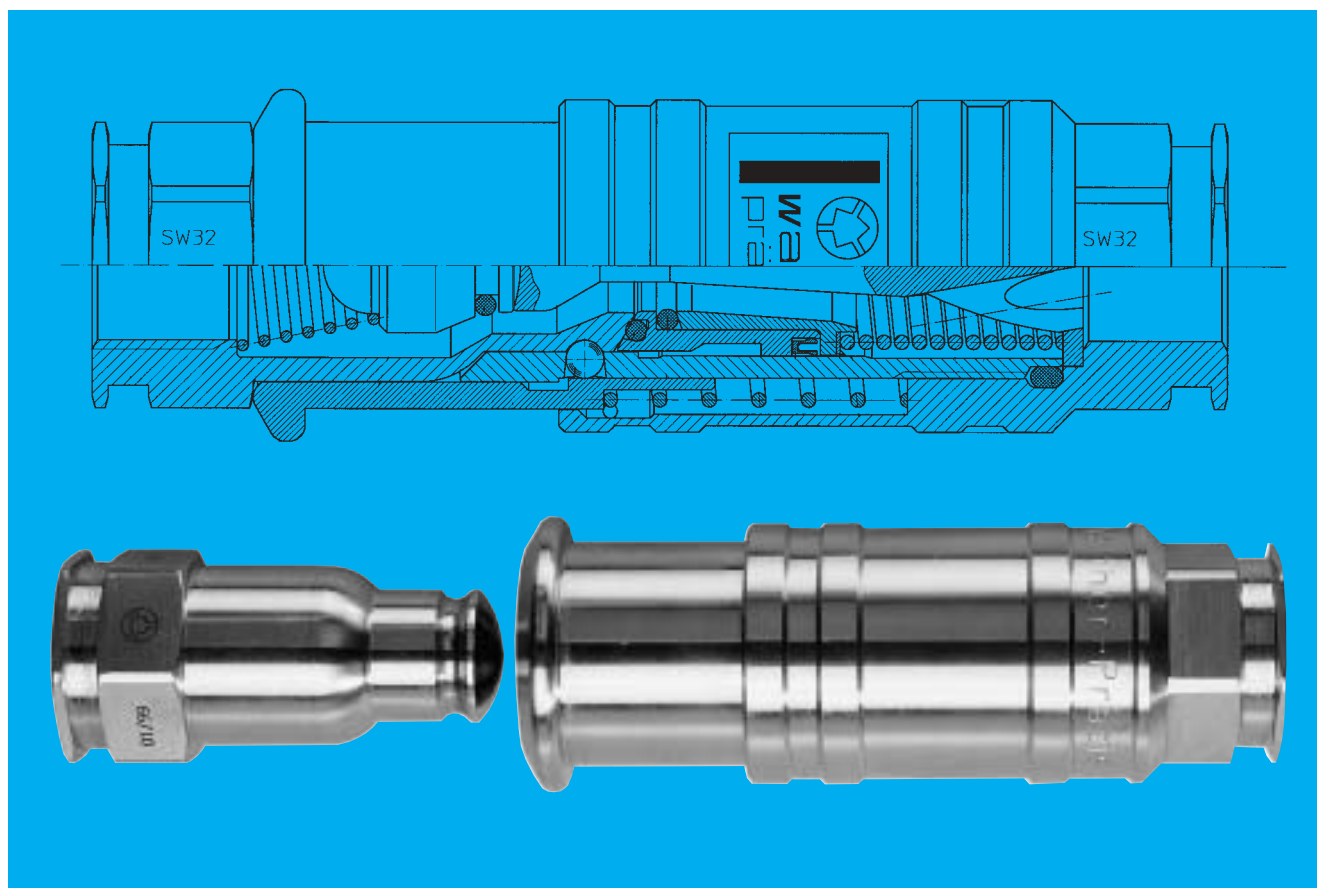


Series BF
(Nom. Bore 25, 50 mm)

Nom. bore	Type	Max. static working pressure [bar/psi] stainless steel	C _v value both sides self sealing	Page
5	BF-005	64/930*	0.8	82
9	BF-009	64/930*	4.0	82
12	BF-012	64/930*	8.0	82
Performance diagrams				84

* Restrictions possible when using perfluorelastomer seals.

Clean break coupling in stainless steel, particularly for challenging fluids or gaseous media. Highest safety standard and optimal handling through automatic lock. Can be used for both, non-lubricating media (such as demineralized water, “dry gases”) as well as self-lubricating media (such as oils and soap solutions). Long-term proven for solvents, chemical fluids, thermal oils and steam. Also used for lyes, various acids and many other media.



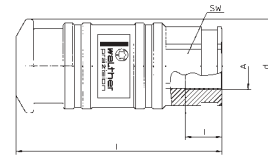
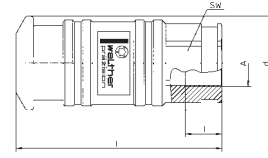
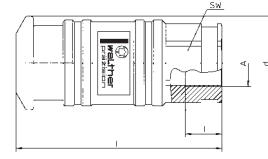
characteristic features:
 - automatic lock (one hand operation)
 - disconnection without loss of medium
 - connection without air inclusion
 - easy cleaning

materials:
standard:
 1 = stainless steel 1.4404/1.4571 or similar

seal qualities:
 2 = FKM
 4 = EPDM
 FFKM = perfluorine elastomers

Please note the technical data on pages and the 2 - 7, 84 max. working pressures on page 81

Availability: ● Short ○ Medium ○ Long

	Part No.	Connec- tion A	AISI 316 ti/ 1.4571	series	pipe OD	d	SW	l	t	n	weight [g]
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	BF-005-0-WR513-...	BSPP 1/4"	●			29	22	64	13		165
	BF-005-2-WR513-...	BSPP 1/4"	●			24,5	22	37,5	13	23,5	50
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	BF-009-0-WR521-...	BSPP 1/2"	●			44	32	118	17		630
	BF-009-2-WR521-...	BSPP 1/2"	●			35,7	32	68	15	47,8	190
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	BF-012-0-WR526-...	BSPP 3/4"	●			64	46	137	19		1300
	BF-012-2-WR526-...	BSPP 3/4"	●			51,2	46	78,3	17,5	54,2	440

Features

- clean break (with little spillage and air inclusion)
- easy cleanable smooth ball-face contour when locking sleeve is pulled back
- squirt-free
- low couple force
- good precentering during connection
- automatic lock
- identical female threads in for self sealing coupling and adaptor
- very little volume displacement from beginning of connection until point of valve opening
- protective caps for self sealing couplings and adaptors available
- ATEX version available

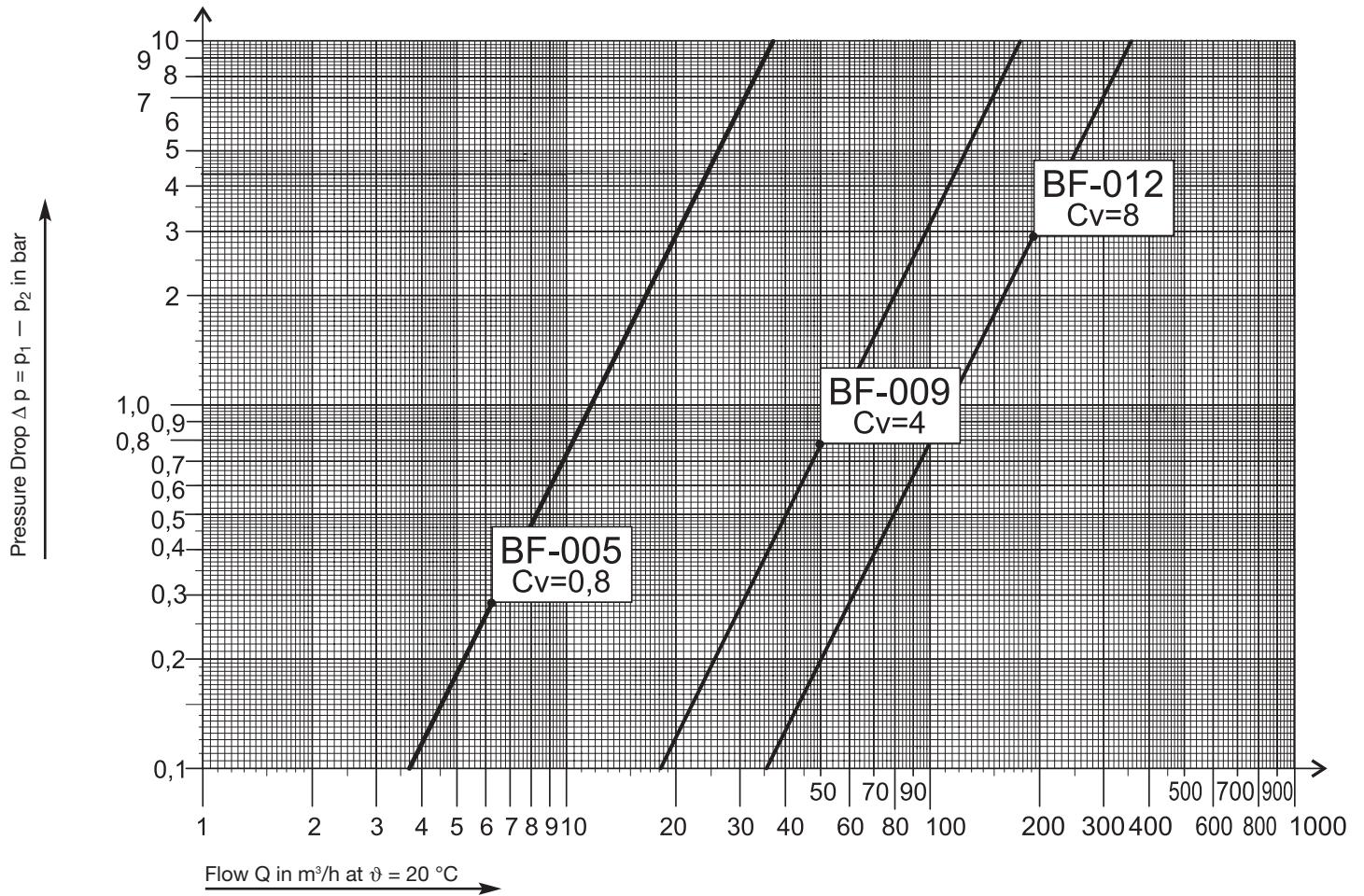
Technical values

	BF-005	BF-009	BF-012
Connection force depressurized	70 N	110 N	160 N
Displacement volume until start of flow Adaptor: Coupling:	approx. 0.02 cm ³ approx. 0.13 cm ³	approx. 0.12 cm ³ approx. 0.20 cm ³	approx. 1.60 cm ³ approx. 1.80 cm ³
Displacement volume at full couple stroke	approx. 0.75 cm ³	approx. 6.20 cm ³	approx. 15.8 cm ³
Max. pressure in 1 coupling half when connecting with max. 300 N force per adaptor (coupling 0) per coupling (adaptor 0)	64 bar / 930 psi 25 bar / 360 psi	12 bar / 175 psi 6 bar / 90 psi	7 bar / 100 psi 3 bar / 45 psi
Inclusion volume during connection	approx. 0.011 cm ³	approx. 0.078 cm ³	approx. 0.125 cm ³
Theoretical leakage volume during disconnection for incompressible liquids	approx. 0.013 cm ³	approx. 0.091 cm ³	approx. 0.150 cm ³

Measurement of flow coefficients C_v according to DIN EN 60534

A flow speed of 8 m/sec should not be exceeded.

Both sides self sealing



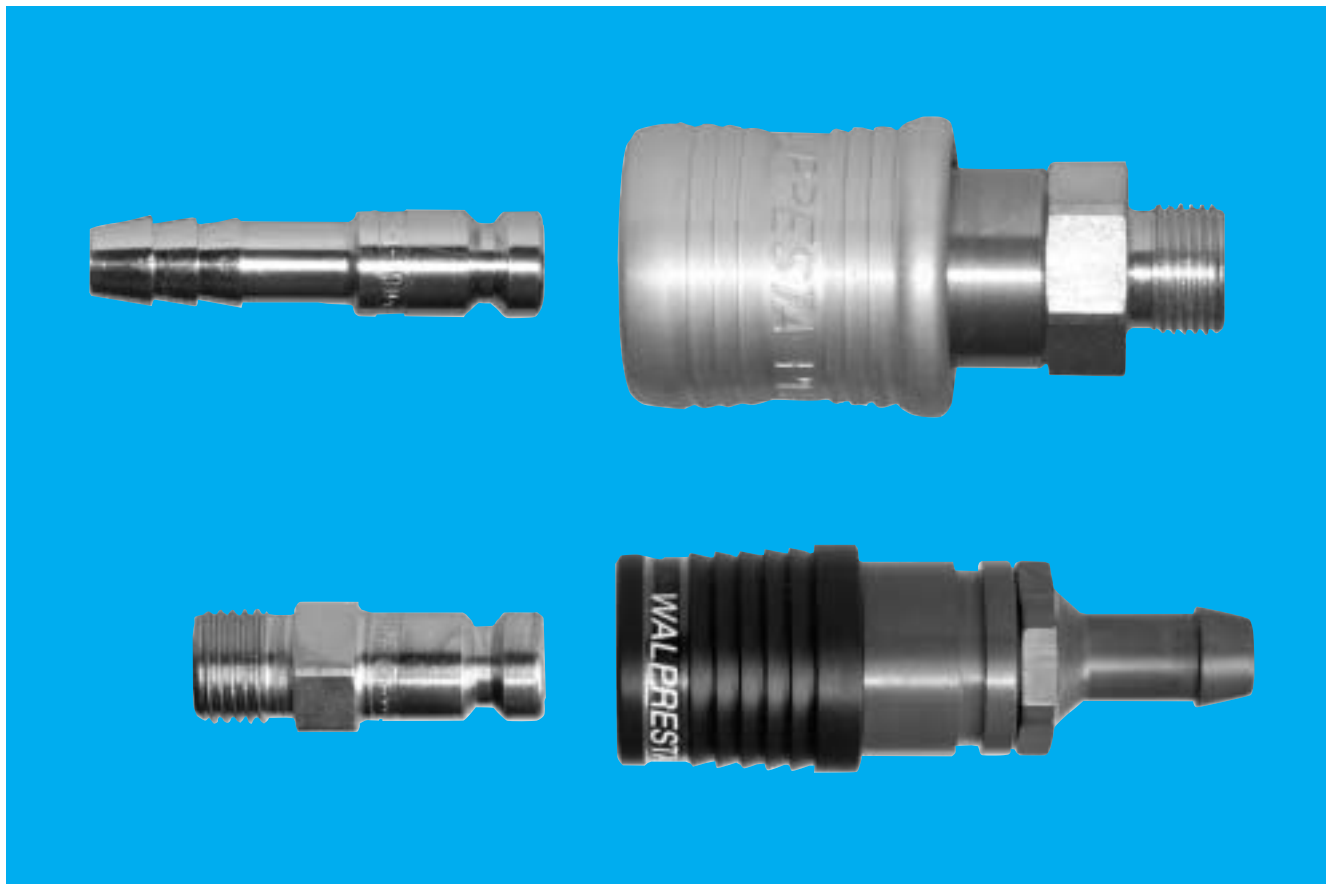
Nom. bore	Type	Max. stat working pressure [bar/psi] for Air	C _v value one side selfsealing	Page
6,5	LS-006	12/175	1.71	86
9	LS-009	12/175	4.32	86
11	LS-E11	12/175	5.14	86
6,5	LT-006	12/175	1.71	87
9	LT-009	12/175	4.32	87
11	LT-E11	12/175	5.14	87
Performance diagrams				88

The safety coupling for compressed air type LS-006 is the first coupling to work pressure controlled. It denies by a positive lock false operation. This abandons the dangerous whip effect completely.

The pressurized air coupling type LT-006 is intended for use at the tool and proves itself by very good flow characteristics.

Both couplings are designed to fit on two widely spread nipple contours – the Walther LP-006 and DIN 14152 (the so called Euronipple)

For LS-006 use only hardened thin-type adaptors.



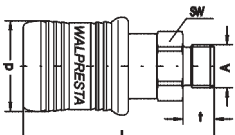
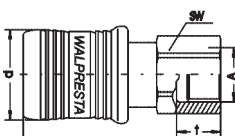
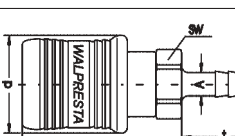
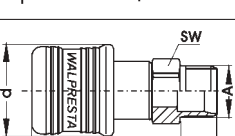
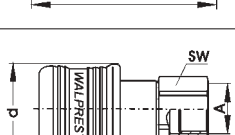
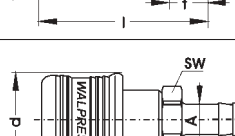
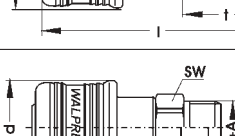
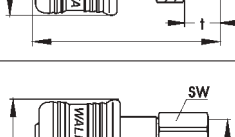
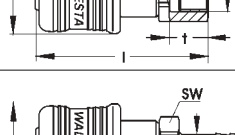
characteristic features:
 - automatic lock
 (one hand operation)
 - safety unlocking
 (dependent on residual pressure)
 - connectable on adaptor contour
 LP-006-1 and DIN 14152
 (so-called "Euro" adaptor)

materials:
standard:
 - coupling housing: steel chem. nickel plated
 - locking sleeve: brass passivated
 - connecting pieces: steel, zinc plated

seal qualities:
 1 = NBR

Please note the technical data on pages and the 2 - 7, 88 max. working pressures on page 85

Availability: ● Short ○ Medium ○ Long

	Part No.	Connection A	steel zinc plated	series	pipe OD	d	SW	l	t	n	weight [g]
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LS-006-0-WR013-AAAA-Z01	BSPP 1/4"	●			37	24	72,5	11		255
	LS-006-0-WR017-AAAA-Z01	BSPP 3/8"	●			37	24	73,5	12		265
	LS-006-0-WR021-AAAA-Z01	BSPP 1/2"	●			37	24	76,5	15		275
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LS-006-0-WR513-AAAA-Z01	BSPP 1/4"	●			37	24	74,5	13		275
	LS-006-0-WR517-AAAA-Z01	BSPP 3/8"	●			37	24	75,5	14		275
	LS-006-0-WR521-AAAA-Z01	BSPP 1/2"	●			37	27	78,5	17		295
 <p>hose connection</p>	LS-006-0-SL009-AAAA-Z01	9 mm	○			37	24	91,5	30		265
	LS-006-0-SL011-AAAA-Z01	11 mm	○			37	24	91,5	30		265
	LS-006-0-SL013-AAAA-Z01	13 mm	○			37	24	91,5	30		275
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LS-009-0-WR021-AAAA	BSPP 1/2 A	○			40,6	25	82,6	15		300
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LS-009-0-WR521-AAAA	BSPP 1/2"	○			40,6	27	79,6	17		315
	LS-009-0-WR526-AAAA	BSPP 3/4"	○			40,6	32	81,6	19		334
 <p>hose connection</p>	LS-009-0-SL013-AAAA	13 mm	○			40,6	25	94,4	30		298
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	LS-E11-0-WR021-AAAA	BSPP 1/2"	○			40,6	25	81	15		290
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LS-E11-0-WR521-AAAA	BSPP 1/2"	○			40,6	27	78	17		305
	LS-E11-0-WR526-AAAA	BSPP 3/4"	○			40,6	32	80	19		324
 <p>hose connection</p>	LS-E11-0-SL013-AAAA	13 mm	○			40,6	25	93	30		293

Further end connections on request.

Suitable thru type adaptors for LS-006 are listed on page 17 (Type LP-006-1)

Suitable thru type adaptors for LS-009 are listed on page 23 (Type SP-009-1)

Suitable thru type adaptors for LS-E11 on request.

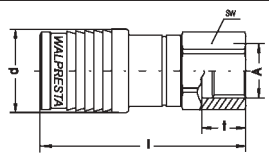
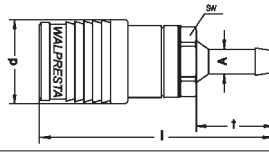
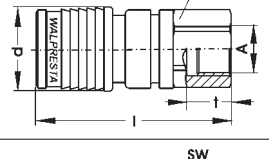
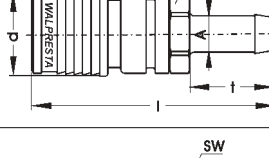
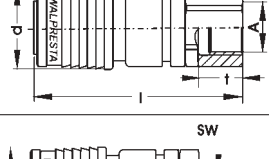
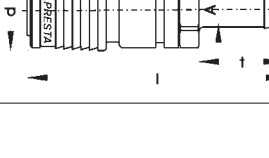
characteristic features:
 - connectable on adaptor contour
 LP-006-1 and DIN 14152
 (so-called "Euro" adaptor)
 - compact design
 - extremely low weight

materials:
standard:
 - coupling housing: Alu hc
 - locking sleeve: plastic
 - connecting pieces: AAAA = Alu anodized
 - connecting pieces: AAAF = Alu anodized

seal qualities:
 1 = NBR

Please note the technical data on pages and the 2 - 7, 88 max. working pressures on page 85

Availability: ● Short ◐ Medium ○ Long

	Part No.	Conne- tion A	brass passivated	series	pipe OD	d	SW	l	t	n	weight [g]
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LT-006-0-WR513-AAAF-Z07	BSPP 1/4"	◐			28	22	61	11		62
	LT-006-0-WR517-AAAF-Z07	BSPP 3/8"	◐			28	22	62	11		64
 <p>hose connection</p>	LT-006-0-XX009-AAAF-Z07	9 mm	◐			28	22	78	13		50
	LT-006-0-XX011-AAAF-Z07	11 mm	◐			28	22	78	13		51
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LT-009-0-WR521-AAAA	BSPP 1/2"	◐			30	27	71	17		90
	LT-009-0-WR526-AAAA	BSPP 3/4"	◐			30	32	73	19		95
 <p>hose connection</p>	LT-009-0-XX011-AAAA	11 mm	◐			30	25	86	30		65
	LT-009-0-XX013-AAAA	13 mm	◐			30	25	86	30		69
 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	LT-E11-0-WR521-AAAA	BSPP 1/2"	◐			30	27	77,5	17		95
	LT-E11-0-WR526-AAAA	BSPP 3/4"	◐			30	32	79,5	19		100
 <p>hose connection</p>	LT-E11-0-XX011-AAAA	11 mm	◐			30	25	92,5	30		71
	LT-E11-0-XX013-AAAA	13 mm	◐			30	25	92,5	30		75

Further end connections on request.

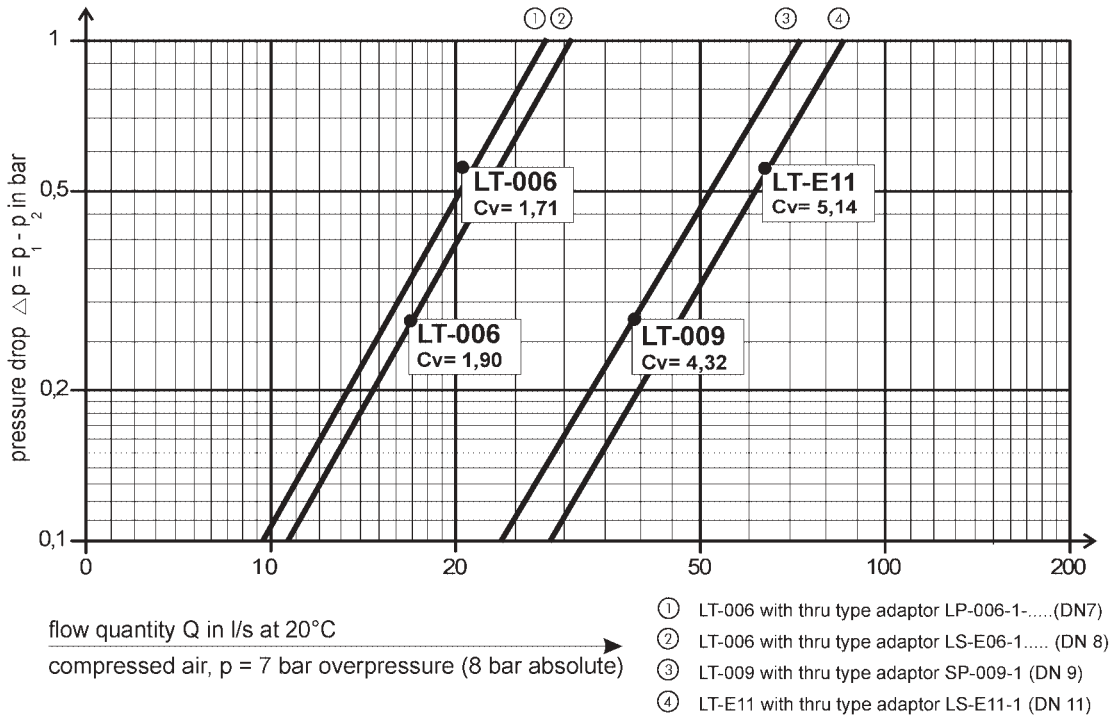
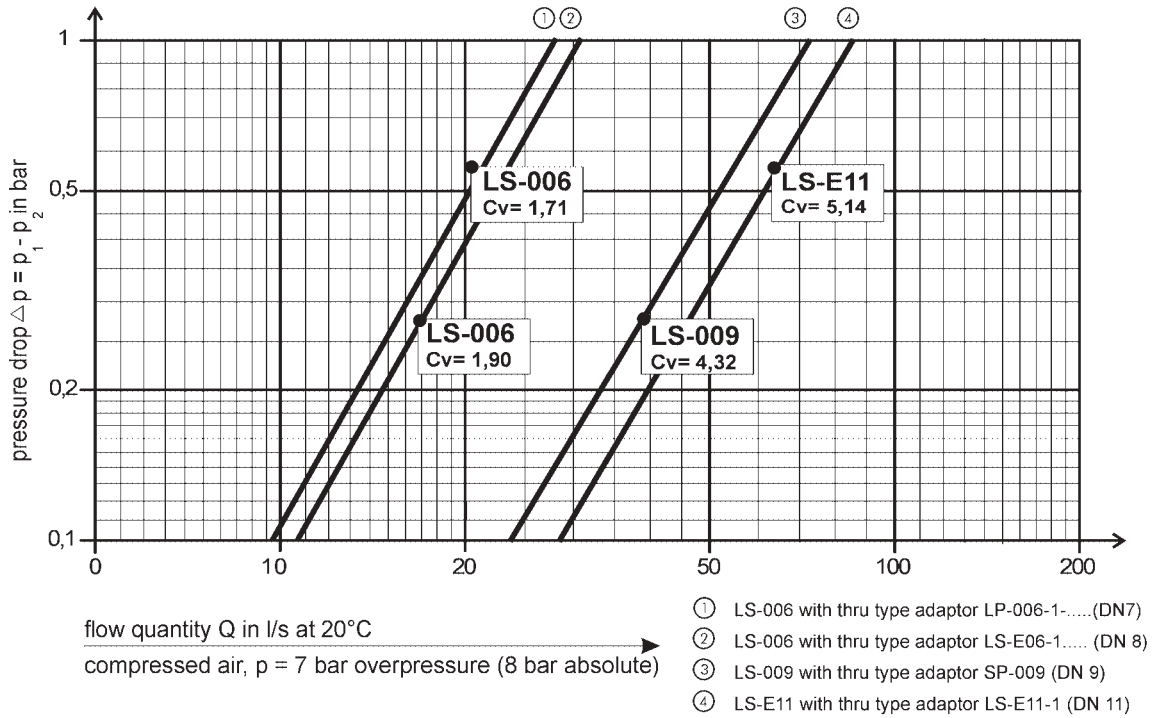
Suitable thru type adaptors for LT-006 are listed on page 17 (Type LP-006-1)

Suitable thru type adaptors for LT-009 are listed on page 23 (Type SP-009-1)

Suitable thru type adaptors for LT-E11 on request.

Measurement of flow coefficients Cv according to DIN EN 60534, test medium water

1 bar = 14,5 psi



Number of connections	Type	Nom. bore	Max. static working pressure [bar/psi] per element	Page
4	90405	4	10/145	90
8	90405	2	10/145	90
18	90405	2	10/145	91
8	90408	4	10/145	91
20	90408	3	10/145	92
12 - 20	90410	2 and 4	10/145	93
Accessories, individual parts				94

Applications:

Pneumatic measuring, control and monitoring loops with logic circuits and/or direct valve actuation.

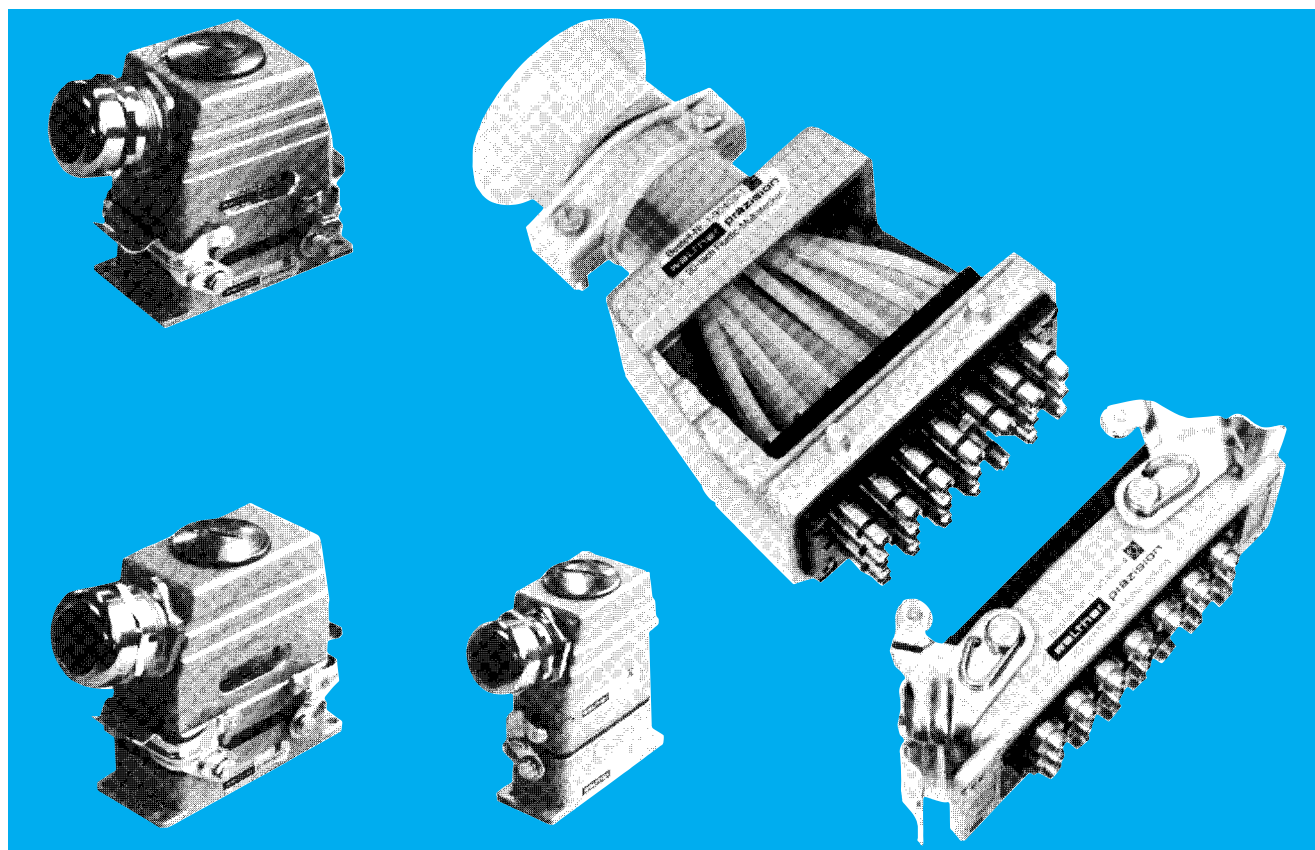
Ready made:

Ready made and tested complete assemblies as requested.

Special version:

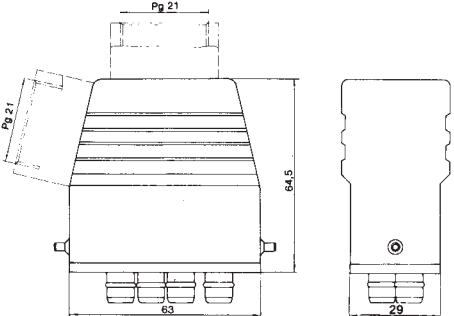
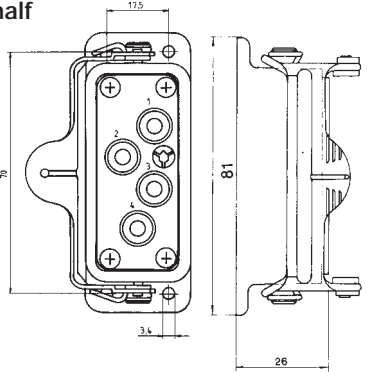
With additional electrical plug elements – on request

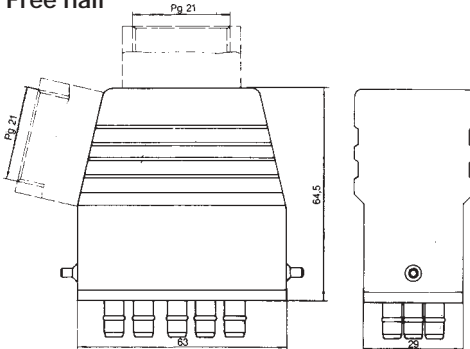
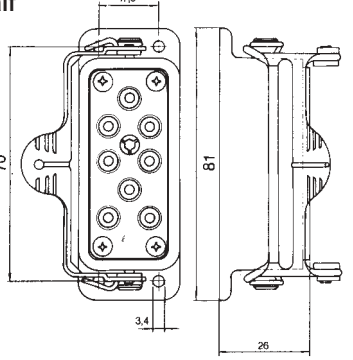
With self sealing valves – on request



Please note the technical data on pages 2-7 and the max. working pressure on page 89

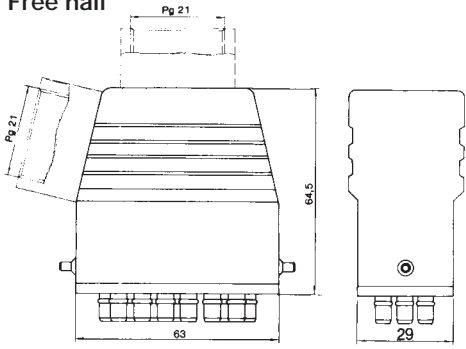
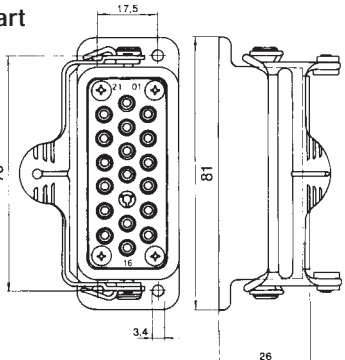
Availability: ● Short ● Medium ○ Long

	Number of elements	n.b.	Part No.	End connections	Weight [g]
Free half 	4	4	90405-1-LT016-31-1-Z13-AN	Quick push connection for hose od 6 mm id 4 mm straight and inclined entry	● 290
Fixed half 	4	4	90405-4-FT016-31-1-Z10-AN	Quick push connection for hose od 6 mm id 4 mm	● 150
Materials: carrier plates: Aluminium anodized elements: brass nickel-plated		quick push connections: brass passivated housing: light alloy hammergrey enamel Seals: NBR, low friction			

Free half 	8	2	90405-1-LT019-31-1-Z13-AO	Quick push connection for hose od 4 mm id 2 mm straight and inclined entry	● 280
Fixed half 	8	2	90405-4-FT019-31-1-Z10-AO	Quick push connection for hose od 4 mm id 2 mm	● 140
Materials: carrier plates: Aluminium anodized elements: brass nickel-plated		quick push connections: brass passivated housing: light alloy hammergrey enamel Seals: NBR, low friction			

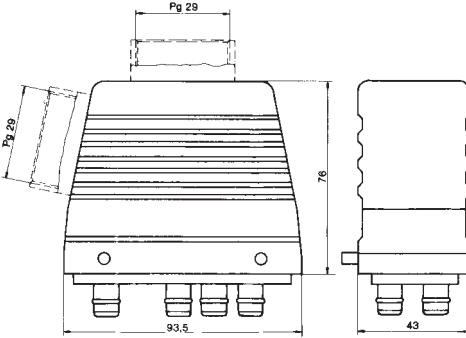
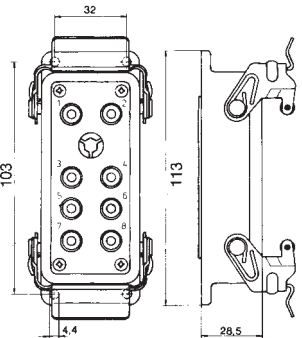
Please note the technical data on pages 2-7 and the max. working pressure on page 89

Availability: ● Short ○ Medium ○ Long

	Number of elements	n.b.	Part No.	End connections	Weight [g]	
<p>Free half</p>  <p>Fixed part</p> 	18	2	90405-1-LT001-PA-1-Z13-AA	Push ferrule connection for hose od 4 mm id 2 mm straight and inclined entry	● 240	
	18	2	90405-1-LT001-PA-1-Z13-AB	Standard:		
	18	2	90405-1-LT001-PA-1-Z13-AC	pattern U1: pattern U2:		
		18	2	90405-4-FT002-PA-0-Z10-AA	Push ferrule connection for hose od 4 mm id 2 mm straight and inclined entry	● 110
		18	2	90405-4-FT002-PA-0-Z10-AB	Standard:	
		18	2	90405-4-FT002-PA-0-Z10-AC	pattern U1: pattern U2:	

Materials:
carrier plates: Polyamide 6.6, 30 % glas fibre reinforced
plug elements: brass, nickel-plated

housings: light alloy, hammergey enamel
 seals: NBR, low friction
 Ferrules for push-ferrule-connections must be ordered separately.

<p>Free half</p>  <p>Fixed half</p> 	8	4	90408-1-LT006-PA-1-Z19-AF	Quick push connection for hose od 6 mm id 4 mm carrier plates made of Polyamide straight and inclined end	● 440
	8	4	90408-1-LT006-31-1-Z19-AF	carrier plates made of anodized Aluminium straight and inclined end	● 520
	8	4	90408-4-FT006-PA-1-Z01-AF	Quick push connection for hose od 6 mm id 4 mm carrier plates made of Polyamide	● 210
	8	4	90408-4-FT006-31-1-Z01-AF	carrier plates made of anodized Aluminium	● 310

Materials:
carrier plates: Polyamide 6.6, 25 % glas fibre reinforced or Aluminium anodized
plug elements: brass, nickel-plated

quick push connections: brass passivated
 housings: light alloy, hammergey enamel
 seals: NBR, low friction

Please note the technical data on pages 2-7 and the max. working pressure on page 89

Availability: ● Short ● Medium ○ Long

	Number of elements	n.b.	Part No.	End connections	Weight [g]
Free half Fixed half 	20	3	90408-1-LT001-PA-1-Z19-AA	Quick push connection for hose od 4 mm id 2 mm carrier plates made of Polyamide straight and inclined entry	● 460
	20	3	90408-1-LT001-31-1-Z19-AA	carrier plates made of Aluminium straight and inclined entry	● 520
	20	3	90408-4-FT001-PA-1-Z01-AA	Quick push connection for hose od 4 mm id 2 mm carrier plates made of Polyamide	● 240
	20	3	90408-4-FT001-31-1-Z01-AA	carrier plates made of Aluminium	● 300
Materials: carrier plates: Polyamide 6.6, 30 % glas fibre reinforced or Aluminium anodized plug elements: brass, nickel-plated			quick push connections: brass passivated housings: light alloy, hammergey enamel seals: NBR, low friction		

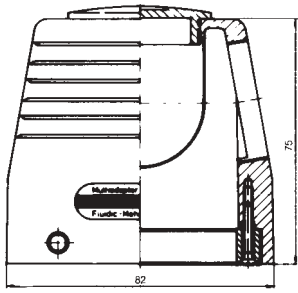
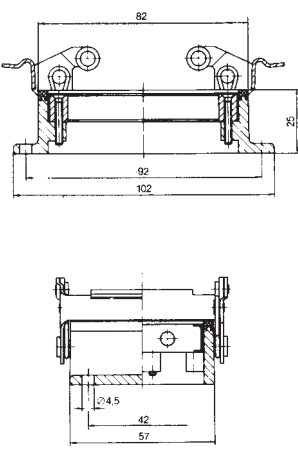
Free half Fixed half 	20	3	90408-1-LT002-PA-1-Z19-AA	Push ferrule connection for hose od 6 mm id 4 mm straight and inclined entry. In case of inclined entry only 17 connections are useable	● 510
	20	3	90408-4-FT002-PA-0-Z01-AA	Push ferrule connection for hose od 6 mm id 4 mm	● 280
Materials: carrier plates: Polyamide 6.6, 30 % glas fibre reinforced plug elements: brass, nickel-plated			housings: light alloy, hammergey enamel seals: NBR, low friction Ferrules for push-ferrule-connections must be ordered separately.		

Spezial versions:
 spezial codings
 with fluidical and electrical
 elements on request

Materials:
 Carrier plates free half: Polyamide PA 6.6, 25 % glass fibre reinforced
 Carrier plates fixed half: Trogamid TG 35
 Retaining bar: Z 410 nickel-plated
 Thru Type Adaptors: brass nickel-plated
 Quick push connections: brass passivated
 Coding pins and bushes: stainless steel 1.4305
 Housing: light alloy, hammergrey enamel
 Seals: NBR, low friction

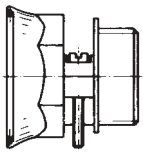

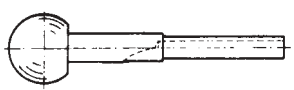
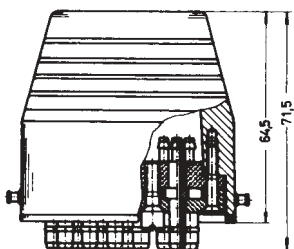
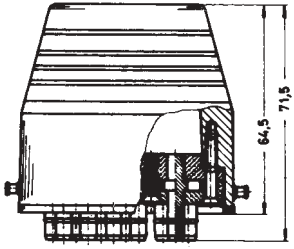
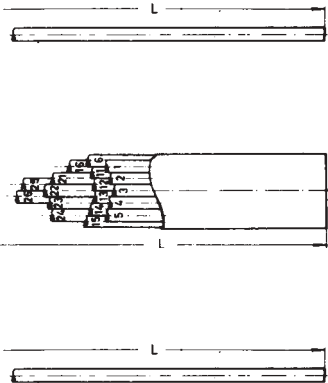
Please note the
 technical data on
 pages 2-7 and the
 max. working pressure
 on page 89

Availability: ● Short ○ Medium ○ Long

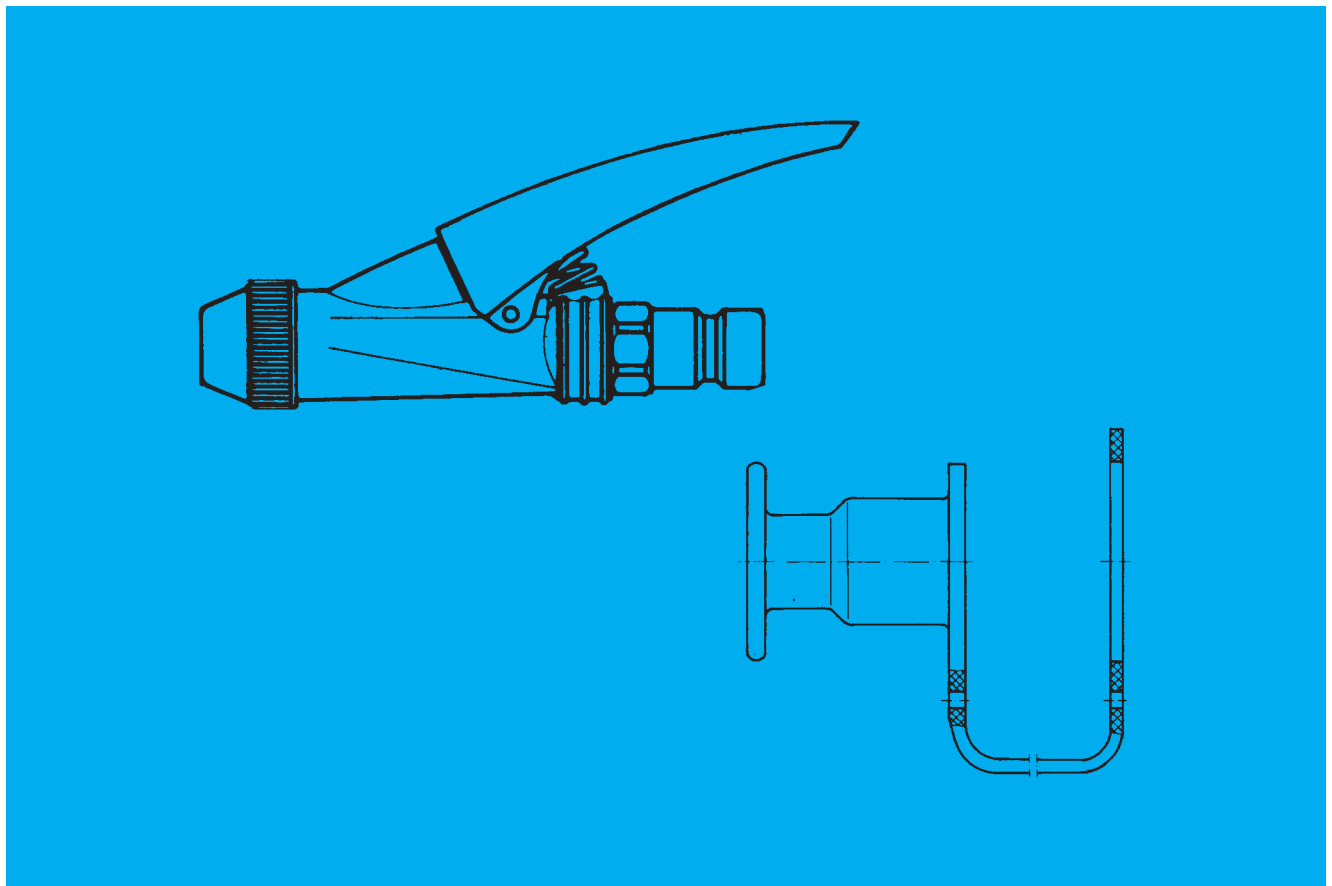
	Number of elements	End connections: A Connection for flexible, numbered plastic lines, made of Rilsan od 4 mm, id 2 mm or od 4 mm id 2,7 mm B Connection for flexible, numbered plastic lines, made of Rilsan od 6 mm, id 4 mm	Part No.		Weight [g]
			Free half	Fixed half	
Free half Straight and inclined entry 	12	12 x Quick push connection B	90410-1-LT002-PA-1-Z04-AB	90410-4-FT002-PA-1-Z03-AB	550 280
	13	4 x Quick push connection A 9 x Quick push connection B	90410-1-LT004-PA-1-Z04-AD	90410-4-FT004-PA-1-Z03-AD	520 280
	14	8 x Quick push connection A 6 x Quick push connection B	90410-1-LT003-PA-1-Z04-AC	90410-4-FT003-PA-1-Z03-AC	510 270
	15	12 x Quick push connection A 3 x Quick push connection B	90410-1-LT005-PA-1-Z04-AE	90410-4-FT005-PA-1-Z03-AE	490 270
	Fixed half 	20	20 x Quick push connection A	90410-1-LT001-PA-1-Z04-AA	90410-4-FT001-PA-1-Z03-AA

Please note the technical data on pages 2-7 and the max. working pressure on page 89

Availability: ● Short ◐ Medium ○ Long

		Part No.	Materials		Weight [g]
	Hose-clamp for Type 90405 / 4-, 8-, 18-way (PG 21)	90405/549	Macrolon	●	25
	for Type 90408 / 8-, 20-way (PG 29)	90408/549	Macrolon	●	48
	Ferrule Type 90405 / 18-way	90405/510	brass nickel-plated	●	1
	Type 90408 / 20-way	90405/512	brass nickel-plated	●	1
	Assembly tool for push ferrule connection Type 90405 / 18-way	90405/550	steel, oil-burnished	●	27
	Type 90408 / 20-way	90405/558	steel, oil-burnished	●	43
Bridge connector 	Bridge connector for Type 90405 / 18-way	Standard: 90405-1-LT001-PA-1-Z03-AA Version U1: 90405-1-LT001-PA-1-Z03-AB Version U2: 90405-1-LT001-PA-1-Z03-AC	Housing: light alloy hammergrey enamel	●	230
Blind half 	Ferrules for push-ferrule-connections must be ordered separately. Blind half for fixed side for Type 90405 / 18-way	Blind half for fixed 90405-6-LT003-PA-1-Z03-AA	Carrier plates: Polyamide Elements: brass nickel-plated Seals: Buna, low friction	●	
	Hoselines for Fluidic-Multicouplings numbered single hose 4x1 (od 4 mm / id 2 mm) numbers 01-06, 11-16, 21-26	7-112-04010-0000-WP	Soft Polyethylene	●	
	numbered 19-way hosebundle 4x1 (od 4 mm / id 2 mm) numbers 01-06, 11-16, 21-26 + neutral bending radius: min. 170 mm	7-113-04010-0019-WP	Soft Polyethylene	●	
	Single hose 6x1 (od 6 mm / id 4 mm)	7-112-06010-0000-WP	Soft Polyethylene, black	●	

	page
Dust caps, Dust plugs	92 - 93
Air blowers	94
Air guns	95
Threaded hose connectors, Revolving connectors	96

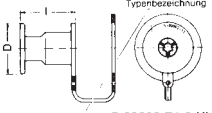
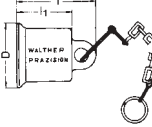
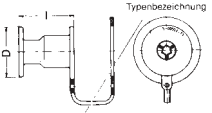
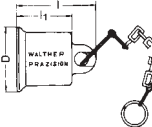
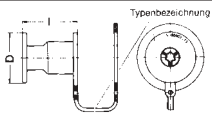
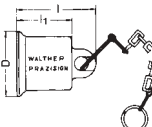
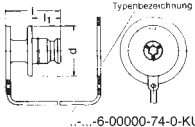
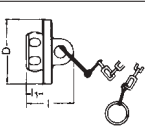
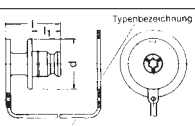
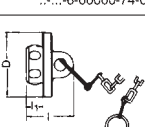
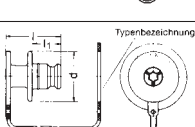
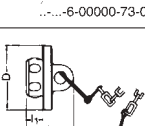


96 Dust caps – Dust plugs

Plastic version

Materials:
Soft-PVC
Polyurethane

Availability: ● Short ○ Medium ○ Long

	Materials	For Series / Type			Part No.	d	l	l ₁		Weight [g]	
		low pressure	medium pressure	high pressure							
Dust caps for self-sealing adaptors and thru types adaptors	 <p>Typenbezeichnung5-00000-74-0-KU</p>	Polyurethane LP/LV-004 soft-PVC grey	LP/LV-004			LP-004-5-74-KU	18	23		●	4
			SP-006			SP-006-5-74-KU	22	24		●	5
			LP-006			LP-006-5-74-KU	22	24		●	5
			LP-007			LP-007-5-74-KU	25	27		●	7
			LP-012			LP-012-5-74-KU	32	33,5		●	12
			LP-019			LP-019-5-74-KU	44	37,5		●	20
	 <p>WALTHER PRÄZISION</p>	soft-PVC grey chains + rings: steel nickel-plated	SP-009			SP-009-5-74-KK	25,5	46	31	●	16
			LP-032			LP-032-5-74-KK	73	76	58	●	65
			LP-050			LP-050-5-74-KK	114,5	110	92	●	110
	 <p>Typenbezeichnung5-00000-74-0-KU</p>	soft-PVC grey		SG-006		SP-006-5-74-KU	22	24		●	7
				MD-006		MD-006-5-74-KU	22	24		●	7
				MD-007		MD-007-5-74-KU	25	27		●	7
				MD-012		MD-012-5-74-KU	32	33,5		●	11
				MD-019		LP-019-5-74-KU	44	37,5		●	20
	 <p>WALTHER PRÄZISION</p>	soft-PVC grey chains + rings: steel nickel-plated		MD-032		LP-032-5-74-KK	73	76	58	●	65
				MD-050		LP-050-5-74-KK	114,5	110	92	●	110
	 <p>Typenbezeichnung5-00000-73-0-KU</p>	soft-PVC black			HP-004	HP-004-5-73-KU	23	27,5		●	7
					HP-006	HP-006-5-73-KU	30	33		●	11
					HP-010	HP-010-5-73-KU	34	38		●	16
					HP-016	HP-016-5-73-KU	41	43		●	20
					HP-020	HP-020-5-73-KU	45	45		●	25
	 <p>WALTHER PRÄZISION</p>	soft-PVC grey chains + rings: steel nickel-plated			HP-032	HP-032-5-74-KK	73	76	58	●	65
					HP-050	HP-050-5-74-KK	114,5	110	92	●	110
Dust plugs for self-sealing couplings and thru type couplings	 <p>Typenbezeichnung6-00000-74-0-KU</p>	Polyurethane soft-PVC grey	LP/LV-004			LP-004-6-74-KU	18	24	12	●	5
			SP-006			SP-006-6-74-KU	22	25	13	●	7
			LP-006			LP-006-6-74-KU	22	30	18	●	8
			LP-007			LP-007-6-74-KU	25	34	18	●	10
			LP-012			LP-012-6-74-KU	32	43	23	●	19
			LP-019			LP-019-6-74-KU	44	46	26	●	34
		soft-PVC grey chains + rings: steel nickel-plated	SP-009			SP-009-6-74-KK	34	35	19	●	19
			LP-032			LP-032-6-74-KK	82	60	32	●	160
			LP-050			LP-050-6-74-KK	112	66	37	●	240
	 <p>Typenbezeichnung6-00000-74-0-KU</p>	soft-PVC grey		SG-006		SP-006-6-74-KU	22	25	13	●	7
				MD-006		MD-006-6-74-KU	22	30	18	●	8
				MD-007		MD-007-6-74-KU	25	34	18	●	9
				MD-012		MD-012-6-74-KU	32	43	23	●	19
				MD-019		LP-019-6-74-KU	44	46	26	●	34
		soft-PVC grey chains + rings: steel nickel-plated		MD-032		LP-032-6-74-KK	82	60	32	●	160
				MD-050		LP-050-6-74-KK	112	66	37	●	240
	 <p>Typenbezeichnung6-00000-73-0-KU</p>	soft-PVC black			HP-004	HP-004-6-73-KU	20	27,5	15,5	●	7
					HP-006	HP-006-6-73-KU	30	33	17	●	13
					HP-010	HP-010-6-73-KU	34	42	22	●	23
					HP-016	HP-016-6-73-KU	41	45	25	●	32
					HP-020	HP-020-6-73-KU	45	47	27	●	40
		soft-PVC grey chains + rings: steel nickel-plated			HP-032	HP-032-6-74-KK	90	61	33	●	160
					HP-050	HP-050-6-74-KK	112	66	37	●	240

Dust caps – Dust plugs

pressure tight version

Materials:

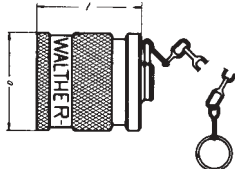
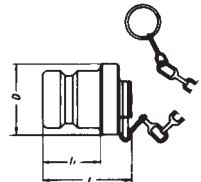
Dichtungen

- 1 = NBR)
- 2 = FKM
- 4 = EPDM

working pressure:
as matching Type

Standard:
11 = steel zinc-plated
19 = steel zinc-plated/oil burnished
12 = steel oil burnished

Availability: ● Short ○ Medium ○ Long

	Materials	For Series / Type			Part No.	d	l	l ₁		Weight [g]	
		low pressure	medium pressure	high pressure							
Dust caps with chain and ring for self-sealing adaptors and thru type adaptors 	steel zinc-plated chains + rings: steel, nickel-plated	SP-006			SP-006-5-11-.	22	38		●	100	
		LP-006			LP-006-5-11-.	25	45		●	120	
		LP-007			LP-007-5-11-.	30	52		●	200	
		LP-012			LP-012-5-11-.	40	58		●	340	
		LP-019			LP-019-5-11-.	54	64		●	610	
		LP-032			LP-032-5-11-.	82	88		●	2150	
		LP-050			LP-050-5-11-.	112	103		●	4400	
	steel zinc-plated/ oil-burnished chains + rings: steel, nickel-plated		MD-006			MD-006-5-19-.	25	45		●	120
			MD-007			MD-007-5-19-.	30	52		●	200
			MD-012			MD-012-5-19-.	40	58		●	350
			MD-019			MD-019-5-19-.	54	64		●	610
			MD-032			MD-032-5-19-.	82	88		●	2150
			MD-050			MD-050-5-19-.	112	103		●	4400
	steel oil-burnished chains + rings: steel, nickel-plated				HP-006	HP-006-5-12-.	34	52		●	250
					HP-010	HP-010-5-12-.	46	60		●	400
				HP-016	HP-016-5-12-.	56	73		●	870	
				HP-020	HP-020-5-12-.	62	73		●	1000	
				HP-032	HP-032-5-12-.	90	94		●	2650	
Dust plugs with chain and ring for self-sealing couplings 	brass passivated	LP-004			LP-004-6-21	18	28	16	●	36	
	steel zinc-plated chains + rings: steel, nickel-plated	SP-006				SP-006-6-11	22	33	20	●	60
		LP-006				LP-006-6-11	25	38	20	●	75
		LP-007				LP-007-6-11	25	38	23,3	●	70
		LP-012				LP-012-6-11	30	44	29,5	●	110
		LP-019				LP-019-6-11	40	50	32,5	●	200
		LP-032				LP-032-6-11	65	58	39	●	580
			LP-050			LP-050-6-11	100	66	46	●	1650
	steel oil-burnished chains + rings: steel, nickel-plated		MD-006			MD-006-6-12	25	38	21,7	●	70
			MD-007			MD-007-6-12	25	38	25	●	60
			MD-012			MD-012-6-12	30	44	31,5	●	95
			MD-019			MD-019-6-12	40	50	35,5	●	200
			MD-032			MD-032-6-12	65	58	41	●	520
			MD-050			MD-050-6-12	100	70	50	●	1630
	steel oil-burnished chains + rings: steel, nickel-plated				HP-006	HP-006-6-12	30	48	30,5	●	100
					HP-010	HP-010-6-12	40	50	36	●	150
					HP-016	HP-016-6-12	40	58	41	●	210
					HP-020	HP-020-6-12	40	60	43	●	250
				HP-032	HP-032-6-12	62	71,5	49,5	●	570	

98 Air Blowers

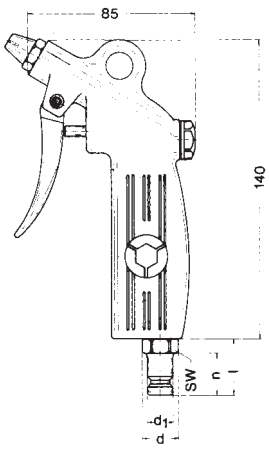
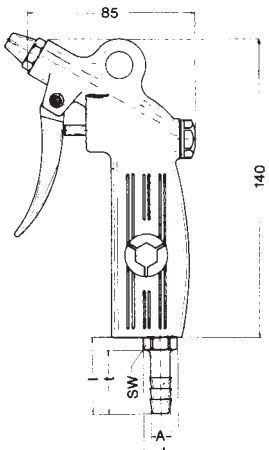
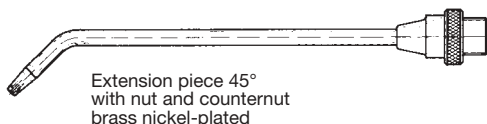


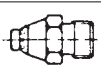

Blast pipes, nozzles, self-sealing, with lever operation, flexible

Availability: ● Short ○ Medium ○ Long

	Material	Part No.	Connection A	d	l	t		Weight [g]
Hose tailpiece	Polyamide	95001-9-SL009	9 mm	33	153	30	○	180
		95001-9-SL011	11 mm	33	153	30	○	180
		95001-9-SL013	13 mm	33	153	30	●	190
		95001-9-SL016	16 mm	33	158	35	○	220
		95001-9-SL019	19 mm	33	158	35	●	220
Nozzle size 3 mm, other nozzles of 4 mm, 6 mm and 8 mm available on request								
Hose tailpiece	Brass passivated	95002-9-SL006	6 mm	22	126	25	●	200
		95002-9-SL009	9 mm	22	138	30	●	210
		95002-9-SL011	11 mm	22	138	30	○	220
		95002-9-SL013	13 mm	22	138	30	○	220
Nozzle size 2 mm, other nozzles of 2,5 mm, 3 mm, 4 mm and 5 mm available on request								
Hose tailpiece	Soft-PVC	95000-9-SL009	9 mm	24	135	30	●	100
		95000-9-SL011	11 mm	24	135	30	○	100
		95000-9-SL013	13 mm	24	135	30	○	110
Also available with suspension hook								
Thru type adaptor connection	Polyamide	95001-9-ST006	LP-006-1	33	143	20	○	180
		95001-9-ST007	LP-007-1	33	146,5	23,3	○	190
		95001-9-ST012	LP-012-1	33	152,5	29,5	○	220
Nozzle size 3 mm, other nozzles of 4 mm, 6 mm and 8 mm available on request								
Thru type adaptor connection	Brass passivated	95002-9-ST006	LP-006-1	21	128	20	●	220
		95002-9-ST007	LP-007-1	21	133	23,3	○	230
Nozzle size 2 mm, other nozzles of 2,5 mm, 3 mm, 4 mm and 5 mm available on request								
Thru type adaptor connection	Soft-PVC	95000-9-ST006	LP-006-1	24	123	20	●	100
		95000-9-ST007	LP-007-1	24	126,5	23,3	○	110
Also available with suspension hook								

Materials:
 gun body – Aluminium
 nozzle 1,5 mm – brass nickel-plated
 extension piece – brass nickel-plated
 plug connection (thru type adaptor) – steel, hardened, zinc-plated
 hose tailpiece – brass passivated

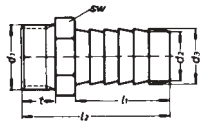
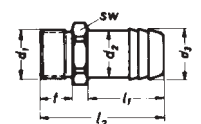
Availability: ● Short ○ Medium ○ Long

	Part No.	Connection A	SW	l	t	n	d	d ₁		Weight [g]
	95003-9-ST006	LP-006-1	14	26		20	15,5	12	●	250
	95003-9-ST007	LP-007-1	17	29,5		23,3	18,9	14	●	260
	95003-9-SL006	6 mm	14	31	25		15,5		●	250
	95003-9-SL009	9 mm	17	36	30		18,5		●	250
	95003-9-SL011	11 mm	17	36	30		18,5		●	260
	95003-9-SL013	13 mm	17	36	30		18,5		●	270
 <p>Extension piece 45° with nut and counter nut brass nickel-plated</p>	95004-9-LG100	100 mm	For better aiming in inaccessible places. Air consumption as regular nozzle.						●	40
	95004-9-LG150	150 mm							●	46
	95004-9-LG250	250 mm							○	60
 <p>Muffling nozzle, Aluminium M 12x1,5</p>	95012	Muffling nozzles reduce noise substantially, without reduction of blowing force. The air consumption is approx. 50% higher than a regular nozzle.						●	6	
 <p>Full-blow nozzle, Polyamide</p>	95013	This nozzle increases the quantity of blown air 3 or 4-fold by sucking more air. The full jet is especially suitable for blowing off large areas (e.g. drying). The air consumption is approx. like the muffling nozzle.						●	12	
 <p>Nozzle with air jacket, Aluminium</p>	95014	Around the blowing jet a cone-sharper air jacket is located, which prevents recoiling of whirled up particles						●	6	
 <p>Protection shield</p>	95015	The protection shield, 70 mm dia, made of plastic, serves as protection for the eyes against recoiling, sharp articles. It is recommended by associations for safety-at-work.						●	9	

100 Threaded Hose Connectors

Materials:
 21 = brass passivated
 40 = Polyacetals

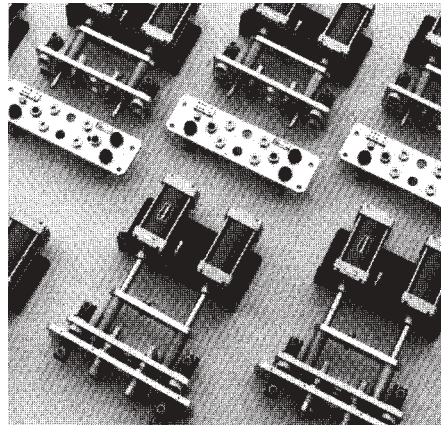
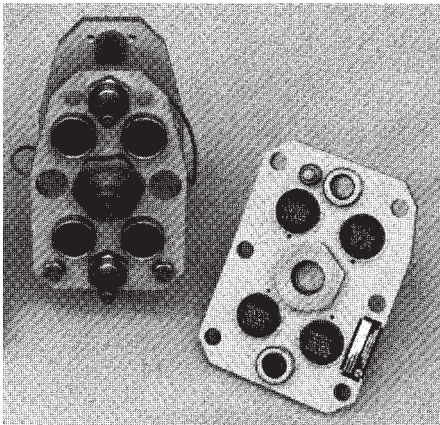
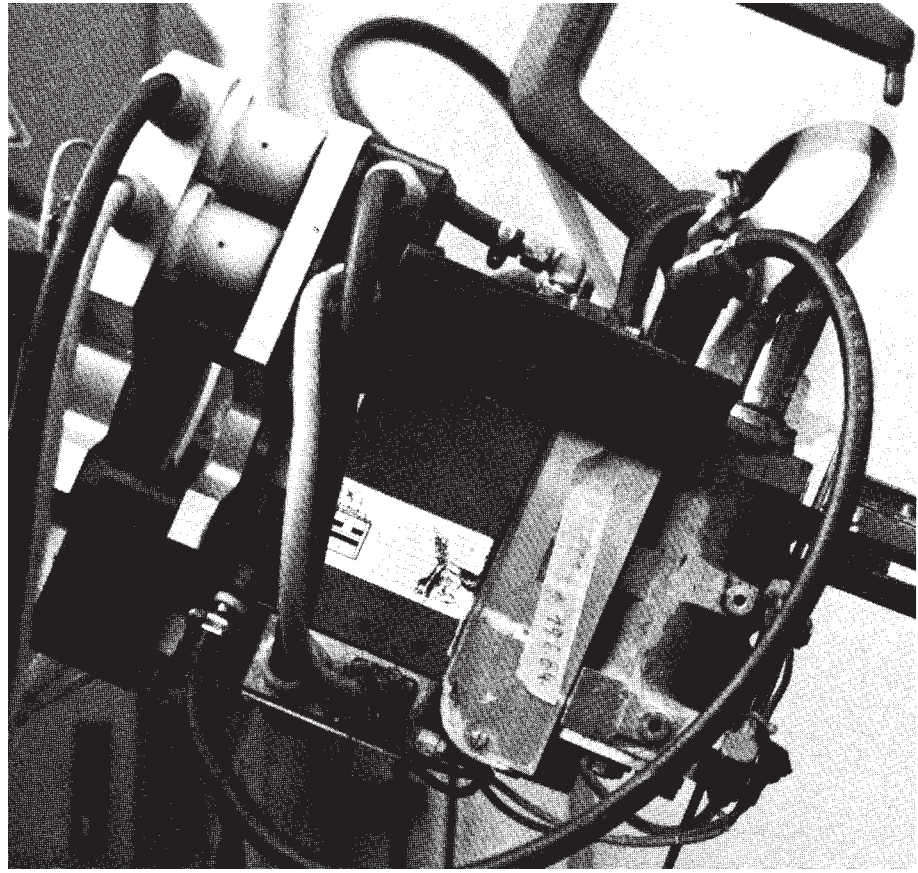
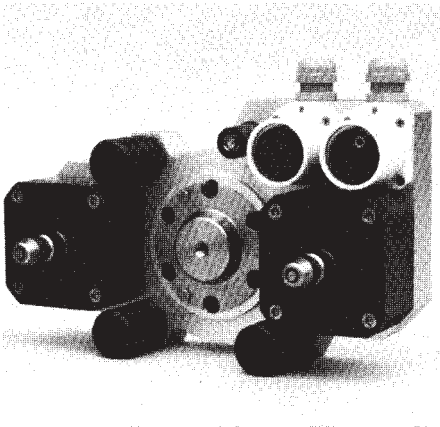
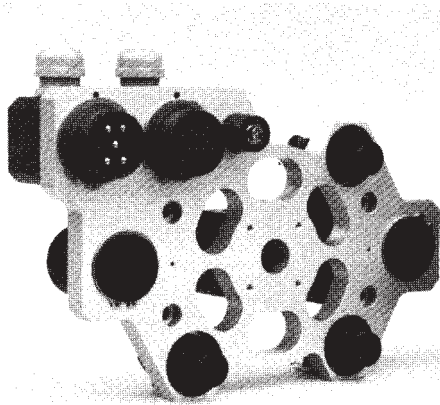
Availability: ● Short ● Medium ○ Long

	Part No.	Thread		Hose Tailpiece			Total Length l ₂	Hexagon AF	n.b.		Weight [g]
		Ø d ₁	Length t	Ø d ₂	Ø d ₃	Length l ₁					
Threaded Hose Connector  Material: brass passivated	5-AN0-OSL-006-WR010-21	G 1/8 A	8	6	7,5	25	38	11	4	●	10
	5-AN0-OSL-009-WR010-21	G 1/8 A	8	8	9,5	25	38	11	6	●	12
	5-AN0-OSL-006-WR013-21	G 1/4 A	9	6	7,5	25	39	14	4	●	15
	5-AN0-OSL-009-WR013-21	G 1/4 A	9	8	9,5	25	39	14	6	●	19
	5-AN0-OSL-011-WR013-21	G 1/4 A	9	10	11,5	25	39	14	7	●	22
	5-AN0-OSL-013-WR013-21	G 1/4 A	9	13	14,5	30	44	17	10	●	30
	5-AN0-OSL-006-WR017-21	G 3/8 A	9	6	7,5	25	39	17	4	●	21
	5-AN0-OSL-009-WR017-21	G 3/8 A	9	8	9,5	25	39	17	6	●	24
	5-AN0-OSL-011-WR017-21	G 3/8 A	9	10	11,5	25	39	17	7	●	27
	5-AN0-OSL-013-WR017-21	G 3/8 A	9	13	14,2	30	44	17	10	●	29
	5-AN0-OSL-006-WR021-21	G 1/2 A	11	6	7,5	25	42	22	4	●	32
	5-AN0-OSL-009-WR021-21	G 1/2 A	11	8	9,5	25	42	22	6	●	34
	5-AN0-OSL-011-WR021-21	G 1/2 A	11	10	11,5	25	42	22	7	●	39
	5-AN0-OSL-013-WR021-21	G 1/2 A	11	13	14,2	30	47	22	10	●	40
	5-AN0-OSL-016-WR021-21	G 1/2 A	11	16	17,5	30	47	22	12	●	50
Threaded Hose Connector  Material: Polyacetals	5-AN0-OSL-013-WR021-40	G 1/2 A	14,5	13	14	30	52,5	24	8	●	10
	5-AN0-OSL-025-WR048-40	G 1 1/2 A	18	25	27	40	73	50	19	●	19
	5-AN0-OSL-032-WR048-40	G 1 1/2 A	18	32	34	45	78	50	22	●	28
	5-AN0-OSL-038-XX069-40	G 1 1/2 A	18	38	40	61	94	50	28	●	30
	5-AN0-OSL-042-XX004-40	G 1 1/2 A	18	42	45	61	94	50	32	●	33

Some examples from 300,000 variants	page
Ball-Face couplings, nom. bore 25 and 50 mm	103
Monocouplings with proximity switches	103
Couplings with Teflon seals	104
Hook-in couplings	104
Tear-away couplings	105
Multicouplings	106

Know-how:

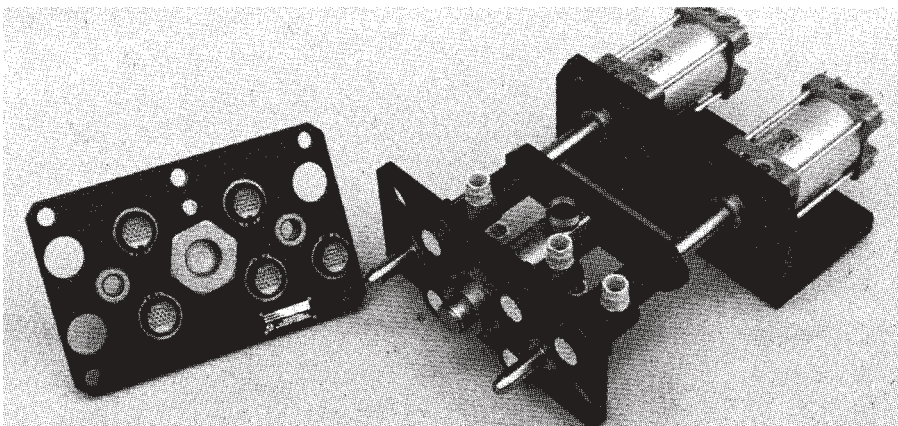
WALTHER Quick Release Coupling Systems for Robotics Industry



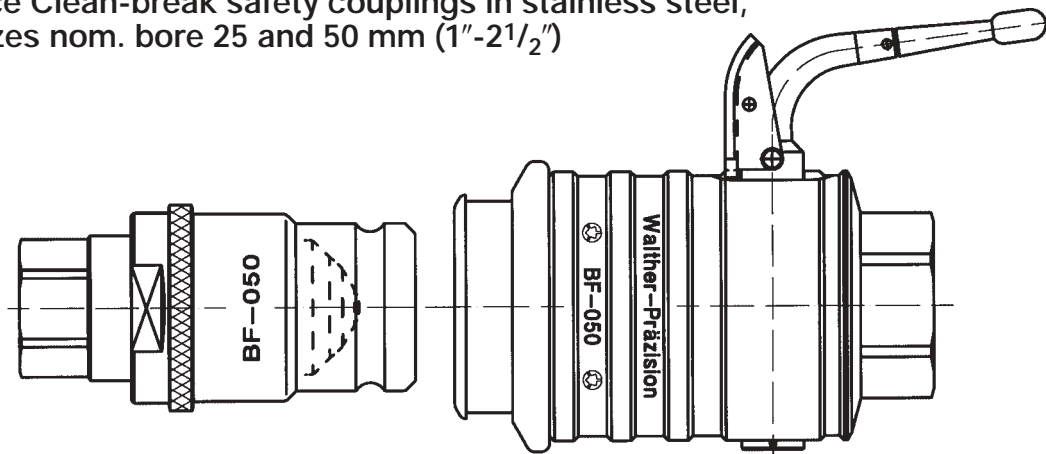
Examples: Docking Systems

for automatic connection of welding tongs, heads and handling gear, onto Robot tools; also for connecting to transporter trolleys on assembly lines.

With our considerable experience and know-how we are in a position to offer quick and safe solutions to problems involving power supply (electric, pneumatic, hydraulic or combinations) to assembly lines.

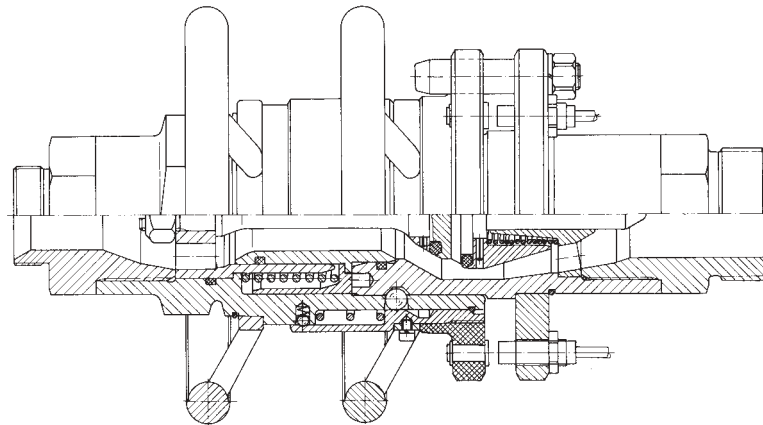


Ball-Face Clean-break safety couplings in stainless steel, large sizes nom. bore 25 and 50 mm (1"-2 1/2")



- push to connect clean-break couplings size 1" to 2 1/2", mainly for applications in the chemical and pharmaceutical industry
- totally squirt free engagement and disengagement at full max. working pressure. Separate operation of coupling connection and opening of valves by turning of handle
- low couple forces, because mechanical connection does not yet open valves
- the couplings can be used for lubricating and non lubricating media
- metal parts are made of stainless steel 1.4404 (AISI 316I) or 1.4571 (AISI 316ti). In combination with the seal compatibility of FKM or perfluorine seals (FFKM) in combination with PTFE a very wide range of media can be allowed
- couple areas are easy to clean
- the main seals sit in one easy to replace seal module
- consideration of all necessary safety aspects

Couplings with Proximity Switches



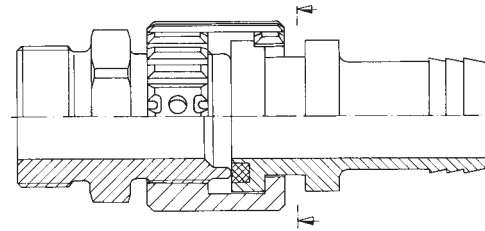
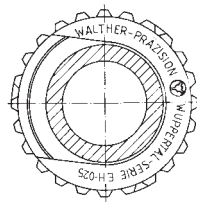
A control of the coupling position is possible when proximity switches are integrated into the coupling. As required the following data can be inquired and controlled:

- yes/no-indication of the coupled and locked state
- yes/no-indication of the opened state of the valves
- identification which of several free halves is connected with which counterpart by coding with several sensors and contacts (see drawing).

By BCD-coding of the switches product processing can be checked and monitored by computers.

Request further information.

Hook-in Couplings



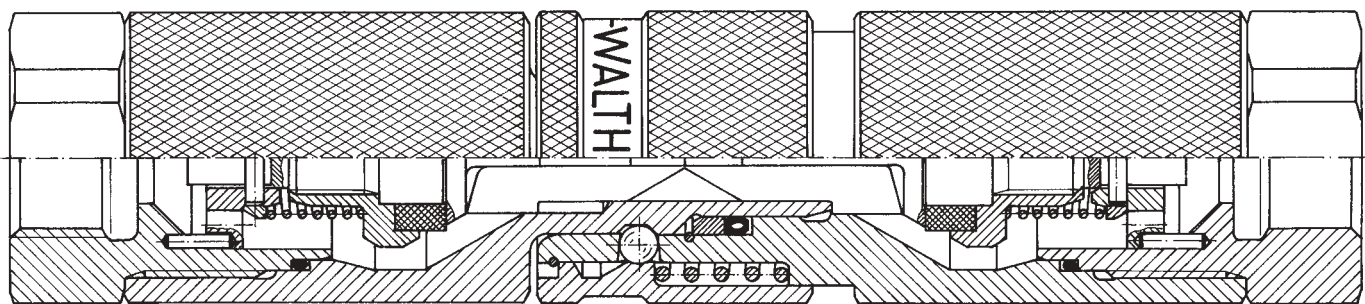
The thru-type adaptor with its front face seal is hooked into the slit on the coupling nut. When the nut is tightened the seal is pressed against the face of the coupling housing. This design allows a free media flow without interference from valves.

The advantages of a hook-in coupling are:

- suitability for paste and powdery media
- easy cleaning of couplings
- extremely short design
- due to the low axial couple stroke also applicable for pipe lines with limited movement
- very easy maintenance
- nearly smooth inner bore without recesses, thus suitability for food because all medium touched surface can be cleaned easy and without problems (no dirt traps).

Request further information.

Couplings with PTFE Seals

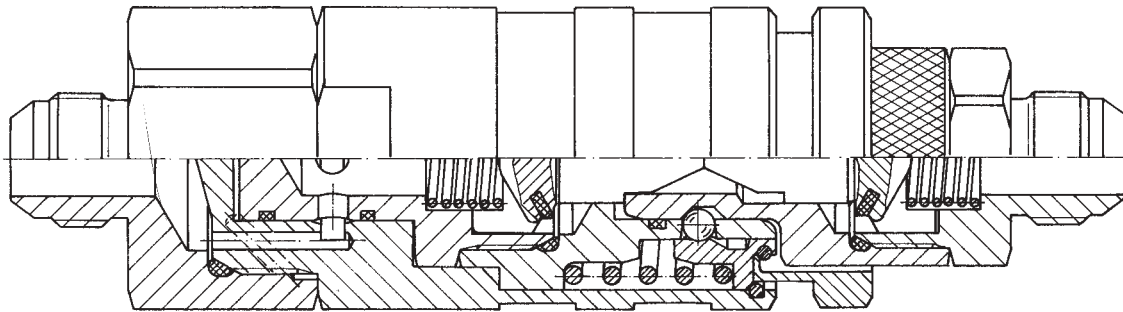


Couplings with PTFE seals have to show other constructional features as such which are outlined for elastomers to make up for the bad readjusting properties of the sealing material PTFE. The couplings of the TE-Series offer this feature and can be used for

- especially aggressive media
- media combinations which have no common elastomeric seal
- temperatures up to +250 °C (+482 °F).
- temperatures up to -50 °C (-58 °F).

Request further information.

Tear-away Couplings



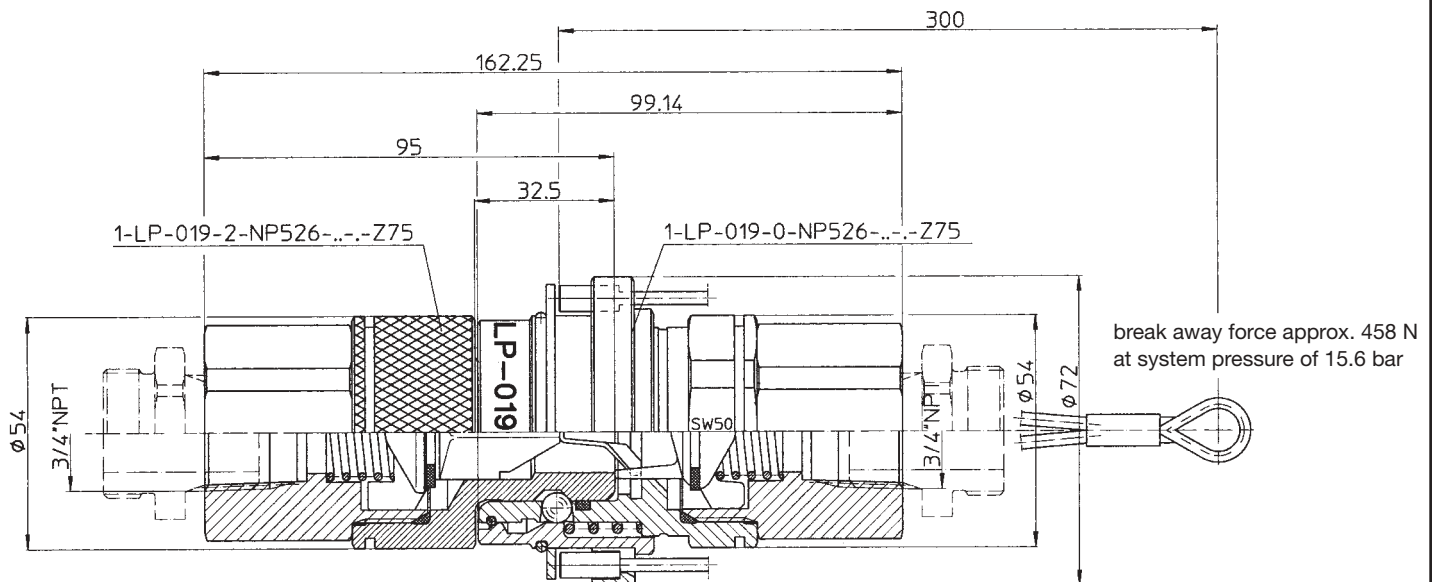
Tear-away couplings protect environment and expensive loading equipment from damage resulting from destruction of media lines at high tensile strain. Mobile facilities which are being filled, e.g. tank lorries, wagons or ships can be moved when insufficiently secured or emergency situations occur, before lines were properly disconnected.

Tear-away couplings avoid damages by

- automatic disconnection on tensile loads, thus preserving the loading equipment from damages
- sealing both line sides automatically during disconnection and consequently prevent medium loss
- releasing alarm through integrated proximity switches.

Contrary to many other kinds of safety devices against “tear away”, these quick connect couplings are re-usable and can be tested on all functions at any time.

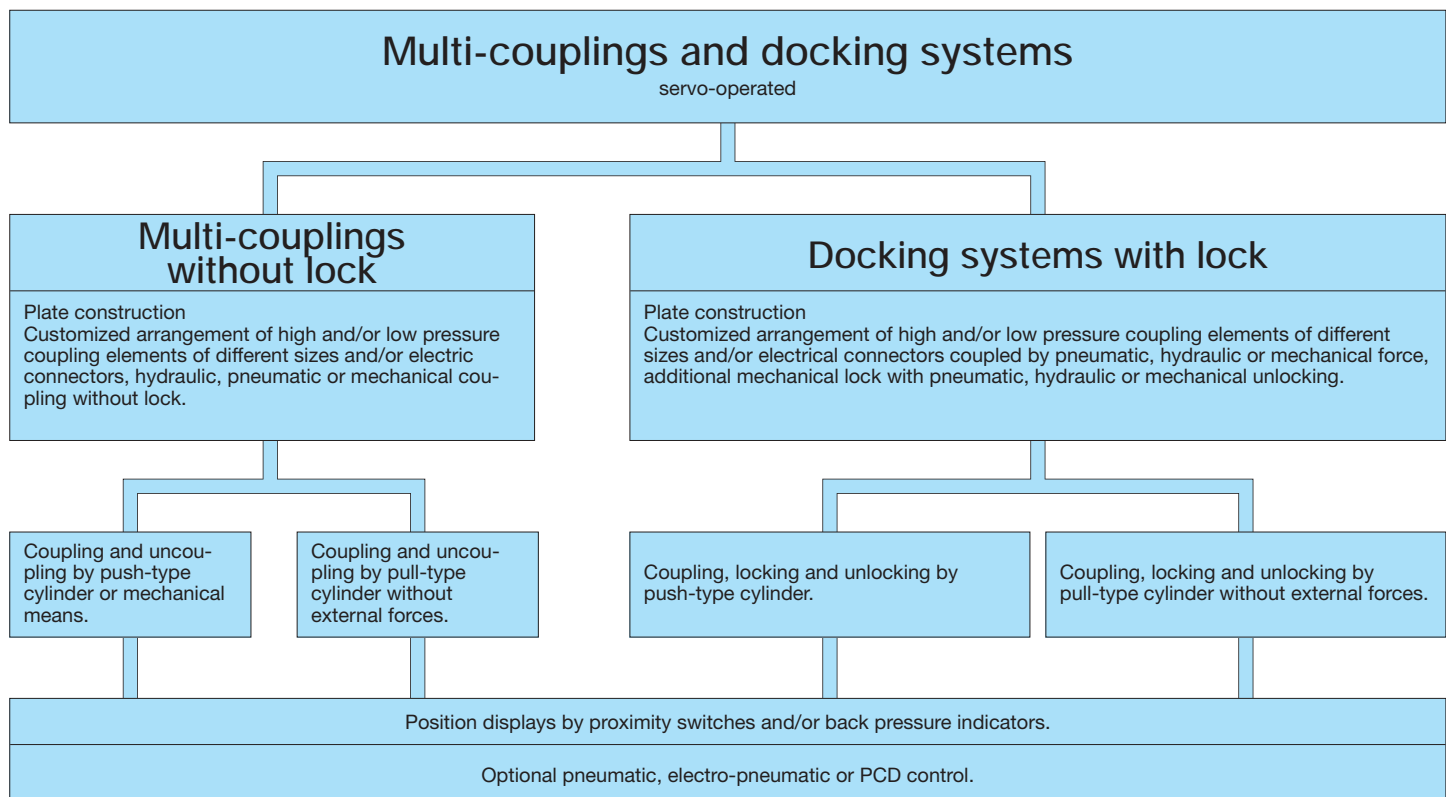
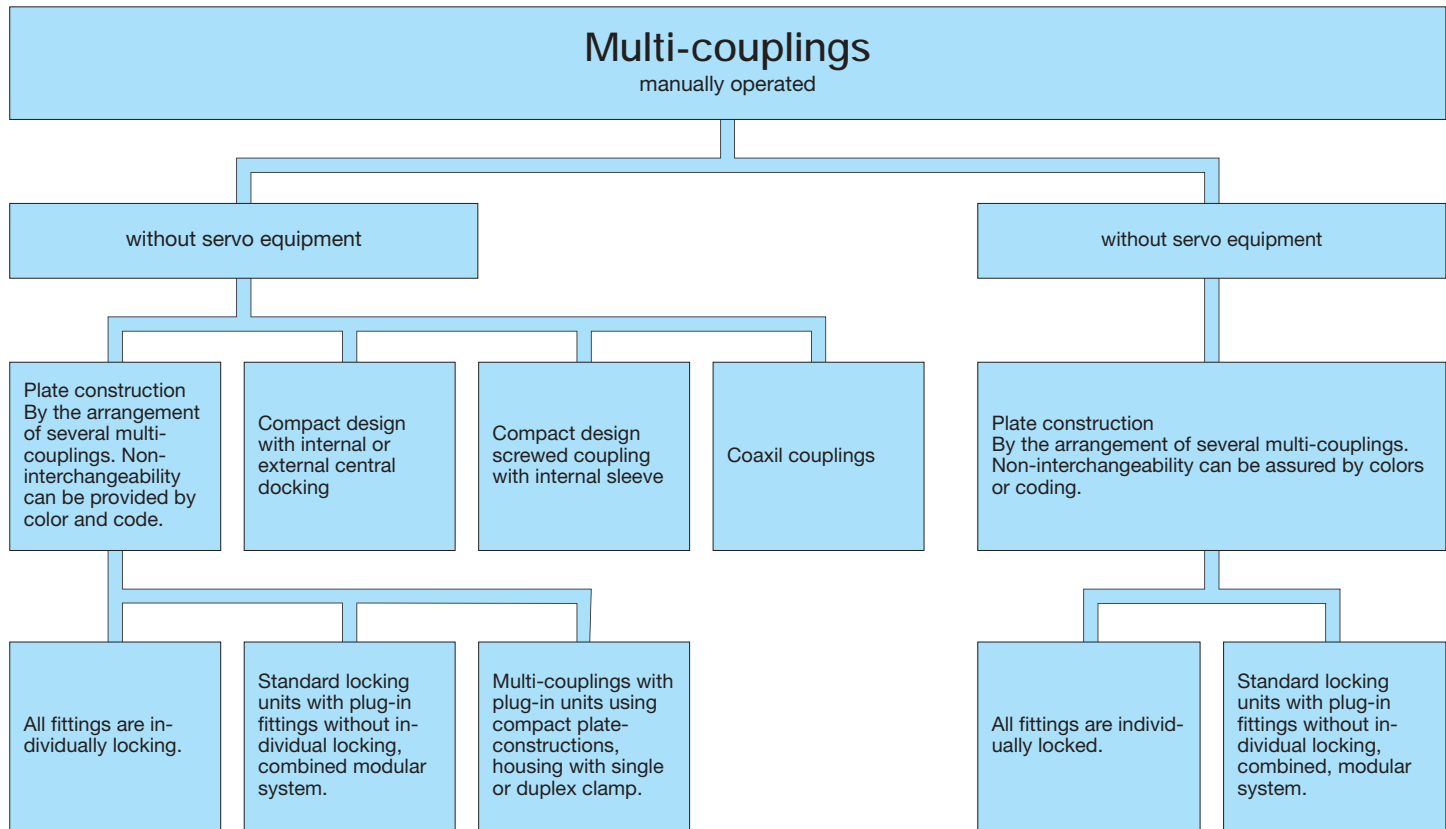
Approved break-away couplings for LPG stations



To avoid release of gas to atmosphere by hose rupture because of prematurely moving vehicles, the requirement for quick disconnection points was established. With certificate of 3/9/2001 the German Federal Authority TÜV approved the break-away coupling LP-019-Z75 in stainless steel and brass to be a suitable safety service.

Approval No. TÜV.ST.BCD.006 – 99.LPG.PN 40

Types of multi-couplings and docking systems



Flow control and/or single or double acting shut-off valves in standard, high pressure and clean break design according to WVN 43.1, 137.01.02, 50.1 can be optionally used in multi-couplings and docking systems.

Australien (AUS) Australia

E.R.E. Co, PTY. LTD.
1 Hebe Street
GREENACRE N.S.W. 2190
P.O.B. 212
PUNCHBOWL, N.S.W. 2196
AUSTRALIA
Tel.: (00 61) 2 97 59 85 47
Fax: (00 61) 2 97 59 75 47
e-mail: erecopl@bigpond.com.au

Belgien (B) Belgium

V.C.T. – Valve & Connector Technology N.V.
Industriezone Dikberd 14 - unit 10a
2200 HERENTALS
BELGIUM
Tel.: (00 32) 14 70 46 71
Fax: (00 32) 14 70 55 79
e-mail: info@vct-nv.be

Brasilien (BR) Brazil

PALM / Maximator
Sergio Escada
Av Epitacio Pessoa 5050 / 702
Lagoa
RIO DE JANEIRO 22471-001
BRAZIL
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Fax: (00 55) 021 2518 2939
e-mail: sergio.escada@maximator.com.br
Internet: www.maximator.com.br

Bulgarien (BG) Bulgaria

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BULGARIA
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Fax: (00 359) 32 694 294
e-mail: office@hennlich.bg
Internet: www.hennlich.bg

China (RC) China

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SHANGHAI 200072
CHINA
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Fax: (00 86) 21 66 250 775
e-mail: chnflyng@online.sh.cn
Internet: www.chnflyng.com

Dänemark (DK) Denmark

HYDROPOWER A/S
Lammefjordsvej 2
6715 ESBJERG N.
DENMARK
Tel.: (00 45) 75 14 44 44
Fax: (00 45) 75 14 45 45
e-mail: hydropower@hydropower.dk
Internet: www.hydropower.dk

Finnland (FIN) Finland

Atoy Oy Atoco
Lauttasaarentie 54
P. O. Box 137
00101 HELSINKI
FINLAND
Tel.: (0 03 58) 9 6 82 71
Fax: (0 03 58) 9 6 82 72 68
e-mail: atoy@atoy.fi
Internet: www.atoy.fi

Frankreich (F) France

Walther S.A.R.L.
13, Rue de Malines
Z. I. Les Malines
91090 LISSES
FRANCE
Tel.: (00 33) 1 69 11 93 00
Fax: (00 33) 1 69 11 93 10
e-mail: info@walther-sarl.fr
Internet: www.walther-sarl.fr

Großbritannien (GB) Great Britain

Walther Couplings
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Fax: (00 44) 14 42 89 08 12
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Internet: www.walther-couplings.com

Irland (IRL) Ireland

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Co. Galway
IRELAND
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e-mail: info@aspiro.ie
Internet: www.aspiro.ie

Italien (I) Italy

Standard programme
Tecnologie Pallotti s.r.l.
Via Cagliari 4
20127 MILANO
ITALY
Tel.: (00 39) 02 26 00 50 15
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Fax: (00 39) 011 403 24 76
e-mail: s.immordino@deri.it
Internet: www.deri.it

Japan (J) Japan

Vogel Japan Ltd.
16-20, Hishie 2-chome
Higashi - Osaka City
OSAKA 578-0984
JAPAN
Tel.: (00 81) 7 29 64 50 55
Fax: (00 81) 7 29 65 12 58
e-mail: center@vogel-japan.co.jp
Internet: www.vogel-japan.jp

Kanada (CDN) Canada

Spez-Tech Engineered Fluid
Power Technology
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2144 Burbank Drive
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CANADA
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Fax: (001) 90 58 28 81 89
e-mail: louspeziale@walther.on.ca

Korea (ROK) Korea

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Deungchon 3 – Dong
KANGSEO-KU
SEOUL KOREA
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Fax: (0082) 2 3664-8118
e-mail: sales55@iacetek.com
Internet: www.acetek.co.kr

Niederlande (NL) Netherland

Eriks Mainparts Rijnmond
Shannonweg 33 – Haven 5079
3197 LG BOTLEK-ROTTERDAM
NETHERLAND
Tel.: (00 31) 010 231 34 71
Fax: (00 31) 010 296 96 18
e-mail: info@eriks.nl
Internet: www.eriks.com

Norwegen (N) Norway

Bjoerge Solberg & Andersen AS
Grenseveien 95
P.O. Box 6500 Etterstad
0606 OSLO
NORWAY
Tel.: (00 47) 23 19 30 00
Fax: (00 47) 23 19 31 00
e-mail: per.haugli@saas.no
Internet: www.saas.no

Österreich (AU) Austria

Dipl.Ing. Dr. techn. Heinz Zoebel
Ein- und Ausfuhrhandelsges.m.b.H.
Maria-Theresien-Straße 5
1090 WIEN
AUSTRIA
Tel.: (00 43) 1 3 19 13 50
Fax: (00 43) 1 3 19 12 64
e-mail: office@zoebel.co.at
Internet: www.zoebel.co.at

Polen (PL) Poland

Bosch Rexroth Sp. z o.o.
Ul. Jutrzenki 102/104
02-230 WARSZAWA
POLAND
Telefon: 0048 (022) 738 18 00
Telefax: 0048 (022) 758 87 35
e-mail: info@boschrexroth.pl
Internet: www.boschrexroth.pl

Polen (PL) Poland

Hennlich Sp. z o.o.
Ul. Paderewskiego 25
41-810 ZABRZE
POLAND
Telefon: 0048 (032) 370 14 80
Telefax: 0048 (032) 370 14 82
e-mail: hennlich@hennlich.pl
Internet: www.hennlich.pl

Rumänien (RO) Romania

SC Hennlich SRL
Str. Patria, nr. 17
310106 ARAD
ROMANIA
Tel.: (00 40) 257 21 10 21
Fax: (00 40) 257 21 10 21
e-mail: stein@hennlich.ro
Internet: www.hennlich.com

Russland (RUS) Russia

000 Delta-Building
2-Frunzenskaja-Str. 8/1, 112
119146 MOSCOW
RUSSIA
Tel.: (007) 495 245 67 58
Fax: (007) 499 242 08 57
e-mail: tatiana@delta-building.ru

Schweden (S) Sweden

Alfakomp AB
Snickarvägen 1A
13238 SALTSJÖ-BOO
P. O. Box 4013
13204 SALTSJÖ-BOO
SWEDEN
Tel.: (00 46) 8 747 60 60
Fax: (00 46) 8 747 16 70
e-mail: info@alfakomp.se
Internet: www.alfakomp.se

Schweiz (CH) Switzerland

WIELAND & OERTLI AG
P. O. Box
8308 ILLNAU
SWITZERLAND
Tel.: (00 41) 52 3 46 14 88
Fax: (00 41) 52 3 46 10 86
e-mail: service@wieland-oertli.ch
Internet: www.wieland-oertli.ch

Slowakische Republik (SK)

Republic of Slovakia
Hennlich Industrietechnik spol. s r.o.
Kosická 52
82108 BRATISLAVA
REPUBLIC OF SLOVAKIA
Tel.: (00 421) 2 50 204 308
Fax: (00 421) 2 50 204 311
e-mail: technik@hennlich.sk
Internet: www.hennlich.sk

Slowenien (SLO) Slovenia

Metalka Zastopstva
IPRO d.o.o.
Brnciceva 9
1231 LJUBLJANA-CRNUCE
SLOVENIA
Tel.: (0 03 86) 1 56 11 045
Fax: (0 03 86) 1 56 14 911
e-mail: ipro@siol.net

Spanien (E) Spain

ELION S.A.
Farell 5
08014 BARCELONA
Apartado Postal 7097
08080 BARCELONA
SPAIN
Tel.: (00 34) 9 32 98 20 10
Fax: (00 34) 9 32 98 20 48
e-mail: fluidos@elion.es
Internet: www.elion.es

Süd Afrika (ZA) South Africa

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WYNBERG, Sandton Gauteng
P.O.Box 3 94 44
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SOUTH AFRICA
Tel.: (00 27) 11 7 86 03 12 / 3
Fax: (00 27) 11 7 86 03 03
e-mail: comatra@global.co.za
Internet: www.comatra.co.za

Tschechische Republik (CZ)

Czech Republic
Hennlich Industrietechnik spol. s.r.o.
Ceskolipska 9
41201 LITOMERICE
CZECH REPUBLIC
Tel.: (00 420) 416 711 330
Fax: (00 420) 416 711 399
e-mail: hennlich@hennlich.cz
Internet: www.hennlich.cz

Türkei (TR) Turkey

Doruk
Otomasyon Elemanlari & Makina Ticaret
Ltd. Sti
Okmeydan Piyalepasa Bulvar
Sahin Kaya Sok. No. 13 Kat. 4
80270 SISLI / ISTANBUL
TURKEY
Tel.: (00 90) 212 36 11 939
Fax: (00 90) 212 36 11 942
e-mail: info@doruk.gen.tr
Internet: www.doruk.gen.tr

Ungarn (H) Hungary

Hennlich Ipartecnika KFT
Heliport-Reptér
6500 BAJA ÁRPÁD u. 1. 316
HUNGARY
Tel.: (00 36) 79 42 16 16
Fax: (00 36) 79 32 40 77
e-mail: szarvas@hennlich.hu
Internet: www.hennlich.hu

USA

Maxbar, Inc.
11319 Tanner Rd.
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Telefax: +49 (0) 21 29 567-450

Postadresse / Postal address:

Postfach 420444
42404 Haan, Germany

eMail: info@walther-praezision.de
Internet: www.walther-praezision.de

