



Updated
& advanced
web version

Technical Catalogue



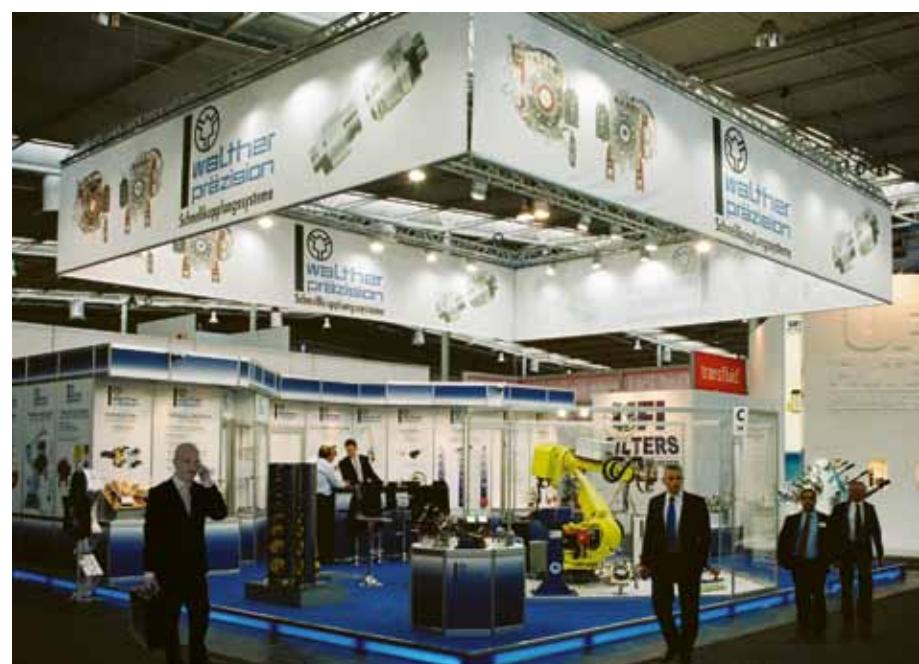
The Company



WALTHER-PRÄZISION is the specialist for problem solutions in the connection technology of fluidic and electric lines and worldwide operating problem solver. The basis of WALTHER-PRÄZISION's success and innovative leadership, with a clear insight into customer-oriented solutions, combined with first class quality and due consideration for the environment resulting in first class products.

WALTHER-PRÄZISION manufactures more than 400.000 varieties of coupling systems with the latest technology at its Haan location (Rhineland region) with about 300 employees and supplies its products globally to more than 50 countries.

WALTHER-PRÄZISION does not produce mass goods! Whether it is milled, turned, welded, glued, cast, injection-moulded, punched, pressed or shaped, each item is checked. All assembled couplings, whether standard or special, undergo a final performance and leak test before leaving the factory. Convince yourself of our high class and innovative products. The modern quality management system was certified in 1992 for the first time in compliance with DIN EN ISO 9001. Further certifications, e. g. DIN EN ISO 13485, DIN EN ISO 9100 and KTA 1401 are available.



Quick coupling systems

Right for alterations of products reserved without prior notice		Page
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	Series KL Working pressure $p_{max.(\text{stat.})}$ 12 bar not for vacuum Materials: polyamide, polyacetal resin	35 - 40
	Series UF Non-interchangeable, UF-032 not for vacuum, Working pressure $p_{max.(\text{stat.})}$ 40 bar Materials: brass, stainless steel	41 - 48
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2 Mono-Couplings, Design

Do you have questions regarding the available product types?

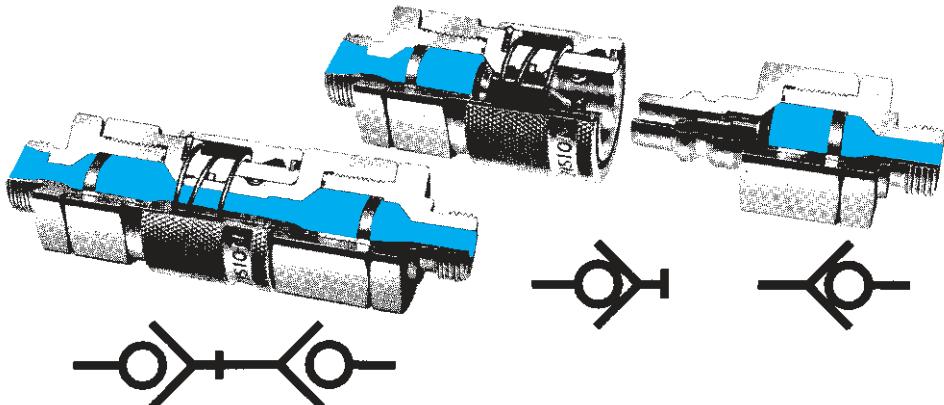
Our customer service is always eager to answer your questions. Phone: +49 (0) 2129 567-402.

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.

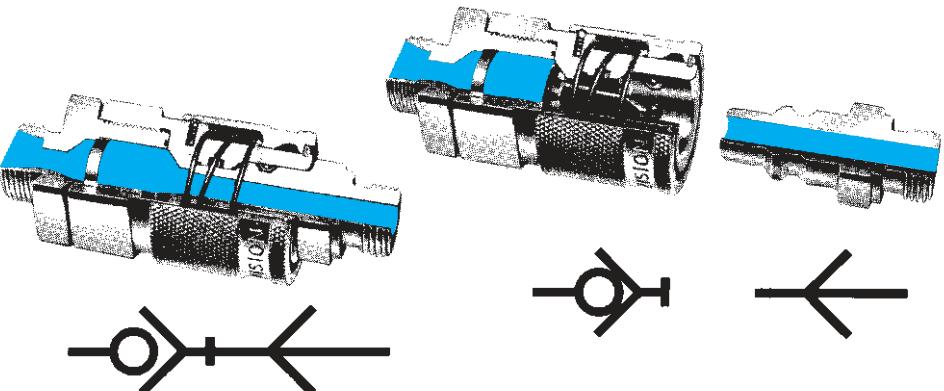
Upon disconnection the valves of Self-Sealing Coupling and Self-Sealing Adaptor close simultaneously.



Self-Sealing Coupling and Thru-Type Adaptor = sealing on one side.

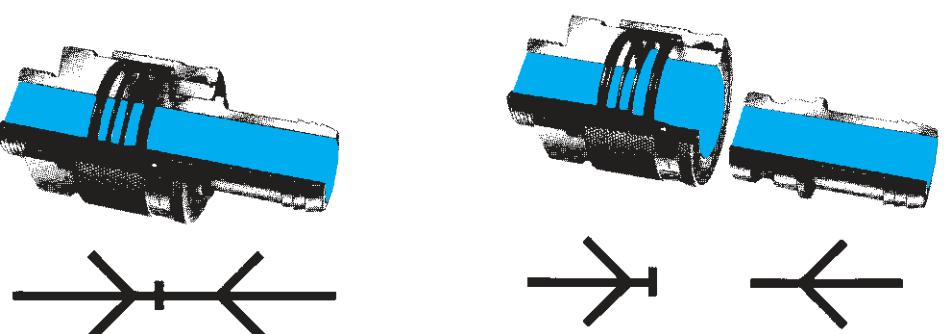
Upon disconnection the coupling valve closes.

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

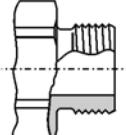
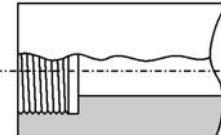
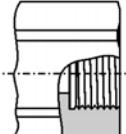
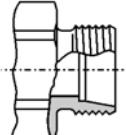
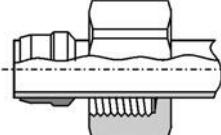
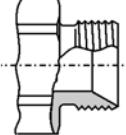
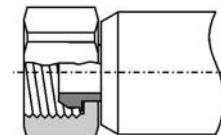
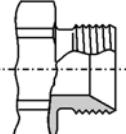
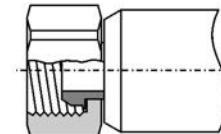
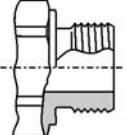
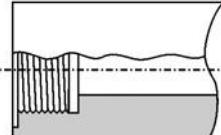
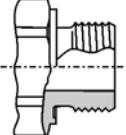
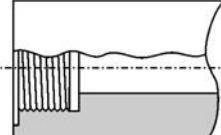
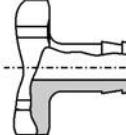
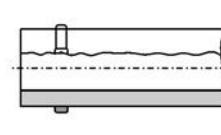
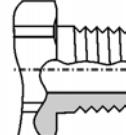
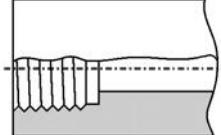
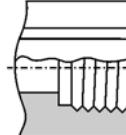
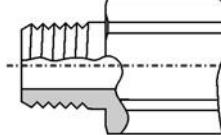
with annex for optional additional features per example of low pressure self-sealing coupling in stainless steel with additional features

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										
	<p>0 = self-sealing coupling 1 = thru-type adaptor 2 = self-sealing adaptor 4 = thru-type coupling 5 = dust cap</p> <p>6 = dust plug 7 = thru-type coupling with valve plunger 8 = thru-type adaptor with valve plunger 9 = airguns and other untypical variations</p>										
Series + nominal bore = type	End connection type see part number										
LP - 006 - 0 - WR021 - 01 - 2 - GL - OV - SI	<p>WR021 = end connection G 1/2 A to DIN ISO 228 = 1/2" BSPP male (XX001 to XX999) = special connections defined XX connection numbers of one type, cannot be used for other nominal bores / nominal sizes or series</p> <p>regarding content variable area</p>	<p>regarding content and number of digits variable annex</p>									
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	<p>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.</p>										
For special materials or special seal types a 4 figure identification is taken by using letter combinations from AAAA to ZZZZ	<p>Seal type</p> <table> <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> </table> <p>See table of characteristic features and compatibility on page 6 + 7</p>	NBR	=	1	FKM	=	2	EPDM	=	4	
NBR	=	1									
FKM	=	2									
EPDM	=	4									
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...										
Special Designs											

4 Standard End Connection

Please note: In case of standardised end connections, please take the max. allowable working pressure of the end connection into account when determining the working pressures.

 Do you have questions about the maximum permitted working pressure?
Our customer service is always available to answer your questions. Phone: +49 (0) 2129 567-402.
Please find further information to this topic on our web site.

	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 acc. to DIN 2353, also available as extended bulkhead connection for olive and swivel nut acc. to DIN EN ISO 8434-1 light duty series heavy duty series	-L.....- -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 (not part of delivery)	-WE... -		
Hose connections	-SL0.. -		
conical pipe male thread NPT to US standard	-NP0.. -		
conical pipe female thread NPT to US standard	-NP5.. -		

ATTENTION!

These additional features are not available with all coupling valves and are partly not combinable.

Do you have questions regarding our additional equipment?

Our customer service is always available to answer your questions. Phone: +49 (0) 2129 567-402.

Manufacturing according to 3.1 "BB": In proof of preset materials, a documented manufacturing according to EN 10204/3.1 is necessary to 3.1 "BB":

ATEX conformity "EX": An ATEX conform design should be used in explosive areas. This is in compliance with the device group II / category 2 of the explosion protection directive 94/9 EG.

Free of enamel flow disturbing substances "FL": To exclude impairments during the coating process, the enamel flow disturbing (enamel wet disturbing) substances must not be obscured, e. g. with the pressurized air.

Ring grips "GG", "EG": In some applications, e. g. in unfavourable locations, high working temperature, etc. the handling of the couplings can be simplified by additional ring grips.

GW version This version is intended for the use in planned gas plants worked out by engineers for the commercial and industrial gas application.

Ring piston valves "RV": When self-sealing couplings and adaptors are employed under strong pulsating pressure and especially raw working conditions, service life and abrasion resistance can be improved considerably when equipping them with ring piston valves. These valves cannot be connected with standard valves.

Safety locking device "SI" All couplings can be supplied with an additional axial positive safety device. Disconnection is only possible when both locking components – locking sleeve and locking ring – are pulled back against spring force and turned against each other by 90 degrees. Both final positions – secured and released – are fixed by spring-loaded cams. The operator can check the correct locking position by trying to pull back the locking sleeve and thus, disconnecting the coupling. This is not possible in secured position.



TA-Air "TA": With regard to tightness, resp. compliance with specific leakage rate according to TA-Air VDI 2440, extended tests can be carried out.

Venting valves "VE": For long pressurized air lines, it is recommended to use self-sealing couplings and adaptors with venting valves at the hose connection side. Thus the return shock on disconnection is considerably reduced and the air can escape slowly from the hose

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

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 forward into locking position. Thus, it must not be held or hindered otherwise during this action.

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 fully resistant + partly resistant ○ non-resistant -			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 (Ethyne)
+	+	+	+	-	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
-	+	+			Aero hydraulic fluid SKYDROL
+	+	+	+	●	Air, compressed
+	○	+	○	○	Air, hot up to 120°C
+	+	-	-	●	Air, hot up to 200°C
+	+	+	+	●	Alcohol
-	+	+	●	●	Alum
-	○	+	+	○	Alkali
○	-	+	+	-	Ammonia, liquid
-	-	+	+	○	Ammonium Sulphate Solution

Table of resistance fully resistant + partly resistant ○ non-resistant -			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					
+	+	+	+	+	Amyl Alcohol
+	+	-	-		Aniline
+	+	+	+		Benzole
+	+				Borax
+	+	+	+	●	Butane
+	+			●	Butene
+	○	+	+	●	Butyl Alcohol
+	+	+	+	●	Carbon Dioxide
+	+	+		●	Carbon Dioxide, dry
+	+	+	+	●	Carbon Dioxide, liquid
+	+			●	Carbonyl Bisulphide
-	-	○	-	-	Chloride of Barium
				●	Chromic Acid
	+			●	Citric Acid
+	+			●	Creosote
+	-	+	-	●	Cresol
+	+			●	Cresol, Cresylic Acid
	○	-		●	Cupric Chloride
+	+	○	+	●	Cyclohexane
+	-	+		●	Diethylene glycol
○	+	+	+	●	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 20 °C
-	+	+	-	●	Hydrogen Sulphide, Humid
+	+		○	●	Hydrogen Sulphide, dry

Table of resistance				Table of seals			
fully resistant	+ ○	partly resistant	-	Qualityto DIN / ISO 1629			
steel zinc plated				NBR	FKM	EPDM	
brass passivated							
ss AISI 316 ti or similar							
Polyamide 11/12							
Polyacetal POM							
● = compatible							
+	+	+	+	●			Petrol Ether
+	+	+	+	●	●		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 140 °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 (Strengthened Valve Springs)
+	+	+	+	+	●	●	Vegetable Oils
	+	+	+			●	Water Distilled
	+				●	●	Water Deionized
○	+	+	○	○	●	●	Water, up to 80°C
○	○	+	○	-	●	●	Water, over 80°C
-	-	+	+	-	●	●	Water, Cooling
+	+	+	+	+	●		Xylene

8 | Test Certificates / Approvals

You need approved valves or special test certificates?

Our customer service is always eager to answer your questions. Phone: +49 (0) 2129 567-402.



Please find further information to this topic on our web site.

QA system certification to DIN/EN/I SO 9001 as well as 13485 for medical products and KTA 1401 for nuclear facilities by TÜV Rheinland

QA system certification to DIN/EN/ ISO 9001 aerospace by EADS/ AECMA-EASE approvals to TA-Air by TÜV-Süd and ATEX by SGS-TÜV

Bundesanstalt für Materialforschung und -prüfung BAM, Berlin

Approval of type UF-019 for Acetylene lines up to 24 bar gauge pressure

Bundesbahnzentralamt Minden

WALTHER quick couplings, low pressure series, for pressurized air-, water- and cleaning lines

Bundesmarine/Blohm & Voss AG, Hamburg

Shock test report of the Bundesmarine / Blohm & Voss AG Hamburg about WALTHER quick couplings, MD series, for high accelerations and shocks

Centrale Dienst der Arbeidsinspectie, 's-Gravenhage:

WALTHER quick couplings for air-, oxygen-, acetylene- and propane lines, etc.

Daimler-Benz Aerospace:

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

Fachausschuss Chemie bei der Zentralstelle für Unfallverhütung des Hauptverbandes der gewerblichen Berufsgenossenschaften, Köln:
WALTHER quick couplings at high pressure liquid jets

Institut für Baustoffkunde und Stahlbetonbau der Technischen Universität Braunschweig:

Application of WALTHER quick couplings, MD and HP series, in the hydraulic cycles of test machines with high pressure alternations

RWTÜV Anlagentechnik GmbH, Essen:

WALTHER quick couplings, type 07-003 and SH-004 in TÜV performance-tested design as test connections in nuclear power stations

Schweizerische Unfallversicherungsanstalt SUVA:

Approval of the Walpresta Series LS (different nominal bores) as safety couplings in the pressurized air sector

Schweizerischer Verein für Schweißtechnik, Basel:

WALTHER quick couplings, low pressure series – non-interchangeable design, as plug connection for oxygen- and fuel gas 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 functional connection between forced-air burner and gas lines for natural gas, town gas, propane/air and liquefied petroleum gas up to 5 bar working pressure.

Siemens AG, Zentralabteilung Reaktortechnik, Erlangen:

WALTHER quick couplings, medium pressure series for radioactively contaminated wastewater systems and demineralized water cycles, also in case of particle contamination and heating

Siemens AG, Unternehmensbereich KWU, Erlangen:

Confirmation for manufacturing of quick couplings, multi couplings and docking systems for nuclear facilities on the basis of QSP4a and KTA 1401

Verkehrsanlagen e. V. STUVA, Düsseldorf:

WALTHER quick couplings for the use in propane gas lines in underground installations (tunnelling)

Verband für Flüssiggas e. V., Frankfurt:

WALTHER quick couplings for the use in liquefied petroleum gas lines

Material certificates

According to EN 10204 2.1 until 3.1 and in-house certificates for quantities, parts, material certification, pressure test, leakage test up to 10-9 mbar x l/sec., functional test, warranty, based on cost sharing

Documented manufacturing

according to specifications for nuclear engineering, for military use, for medical applications, for offshore technology, etc

Guideline for pressure devices (DGRL):

Our products designed for fluids of the group 2 (acc. to 97/23 EG) must not be labeled with the CE sign.

Special test and approval conditions must be stated at the latest when order is placed.

Low Pressure Series LP

ATTENTION!

When determining the working pressure of standardised end connections, the maximum permitted working pressure of the end connections has to be considered.

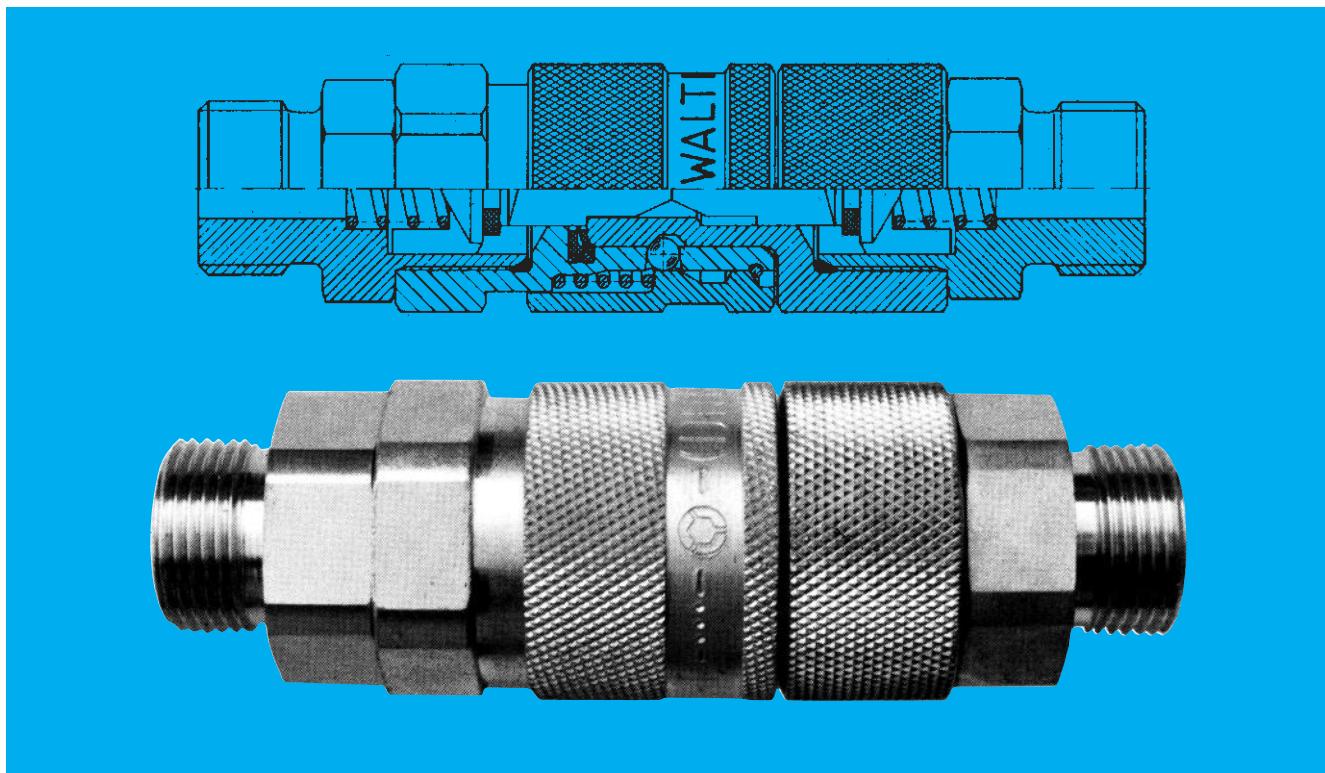
You have questions regarding the maximum permitted working pressure? Our customer service is always available to answer your questions. Phone: +49 (0) 2129 567-402.

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	–	100/1450	–	0.165	5	11	
3	LP-003	–	200/2900	–	–	0.21	8	12
3	07-003	–	200/2900	200/2900	0.14	–	7.1	13
4	LP-004	110/1595	60/870	20/290	0.3	0.36	13	14
4	LV-004	–	20/290	20/290	0.3	–	13	15
6	LP-006	60/870	40/580	40/580	0.73	1.13	30	16 – 17
6	SP-006	100/1450	60/870	60/870	0.77	1.1	30	18 – 19
7	LP-007	50/725	40/580	40/580	1.17	1.5	40	20 – 21
9	SP-009	100/1450	40/580	40/580	2.1	2.41	64	22 – 23
12	LP-012	50/725	30/435	30/435	3.28	4.34	120	24 – 25
19	LP-019	50/725	30/435	30/435	8.4	11.6	300	26 – 27
32	LP-032	30/435	30/435	30/435	23.8	29.4	800	28 – 29
50	LP-050	30/435	20/290	20/290	59	68	2000	30 – 31
Performance diagrams								32 – 33
Multiway connectors								34

* based on experience, valid up to 100 °C

Please note: In case of standardised end connections, please take the max. allowable working pressure of the end connection into account when determining the working pressures.

The types LV-004, LP-006, SP-006, LP-007, SP-009, LP-012 and LP-019 in stainless steel (1.4404, 1.4571 or equal) are delivered as standard without knurling but in a smooth version (-GL/-GX) with finger grooves. Actual design differs from drawing.



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).



NEW – low pressure series CT

The clean break coupling of the **CT series** is a quick coupling of the latest generation for the low pressure sector up to 64 bar. It is suitable for all applications requiring smallest leakage with easiest handling and high flow.



Please find further information to this topic on our web site.

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

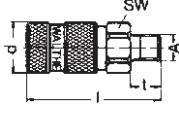
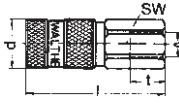
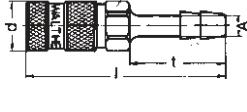
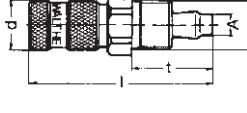
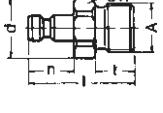
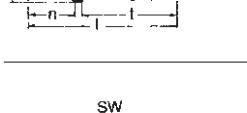
materials:
standard:
 23 = brass, nickel plated

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	$\frac{A_1}{A_2}$	SW	$\frac{SW_1}{SW_2}$	I	$\frac{l_1}{l_2}$	d	$\frac{d_1}{d_2}$	t	n	weight [g]
	male thread	06-003-0-XX001-23-	M 5	●		9		26,5		10		6		8
		06-003-0-XX010-23-	M 10	●		11		30,5		10		10		12
	female thread	06-003-0-XX015-23-	M 5	●		9		28		10		7		11
		06-003-0-SL004-23-	4 mm	●		9		39,5		10		19		10
	hose connection	06-003-0-SW003-23-	OD 5 ID 3 mm	●	$M 7 \times 0,5$ —	9	$\frac{7}{—}$	32,5	$\frac{9}{—}$	10	$\frac{8}{—}$	12		11
		06-003-0-SW004-23-	OD 6 ID 4 mm	●	$M 10 \times 1$ —	11	$\frac{13}{—}$	36,5	$\frac{13,5}{—}$	10	$\frac{14,3}{—}$	16		21
	re-usable hose connection with swivel nut for plastic pipes	06-003-0-XX017-23-	OD 5 ID 3 mm	○	$M 7 \times 0,5$ $M 7 \times 0,5$	9	$\frac{7}{11}$	45,5	$\frac{9}{3}$	10	$\frac{8}{12}$	25		24
		06-003-0-XX006-23-	OD 6 ID 4 mm	●	$M 10 \times 1$ $M 10 \times 1$	11	$\frac{13}{17}$	45,5	$\frac{13,5}{5}$	10	$\frac{14,3}{18,9}$	25		25
	male thread	06-003-1-XX001-23	M 5	●		9		19		9,9		6	9	4
		06-003-1-WR010-23	BSPP 1/8"	○		11		21		12		8	9	6
	female thread	06-003-1-XX015-23	M 5	○		9		18		9,9		7	9	5
		06-003-1-SL004-23	4 mm	●				29,5		6		19	9	3
	hose connection	06-003-1-SW003-23	OD 5 ID 3 mm	●	$M 7 \times 0,5$ —	8	$\frac{7}{—}$	25	$\frac{9}{—}$	8,9	$\frac{8}{—}$	12	9	5
		06-003-1-SW004-23	OD 6 ID 4 mm	○	$M 10 \times 1$ —	11	$\frac{13}{—}$	29	$\frac{13,5}{—}$	12	$\frac{14,3}{—}$	16	9	17
	re-usable hose connection with swivel nut for plastic pipes	06-003-1-XX001-23	OD 5 ID 3 mm	●										
		06-003-1-XX015-23	OD 6 ID 4 mm	○										

12 Series LP

Type LP-003

Nom. Bore 3 mm

characteristic features:

- automatic lock (one hand operation)

optional features:

OV = without valve

materials:

standard:
23 = brass, 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	brass nickel-plated	pipe od	n.b.	$\frac{SF}{SF_1}$	I	l_1	d	d_1	t	n	Weight [g]	
	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	
	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

Thru type adaptors

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 AlSi ₁ 316ti(1.4571)	pipe od	n.b.	d	d ₁	$\frac{SW}{SW_1}$	I	l ₁	t	n	Weight [g]		
Self sealing couplings	07-003-0-WR010-... 	BSPP 1/8"	● ○					15		12	39,8		8	32	
	07-003-0-WR510-... 	BSPP 1/8"	○ ○					15		12	37,8		9	30	
	07-003-0-SW004-... 	OD 6 ID 4 mm M 10 x 1	○ ○					15	14,3	12 13	47,8	13,5	16	41	
	re-usable hose connection with swivel nut for plastic pipes	4 mm	○ ○							12	51,8		19	32	
Self sealing adaptors	07-003-2-WR010-... 	BSPP 1/8"	● ○					13,2		12	38		8	15	18
	07-003-2-WR510-... 	BSPP 1/8"	○ ○					13,2		12	36		9	15	15
	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
	re-usable hose connection with swivel nut for plastic pipes	4 mm	○ ○							12	50		19	15	17
	hose connection 														

14 Series LP

Type LP-004

Nom. Bore 4 mm

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	zinc- plated brass	passivated brass	nickel-plated	pipe od	n.b.	d	d ₁	SF SF ₁	I I ₁	t	n	Weight [g]
Self sealing couplings	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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
Self sealing adaptors	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-004-0-WR510-...	BSPP 1/8"	●	●	●	●			18		14 —	45,5 —	9		55
		LP-004-0-SW004-...	OD 6 ID 4 mm M 10 x 1		●	○				18	14,3	14 13	51,5 13,5	16		60
Thru type adaptors	hose connection	LP-004-0-SL004-...	4 mm		○	○				18		12 —	50 —	19	15	47
		LP-004-0-SL006-...	6 mm	●	●	●				18		14 —	60,5 —	25		50
Self sealing adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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
Thru type adaptors	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-004-2-WR510-...	BSPP 1/8"	●	●	●				18		14 —	45 —	9	16	41
		LP-004-2-SW004-...	OD 6 ID 4 mm		●	○				18	14,3	14 13	51 13,5	16	16	45
Thru type adaptors	hose connection	LP-004-2-SL004-...	4 mm	○	○	○				18		14 —	53 —	18	16	33
		LP-004-2-SL006-...	6 mm	●	●	●				18		14 —	60 —	25	16	36
Thru type adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228 metric ISO fine-pitch thread, male to DIN 13 with pitch 1,0 mm	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
Thru type adaptors	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-004-1-WR510-..	BSPP 1/8"	○	○	○				16,2		14 —	29 —	9	16	18
		LP-004-1-SW004-...	OD 6 ID 4 mm		○	○				13,2	14,3	12 13	37 13,5	16	16	22
Thru type adaptors	re-usable hose connection with swivel nut for plastic pipes	LP-004-1-SL004-..	4 mm		○	○				12			37 —	18	16	9
		LP-004-1-SL006-..	6 mm	●	○	○				12			44 —	25	16	11

Series LP

Type LV-004

Nom. Bore 4 mm 15

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 (-GL/-GX)

optional features:

OV = without valve

materials:

standard:

21 = brass, passivated

01 = stainless steel 1.4404/1.4571 or similar

seal qualities:

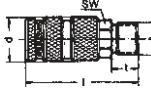
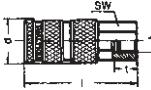
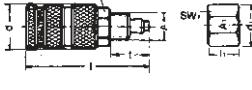
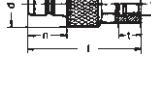
1 = NBR

2 = FKM

4 = EPDM

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

Availability: ● Short ○ Medium ○ Long

		Part No.	Connection A/ A ₁	brass passivated AlSi11/14571	pipe od	n.b.	d	d ₁	AF/ AF ₁	I	l ₁	t	n	Weight [g]
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LV-004-0-WR510-...	BSPP 1/8"	● ○			18		14	50,5		9		60
		LV-004-0-SW004-...	OD 6 ID 4 mm	●			18	14,3	14 13	56,5	13,5	16		65
	re-usable hose connection with swivel nut for plastic pipes	LV-004-0-SL004-...	4 mm	● ○			18		14	58,5		18		55
		LV-004-0-SL006-...	6 mm	● ○			18		14	65,5		25		55
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LV-004-2-WR510-...	BSPP 1/8"	● ○			18		14	50		9	21	42
		LV-004-2-SW004-...	OD 6 ID 4 mm M 10 x 1	●			18	14,3	14 13	56	13,5	16	21	46
	re-usable hose connection with swivel nut for plastic pipes	LV-004-2-SL004-...	4 mm	● ○			18		14	58		18	21	35
		LV-004-2-SL006-...	6 mm	● ○			18		14	65		25	21	38

Self sealing adaptors

Series LP

16 Series LP

Type LP-006

Nom. Bore 6 mm

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 (-GL/-GX)

optional features:

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

materials:

standard:

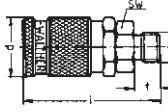
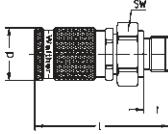
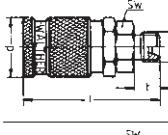
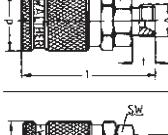
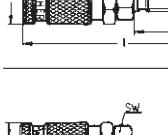
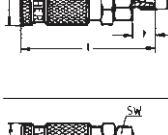
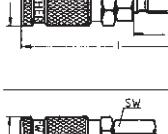
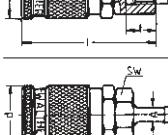
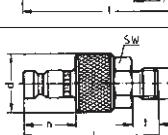
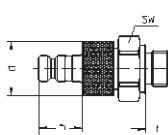
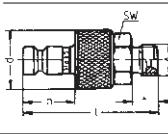
- 11 = steel, zinc plated
- 21 = brass, passivated
- 22 = brass, chrome plated
- 01 = stainless steel 1.4404/1.4571 or similar

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

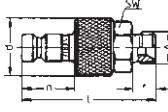
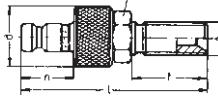
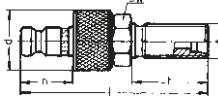
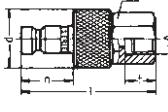
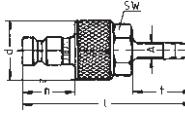
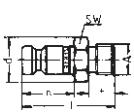
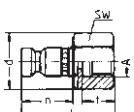
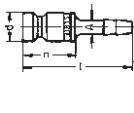
Availability: ● Short ○ Medium ○ Long

		Part No.	Connec-tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 t/f 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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	
	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-006-0-WE017-...	BSPP 3/8"	●							25	27	64	12		160	
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	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	
	metric male thread with 60° sealing cone to DIN 7631	LP-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	LP-006-0-DV008-...	M 14 x 1,5	○			○				6	25	19	79	32	130	
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	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 4 6 8	25 25 25 25 25 25 25	19 19 19 19 19 19 19	57 57 58 58 59 59 59	10 10 11 11 12 12 12		110 110 110 110 120 120 130	
	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	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	
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-006-0-WR513-... LP-006-0-WR517-...	BSPP 1/4" BSPP 3/8"	● ● ● ● ●			○ ○				25 25	19 22	57 58	13 14		120 120	
	hose connection	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	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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	
	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-006-2-WE017-...	BSPP 3/8"	●							25	27	62	12	20	130	
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	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

Self sealing couplings

Self sealing adaptors

Self sealing adaptors

			Availability:			● Short	○ Medium	○ Long									
	Part No.	Connec-tion A	Steel zinc plated	brass passivated	brass chrome plated	AlSi 31/6 Ti/1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]		
		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-... LP-006-2-L0814-... LP-006-2-L1016-... LP-006-2-L1218-... LP-006-2-S0816-... LP-006-2-S1018-... LP-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	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	55 55 56 56 57 57 57	10 10 11 11 12 12 12	20 20 20 20 20 20 20	80 85 85 85 90 90 100
		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-... LP-006-2-XX211-...	M 14 x 1,5 M 16 x 1,5	● ○				L	8 10	6 8	25 25	19 19	77 77	32 32	20 20	100 110
		British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-006-2-WR513-... LP-006-2-WR517-...	BSPP 1/4" BSPP 3/8"	● ● ● ●						25 25	19 22	55 56	13 14	20 20	90 95	
		hose connection	LP-006-2-SL006-... LP-006-2-SL009-... LP-006-2-SL011-... LP-006-2-SL013-...	6 mm 9 mm 11 mm 13 mm	● ● ● ● ● ● ● ●						25 25 25 25	19 19 19 19	70 75 75 75	25 30 30 30	20 20 20 20	80 85 90 100	
		British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-006-1-WR010-... LP-006-1-WR013-... LP-006-1-WR017-...	BSPP 1/8" BSPP 1/4" BSPP 3/8"	● ● ● ● ● ●						15,5 15,5 21	14 14 19	35 39 40,5	8 11 12	20 20 20	22 25 39	
		British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-006-1-WR510-... LP-006-1-WR513-... LP-006-1-WR517-...	BSPP 1/8" BSPP 1/4" BSPP 3/8"	○ ● ● ● ● ●						16,5 18,9 24	15 17 22	31 36 38	9 13 14	20 20 20	20 28 44	
		hose connection	LP-006-1-SL006-... LP-006-1-SL009-... LP-006-1-SL011-... LP-006-1-SL013-...	6 mm 9 mm 11 mm 13 mm	● ● ● ● ● ● ● ●						12 12 16 16		46 51 53 53		20 20 20 20	16 20 31 41	

18 Series LP

Type SP-006

Nom. Bore 6 mm

characteristic features:

- stainless steel version 1.4404/1.4571 or similar in smooth variant with gripping grooves instead knurling (-GL/-GX)

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

seal qualities:

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

special materials:

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

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

Self sealing adaptors

Self sealing adaptors

Availability: ● Short ○ Medium ○ Long													
	Part No.	Connec-tion A	Steel zinc plated brass passivated brass chrome plated AlSi 31/6 Ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]	
	SP-006-2-D0614-...	M 14 x 1,5	○			6	22	19	55	10	20	70	
	SP-006-2-DV008-...	M 14 x 1,5	○			6	22	19	77	32	20	90	
	SP-006-2-L0612-... SP-006-2-L0814-... SP-006-2-L1016-... SP-006-2-L1218-... SP-006-2-S0816-... SP-006-2-S1018-... SP-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	22 22 22 22 22 22 22	19 19 19 19 19 19 22	55 55 56 56 57 57 57	10 10 11 11 12 12 12	20 20 20 20 20 20 20	70 70 70 70 75 75 85
	SP-006-2-LV008-... SP-006-2-XX211-...	M 14 x 1,5 M 16 x 1,5	● ○	○ ○ ○ ○ ○ ○	L L	8 10	6 8	22 22	19 19	77 77	32 32	20 20	85 95
	SP-006-2-WR513-... SP-006-2-WR517-...	BSPP 1/4" BSPP 3/8"	● ● ● ●	○			22 22	19 22	55 56	13 14	20 20	75 80	
	SP-006-2-SL006-... SP-006-2-SL009-... SP-006-2-SL011-... SP-006-2-SL013-...	6 mm 9 mm 11 mm 13 mm	● ● ● ●	● ○ ○ ○ ○ ○			22 22 22 22	19 19 19 19	70 75 75 75	25 30 30 30	20 20 20 20	70 70 80 90	
	SP-006-1-WR010-.. SP-006-1-WR013-.. SP-006-1-WR017-..	BSPP 1/8" BSPP 1/4" BSPP 3/8"	● ● ● ●	● ○ ○ ○ ○ ○			15,5 15,5 21,9	14 14 19	34 37 38	8 11 12	20 20 20	20 23 37	
	SP-006-1-WR513-.. SP-006-1-WR517-..	BSPP 1/4" BSPP 3/8"	● ●	○ ○ ○ ○ ○ ○			19,6 24	17 22	36 37	13 14	20 20	26 40	
	SP-006-1-SL006-.. SP-006-1-SL009-..	6 mm 9 mm	● ●	● ○ ○ ○ ○ ○			11 11		46 51		20 20	13 18	

20 Series LP

Type LP-007

Nom. Bore 7 mm

characteristic features:

- non squirt feature
- stainless steel version 1.440/1.4571 or similar in smooth variant with gripping grooves instead knurling (-GL/-GX)

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

seal qualities:

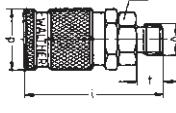
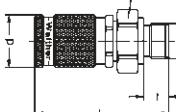
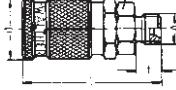
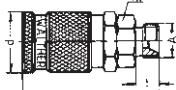
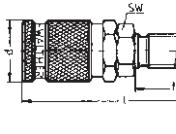
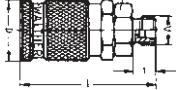
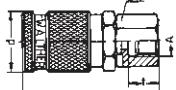
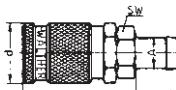
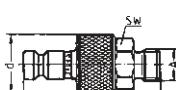
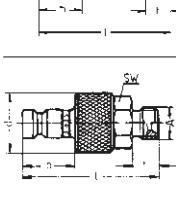
- 1 = NBR
- 2 = FKM
- 4 = EPDM

special materials:

- 13 = steel, chem. nickel plated
- 24 = brass, chem. nickel plated

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

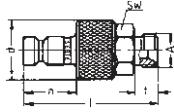
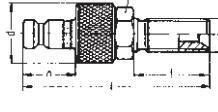
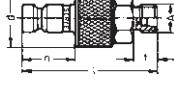
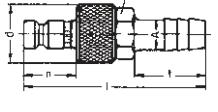
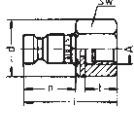
Availability: ● Short ○ Medium ○ Long

		Part No.	Connec-tion A	steel zinc plated	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-007-0-WR017-...- LP-007-0-WR021-...-	BSPP 3/8" BSPP 1/2"	● ●	● ●	○ ○	○ ○			30 30	24 24	68 71	12 15			200 210
	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-007-0-WE017-...-	BSPP 3/8"	○						30	27	71	12			220
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	LP-007-0-VR017-...-	BSPP 3/8"	○			○			7	30	24	68	12		190
	metric male thread with 60° sealing cone to DIN 7631	LP-007-0-D0816-...-	M 16 x 1,5	○			○			8	30	24	67	11		200
	metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	LP-007-0-DV010-...-	M 16 x 1,5	○			○			8	30	24	89,5	33,5		210
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	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		190 190 200 200
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-007-0-WR517-...- LP-007-0-WR521-...-	BSPP 3/8" BSPP 1/2"	● ●	● ●	○ ○	○ ○			30	24	68	14			210 230
	hose connection	LP-007-0-SL009-...- LP-007-0-SL011-...- LP-007-0-SL013-...-	9 mm 11 mm 13 mm	● ● ●	○ ○ ○	○ ○ ○	○ ○ ○			30	24	86	30			200 200 210
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-007-2-WR017-...- LP-007-2-WR021-...-	BSPP 3/8" BSPP 1/2"	● ●	● ●	○ ○	○ ○			30	24	66	12			150 170
	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-007-2-WE017-...-	BSPP 3/8"	○						30	27	69	12			170
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	LP-007-2-VR017-...-	BSPP 3/8"	○			○			7	30	24	66	12		23,3 150

Self sealing couplings

Self sealing adaptors

Self sealing adaptors

		Part No.	Connec-tion A	Availability: ● Short ○ Medium ○ Long										
				Steel zinc plated brass passivated brass chrome plated AlSi 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]	
		metric male thread with 60° sealing cone to DIN 7631	LP-007-2-D0816-...	M 16 x 1,5	○			8	30	24	65	11	23,3	150
		metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	LP-007-2-DV010-...	M 16 x 1,5	○			8	30	24	87,5	33,5	23,3	160
		metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	LP-007-2-L1016-... LP-007-2-L1218-... LP-007-2-S1018-... LP-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 65 66 66	11 11 12 12	23,3 23,3 23,3 23,3	140 140 150 150
		British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-007-2-WR517-... LP-007-2-WR521-...	BSPP 3/8" BSPP 1/2"	● ● ● ● ● ○			30 30	24 27	66 69	14 17	23,3 23,3	160 180	
		hose connection	LP-007-2-SL009-... LP-007-2-SL011-... LP-007-2-SL013-...	9 mm 11 mm 13 mm	● ● ● ● ● ○ ● ● ● ● ● ○ ● ● ● ● ● ○			30 30 30	24 24 24	84 84 84	30 30 30	23,3 23,3 23,3	150 150 160	
		British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-007-1-WR013-... LP-007-1-WR017-... LP-007-1-WR021-...	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ● ● ● ○ ● ● ● ● ● ○ ● ● ● ● ● ○				18,9 21 26,7	17 19 24	40,5 41,5 44,5	11 12 15	23,3 23,3 23,3	35 45 70
		British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-007-1-WR513-... LP-007-1-WR517-... LP-007-1-WR521-...	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ● ● ● ○ ● ● ● ● ● ○ ● ● ● ● ● ○				18,9 24 30	17 22 27	40,5 41,5 44,5	13 14 17	23,3 23,3 23,3	37 55 75
		hose connection	LP-007-1-SL009-... LP-007-1-SL011-... LP-007-1-SL013-...	9 mm 11 mm 13 mm	● ● ● ● ● ○ ● ● ● ● ● ○ ● ● ● ● ● ○				14 18 18	54,5 56,5 56,5	30 30 30	23,3 23,3 23,3	29 37 46	

22

Series LP

Type SP-009

Nom. Bore 9 mm

characteristic features:

- stainless steel version 1.4404/1.4571 or similar in smooth variant with gripping grooves instead knurling (-GL/-GX)

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:

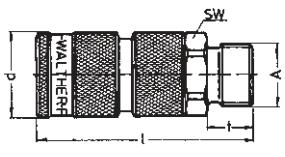
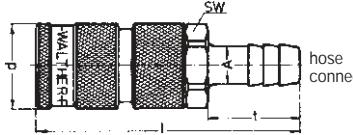
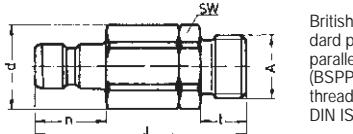
- 13 = steel, chem. nickel plated
- 24 = brass, chem. nickel plated

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 plated	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
Self sealing couplings	 British standard pipe parallel (BSPP) male thread to DIN ISO 228	SP-009-0-WR017-...- SP-009-0-WR021-...-	BSPP 3/8" / BSPP 1/2"	● ●	● ●	○ ○	○ ○			28 28	25 25	71 71	12 15			180 190
		SP-009-0-WR521-...-	BSPP 1/2"	● ●	● ●	○ ○	○ ○			28	27	71	17			200
Self sealing adaptors	 hose connection	SP-009-0-SL013-...-	13 mm	● ●	● ●	○ ○	○ ○			28	25	86	30			180
		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
	 British standard pipe parallel (BSPP) female thread to DIN ISO 228	SP-009-2-WR521-...-Z02	BSPP 1/2"	● ●	● ●	○ ○	○ ○			28	27	69,5	17	23,5		140
		SP-009-2-SL013-...-Z02	13 mm	● ●	● ●	○ ○	○ ○			28	25	84,5	30	23,5		130

Availability: ● Short ○ Medium ○ Long												
	Part No.	Connec-tion A	Steel zinc plated brass passivated brass chrome plated AlSi 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
Thru type adaptors	SP-009-1-WR017-.. SP-009-1-WR021-..	BSPP 3/8" BSPP 1/2"	● ● ○ ○ ○ ○				21,9 24	19 22	41,5 46,5	12 15	23,5 23,5	40 60
	SP-009-1-WR521-..	BSPP 1/2"	● ○ ○ ○				30	27	45	17	23,5	75
hose connection	SP-009-1-SL013-..	13 mm	○ ● ○ ○				15		55	30	23,5	37

24 Series LP

Type LP-012

Nom. Bore 12 mm

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 (-GL/-GX)

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:

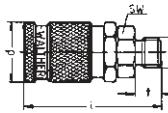
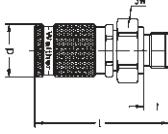
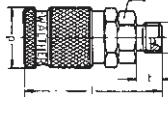
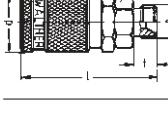
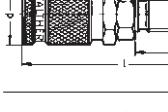
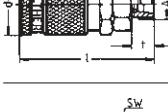
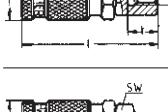
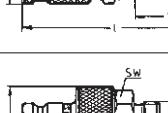
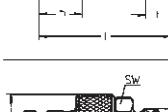
- 13 = steel, chem. nickel plated
- 24 = brass, chem. nickel plated

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

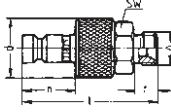
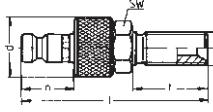
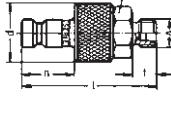
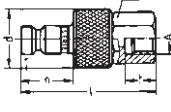
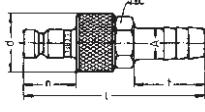
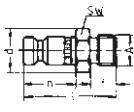
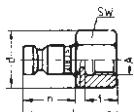
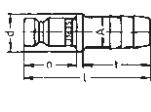
Availability: ● Short ○ Medium ○ Long

	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	I	t	n	weight [g]	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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	
	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-012-0-WE021-...	BSPP 1/2"	●						40	32	84	14		390	
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	LP-012-0-VR021-... LP-012-0-VR026-...	BSPP 1/2" BSPP 3/4"	● ●			○			12 12	40	32	82 84	15 17	380 400	
	metric male thread with 60° sealing cone to DIN 7631	LP-012-0-D1018-... LP-012-0-D1222-...	M 18 x 1,5 M 22 x 1,5	● ●			○			10 12	40	32	78 79	11 12	370 380	
	metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	LP-012-0-DV015-...	M 22 x 1,5	○			○			12	40	32	106	39	430	
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	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	
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-012-0-WR521-... LP-012-0-WR526-...	BSPP 1/2" BSPP 3/4"	● ● ●	●	○	○			40 40	32 32	81 83	17 19		420 400	
	hose connection	LP-012-0-SL016-... LP-012-0-SL019-...	16 mm 19 mm	● ●	● ●	○	○			40 40	32 32	102 102	35 35		390 410	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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	
	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-012-2-WE021-...	BSPP 1/2"	●						40	32	82	14	29,5	300	
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	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

Self sealing couplings

Self sealing adaptors

Self sealing adaptors

Availability: ● Short ○ Medium ○ Long													
	Part No.	Connec-tion A	Steel zinc plated brass passivated brass chrome plated AlSi 31/6 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]	
	metric male thread with 60° sealing cone to DIN 7631	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	
	metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	LP-012-2-DV015-...	M 22 x 1,5	○		12	40	32	104	39	29,5	340	
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	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
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	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		
	hose connection	LP-012-2-SL016-... LP-012-2-SL019-...	16 mm 19 mm	● ● ● ● ● ○ ○ ○ ○ ○ ○ ○ ○		40 40	32 32	100 100	35 35	29,5 29,5	300 320		
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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		
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	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		
	hose connection	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	70 75 110		

26 Series LP

Type LP-019

Nom. Bore 19 mm

characteristic features:

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

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:

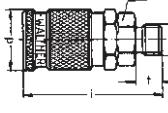
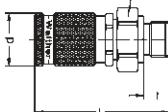
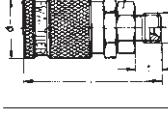
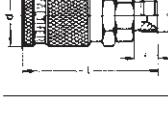
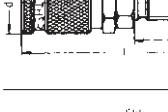
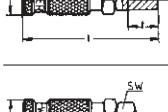
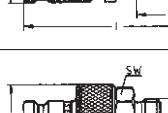
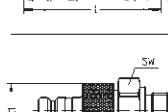
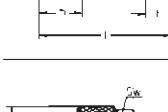
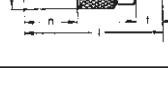
- 13 = steel, chem. nickel plated
- 24 = brass, chem. nickel plated

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

		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	I	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"	<input checked="" type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input checked="" type="radio"/>			54 54	46 103	100	17	20		840 870
	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"	<input type="radio"/>						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"	<input type="radio"/> <input type="radio"/>			<input type="radio"/> <input type="radio"/>		19 19	54 54	46 46	100	17	20		830 870
	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	<input type="radio"/> <input type="radio"/>			<input type="radio"/> <input type="radio"/>		15 19	54 54	46 46	95	12	14		830 830
	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	<input type="radio"/>			<input type="radio"/>		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	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>			<input type="radio"/> <input type="radio"/>	L L S S	18 22 20 25	16 54 54 20	54 54 46 54	46 46 46 46	95 97 99 101	12 14 16 18		830 830 850 860
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-019-0-WR526-...- LP-019-0-WR533-...-	BSPP 3/4" BSPP 1"	<input checked="" type="radio"/> <input checked="" type="radio"/>	<input checked="" type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input type="radio"/>	<input type="radio"/> <input type="radio"/>			54 54	46 46	94 98	19	23		890 880
	hose connection	LP-019-0-SL019-...- LP-019-0-SL025-...- LP-019-0-SL028-...-	19 mm 25 mm 28 mm	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>			54 54 54	46 46 46	118 123 128	35 40 45			850 870 930
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-019-2-WR026-...- LP-019-2-WR033-...-	BSPP 3/4" BSPP 1"	<input checked="" type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input checked="" type="radio"/>	<input type="radio"/> <input checked="" type="radio"/>			54 54	46 46	96 99	17	32,5		690 720
	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"	<input type="radio"/>						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"	<input type="radio"/> <input type="radio"/>			<input type="radio"/> <input type="radio"/>		19 19	54 54	46 46	96 99	17	32,5		690 720

Self sealing couplings

Self sealing adaptors

Availability: ● Short ○ Medium ○ Long

		Part No.	Connec-tion A	Steel zinc plated brass passivated brass chrome plated AlSi 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
Self sealing adaptors	metric male thread with 60° sealing cone to DIN 7631	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
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	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
		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	
Thru type adaptors	hose connection	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	700 710 780	
		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	210 220 260	
		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	
	hose connection	LP-019-1-SL019-... LP-019-1-SL025-...	19 mm 25 mm	● ● ● ● ● ●			32 32		68,5 73,5	35 40	32,5 32,5	180 190	

28 Series LP

Type LP-032

Nom. Bore 32 mm

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:

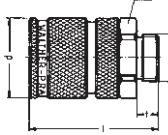
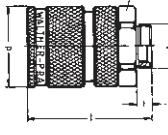
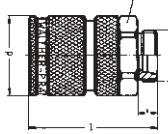
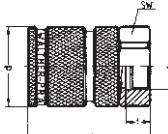
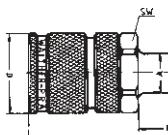
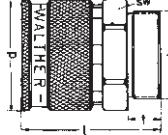
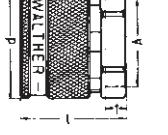
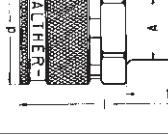
1 = NBR
2 = FKM
4 = EPDM

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 plated	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-032-0-WR048--- LP-032-0-WR060---	BSPP 1 1/2" BSPP 2"	● ○	○ ○	○ ○	○ ○			82 82	75 75	139 143	22 26		2930 2980
	metric male thread with 60° sealing cone to DIN 7631	LP-032-0-D3245---	M 45 x 1,5	○						32	82	75	128	16	2720
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	LP-032-0-S3852---	M 52 x 2	○				S	38	32	82	75	134	22	2770
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-032-0-WR548--- LP-032-0-WR560---	BSPP 1 1/2" BSPP 2"	● ○	● ○	○ ○	○ ○			82 82	75 75	126 130	25 29		2890 2760
	hose connection	LP-032-0-SL042---	42 mm	○	○	○	○			82	75	178	61		3090
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-032-4-WR048--- LP-032-4-WR060---	BSPP 1 1/2" BSPP 2"	○ ○	○ ○	○ ○	○ ○			82 82	70 70	109 113	22 26		2230 2490
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-032-4-WR542--- LP-032-4-WR548--- LP-032-4-WR560---	BSPP 1 1/4" BSPP 1 1/2" BSPP 2"	○ ○	○ ○	○ ○	○ ○			82 82 82	70 70 70	89 89 89	25 25 29		2000 1930 1690
	hose connection	LP-032-4-SL042---	42 mm	○	○	○	○			82	70	143	61		2260

Availability: ● Short ○ Medium ○ Long

		Part No.	Connec-tion A	Steel zinc plated brass passivated brass chrome plated AlSi 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	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 pipe 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		

30 Series LP

Type LP-050

Nom. Bore 50 mm

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:

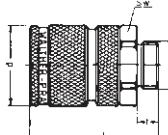
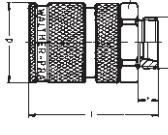
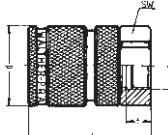
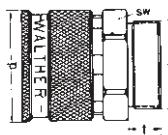
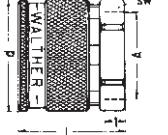
1 = NBR
2 = FKM
4 = EPDM

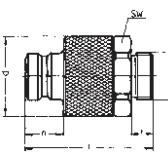
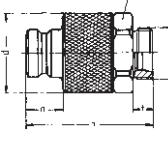
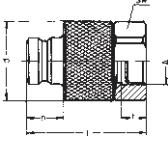
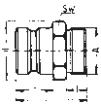
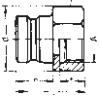
special materials:

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 plated	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]	
Self sealing couplings																
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-050-0-WR060-...- LP-050-0-WR075-...-	BSPP 2" BSPP 2 1/2"	●	○	○	○	○	112 112	100 100	162 164	26 30		5550 5560		
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	LP-050-0-L4252-...- LP-050-0-S4252-...-	M 52 x 2	●					L	42	36	112	100	158	16	5380
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-050-0-WR560-...- LP-050-0-WR575-...-	BSPP 2" BSPP 2 1/2"	●	○	○	○	○	112 112	100 100	158 167	29 33		6150 5940		
Thru type couplings																
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-050-4-WR060-...- LP-050-4-WR075-...-	BSPP 2" BSPP 2 1/2"	○	○	○	○	○	112 112	100 100	132,5 136,5	26 30		3950 4210		
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LP-050-4-WR560-...- LP-050-4-WR575-...-	BSPP 2" BSPP 2 1/2"	●	○		○	○	112 112	100 100	106,5 106,5	27 31		3800 3640		

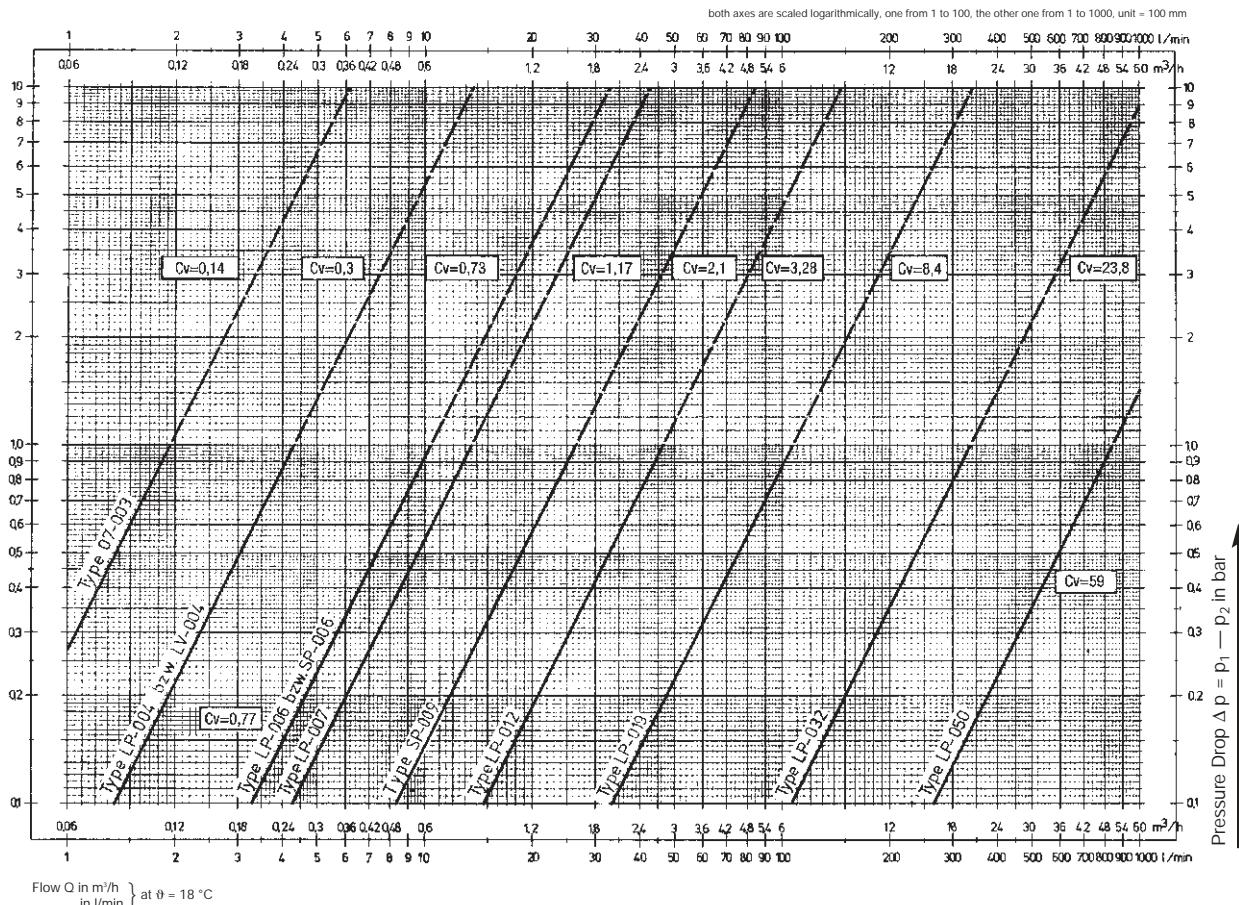
Availability: ● Short ○ Medium ○ Long														
	Part No.	Connec-tion A	Steel zinc plated brass passivated brass chrome plated AlSi 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]		
 British standard pipe parallel (BSPP) male thread to DIN ISO 228	LP-050-2-WR060-... LP-050-2-WR075-...	BSPP 2" BSPP 2 1/2"	● ○ ○ ○ ○										112 112 100 158 26 46 5010 5020	
 metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	LP-050-2-L4252-... LP-050-2-S4252-...	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"	● ● ○ ○ ○ ○										112 112 100 154 29 33 46 5400 5610	
 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	

Measurement of flow coefficients Cv
according to DIN EN 60534

Flow speeds of 8 m/sec
should not be exceeded

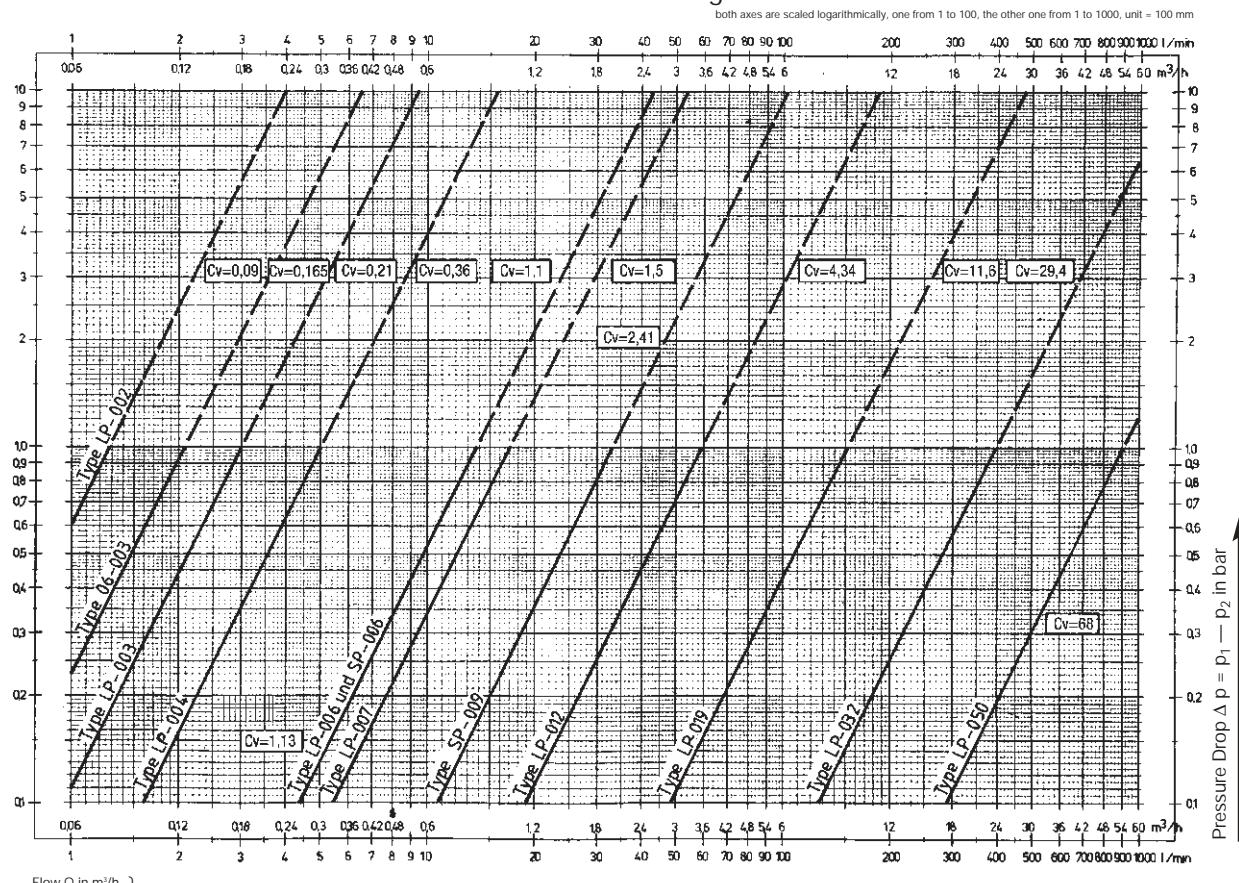
1 bar = 14,5 PSI

Both sides self sealing



Flow Q in m^3/h
in l/min } at $\vartheta = 18^\circ C$

One side self sealing



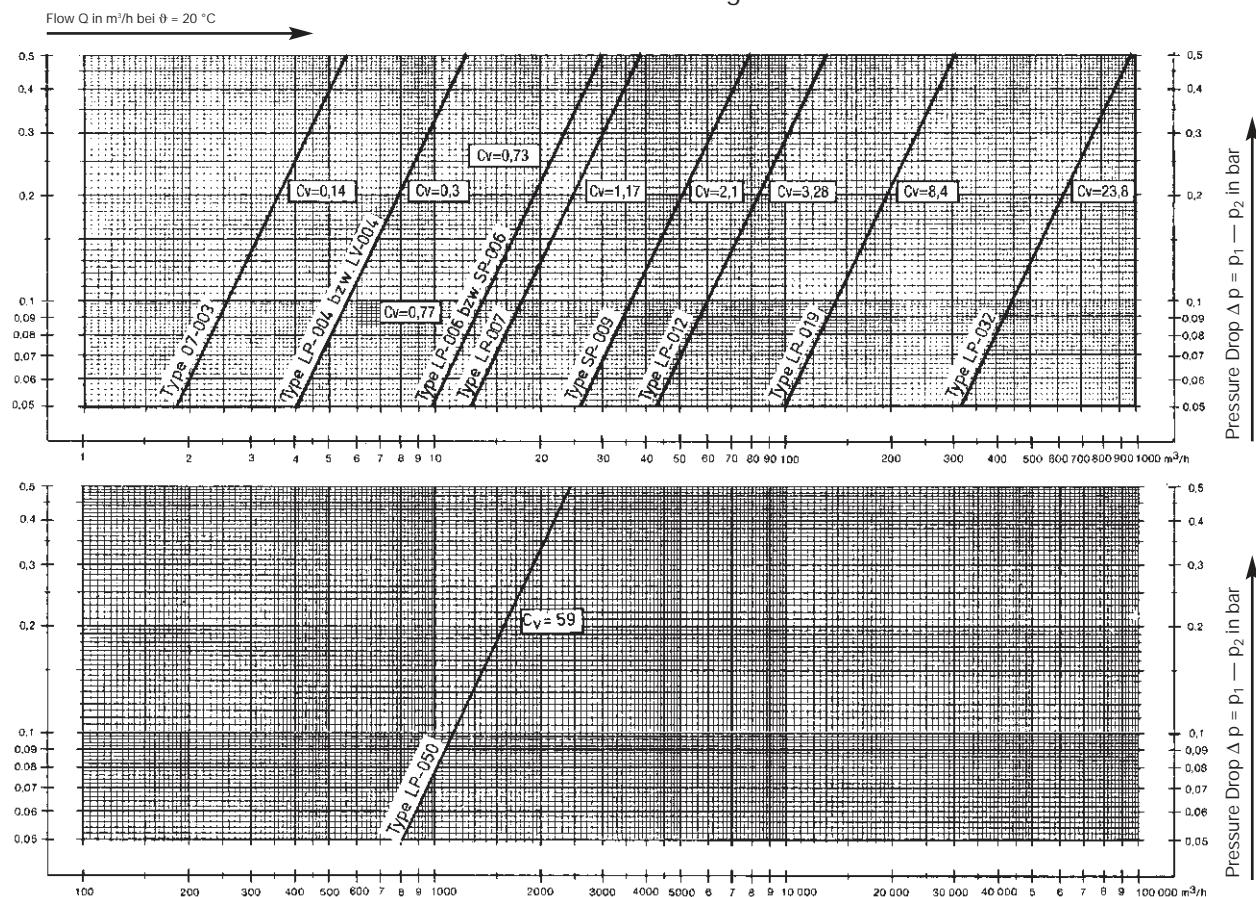
Flow Q in m^3/h
in l/min } at $\vartheta = 18^\circ C$

Measurement of flow coefficients Cv
according to DIN EN 60534

Working pressure 6 bar
gauge pressure

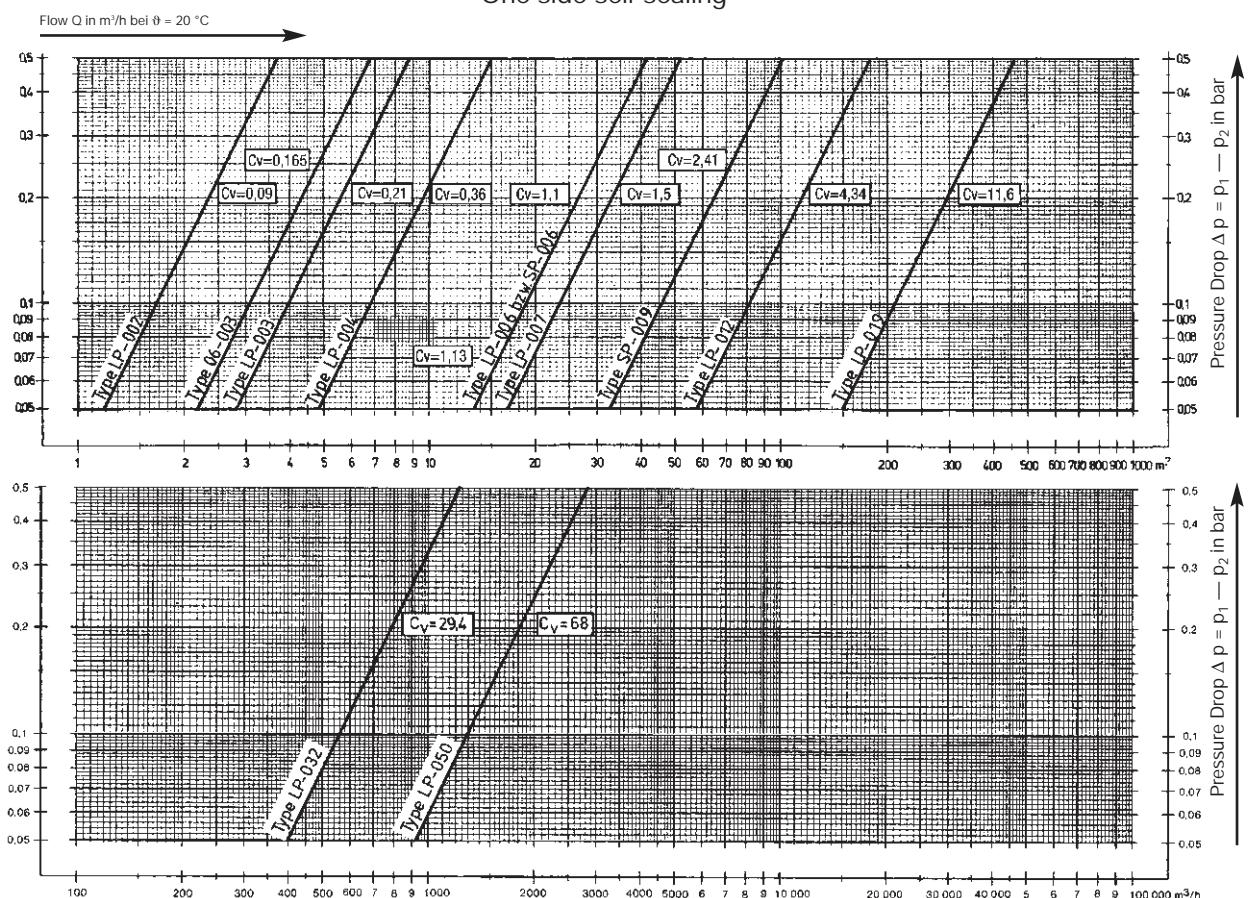
1 bar = 14,5 PSI

Both sides self sealing



Series LP

One side self sealing



Series LP

materials:

standard:

11 = steel, zinc plated

seal qualities:

1 = NBR

2 = FKM

4 = EPDM

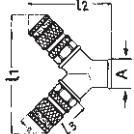
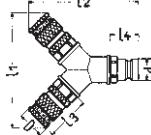
special materials:

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	I	I1	I2	I3	I4	Weight [g]
	British standard pipe parallel (BSPP) female thread to DIN ISO 228 and 2 self sealing couplings	2R-006-0-WR517-...- 2R-007-0-WR521-...- 2R-012-0-WR533-...-	3/8" BSPP, 2 ssc LP-006 1/2" BSPP, 2 ssc LP-007 1" BSPP, 2 ssc LP-012	○	25	6			116	81	47,5		430
	1 thru type adaptors and 2 self sealing couplings, type LP-006	2S-006-0-WR517-...-	1 tta, 2ssc, LP-006	○	25	6	12		116	110	47,5	26	430



Low Pressure Series KL

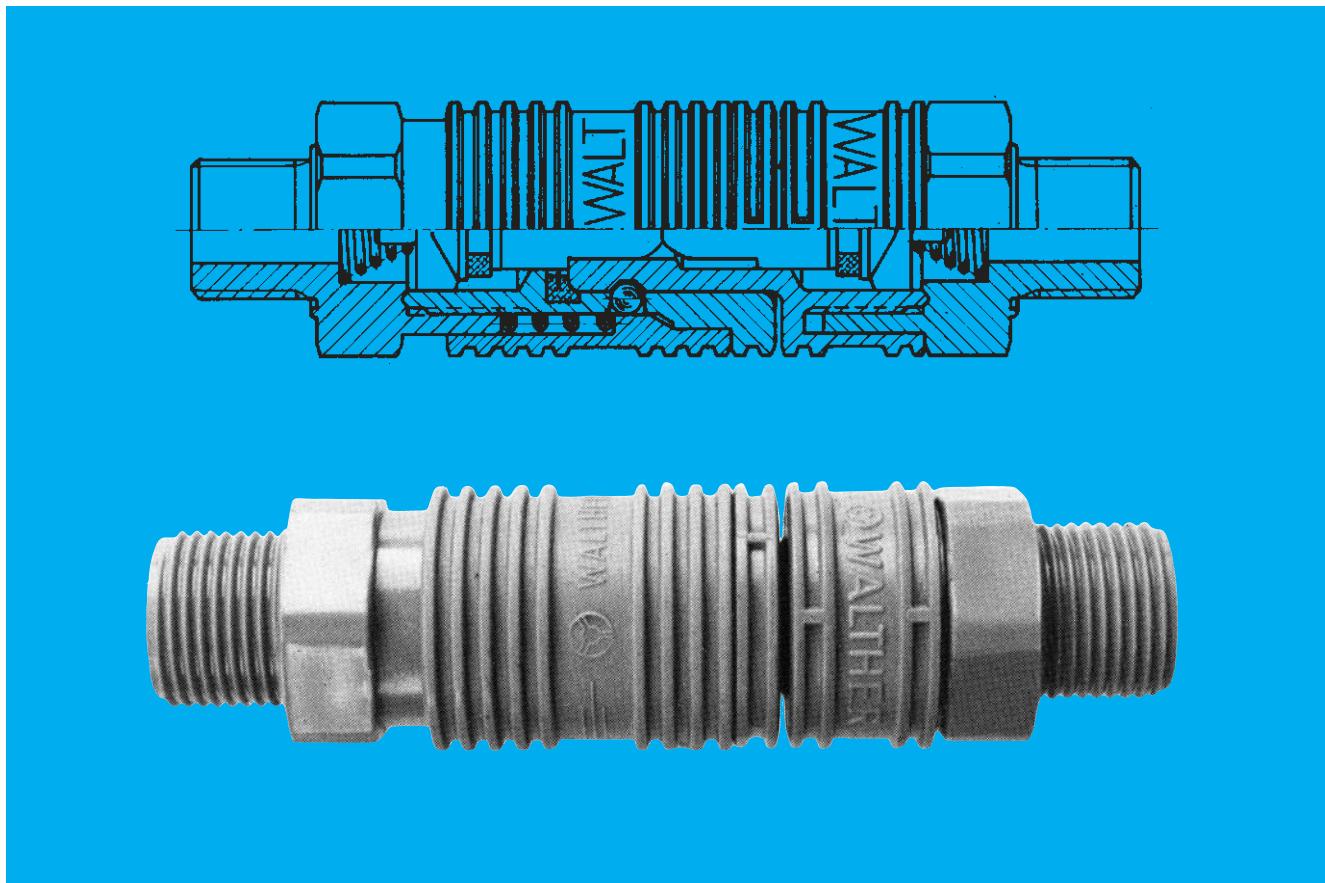
Do you have questions concerning the used plastic materials?
 Our customer service is always eager to answer your questions. Phone: +49 (0) 2129 567 402.



Please find further information to this topic on our web site

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 grey, black (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



36 Series KL

Type KL-006

Nom. Bore 6 mm

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.	Connec-tion A	PA grey	d	SW	I	t	n	weight [g]
Self sealing couplings	British standard pipe parallel (BSPP) male thread to DIN ISO 228	KL-006-0-WR013-50-. KL-006-0-WR017-50-. KL-006-0-WR021-50-.	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ●	24	22	55,3	12	16	16
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-006-0-WR513-50-. KL-006-0-WR517-50-.	BSPP 1/4" BSPP 3/8"	● ●	24	22	57,3	14	19	17
	hose connection	KL-006-0-SL007-50-. KL-006-0-SL009-50-. KL-006-0-SL011-50-. KL-006-0-SL013-50-.	7 mm 9 mm 11 mm 13 mm	● ● ● ●	24	22	68,3	25	16	18
Self sealing adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228	KL-006-2-WR013-50-. KL-006-2-WR017-50-. KL-006-2-WR021-50-.	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ●	24	22	53,5	12	20	10
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-006-2-WR513-50-. KL-006-2-WR517-50-.	BSPP 1/4" BSPP 3/8"	● ●	24	22	55,5	14	20	12
	hose connection	KL-006-2-SL007-50-. KL-006-2-SL009-50-. KL-006-2-SL011-50-. KL-006-2-SL013-50-.	7 mm 9 mm 11 mm 13 mm	● ● ● ●	24	22	66,5	25	20	10
Thru type adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228	KL-006-1-WR010-50 KL-006-1-WR013-50 KL-006-1-WR017-50	BSPP 1/8" BSPP 1/4" BSPP 3/8"	● ● ●	16 20,5 24	15 19 22	32 35 38	7 9 11	20 20 20	3 4 6
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-006-1-WR510-50 KL-006-1-WR513-50	BSPP 1/8" BSPP 1/4"	○ ●	18,5 18,5	17 17	36 36	13,5 13,5	20 20	4 4
	hose connection	KL-006-1-SL007-50 KL-006-1-SL009-50 KL-006-1-SL011-50 KL-006-1-SL013-50	7 mm 9 mm 11 mm 13 mm	● ● ● ●	12 12 16 16	46 51 53 53	25 30 30 30	20 20 20 20	3 3 4 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

SI-ring, black

special materials:

other materials as special types
on request

seal qualities:

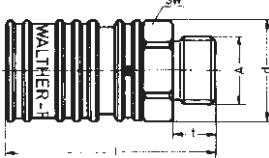
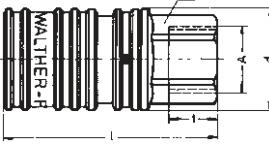
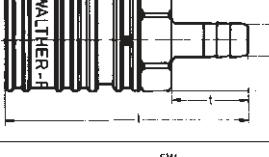
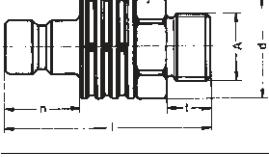
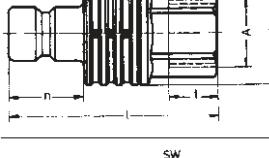
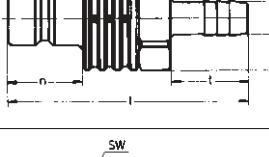
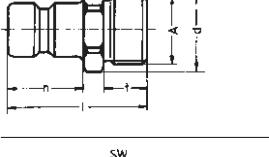
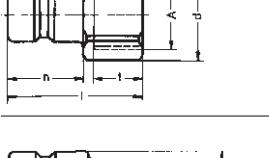
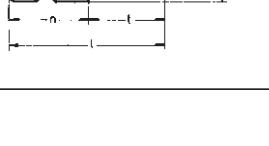
1 = NBR

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.	Connec-tion A	PA grey	d	SW	I	t	n	weight [g]
Self sealing couplings		British stand- ard pipe par- allel (BSPP) male thread to DIN ISO 228	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
		British stand- ard pipe par- allel (BSPP) fe- male thread to DIN ISO 228	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	85 90
		hose tailpiece with hose nozzle	KL-012-0-SL016-40- KL-012-0-SL019-40-	16 mm 19 mm	● ●	40 40	30 30	98 102	35 35	90 90
Self sealing adaptors		British stand- ard pipe par- allel (BSPP) male thread to DIN ISO 228	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
		British stand- ard pipe par- allel (BSPP) fe- male thread to DIN ISO 228	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
		hose tailpiece with hose nozzle	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 S		British stand- ard pipe par- allel (BSPP) male thread to DIN ISO 228	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
		British stand- ard pipe par- allel (BSPP) fe- male thread to DIN ISO 228	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
		hose tailpiece with hose nozzle	KL-012-1-SL013-40 KL-012-1-SL016-40 KL-012-1-SL019-40	13 mm 16 mm 19 mm	● ● ○	21 21 25	61 69,5 68,5	30 35 35	31 29,5 29,5	13 13 18

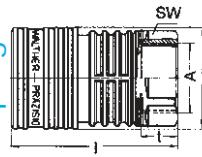
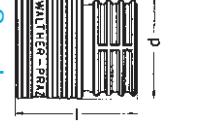
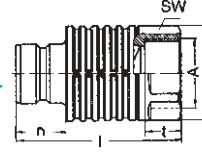
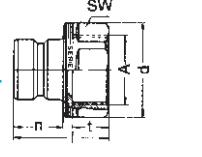
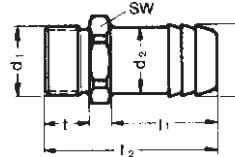
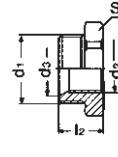
optional features:
OV = without valve

materials:
standard:
40 = polyacetal resin POM, grey, black
46 = polyacetal black (POM)

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

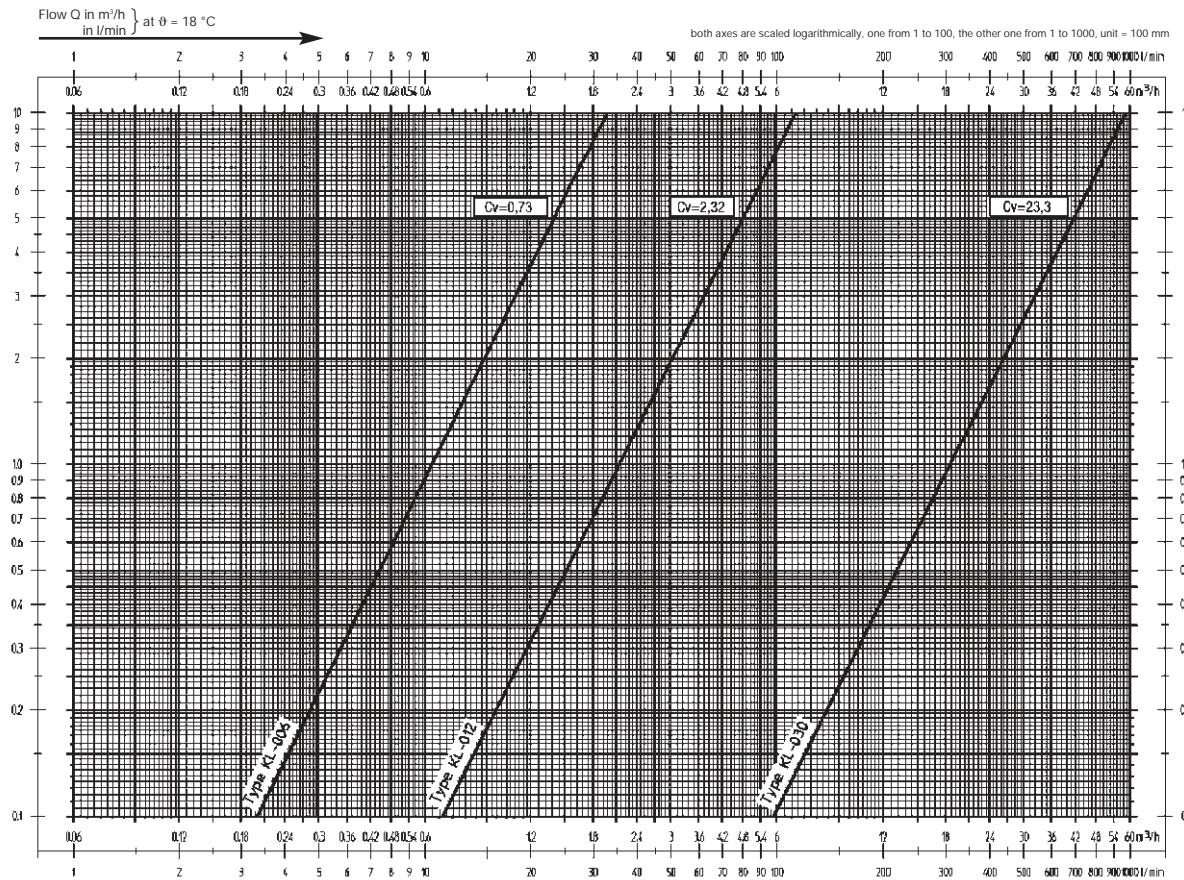
	Part No.	Connection A	POM grey	POM olive	d	SW	I	t	n		Weight [g]
Self sealing couplings 	British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-030-0-WR548-40- KL-030-0-WR560-40-	BSPP 1½"	● ○	70 70	60 65	114 116	23,5 26		330 320	
Thru type couplings 	British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-030-4-WR548-40- KL-030-4-XX002-43-	BSPP 1½"	○	70		84	18		240	
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 1½" BSPP 2"	● ○	66 66	60 60	114 116	23,5 26	35 35	230 220	
Thru type adaptors 	British standard pipe parallel (BSPP) female thread to DIN ISO 228	KL-030-1-WR548-46	BSPP 1½"	●		66	60	66	25	35	95
		d_1		t	d_2	d_3	l_h	l_2	SW	n. b.	
Threaded hose connectors 	5-AN0-OSL-025-WR048-40 5-AN0-OSL-032-WR048-40 5-AN0-OSL-042-WR048-40	BSPP 1½" BSPP 1½" BSPP 1½"	● ● ●	18 18 18	25 32 42	27 34 45	40 44 61	73 77 94	50 50 50	19 22 32	65 90 95
Reducing connectors 	5-AN0-0XX-008-WR533-40	BSPP 1½"	●	G 1	38		30,5	60			55

Measurement of flow coefficients Cv
according to DIN EN 60534

Flow speeds of 8 m/sec
should not be exceeded

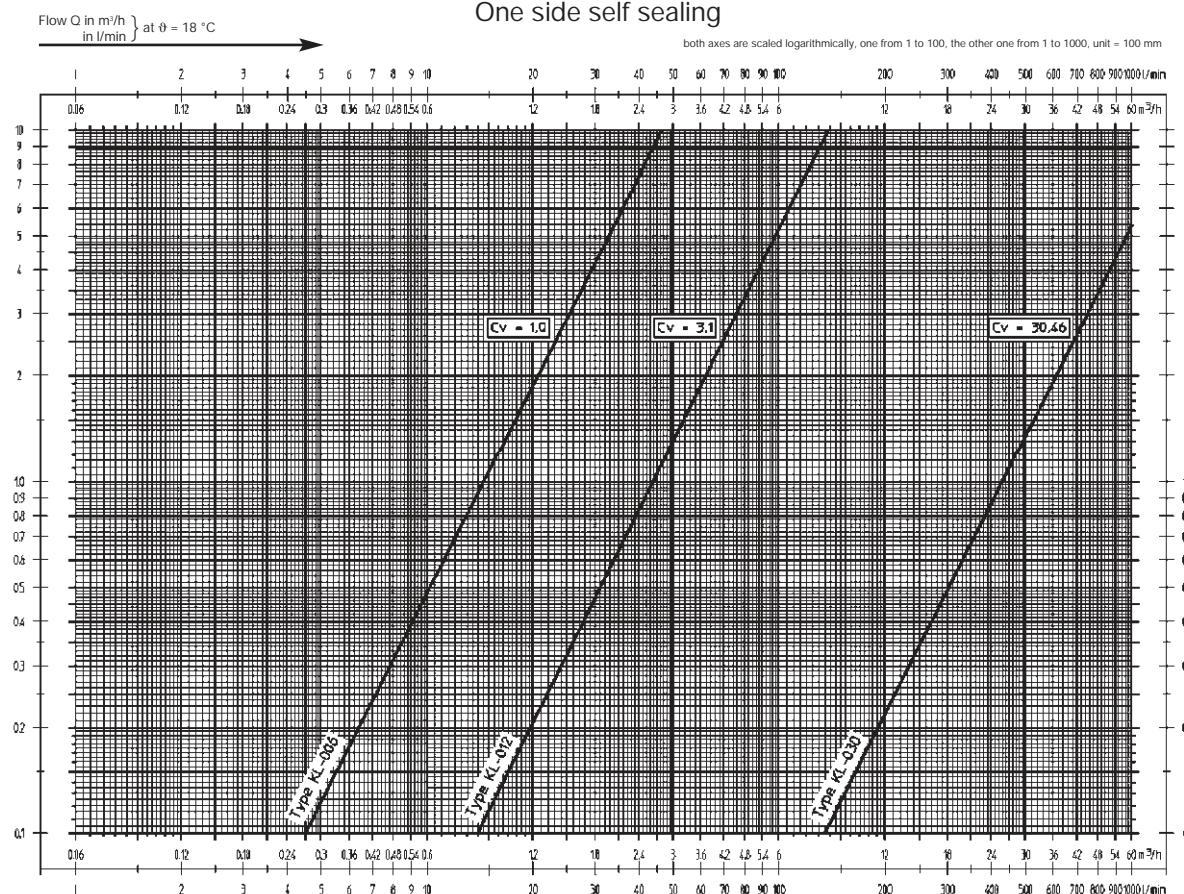
1 bar = 14,5 PSI

Both sides self sealing



Series KL

One side self sealing



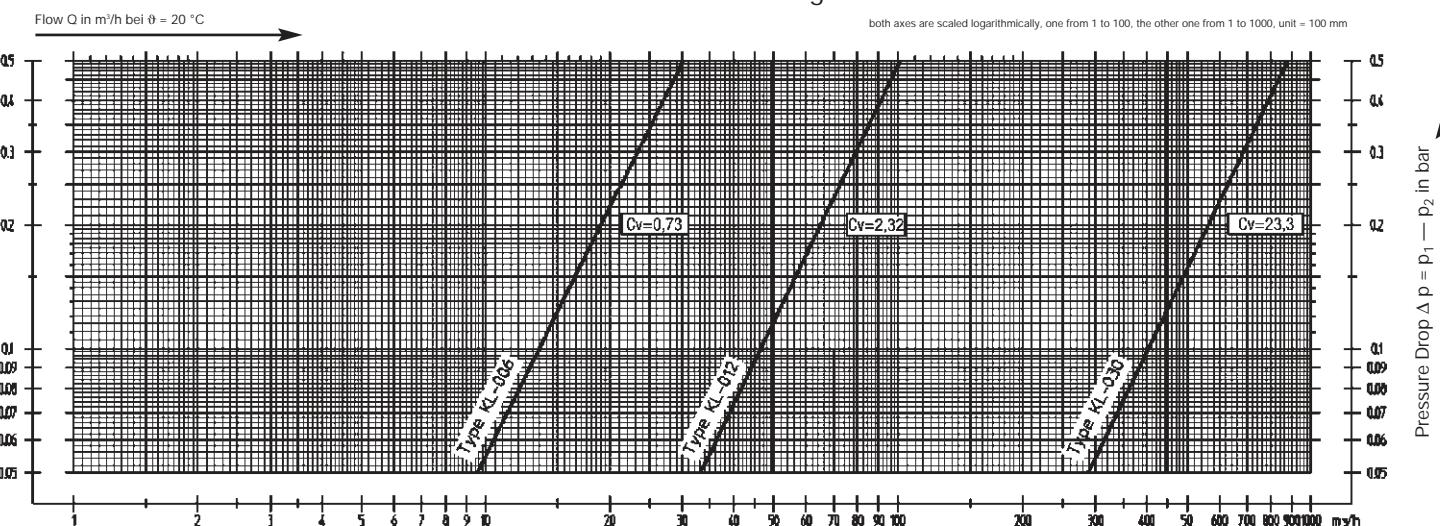
Pressure Drop $\Delta p = p_1 - p_2$ in bar

Measurement of flow coefficients Cv
according to DIN EN 60534

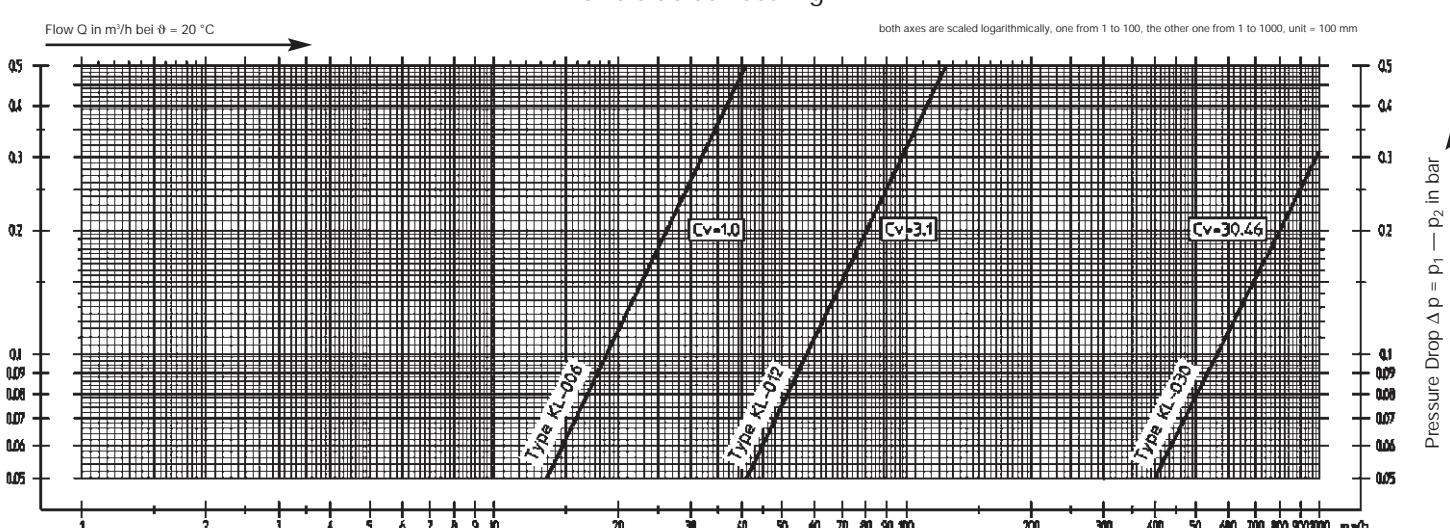
Working pressure 6 bar
gauge pressure

1 bar = 14,5 PSI

Both sides self sealing



One side self sealing



Low Pressure Series UF

ATTENTION!

When determining the working pressures of standardised end connections, the maximum permitted working pressure of the end connection has to be considered.

Are you looking for non-interchangeable quick couplings for process integration? Our customer service is always eager to answer your questions. Phone: +49 (0) 2129 567-402.

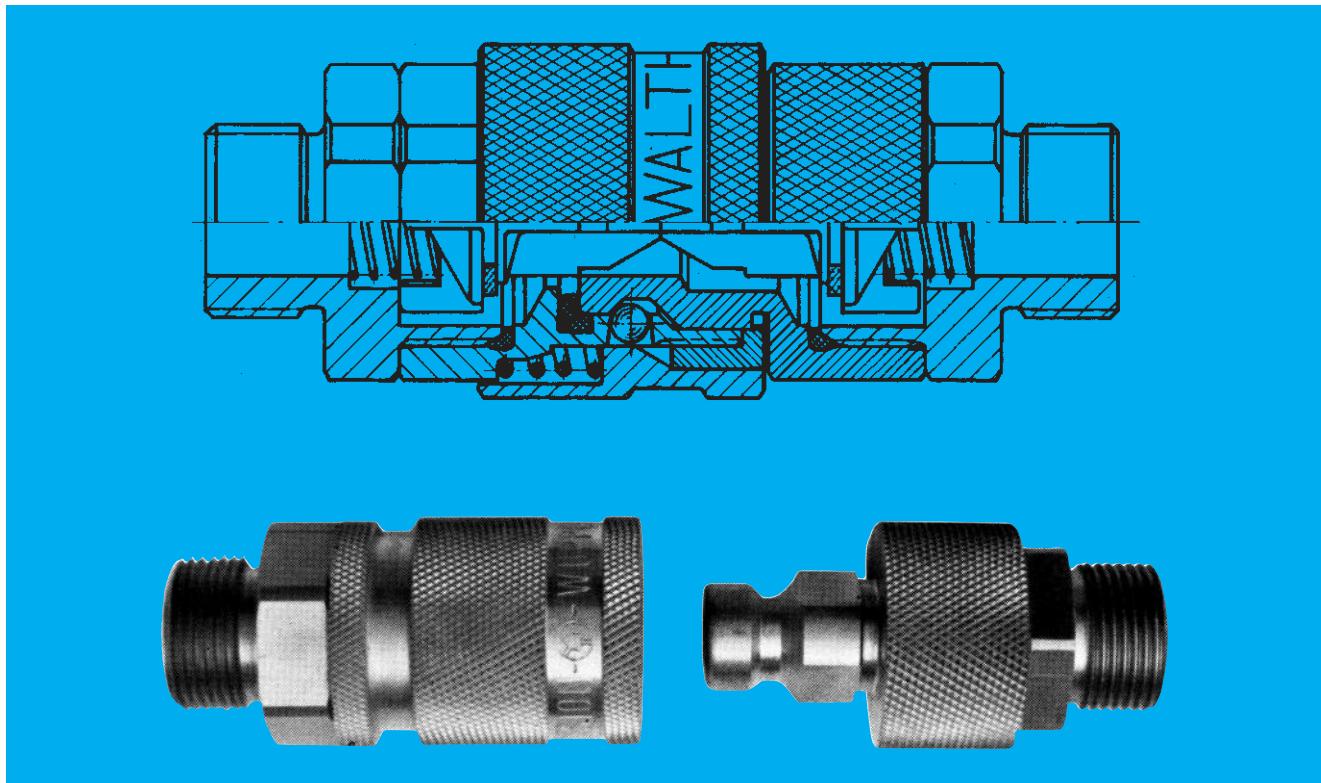


Please find further information to this topic on our web site.

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

* based on experience, valid up to 100 °C

The types UF-006, UF-007, UF-012 und UF-019 in stainless steel (1.4404, 1.4571 or equal) are delivered as standard without knurling but in a smooth version (-GL/-GX) with finger grooves. Actual design differs from drawing.



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 (-GL/-GX)

optional features:

OV = without valve

SI = with additional axial safety lock
(outer diameter 29 mm)

materials:

standard

21 = brass, passivated

22 = brass, chrome plated

special materials:

24 = brass, chem. nickel plated

31 = aluminium anodized silver

seal qualities:

1 = NBI

$$2 = \text{FKM}$$

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.	Connec- tion A	d	SW	I	t	n	weight [g]					
British standard pipe parallel (BSPP) male thread to DIN ISO 228	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	
British standard pipe parallel (BSPP) female thread to DIN ISO 228	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	
hose connection	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	
British standard pipe parallel (BSPP) male thread to DIN ISO 228	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
British standard pipe parallel (BSPP) female thread to DIN ISO 228	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
hose connection	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
	UF-006-2-SL013-...-DR	▲	13 mm	●	●	○	25	19	75	30	20,1	110
	UF-006-2-SL013-...-VI	■	13 mm	●	●	○	25	19	75	30	20,1	110
British standard pipe parallel (BSPP) male thread to DIN ISO 228	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
British standard pipe parallel (BSPP) female thread to DIN ISO 228	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
hose connection	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
- stainless steel version 1.4404/1.4571 or similar
in smooth variant with gripping grooves instead of
knurling (-GL/-GX)

optional features:

- OV = without valve
SI = with additional axial safety lock
(outer diameter 34 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

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.	Connection A	brass passivated brass/chrome plated	AlSi316 ti/ 1.4571						d	SW	I	t	n	weight [g]
Self sealing couplings										30	24	68	12		210
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	UF-007-0-WR017-...-DR UF-007-0-WR017-...-VI UF-007-0-WR021-...-DR UF-007-0-WR021-...-VI	▲ BSPP 3/8" ■ BSPP 3/8" ▲ BSPP 1/2" ■ BSPP 1/2"	● ● ● ●	● ● ● ○	● ● ● ○	● ● ○	● ○		30	24	68	12		210
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	UF-007-0-WR517-...-DR UF-007-0-WR517-...-VI UF-007-0-WR521-...-DR UF-007-0-WR521-...-VI	▲ BSPP 3/8" ■ BSPP 3/8" ▲ BSPP 1/2" ■ BSPP 1/2"	● ● ● ●	● ● ● ○	● ● ○	● ○			30	24	68	14		230
	hose connection	UF-007-0-SL009-...-DR UF-007-0-SL009-...-VI UF-007-0-SL011-...-DR UF-007-0-SL011-...-VI UF-007-0-SL013-...-DR UF-007-0-SL013-...-VI	▲ 9 mm ■ 9 mm ▲ 11 mm ■ 11 mm ▲ 13 mm ■ 13 mm	○ ○ ○ ○ ● ●	○ ○ ○ ○ ● ●	○ ○ ○ ○ ● ●	○ ○ ○ ○ ● ●			30	24	68	14		230
Self sealing adaptors										30	24	86	30		210
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	UF-007-2-WR017-...-DR UF-007-2-WR017-...-VI UF-007-2-WR021-...-DR UF-007-2-WR021-...-VI	▲ BSPP 3/8" ■ BSPP 3/8" ▲ BSPP 1/2" ■ BSPP 1/2"	● ● ● ●	● ● ● ○	● ● ● ○	● ○			30	24	67,5	12	23,5	170
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	UF-007-2-WR517-...-DR UF-007-2-WR517-...-VI UF-007-2-WR521-...-DR UF-007-2-WR521-...-VI	▲ BSPP 3/8" ■ BSPP 3/8" ▲ BSPP 1/2" ■ BSPP 1/2"	● ● ● ●	● ● ● ○	● ● ○	● ○			30	24	67,5	14	23,5	180
	hose connection	UF-007-2-SL009-...-DR UF-007-2-SL009-...-VI UF-007-2-SL011-...-DR UF-007-2-SL011-...-VI UF-007-2-SL013-...-DR UF-007-2-SL013-...-VI	▲ 9 mm ■ 9 mm ▲ 11 mm ■ 11 mm ▲ 13 mm ■ 13 mm	○ ○ ○ ○ ● ●	○ ○ ○ ○ ● ●	○ ○ ○ ○ ● ●	○ ○ ○ ○ ● ●			30	24	85,5	30	23,5	170
Thru type adaptors										30	24	85,5	30	23,5	170
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	UF-007-1-WR017-...-DR UF-007-1-WR017-...-VI	▲ BSPP 3/8" ■ BSPP 3/8"	○ ○	○ ○	○ ○	○ ○			21	19	41,5	12	23,5	48
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	UF-007-1-WR517-...-DR UF-007-1-WR517-...-VI	▲ BSPP 3/8" ■ BSPP 3/8"	○ ○	○ ○	○ ○	○ ○			24	22	43	14	23,5	60
	hose connection	UF-007-1-SL009-...-DR UF-007-1-SL009-...-VI UF-007-1-SL011-...-DR UF-007-1-SL011-...-VI UF-007-1-SL013-...-DR UF-007-1-SL013-...-VI	▲ 9 mm ■ 9 mm ▲ 11 mm ■ 11 mm ▲ 13 mm ■ 13 mm	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○	○ ○ ○ ○ ○ ○			18		57,5	30	23,5	31

44 Series UF

Type UF-012

Nom. Bore 12 mm

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 (-GL/-GX)

optional features:

- OV = without valve
- SI = with additional axial safety lock
(outer diameter 44 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

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.	Connec-tion A	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571	d	SW	I	t	n	weight [g]		
Self sealing couplings	British standard pipe parallel (BSPP) male thread to DIN ISO 228	UF-012-0-WR021...-DR	▲ BSPP 1/2"	● ○ ○ ○ ○ ○					40	32	82	15	410
		UF-012-0-WR021...-VI	■ BSPP 1/2"	● ○ ○ ○ ○ ○					40	32	82	15	410
		UF-012-0-WR026...-DR	▲ BSPP 3/4"	● ○ ○ ○ ○ ○					40	32	84	17	440
		UF-012-0-WR026...-VI	■ BSPP 3/4"	● ○ ○ ○ ○ ○					40	32	84	17	440
		UF-012-0-WR033...-DR	▲ BSPP 1"	○ ○ ○ ○ ○ ○					40	36	88	20	510
		UF-012-0-WR033...-VI	■ BSPP 1"	○ ○ ○ ○ ○ ○					40	36	88	20	510
Self sealing adaptors	British standard pipe parallel (BSPP) female thread to DIN ISO 228	UF-012-0-WR521...-DR	▲ BSPP 1/2"	● ○ ○ ○ ○ ○					40	32	81	17	450
		UF-012-0-WR521...-VI	■ BSPP 1/2"	● ○ ○ ○ ○ ○					40	32	81	17	450
		UF-012-0-WR526...-DR	▲ BSPP 3/4"	● ○ ○ ○ ○ ○					40	32	83	19	430
		UF-012-0-WR526...-VI	■ BSPP 3/4"	● ○ ○ ○ ○ ○					40	32	83	19	430
		UF-012-0-SL016...-DR	▲ 16 mm	● ○ ○ ○ ○ ○					40	32	102	35	420
		UF-012-0-SL016...-VI	■ 16 mm	● ○ ○ ○ ○ ○					40	32	102	35	420
Thru type adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228	UF-012-0-SL019...-DR	▲ 19 mm	● ○ ○ ○ ○ ○					40	32	102	35	440
		UF-012-0-SL019...-VI	■ 19 mm	● ○ ○ ○ ○ ○					40	32	102	35	440
		UF-012-2-WR021...-DR	▲ BSPP 1/2"	● ○ ○ ○ ○ ○					40	32	80	15	29,5
		UF-012-2-WR021...-VI	■ BSPP 1/2"	● ○ ○ ○ ○ ○					40	32	80	15	29,5
		UF-012-2-WR026...-DR	▲ BSPP 3/4"	● ○ ○ ○ ○ ○					40	32	82	17	29,5
		UF-012-2-WR026...-VI	■ BSPP 3/4"	● ○ ○ ○ ○ ○					40	36	86	20	320
Thru type adaptors	British standard pipe parallel (BSPP) female thread to DIN ISO 228	UF-012-2-WR521...-DR	▲ BSPP 1/2"	● ○ ○ ○ ○ ○					40	32	79	17	29,5
		UF-012-2-WR521...-VI	■ BSPP 1/2"	● ○ ○ ○ ○ ○					40	32	79	17	29,5
		UF-012-2-WR526...-DR	▲ BSPP 3/4"	● ○ ○ ○ ○ ○					40	32	81	19	340
		UF-012-2-WR526...-VI	■ BSPP 3/4"	● ○ ○ ○ ○ ○					40	32	81	19	340
		UF-012-2-SL016...-DR	▲ 16 mm	● ○ ○ ○ ○ ○					40	32	100	35	29,5
		UF-012-2-SL016...-VI	■ 16 mm	● ○ ○ ○ ○ ○					40	32	100	35	29,5
Thru type adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228	UF-012-2-SL019...-DR	▲ 19 mm	● ○ ○ ○ ○ ○					40	32	100	35	360
		UF-012-2-SL019...-VI	■ 19 mm	● ○ ○ ○ ○ ○					40	32	100	35	360
		UF-012-1-WR021...-DR	▲ BSPP 1/2"	● ○ ○ ○ ○ ○					30	27	52,5	15	29,5
		UF-012-1-WR021...-VI	■ BSPP 1/2"	● ○ ○ ○ ○ ○					30	27	52,5	15	29,5
		UF-012-1-WR521...-DR	▲ BSPP 1/2"	○ ○ ○ ○ ○ ○					33,5	30	52,5	17	29,5
		UF-012-1-WR521...-VI	■ BSPP 1/2"	○ ○ ○ ○ ○ ○					33,5	30	52,5	17	150
Thru type adaptors	British standard pipe parallel (BSPP) female thread to DIN ISO 228	UF-012-1-SL016...-DR	▲ 16 mm	● ○ ○ ○ ○ ○					25		68,5	35	29,5
		UF-012-1-SL016...-VI	■ 16 mm	● ○ ○ ○ ○ ○					25		68,5	35	29,5
Thru type adaptors	hose connection	UF-012-1-SL016...-DR	▲ 16 mm	● ○ ○ ○ ○ ○					25		68,5	35	95
		UF-012-1-SL016...-VI	■ 16 mm	● ○ ○ ○ ○ ○					25		68,5	35	95

Series UF

Type UF-019

Nom. Bore 19 mm 45

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 (-GL/-GX)

optional features:

- OV = without valve
- SI = with additional axial safety lock
(outer diameter 62 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

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.		Connec-tion A	brass passivated	brass chrome plated	AlSi316 ti/ 1.4571			d	SW	I	t	n	weight [g]	
Self sealing couplings	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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		
Self sealing adaptors	British standard pipe parallel (BSPP) female thread to DIN ISO 228	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		
Thru type adaptors	hose connection	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		
Thru type adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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	
Thru type adaptors	hose connection	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	British standard pipe parallel (BSPP) female thread to DIN ISO 228	UF-019-1-WR026-...-DR	▲ BSPP 3/4"	●	○	○	○	○	○	45,5	41	59,5	17		

46 Series UF

Type UF-032

Nom. Bore 32 mm

characteristic features:

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

optional features:

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

materials:

standard:

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

seal qualities:

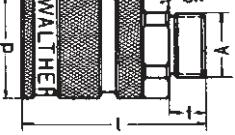
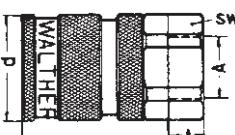
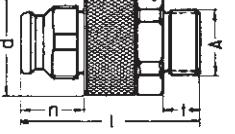
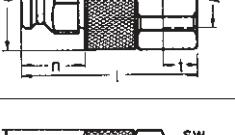
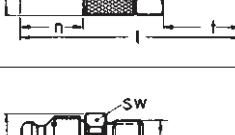
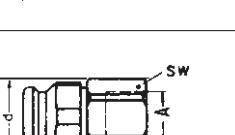
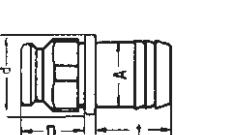
- 1 = NBR
- 2 = FKM
- 4 = EPDM

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.	Connec-tion A	brass passivated	brass chrome plated	AISI 316 ti/ 1.4571	d	SW	I	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 UF-032-0-WR048-...-VI UF-032-0-WR060-...-DR UF-032-0-WR060-...-VI	▲ BSPP 1 1/2" ■ BSPP 1 1/2" ▲ BSPP 2" ■ BSPP 2"	● ● ○ ○	○ ○ ○ ○						
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228</p>	UF-032-0-WR548-...-DR UF-032-0-WR548-...-VI UF-032-0-WR560-...-DR UF-032-0-WR560-...-VI	▲ BSPP 1 1/2" ■ BSPP 1 1/2" ▲ BSPP 2" ■ BSPP 2"	● ● ○ ○	○ ○ ○ ○						
Thru type adaptors	 <p>hose connection</p>	UF-032-0-SL042-...-DR UF-032-0-SL042-...-VI UF-032-0-SL053-...-DR UF-032-0-SL053-...-VI	▲ 42 mm ■ 42 mm ▲ 53 mm ■ 53 mm	○ ○ ○ ○	○ ○ ○ ○						
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-032-2-WR048-...-DR UF-032-2-WR048-...-VI UF-032-2-WR060-...-DR UF-032-2-WR060-...-VI	▲ BSPP 1 1/2" ■ BSPP 1 1/2" ▲ BSPP 2" ■ BSPP 2"	● ● ○ ○	○ ○ ○ ○						
Thru type adaptors	 <p>hose connection</p>	UF-032-2-SL042-...-DR UF-032-2-SL042-...-VI UF-032-2-SL053-...-DR UF-032-2-SL053-...-VI	▲ 42 mm ■ 42 mm ▲ 53 mm ■ 53 mm	○ ○ ○ ○	○ ○ ○ ○						
Thru type adaptors	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228</p>	UF-032-1-WR048-...-DR UF-032-1-WR048-...-VI	▲ BSPP 1 1/2" ■ BSPP 1 1/2"	○ ○	○ ○						
Thru type adaptors	 <p>hose connection</p>	UF-032-1-SL042-...-DR UF-032-1-SL042-...-VI	▲ 42 mm ■ 42 mm	○ ○	○ ○						

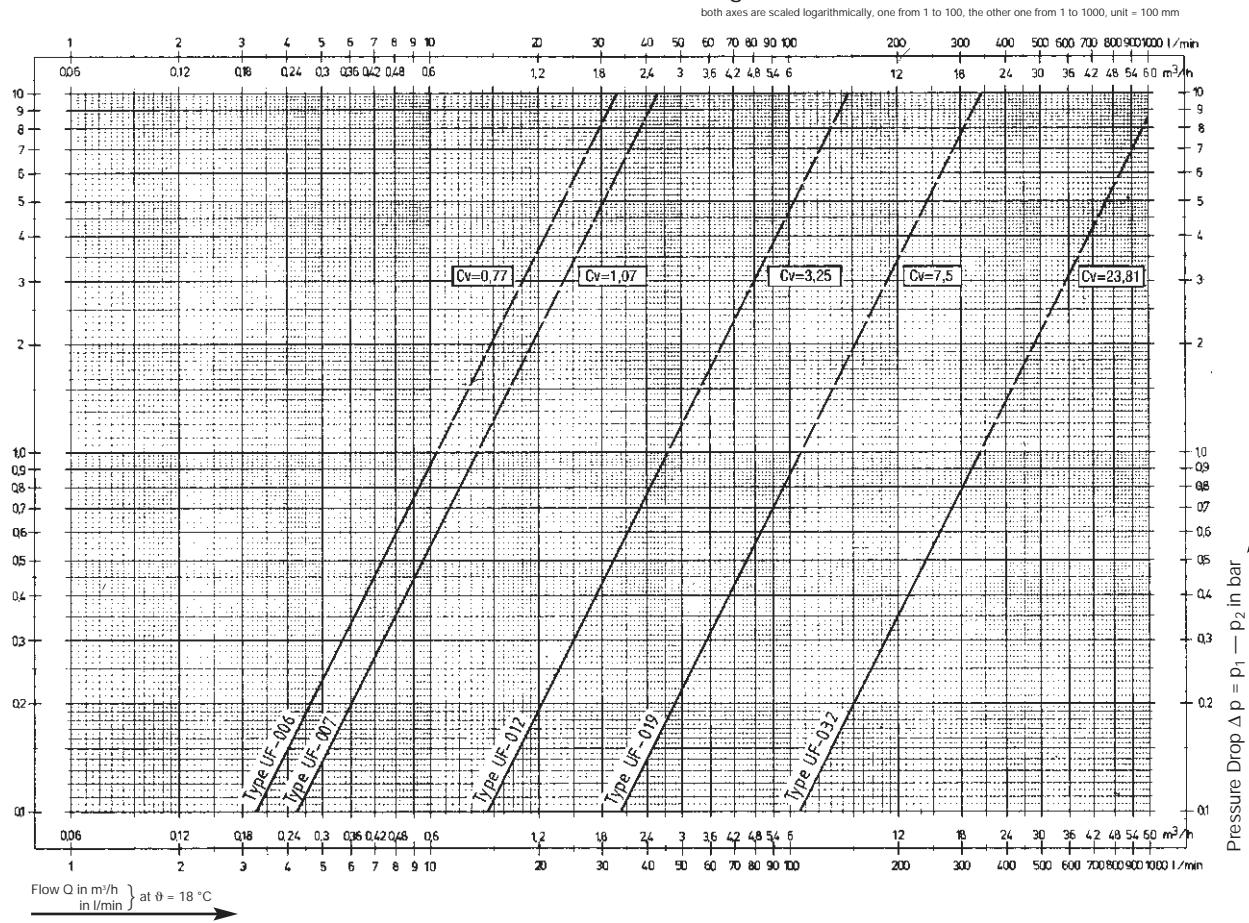
Non-interchangeable
version

Measurement of flow coefficients Cv
according to DIN EN 60534

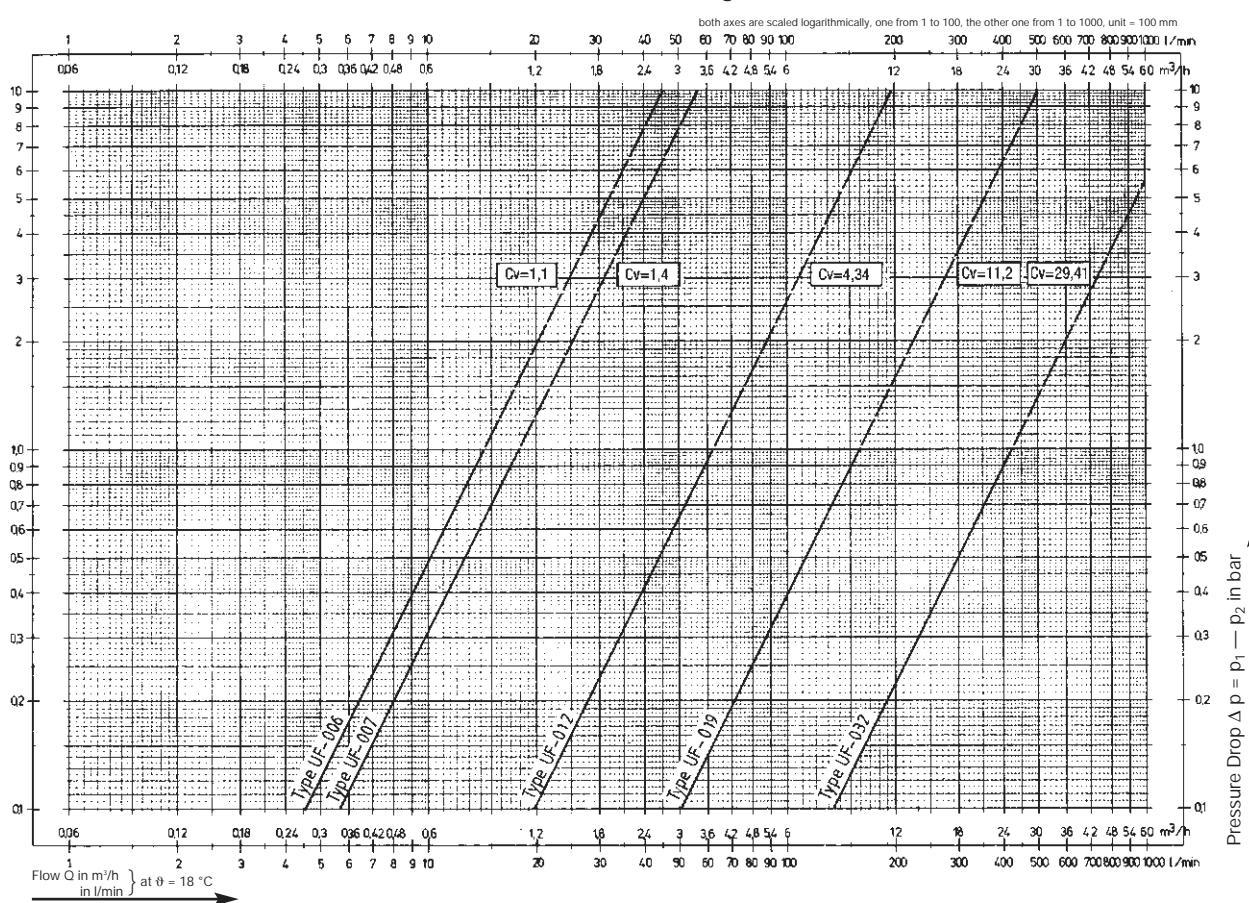
Flow speeds of 8 m/sec
should not be exceeded

1 bar = 14,5 PSI

Both sides self sealing



One side self sealing



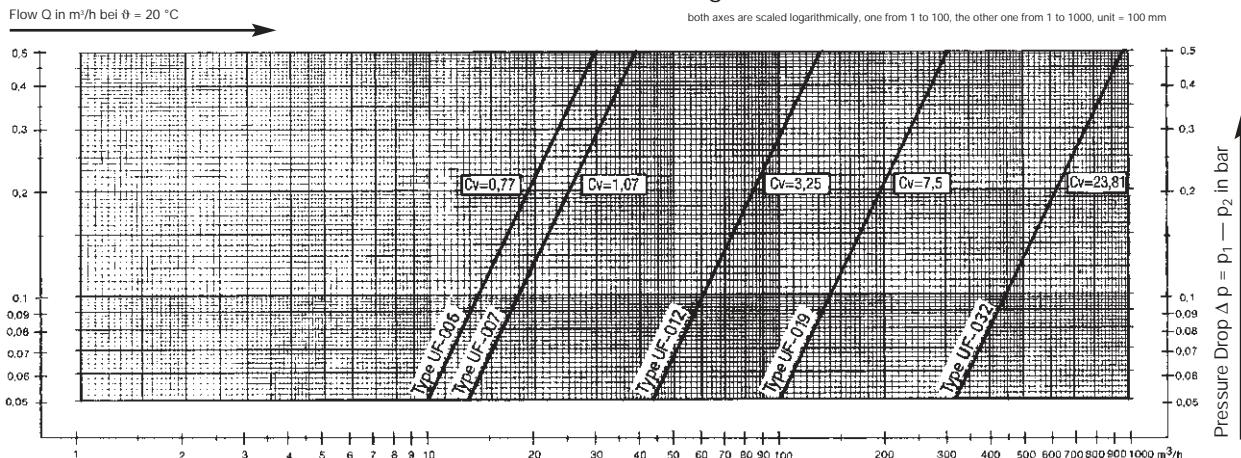
Non-interchangeable
version

Measurement of flow coefficients Cv
according to DIN EN 60534

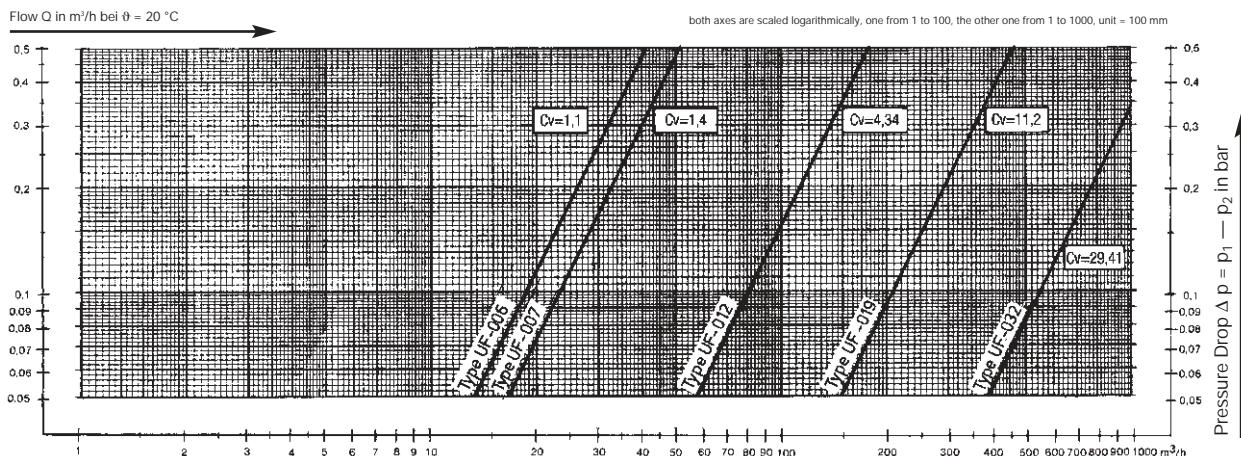
Working pressure 6 bar
gauge pressure

1 bar = 14,5 PSI

Both sides self sealing



One side self sealing



ATTENTION!

For standardised end connections, the maximum permitted working pressure of the end connection has to be considered when determining the working pressures.

For pulsating pressures, we recommend the use of the high pressure series HP.

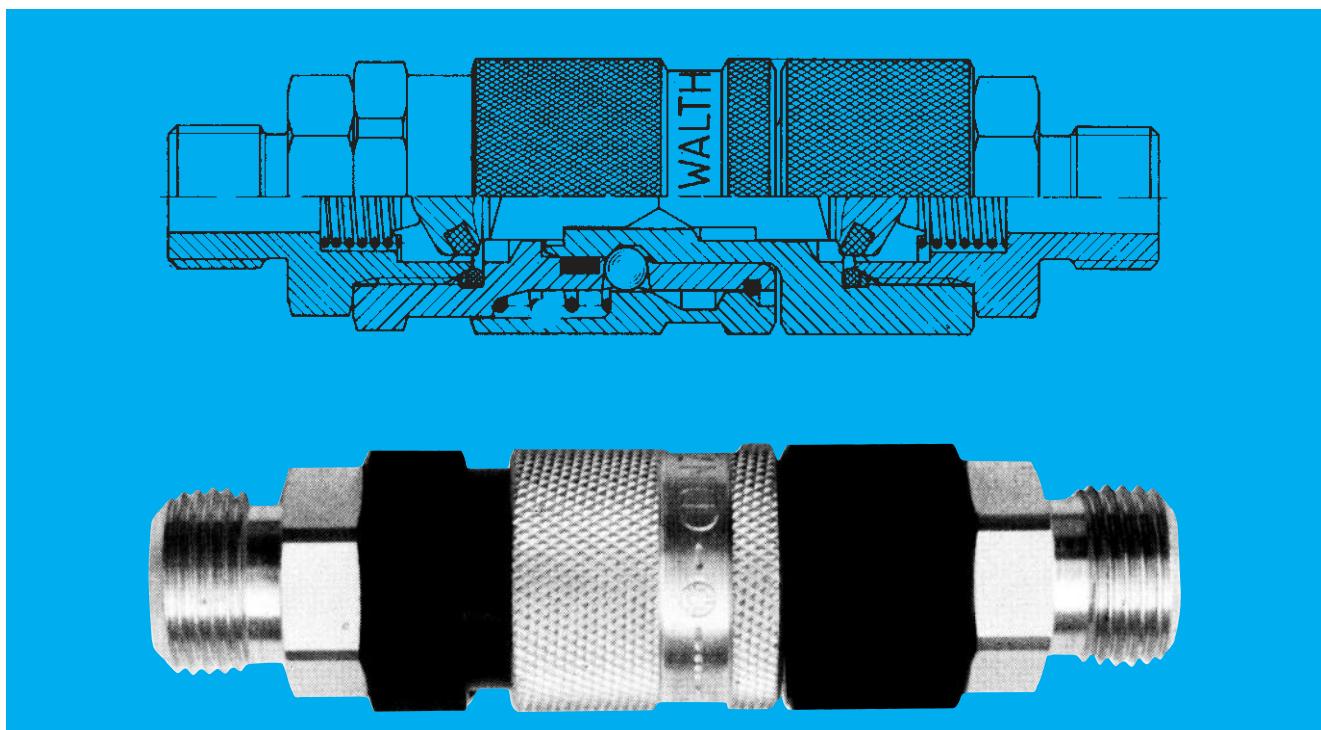
Do you have questions regarding the maximum permitted working pressure?

Our customer services is always available to answer your questions. Phone: + 49 (0) 2129 567-402.

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

* based on experience, valid up to 100 °C

The types MD-006, MD-007, MD-012, MD-019 and MD-025 in stainless steel (1.4404, 1.4571 or equal) are delivered as standard without knurling but in a smooth version (-GL/-GX) with finger grooves. Actual design differs from drawing.



50 Series MD

Type SG-006

Nom. Bore 6 mm

optional features:
OV = without valve

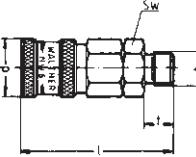
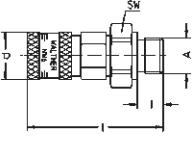
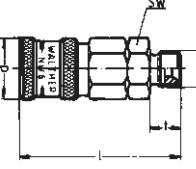
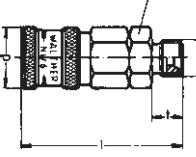
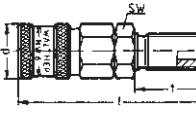
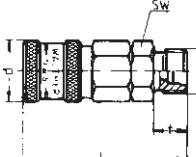
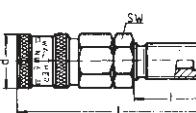
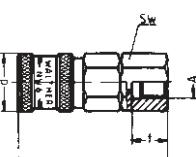
materials:
standard:
19 = steel zinc plated, partially oil burnished
12 = steel, oil burnished
(only valid for thru type adaptor)

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

special materials:
13 = steel, chem. nickel plated

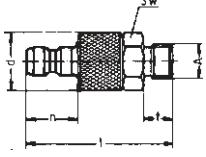
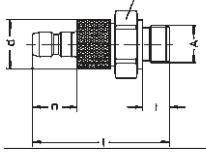
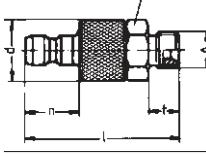
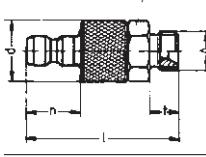
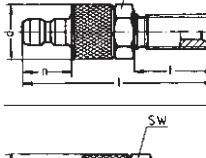
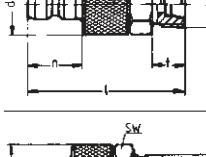
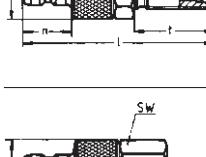
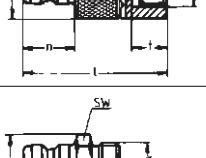
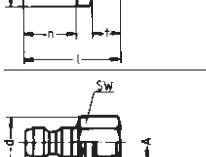
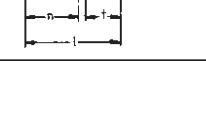
Please note the
technical data on
pages 2 - 7, 65 and the
max. working pressures
on page 49

Availability: Short Medium Long

	Part No.	Connec-tion A	steel zinc/ oil burn. steel oil burnished	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
	SG-006-0-WR013-... SG-006-0-WR017-... SG-006-0-WR021-...	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ●				22 22 22	19 19 22	58 59 62	11 12 15	90 95 120	
	SG-006-0-WE017-...	BSPP 3/8"	○				22	27	64	12	130	
	SG-006-0-VR013-... SG-006-0-VR017-...	BSPP 1/4" BSPP 3/8"	○ ○				6 6	22 19	58 59	11 12	90 95	
	SG-006-0-D0614-...	M 14 x 1,5	○				6	22	19	57	10	90
	SG-006-0-DV008-...	M 14 x 1,5	○				6	22	19	79	32	110
	SG-006-0-L0612-... SG-006-0-L0814-... SG-006-0-L1016-... SG-006-0-L1218-... SG-006-0-S0816-... SG-006-0-S1018-... SG-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 4 6 8	22 22 22 22 22 22 22	19 19 19 19 19 19 22	57 57 58 58 59 59 59	10 10 11 11 12 12 12	85 85 90 90 90 95 100	
	SG-006-0-LV008-... SG-006-0-XX211-...	M 14 x 1,5 M 16 x 1,5	○ ○	L L	8 10	6 8	22 22	19 19	79 79	32 32	110 120	
	SG-006-0-WR513-... SG-006-0-WR517-...	BSPP 1/4" BSPP 3/8"	● ●				22 22	19 22	57 58	13 14	95 100	

Self sealing couplings

Self sealing adaptors

Availability: ● Short ○ Medium ○ Long														
	Part No.	Connec-tion A	Steel zinc/oil burnished	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]		
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	SG-006-2-WR013-... SG-006-2-WR017-... SG-006-2-WR021-...	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ●				22 22 22	19 19 22	56 57 60	11 12 15	20 20 20	70 75 100	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.	SG-006-2-WE017-...	BSPP 3/8"	○				22	27	62	12	20	110	
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	SG-006-2-VR013-... SG-006-2-VR017-...	BSPP 1/4" BSPP 3/8"	○ ○			6 6	22 22	19 19	56 57	11 12	20 20	70 75	
	metric male thread with 60° sealing cone to DIN 7631	SG-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	SG-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)	SG-006-2-L0612-... SG-006-2-L0814-... SG-006-2-L1016-... SG-006-2-L1218-... SG-006-2-S0816-... SG-006-2-S1018-... SG-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	22 22 22 22 22 22 22	19 19 19 19 19 19 22	55 55 56 56 57 57 57	10 10 11 11 12 12 12	20 20 20 20 20 20 20	70 70 75 75 75 80 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	SG-006-2-LV008-... SG-006-2-XX211-...	M 14 x 1,5 M 16 x 1,5	○ ○	L L	8 10	6 8	22 22	19 19	77 77	32 32	20 20	90	
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	SG-006-2-WR513-... SG-006-2-WR517-...	BSPP 1/4" BSPP 3/8"	● ●				22 22	19 22	55 56	13 14	20 20	75 80	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	SG-006-1-WR010-... SG-006-1-WR013-... SG-006-1-WR017-...	BSPP 1/8" BSPP 1/4" BSPP 3/8"	○ ○ ○				15,5 19,6 21,9	14 14 19	34 37 38	8 11 12	20 20 20	23 26 37	
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	SG-006-1-WR513-... SG-006-1-WR517-...	BSPP 1/4" BSPP 3/8"	○ ○				19,6 24	17 22	36 37	13 14	20 20	26 40	

characteristic features:

- stainless steel version 1.4404/1.4571 or similar in smooth variant with gripping grooves instead of knurling (-GL/-GX)

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:

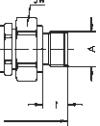
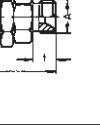
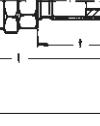
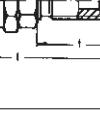
Scal qu
1 = NBR

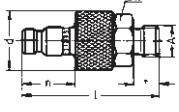
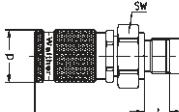
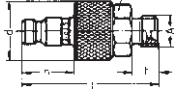
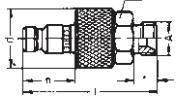
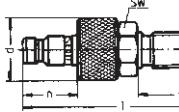
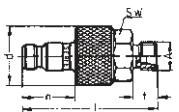
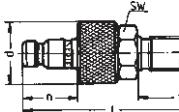
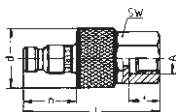
2 = FKM

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	I	t	n	weight [g]	
	MD-006-0-WE017-... British standard pipe parallel (BSPP) male thread to DIN ISO 228, sealing profile "E" to DIN 3852-11 for o-ring or sealing ring.	BSPP 3/8"	●			25	27	64	12	157		
	MD-006-0-WR013-... MD-006-0-WR017-... MD-006-0-WR021-... British standard pipe parallel (BSPP) male thread to DIN ISO 228	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ●	○ ○ ○		25	19	58	11	110		
	MD-006-0-VR013-... MD-006-0-VR017-... BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	BSPP 1/4" BSPP 3/8"	○ ●	○ ○		6	25	19	58	110		
	MD-006-0-D0614-... metric male thread with 60° sealing cone to DIN 7631	M 14 x 1,5	●	○		6	25	19	57	10	110	
	MD-006-0-DV008-... metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	M 14 x 1,5	○			6	25	19	79	32	130	
	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-... metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	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	57 57 58 58 59 59 59	10 10 11 11 12 12 12	110 110 110 110 120 120 130
	MD-006-0-LV008-... MD-006-0-XX211-... 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	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
	MD-006-0-WR513-... MD-006-0-WR517-... British standard pipe parallel (BSPP) female thread to DIN ISO 228	BSPP 1/4" BSPP 3/8"	● ●	○ ○				25 25	19 22	57 58	13 14	120 130

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	I	t	n	weight [g]	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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	
	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-006-2-WE017-...	BSPP 3/8"	○			25	27	63	12	21,7	127	
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	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	85 95	
	metric male thread with 60° sealing cone to DIN 7631	MD-006-2-D0614-...	M 14 x 1,5	● ○			6	25	19	56,5	10	21,7	85
	metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	MD-006-2-DV008-...	M 14 x 1,5	○			6	25	19	78,5	32	21,7	100
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	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
	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-006-2-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
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	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	

54 Series MD

Type MD-007

Nom. Bore 7 mm

characteristic features:

- stainless steel version 1.4404/1.4571 or similar in smooth variant with gripping grooves instead of knurling (-GL/-GX)

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

special materials:

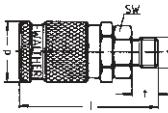
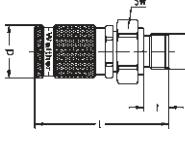
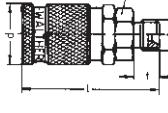
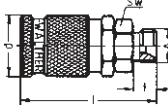
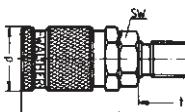
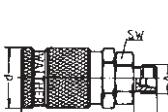
- 13 = steel, chem. nickel plated
- 24 = brass, chem. nickel plated
- 22 = brass, chrome plated

seal qualities:

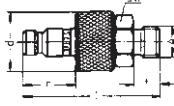
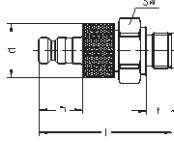
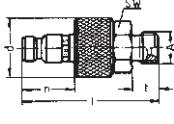
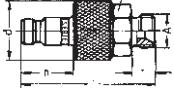
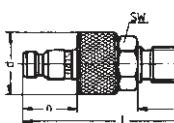
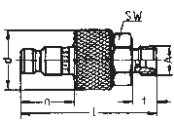
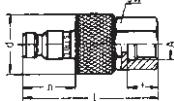
- 1 = NBR
- 2 = FKM
- 4 = EPDM

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 burnish- ed brass passivated AISI 316 ti/ 1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	MD-007-0-WR017-...- MD-007-0-WR021-...-	BSPP 3/8" BSPP 1/2"	● ● ● ○ ○ ○			30 30	24 24	68 71	12 15		200 220
	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-007-0-WE017-...-	BSPP 3/8"	○			30	27	71	12		220
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	MD-007-0-VR017-...-	BSPP 3/8"	○ ○ ○			7	30	24	68	12	210
	metric male thread with 60° sealing cone to DIN 7631	MD-007-0-D0816-..-	M 16 x 1,5	● ○			8	30	24	67	11	200
	metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	MD-007-0-DV010-...-	M 16 x 1,5	○			8	30	24	89,5	33,5	220
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	MD-007-0-L1016-...- MD-007-0-L1218-...- MD-007-0-S1018-...- MD-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 11 12	190 190 200 200
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	MD-007-0-WR517-...- MD-007-0-WR521-...-	BSPP 3/8" BSPP 1/2"	● ● ○ ○ ○			30 30	24 27	68 71	14 17		210 230

Self sealing couplings

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	I	t	n	weight [g]	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	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
	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-007-2-WE017-...	BSPP 3/8"	○				30	27	68	12	25	170
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	MD-007-2-VR017-...	BSPP 3/8"	○ ○				7 30	24 66,5	12 25	25 150		
	metric male thread with 60° sealing cone to DIN 7631	MD-007-2-D0816-...	M 16 x 1,5	● ○				8 30	24 66,5	11 25	25 140		
	metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	MD-007-2-DV010-...	M 16 x 1,5	○				8 30	24 88	33,5 25	25 170		
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	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
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	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

characteristic features:

- stainless steel version 1.4404/1.4571 or similar in smooth variant with gripping grooves instead of knurling (-GL/-GX)

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

special materials:

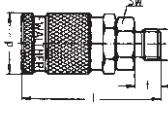
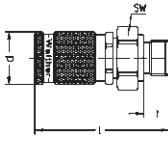
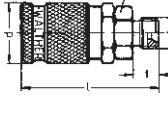
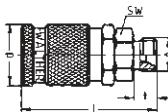
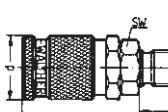
- 13 = steel, chem. nickel plated
- 24 = brass, chem. nickel plated
- 22 = brass, chrome plated

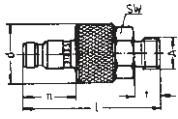
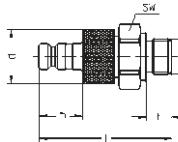
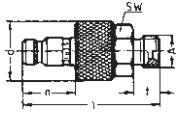
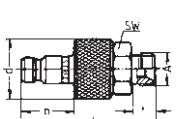
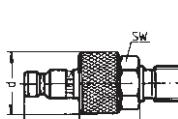
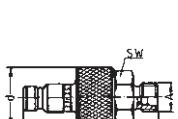
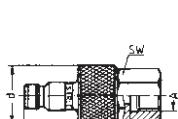
seal qualities:

- 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 burnished brass, passivated AISI 316 ti/1.4571	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]				
					BSPP 1/2"	BSPP 3/4"	BSPP 1"	BSPP 1/2"	BSPP 3/4"	M 18 x 1,5	M 22 x 1,5	40	32	82	15	390
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	MD-012-0-WR021-... MD-012-0-WR026-... MD-012-0-WR033-...	● ● ●	● ● ○	● ● ○	● ● ○				40	32	82	15	390	420	480
	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-012-0-WE021-...		●						40	32	84	14		400	
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	MD-012-0-VR021-... MD-012-0-VR026-...	● ○		●	○				12	40	32	82	15	390	410
	metric male thread with 60° sealing cone to DIN 7631	MD-012-0-D1018-... MD-012-0-D1222-...	● ●		●	○				10	40	32	78	11	380	390
	metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	MD-012-0-DV015-...		○						13	40	32	106	39		440
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	MD-012-0-L1218-... MD-012-0-L1522-... MD-012-0-S1624-...	● ● ●	L L S	12 15 16	10 12 12	40 40 40	32 32 32	78 79 81	11 12 14				380	390	400
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	MD-012-0-WR521-... MD-012-0-WR526-...	● ●	● ●	●	●				40	32	81	17		430	410

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	I	t	n	weight [g]		
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	MD-012-2-WR021-... MD-012-2-WR026-... MD-012-2-WR033-...	BSPP 1/2" BSPP 3/4" BSPP 1"	● ● ○				40 40 40	32 32 36	82 84 88	15 17 20	31,5 31,5 31,5	300 330 390	
	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-012-2-WE021-...	BSPP 1/2"	○				40	32	84	14	31,5	310	
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	MD-012-2-VR021-... MD-012-2-VR026-...	BSPP 1/2" BSPP 3/4"	● ○				12 12	40 40	32 32	82 84	15 17	31,5 31,5	300 320
	metric male thread with 60° sealing cone to DIN 7631	MD-012-2-D1018-... MD-012-2-D1222-...	M 18 x 1,5 M 22 x 1,5	● ●				10 12	40 40	32 32	78 79	11 12	31,5 31,5	290 300
	metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	MD-012-2-DV015-...	M 22 x 1,5	○				13	40	32	106	39	31,5	350
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	MD-012-2-L1218-... MD-012-2-L1522-... MD-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	78 79 81	11 12 14	31,5 31,5 31,5	290 300 310	
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	MD-012-2-WR521-... MD-012-2-WR526-...	BSPP 1/2" BSPP 3/4"	● ● ○				40 40	32 32	81 83	17 19	31,5 31,5	340 320	

58 Series MD

Type MD-019

Nom. Bore 19 mm

characteristic features:

- stainless steel version 1.4404/1.4571 or similar in smooth variant with gripping grooves instead of knurling (-GL/-GX)

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 = FKM
- 4 = EPDM

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

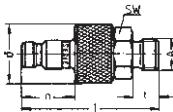
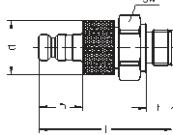
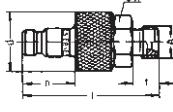
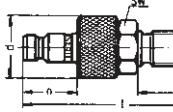
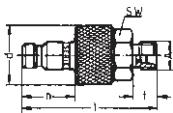
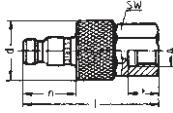
Availability: ● Short ○ Medium ○ Long

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

Self sealing couplings

Self sealing adaptors

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	I	t	n	weight [g]		
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	MD-019-2-WR026-... MD-019-2-WR033-...	BSPP 3/4" BSPP 1"	● ● ○ ○ ○				54 54	46 102	99 17	35,5 20	710 740		
	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-019-2-WE026-...	BSPP 3/4"	○				54	46	101	16	35,5	720	
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	MD-019-2-VR026-... MD-019-2-VR033-...	BSPP 3/4" BSPP 1"	○ ○				19 19	54 54	46 102	99 17	35,5 20	710 740	
	metric male thread with 60° sealing cone to DIN 7631	MD-019-2-D1526-... MD-019-2-D1930-...	M 26 x 1,5 M 30 x 1,5	○ ○				15 19	54 54	46 46	94 96	12 14	35,5 35,5	700 700
	metric male thread with 60° sealing cone to DIN 7631, extended thread for bulkhead mounting, max. thickness 10 mm	MD-019-2-DV022-...	M 30 x 1,5	○				19	54	46	127	45	35,5	790
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	MD-019-2-L1826-... MD-019-2-L2230-... MD-019-2-S2030-... MD-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	94 96 98 100	12 14 16 18	35,5 35,5 35,5 35,5	700 700 720 740	
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	MD-019-2-WR526-... MD-019-2-WR533-...	BSPP 3/4" BSPP 1"	● ● ○ ○				54 54	46 46	93 97	19 23	35,5 35,5	770 750	

60 Series MD

Type MD-025

Nom. Bore 25 mm

characteristic features:

- stainless steel version 1.4404/1.4571 or similar in smooth variant with gripping grooves instead knurling (-GL/-GX)

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

		Part No.	Connec-tion A	steel zinc/oil burnished brass passivated AISI 316 ti/1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
Self sealing couplings		MD-025-0-WR048-...	BSPP 1 1/2"	● ○ ○				62	55	132	22		1710
		MD-025-0-VR048-...	BSPP 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-...	BSPP 1 1/2"	● ○ ○				62	55	138,5	25		1740
Self sealing adaptors		MD-025-2-WR048-...	BSPP 1 1/2"	● ○ ○				62	55	133	22	45	1370
		MD-025-2-VR048-...	BSPP 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-...	BSPP 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.	Connec-tion A	Steel zinc/oil burnished brass, passivated AISI 316 ti/1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]	
	MD-032-0-WR048-... MD-032-0-WR060-...	BSPP 1 1/2" BSPP 2"	● ○ ○ ○									3080 3290	
	MD-032-0-D3245-...	M 45 x 1,5	○									2880	
	MD-032-0-S3852-...	M 52 x 2	●									2940	
	MD-032-0-WR548-... MD-032-0-WR560-...	BSPP 1 1/2" BSPP 2"	● ○ ○ ○									3050 2920	
	MD-032-4-WR048-... MD-032-4-WR060-...	BSPP 1 1/2" BSPP 2"	○ ○ ○ ○									2190 2390	
	MD-032-4-D3245-...	M 45 x 1,5	○ ○ ○									2140	
	MD-032-4-S3852-...	M 52 x 2	○ ○ ○									2200	
	MD-032-4-WR548-... MD-032-4-WR560-...	BSPP 1 1/2" BSPP 2"	○ ○ ○ ○									1890 1700	

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:

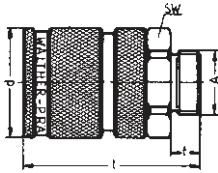
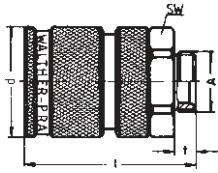
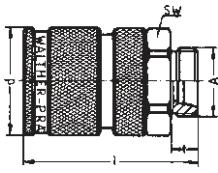
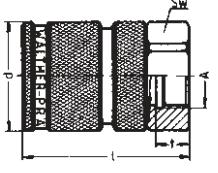
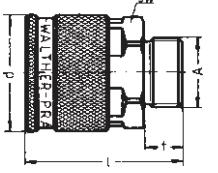
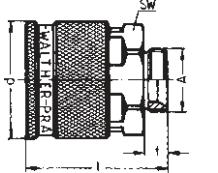
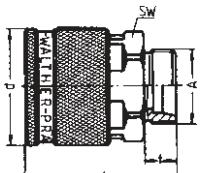
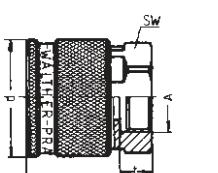
1 = NBR
 2 = FKM
 4 = EPDM

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.	Connec-tion A	Steel zinc/oil burnished brass, passivated AISI 316 ti/1.4571	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
Self sealing couplings												
		MD-050-0-WR060-... MD-050-0-WR075-...	BSPP 2" BSPP 2 1/2"	● ○ ○ ○						112 100 162 26	30	5530 5540
		MD-050-0-D4965-...	M 65 x 2							49 112 100 159	18	5460
		MD-050-0-L4252-...	M 52 x 2	○	L	42	36	112	100 158	16		5410
		MD-050-0-WR560-... MD-050-0-WR575-...	BSPP 2" BSPP 2 1/2"	● ○ ○ ○						112 100 158 29	33	6140 5930
Thru type couplings												
		MD-050-4-WR060-... MD-050-4-WR075-...	BSPP 2" BSPP 2 1/2"	○ ○ ○ ○						112 100 132,5 26	30	4090 4340
		MD-050-4-D4965-...	M 65 x 2							49 112 100 137,5	18	3980
		MD-050-4-L4252-...	M 52 x 2		L	42	36	112	100 122	16		3920
		MD-050-4-WR560-... MD-050-4-WR575-...	BSPP 2" BSPP 2 1/2"	○ ○ ○ ○						112 100 112 29	33	4600 4100

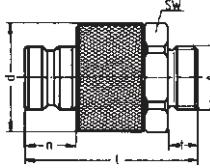
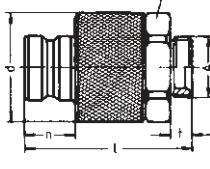
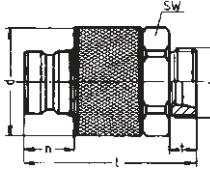
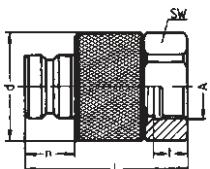
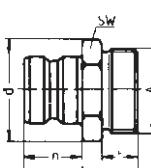
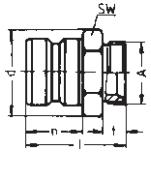
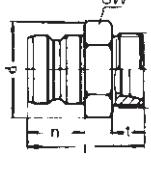
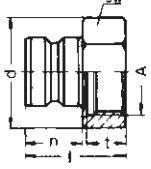
optional features:
OV = without valve

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 burnished brass, passivated AISI 316 ti/1.4571 steel oil burnished	series	pipe OD	n. b.	d	SW	l	t	n	weight [g]	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	MD-050-2-WR060-... MD-050-2-WR075-...	BSPP 2" BSPP 2 1/2"	● ○ ○ ○		112 112	100 100	162 164	26 30	50 50	5010 5020		
	metric male thread with 60° sealing cone to DIN 7631	MD-050-2-D4965-...	M 65 x 2			49	112	100	159	18	50	4940	
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	MD-050-2-L4252-...	M 52 x 2	○	L	42	36	112	100	158	16	50	4890
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	MD-050-2-WR560-... MD-050-2-WR575-...	BSPP 2" BSPP 2 1/2"	● ○ ○ ○		112 112	100 100	158 167	29 33	50 50	5620 5410		
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	MD-050-1-WR060-... MD-050-1-WR075-...	BSPP 2" BSPP 2 1/2"	○ ○ ○ ○		92 92	85 85	92 96	26 30	50 50	1660 1720		
	metric male thread with 60° sealing cone to DIN 7631	MD-050-1-D4965-...	M 65 x 2			49	92	85	93	18	50	1550	
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	MD-050-1-L4252-...	M 52 x 2		L	42	36	92	85	91	16	50	1510
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	MD-050-1-WR560-... MD-050-1-WR575-...	BSPP 2" BSPP 2 1/2"	○ ○ ○ ○		92 92	85 85	86 89	29 33	50 50	1930 1580		

Self sealing adaptors

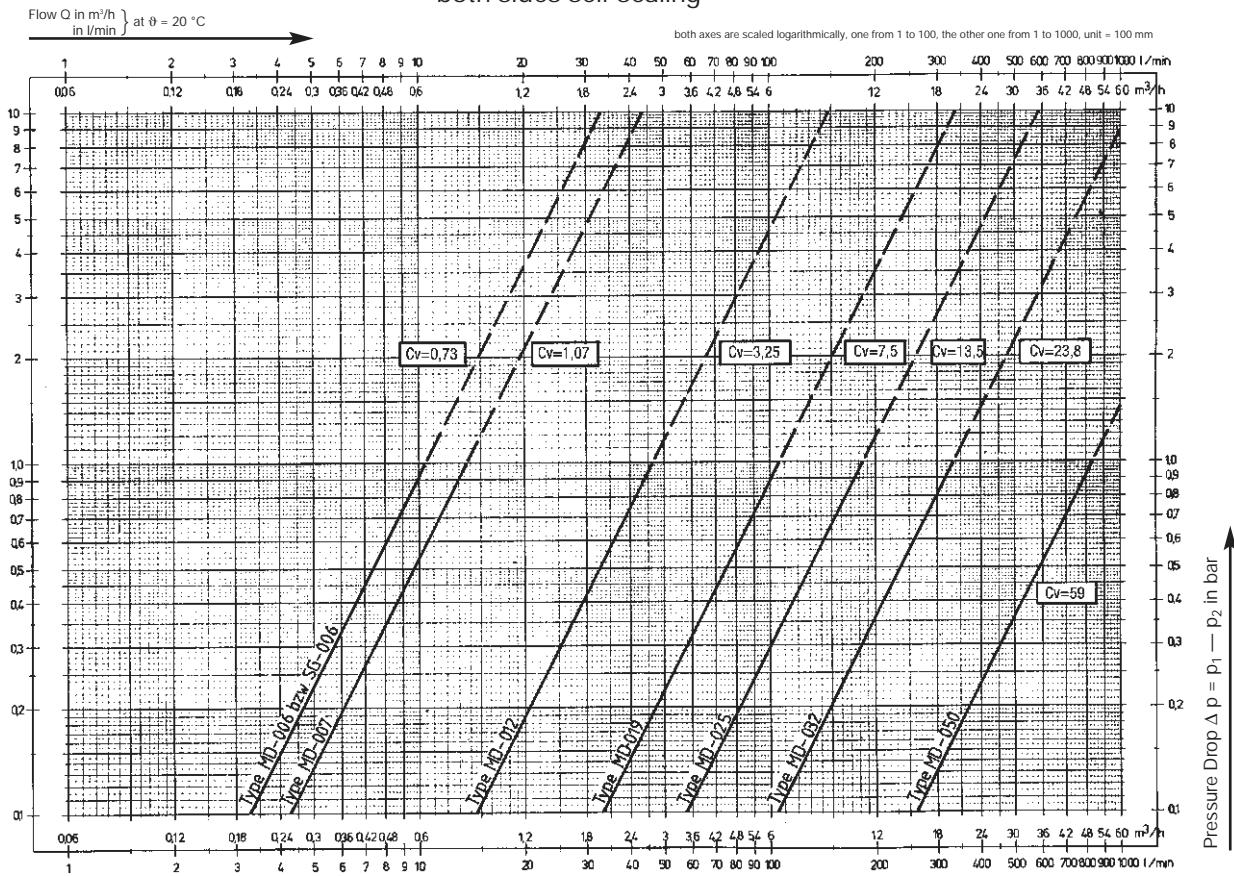
Thru type adaptors

Measurement of flow coefficients Cv
according to DIN EN 60534

Flow speeds of 8 m/sec
should not be exceeded

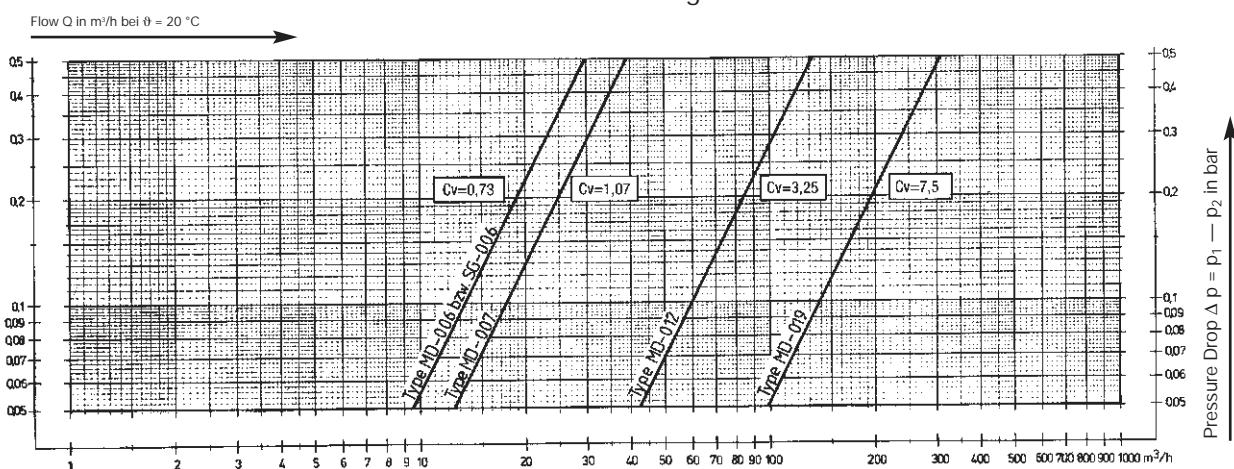
Medium Water both sides self sealing

1 bar = 14,5 PSI

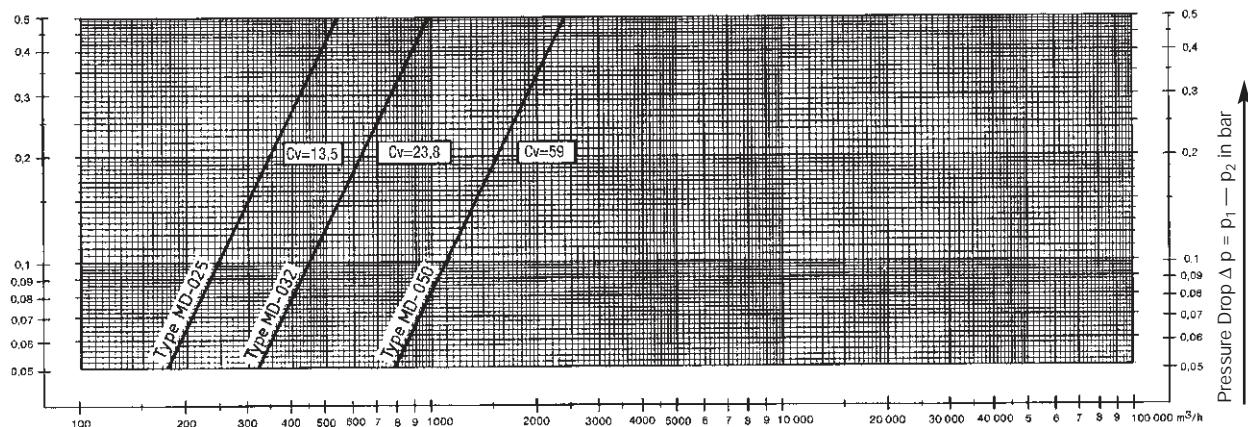


Series MD

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



Pressure Drop $\Delta p = p_1 - p_2$ in bar



66 NEW – medium pressure series CP

The clean break couplings of the CP series are plug couplings for the medium pressure sector up to 250 bar. This series is suitable for all applications requiring smallest leakage with easiest handling and high flow.

Features:

Smallest leakage during disconnection
Minimum air introduction during connection
Absolutely squirt-free

Efficient:

High flow rates and low pressure loss
Connection against residual pressure possible
Non-lubricating media connectable without high coupling force

Robust and durable:

Stainless steel design

Temperature area:

-20 °C up to 130 °C in FKM seal quality

Options:

Interlocking device against unintended disconnection ATEX design



Please find further information to this topic on our web site.

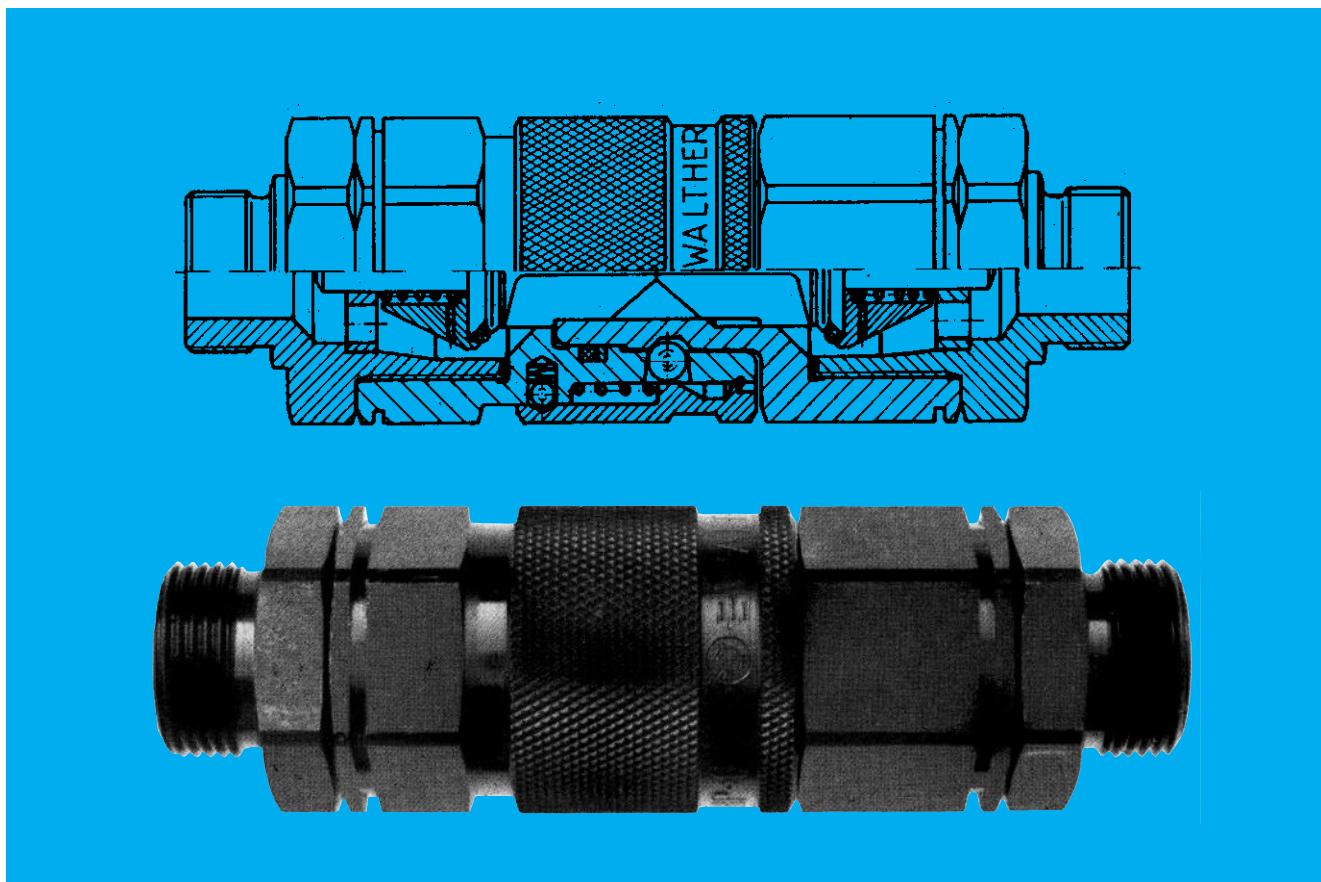
ATTENTION!

When determining the working pressure of standardised end connections, the maximum permitted working pressure of the end connections has to be considered.

You have questions regarding the maximum permitted working pressure? Our customer service is always available to answer your questions. Phone: +49 (0) 2129 567-402.

Nom. bore	Type	Max. static working pressure [bar/psi] steel	1.4404/1.4571 ss		1.4404/1.4571 ss with 1.4418 QT900	Min. burst pressure for steel [bar/psi]	C _V value		Cross section [mm ²]	Page
			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.



68 Series HP

Type 02-003

Nom. Bore 2,5 mm

characteristic features:

- can only be used self sealing both sides

materials:

standard:
12 = steel, oil burnished

special materials:

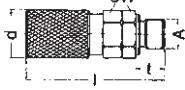
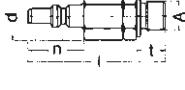
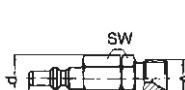
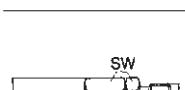
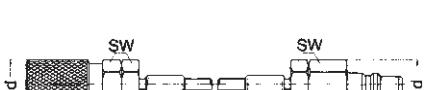
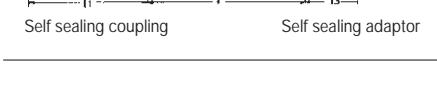
13 = steel, chem. nickel plated

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.	Connec-tion A	steel oil burnished	d	d ₁	SW	SW ₁	I	l ₃	l ₁	l ₂	t	n	weight [g]		
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B</p>	<p>02-003-0-WB010-...</p>	<p>BSPP 1/8"</p>	<p>●</p>	<p>16,2</p>	<p>14</p>	<p>46</p>								<p>9,5</p>	<p>42</p>		
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	<p>02-003-0-VR013-...</p>	<p>BSPP 1/4"</p>	<p>●</p>	<p>16,2</p>	<p>14</p>	<p>47,5</p>									<p>11,5</p>	<p>45</p>	
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	<p>02-003-0-L0612-...</p>	<p>M 12 x 1,5</p>	<p>●</p>	<p>16,2</p>	<p>14</p>	<p>46,5</p>									<p>10</p>	<p>42</p>	
 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B</p>	<p>02-003-2-WB010-...</p>	<p>BSPP 1/8"</p>	<p>●</p>	<p>16,2</p>	<p>14</p>	<p>45,5</p>									<p>9,5</p>	<p>18,5</p>	<p>30</p>
 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone</p>	<p>02-003-2-VR013-...</p>	<p>BSPP 1/4"</p>	<p>●</p>	<p>16,2</p>	<p>14</p>	<p>47</p>									<p>11</p>	<p>18,5</p>	<p>33</p>
 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	<p>02-003-2-L0612-...</p>	<p>M 12 x 1,5</p>	<p>●</p>	<p>16,2</p>	<p>14</p>	<p>46</p>									<p>10</p>	<p>18,5</p>	<p>30</p>
 <p>Self sealing coupling Self sealing adaptor</p>	<p>95021-0-LG020-... 95021-0-LG040-... 95021-0-LG063-... 95021-0-LG080-... 95021-0-LG100-...</p>	<p>self sealing coupling + sealing adaptor</p>	<p>○</p>	<p>16,2</p>	<p>14</p>	<p>200</p>			<p>38</p>	<p>37,5</p>					<p>18,5</p>	<p>75</p>	
 <p>Self sealing coupling Self sealing adaptor</p>	<p>95020-0-LG020-... 95020-0-LG040-... 95020-0-LG063-... 95020-0-LG080-... 95020-0-LG100-...</p>	<p>self sealing coupling + thread connection</p>	<p>○</p>	<p>16,2</p>	<p>M 10 x 1</p>	<p>14</p>	<p>11</p>	<p>200</p>	<p>19</p>	<p>38</p>					<p>60</p>		
 <p>Self sealing coupling Self sealing adaptor</p>	<p>95020-2-LG020-... 95020-2-LG040-... 95020-2-LG063-... 95020-2-LG080-... 95020-2-LG100-...</p>	<p>self sealing adaptor + thread connection</p>	<p>○</p>	<p>16,2</p>	<p>M 10 x 1</p>	<p>14</p>	<p>11</p>	<p>200</p>	<p>19</p>	<p>37,5</p>					<p>44</p>		

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:

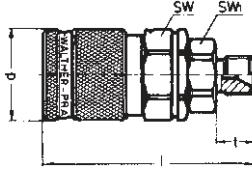
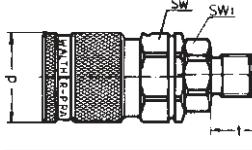
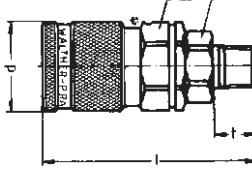
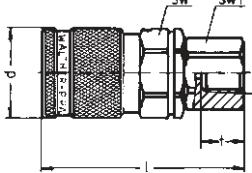
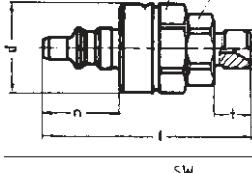
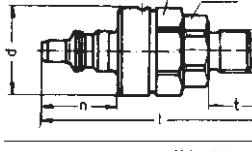
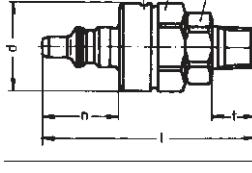
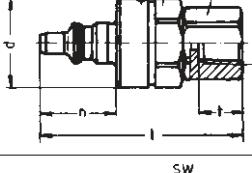
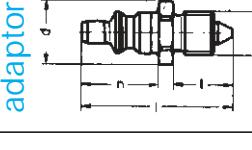
13 = steel, chem. nickel plated
W1 = AISI 316 ti/1.4571, adaptor front part 1.4418 QT900
01 = stainless steel 1.4404/1.4571 or similar

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.	Connec-tion A	steel oil burnished	AISI 316 ti/ 1.4571	1.4404/ 1.4418 QT900	d	SW	SW ₁	I	t	n	weight [g]
Self sealing couplings												
		HP-004-0-XX001-...-.	BSPP 1/4" male 60° sealing cone	●	○				30	27	22	69,5 12 220
		HP-004-0-XX002-...-.	UNF 9/16" male 58° sealing cone	●	○				30	27	22	75,5 18 220
		HP-004-0-NP013-...-.	NPT 1/4"	●	○				30	27	22	71,5 14 220
		HP-004-0-NP513-...-.	NPT 1/4"	●	○				30	27	22	68,5 14 230
Self sealing adaptors												
		HP-004-2-XX001-...-.	BSPP 1/4" male 60° sealing cone	●	○	○			30	27	22	69,5 12 25,5 160
		HP-004-2-XX002-...-.	UNF 9/16" male 58° sealing cone	●	○	○			30	27	22	75,5 18 25,5 160
		HP-004-2-NP013-...-.	NPT 1/4"	●	○	○			30	27	22	71,5 14 25,5 160
		HP-004-2-NP513-...-.	NPT 1/4"	●	○	○			30	27	22	68,5 14 25,5 170
Thru type adaptors												
		HP-004-1-XX002-..	UNF 9/16" male 58° sealing cone	●	○	○			18,9	17		51 18 25,5 45

70 Series HP

Type HP-006

Nom. Bore 6 mm

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:

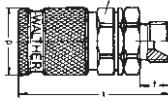
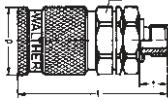
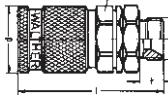
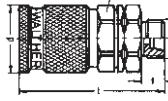
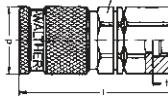
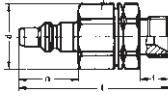
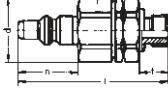
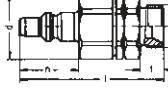
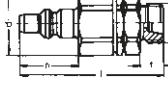
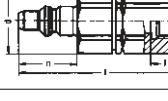
1 = NBR

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 14404/ 1.4418 QT900	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
Self sealing couplings	 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone conical pipe thread NPT male</p>	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
	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B</p>	HP-006-0-WB017-...	BSPP 3/8"	● ○ ○			6	34	30	80	14,5		320
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	HP-006-0-D0614-... HP-006-0-D0816-...	M 14 x 1,5 M 16 x 1,5	● ○ ○			6	34	30	75,5	10	11	300 300
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	HP-006-0-S0816-... HP-006-0-S1018-... HP-006-0-S1220-...	M 16 x 1,5 M 18 x 1,5 M 20 x 1,5	● ○ ○	S S S	8 10 12	4 6 8	34 34 34	30 30 30	77,5 77,5 77,5	12 12 12		320 310 330
Self sealing adaptors	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228 conical pipe thread female</p>	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
	 <p>BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone conical pipe thread NPT male</p>	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
	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B</p>	HP-006-2-WB017-...	BSPP 3/8"	● ○ ○			6	34	30	80	14,5	30,5	210
	 <p>metric male thread with 60° sealing cone to DIN 7631</p>	HP-006-2-D0614-... HP-006-2-D0816-...	M 14 x 1,5 M 16 x 1,5	● ○ ○ ○			6	34	30	75,5	10	30,5	190 190
	 <p>metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)</p>	HP-006-2-S0816-... HP-006-2-S1018-... HP-006-2-S1220-...	M 16 x 1,5 M 18 x 1,5 M 20 x 1,5	● ○ ○ ○	S S S	8 10 12	4 6 8	34 34 34	30 30 30	77,5 77,5 77,5	12 12 12	30,5 200 220	
	 <p>British standard pipe parallel (BSPP) female thread to DIN ISO 228 conical pipe thread female</p>	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	 <p>British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B</p>	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:

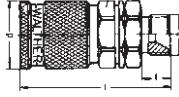
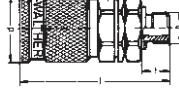
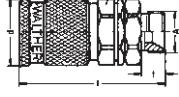
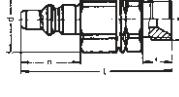
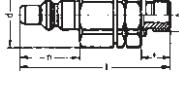
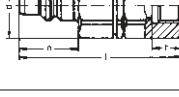
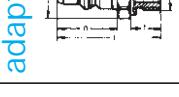
- 13 = steel, chem. nickel plated
- W1 = AISI 316 ti/1.4571, adaptor front part 1.4418 QT900
- 01 = stainless steel 1.4404/1.4571 or similar

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.	Connec-tion A	steel oil burnished AISI 316 ti/ 1.4571 1.4404/ 1.4418 QT900	series	pipe OD	n. b.	d	SW	I	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 S S	12 14 16	8 46 46	41 92,5 41 94,5 41 94,5	12 14 14		670 670 680
		British standard pipe parallel (BSPP) female thread to DIN ISO 228 conical pipe thread NPT female	HP-010-0-WR521-... HP-010-0-NP521-...	BSPP 1/2" NPT 1/2"	● ○			10 46	41 96,5	17		840
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 41 92,5	11 12	36 450	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 S S	12 14 16	8 46 46	41 92,5 41 94,5 41 94,5	12 14 14	36 460	460
		British standard pipe parallel (BSPP) female thread to DIN ISO 228 conical pipe thread NPT female	HP-010-2-WR521-... HP-010-2-NP521-...	BSPP 1/2" NPT 1/2"	● ○ ○			10 46	41 96,5	17	36	620
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

72 Series HP

Type HP-016

Nom. Bore 16 mm

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 14404/ 1.4418 QT900	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
Self sealing couplings	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	HP-016-0-VR026-...-	BSPP 3/4"	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>		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-...-	BSPP 3/4"	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>		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	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>		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	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	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-...-	BSPP 3/4"	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>		16	56	46	110,5	19			1360
	BSPP male thread to DIN ISO 228/BS 5200 with 60° sealing cone	HP-016-2-VR026-...-	BSPP 3/4"	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>		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-...-	BSPP 3/4"	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>		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	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>		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	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	S S	16 20	12 16	56 56	46 46	109,5 111,5	14	41	770 790
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	HP-016-2-WR526-...-	BSPP 3/4"	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>		16	56	46	109,5	19	41		1000
	British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-016-1-WB026..	BSPP 3/4"	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>		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.	Connec-tion A	steel oil burnished AISI 316 ti/ 1.4571 1.4404/ 1.4418 QT900	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]				
	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			
		HP-020-0-WB033-...	BSPP 1"	●	○				20	62	55	119,5	21	1450			
			HP-020-0-D1526-...	M 26 x 1,5	○	○				15	62	55	110,5	12	1400		
				HP-020-0-D1930-...	M 30 x 1,5	●	○				19	62	55	112,5	14	1410	
					HP-020-0-S2030-...	M 30 x 2	○	○	S	20	16	62	55	114,5	16	18	1410
					HP-020-0-S2536-...	M 36 x 2	●	○	S	25	20	62	55	116,5	18	1440	
					British standard pipe parallel (BSPP) female thread to DIN ISO 228	HP-020-0-WR533-...	BSPP 1"	○	○				20	62	55	123	23
					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
					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
					metric male thread with 60° sealing cone to DIN 7631	HP-020-2-D1526-...	M 26 x 1,5	○	○	○			15	62	55	110,5	12
					HP-020-2-D1930-...	M 30 x 1,5	●	○	○	○			19	62	55	112,5	14
					metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	HP-020-2-S2030-...	M 30 x 2	○	○	○	S	20	16	62	55	114,5	16
					HP-020-2-S2536-...	M 36 x 2	●	○	○	○	S	25	20	62	55	116,5	18
					British standard pipe parallel (BSPP) female thread to DIN ISO 228	HP-020-2-WR533-...	BSPP 1"	○	○	○			20	62	55	123	23
					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

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	AlSi 31/6 ti/ 1.4571	1.4404/ 1.4418 QT900	series	pipe OD	n. b.	d	SW	I	t	n	weight [g]
Self sealing couplings	British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-032-0-WB048...- HP-032-0-WB060...- BSPP 1 1/2" BSPP 2"	○ ○ ○ ○ ○ ○	32 32	90 90	80 80	144,5 149,5	25 30					3790 4290	
	metric male thread with 60° sealing cone to DIN 7631	HP-032-0-D2538...- HP-032-0-D3245...- M 38 x 1,5 M 45 x 1,5	○ ○ ○ ○ ○ ○	25 32	90 90	80 80	133,5 135,5	14 16					3690 3680	
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	HP-032-0-S3042...- HP-032-0-S3852...- M 42 x 2 M 52 x 2	● ● ○ ○ ○ ○	S S	30 38	25 32	90 90	80 80	139,5 141,5	20 22			3730 3790	
Self sealing adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-032-2-WB048...- HP-032-2-WB060...- BSPP 1 1/2" BSPP 2"	○ ○ ○ ○ ○ ○	32 32	90 90	80 80	144 149	25 30					49,5 49,5	2740 3240
	metric male thread with 60° sealing cone to DIN 7631	HP-032-2-D2538...- HP-032-2-D3245...- M 38 x 1,5 M 45 x 1,5	○ ○ ○ ○ ○ ○	25 32	90 90	80 80	133 135	14 16					49,5 49,5	2630 2620
	metric male thread with 24° sealing cone to DIN 2353 (light duty series L, heavy duty series S)	HP-032-2-S3042...- HP-032-2-S3852...- M 42 x 2 M 52 x 2	● ● ○ ○ ○ ○	S S	30 38	25 32	90 90	80 80	139 141	20 22			49,5 49,5	2670 2730
Thru type adaptors	British standard pipe parallel (BSPP) male thread to DIN ISO 228, screwed plug to DIN 3852-2 form B	HP-032-1-WB048...- HP-032-1-WB060...- BSPP 1 1/2" BSPP 2"	○ ○ ○ ○ ○ ○	32 32	61,5 86	55 75	90,5 92,5	25 27					49,5 49,5	690 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

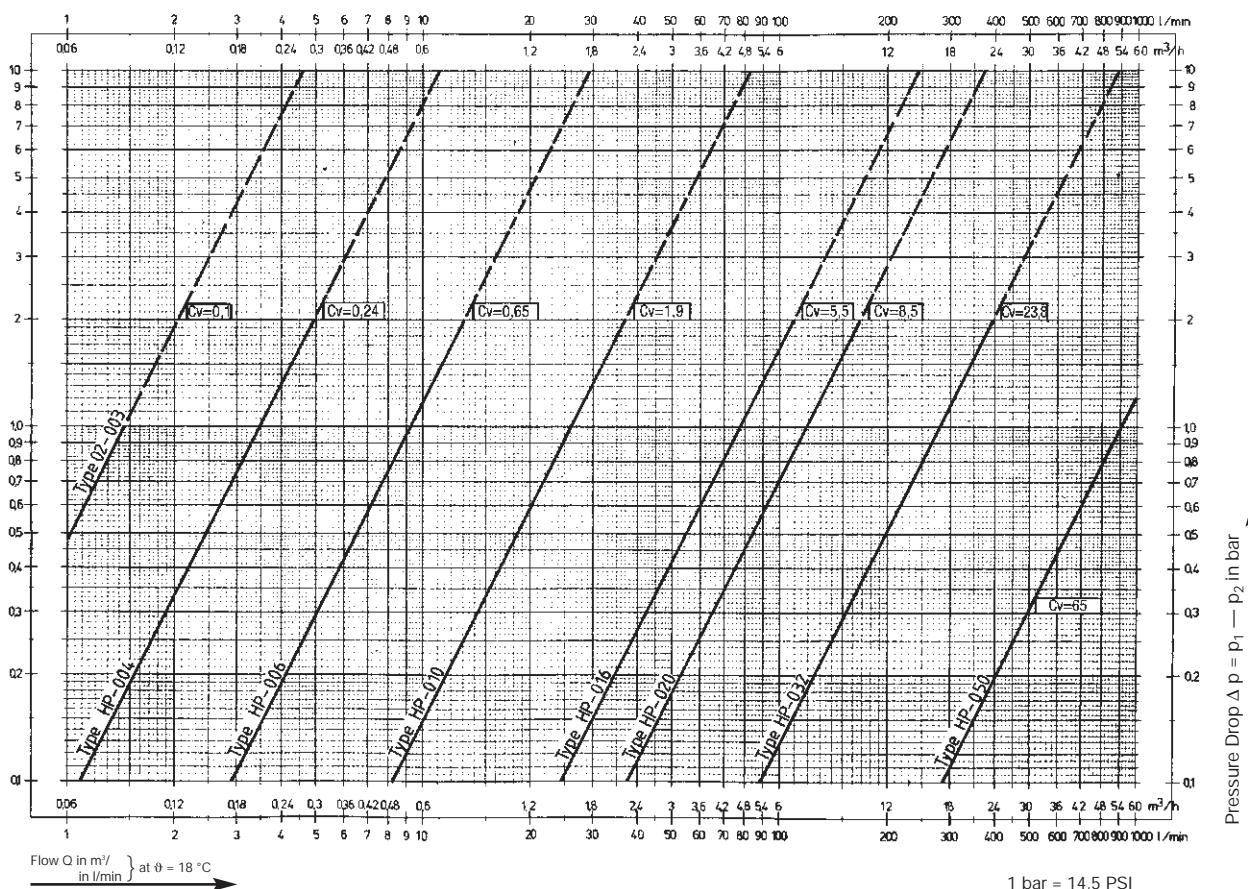
	Part No.	Connec-tion A	steel oil burnished	series	pipe OD	n. b.	d	d ₁	d ₂	I	n	weight (kg)
Self sealing couplings	HP-050-0-XX007-...	SAE-flange for pipe OD 65 4xM20 44,5x96,8			65	50	150	126	220	219		15,3
Self sealing adaptors	HP-050-2-XX007-...	SAE-flange for pipe OD 65 4xM20 44,5x96,8			65	50	150	126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

Measurement of flow coefficients Cv
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



ATTENTION!

When determining the working pressure of standardised end connections, the maximum permitted working pressure of the end connections has to be considered.

You have questions regarding the maximum permitted working pressure?

Our customer service is always available to answer your questions. Phone: +49 (0) 2129 567-402.

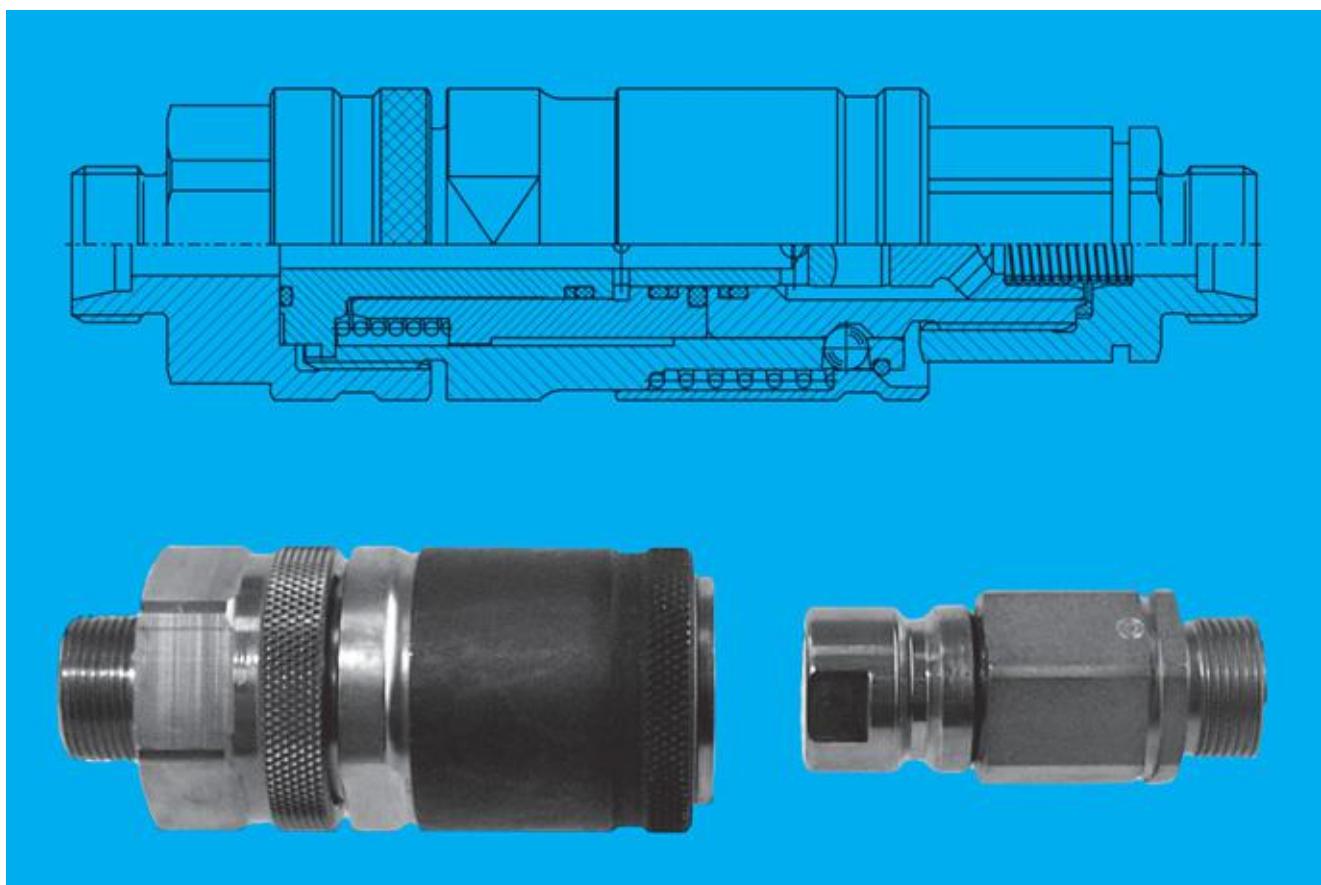
Nom. bore	Type	Max. static working pressure [bar/psi] steel	C _v value both sides self sealing	Page
6	HC-G06	650/9500	0.5	78
8	HC-G08	600/8700	1.0	78
12	HC-G12	600/8700	2.3	78
16	HC-G16	600/8700	3.4	78
20	HC-G20	600/8700	5.7	78
performance diagrams				79

Please note: In case of standardised end connections, please take the max. allowable working pressure of the end connection into account when determining the working pressures.

Features: Z12 = Self sealing coupling and self sealing adaptor with dirt protection

Z11 = Self sealing coupling and self sealing adaptor with pressure relief
(starting from DN 12)

Z13 = Self sealing coupling and self sealing adaptor with dirt protection and pressure relief
(starting from DN 12)



78 Series HC

Type HC-G06 - HC-G20 Nom. Bore 6-20 mm

characteristic features:

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

materials:

standard:

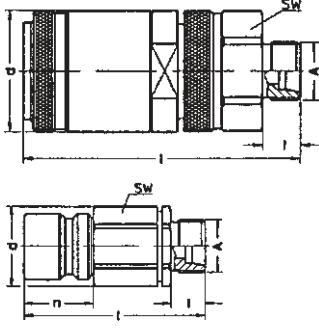
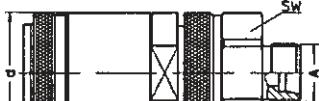
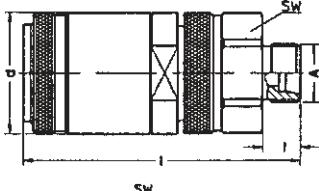
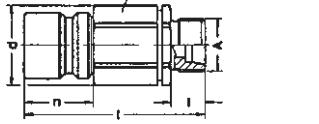
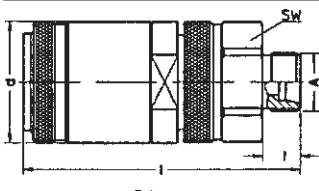
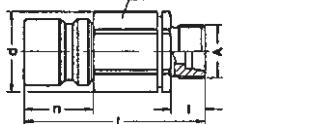
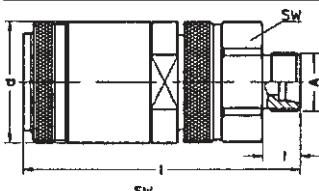
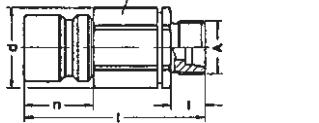
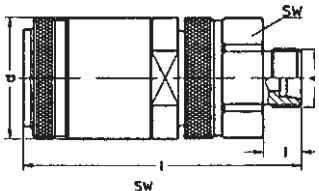
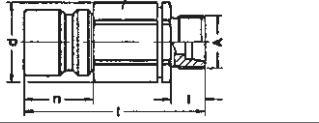
- steel, zinc plated, yellow chromated locking sleeve, black phosphatized

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

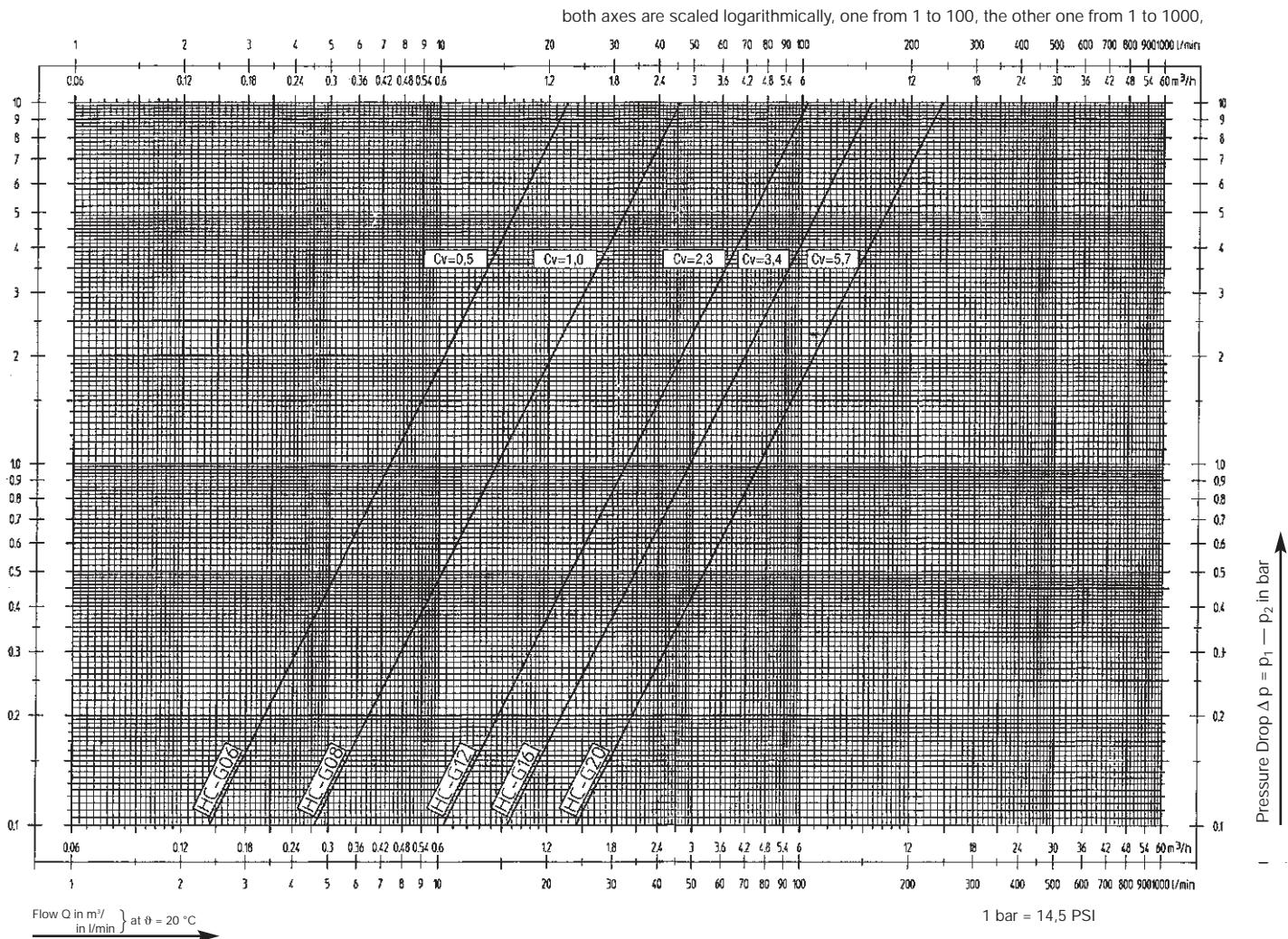
Availability: Short Medium Long

	Part No.	Connec-tion A	steel/zinc plated	series	pipe OD	d	SW	I	t	n	weight [g]
	HC-G06-0-S1018-AABA-Z10	M 18 x 1,5	<input checked="" type="radio"/>	S	10	34	27	98,8	12		455
	HC-G06-2-S1018-AABB-Z10	M 18 x 1,5	<input checked="" type="radio"/>	S	10	30,1	27	69	12	23,4	177
	HC-G08-0-S1220-AABA-Z10	M 20 x 1,5	<input checked="" type="radio"/>	S	12	42,4	32	104,8	12		660
	HC-G08-2-S1220-AABB-Z10	M 20 x 1,5	<input checked="" type="radio"/>	S	12	30,1	27	69,2	12	26,8	220
	HC-G12-0-S1624-AABA-Z10	M 24 x 1,5	<input checked="" type="radio"/>	S	16	47,2	41	102,6	14		818
	HC-G12-2-S1624-AABB-Z10	M 24 x 1,5	<input checked="" type="radio"/>	S	16	33,5	30	74,2	14	28,5	251
	HC-G16-0-S2030-AABA-Z10	M 30 x 2	<input checked="" type="radio"/>	S	20	57,8	50	112,4	16		1406
	HC-G16-2-S2030-AABB-Z10	M 30 x 2	<input checked="" type="radio"/>	S	20	45,6	41	80,4	16	31	487
	HC-G20-0-S2536-AABA-Z10	M 36 x 2	<input checked="" type="radio"/>	S	25	63,2	50	145,6	18		2005
	HC-G20-2-S2536-AABB-Z10	M 36 x 2	<input checked="" type="radio"/>	S	25	51,2	46	111,5	18	36	909

Measurement of flow coefficients Cv
according to DIN EN 60534

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

Both sides
self sealing



80 | Clean Break Quick Couplings

1. Type 15-005 / FF-005

Extremely small leakage with locking automation. Preferred for hydraulic training units / didactics



2. CG series

Resistance to vibration according to EN61373, category 1, class B (railway certification), optimized seals, depending on media and temperature



3. CI series

For low and high temperatures, e. g. cryogenic gases, temperature applications or laboratory operations



4. CK series

Plastic design, applicable for cooling water or in chemical and pharmaceutical industries

5. CT series

Plug coupling of the latest generation. For challenging media in the process and laboratory technology, transport and loading of fluids



6. CN series

With curve locking for large volume flows, mainly applied in the chemical industry



7. CP series

With locking automation, interlocking device and optional dirt protection in coupled state

8. CH series

Screw-type coupling for hydraulic applications in the heavy industry. The special round thread of the locking is resistant against pollution.

9. Type 40-030

Sterilizable quick coupling for the transport of fluids. The coupling is dead space free as well as CIP-compatible (Clean-In-Place) and SIP-compatible (Sterilization-In-Place)

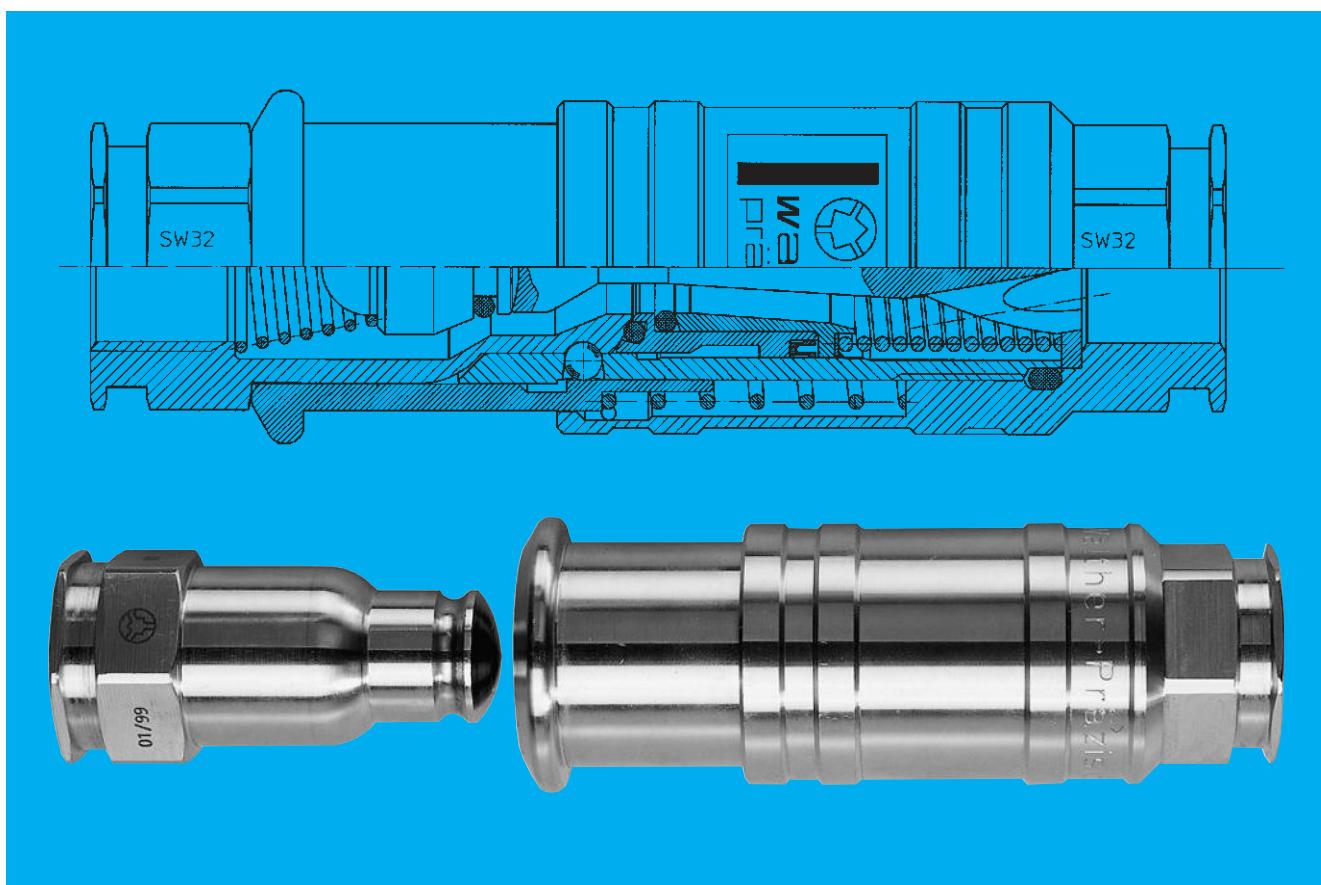


Please find further information to this topic on our web site.

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
25/50	BF-025/BF-050	40*/16*	14,7/59,4	83
Performance diagrams				84

* Restrictions possible when using perfluorelastomer seals.

Characteristics: 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.



82 Series BF Type BF-005 - BF-012 Nom. Bore 5 - 12 mm

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:

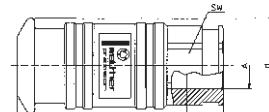
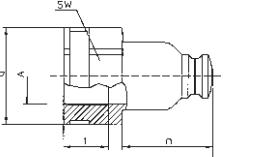
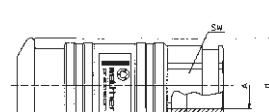
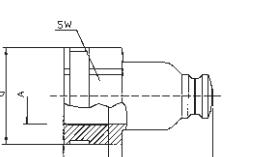
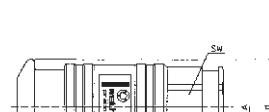
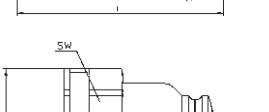
2 = FKM

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

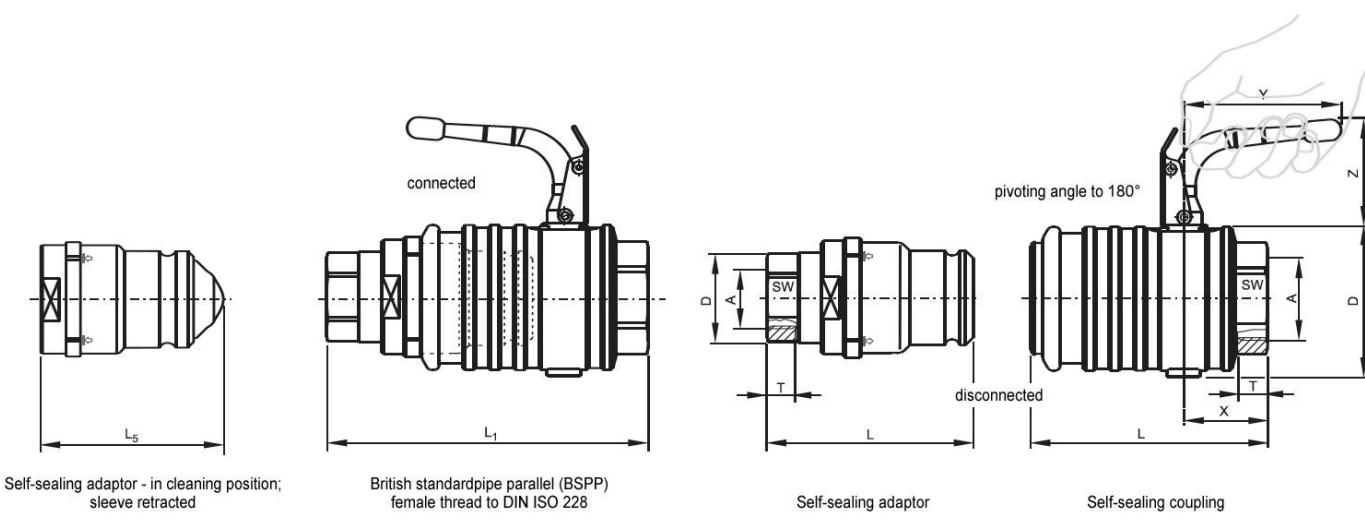
	Part No.	Connec-tion A	AlSi 316 W 1.4571	series	pipe OD	d	SW	I	t	n	weight [g]
	BF-005-0-WR513-...	BSPP 1/4"	<input checked="" type="radio"/>			29	22	64	13		165
	BF-005-2-WR513-...	BSPP 1/4"	<input checked="" type="radio"/>			24,5	22	37,5	13	23,5	50
	BF-009-0-WR521-...	BSPP 1/2"	<input checked="" type="radio"/>			44	32	118	17		630
	BF-009-2-WR521-...	BSPP 1/2"	<input checked="" type="radio"/>			35,7	32	68	15	47,8	190
	BF-012-0-WR526-...	BSPP 3/4"	<input checked="" type="radio"/>			64	46	137	19		1300
	BF-012-2-WR526-...	BSPP 3/4"	<input checked="" type="radio"/>			51,2	46	78,3	17,5	54,2	440

Restriction possible when using perfluor elastomer seals

Features: Clean break coupling made of stainless steel, especially for difficult fluid or gaseous media. Highest safety standard. Optimal handling due to locking automation. Mainly developed for chemistry usage. Suitable for non-lubricating media (e.g. demineralized water, "dry gases") and for lubricating media (e.g. oils and soap solutions). Long-term proven for solvents, chemical fluids and water vapour. Also used in lyes, different acids, etc.

	Bestellnummer	Anschluss A	T	D	L	L_1	L_5	SW	X	Y	Z
Verschlusskupplung	BF-025-0-WR548-...□	G 1 1/2	25	96	159	247		55	53	90	55
Verschlussnippel	BF-025-2-WR533-...□	G 1	31,5	68	131		112	41			
Verschlusskupplung	BF-050-0-WR575-...□	G 2 1/2	33	137	233	436		95	80	150	105
Verschlussnippel	BF-050-2-WR560-...□	G 2	35	114	195		169	75			

□= Bestellcode für Dichtungsqualitäten auf Anfrage

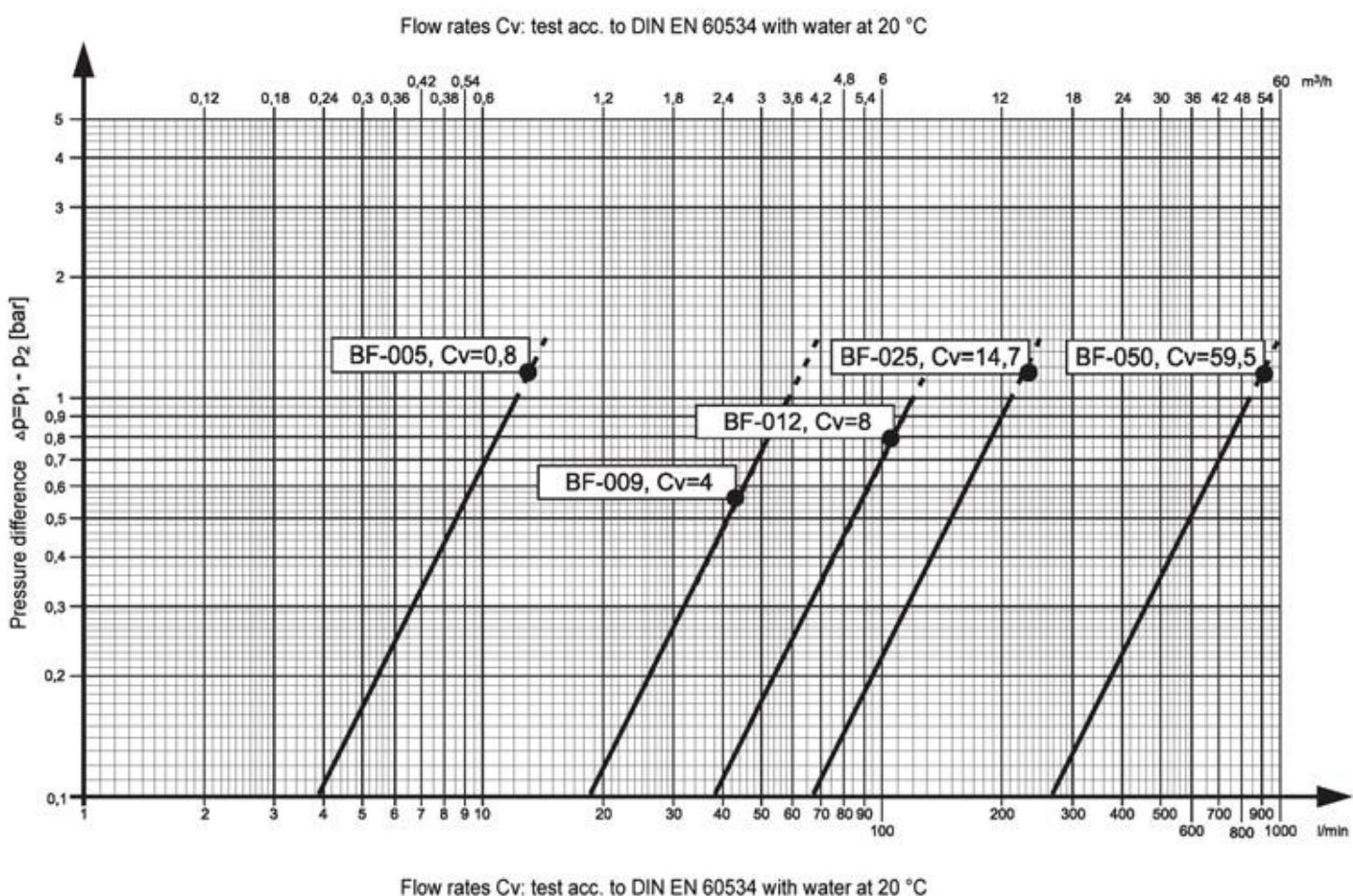


Measurement of flow coefficients Cv
according to DIN EN 60534

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



Please find further information to this topic on our web site.



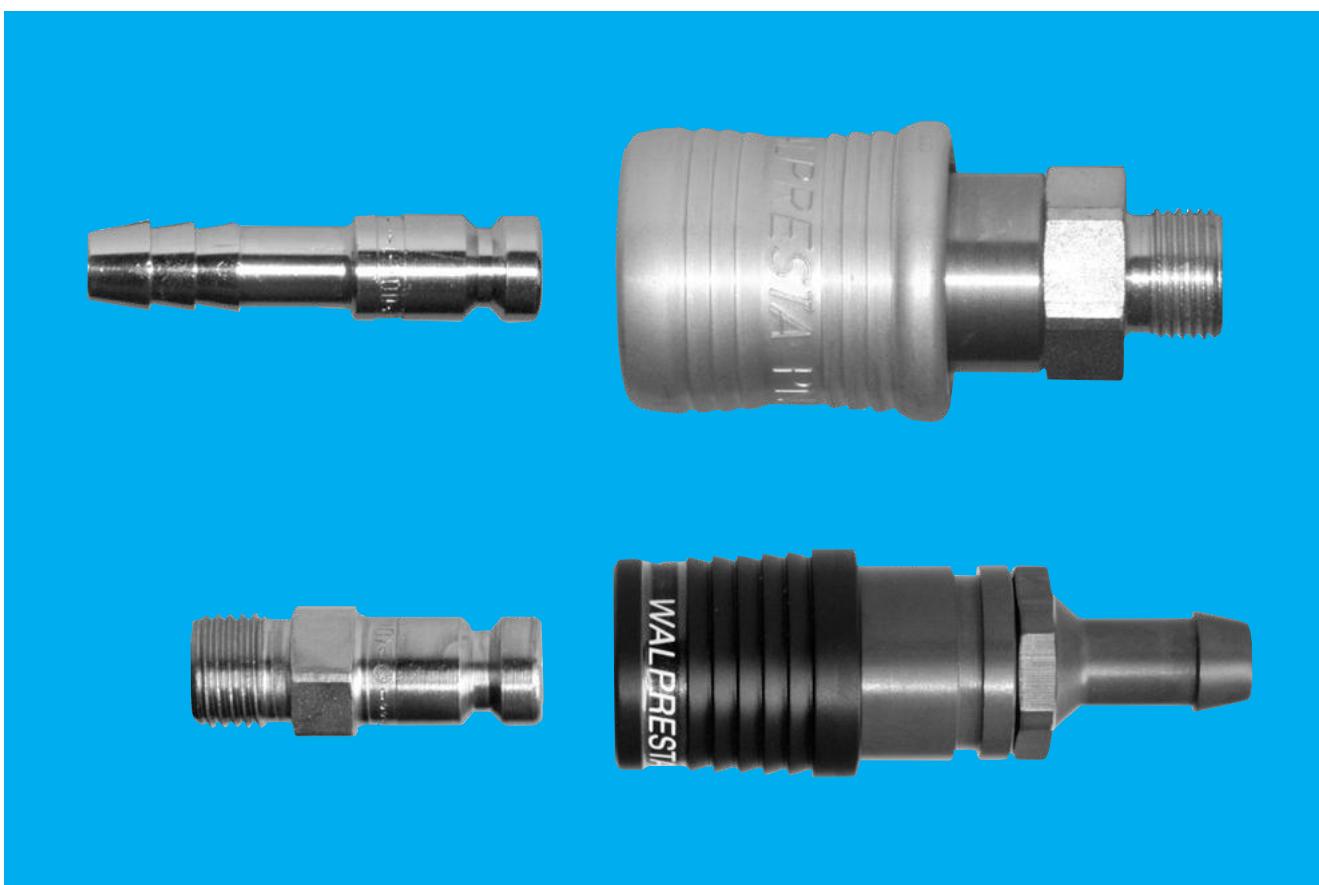
Nom. bore	Type	Max. stat working pressure [bar/psi] for Air	C_v value one side selfsealing	Page
6,5	LS-006	12/175	1.71	86
9	LS-009	12/175	4.32	86
11	LS-E11	12/175	5.14	86
6,5	LT-006	12/175	1.71	87
9	LT-009	12/175	4.32	87
11	LT-E11	12/175	5.14	87
Performance diagrams				88

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.



86 Series LS Type LS-006, LS-009, LS-E11 Nom. Bore 7-11 mm

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:

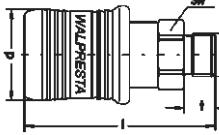
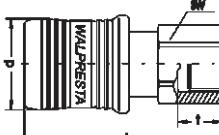
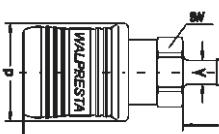
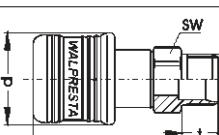
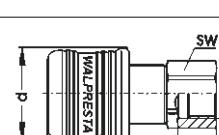
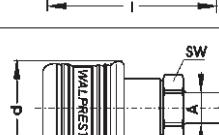
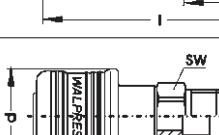
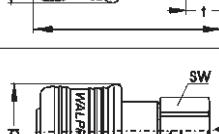
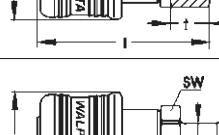
- coupling housing: steel chem. nickel plated
- locking sleeve: brass passivated
- connecting pieces: steel, zinc plated

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.	Connec-tion A	steel/zinc plated	series	pipe OD	d	SW	I	t	n	weight [g]	
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LS-006-0-WR013-AAAA-Z01 LS-006-0-WR017-AAAA-Z01 LS-006-0-WR021-AAAA-Z01	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ●		37 37 37	24 24 24	72,5 73,5 76,5	11 12 15	255 265 275		
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LS-006-0-WR513-AAAA-Z01 LS-006-0-WR517-AAAA-Z01 LS-006-0-WR521-AAAA-Z01	BSPP 1/4" BSPP 3/8" BSPP 1/2"	● ● ●		37 37 37	24 24 27	74,5 75,5 78,5	13 14 17	275 275 295		
	hose connection	LS-006-0-SL009-AAAA-Z01 LS-006-0-SL011-AAAA-Z01 LS-006-0-SL013-AAAA-Z01	9 mm 11 mm 13 mm	○ ○ ○		37 37 37	24 24 24	91,5 91,5 91,5	30 30 30	265 265 275		
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LS-009-0-WR021-AAAA	BSPP 1/2 A	○				40,6	25	82,6	15	300
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LS-009-0-WR521-AAAA LS-009-0-WR526-AAAA	BSPP 1/2" BSPP 3/4"	○ ○				40,6 40,6	27 32	79,6 81,6	17 19	315 334
	hose connection	LS-009-0-SL013-AAAA	13 mm	○				40,6	25	94,4	30	298
	British standard pipe parallel (BSPP) male thread to DIN ISO 228	LS-E11-0-WR021-AAAA	BSPP 1/2"	○				40,6	25	81	15	290
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LS-E11-0-WR521-AAAA LS-E11-0-WR526-AAAA	BSPP 1/2" BSPP 3/4"	○ ○				40,6 40,6	27 32	78 80	17 19	305 324
	hose connection	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:**

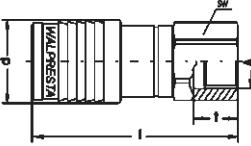
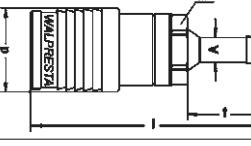
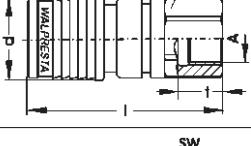
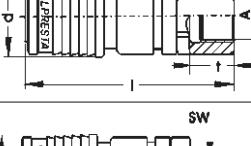
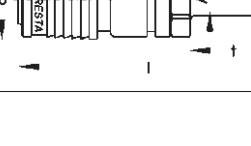
- coupling housing: Alu hc
- locking sleeve: plastic
- connecting pieces: AAAA = Alu anodized
- connecting pieces: AAAF = Alu anodized

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.	Connec-tion A	brass passivated		series	pipe OD	d	SW	I	t	n	weight [g]
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LT-006-0-WR513-AAAF-Z07 LT-006-0-WR517-AAAF-Z07	BSPP 1/4" BSPP 3/8"	<input checked="" type="radio"/> <input checked="" type="radio"/>			28 28	22 22	61 62	11 11		62 64
	hose connection	LT-006-0-XX009-AAAF-Z07 LT-006-0-XX011-AAAF-Z07	9 mm 11 mm	<input checked="" type="radio"/> <input checked="" type="radio"/>			28 28	22 22	78 78	13 13		50 51
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LT-009-0-WR521-AAAA LT-009-0-WR526-AAAA	BSPP 1/2" BSPP 3/4"	<input checked="" type="radio"/> <input checked="" type="radio"/>			30 30	27 32	71 73	17 19		90 95
	hose connection	LT-009-0-XX011-AAAA LT-009-0-XX013-AAAA	11 mm 13 mm	<input checked="" type="radio"/> <input checked="" type="radio"/>			30 30	25 25	86 86	30 30		65 69
	British standard pipe parallel (BSPP) female thread to DIN ISO 228	LT-E11-0-WR521-AAAA LT-E11-0-WR526-AAAA	BSPP 1/2" BSPP 3/4"	<input checked="" type="radio"/> <input checked="" type="radio"/>			30 30	27 32	77,5 79,5	17 19		95 100
	hose connection	LT-E11-0-XX011-AAAA LT-E11-0-XX013-AAAA	11 mm 13 mm	<input checked="" type="radio"/> <input checked="" type="radio"/>			30 30	25 25	92,5 92,5	30 30		71 75

Further end connections on request.

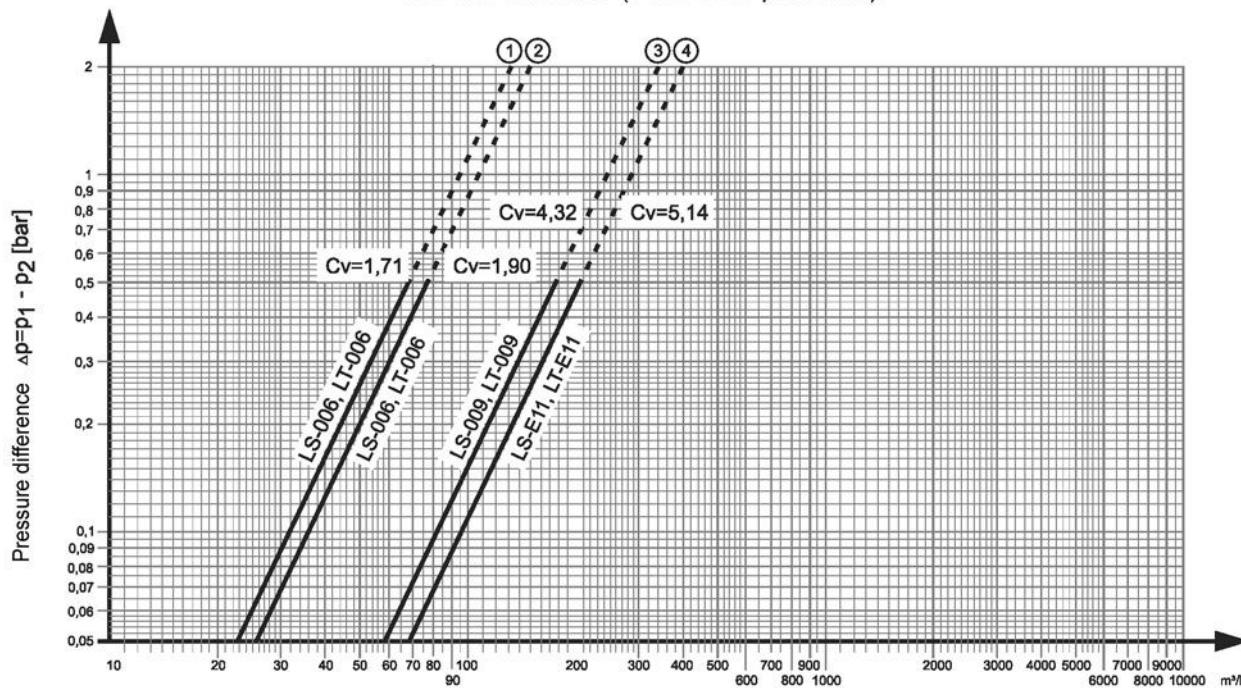
Suitable thru type adaptors for LT-006 are listed on page 17 (Type LP-006-1)

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.

Sealing on one side

Flow rate Cv: measurement according to DIN EN 60534, medium: compressed air, at 20 °C,
at 7 bar absolute (6 bar over pressure)



- ① LS-006, LT-006 with through type adaptor LP-006-1... (DN 7) → CV= 1,71
- ② LS-006, LT-006 with through type adaptor LS-E06-1... (DN 8) → CV= 1,90
- ③ LS-009, LT-009 with through type adaptor SP-009-1... (DN 9) → CV= 4,32
- ④ LS-E11, LT-E11 with through type adaptor LS-E11-1... (DN 11) → CV= 5,14



More compressed air couplings to nominal bore 12, 23 an 38 available.

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.

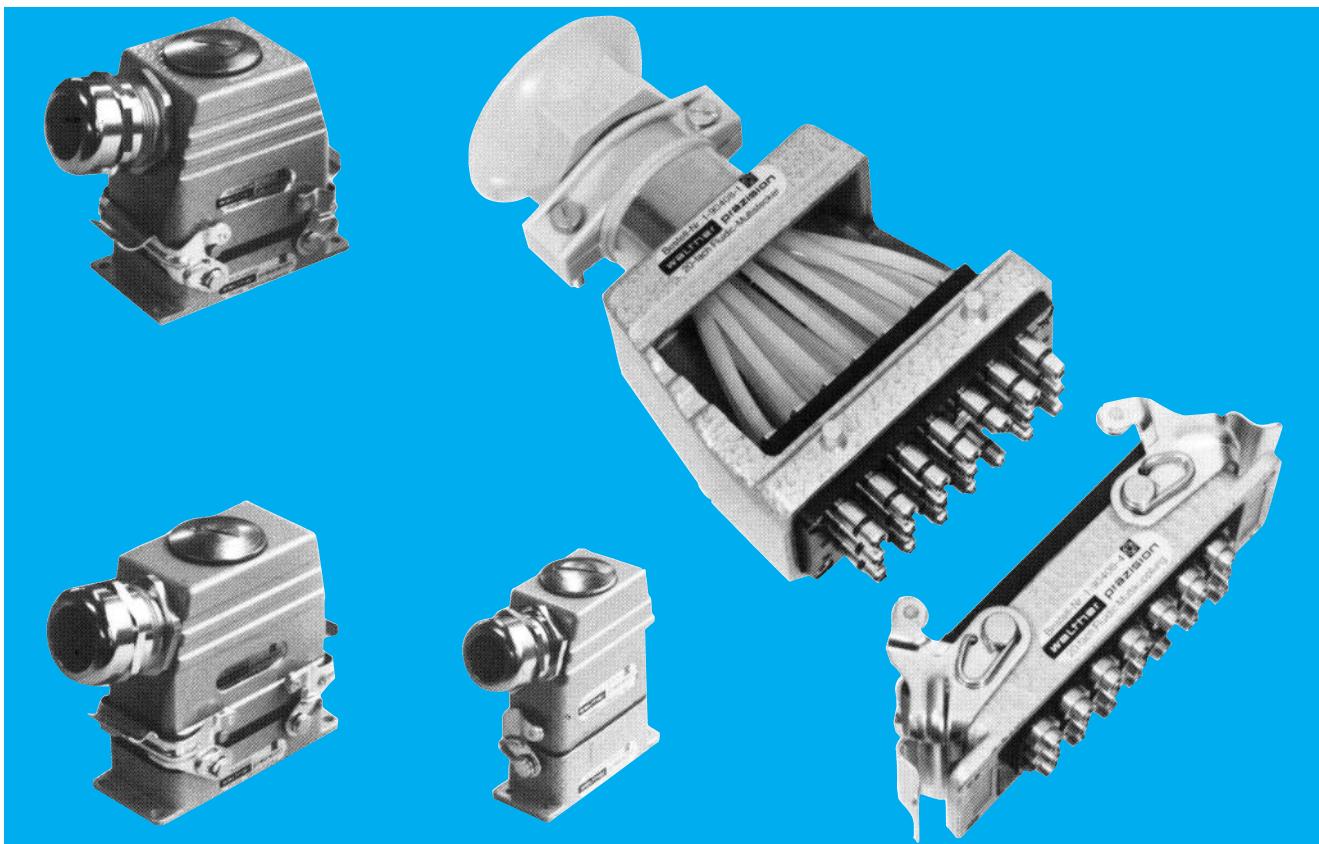
Ready made:

Ready made and tested complete assemblies as requested.

Special version:

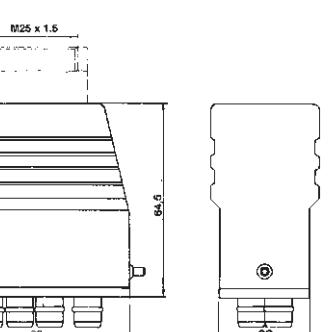
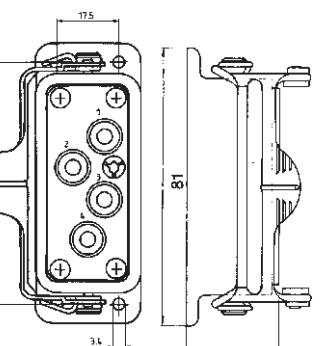
With additional electrical plug elements – on request

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

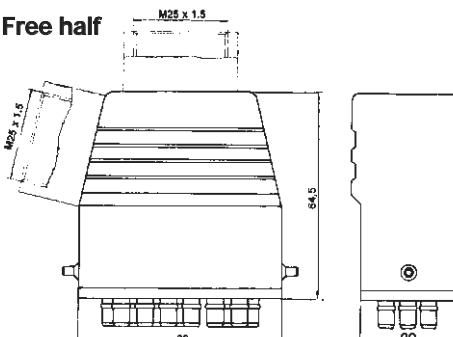
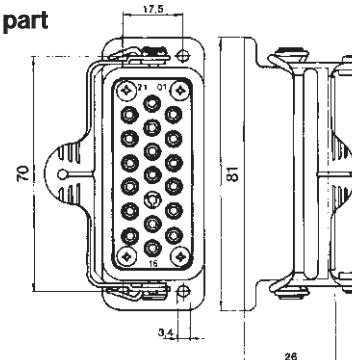
	Number of elements	n.b.	Part No.	End connections	Weight [g]
Free half 	4	4	90405-1-LT016-31-1-Z30-AN	Quick push connection for hose od 6 mm id 4 mm	● 290
	4	4	90405-1-LT016-31-1-Z60-AN	straight conduit angled conduit	● 290
Fixed half 	4	4	90405-4-FT016-31-1-Z10-AN	Quick push connection for hose od 6 mm id 4 mm	● 150

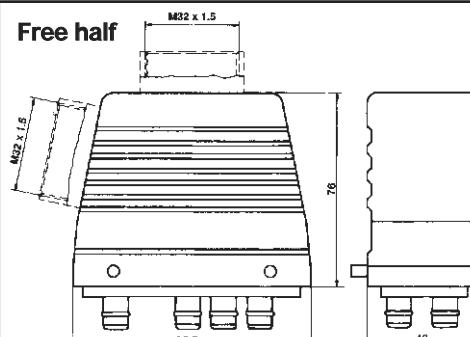
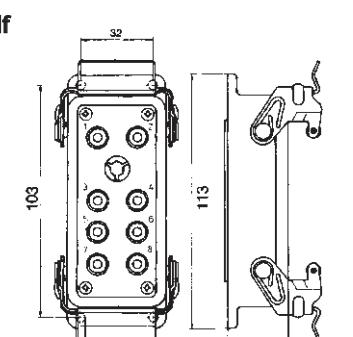
Materials:
Carrier plates: aluminium anodized
Elements: brass nickel-plated

**Quick push connections: brass passivated
Housing: light alloy hammergrey enamel
Seals: NBR, low friction**

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						
	18	2	90405-1-LT001-PA-1-Z30-AA	Push ferrule connection for hose od 4 mm id 2 mm straight conduit	●	240
	18	2	90405-1-LT001-PA-1-Z30-AB	Standard pattern: U1-type pattern	●	
	18	2	90405-1-LT001-PA-1-Z30-AC	U2-type pattern	●	
	18	2	90405-1-LT001-PA-1-Z60-AA	angled conduit	●	240
	18	2	90405-1-LT001-PA-1-Z60-AB	Standard pattern: U1-type pattern	●	
	18	2	90405-1-LT001-PA-1-Z60-AC	U2-type pattern	●	
Fixed part						
	18	2	90405-4-FT002-PA-0-Z10-AA	Push ferrule connection for hose od 4 mm id 2 mm straight conduit	●	110
	18	2	90405-4-FT002-PA-0-Z10-AB	Standard pattern: U1-type pattern	●	
	18	2	90405-4-FT002-PA-0-Z10-AC	U2-type pattern	●	
				Non-interchangeability: 3 different patterns: Standard, U1 or U2		
Materials: Carrier plates: polyamide 6.6, 30 % glass fibre reinforced Plug elements: brass, nickel-plated				Housings: light alloy, hammergrey enamel Seals: NBR, low friction Ferrules for push-ferrule-connections must be ordered separately.		

Free half						
	8	4	90408-1-LT006-PA-1-Z30-AF	Quick push connection for hose od 6 mm id 4 mm	●	440
	8	4	90408-1-LT006-PA-1-Z60-AF	carrier plates made of polyamide straight conduit	●	440
	8	4	90408-1-LT006-31-1-Z30-AF	angled conduit		
	8	4	90408-1-LT006-31-1-Z60-AF	carrier plates made of anodized aluminium straight conduit	●	520
				angled conduit	●	520
Fixed half						
	8	4	90408-4-FT006-PA-1-Z01-AF	Quick push connection for hose od 6 mm id 4 mm	●	210
	8	4	90408-4-FT006-31-1-Z01-AF	carrier plates made of polyamide	●	310
				carrier plates made of anodized aluminium		
Materials: Carrier plates: polyamide 6.6, 25 % glass fibre reinforced or aluminium anodized Plug elements: brass, nickel-plated				Quick push connections: brass passivated Housings: 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]
Free half						
	20	3	90408-1-LT001-PA-1-Z30-AA	Quick push connection for hose od 4 mm id 2 mm carrier plates made of polyamide straight conduit	●	460
	20	3	90408-1-LT001-PA-1-Z60-AA	angled conduit	●	460
	20	3	90408-1-LT001-31-1-Z30-AA	carrier plates made of aluminium straight conduit	●	520
	20	3	90408-1-LT001-31-1-Z60-AA	angled conduit	●	520
Fixed half						
	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 % glass fibre reinforced or aluminium anodized Plug elements: brass, nickel-plated	Quick push connections: brass passivated Housings: light alloy, hammergrey enamel Seals: NBR, low friction					

Free half		20	3	90408-1-LT002-PA-1-Z30-AA	Push ferrule connection for hose od 6 mm id 4 mm straight conduit	●	510
		20	3	90408-1-LT002-PA-1-Z60-AA	angled conduit In case of angled conduit only 17 connections are useable	●	510
Fixed half		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 % glass fibre reinforced Plug elements: brass, nickel-plated	Housings: light alloy, hammergrey 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:
Carrier plates fixed half:
Retaining bar:
Thru Type Adaptors:
Quick push connections:
Coding pins and bushes:
Housing:
Seals:

Polyamide PA 6.6, 25 % glass fibre reinforced
Trogamid TG 35
Z 410 nickel-plated
brass nickel-plated
brass passivated
stainless steel 1.4305
light alloy, hammergrey enamel
NBR, low friction

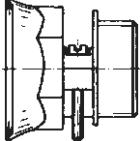
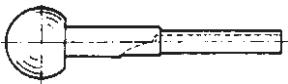
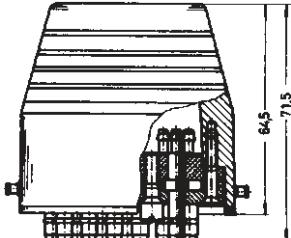
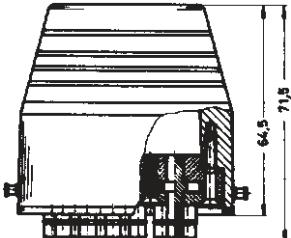
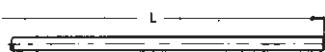
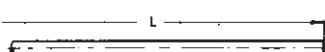
Please note the
technical data on
pages 2-7 and the
max. working pressure
on page 89

Availability: ● Short ○ Medium ○ Long

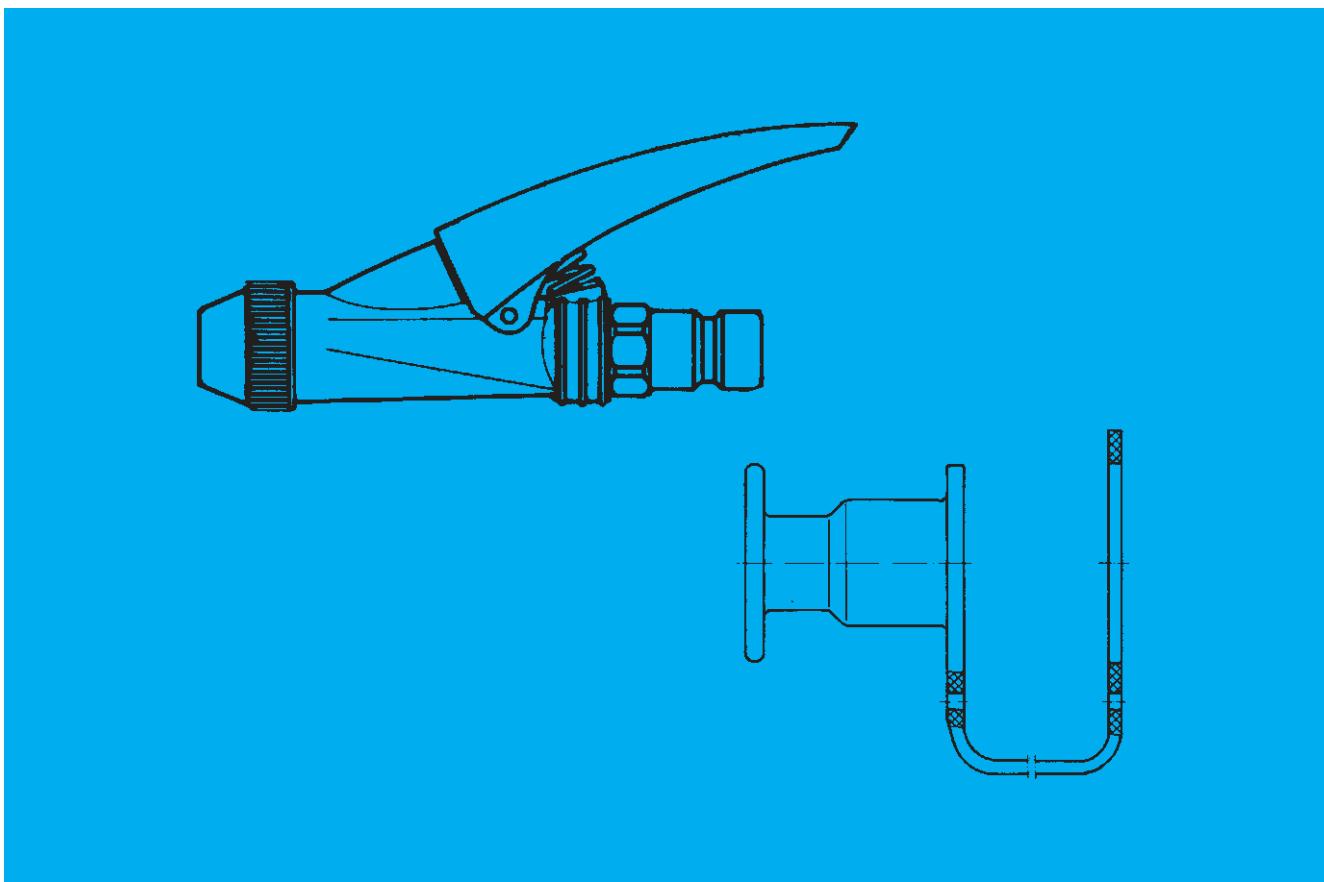
	Number of elements	End connections: A Connection for flexible, numbered plastic lines, made of Rilsan od 4 mm, id 2 mm or od 4 mm id 2,7 mm B Connection for flexible, numbered plastic lines, made of Rilsan od 6 mm, id 4 mm	Part No.		Weight [g]
		Free half	Fixed half		
Free half Straight and inclined entry	12	12 x Quick push connection B	90410-1-LT002-PA-1-Z04-AB	●	550
	13	4 x Quick push connection A 9 x Quick push connection B	90410-1-LT004-PA-1-Z04-AD	●	520
	14	8 x Quick push connection A 6 x Quick push connection B	90410-1-LT003-PA-1-Z04-AC	●	510
	15	12 x Quick push connection A 3 x Quick push connection B	90410-1-LT005-PA-1-Z04-AE	●	490
	20	20 x Quick push connection A	90410-1-LT001-PA-1-Z04-AA	●	520
Fixed half			90410-4-FT002-PA-1-Z03-AB	○	280
			90410-4-FT004-PA-1-Z03-AD	○	280
			90410-4-FT003-PA-1-Z03-AC	○	270
			90410-4-FT005-PA-1-Z03-AE	○	270
			90410-4-FT001-PA-1-Z03-AA	○	290

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 PG 21 PG 29 M 25 x 1,5 M 32 x 1,5	96001-9-PG021-PCAA 96001-9-PG029-PCAA 96001-9-6M025-23-1 96001-9-6M032-23-1	plastic plastic brass nickel-plated brass nickel-plated	● ● ● ●	25 48 79 144
	Ferrule for hose OD4/ID2 for hose OD6/ID4	90405/510 90405/512	brass nickel-plated brass nickel-plated	● ●	1 1
	Assembly tool for push ferrule connection for hose OD4 for hose OD6	90405/550 90405/558	steel, oil-burnished steel, oil-burnished	● ●	27 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 Carrier plates: Polyamide Elements: brass nickel-plated Seals: Buna, low friction	● ● ●	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		●	190
  	Hoselines for Fluidic-Multicouplings numbered single hose 4x1 (od 4 mm / id 2 mm) numbers 01-06, 11-16, 21-26 numbered 19-way hosebundle 4x1 (od 4 mm / id 2 mm) numbers 01-06, 11-16, 21-26 + neutral bending radius: min. 170 mm Single hose 6x1 (od 6 mm / id 4 mm)	7-112-04010-0000-WP 7-113-04010-0019-WP 7-112-06010-0000-WP	Soft Polyethylene Soft Polyethylene Soft Polyethylene, black	● ● ●	

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

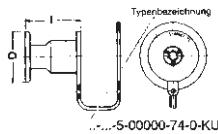
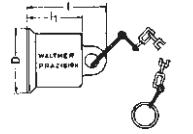
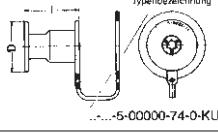
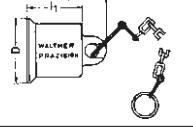
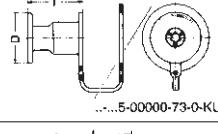
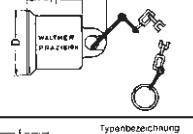
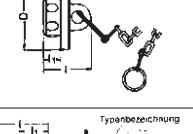
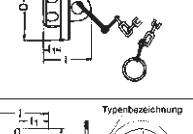
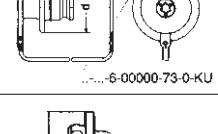
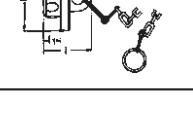


96 Dust caps – Dust plugs

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						
 Typenbezeichnung-5-00000-74-0-KU	Polyurethane LP/LV-004 soft-PVC grey LP-006 LP-007 LP-012 LP-019	LP/LV-004 SP-006 LP-006 LP-007 LP-012 LP-019			LP-004-5-74-KU SP-006-5-74-KU LP-006-5-74-KU LP-007-5-74-KU LP-012-5-74-KU LP-019-5-74-KU	18 22 22 25 32 44	23 24 24 27 33,5 37,5		● ● ● ● ● ●	4 5 5 7 12 20
 WALTHER PRÄZISION	soft-PVC grey chains + rings: steel nickel-plated	SP-009 LP-032 LP-050			SP-009-5-74-KK LP-032-5-74-KK LP-050-5-74-KK	25,5 73 114,5	46 76 110	31 58 92	● ● ●	16 65 110
 Typenbezeichnung-5-00000-74-0-KU	soft-PVC grey	SG-006 MD-006 MD-007 MD-012 MD-019			SP-006-5-74-KU MD-006-5-74-KU MD-007-5-74-KU MD-012-5-74-KU LP-019-5-74-KU	22 22 25 32 44	24 24 27 33,5 37,5		● ● ● ● ●	7 7 7 11 20
 WALTHER PRÄZISION	soft-PVC grey chains + rings: steel nickel-plated	MD-032 MD-050			LP-032-5-74-KK LP-050-5-74-KK	73 114,5	76 110	58 92	● ●	65 110
 Typenbezeichnung-5-00000-73-0-KU	soft-PVC black				HP-004 HP-006 HP-010 HP-016 HP-020	23 30 34 41 45	27,5 33 38 43 45		● ● ● ● ●	7 11 16 20 25
 WALTHER PRÄZISION	soft-PVC grey chains + rings: steel nickel-plated	HP-032 HP-050			HP-032-5-74-KK HP-050-5-74-KK	73 114,5	76 110	58 92	● ●	65 110
 Typenbezeichnung-6-00000-74-0-KU	Polyurethane soft-PVC grey	LP/LV-004 SP-006 LP-006 LP-007 LP-012 LP-019			LP-004-6-74-KU SP-006-6-74-KU LP-006-6-74-KU LP-007-6-74-KU LP-012-6-74-KU LP-019-6-74-KU	18 22 22 25 32 44	24 25 30 34 43 46	12 13 18 18 23 26	● ● ● ● ● ●	5 7 8 10 19 34
 WALTHER PRÄZISION	soft-PVC grey chains + rings: steel nickel-plated	SP-009 LP-032 LP-050			SP-009-6-74-KK LP-032-6-74-KK LP-050-6-74-KK	34 82 112	35 60 66	19 32 37	● ● ●	19 160 240
 Typenbezeichnung-6-00000-74-0-KU	soft-PVC grey	SG-006 MD-006 MD-007 MD-012 MD-019			SP-006-6-74-KU MD-006-6-74-KU MD-007-6-74-KU MD-012-6-74-KU LP-019-6-74-KU	22 22 25 32 44	25 30 34 43 46	13 18 18 23 26	● ● ● ● ●	7 8 9 19 34
 WALTHER PRÄZISION	soft-PVC grey chains + rings: steel nickel-plated	MD-032 MD-050			LP-032-6-74-KK LP-050-6-74-KK	82 112	60 66	32 37	● ●	160 240
 Typenbezeichnung-6-00000-73-0-KU	soft-PVC black				HP-004 HP-006 HP-010 HP-016 HP-020	20 30 34 41 45	27,5 33 42 45 47	15,5 17 22 25 27	● ● ● ● ●	7 13 23 32 40
 WALTHER PRÄZISION	soft-PVC grey chains + rings: steel nickel-plated	HP-032 HP-050			HP-032-6-74-KK HP-050-6-74-KK	82 112	60 66	32 37	● ●	160 240

Dust plugs for self-sealing couplings and thru type couplings

Dust caps for self-sealing adaptors and thru types adaptors

Dust caps – Dust plugs

97

pressure tight version

Materials:

working pressure:
as matching Type

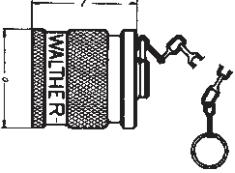
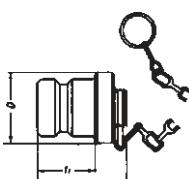
Standard:

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

Dichtungen

1 = NBR)
2 = FKM
4 = EPDM

Availability: ● Short ○ Medium ○ Long

	Materials	For Series / Type			Part No.	d	l	h	Weight [g]
		low pressure	medium pressure	high pressure					
	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
	steel zinc-plated/ oil-burnished chains + rings: steel, nickel-plated	LP-050			LP-050-5-11-	112	103		● 4400
		MD-006			MD-006-5-19-	25	45		● 120
		MD-007			MD-007-5-19-	30	52		● 200
	steel oil-burnished chains + rings: steel, nickel-plated	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
		HP-006			HP-006-5-12-	34	52		● 250
		HP-010			HP-010-5-12-	46	60		● 400
	steel oil-burnished chains + rings: steel, nickel-plated	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
	brass passivated	LP-004			LP-004-6-21	18	28	16	● 36
		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
	steel zinc-plated chains + rings: steel, nickel-plated	LP-032			LP-032-6-11	65	58	39	● 580
		LP-050			LP-050-6-11	100	66	46	● 1650
		MD-006			MD-006-6-12	25	38	21,7	● 70
	steel oil-burnished chains + rings: steel, nickel-plated	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
		HP-006			HP-006-6-12	30	48	30,5	● 100
	steel oil-burnished chains + rings: steel, nickel-plated	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

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

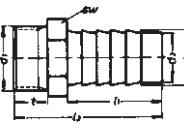
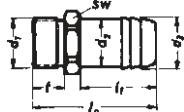
	Part No.	Connection A	SW	I	t	n	d	d_1		Weight [g]
	95003-9-ST006 95003-9-ST007	Thru type adaptor	LP-006-1 LP-007-1	14 17	26 29,5		20 23,3	15,5 18,9	12 14	● 250 ● 260
	95003-9-SL006 95003-9-SL009 95003-9-SL011 95003-9-SL013	Hose tailpiece	6 mm 9 mm 11 mm 13 mm	14 17 17 17	31 36 36 36	25 30 30 30		15,5 18,5 18,5 18,5	● 250 ● 250 ● 260 ● 270	
	95004-9-LG100 95004-9-LG150 95004-9-LG250	Length	100 mm 150 mm 250 mm							● 40 ● 46 ○ 60
	95012	Muffling nozzles reduce noise substantially, without reduction of blowing force. The air consumption is approx. 50% higher than a regular nozzle.							● 6	
	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	
	95014	Around the blowing jet a cone-sharper air jacket is located, which prevents recoiling of whirled up particles							● 6	
	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 (POM)

Availability: Short Medium Long

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

WALTHER-PRÄZISION develops and manufactures mono and multi couplings as well as docking systems. These single or multi-channel media interfaces are used wherever pipe systems for fluids, vapours, gases, electric or optical signals as well as power current have to be disconnected and connected quickly and safely.

Do you wish confidential project consultation on-site or detailed information? Please feel free to call or send an e-mail to entwicklung@walther-präzision.de. We are at your service!

Selected examples	page
Hook-in couplings	103
Mono couplings with proximity initiators	103
Hock-in couplings	104
Couplings with PTFE seals	104
Tear-away couplings	105
Multi couplings	106

You require quality – we construct and manufacture in compliance with

- DIN EN ISO 9001
- EN ISO 13485 (medical technology)
- EN 9100 P2 (aerospace technology)
- KTA 1401 (nuclear technology)

You need approved valves – we deliver according to:

- ATEX (explosion protection)
- DVGW (gas, water)
- FDA (Food and Drug Administration)
- SAE J2600 (Automotive, hydrogen fuelling)
- DIN EN 60068-2-14 (Automotive, micro hydraulics)
- TA-Air according to VDI 2440
- DIN EN 10204-3.1 (acceptance test certificate)
- DIN EN 61373 (rail vehicles)
- DNV design type approvals (navy, offshore)

Your advantages:

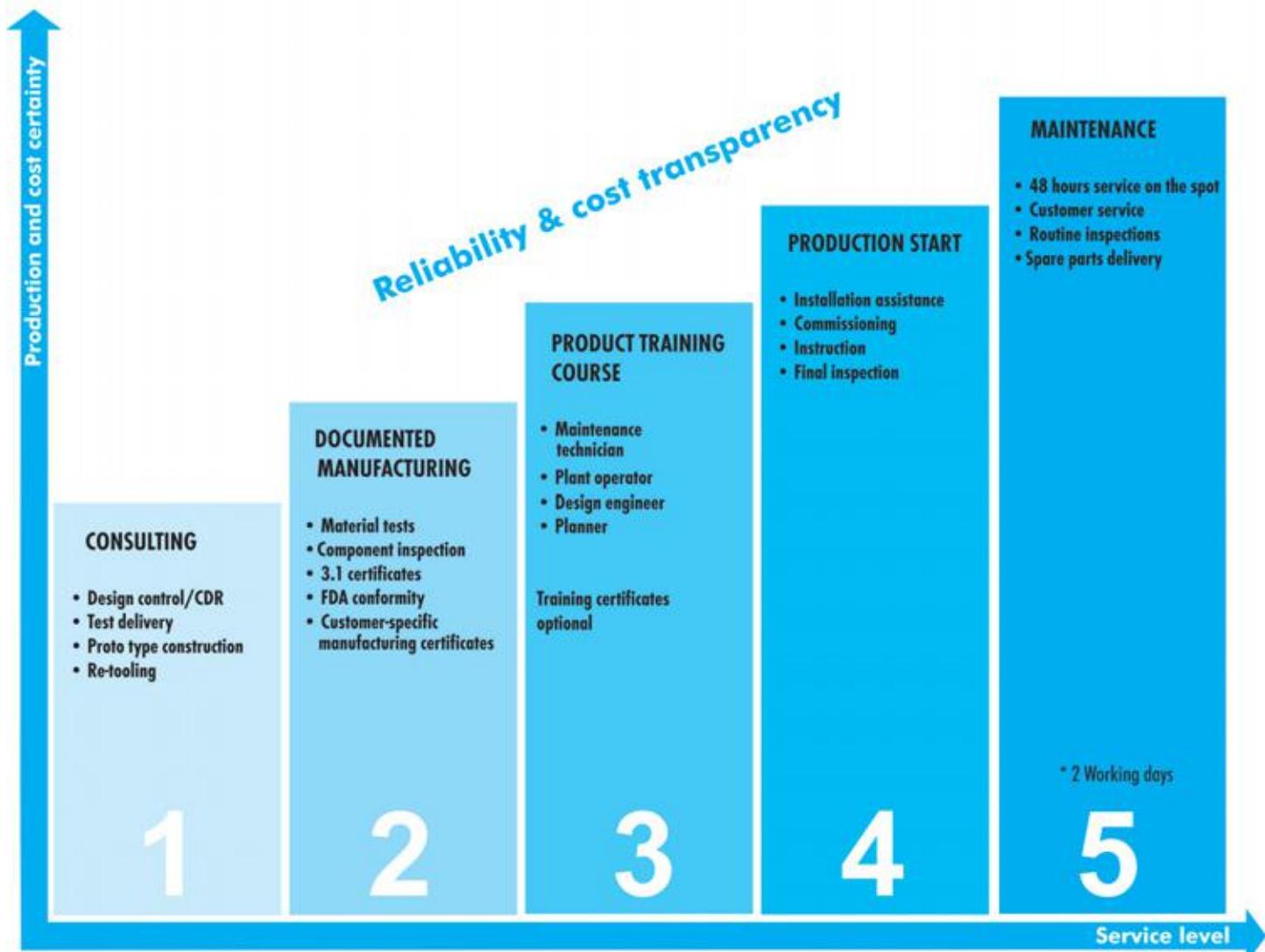
- Cooperation with a partner who has built up years of experience regarding media interfaces with one or more channels.
- You draw your supply from the world's largest standard program with more than 400.000 varieties, mainly deliverable ex stock.
- You receive quick coupling systems which meet extensive quality and approval requirements
- You profit from a modern construction department with quick internet-based communication channels
- Made in GERMANY

Your benefits:

- WALTHER-PRÄZISION supplies your media interfaces
- WALTHER-PRÄZISION designs and constructs accessory to your project implementation in 2D/3D
- WALTHER-PRÄZISION follows the approval procedures

102 Developing Demands

To ensure an optimum availability of WALTHER quick coupling systems during the entire operating time, WALTHER PRÄZISION offers individual service concepts. They also include an express factory reconditioning or re-tooling of tool changing systems for industrial robots.



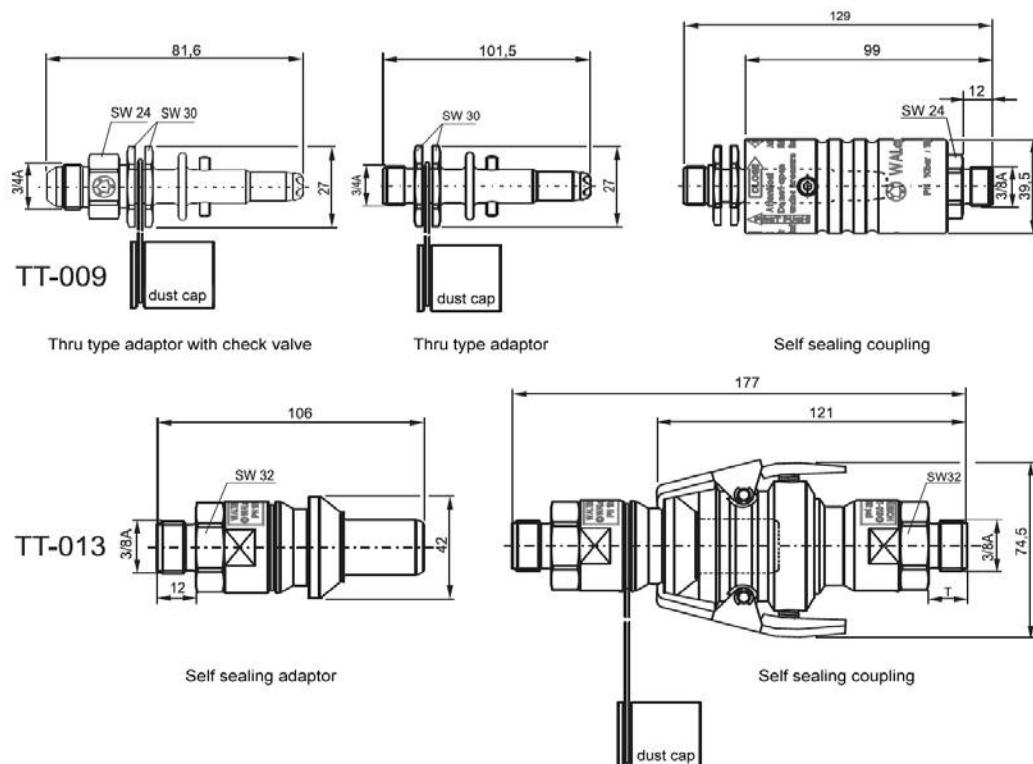
Do you have any questions regarding the services of WALTHER-PRÄZISION?
Our customer service is always available to answer your questions. Phone: +49 (0) 2129 567-402



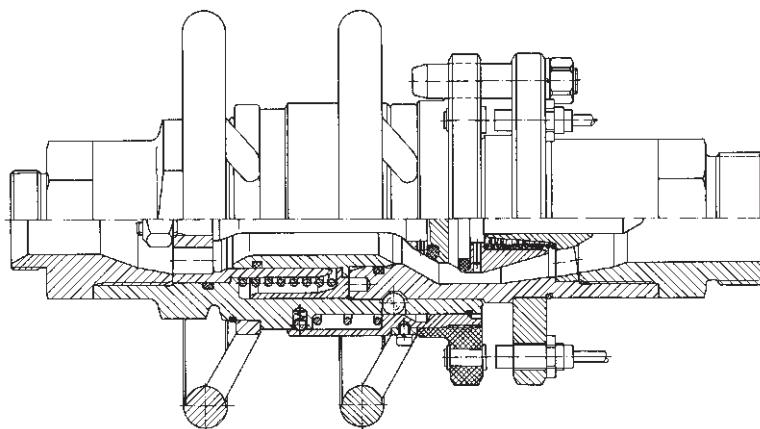
Please find further information to this topic on our web site.

Quick couplings for cryogenic

Quick couplings for cryogenic applications
 Quick coupling for cryogenic gas application, mainly in the laboratory sector at temperatures down to -200 °C (e. g. LN2) and a working pressure up to 10 bar. The valve is oil and fat free and thus suitable for many gases. Connection takes place via bayonet locking (TT-009) or with a catch locking (TT-013), simple, quick and safe.



Couplings with Proximity Switches



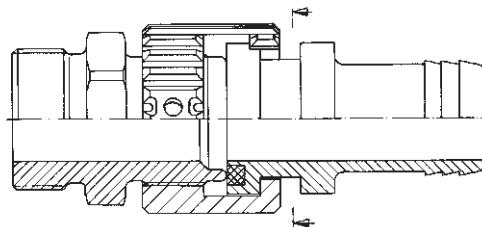
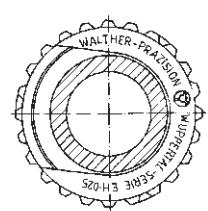
A control of the coupling position is possible when proximity switches are integrated into the coupling. As required the following data can be inquired and controlled:

- 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



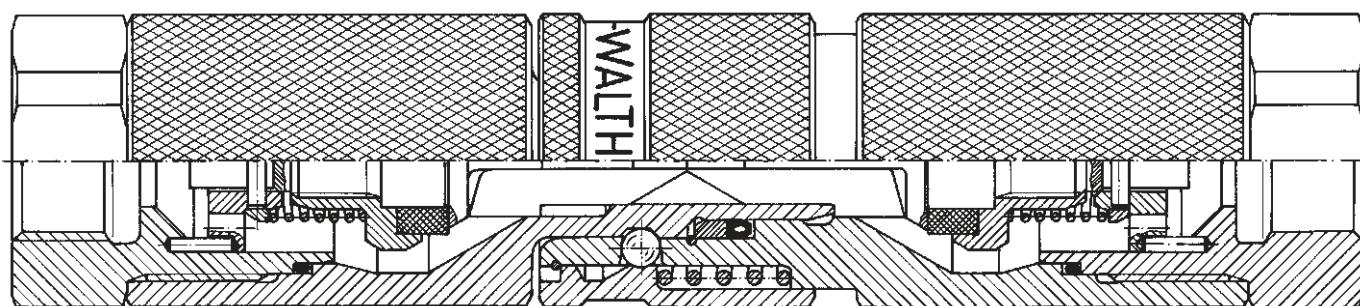
The thru-type adaptor with its front face seal is hooked into the slit on the coupling nut. When the nut is tightened the seal is pressed against the face of the coupling housing. This design allows a free media flow without interference from valves.

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

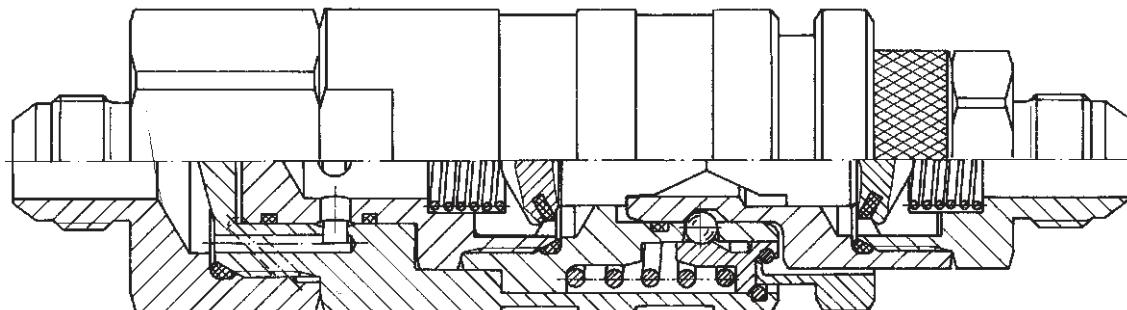


Couplings with PTFE seals have to show other constructional features as such which are outlined for elastomers to make up for the bad readjusting properties of the sealing material PTFE. The couplings of the TE-Series offer this feature and can be used for

- 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



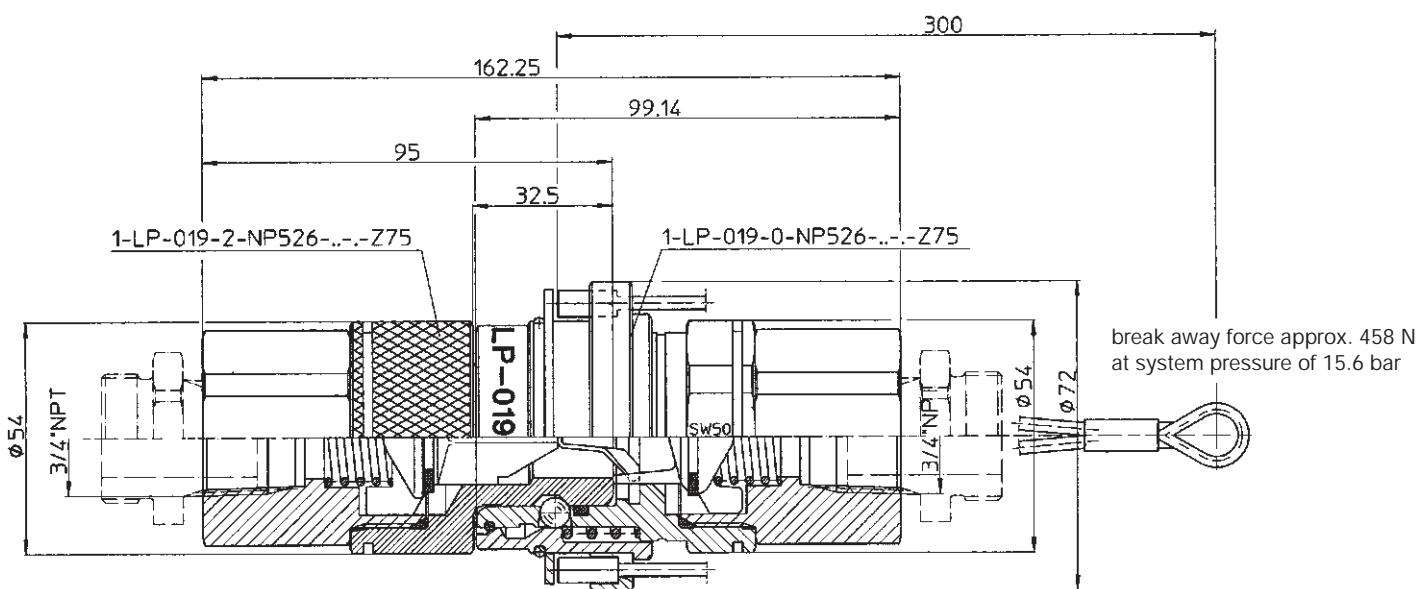
Tear-away couplings protect environment and expensive loading equipment from damage resulting from destruction of media lines at high tensile strain. Mobile facilities which are being filled, e.g. tank lorries, wagons or ships can be moved when insufficient secured or emergency situations occur, before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

Multi-Couplings & Docking Systems

Multi-couplings provide for simultaneous manual or automated operation of several pneumatic, hydraulic or electrical lines. They are used wherever several lines need to be connected quickly and safely. Multi-connectors and/or docking systems comprise a fixed and a free half. The free half moves to the fixed half during the connection process. The respective arrangement of the coupling-elements in the coupling-system is designed to match the respective requirements. Automated production, testing, controlling and operating processes are preferred applications for multi-couplings and docking systems. Guide systems ensure exact alignment.

The fixed arrangement of the connector elements on the coupling-system eliminates the risk of false connections.

Manually Operated Multi-Couplings

without operating assistance



Case Design
Fluidic-Type
90405,
90408,
90410



Compact Design
with central locking on the
inside or outside
Type 91013



Coaxial Coupling
Type 91006



Plate Mounted Design
Modular design, colour
labelling and/or coding
available to prevent
false connections
Type 90039



Plate Mounted Design
In arrangements of several
multi-connectors:
colour labelling and/or
coding available to prevent
false connections
Type 90635



Compact Design:
Screw coupling with
interior plug elements
Type 91509

with operating assistance

Docking Systems (servo-assisted)

without feed unit



Without mechanical locking
coupling and uncoupling by way
of on-site rod actuators or
mechanical actuators
Type 90868



With mechanical locking
coupling and uncoupling by
way of on-site rod actuators or
mechanical actuators
Type 91522

with feed unit



Push-in technology
coupling and uncoupling
via rod actuators
Type 91369



Pull-in technology
Force-neutral coupling and
uncoupling thanks to
pulling actuator
Type 91442

for robots



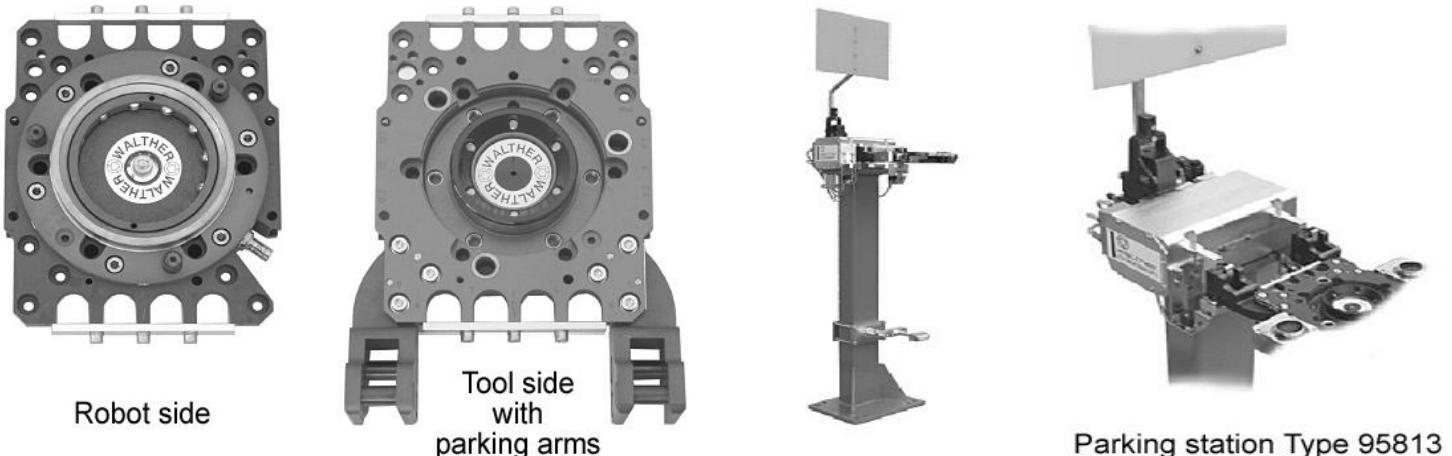
Tool changer system
Tool Master for industrial
robots
Type 91489

Tool changing system for industrial robots

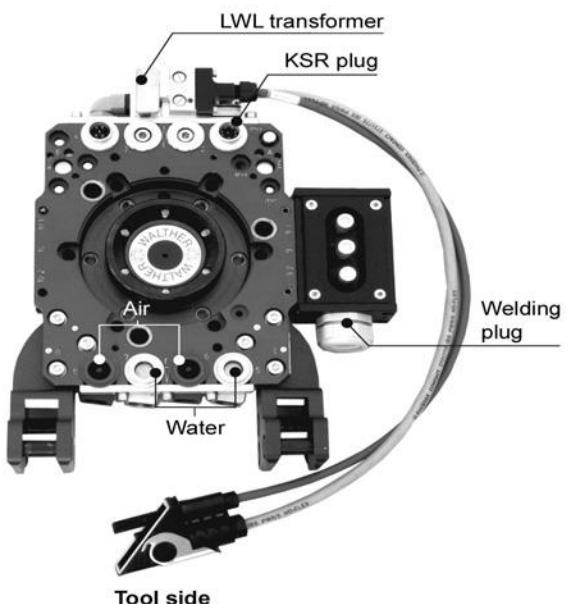
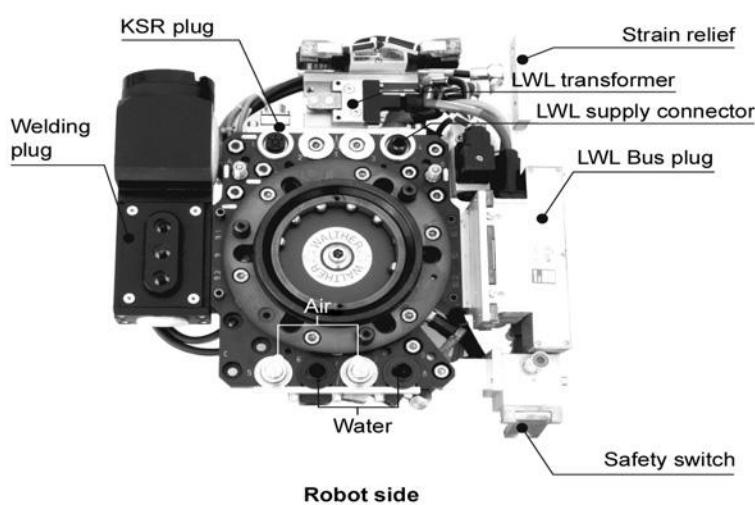
Due to its modular system, the WALTHER tool changing system is especially designed for individual customer wishes. It offers different fields of application for welding as well as for gripping tools and can be equipped with different electric or fluid transmission elements, depending on the purpose. A gravity parking station for the reception of welding pliers at a robot cell which allows a safe parking is available, matching to the tool changer. Both, tool changer and parking station, are modularly constructed and can be assembled with single components.

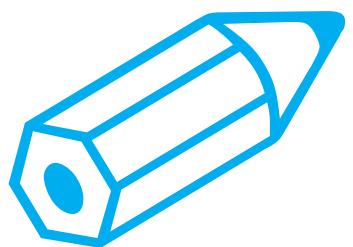
Please feel free to request further information to our products.

Tool changing system TOOL MASTER

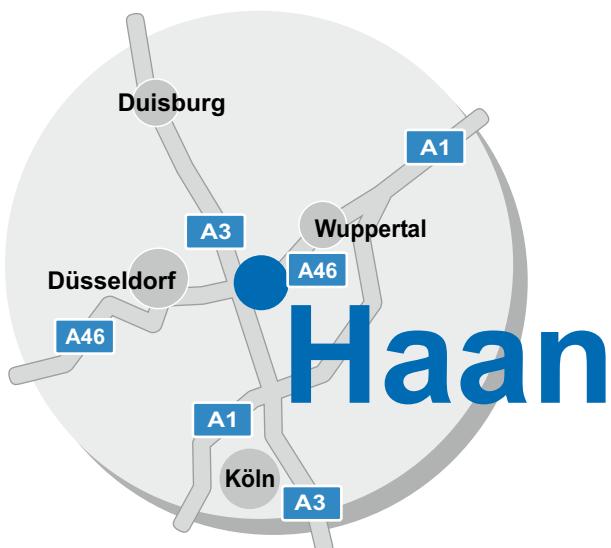


Sub modules for TOOL MASTER





International Representations



With more than 20 bases in Germany and more than 30 further partners abroad
WALTHER-PRÄZISION is always close by.

You will find all current addresses on the internet under:
www.walther-praezision.de/english/index.html



Please find the national and international contact addresses as well
as further possibilities to get into contact with us on our web site.

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