

STAUFF



HYDRAULIC QUICK COUPLINGS

Local solutions for
individual customers
worldwide



Clamps



Stauff test

STAUFF as a world famous hydraulic components manufacture, our products can cover almost all the industry fields.

Especially for metallurgy, automobile, electric power, chemical, machine building, machine tool, paper making and marine industry.



Filtration technology



Hydraulic accessories

Main products:

Pipe connecting and assembling:

Clamp, fitting, hose assembly and ball valve.

Filtration:

Hydraulic and lubricating filter, fine filter, filter separator, filter cart and oil detecting instrument.

Test and measuring:

Test points, mini-test hose, pressure, temperature, flow, level switch and sensor.

Others:

Accumulator, cylinder seals, gear pump, volume counter, hose pump and tube bending machine and so on.



Ball valves



Electronic products



Fluid connectors and hoses



Seals and quick release couplings

Series	pages
1. Series H-5000, Ball-locked hydraulic couplings DN: 3.8-34.7mm Working pressure: 20-1000 bar	8-16
2. Series H-15000, Ball-locked hydraulic couplings DN: 5.3-16.9mm Working pressure: 200-315 bar	17-21
3. Series HK, Ball-locked hydraulic couplings DN: 4.4-46mm Working pressure: 27-345 bar	22-33
4. Series L-7000, Ball-locked hydraulic couplings DN: 8-50mm Working pressure: 20-1000 bar	34-41
5. Series ST, Ball-locked hydraulic couplings DN: 4.4-60.4mm Working pressure: 17-520 bar	42-50
6. Series FF&DB, Ball-locked / Flat-face hydraulic couplings DN: 6-18mm Working pressure: 350 bar	51-57
7. Series 55000, Ball-locked hydraulic couplings DN: 5.9mm & 7mm Working pressure: 250 bar	58-60
8. Series 9000, Ball-locked hydraulic couplings DN: 8mm Working pressure: 150 bar	61-62

How to select your quick coupling?

Our ball-locking couplings are available in various materials and are used in all standard industrial or agricultural hydraulic applications.

- Series H-500 is suitable for severe operating conditions such as high pressure, heavy mechanical loads and frequent connection and disconnection.
- Series H-15000 and HK conform to the ISO7241-1 standard, Series A and B respectively.
- Series L-7000 and ST have no internal valves and are recommended for applications requiring high flow-rates with low pressure drops.



Maximum working pressure

- Up to 1000 bar / 14500 psi (depending on series, size and material)

Flow diameter / Flow rate Pressure drop

- Double shut-off couplings: Nominal diameter from 3.8 to 46 mm (depending on series)
- Straight-through couplings: Nominal diameter from 4.4 to 60.4 mm (depending on series)

Valve configurations

- Double shut-off couplings
- Straight-through coupling

Locking mechanism

- Ball-locking
- Depending on the series, our couplings are available with a safety locking ring to prevent accidental operation of the release-sleeve.



Operation

- Pull-to-connect

Connection by pulling back the release-sleeve

On versions with safety locking ring: unscrew ring before pulling back the release-sleeve

Materials

- Metals

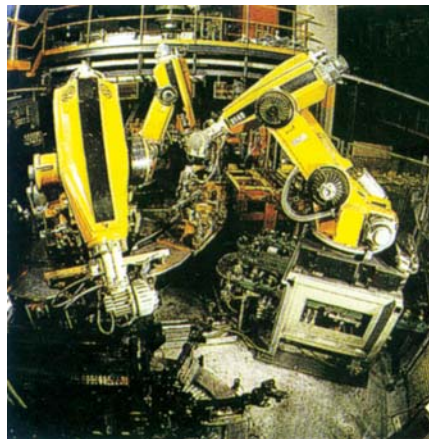
Steel, brass or stainless steel (depending on series)

Interchangrability

- To ISO 7241-1 standard or proprietary profiles

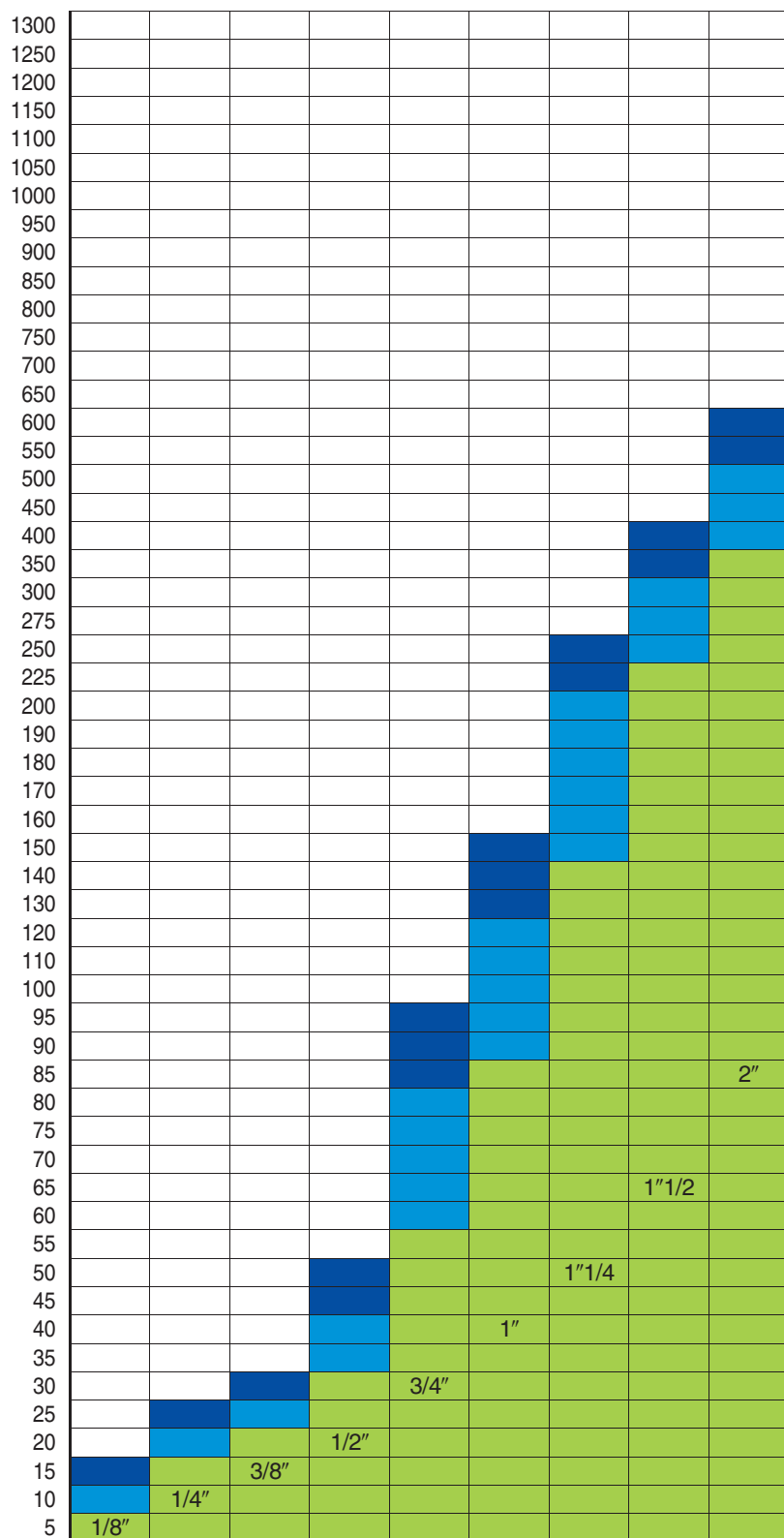
Applications

- Hydraulic circuits and equipment
- All agricuits and industrial hydraulic applications



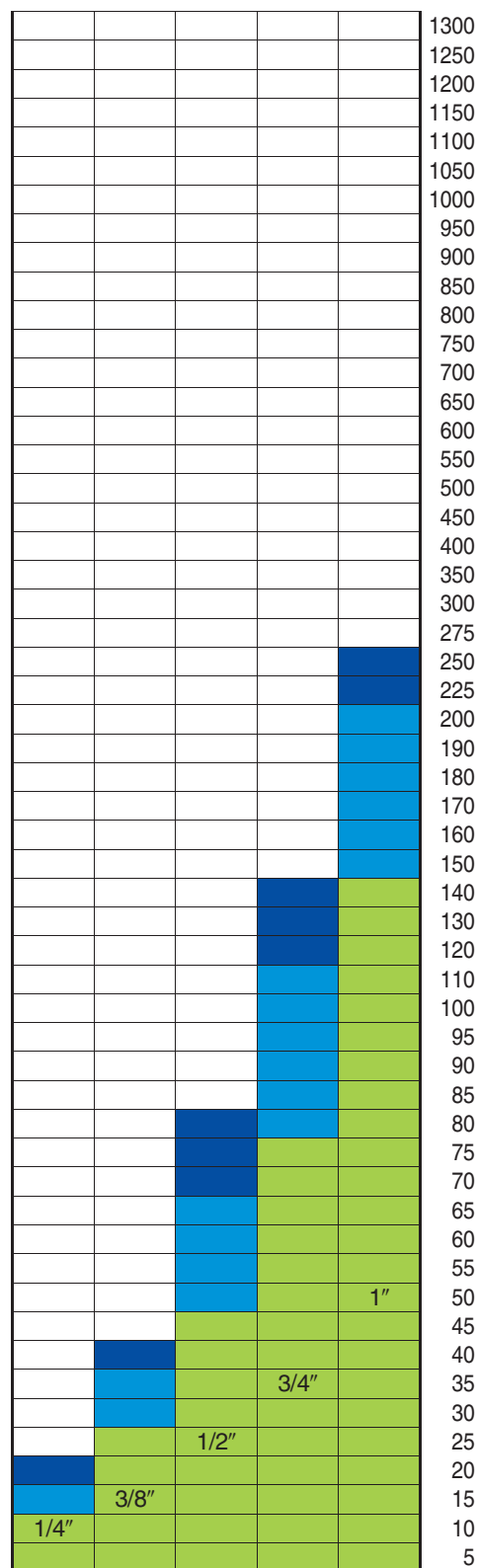
Flow rate: how to select the coupling size?

Flow rate
(l/min)



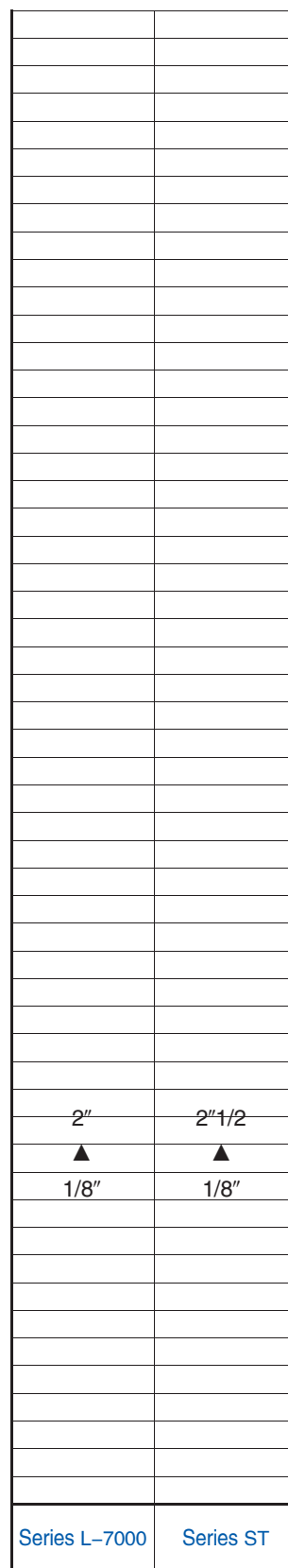
Series H-5000

Flow rate
(l/min)



Series H-15000

- Optimum zone giving a maximum pressure drop of 1 bar, using oil of 30cSt
- Higher flow rate zone giving a maximum pressure drop of 2 bar, using oil of 30cSt
- Zone of very high flow rate giving a maximum pressure drop of 3 bar, using oil of 30 cSt



Technical data

Series	Interchangeability	Size	DN (mm)	Connection	Maximum working pressure ^(1)		Reference flow (Δp 1 bar) (l/min)
					bar	psi	
HA-5000 Steel	Proprietary profile	1/8"	3.8	1/8	1000	14500	6
		1/4"	5.7	1/4	700	10150	12
		3/8"	7.6	3/8	600	8700	18
		1/2"	10.3	1/2	500	7250	25
		3/4"	14.2	3/4	400	5800	55
		1"	16.5	1	300	4350	90
		1"1/4	20.5	1 1/4	200	2900	140
		1"1/2	25.8	1 1/2	150	2175	220
		2"	34.7	2	100	1450	350
HL-5000 Brass		1/8"	3.8	1/8	300	4350	6
		1/4"	5.7	1/4	230	3335	12
		3/8"	7.6	3/8	175	2535	18
		1/2"	10.3	1/2	150	2175	25
		3/4"	14.2	3/4	125	1810	55
		1"	16.5	1	100	1450	90
		1"1/4	20.5	1 1/4	70	1015	140
		1"1/2 ^(2)	25.8	1 1/2	50	725	220
		2" ^(2)	34.7	2	20 ^(3) 40 ^(3)	290 ^(3) 580 ^(3)	350
HZ-5000 Stainless steel		1/8"	3.8	1/8	300	4350	6
		1/4"	5.7	1/4	230	3335	12
		3/8"	7.6	3/8	175	2535	18
		1/2"	10.3	1/2	150	2175	25
		3/4"	14.2	3/4	125	1810	55
		1"	16.5	1	100	1450	90
		1"1/4	20.5	1 1/4	100	1450	140
		1"1/2	25.8	1 1/2	75	1085	220
		2"	34.7	2	40	580	350

PRESSURE RATINGS

Since application conditions vary so widely, the pressures listed are intended as a guide only and not a guarantee of performance. Pressure peaks and extreme surge flows may cause a coupling to become inoperative.

Size	End connection			Material	Valve configuration	Seal ⁽⁴⁾			Temperature range (°C)
	G (BSPP)	NPT	Metric			NBR	Viton	EPDM	
1/8"	×	×	×	Zinc-plated steel, bichromate		S	▲	▲	Nitrile (NBR): -20°C +100°C
1/4"	×	×	×			S	▲	▲	
3/8"	×	×	×			S	▲	▲	
1/2"	×	×	×			S	▲	▲	Viton (FKM): -20°C +200°C
3/4"	×	×	×			S	▲	▲	
1"	×	×				S	▲	▲	Ethylene propylene (EPDM): -40°C +150°C
1"1/4	×					S	▲	▲	
1"1/2	×					S	▲	▲	
2"	×					S	▲	▲	
1/8"	×			Nickel-plated brass		S	▲	▲	Nitrile (NBR): -20°C +100°C
1/4"	×					S	▲	▲	
3/8"	×					S	▲	▲	
1/2"	×					S	▲	▲	Viton (FKM): -20°C +200°C
3/4"	×					S	▲	▲	
1"	×					S	▲	▲	Ethylene propylene (EPDM): -40°C 150°C
1"1/4	×					S	▲	▲	
1"1/2	×					S	▲	▲	
2"	×					S	▲	▲	
1/8"	×	▲		AISI 316L stainless steel		▲	S	▲	Nitrile (NBR): -20°C +100°C
1/4"	×	▲				▲	S	▲	
3/8"	×	▲				▲	S	▲	
1/2"	×	▲				▲	S	▲	Viton (FKM): -20°C +200°C
3/4"	×	▲				▲	S	▲	
1"	×	▲				▲	S	▲	Ethylene propylene (EPDM): -40°C +150°C
1"1/4	×					▲	S	▲	
1"1/2	×					▲	S	▲	
2"	×	▲				▲	S	▲	

- (1) The figures given are maximum values applying to a connected coupling. For detailed working pressure information please refer to individual series pages
- (2) Brass couplings in sizes 1"1/2 and 2" should not be used to convey gases in Group I (hazardous) in accordance with European Pressure Equipment Directive 97/23 EC
- (3) 20bar (290psi)=Working pressure applicable to gasses in Group II
40bar (580psi)=Working pressure applicable to liquids in Groups I and II
- (4) Alternative seal materials upon request
-  Double shut off couplings
- S standard
- ▲ Available to special order

Technical data

- Double shut-off couplings
- Pull-to-connect couplings
- Ball-locking
- Optional safety locking ring
- Dust caps and plugs
- Pressure performance

Steel version:

The heat treatment of the plug and use of high strength steel for the socket sleeve provide superior mechanical and hydraulic performance.

The design of the valve gives the coupling increased robustness when disconnected.

European directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC.

steel / st. steel

Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module D1 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey volatile gases.

Brass

Couplings with nominal diameters greater than 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey gases in Group I (hazardous).

Applications

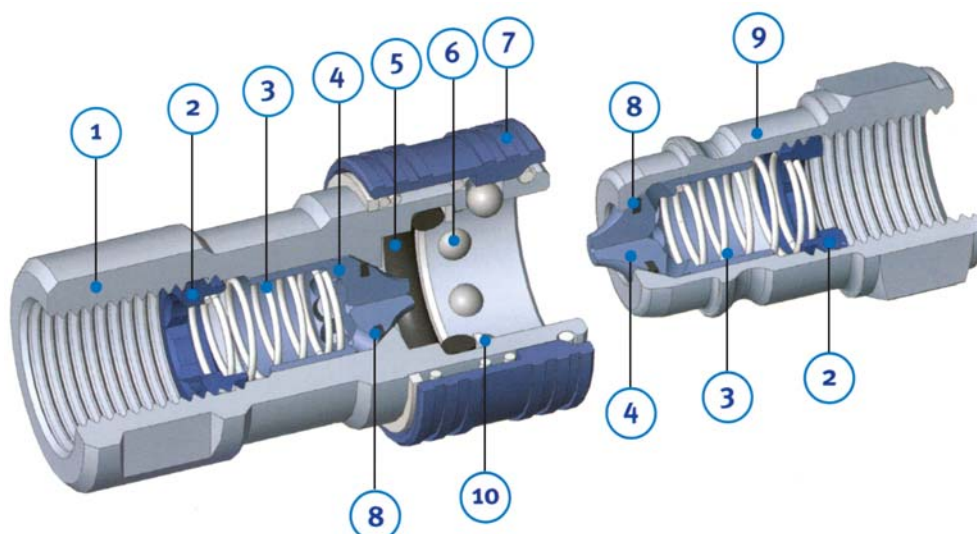
Hydraulic circuits and equipment.

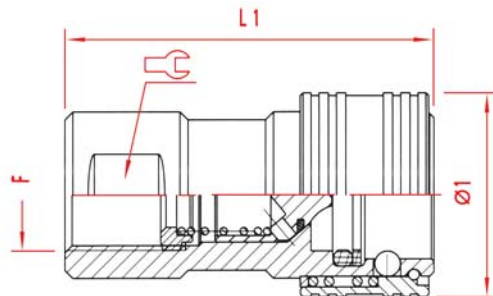
Automobile, oil, railway and food processing industries Iron and steel, electronics, Laboratories, agriculture, public works, aviation,

Fluids: Chemicals, water, petroleum products, hydraulic oils, gases, steam, some acids,

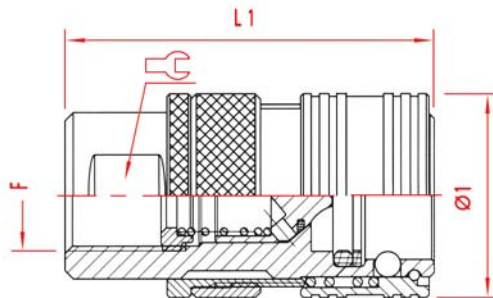
Nomenclature

- ① Socket body
- ② Retainer
- ③ Valve spring
- ④ Valve
- ⑤ O-ring
- ⑥ Ball
- ⑦ Sleeve
- ⑧ Valve seal
- ⑨ Plug body
- ⑩ Back-up ring

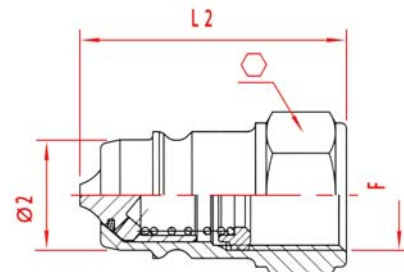




Socket



Socket with sleeve lock



Plug

Materials

- Steel(HA part numbers)
- Brass(HL part numbers)
- AISI 316L stainless steel(HZ part numbers)

Dimensions(mm)/Weights(g)*

Size	DN (mm)	Connection(F)	Socket				Plug				Length connected
			L1	Ø1			L2	Ø2			
1/8"	3.8	1/8(G/NPT/M)	42	24	16	88	28	11	16	23	52
		with sleeve lock				91					
1/4"	5.7	1/4(G/NPT/M)	50	28	19	122	35	14.2	19	37	64
		with sleeve lock				134					
3/8"	7.6	3/8(G/NPT/M)	59	34	23	197	42	19	23	70	77
		with sleeve lock				225					
1/2"	10.3	1/2(G/NPT/M)	69	38	27	226	50	20.6	27	92	93
		with sleeve lock				310					
3/4"	14.2	3/4(G/NPT/M)	89	48	35	577	63	27.9	35	217	117
		with sleeve lock				665					
1"	16.5	1(G & NPT)	99	52	41	720	71	32.4	41	287	130
		with sleeve lock				813					
1"1/4	20.5	G 1 1/4	132	75	55	2165	97	46.9	55	900	180
		with sleeve lock				2230					
1"1/2	25.8	G 1 1/2	150	85	65	3500	109	56	65	1500	202
		with sleeve lock				3585					
2"	34.7	G 2	170	97	75	4840	121	65	75	1840	220
		with sleeve lock				5658					

* The weights shown apply to steel couplings. To calculate the weights of brass or stainless steel couplings use the conversion factors below:

	Stainless steel	Brass
density	7.85	8.6
conversion factor	1	steel×1.1

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)

Nominal diameter 3.8–34.7mm
 Flow rate 6–350 l/min (Δp 1bar)
 Working pressure 100–1000 bar
 Temperature range NITRILE: –20°C– +100°C

● Part numbers

STEEL	Size	DN (mm)	Connection(F)	Socket		Plug
				Standard	with sleeve lock	
	1/8"	3.8	G 1/8 1/8 NPT M10 ×1.0	HA 05001 00 HA 05201 00 HA 05301 00	HA 05003 00 HA 05203 00 HA 05303 00	HA 05002 00 HA 05202 00 HA 05302 00
	1/4"	5.7	G 1/4 1/4 NPT M14×1.5	HA 05011 00 HA 05211 00 HA 05311 00	HA 05013 00 HA 05213 00 HA 05313 00	HA 05012 00 HA 05212 00 HA 05312 00
	3/8"	7.6	G 3/8 3/8 NPT M18×1.5	HA 05021 00 HA 05221 00 HA 05321 00	HA 05023 00 HA 05223 00 HA 05323 00	HA 05022 00 HA 05222 00 HA 05322 00
	1/2"	10.3	G 1/2 1/2 NPT M22×1.5	HA 05031 00 HA 05231 00 HA 05331 00	HA 05033 00 HA 05233 00 HA 05333 00	HA 05032 00 HA 05232 00 HA 05332 00
	3/4"	14.2	G 3/4 3/4 NPT M27×1.5	HA 05041 00 HA 05241 00 HA 05341 00	HA 05043 00 HA 05243 00 HA 05343 00	HA 05042 00 HA 05242 00 HA 05342 00
	1"	16.5	G 1 1 NPT	HA 05051 00 HA 05251 00	HA 05053 00 HA 05253 00	HA 05052 00 HA 05252 00
	1"1/4	20.5	G 1 1/4	HA 05061 00	HA 05036 00	HA 05062 00
	1"1/2	25.8	G 1 1/2	HA 05071 00	HA 05073 00	HA 05072 00
	2"	34.7	G 2	HA 05091 00	HA 05093 00	HA 05092 00

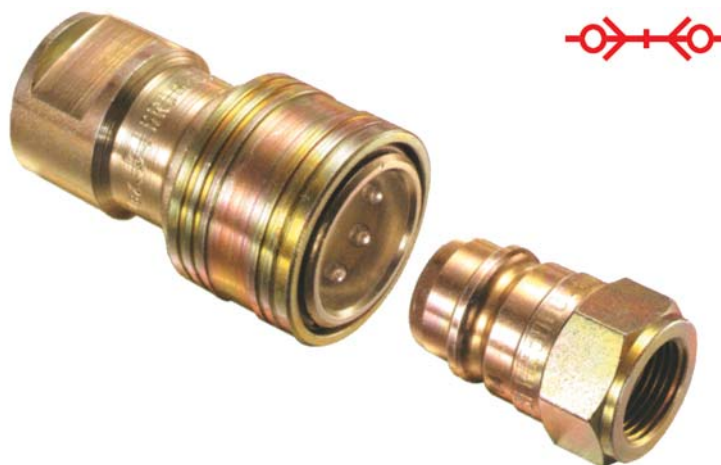
● Dust caps and plugs



Size	Dust plug	Dust cap
1/8"	HD 05101 00	HD 05102 00
1/4"	HD 05111 00	HD 05112 00
3/8"	HD 05121 00	HD 05122 00
1/2"	HD 05131 00	HD 05132 00
3/4"	HD 05141 00	HD 05142 00
1"	HD 05151 00	HD 05152 00
1"1/4	HD 05161 00	HD 05162 00
1"1/2	HD 05171 00	HD 05172 00
2"	HD 05191 00	HD 05192 00

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)



Materials

Steel (HA part numbers)

- Body: Zinc-plated steel, bichromate
- Sleeve: Zinc-plated steel, bichromate
- Valves: Zinc-plated steel, bichromate
- Springs: Stainless steel
- Balls: Stainless steel
- Seals: Nitrile
 - (Viton or EPDM upon request)
 - (EPDM 41B seals to Nf L 17-241)

Dust caps and plugs

- Anodised aluminium

Max working pressures

Size	DN (mm)	Working pressure
1/8"	3.8	1000 bar
1/4"	5.7	700 bar
3/8"	7.6	600 bar
1/2"	10.3	500 bar
3/4"	14.2	400 bar
1"	16.5	300 bar
1"1/4	20.5	200 bar
1"1/2	25.8	150 bar
2"	34.7	100 bar

Nominal diameter	3.8–34.7mm
Flow rate	6–350 l/min(Δp 1bar)
Working pressure	40–300 bar
Temperature range	NITRILE: –20°C– +100°C VITON: –20°C– +200°C

● Part numbers

BRASS	Size	DN (mm)	Connection(F)	Scket		Plug
				Standard	with sleeve lock	
	1/8"	3.8	G 1/8	HL 05001 00	HL 05003 00	HL 05002 00
	1/4"	5.7	G 1/4	HL 05011 00	HL 05013 00	HL 05012 00
	3/8"	7.6	G 3/8	HL 05021 00	HL 05023 00	HL 05022 00
	1/2"	10.3	G 1/2	HL 05031 00	HL 05033 00	HL 05032 00
	3/4"	14.2	G 3/4	HL 05041 00	HL 05043 00	HL 05042 00
	1"	16.5	G 1	HL 05051 00	HL 05053 00	HL 05052 00
	1 1/4"	20.5	G 1 1/4	HL 05061 00	HL 05063 00	HL 05062 00
	1 1/2"	25.8	G 1 1/2	HL 05071 00	HL 05073 00	HL 05072 00
	2"	34.7	G 2	HL 05091 00	HL 05093 00	HL 05092 00

STAINLESS STEEL	Size	DN (mm)	Connection(F)	Scket		Plug
				Standard	with sleeve lock	
	1/8"	3.8	G 1/8	HZ 05001 V0	HZ 05003 V0	HZ 05002 V0
	1/4"	5.7	G 1/4	HZ 05011 V0	HZ 05013 V0	HZ 05012 V0
	3/8"	7.6	G 3/8	HZ 05021 V0	HZ 05023 V0	HZ 05022 V0
	1/2"	10.3	G 1/2	HZ 05031 V0	HZ 05033 V0	HZ 05032 V0
	3/4"	14.2	G 3/4	HZ 05041 V0	HZ 05043 V0	HZ 05042 V0
	1"	16.5	G 1	HZ 05051 V0	HZ 05053 V0	HZ 05052 V0
	1 1/4"	20.5	G 1 1/4	HZ 05061 V0	HZ 05063 V0	HZ 05062 V0
	1 1/2"	25.8	G 1 1/2	HZ 05071 V0	HZ 05073 V0	HZ 05072 V0
	2"	34.7	G 2	HZ 05091 V0	HZ 05093 V0	HZ 05092 V0

● Dust caps and plugs



Anodised aluminium

Size	Dust plug	Dust cap
1/8"	HD 05101 00	HD 05102 00
1/4"	HD 05111 00	HD 05112 00
3/8"	HD 05121 00	HD 05122 00
1/2"	HD 05131 00	HD 05132 00
3/4"	HD 05141 00	HD 05142 00
1"	HD 05151 00	HD 05152 00
1 1/4"	HD 05161 00	HD 05162 00
1 1/2"	HD 05171 00	HD 05172 00
2"	HD 05191 00	HD 05192 00

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)



Materials

Brass (HL part numbers)

- Body: Nickel-plated brass
- Sleeve: Nickel-plated brass
- Valves: Nickel-plated brass
- Springs: Stainless steel
- Balls: Stainless steel
- Seal: Nitrile
(Viton or EPDM upon request)

Stainless steel (HZ part numbers)

- Body: AISI 316L stainless steel
- Sleeve: AISI 316L stainless steel
- Valves: AISI 316L stainless steel
- Springs: stainless steel
- Balls: stainless steel
- Seals: Viton
(Nitrile or EPDM upon request)

Max working pressures

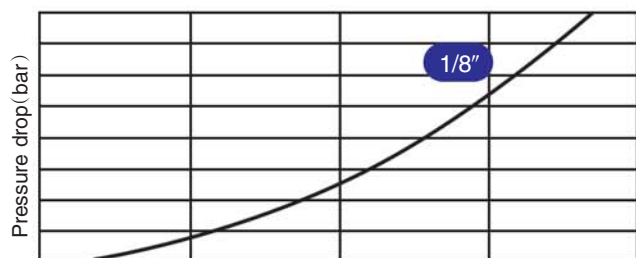
Size	DN (mm)	Working pressure	
		Brass *	Stainless steel
1/8"	3.8	300 bar	300 bar
1/4"	5.7	230 bar	230 bar
3/8"	7.6	175 bar	175 bar
1/2"	10.3	150 bar	150 bar
3/4"	14.2	125 bar	125 bar
1"	16.5	100 bar	100 bar
1"1/4	20.5	70 bar	100 bar
1"1/2	25.8	50 bar	75 bar
2"	34.7	20 bar** 40 bar***	40 bar

*Nominal diameters over 25mm should not be used to convey gases in Group I (EPED 97/23 EC)

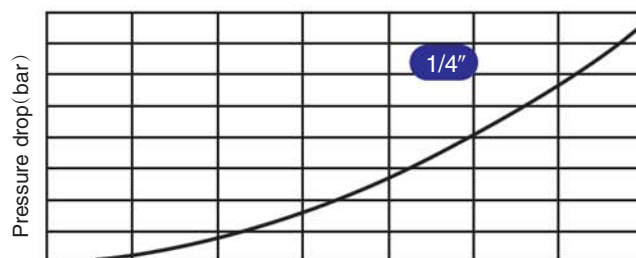
**Working pressures given apply to gases in Group II (EPED 97/23 EC)

***Working pressures given apply to liquids in Groups I and II (EPED 97/23 EC)

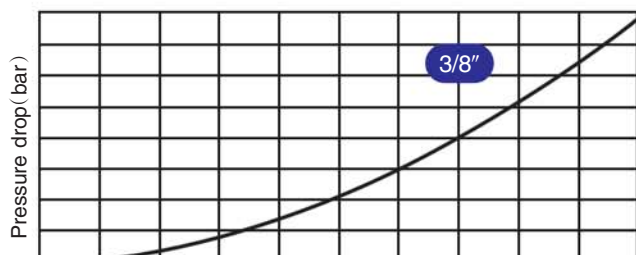
Flow rate/Pressure drop



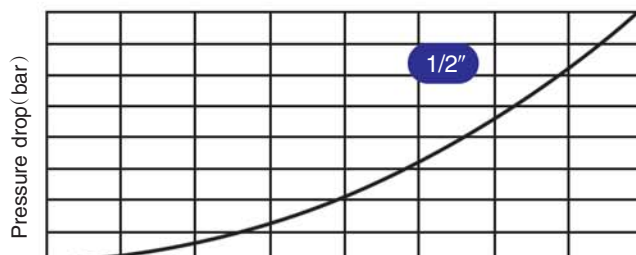
Flow rate(l/min)



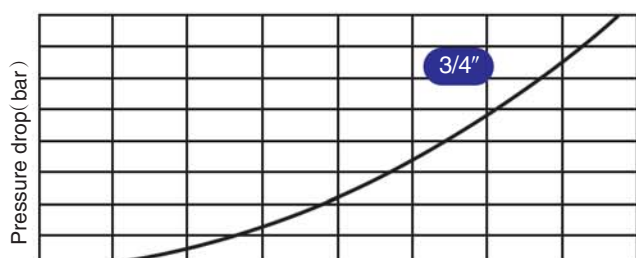
Flow rate(l/min)



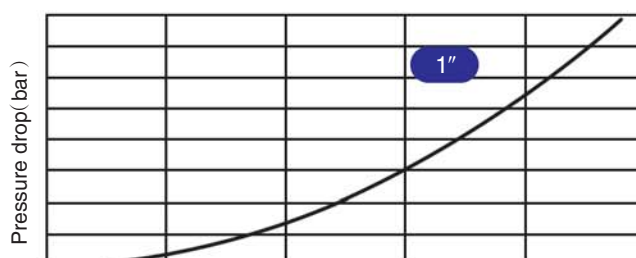
Flow rate(l/min)



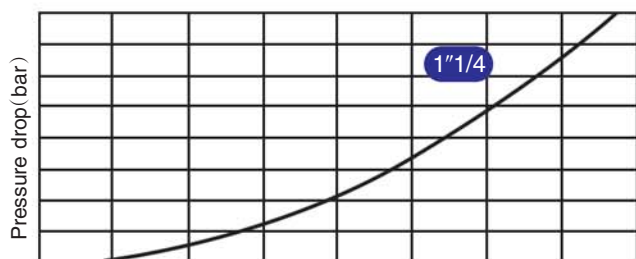
Flow rate(l/min)



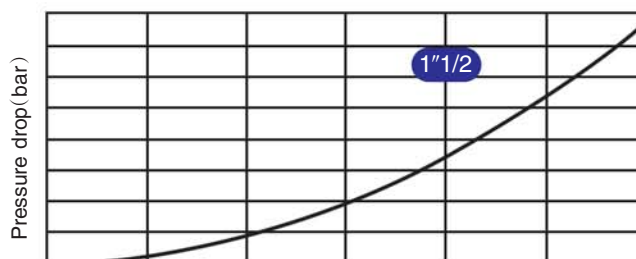
Flow rate(l/min)



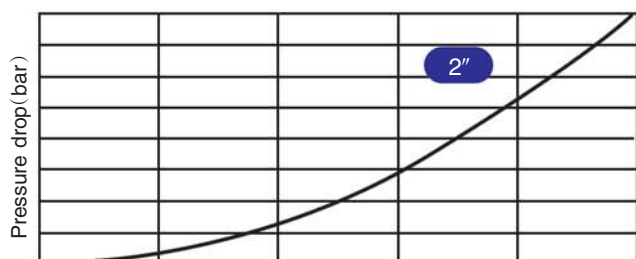
Flow rate(l/min)



Flow rate(l/min)



Flow rate(l/min)



Flow rate(l/min)

Oil viscosity 30 cSt at 40°C

Technical data

- Double shut-off couplings
- Pull-to-connect couplings
- Ball-locking
- Meets the requirements of ISO 7241-1 Series A
- 1/2" size available in a push-pull version (double acting sleeve , bulkhead-mounted – see page 24)
- Dust caps and plus

European directive

Our series H-15000 couplings have nominal diameters no greater than 25 mm.

They are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23EC.

Applications

Hydraulic circuits and equipment

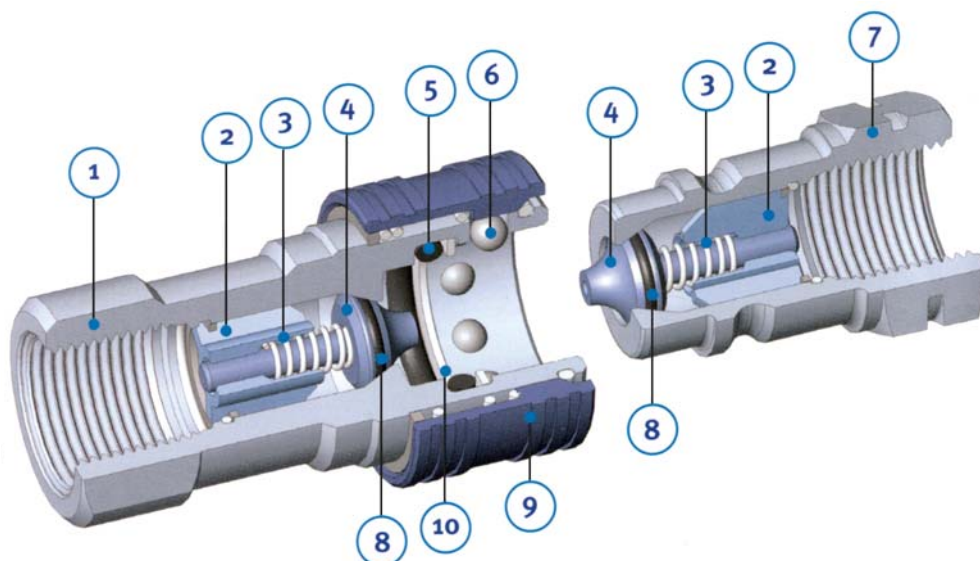
Agriculture

Public works

Hydraulic fluids

Nomenclature

- ① Socket body
- ② Valve guide
- ③ Valve spring
- ④ Valve
- ⑤ O-ring
- ⑥ Ball
- ⑦ Plug body
- ⑧ Valve seal
- ⑨ Sleeve
- ⑩ Back-up ring



Technical data

Series	Interchangeability	Size		DN (mm)	Connection	Maximum working pressure (2)		Reference flow (ΔP 1bar) (l/min)	End connection		Material	Valve configuration	Seal		Temperature range (°C)
		(mm) ⁽¹⁾	Inch			bar	psi		G (BSPP)	NPT			NBR	Viton	
H-15000	ISO 7241-1 A Standard	6.3	1/4"	5.3	1/4	315	4565	10	x	x	Zinc-plated steel, bichromate		S	▲	Nitrile (NBR) -20°C --+ 100°C
		10	3/8"	7.3	3/8	315	4565	20	x	x			S	▲	
		12.5	1/2"	10.2	1/2	250	3625	40	x	x			S	▲	Viton (FKM) -20°C- + 200°C
		20	3/4"	13	3/4	250	3625	75	x	x			S		
		25	1"	16.9	1	200	2900	140	x	x			S		

(1) The ISO size corresponds to the internal diameter of the hose or to the external diameter of rigid tube (as defined in ISO 4397 Standard)

(2) The figures given are maximum values applying to a connected coupling. For detailed working pressure information please refer to individual series pages

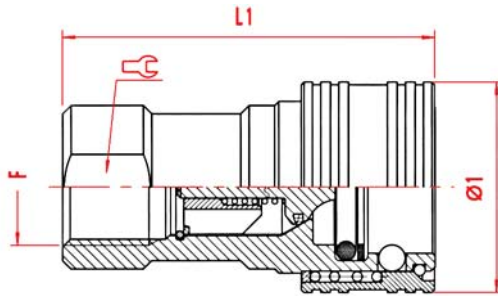
 Double shut off couplings

S standard

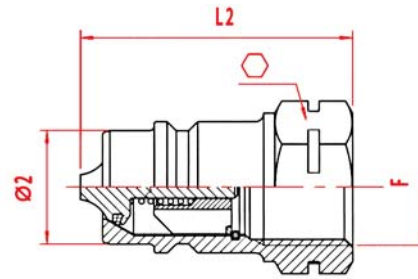
▲ Available to special order

PRESSURE RATINGS

Since application conditions vary so widely, the pressures listed are intended as a guide only and not a guarantee of performance. Pressure peaks and extreme surge flows may cause a coupling to become inoperative.



Socket



Plug

Dimensions(mm)/Weights(g)

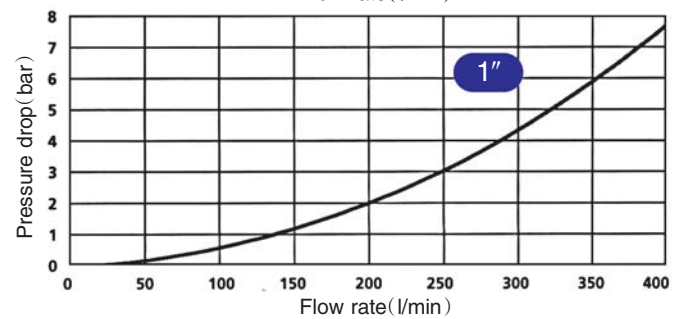
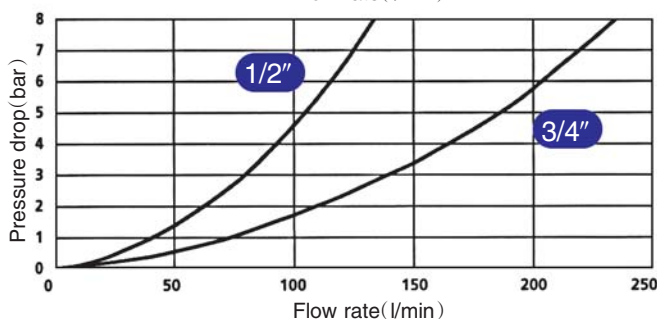
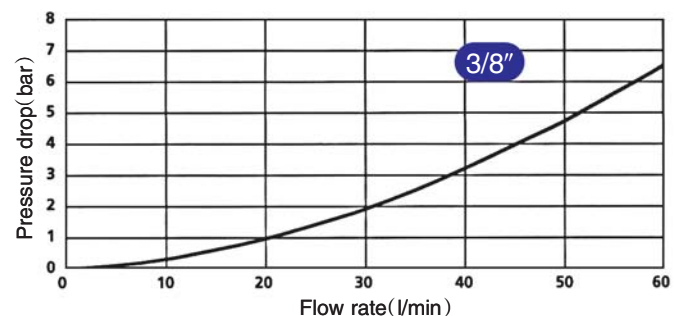
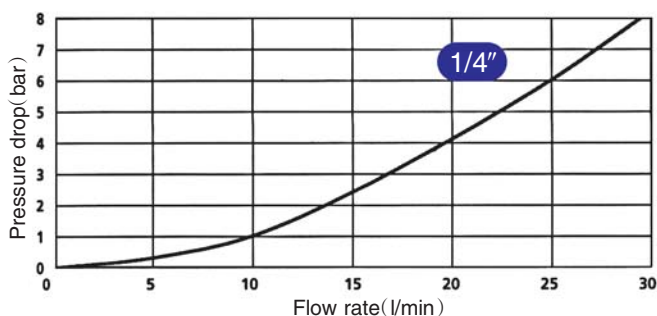
Size		DN(mm)	Connection(F)	Socket				Plug				Length connected
(mm)	inch			L1	Ø1			L2	Ø2			
6.3	1/4"	5.3	1/4(G & NPT)	48	25	19	94	36	11.8	19	36	68
10	3/8"	7.3	3/8(G & NPT)	56	30	23	139	41.5	17.3	23	62	76
12.5	1/2"	10.2	1/2(G & NPT)	67	38	27	238	49	20.5	27	88	91
20	3/4"	13	3/4(G & NPT)	83	48	35	484	61.5	29.1	35	194	110
25	1"	16.9	1(G & NPT)	98	53	41	670	71.5	34.3	41	306	128

Spillage

Size(mm)	DN(mm)	Spillage per disconnection
6.3	5.3	0.35 ml
10	7.3	1.5 ml
12.5	10.2	2.6 ml
20	13	8.5 ml
25	16.9	13 ml

DN : Nominal diameter
G=BSPP(BSP parallel male or female thread)

Flow rate/Pressure drop

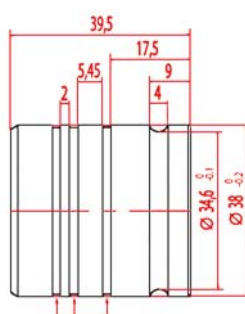


Oil viscosity 30 cSt at 40°C

Nominal diameter	5.3–16.9mm
Flow rate	10–140 l/min(Δp 1bar)
Working pressure	200–315 bar(2900–4570 psi)
Temperature range	NITRILE: –20°C– +100°C

● Part numbers

Size		DN(mm)	Connection(F)	Socket	Plug
mm	inch				
6.3	1/4"	5.3	G 1/4 1/4 NPT	HA 15011 00 HA 15211 00	HA 15012 00 HA 15212 00
10	3/8"	7.3	G 3/8 3/8 NPT	HA 15021 00 HA 15221 00	HA 15022 00 HA 15222 00
12.5	1/2"	10.2	G 1/2 G 1/2 push-pull* 1/2 NPT	HA 15031 00 HA 15036 00 HA 15231 00	HA 15032 00 HA 15032 00 or HA 15232 00 HA 15232 00
20	3/4"	13	G 3/4 3/4 NPT	HA 15041 00 HA 15241 00	HA 15042 00 HA 15242 00
25	1"	16.9	G 1 1 NPT	HA 15051 00 HA 15251 00	HA 15052 00 HA 15252 00



*** PUSH-PULL SLEEVE**

This configuration provides automatic connection or disconnection via a simple push or pull of the plug.

In the event of an accidental pull on the hose, the bulkhead-mounted double-action sleeve gives immediate, automatic disconnection.

Grooves for 38mm dia.external
circlips to DIN 471&AFNOR NF E 22-163

● Dust caps and plugs

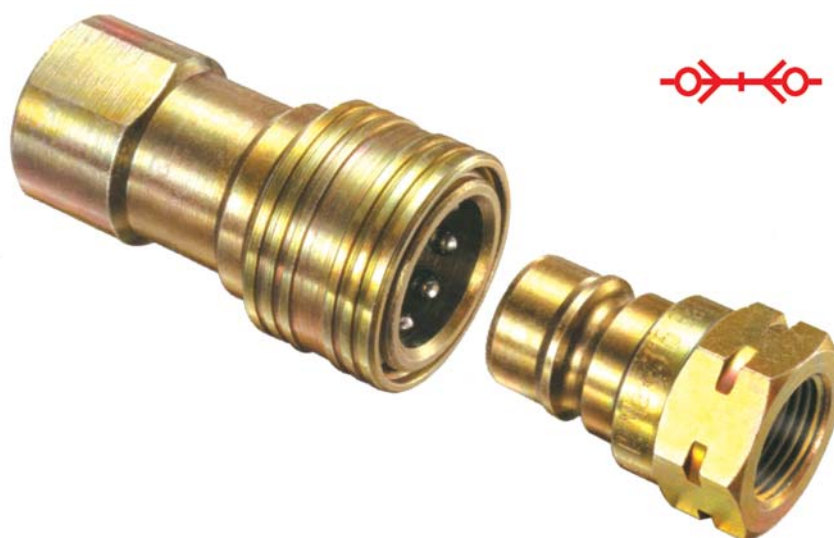


Size(mm)	Dust plug	Dust cap
6.3	HP 15111 00	HP 15112 00
10	HP 15121 00	HP 15122 00
12.5	HP 15131 00	HP 15132 00
20	HP 15141 00	HP 15142 00
25	HP 15151 00	HP 15152 00

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)

ISO 7241-1A



Materials

- Body: Zinc-plated steel, bichromate
- Sleeve: Zinc-plated steel, bichromate
- Valves: Zinc-plated steel, bichromate
- Springs: Steel or Stainless steel
- Balls: Stainless steel
- Seals: Nitrile
(Viton upon request)

Dust caps and plugs

- PVC

Max working pressures

ISO size(mm)	DN(mm)	Working pressure
6.3	5.3	315 bar
10	7.3	315 bar
12.5	10.2	250 bar
20	13	250 bar
25	16.9	200 bar

Technical data

Series		Interchangeability	Size		DN (mm)	Connec- tion	Maximum working pressure ^(1)				Reference flow (Δp 1bar) (l/min)
			(mm) ^(1)	inch			Hazardous fluids ⁽²⁾		Standard application ⁽³⁾		
							bar	psi	bar	psi	
HK Steel	1HK	ISO 7241–1B Standard	5	1/8"	4.4	1/8			275	3985	7
	2HK		6.3	1/4"	5.9	1/4			255	3695	17
	3HK		10	3/8"	7.8	3/8			255	3695	30
	4HK		12.5	1/2"	10	1/2			345	5000	50
	6HK		20	3/4"	17	3/4			275	3985	110
	8HK		25	1"	19.6	1			275	3985	160
	10HK		N/A	1"1/4	26.7	1 1/4	37	535	120	1740	260
	12HK		40	1"1/2	35.1	1 1/4 1 1/2	29	420	150	2175	365
	20HK		50	2"1/2	46	2 2 1/2 3	27	390	100	1450	760
HK Brass	1HK		5	1/8"	4.4	1/8			200	2900	7
	2HK		6.3	1/4"	5.9	1/4			185	2680	17
	3HK		10	3/8"	7.8	3/8			150	2175	30
	4HK		12.5	1/2"	10	1/2			155	2245	50
	6HK		20	3/4"	17	3/4			140	2030	110
	8HK		25	1"	19.6	1			100	1450	160
	10HK		N/A	1"1/4	26.7	1 1/4	37	535	80	1160	260
	12HK		40	1"1/2	35.1	1 1/4 1 1/2	29	420	100	1450	365
	20HK		50	2"1/2	46	2 2 1/2 3	27	390	50	725	760
HK Stain- less steel	1HK		5	1/8"	4.4	1/8			345	5000	7
	2HK		6.3	1/4"	5.9	1/4			255	3695	17
	3HK		10	3/8"	7.8	3/8			255	3695	30
	4HK		12.5	1/2"	10	1/2			290	4205	50
	6HK		20	3/4"	17	3/4			240	3480	110
	8HK		25	1"	19.6	1			170	3465	160
	10HK		N/A	1"1/4	26.7	1 1/4	37	535	120	1740	260
	12HK		40	1"1/2	35.1	1 1/4 1 1/2	29	420	150	2175	365
	20HK		50	2"1/2	46	2 2 1/2 3	27	390	100	1450	760

PRESSURE RATINGS

Since application conditions vary so widely, the pressures listed are intended as a guide only and not a guarantee of performance. Pressure peaks and extreme surge flows may cause a coupling to become inoperative.

Size		End connection			Material	Valve configuration	Seals				Temperature range (°C)
(mm) ⁽¹⁾	inch	G (BSPP)	NPT	SAE			NBR	Viton	EPDM	Teflon	
5	1/8"		×	×	Zinc-plated steel, bichromate		S	▲	▲	▲	Nitrile (NBR): -20°C +100°C
6.3	1/4"	×	×	×			S	▲	▲	▲	
10	3/8"	×	×	×			S	▲	▲	▲	
12.5	1/2"	×	×	×			S	▲	▲	▲	
20	3/4"	×	×	×			S	▲	▲	▲	Viton (FKM): -20°C +200°C
25	1"	×	×	×			S	▲	▲	▲	
N/A	1 1/4"	×	×				S	▲	▲		Ethylene propylene (EPDM): -40°C +150°C
40	1 1/2"	×	×				S	▲	▲		
		×	×				S	▲	▲		
			×				S	▲	▲		
			×				S	▲	▲		
			×				S	▲	▲		
5	1/8"		×		Brass		S	▲	▲	▲	Nitrile (NBR): -20°C +100°C
6.3	1/4"	×	×				S	▲	▲	▲	
10	3/8"	×	×				S	▲	▲	▲	
12.5	1/2"	×	×				S	▲	▲	▲	
20	3/4"	×	×				S	▲	▲	▲	Viton (FKM): -20°C +200°C
25	1"	×	×				S	▲	▲	▲	
N/A	1 1/4"		×				S	▲	▲		Ethylene propylene (EPDM): -40°C +150°C
40	1 1/2"	×	×				S	▲	▲		
		×	×				S	▲	▲		
		×	×				S	▲	▲		
		×	×				S	▲	▲		
		×	×				S	▲	▲		
5	1/8"		×	×	AISI 303 or 316 stainless steel		S	▲	▲	▲	Nitrile (NBR): -20°C +100°C
6.3	1/4"	×	×	×			S	▲	▲	▲	
10	3/8"	×	×	×			S	▲	▲	▲	
12.5	1/2"	×	×	×			S	▲	▲	▲	
20	3/4"	×	×	×			S	▲	▲	▲	Viton (FKM): -20°C +200°C
25	1"	×	×	×			S	▲	▲	▲	
N/A	1 1/4"	×	×				S	▲	▲	▲	Ethylene propylene (EPDM): -40°C +150°C
40	1 1/2"		×				S	▲	▲	▲	
		×	×				S	▲	▲	▲	
		×	×				S	▲	▲	▲	
			×				S	▲	▲	▲	
			×				S	▲	▲	▲	

- (1) The ISO size corresponds to the internal diameter of the hose or to the external diameter of rigid tube (as defined in ISO 4397 Standard), except for 26.7 mm nominal diameter
- (2) The figures given are maximum values for the connected coupling for applications handling hazardous products in accordance with European Pressure Equipment Directive 97/23 EC
- (3) The figures given are maximum values for the connected coupling for standard applications. For detailed working pressure information please refer to individual series pages



Double shut off couplings

S standard

▲ Available to special order

▲ Available to special order for couplings in AISI 303 stainless steel only

Technical data

- Double shut-off couplings
- Also available:
 - with the socket or plug half non-valved: add the suffix –VAA to the standard socket or plug part number
 - without valves (suffix–NV)
- Meets the requirements of ISO 7241–1 Series B
- Pull-to-connect couplings
- Optional safety sleeve lock to prevent accidental disconnection
- Dust caps and plugs (PVC or metal)
- High-impulse version (see description on page 33) gives increased resistance to “brinelling”
 - standard for size 4HK, 6HK and 8HK
 - optional in the other sizes
- Recommended series for high flow rates
- Some parts require minimum order quantities

European directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC.

Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module D1 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey volatile gases.

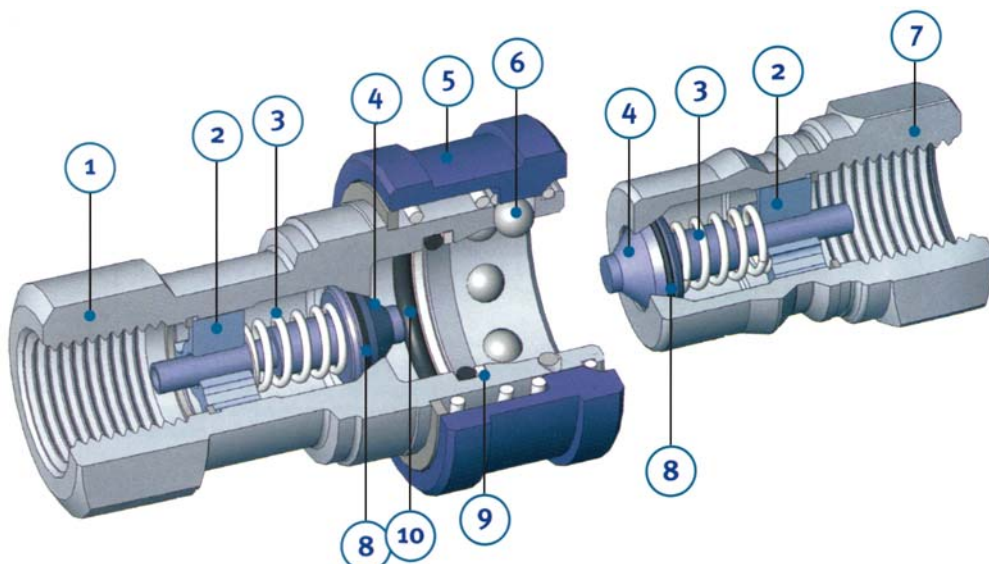
Applications

Automobile, iron and steel, petroleum, electronics, railway, Laboratory, food, processing, agriculture, public works and aeronautical industries.....

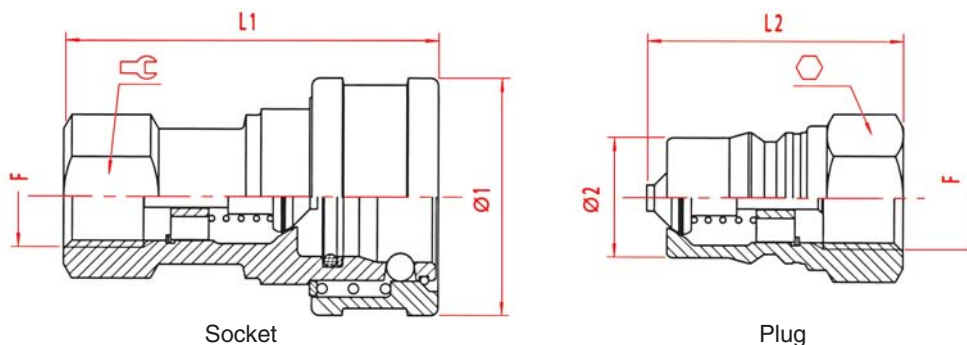
Fluids: Chemicals, water, petroleum products, hydraulic oils, gases, steam, some acids,

Nomenclature

- ① Socket body
- ② Valve guide
- ③ Valve spring
- ④ Valve
- ⑤ Sleeve
- ⑥ Ball
- ⑦ Plug body
- ⑧ Valve seal
- ⑨ Back-up ring
- ⑩ O-ring



Size 1HK to 8HK



Materials

- Steel
- Brass
- AISI 303 stainless steel
- AISI 316 stainless steel

Dimensions(mm)/Weights(g)*

	Size		DN(mm)	Connection(F)	Socket				Plug				Length connected
	(mm)	inch			L1	Ø1			L2	Ø2			
1HK	5	1/8"	4.4	1/8 NPT 7/16-20 SAE	49	25	14.2	77	32	10.9	14.2	18	60
					52	25	17.5	91	36	10.9	17.5	23	67
2HK	6.3	1/4"	5.9	G 1/4 1/4 NPT 9/16-18 SAE	57	30	19.1	130	39	14.2	19.1	37	72
					57	30	19.1	127	39	14.2	19.1	36	72
					61	30	22.4	150	42	14.2	22.4	45	79
3HK	10	3/8"	7.8	G 3/8 3/8 NPT 3/4-16 SAE	65	36	22.4	198	45	19.1	22.4	62	81
					65	36	22.4	195	45	19.1	22.4	64	81
					70	36	25.4	240	49	19.1	25.4	80	90
4HK	12.5	1/2"	10	G 1/2 1/2 NPT 7/8-14 SAE	75	47	28.7	384	52	23.5	28.7	120	95
					75	47	28.7	383	52	23.5	28.7	118	95
					78	47	31.8	435	54	23.5	30.2	144	99
6HK	20	3/4"	17	G 3/4 3/4 NPT 1 1/6-12 SAE	88	56.5	33.3	617	60	31.4	33.3	182	106
					88	56.5	33.3	612	60	31.4	33.3	181	106
					93	56.5	35.1	644	65	31.4	35.1	200	116
8HK	25	1"	19.6	G 1 1 NPT 1 5/16-12 SAE	105	66	44.5	1021	72	37.8	41.4	324	130
					105	66	44.5	1025	72	37.8	41.4	333	130
					105	66	47.8	1021	72	37.8	47.8	399	130

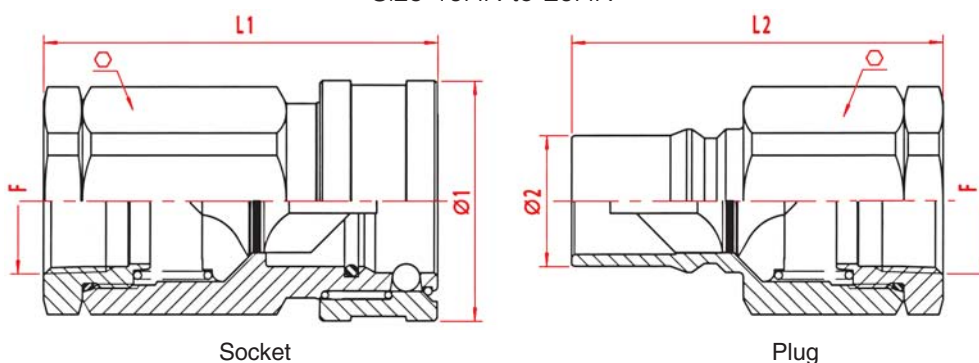
* The weights shown apply to steel couplings. To calculate the weights of brass or stainless steel couplings use the conversion factors below:

	Stainless steel	Brass
density	7.85	8.6
conversion factor	1	steel×1.1

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)

Size 10HK to 20HK



Materials

- Steel
- Brass
- AISI 303 stainless steel

Dimensions(mm)/Weights(g)*

	Size		DN(mm)	Connection(F)	Socket				Plug				Length
	(mm)	inch			L1	Ø1			L2	Ø2			
10HK	–	1"1/4	26.7	G 1 1/4 1 1/4 NPT	115 115	69 69	60.5 60.5	1724 1724	108 108	37.8 37.8	60.5 60.5	1043 1043	174 174
12HK	40	1"1/2	35.1	G 1 1/4	123	82	60.5	2082	121	44.5	60.5	1390	190
				1 1/4 NPT	123	82	60.5	2260	121	44.5	60.5	1400	190
				G 1 1/2	123	82	60.5	2132	121	44.5	60.5	1320	190
				1 1/2 NPT	123	82	60.5	2140	121	44.5	60.5	1280	190
20HK	50	2"1/2	46	G 2	141	104	95.3	5080	140	63.2	95.3	3447	216
				2 NPT	141	104	95.3	4899	140	63.2	95.3	3300	216
				G 2 1/2	156	104	95.3	6150**	154	63.2	95.3	4410**	246
				2 1/2 NPT	156	104	95.3	5250	154	63.2	95.3	3570	246
				G 3	178	104	101.6	9600**	176	63.2	101.6	4500**	290
				3 NPT	178	104	101.6	5840	176	63.2	101.6	4170	290

* The weights shown apply to steel couplings. To calculate the weights of brass or stainless steel couplings use the conversion factors below:

	Stainless steel	Brass
density	7.85	8.6
conversion factor	1	steel×1.1

**Coupling weight in brass

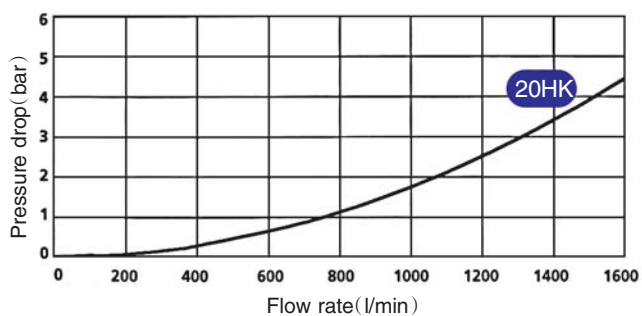
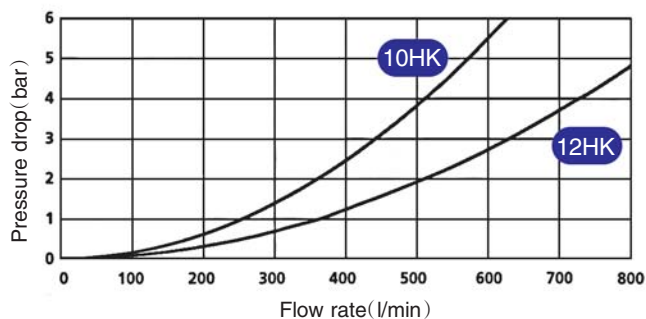
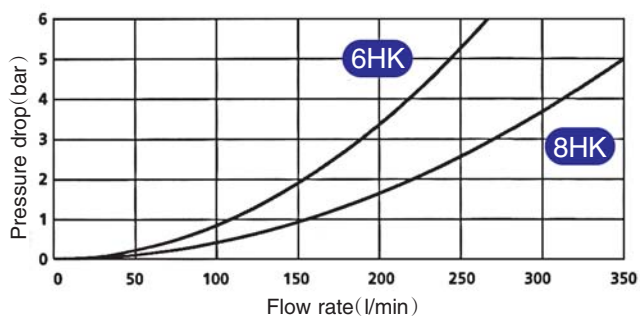
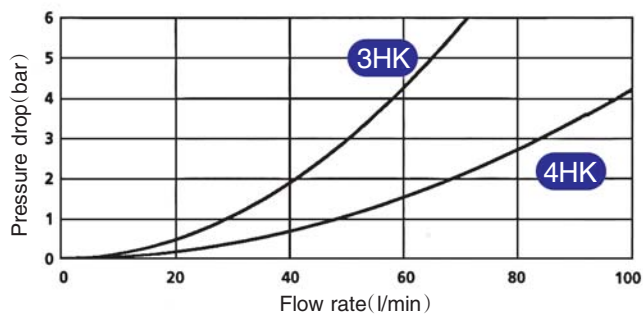
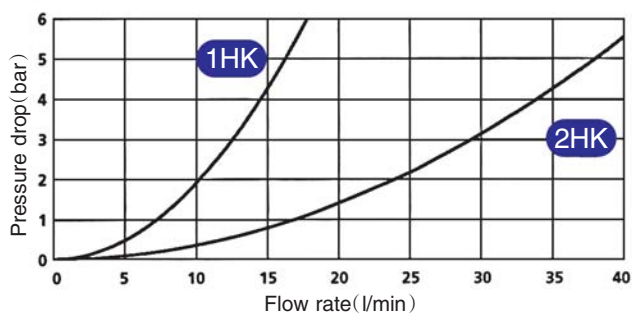
Spillage

	Size	DN(mm)	Spillage per disconnection
1HK	5	4.4	0.5 ml
2HK	6.3	5.9	0.9 ml
3HK	10	7.8	2.1 ml
4HK	12.5	10	3.5 ml
6HK	20	17	9.3 ml
8HK	25	19.6	16.9 ml
10HK	–	26.7	48 ml
12HK	40	35.1	91 ml
20HK	50	46	210 ml

DN: Nominal diameter

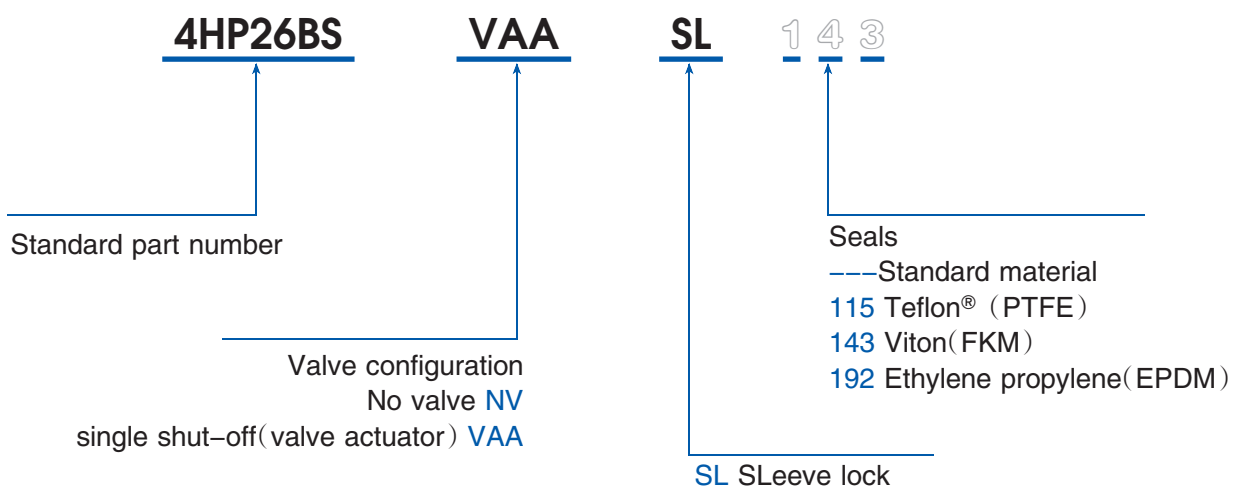
G=BSPP(BSP parallel male or female thread)

Flow rate/Pressure drop



Oil viscosity 30 cSt at 40°C

Composition of part numbers with options



ISO 7241-1 B Standard

Nominal diameter 4.4 – 46mm

Flow rate 7–760 l/min(Δp 1bar)

Working pressure 100–345 bar

Temperature range NITRILE: –20°C– +100°C

● Part numbers

		Size		DN(mm)	Connection(F)	Socket		Plug	
		(mm)	inch			standard	high impulse	standard	high impulse
STEEL	1HK	5	1/8"	4.4	1/8 NPT 7/16–20 SAE	1H11 1H4		1K11 1K4	
	2HK	6.3	1/4"	5.9	G 1/4 1/4 NPT 9/16–18 SAE	2H16BS 2H16 2H6	2H16C 2H6C	2K16BS 2K16 2K6	2K16C 2K6C
	3HK	10	3/8"	7.8	G 3/8 3/8 NPT 3/4–16 SAE	3H21BS 3H21 3H8	3H21C 3H8C	3K21BS 3K21 3K8	3K21C 3K8C
	4HK	12.5	1/2"	10	G 1/2 1/2 NPT 7/8–14 SAE	4HP26BS 4HP26 4HP10	4HP26BS 4HP26 4HP10	4KP26BS 4KP26 4KP10	4KP26BS 4KP26 4KP10
	6HK	20	3/4"	17	G 3/4 3/4 NPT 1 1/16–12 SAE	6HP31BS 6HP31 6HP12	6HP31BS 6HP31 6HP12	6KP31BS 6KP31 6KP12	6KP31BS 6KP31 6KP12
	8HK	25	1"	19.6	G 1 1 NPT 1 5/16–12 SAE	8HP36BS 8HP36 8HP16	8HP36BS 8H36 8HP16	8KP36BS 8KP36 8KP16	8KP36BS 8KP36 8KP16
	10HK	–	1 1/4"	26.7	G 1 1/4 1 1/4 NPT	10H41BS 10H41		10K41BS 10K41	
	12HK	40	1 1/2"	35.1	G 1 1/4 1 1/4 NPT G 1 1/2 1 1/2 NPT	12H41BS 12H41 12H46BS 12H46	12H41C 12H46C	12K41BS 12K41 12K46BS 12K46	12K41C 12K46C
	20HK	50	2 1/2"	46	2 NPT 2 1/2 NPT 3 NPT	20H51 20H56 20H61	20H51C 20H56C 20H61C	20K51 20K56 20K61	20K51C 20K56C 20K61C

● Dust caps and plugs



	Size (mm)	Dust plug		Dust cap	
		PVC	metal	PVC	metal
1HK	5	PSDC1HK	SDC1HK*	PPDC1HK	PDC1HK*
2HK	6.3	PSDC2HK	SDC2HK*	PPDC2HK	PDC2HK*
3HK	10	PSDC3HK	SDC3HK*	PPDC3HK	PDC3HK*
4HK	12.5	PSDC4HK	SDC4HK**	PPDC4HK	PDC4HK**
6HK	20	PSDC6HK	SDC6HK**	PPDC6HK	PDC6HK**
8HK	25	PSDC8HK	SDC8HK**	PPDC8HK	PDC8HK**
10HK	–				
12HK	40		SDC12HK**		PDC12HK**
20HK	50		SDC20HK**		PDC20HK**

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)

*Brass

** aluminium

ISO 7241-1B


Materials

Steel

- Body: Zinc-plated steel, bichromate
- Sleeve: Zinc-plated steel, bichromate
- Valves: Zinc-plated steel, bichromate
- Springs: Stainless steel
- Balls: Stainless steel
- Seals: Nitrile (Viton, EPDM, Teflon® , Kalrez® or Neoprene upon request)

Dust caps and plugs

- PVC or Metal (brass or aluminium)

Max working pressures

	Size (mm)	DN (mm)	Working pressure	
1HK	5	4.4	275 bar	
2HK	6.3	5.9	255 bar	
3HK	10	7.8	255 bar	
4HK	12.5	10	345 bar	
6HK	20	17	275 bar	
8HK	25	1.6	275 bar	
10HK	–	26.7	37 bar*	120 bar
12HK	40	35.1	29 bar*	150 bar
20HK	50	46	27 bar*	100 bar

* Maximum working pressure for applications handling hazardous fluids
For pulsating pressures when disconnected apply a multiplier of 0.5

HIGH IMPULSE

The high-strength steel and heat treatment used give increased resistance to “brinelling” (indentations by the locking balls in the plug groove)

ISO 7241-1B Standard

Nominal diameter 4.4 – 46mm

Flow rate 7–760 l/min (Δp 1bar)

Working pressure 50–200 bar

Temperature range NITRILE: –20°C– +100°C

● Part numbers

		Size		DN(mm)	Connection(F)	Socket	Plug
		(mm)	inch				
BRASS	1HK	5	1/8"	4.4	1/8 NPT	B1H11	B1K11
	2HK	6.3	1/4"	5.9	G 1/4 1/4 NPT	B2H16BS B2H16	B2K16BS B2K16
	3HK	10	3/8"	7.8	G 3/8 3/8 NPT	B3H21BS B3H21	B3K21BS B3K21
	4HK	12.5	1/2"	10	G 1/2 1/2 NPT	B4HP26BS B4HP26	B4KP26BS B4KP26
	6HK	20	3/4"	17	G 3/4 3/4 NPT	B6HP31BS B6HP31	B6KP31BS B6KP31
	8HK	25	1"	19.6	G 1 1 NPT	B8HP36BS B8HP36	B8KP36BS B8KP36
	10HK	–	1"1/4	26.7	G 1 1/4	B10H41	B10K41
	12HK	40	1"1/2	35.1	G 1 1/4 1 1/4 NPT G 1 1/2 1 1/2 NPT	B12H41BS B12H41 B12H46BS B12H46	B12K41BS B12K41 B12K46BS B12K46
	20HK	50	2"1/2	46	G 2 2 NPT G 2 1/2 2 1/2 NPT G 3 3 NPT	B20H51BS B20H51 B20H56BS B20H56 B20H61BS B20H61	B20K51BS B20K51 B20K56BS B20K56 B20K61BS B20K61

● Dust caps and plugs



	ISO size (mm)	Dust plug		Dust cap	
		PVC	metal	PVC	metal
1HK	5	PSDC1HK	SDC1HK*	PPDC1HK	PDC1HK*
2HK	6.3	PSDC2HK	SDC2HK*	PPDC2HK	PDC2HK*
3HK	10	PSDC3HK	SDC3HK*	PPDC3HK	PDC3HK*
4HK	12.5	PSDC4HK	SDC4HK**	PPDC4HK	PDC4HK**
6HK	20	PSDC6HK	SDC6HK**	PPDC6HK	PDC6HK**
8HK	25	PSDC8HK	SDC8HK**	PPDC8HK	PDC8HK**
10HK	–				
12HK	40		SDC12HK**		PDC12HK**
20HK	50		SDC20HK**		PDC20HK**

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)

*Brass

** aluminium

ISO 7241-1B


Materials

Brass

- Body: Brass
- Sleeve: Brass
- Valves: Brass
- Springs: Stainless steel
- balls: Stainless steel
- Seaks: Nitrile (Viton, EPDM, Teflon® , Kalrez® or Neoprene upon request)

Dust caps and plugs

- PVC or Metal (brass or aluminium)

Max working pressures

	Size (mm)	DN (mm)	Working pressure	
1HK	5	4.4	200 bar	
2HK	6.3	5.9	185 bar	
3HK	10	7.8	150 bar	
4HK	12.5	10	155 bar	
6HK	20	17	140 bar	
8HK	25	1.6	100 bar	
10HK	–	26.7	37 bar*	80 bar
12HK	40	35.1	29 bar*	100 bar
20HK	50	46	27 bar*	50 bar

* Maximum working pressure for applications handling hazardous fluids

ISO 7241-1 B Standard

Nominal diameter 4.4 – 46mm

Flow rate 7–760 l/min(Δp 1bar)

Working pressure 100–345 bar

Temperature range NITRILE: -20°C– +100°C

● Part numbers

		Size		DN(mm)	Connection(F)	Socket		Plug	
		(mm)	inch			303 stainless steel	316 stainless steel	303 stainless steel	316 stainless steel
STAINLESS STEEL	1HK	5	1/8"	4.4	1/8 NPT 7/16–20 SAE	LL1H11 LL1H4	ML1H11	LL1K11 LL1K4	ML1K11
	2HK	6.3	1/4"	5.9	G 1/4 1/4 NPT 9/16–18 SAE	LL2H16BS LL2H16 LL2H6	ML2H16BS ML2H16	LL2K16BS LL2K16 LL2K6	ML2K16BS ML2K16
	3HK	10	3/8"	7.8	G 3/8 3/8 NPT 3/4–16 SAE	LL3H21BS LL3H21 LL3H8	ML3H21BS ML3H21	LL3K21BS LL3K21 L3K8	ML3K21BS ML3K21
	4HK	12.5	1/2"	10	G 1/2 1/2 NPT 7/8–14 SAE	LL4HP26BS LL4HP26 LL4HP10	ML4HP26BS ML4HP26	LL4KP26BS LL4KP26 LL4KP10	ML4KP26BS ML4KP26
	6HK	20	3/4"	17	G 3/4 3/4 NPT 1 1/16–12 SAE	LL6HP31BS LL6HP31 LL6HP12	ML6HP31BS ML6HP31	LL6KP31BS LL6KP31 LL6KP12	ML6KP31BS ML6KP31
	8HK	25	1"	19.6	G 1 1 NPT 1 5/16–12 SAE	LL8HP36BS LL8HP36 LL8HP16	ML8HP36BS ML8H36	LL8KP36BS LL8KP36 LL8KP16	ML8KP36BS ML8KP36
	10HK	–	1"1/4	26.7	G 1 1/4 1 1/4 NPT	LL10H41BS LL10H41		LL10K41BS LL10K41	
	12HK	40	1"1/2	35.1	1 1/4 NPT G 1 1/2 1 1/2 NPT	LL12H41 LL12H46BS LL12H46	ML12H46BS	LL12K41 LL12K46BS LL12K46	ML12K46BS
	20HK	50	2"1/2	46	G 2 2 NPT 2 1/2 NPT 3 NPT	LL20H51BS LL20H51 LL20H56 LL20H61		LL20K51BS LL20K51 LL20K56 LL20K61	

● Duet caps and plugs



	Size (mm)	Dust plug		Dust cap	
		PVC	metal	PVC	metal
1HK	5	PSDC1HK	SDC1HK*	PPDC1HK	PDC1HK*
2HK	6.3	PSDC2HK	SDC2HK*	PPDC2HK	PDC2HK*
3HK	10	PSDC3HK	SDC3HK*	PPDC3HK	PDC3HK*
4HK	12.5	PSDC4HK	SDC4HK**	PPDC4HK	PDC4HK**
6HK	20	PSDC6HK	SDC6HK**	PPDC6HK	PDC6HK**
8HK	25	PSDC8HK	SDC8HK**	PPDC8HK	PDC8HK**
10HK	–				
12HK	40		SDC12HK**		PDC12HK**
20HK	50		SDC20HK**		PDC20HK**

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)

*Brass

** aluminium

ISO 7241-1B

Materials
AISI 303 stainless steel

- Body: AISI 303 stainless steel
- Sleeve: AISI 303 stainless steel
- Valves: AISI 303 stainless steel
- Springs: Stainless steel
- Balls: Stainless steel
- Seals: Nitrile

(Viton, EPDM, Teflon® , Kalrez® or Neoprene upon request)

AISI 316 stainless steel

- Body: AISI 316 stainless steel
- Sleeve: AISI 316 stainless steel
- Valves: AISI 316 stainless steel
- Springs: Stainless steel
- Balls: Stainless steel
- Seals: Nitrile

(Viton, EPDM, Teflon® , Kalrez® or Neoprene upon request)

Dust caps and plugs

- PVC or Metal (brass or aluminium)

Max working pressures

	Size (mm)	DN (mm)	Working pressure	
1HK	5	4.4	345 bar	
2HK	6.3	5.9	255 bar	
3HK	10	7.8	255 bar	
4HK	12.5	10	290 bar	
6HK	20	17	240 bar	
8HK	25	19.6	170 bar	
10HK	–	26.7	37 bar*	120 bar
12HK	40	35.1	29 bar*	150 bar
20HK	50	46	27 bar*	100 bar

* Maximum working pressure for applications handling hazardous fluids

Technical data

Series	Interchangeability	Size	DN (mm)	Connection	Maximum working pressure ^(1)	
					bar	psi
LA-7000 Steel	Proprietary profile	1/8"	8	1/8	1000	14500
		1/4"	10	1/4	700	10150
		3/8"	12	3/8	600	8700
		1/2"	15	1/2	500	7250
		3/4"	20	3/4	400	5800
		1"	25	1	300	4350
		1"1/4	33	1 1/4	200	2900
		1"1/2	40	1 1/2	150	2175
		2"	50	2	100	1450
LL-7000 Brass		1/8"	8	1/8	300	4350
		1/4"	10	1/4	230	3335
		3/8"	12	3/8	175	2535
		1/2"	15	1/2	150	2175
		3/4"	20	3/4	125	1810
		1"	25	1	100	1450
		1"1/4 ⁽²⁾	33	1 1/4	30 60	435 870
		1"1/2 ⁽²⁾	40	1 1/2	(3) 25 50	(3) 360 725
		2" ⁽²⁾	50	2	20 40	290 580
LZ-7000 Stainless steel	1/8"	8	1/8	300	4350	
	1/4"	10	1/4	230	3335	
	3/8"	12	3/8	175	2535	
	1/2"	15	1/2	150	2175	
	3/4"	20	3/4	125	1810	
	1"	25	1	100	1450	
	1"1/4	33	1 1/4	100	1450	
	1"1/2	40	1 1/2	75	1085	
	2"	50	2	40	580	

PRESSURE RATINGS

Since application conditions vary so widely, the pressures listed are intended as a guide only and not a guarantee of performance. Pressure peaks and extreme surge flows may cause a coupling to become inoperative.

Size	End connection		Material	Valve configuration	Seals			Temperature range (°C)
	G (BSPP)	NPT			NBR	Viton	EPDM	
1/8"	x		Zinc-plated steel, bichromate		S	▲	▲	Nitrile (NBR): -20°C +100°C
1/4"	x				S	▲	▲	
3/8"	x				S	▲	▲	
1/2"	x				S	▲	▲	Viton (FKM): -20°C +200°C
3/4"	x				S	▲	▲	
1"	x				S	▲	▲	
1 1/4"	x				S	▲	▲	Ethylene propylene (EPDM): -40°C +150°C
1 1/2"	x				S	▲	▲	
2"	x				S	▲	▲	
1/8"	x		Brass		S	▲	▲	Nitrile (NBR): -20°C +100°C
1/4"	x				S	▲	▲	
3/8"	x				S	▲	▲	
1/2"	x				S	▲	▲	Viton (FKM): -20°C +200°C
3/4"	x				S	▲	▲	
1"	x				S	▲	▲	
1 1/4"	x				S	▲	▲	Ethylene propylene (EPDM): -40°C +150°C
1 1/2"	x				S	▲	▲	
2"	x				S	▲	▲	
1/8"	x		AISI 316 L stainless steel		▲	S	▲	Nitrile (NBR): -20°C +100°C
1/4"	x				▲	S	▲	
3/8"	x	▲			▲	S	▲	
1/2"	x	▲			▲	S	▲	Viton (FKM): -20°C +200°C
3/4"	x	▲			▲	S	▲	
1"	x				▲	S	▲	
1 1/4"	x				▲	S	▲	Ethylene propylene (EPDM): -40°C +150°C
1 1/2"	x				▲	S	▲	
2"	x				▲	S	▲	

- The figures given are maximum values applying to a connected coupling
- Brass couplings in sizes 1 1/4", 1 1/2" and 2" should not be used to convey gases in Group I (hazardous) in accordance with European Pressure Equipment Directive 97/23 EC
- 30 bar (1 1/4") – 25 bar (1 1/2") – 20 bar (2") Working pressure given apply to gases in Group II (EPED 97/23 EC)
60 bar (1 1/4") – 50 bar (1 1/2") – 40 bar (2") Working pressure given apply to liquids in Group I and II (EPED 97/23 EC)



Straight-through couplings

S

Standard



Available to special order

Technical data

- Straight-through couplings
- Pull-to-connect couplings
- Ball-locking
- Dust caps and plugs
- Excellent flow capacity

European directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC.

Steel / st. steel

Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module D1 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey volatile gases.

Brass

Couplings with nominal diameters greater than 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey gases in Group I (hazardous).

Applications

Applications where maximum flow capacity is required

Pressure washing

Some steam-cleaning equipment

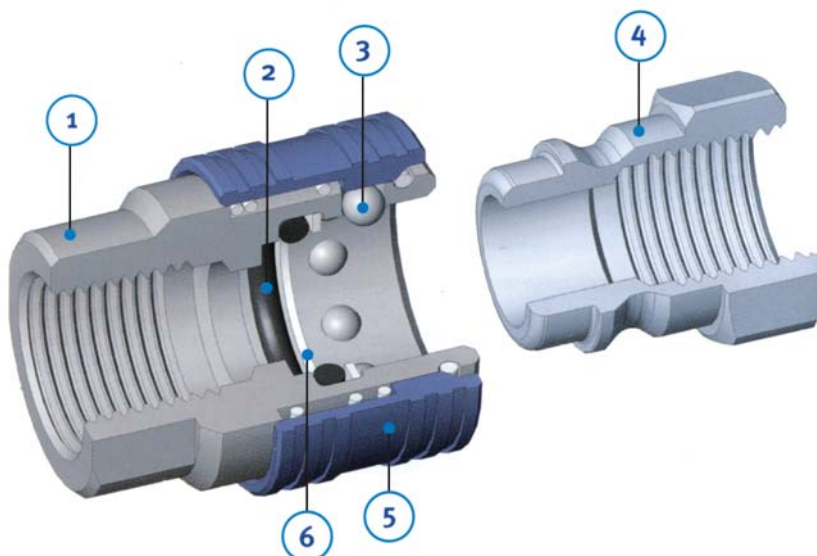
Fluid transfer lines

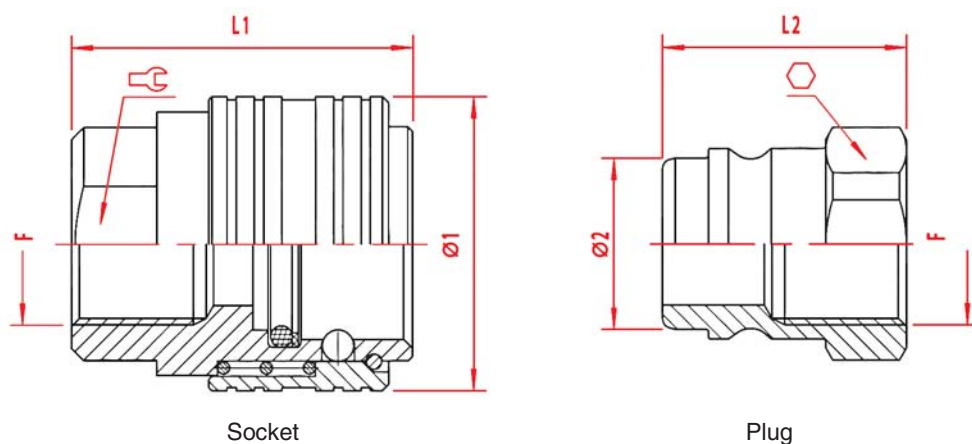
Refrigerant circuits

Hydraulic fluids (water, steam, oil,...)

Nomenclature

- ① Socket body
- ② O-ring
- ③ Ball
- ④ Plug body
- ⑤ Sleeve
- ⑥ Back-up ring





Materials

- Steel (LA part numbers)
- Brass (LL part numbers)
- AISI 316L stainless steel (LZ part numbers)

Dimensions(mm)/Weights(g)*

Size	DN(mm)	Connection (F)	Socket				Plug				Length
			L1	Ø1			L2	Ø2			
1/8"	8	G 1/8	41.5	24	16	86	26	11	16	19	52
1/4"	10	G 1/4	36	28	19	87	25.5	14.2	19	26	46.5
3/8"	12	G 3/8	38	34	23	129	28	19	23	45	48.7
1/2"	15	G 1/2	45	38	27	177	33	20.6	27	54	58
3/4"	20	G 3/4	56	48	35	355	40	27.9	35	117	70
1"	25	G 1	61	52	41	440	44	32.4	41	155	79.5
1"1/4	33	G 1 1/4	67	75	55	975	54	44	55	424	88
1"1/2	40	G 1 1/2	86	85	65	1745	59	53.5	65	656	108
2"	50	G 2	88	97	75	1865	68	62.8	75	839	115

* The weights shown apply to steel couplings. To calculate the weights of brass or stainless steel couplings use the conversion factors below:

	Stainless steel	Brass
density	7.85	8.6
conversion factor	1	steelx1.1

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)

Nominal diameter 8–50mm
 Working pressure 100–1000 bar
 Temperature range NITRILE: –20°C– +100°C

● Part numbers

STEEL	Size	DN(mm)	Connection(F)	Socket	Plug
	1/8"	8	G 1/8	LA 07001 00	LA 07002 00
	1/4"	10	G 1/4	LA 07011 00	LA 07012 00
	3/8"	12	G 3/8	LA 07021 00	LA 07022 00
	1/2"	15	G 1/2	LA 07031 00	LA 07032 00
	3/4"	20	G 3/4	LA 07041 00	LA 07042 00
	1"	25	G 1	LA 07051 00	LA 07052 00
	1"1/4	33	G 1 1/4	LA 07061 00	LA 07062 00
	1"1/2	40	G 1 1/2	LA 07071 00	LA 07072 00
	2"	50	G 2	LA 07091 00	LA 07092 00

● Dust caps and plugs



Size	Dust plug	Dust cap
1/8"	HD 05101 00	HD 05102 00
1/4"	HD 05111 00	HD 05112 00
3/8"	HD 05121 00	HD 05122 00
1/2"	HD 05131 00	HD 05132 00
3/4"	HD 05141 00	HD 05142 00
1"	HD 05151 00	HD 05152 00
1"1/4	HD 05161 00	HD 05162 00
1"1/2	HD 05171 00	HD 05172 00
2"	HD 05191 00	HD 05192 00

DN: Nominal diameter G=BSPP(BSP parallel male or female thread)



Materials

Steel (LA part numbers)

- Body: Zinc-plated steel, bichromate
- Sleeve: Zinc-plated steel, bichromate
- Spring: Stainless steel
- Balls: Stainless steel
- Seal: Nitrile (Viton or EPDM upon request)

Dust caps and plugs

- Anodised aluminium

Max working pressures

Size	DN(mm)	Working pressure
1/8"	8	1000 bar
1/4"	10	700 bar
3/8"	12	600 bar
1/2"	15	500 bar
3/4"	20	400 bar
1"	25	300 bar
1"1/4	33	200 bar
1"1/2	40	150 bar
2"	50	100 bar

Nominal diameter 8–50mm
 Working pressure 40–300 bar
 Temperature range NITRILE: –20°C– +100°C
 VITON: –20°C– +200°C

● Part numbers

BRASS	Size	DN(mm)	Connection(F)	Socket	Plug
	1/8"	8	G 1/8	LL 07001 00	LL 07002 00
	1/4"	10	G 1/4	LL 07011 00	LL 07012 00
	3/8"	12	G 3/8	LL 07021 00	LL 07022 00
	1/2"	15	G 1/2	LL 07031 00	LL 07032 00
	3/4"	20	G 3/4	LL 07041 00	LL 07042 00
	1"	25	G 1	LL 07051 00	LL 07052 00
	1 1/4"	33	G 1 1/4	LL 07061 00	LL 07062 00
	1 1/2"	40	G 1 1/2	LL 07071 00	LL 07072 00
	2"	50	G 2	LL 07091 00	LL 07092 00

STAINLESS STEEL	Size	DN(mm)	Connection(F)	Socket	Plug
	1/8"	8	G 1/8	LZ 07001 00	LZ 07002 00
	1/4"	10	G 1/4	LZ 07011 00	LZ 07012 00
	3/8"	12	G 3/8	LZ 07021 00	LZ 07022 00
	1/2"	15	G 1/2	LZ 07031 00	LZ 07032 00
	3/4"	20	G 3/4	LZ 07041 00	LZ 07042 00
	1"	25	G 1	LZ 07051 00	LZ 07052 00
	1 1/4"	33	G 1 1/4	LZ 07061 00	LZ 07062 00
	1 1/2"	40	G 1 1/2	LZ 07071 00	LZ 07072 00
	2"	50	G 2	LZ 07091 00	LZ 07092 00

NPT on request for the 3/8", 1/2" and 3/4" sizes

● Dust caps and plugs



Anodised aluminium

Size	Dust plug	Dust cap
1/8"	HD 05101 00	HD 05102 00
1/4"	HD 05111 00	HD 05112 00
3/8"	HD 05121 00	HD 05122 00
1/2"	HD 05131 00	HD 05132 00
3/4"	HD 05141 00	HD 05142 00
1"	HD 05151 00	HD 05152 00
1 1/4"	HD 05161 00	HD 05162 00
1 1/2"	HD 05171 00	HD 05172 00
2"	HD 05191 00	HD 05192 00

DN: Nominal diameter

G=BSPP(BSP parallel male or female thread)



Materials

Brass (LL part numbers)

- Body: Nickel-plated brass
- Sleeve: Nickel-plated brass
- Spring: Stainless steel
- Balls: Stainless steel
- Seal: Nitrile

(Viton or EPDM upon request)

Stainless steel (LZ part numbers)

- Body: AISI 316L stainless steel
- Sleeve: AISI 316L stainless steel
- Spring: stainless steel
- Balls: stainless steel
- Seal: Viton

(Nitrile or EPDM upon request)

Max working pressures

Size	DN (mm)	Working pressure	
		Brass *	Stainless steel
1/8"	8	300 bar	300 bar
1/4"	10	230 bar	230 bar
3/8"	12	175 bar	175 bar
1/2"	15	150 bar	150 bar
3/4"	20	125 bar	125 bar
1"	25	100 bar	100 bar
1 1/4"	33	30 bar** 60 bar***	100 bar
1 1/2"	40	25 bar** 50 bar***	75 bar
2"	50	20 bar** 40 bar***	40 bar

*Nominal diameters over 25mm should not be used to convey gases in Group I (EPED 97/23 EC)

**Working pressures given apply to gases in Group II (EPED 97/23 EC)

***Working pressures given apply to liquids in Groups I and II (EPED 97/23 EC)

Technical data

Series		Inter- changeability	Size	DN (mm)	Connection	Maximum working pressure			
						Hazardous fluids ⁽¹⁾		Standard applications ⁽²⁾	
						bar	psi	bar	psi
ST Steel	1ST	Proprietary Profile Compatible with other makes of couplings with the same profile	1/8"	4.4	1/8			230	3335
					1/4				
	2ST		1/4"	6.4	1/4			380	5510
	3ST		3/8"	9.6	3/8			290	4205
	4ST		1/2"	11.9	1/2			240	3480
	6ST		3/4"	18.3	3/4			145	2100
	8ST		1"	23.9	1			140	2030
	10ST		1"1/4	30.3	1 1/4	33	475	185	2680
	12ST		1"1/2	36.6	1 1/2	27	390	150	2175
	16ST		2"	47.7	2	21	305	150	2175
	20ST		2"1/2	60.4	2 1/2	17	245	100	1450
ST Brass	1ST		1/8"	4.4	1/8			190	2755
					3/16 ⁽³⁾				
					1/4 ⁽³⁾				
	2ST		1/4"	6.4	1/4			360	5220
	3ST		3/8"	9.6	3/8			190	2755
	4ST		1/2"	11.9	1/2			150	2175
	6ST		3/4"	18.3	3/4			115	1665
	8ST		1"	23.9	1			90	1305
	10ST		1"1/4	30.3	1 1/4	33	475	115	1665
	12ST		1"1/2	36.6	1 1/2	27	390	100	1450
	16ST		2"	47.7	2	21	305	100	1450
	20ST		2"1/2	60.4	2 1/2	17	245	60	870
ST Stain- less steel	1ST		1/8"	4.4	1/8			290	4205
					3/16 ⁽³⁾				
					1/4 ⁽³⁾				
	2ST		1/4"	6.4	1/4			520	7540
	3ST		3/8"	9.6	3/8			435	6305
	4ST		1/2"	11.9	1/2			250	3625
	6ST		3/4"	18.3	3/4			210	3045
	8ST		1"	23.9	1			140	2030
	10ST		1"1/4	30.3	1 1/4	33	475	150	2175
	12ST		1"1/2	36.6	1 1/2	27	390	170	2465
	16ST		2"	47.7	2	21	305	100	1450

PRESSURE RATINGS

Since application conditions vary so widely, the pressures listed are intended as a guide only and not a guarantee of performance. Pressure peaks and extreme surge flows may cause a coupling to become inoperative.

Size	End connection					Material	Valve configuration	Seals				Temperature range (°C)	
	Male thread		Female thread		Hose stem			NBR	Viton	EPDM	Teflon		
	G (BSPP)	NPT	G(BSPP)	NPT									
1/8"		×		×		Zinc-plated steel, bichromate ^(4)		Not applicable(only plugs ,which have no seal are available in steel).					
		×											
	1/4"		×		×							×	
	3/8"		×	×	×							×	
	1/2"		×	×	×							×	
	3/4"		×		×							×	
	1"		×	×	×							×	
	1"1/4		×		×								
	1"1/2		×		×								
	2"		×		×								
2"1/2				×									
1/8"		×	×	×		Brass		S	▲	▲	▲	Nitrile(NBR) : (−20°C +100°C)	
					×			S	▲				
		×			×			S	▲				
	1/4"	×	×	×	×			×	S	▲	▲	▲	Viton(FKM) : (−20°C +200°C)
	3/8"	×	×	×	×			×	S	▲	▲	▲	
	1/2"	×	×	×	×			×	S	▲	▲	▲	
	3/4"	×	×	×	×			×	S	▲	▲	▲	Ethylene propylene(EPDM) : (−40°C +150°C)
	1"	×	×	×	×			×	S	▲	▲	▲	
	1"1/4	×	×	×	×				S	▲	▲		
	1"1/2	×	×	×	×				S	▲	▲		
	2"		×	×	×				S	▲	▲		
	2"1/2		×		×				S				
	1/8"		×	×	×				AISI 303 stainless steel AISI 416 stainless steel (High Impulse version)		S	▲	▲
					×	S							
					×	S	▲	▲					
1/4"		×	×	×	×	×	S	▲			▲	▲	Viton(FKM) : (−20°C +200°C)
3/8"		×	×	×	×	×	S	▲			▲	▲	
1/2"		×	×	×	×	×	S	▲			▲	▲	
3/4"		×	×	×	×	×	S	▲			▲	▲	Ethylene propylene(EPDM) : (−40°C +150°C)
1"			×	×	×	×	S	▲			▲		
1"1/4			×		×		S	▲			▲		
1"1/2				×	×		S	▲			▲		
2"			×		×		S	▲					
							S	▲					

- (1) The figures indicated are maximum values for the connected couplings for applications handling hazardous products in accordance with European Pressure Equipment Directive 97/23 EC
- (2) The figures given are maximum values for the connected coupling for standard applications
- (3) Hose stem end connections: working pressures depend on the type of hose and method of clamping
- (4) Only plugs are available in steel
-  Straight through couplings
- S Standard
- ▲ Available to special order
- × Both sockets & plugs are available
- × Only plugs are available
- × Only sockets are available

Technical data

- Straight-through couplings
- Pull-to-connect couplings
- Ball-locking
- Optional safety locking ring
- End connection options: male threads, female threads and hose steams, depending on size and material
- Sockets not available in steel
- Dust caps and plugs
- High-Impulse versions of the stainless steel plug (1/4" and 3/8" size only) give increased resistance to "brinelling".
- Excellent flow capacity

European directive

Couplings with nominal diameters up to and including 25 mm are designed and manufactured under Article 3.3 of the European Pressure Equipment Directive 97/23 EC.

Couplings with nominal diameters greater than 25 mm are designed and manufactured in accordance with the stipulations of Module D1 of the European Pressure Equipment Directive 97/23 EC. They should not be used to convey volatile gases.

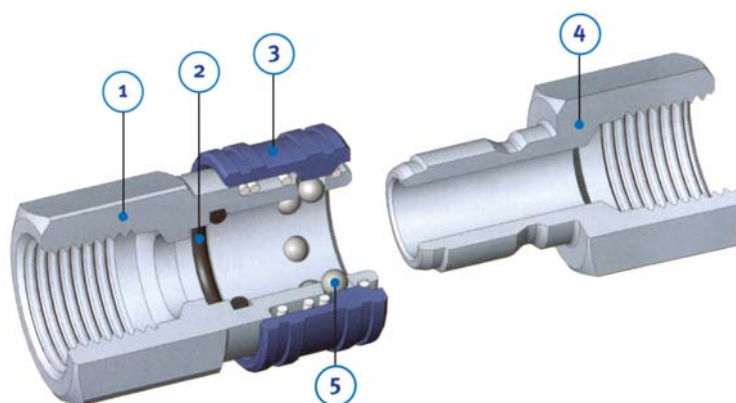
Applications

Applications where maximum flow capacity is required
Pressure washing
Steam-cleaning equipment

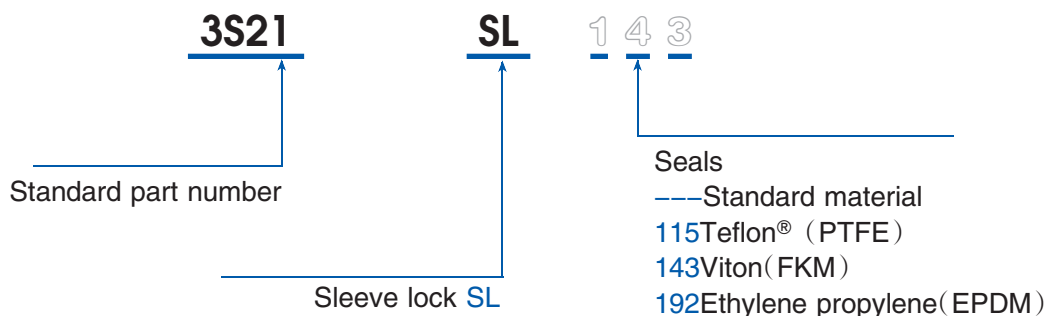
Fluid transfer lines
Cooling circuits
Hydraulic fluids (water, oil,...)

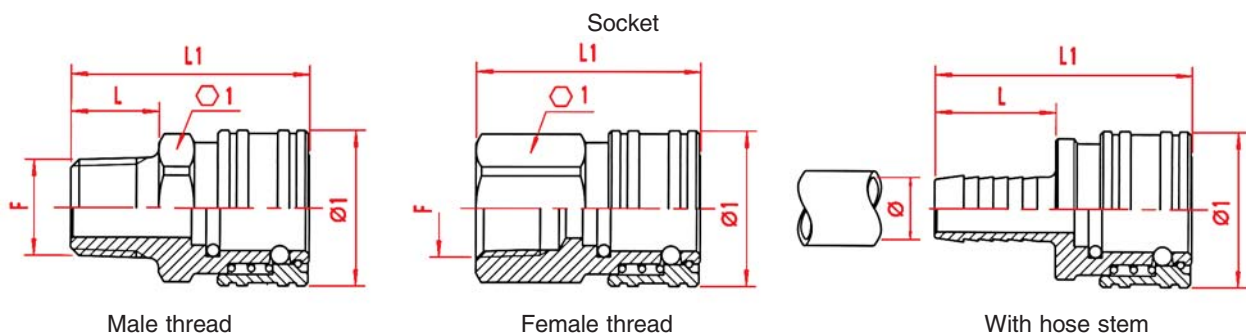
Nomenclature

- ① Socket body
- ② O-ring
- ③ Sleeve
- ④ Plug body
- ⑤ Ball



Composition of part numbers with options





Materials

- Steel (plugs only)
- Brass
- AISI 303 stainless steel

Dimensions (mm)/Weights (g)*

	Size	DN (mm)	Connection (F or Ø)	Socket				
				L	L1	Ø 1	Ø 1	

SOCKET WITH MALE THREAD

1ST	1/8"	4.4	1/8 NPT	10	27	18	14.2	23
2ST	1/4"	6.4	1/4 NPT	14	44	24	20.6	71
3ST	3/8"	9.6	G 3/8 3/8 NPT	12	43	29	25.4	100
				14	45	29	25.4	77
4ST	1/2"	11.9	G 1/2 1/2 NPT	14	47	33	28.7	141
				19	52	33	28.7	148
6ST	3/4"	18.3	G 3/4 3/4 NPT	16	53	43	36.6	247**
				19	56	43	36.6	236
8ST	1"	23.9	G 1 1 NPT	18	62	51	44.5	383**
				24	64	51	44.5	363**

SOCKET WITH FEMALE THREAD

1ST	1/8"	4.4	G 1/8 1/8 NPT	–	26 27	18 18	14.2 14.2	24 25
2ST	1/4"	6.4	G 1/4 1/4 NPT	–	38	24	20.6	73
					38	24	20.6	73
3ST	3/8"	9.6	G 3/8 3/8 NPT	–	40	29	25.4	112
					40	29	25.4	112
4ST	1/2"	11.9	G 1/2 1/2 NPT	–	49	33	28.7	159
					49	33	28.7	169
6ST	3/4"	18.3	G 3/4 3/4 NPT	–	52	43	36.6	295
					52	43	36.6	295
8ST	1"	23.9	G 1 1 NPT	–	59	51	44.5	407
					59	51	44.5	431
10ST	1 1/4"	30.3	G 1 1/4 1 1/4 NPT	–	64	64	50.8	613**
					62	64	50.8	594
12ST	1 1/2"	36.6	G 1 1/2 1 1/2 NPT	–	73	80	66.8	1216
					73	80	66.8	1216
16ST	2"	47.7	G 2 2 NPT	–	84	95	76.2	1291**
					79	95	76.2	1724
20ST	2 1/2"	60.4	2 1/2 NPT	–	87	114	88.9	2676**

SOCKET WITH HOSE STEM

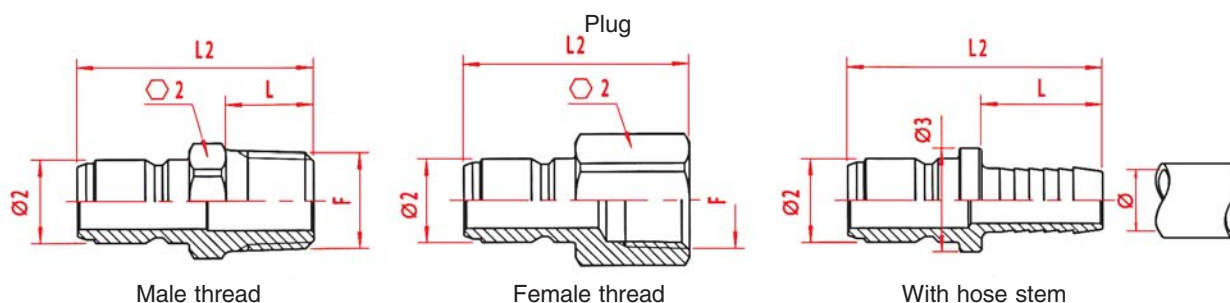
1ST	1/8"	4.4	diam. 3/16" diam. 1/4"	19 19	36 36	18 18	–	19 19
2ST	1/4"	6.4	diam. 1/4"	26	53	24	–	62
3ST	3/8"	9.6	diam. 3/8"	26	53	29	–	95
4ST	1/2"	11.9	diam. 1/2"	26	56	33	–	120
6ST	3/4"	18.3	diam. 3/4"	48	81	43	–	218
8ST	1"	23.9	diam. 1"	48	84	51	–	299

* The weights shown apply to stainless steel couplings. To calculate the weights of brass couplings apply a multiplier of 1.10

**Coupling weight in brass

DN: Nominal diameter

G=BSPP (BSP parallel male or female thread)



Dimensions (mm) / Weights (g) *

	Size	DN (mm)	Connection (F or Ø)	Plug					
				L	L2	Ø2	Ø2	Ø3	

PLUG WITH MALE THREAD

1ST	1/8"	4.4	1/8 NPT 1/4 NPT	10 14	27 31	7.8 7.8	11.2 14.2	—	11 18
2ST	1/4"	6.4	G 1/4 1/4 NPT	12 14	37 40	11.7 11.7	19.1 14.2	—	31** 23
3ST	3/8"	9.6	G 3/8 3/8 NPT	12 14	40 43	14.9 14.9	22.4 17.5	—	46** 36
4ST	1/2"	11.9	G 1/2 1/2 NPT	14 19	46 51	18 18	25.4 22.4	—	70** 68
6ST	3/4"	18.3	G 3/4 3/4 NPT	16 19	53 56	24.9 24.9	31.8 26.9	—	150** 100
8ST	1"	23.9	G 1 1 NPT	18 24	60 63	33.3 33.3	44.5 34.9	—	268** 191
10ST	1 1/4"	30.3	G 1 1/4 1 1/4 NPT	20 25	65 69	41.6 41.6	50.8 44.5	—	345** 331
12ST	1 1/2"	36.6	G 1 1/2 1 1/2 NPT	22 25	81 84	52.3 52.3	57.2 57.2	—	649** 635
16ST	2"	47.7	2 NPT	26	89	64.9	69.9	—	907
20ST	2 1/2"	60.4	2 1/2 NPT	39	108	77.8	82.6	—	930**

PLUG WITH FEMALE THREAD

1ST	1/8"	4.4	G 1/8 1/8 NPT	—	25 25	7.8 7.8	14.2 12.7	—	14** 14
2ST	1/4"	6.4	G 1/4 1/4 NPT	—	37 38	11.7 11.7	19.1 17.5	—	41** 31
3ST	3/8"	9.6	G 3/8 3/8 NPT	—	41 41	14.9 14.9	22.4 20.6	—	54 54
4ST	1/2"	11.9	G 1/2 1/2 NPT	—	49 49	18 18	26.9 25.4	—	95 82
6ST	3/4"	18.3	G 3/4 3/4 NPT	—	51 52	24.9 24.9	33.3 30.2	—	115** 104
8ST	1"	23.9	G 1 1 NPT	—	57 56	33.3 33.3	39.6 39.6	—	212 209
10ST	1 1/4"	30.3	G 1 1/4 1 1/4 NPT	—	62 59	41.6 41.6	50.8 50.8	—	426** 308
12ST	1 1/2"	36.6	G 1 1/2 1 1/2 NPT	—	73 73	52.3 52.3	57.2 57.2	—	515** 590
16ST	2"	47.7	G 2 2 NPT	—	83 77	64.9 64.9	69.9 69.9	—	1216** 862
20ST	2 1/2"	60.4	2 1/2 NPT	—	86	77.8	82.6	—	1197

PLUG WITH HOSE STEM

1ST	1/8"	4.4	diam. 3/16" diam. 1/4"	19 19	33 33	7.8 7.8	—	11 11	9 9
2ST	1/4"	6.4	diam. 1/4"	26	49	11.7	—	14	18
3ST	3/8"	9.6	diam. 3/8"	26	53	14.9	—	18	27
4ST	1/2"	11.9	diam. 1/2"	26	55	18	—	22	45
6ST	3/4"	18.3	diam. 3/4"	48	81	24.9	—	30	121
8ST	1"	23.9	diam. 1"	48	83	33.3	—	38	168

* The weights shown apply to steel couplings. To calculate the weights of brass or stainless steel couplings use the conversion factors below:

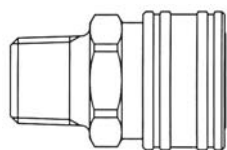
	Stainless steel	Brass
density	7.85	8.6
conversion factor	1	steel×1.1

** Coupling weight in brass

Nominal diameter 4.4–60.4mm
 Working pressure 60–520 bar
 Temperature range NITRILE: –20°C– +100°C

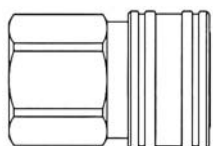
● Part numbers

Socket with male thread



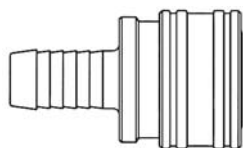
	Size	DN (mm)	connection (F or Ø)	Socket	
				brass	stainless steel
1ST	1/8"	4.4	1/8 NPT	1S10	LL1S10
2ST	1/4"	6.4	1/4 NPT	2S15	LL2S15
3ST	3/8"	9.6	G 3/8 3/8 NPT	3S20BS 3S20	LL3S20BS LL3S20
4ST	1/2"	11.9	G 1/2 1/2 NPT	4S25BS 4S25	LL4S25BS LL4S25
6ST	3/4"	18.3	G 3/4 3/4 NPT	6S30BS 6S30	LL6S30
8ST	1"	23.9	G 1 1NPT	8S35BS 8S35	

Socket with female thread



1ST	1/8"	4.4	G 1/8 1/8 NPT	1S11BS 1S11	LL1S11BS LL1S11
2ST	1/4"	6.4	G 1/4 1/4 NPT	2S16BS 2S16	LL2S16BS LL2S16
3ST	3/8"	9.6	G 3/8 3/8 NPT	3S21BS 3S21	LL3S21BS LL3S21
4ST	1/2"	11.9	G 1/2 1/2 NPT	4S26BS 4S26	LL4S26BS LL4S26
6ST	3/4"	18.3	G 3/4 3/4 NPT	6S31BS 6S31	LL6S31BS LL6S31
8ST	1"	23.9	G 1 1 NPT	8S36BS 8S36	LL8S36BS LL8S36
10ST	1"1/4	30.3	G 1 1/4 1 1/4 NPT	10S41BS* 10S41*	LL10S41
12ST	1"1/2	36.6	G 1 1/2 1 1/2 NPT	12S46BS* 12S46*	LL12S46BS LL12S46
16ST	2"	47.7	G 2 2 NPT	16S51BS* 16S51*	LL16S51
20ST	2"1/2	60.4	2 1/2 NPT	20S56*	

socket with hose stem



1ST	1/8"	4.4	diam.3/16" diam.1/4"	1S12 1S17	LL1S12 LL1S17
2ST	1/4"	6.4	diam.1/4"	2S17	LL2S17
3ST	3/8"	9.6	diam.3/8"	3S22	LL3S22
4ST	1/2"	11.9	diam.1/2"	4S27	LL4S27
6ST	3/4"	18.3	diam.3/4"	6S32	LL6S32
8ST	1"	23.9	diam.1"	8S37	LL8S37

● Dust caps and plugs



	Size	Dust plug	Dust cap
2ST	1/4"	PSDC1HK	
3ST	3/8"	PSDC2HK	
6ST	3/4"	PSDC4HK	PPDC4HK
8ST	1"		PPDC6HK
10ST	1"1/4		PPDC8HK

DN: Nominal diameter

G=BSPP (BSP parallel male or female thread)



Materials

Brass

- Body: Brass
- Sleeve: Brass
- Spring: Stainless steel
- Balls: Stainless steel
- Seal: Nitrile

(Viton, EPDM, Teflon® upon request)

Stainless steel

- Body: AISI 303 stainless steel
- Sleeve: AISI 303 stainless steel
- Spring: stainless steel
- Balls: stainless steel
- Seal: Nitrile

(Viton, EPDM, Teflon® upon request)

Dust caps and plugs

- PVC

Max working pressures

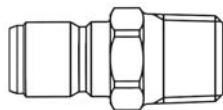
	Size	DN (mm)	Working pressure					
			brass socket & plug		brass socket & steel plug		stainless steel socket & plug	
1ST	1/8"	4.4	190 bar		230 bar		290 bar	
2ST	1/4"	6.4	360 bar		380 bar		520 bar	
3ST	3/8"	9.6	190 bar		290 bar		435 bar	
4ST	1/2"	11.9	150 bar		240 bar		250 bar	
6ST	3/4"	18.3	115 bar		145 bar		210 bar	
8ST	1"	23.9	90 bar		140 bar		140 bar	
10ST	1"1/4	30.3	33 bar*	115 bar	33 bar*	185 bar	33 bar*	150 bar
12ST	1"1/2	36.6	27 bar*	100 bar	27 bar*	150 bar	27 bar*	170 bar
16ST	2"	47.7	21 bar*	100 bar	21 bar*	150 bar	21 bar*	100 bar
20ST	2"1/2	60.4	17 bar*	60 bar	17 bar*	100 bar	—	

* Maximum working pressure for applications handling hazardous fluids

Nominal diameter 4.4–60.4mm
 Working pressure 60–520 bar
 Temperature range NITRILE: –20°C– +100°C

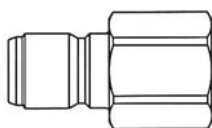
● Part numbers

Plug with male thread



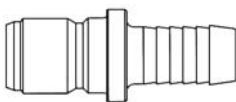
	Size	DN (mm)	connection (F or Ø)	Plug		
				steel	brass	stainless steel
1ST	1/8"	4.4	1/8 NPT 1/4 NPT	1T10 1T15	B1T10 B1T15	LL1T10
2ST	1/4"	6.4	G 1/4 1/4 NPT 1/4 NPT	2T15	B2T15BS B2T15	LL2T15BS LL2T15 HL2T15*
3ST	3/8"	9.6	G 3/8 3/8 NPT 3/8 NPT	3T20	B3T20BS B3T20	LL3T20BS LL3T20 HL3T20*
4ST	1/2"	11.9	G 1/2 1/2 NPT	4T25	B4T25BS B4T25	LL4T25BS LL4T25
6ST	3/4"	18.3	G 3/4 3/4 NPT	6T30	B6T30BS B6T30	LL6T30BS LL6T30
8ST	1"	23.9	G 1 1NPT	8T35	B8T35BS B8T35	LL8T35
10ST	1 1/4"	30.3	G 1 1/4 1 1/4 NPT	10T40	B10T40BS B10T40	LL10T40
12ST	1 1/2"	36.6	G 1 1/2 1 1/2 NPT	12T45	B12T45BS B12T45	
16ST	2"	47.7	2 NPT	16T50	B16T50	LL16T50
20ST	2 1/2"	60.4	2 1/2 NPT		B20T55	

Plug with female thread



1ST	1/8"	4.4	G 1/8 1/8 NPT	1T11	B1T11BS B1T11	LL1T11BS LL1T11
2ST	1/4"	6.4	G 1/4 1/4 NPT 1/4 NPT	2T16	B2T16BS B2T16	LL2T16BS LL2T16 HL2T16*
3ST	3/8"	9.6	G 3/8 3/8 NPT 3/8 NPT	3T21BS 3T21	B3T21BS B3T21	LL3T21BS LL3T21 HL3T21*
4ST	1/2"	11.9	G 1/2 1/2 NPT	4T26BS 4T26	B4T26BS B4T26	LL4T26BS LL4T26
6ST	3/4"	18.3	G 3/4 3/4 NPT	6T31	B6T31BS B6T31	LL6T31BS LL6T31
8ST	1"	23.9	G 1 1 NPT	8T36BS 8T36	B8T36BS B8T36	LL8T36BS LL8T36
10ST	1 1/4"	30.3	G 1 1/4 1 1/4 NPT	10T41	B10T41BS B10T41	LL10T41
12ST	1 1/2"	36.6	G 1 1/2 1 1/2 NPT	12T46	B12T46BS B12T46	LL12T46
16ST	2"	47.7	G 2 2 NPT	16T51	B16T51BS B16T51	
20ST	2 1/2"	60.4	2 1/2 NPT	20T56	B20T56	

Plug with hose stem



1ST	1/8"	4.4	diam.3/16" diam.1/4"		B1T12 B1T17	LL1T12 LL1T17
2ST	1/4"	6.4	diam.1/4"	2T17	B2T17	LL2T17
3ST	3/8"	9.6	diam.3/8"	3T22	B3T22	LL3T22
4ST	1/2"	11.9	diam.1/2"	4T27	B4T27	LL4T27
6ST	3/4"	18.3	diam.3/4"	6T32	B6T32	LL6T32
8ST	1"	23.9	diam.1"	8T37	B8T37	

DN: Nominal diameter

G=BSPP (BSP parallel male or female thread)



Materials

Steel

- Body: Zinc-plated steel, bichromate

Brass

- Body: Brass

Stainless steel

- Body: AISI 303 stainless steel or AISI 416 stainless steel (High Impulse)

Dust caps and plugs

- PVC

Max working pressures

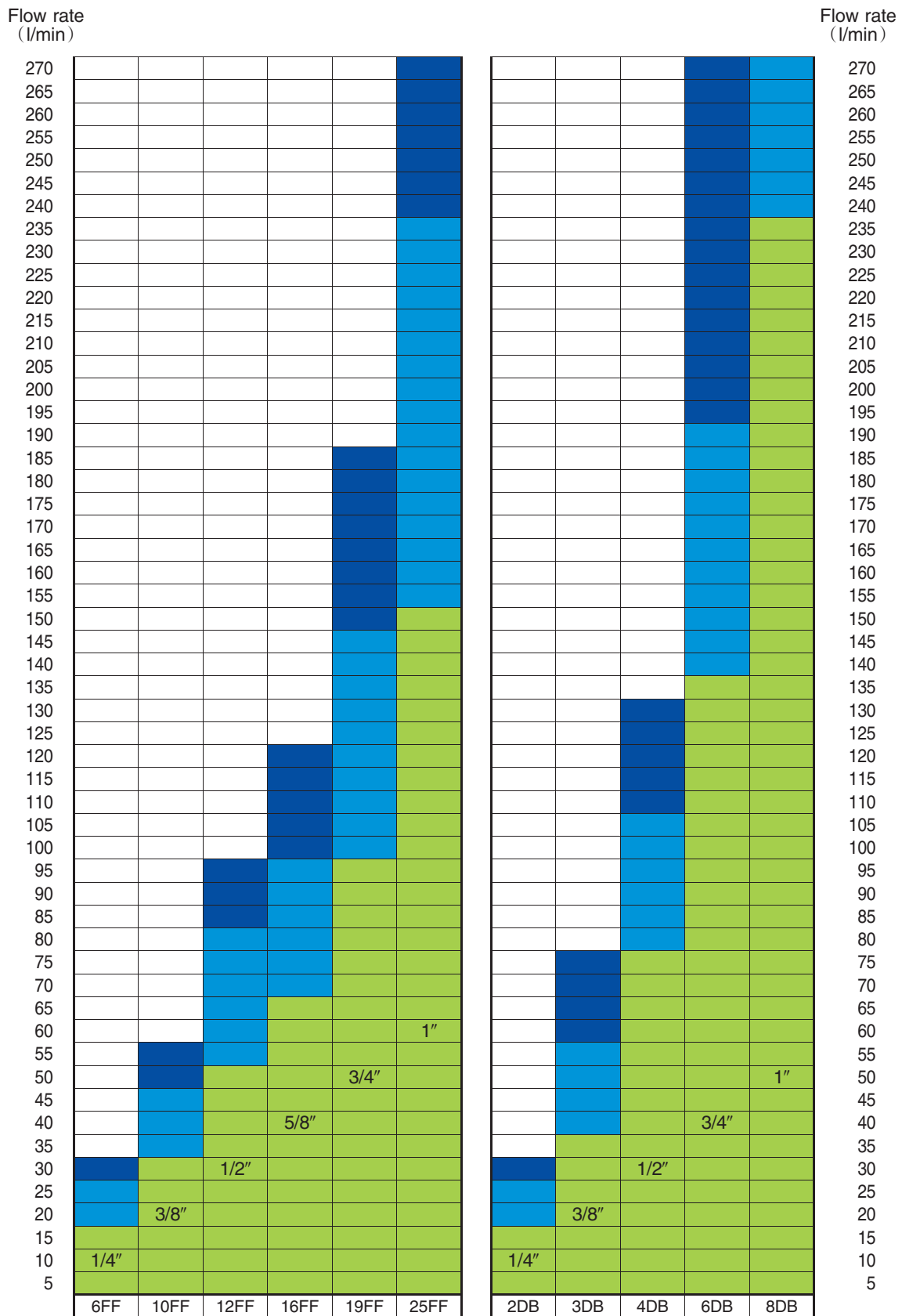
	Size	DN (mm)	Working pressure					
			brass socket & plug		brass socket & steel plug		stainless steel socket & plug	
1ST	1/8"	4.4	190 bar		230 bar		290 bar	
2ST	1/4"	6.4	360 bar		380 bar		520 bar	
3ST	3/8"	9.6	190 bar		290 bar		435 bar	
4ST	1/2"	11.9	150 bar		240 bar		250 bar	
6ST	3/4"	18.3	115 bar		145 bar		210 bar	
8ST	1"	23.9	90 bar		140 bar		140 bar	
10ST	1 1/4"	30.3	33 bar*	115 bar	33 bar*	185 bar	33 bar*	150 bar
12ST	1 1/2"	36.6	27 bar*	100 bar	27 bar*	150 bar	27 bar*	170 bar
16ST	2"	47.7	21 bar*	100 bar	21 bar*	150 bar	21 bar*	100 bar
20ST	2 1/2"	60.4	17 bar*	60 bar	17 bar*	100 bar		

* Maximum working pressure for applications handling hazardous fluids

HIGH IMPULSE

The AISI 416 stainless steel and heat treatment used give increased resistance to “brinelling” (indentations by the locking balls in the plug groove)

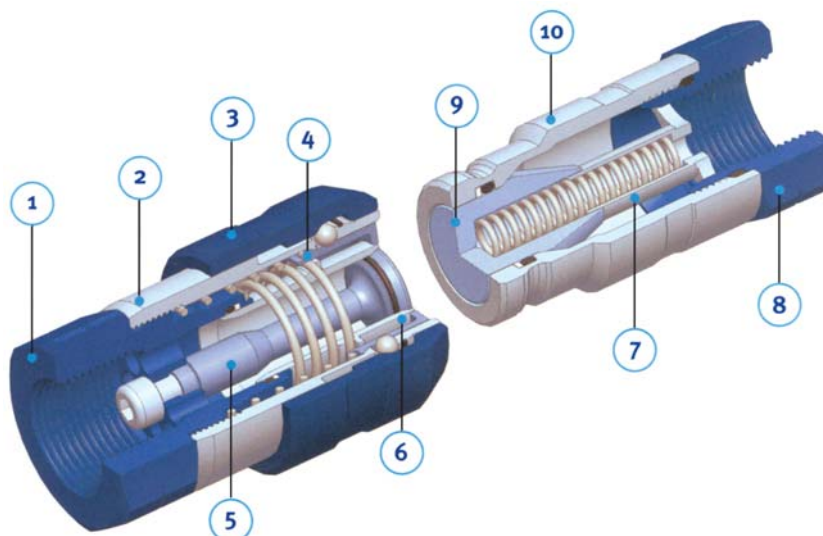
Flow rate: how to select the coupling size?



- Optimum zone giving a maximum pressure drop of 1 bar, using oil of 30 cSt
- Higher flow rate zone giving a maximum pressure drop of 2 bar, using oil of 30 cSt
- Zone of very high flow rate giving a maximum pressure drop of 3 bar, using oil of 30 cSt

Nomenclature

- ① Valve support
- ② Body
- ③ Sleeve
- ④ Valve
- ⑤ Valve
- ⑥ Piston
- ⑦ Valve support
- ⑧ End connection
- ⑨ Valve
- ⑩ Body



- Push-to-connect
- Dry-break coupling(flush faces)



Materials

- Body: Zinc-plated steel, bichromate or QPQ finish
- Sleeve: steel, QPQ finish
- End connections: Zinc-plated steel, bichromate
- Valves: Steel, black finish
- Springs: AISI 302 Stainless steel
- Balls: AISI 302 Stainless steel
- Seals: Nitrile

Applications

- Hydraulic circuits
- Connections to hydraulic pumps, jacks, distributors and accessories
- Lifting and handling equipment
- Public works, agriculture, iron and steel, railways and other industries

Dust caps and plugs

- PVC(red)



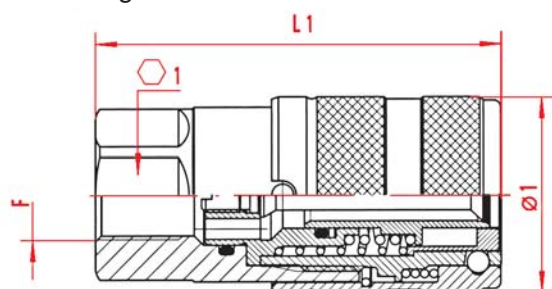
ISO 16028 Standard

Nominal diameter 6 – 8mm

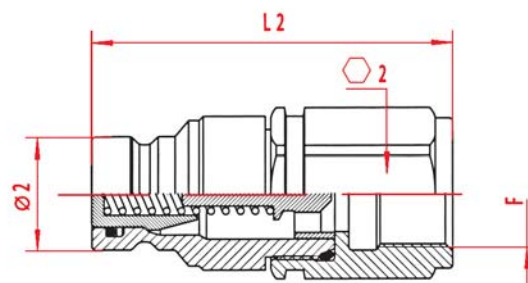
Flow rate 12 – 155 l/min (ΔP 1bar)

Working pressure 350 bar

Temperature range -20°C– +100°C



Socket



Plug

Dimensions(mm)/Weights(g)*

Size	DN(mm)	Connection(F)	Socket				Plug				Length connected	
			L1	Ø1	⬡1	 g	L2	Ø2	⬡2	 g	G	NPT
6.3	6	1/4(G & NPT)	59	28	22	180	52	16.1	22	98	100	
10	8.6	3/8(G & NPT)	73	32	30	310	61 64	19.7	30	160	118	121
		295				158						
12.5	11	1/2(G & NPT)	84	38	36	532	73 74	24.5	36	314	140	141
		500				290						
16	13	1/2(G & NPT)	82	42	36	577	73	27	36	340	137	
		3/4(G & NPT)	86			543				316	143	
19	15	3/4(G & NPT)	95	48	41	810	86	30	41	492	159	
		1"(G & NPT)	98			770				440	162	
25	18	1 1/4(G & NPT)	110	55	55	1242	90	36	55	764	177	

● Part numbers

Size	DN(mm)	Connection(F)	Socket	Plug	Dust plug	Dust cap
6.3	6	G 1/4 1/4 NPT	6FFS25BS 6FFS25	6FFP25BS 6FFP25	SDC6FF	PDC6FF
10	8.6	G 3/8 3/8 NPT	10FFS37BS 10FFS37	10FFP37BS 10FFP37	SDC10FF	PDC10FF
		G 1/2 1/2 NPT	10FFS50BS 10FFS50	10FFP50BS 10FFP50		
12.5	11	G 1/2 1/2 NPT	12FFS50BS 12FFS50	12FFP50BS 12FFP50	SDC12FF	PDC12FF
		G 3/4 3/4 NPT	12FFS75BS 12FFS75	12FFP75BS 12FFP75		
16	13	G 1/2 1/2 NPT	16FFS50BS 16FFS50	16FFP50BS 16FFP50		
		G 3/4 3/4 NPT	16FFS75BS 16FFS75	16FFP75BS 16FFP75		
19	15	G 3/4 3/4 NPT	19FFS75BS 19FFS75	19FFP75BS 19FFP75	SDC19FF	PDC19FF
		G 1" 1" NPT	19FFS100BS 19FFS100	19FFP100BS 19FFP100		
25	18	G 1 1/4 1 1/4 NPT	25FFS125BS 25FFS125	25FFP125BS 25FFP125		

DN: Nominal diameter G=BSPP(BSP parallel male or female thread)

ISO 16028 Standard

Nominal diameter 6 – 8mm

Flow rate 12 – 155 l/min (ΔP 1bar)

Working pressure 350 bar

Temperature range –20°C– +100°C

Max working pressures

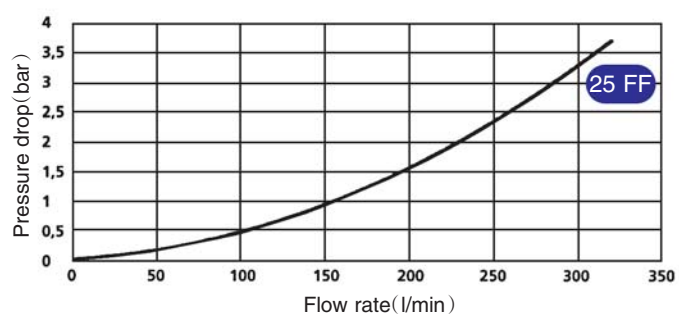
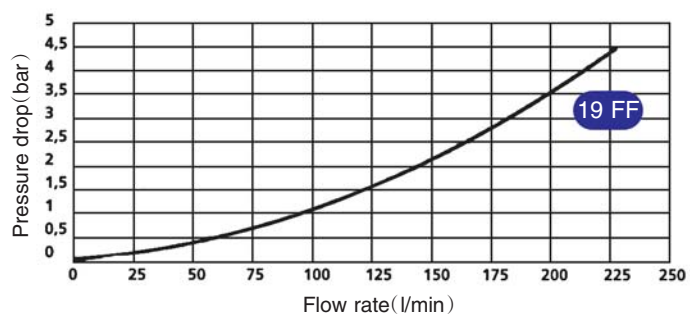
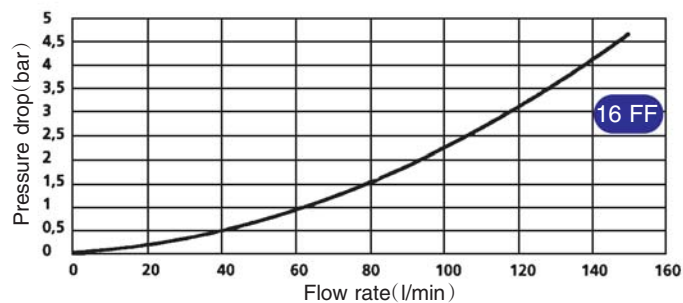
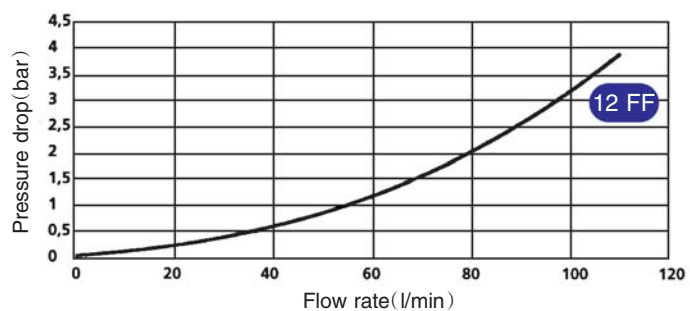
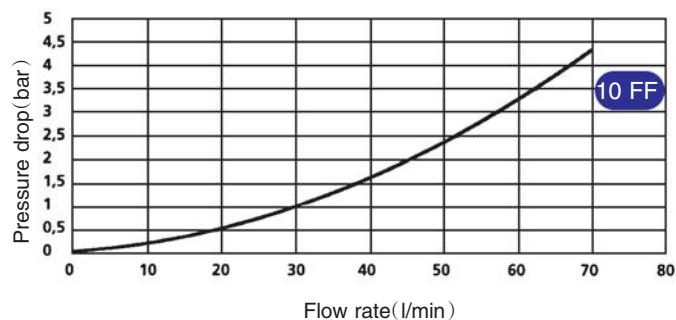
Size	DN(mm)	Working pressure		
		Connected	socket	Plug
6.3	6	350 bar	350 bar	350 bar
10	8.6	350 bar	350 bar	350 bar
12.5	11	350 bar	350 bar	350 bar
16	13	350 bar	350 bar	350 bar
19	15	350 bar	350 bar	350 bar
25	18	350 bar	350 bar	350 bar

Spillage

Size	DN(mm)	Spillage per disconnection
6.3	6	0.008 ml
10	8.6	0.01 ml
12.5	11	0.012 ml
16	13	0.015 ml
19	15	0.02 ml
25	18	0.03 ml

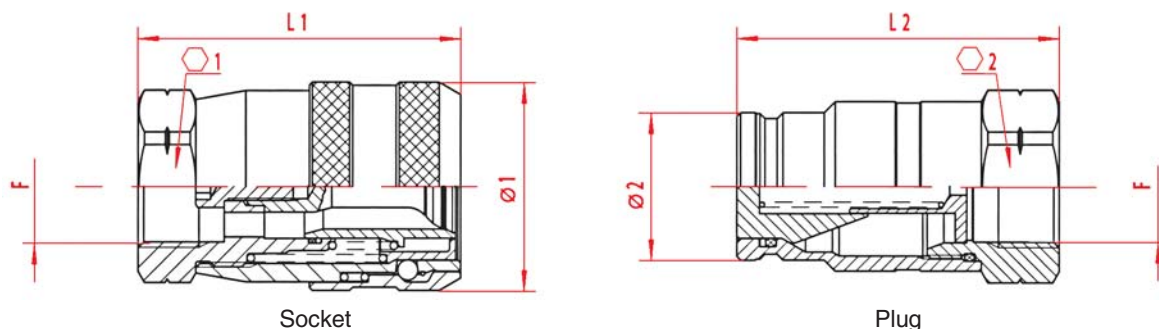


Flow rate/Pressure drop



Oil viscosity 30 cSt at 40°C

Nominal diameter 5.5 – 18.5mm
 Flow rate 14 – 220 l/min (ΔP 1bar)
 Working pressure 100 – 190 bar
 Temperature range VITON: -20°C – +200°C EPDM: -40°C – +150°C



Dimensions(mm)/Weights(g)

Size	DN (mm)	Connection(F)	Socket				Plug				Length connected
			L1	Ø1	1	g	L2	Ø2	2	g	
1/4"	5.5	1/4(G & NPT)	50.2	25.8	22	123	42	16.5	22	70	82
3/8"	8	3/8(G & NPT)	60	32	27	230	61.5	19.7	23	108	107
1/2"	11.5	1/2(G & NPT)	64.1	40.4	35	380	66.7	25.3	30	192	111.5
3/4"	15	3/4(G & NPT)	81.6	50.8	41	720	81	32.8	38	385	140.5
1"	18.5	1"(G & NPT)	89.3	57.4	46	995	89.3	40.4	46	625	155

● Part numbers

Size	DN (mm)	Connection (F)	Socket		Plug	
			VITON	EPDM	VITON	EPDM
1/4"	5.5	G 1/4 1/4 NPT	2DBS25FBS 2DBS25F	2DBS25FBS192 2DBS25F192	2DBP25FBS 2DBP25F	2DBP25FBS192 2DBP25F192
3/8"	8	G 3/8 3/8 NPT	3DBS37FBS 3DBS37F	3DBS37FBS192 3DBS37F192	3DBP37FBS 3DBP37F	3DBP37FBS192 3DBP37F192
1/2"	11.5	G 1/2 1/2 NPT	4DBS50FBS 4DBS50F	4DBS50FBS192 4DBS50F192	4DBP50FBS 4DBP50F	4DBP50FBS192 4DBP50F192
3/4"	15	G 3/4 3/4 NPT	6DBS75FBS 6DBS75F	6DBS75FBS192 6DBS75F192	6DBP75FBS 6DBP75F	6DBP75FBS192 6DBP75F192
1"	18.5	G 1" 1" NPT	8DBS100FBS 8DBS100F	8DBS100FBS192 8DBS100F192	8DBP100FBS 8DBP100F	8DBP100FBS192 8DBP100F192

Max working pressures

Size	DN(mm)	Working pressure		
		Connected	Socket	Plug
1/4"	5.5	190 bar	140 bar	190 bar
3/8"	8	180 bar	140 bar	180 bar
1/2"	11.5	140 bar	100 bar	140 bar
3/4"	15	140 bar	100 bar	140 bar
1"	18.5	140 bar	100 bar	140 bar

Air inclusion Spillage

	1/4"	3/8"	1/2"	3/4"	1"
Air inclusion per connection	0.005 ml	0.01 ml	0.02 ml	0.10 ml	0.126 ml
Spillage per disconnection	0.01 ml	0.016 ml	0.02 ml	0.03 ml	0.035 ml

DN: Nominal diameter G=BSPP(BSP parallel male or female thread)



Materials

- Body / sleeve / End connections / Valves / Ball: 316 L Stainless steel
- Springs: 316 Stainless steel
- Seals: Viton or EPDM

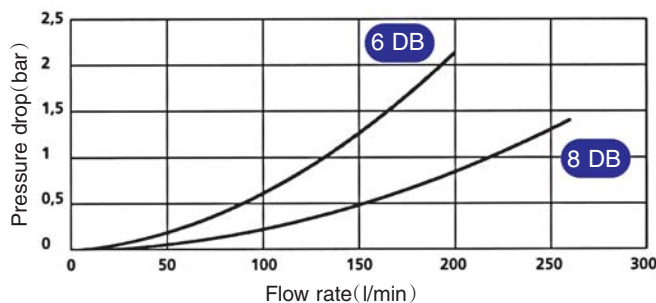
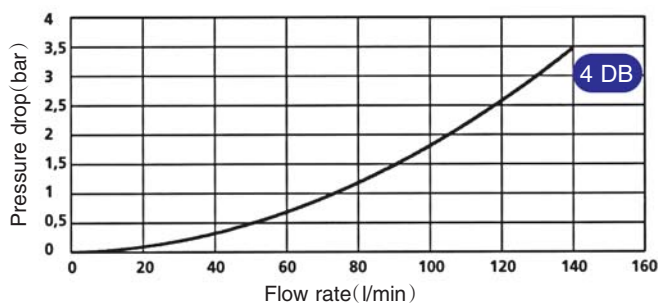
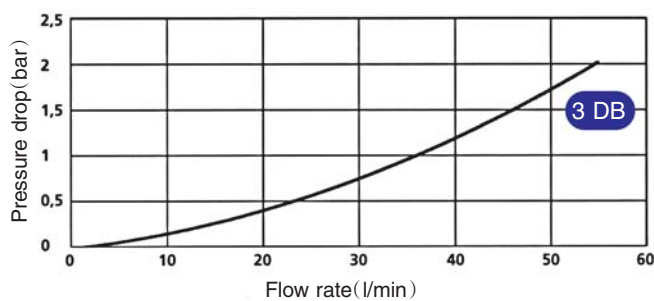
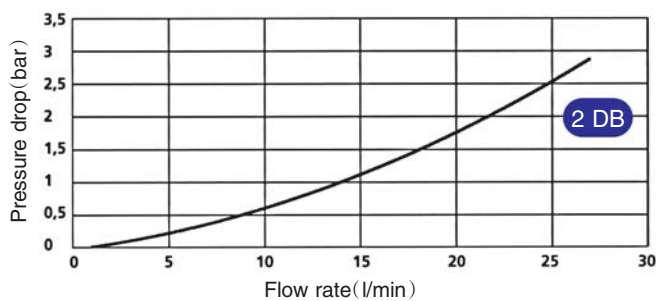
Technical data

- Push-to-connect
- High flow-rate
- High temperature capability
- Resistant to aggressive fluids and corrosion

Applications

- Chemicals–Petrochemicals
- Pharmaceuticals
- Agriculture and food processing
- Corrosive environments

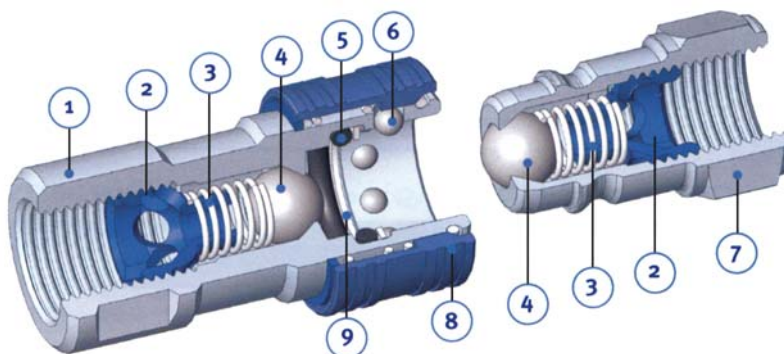
Flow rate/Pressure drop



Oil viscosity 30 cSt at 40°C

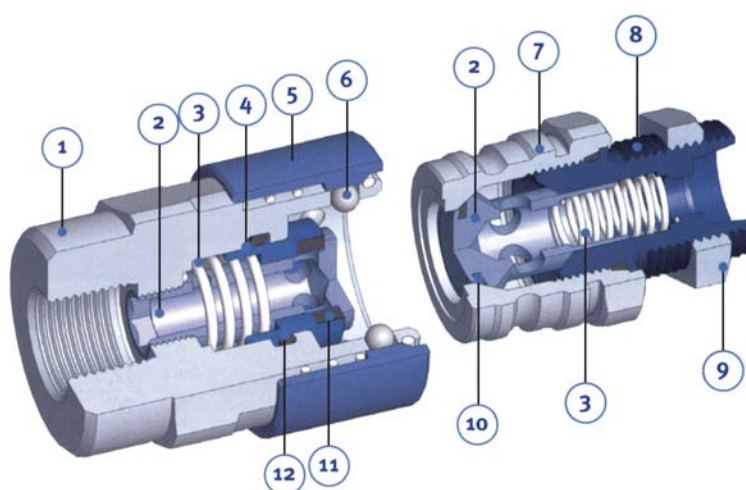
H-55000

- ① Socket body
- ② Valve guide
- ③ Spring
- ④ Ball Valve
- ⑤ O-ring
- ⑥ Ball
- ⑦ Plug body
- ⑧ Sleeve
- ⑨ Back-up ring



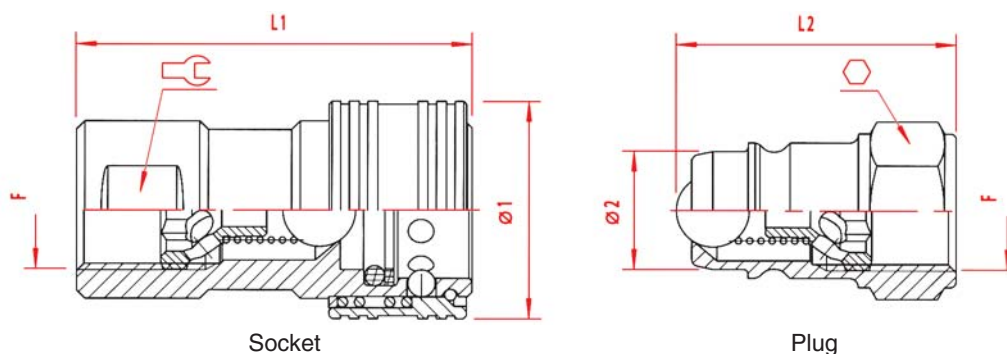
Q-9000

- ① Socket body
- ② Valve
- ③ Valve spring
- ④ Piston
- ⑤ Sleeve
- ⑥ Ball
- ⑦ Pull body
- ⑧ End connection
- ⑨ Locknut
- ⑩ Valve seal
- ⑪ Main seal
- ⑫ O-ring



Hydraulic couplings / Agricultural range

Nominal diameter 5.9–7mm
 Flow rate 17–29 l/min(Δp 1 bar)
 Working pressure 250 bar
 Temperature range NITRILE: –20°C+100°C



Dimensions(mm)/Weights(g)

Size	DN(mm)	Connection (F)	Socket				Plug				Length connected
			L1	Ø1			L2	Ø2			
3/8"	5.9	G 3/8	59	34	23	195	42	19	23	68	77
1/2"	7	G 1/2	69	38	27	262	50	20.6	27	89	92

Part numbers

Size	DN(mm)	Connection (F)	Socket	Plug
3/8"	5.9	G 3/8	HA 55021 00	HA 55022 00
1/2"	7	G 1/2	HA 55031 00	HA 55032 00

Dust caps and plugs



Size	Dust plug	Dust cap
3/8" aluminium	HD 05121 00	HD 05122 00
1/2" aluminium	HD 05131 00	HD 05132 00
1/2" PVC	HP 15131 00	HP 15132 00

Max working pressures

Size	DN(mm)	Working pressure
3/8"	5.9	250 bar
1/2"	7	250 bar

Spillage

Size	DN(mm)	Spillage per disconnection
3/8"	5.9	0.82 ml
1/2"	7	1.52 ml

DN: Nominal diameter G=BSPP(BSP parallel male or female thread)



Materials

- Body: Zinc-plated steel
- Sleeve: Zinc-plated steel
- Valves: Chrome steel
- Springs: Stainless steel
- Balls: Stainless steel
- Seals: Nitrile

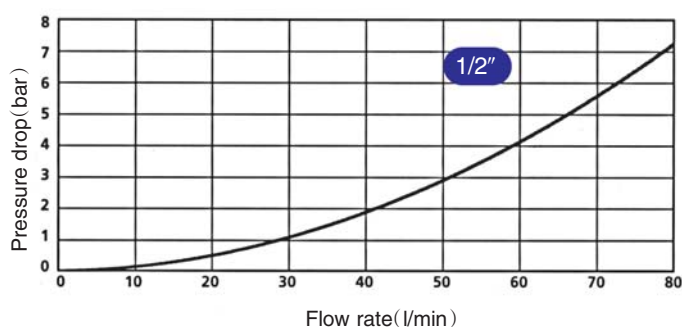
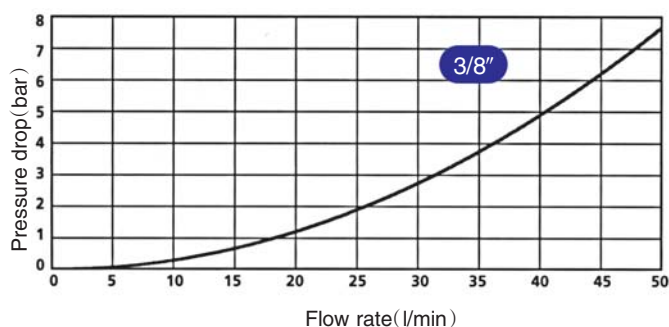
Technical data

- Double shut-off couplings (ball valving)
- Pull-to-connect couplings
- Ball-locking
- Compatible with some other makes of couplings with the same profile
- Dust caps and plugs

Applications

- Hydraulic circuits and equipment
- Forestry and agricultural machinery
- Iron and steel industry

Flow rate/Pressure drop



Oil viscosity 30 cSt at 40°C

Hydraulic couplings / Agricultural range

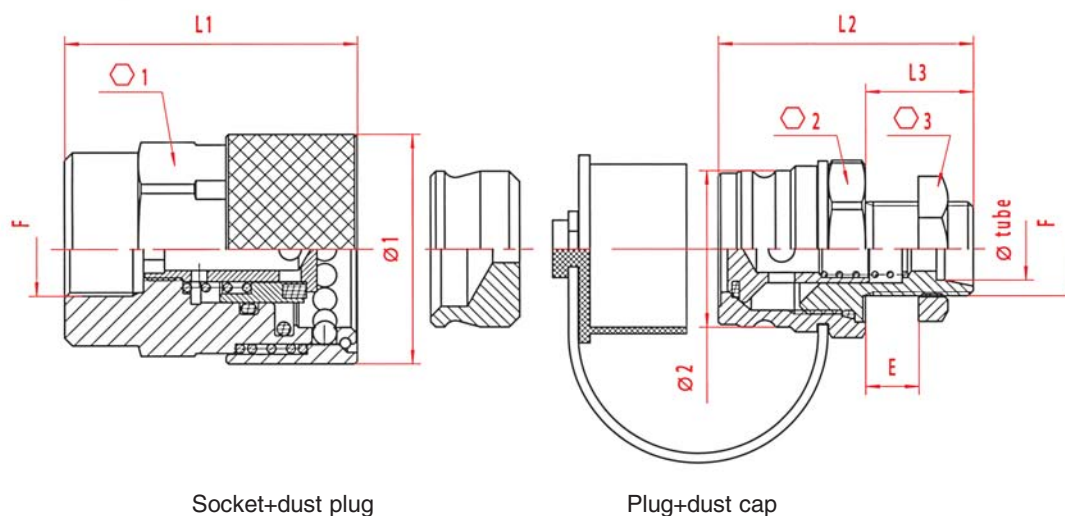
ISO 5676 & NF U 16-006 Standards

Nominal diameter 8mm

Flow rate 19 l/min(Δp 1 bar)

Working pressure 150 bar

Temperature range NITRILE: -20°C+100°C



Dimensions(mm)/Weights(g)

DN(mm)	Connection (F)	Socket				Plug									Length connected
		L1	Ø1			tube ext.Ø	L2	L3	Ø2	Ø3	Ø2	E			
8	M18×1.5	55.5	38	44	469	12	50.5	22.5	32	26	30	5	156		69
8	M20×1.5	—	—	—	—	13	50.5	22.5	32	26	30	5	160		69

Part numbers

DN(mm)	Connection (F)	Socket+Dust plug	Dust plug only	Plug+Dust cap	Dust cap only
8	M18×1.5	QA 09321 18	QA 09121 00	QA 09322 12	QP 09122 00
8	M20×1.5	—	—	QA 09322 13	

Max working pressures

DN(mm)	Connection (F)	Working pressure
8	M18×1.5	150 bar
8	M20×1.5	150 bar

Air inclusion Spillage

DN(mm)	Connection (F)	Spillage per disconnection
8	M18×1.5	0.04 ml
8	M20×1.5	0.04 ml

DN: Nominal diameter



Materials

- Body: Zinc-plated steel, bichromate
- Sleeve: Zinc-plated steel, bichromate
- End connections: Zinc-plated steel, bichromate
- Valves: Zinc-plated steel or Zinc-plated steel, bichro
- Piston: Zinc-plated steel
- Locknut: Zinc-plated steel, bichromate
- Springs: Steel or stainless steel
- Balls: Stainless steel
- Seals: Nitrile

Dust caps and plugs

- Dust plug: Phosphated steel
- Dust cap: PVC



Technical data

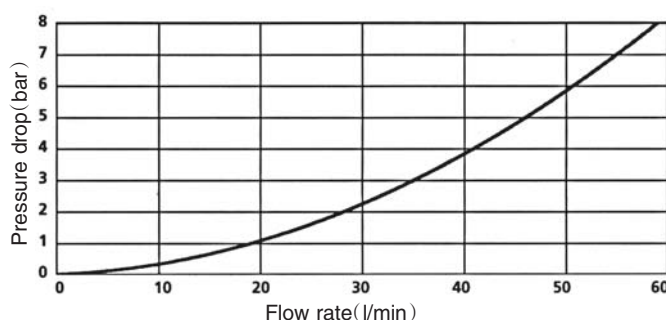
- Double shut-off couplings
- Pull-to-connect couplings
- Ball-locking
- Meets the requirements of ISO 5676 and NF U 16-006
- Minimum entry of air and loss of fluid
- Dust caps and plugs

Applications

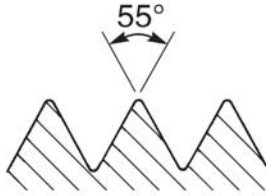
- Trailer brake circuits on agricultural and forestry vehicles

Flow rate/Pressure drop

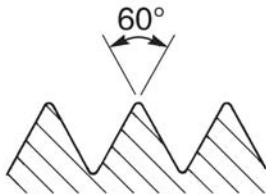
Oil viscosity 30 cSt at 40°C



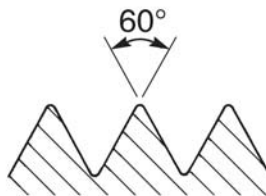
The main port machining dimensions for british standard thread,ANSI/ASME thread and metric thread are given in the tables.



Type	British Standard Thread	Teeth per inch	External Ø (mm)	Core Ø (mm)
1/8	BSP	28	9.73	8.57
1/4	BSP	19	13.16	11.45
3/8	BSP	19	16.66	14.95
1/2	BSP	14	20.96	18.63
3/4	BSP	14	26.44	24.12
1"	BSP	11	33.25	30.29
1 1/4"	BSP	11	41.91	38.95
1 1/2"	BSP	11	47.80	44.85
2"	BSP	11	59.61	56.66



Type	ANSI/ASME Thread	Teeth per inch	External Ø (mm)	Core Ø (mm)
1/8	NPT	27	10.24	9.49
1/4	NPT	18	13.62	12.49
3/8	NPT	18	17.06	15.93
1/2	NPT	14	21.22	19.77
3/4	NPT	14	26.57	25.12
1"	NPT	11.5	33.23	31.46
1 1/4"	NPT	11.5	41.38	40.22
1 1/2"	NPT	11.5	48.05	46.29
2"	NPT	11.5	60.09	58.33



Type	Metric Thread	Teeth per inch	External Ø (mm)	Core Ø (mm)
1/8	M10x1.0		10	8.9
1/4	M14x1.5		14	12.35
3/8	M18x1.5		18	16.35
1/2	M22x1.5		22	20.35
3/4	M27x1.5		27	25.35
1"	M33x1.5		33	31.35
1 1/4"	M39x1.5		39	37.35
1 1/2"	M45x2.0		45	42.8
2"	M60x2.0		60	57.8



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