

LÜDECKE

Since 1930. The perfect connection.



Edition 2.0

**QUICK CONNECT TEMPERATURE
REGULATION COUPLINGS
FRENCH PLUG PROFILE (ESF)**

Maximum Performance for Temperature Regulation Applications



The quick connect couplings of the ESF series stands out with excellent flow rates and allows for maximum performance. As a result, process times for temperature regulation applications are significantly reduced.

The coupling process can be performed easily and intuitively with one hand. The ergonomic sleeve as well as the slim design allow for a very good grip and simple handling.

The coupling system guarantees efficient as well as flexible working with hot or cold water or tempering oil applications in the plastics processing industry.

Advantages:

- High flow rates with low pressure drop due to optimised technology
- Simple and intuitive coupling process (one-hand operation)
- Ergonomic and slim design
- Closed sleeve position to prevent dirt from collecting in the system
- High-quality sealing materials for high temperature resistance
- Versions with additional O-ring sealing including support ring and protective cap at connection port
- Different sizes, connection and valve types

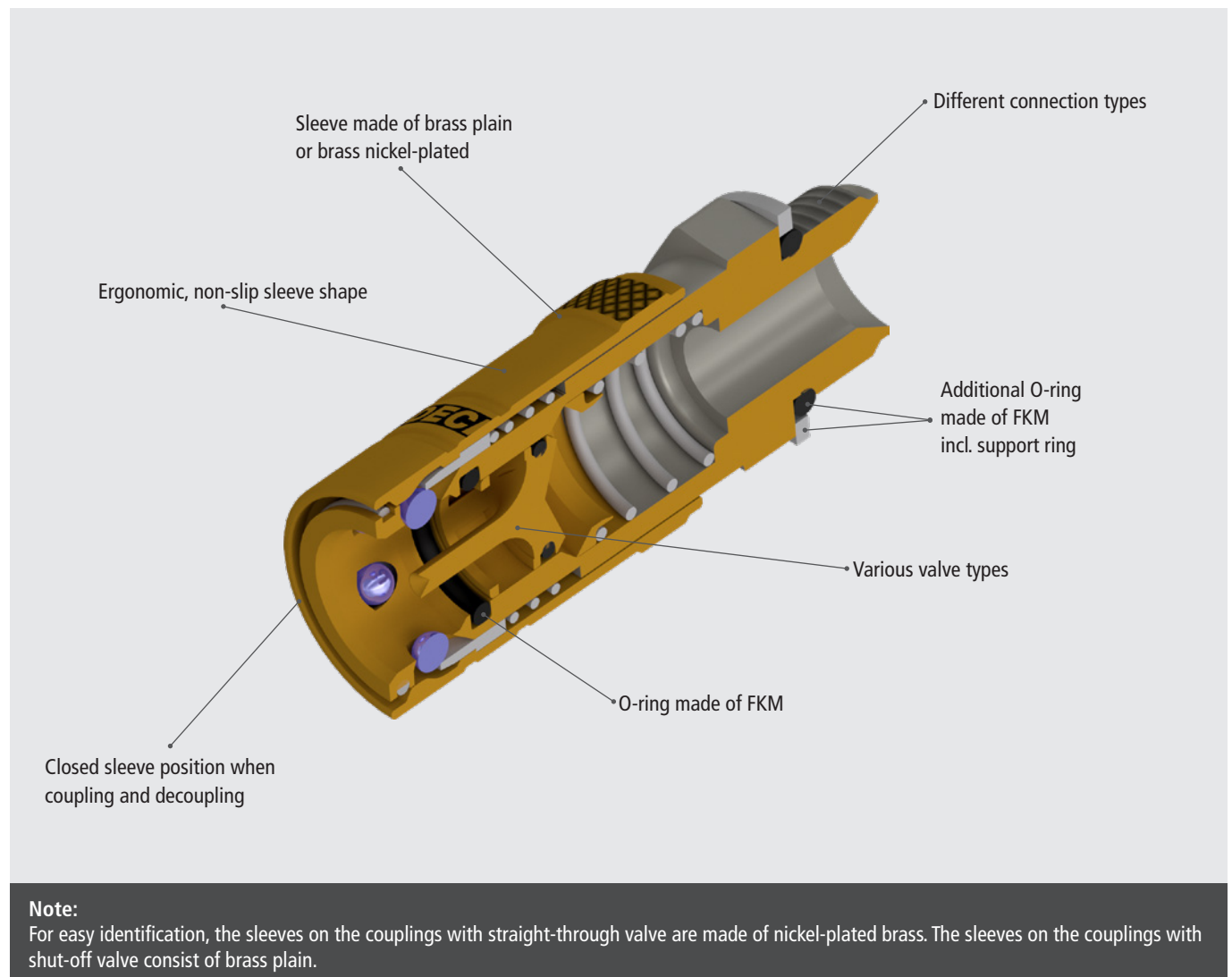
Broad Range

All products of the ESF series are available with French plug profile. To allow for maximum flexibility, different sizes and types of connections and valves can be chosen.



High-Quality Materials for Absolute Safety

Every single component is made of selected and particularly high-quality materials – to ensure best functionality possible, safety and long durability. For perfect sealing, some couplings and plugs are equipped with an additional sealing ring including a support ring and a protective cap.



Quick, Easy and Reliable

The quick connect couplings of the ESF series are extremely easy to handle.



One-hand operation: To connect, simply push the plug into the coupling.

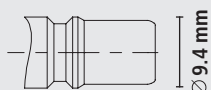
To disconnect, pull back the sleeve from the coupling (comes with automatic locking mechanism in shut-off couplings).

Temperature Regulation Quick Connect Couplings

Series ESFM Plug size 9.4 mm

DN 6

Plug Profile (original size)



French Plug Profile

- One-hand quick connect couplings with small dimensions made of brass MS 58
- High flow rates with low pressure drop due to optimised technology
- Closed sleeve position to prevent dirt from collecting in the system
- For temperature regulation applications with hot or cold water as well as tempered oil
- Couplings and plugs marked accordingly are supplied with sealing ring, support ring and protective cap at the connection as standard (see note 3)
- Also available as version for high temperature applications
- On demand available with straight-through valve (sleeve = brass nickel-plated) or shut-off valve (sleeve = brass plain)

Materials

- Body, sleeve: Brass MS 58 plain/ nickel-plated
- Valve body, valve: Brass MS 58 plain
- Plug: Brass MS 58 nickel-plated
- Springs, retaining ring: Stainless steel 1.4310
- Seals: FKM
- Balls: Stainless steel 1.4034
- Support ring: Stainless steel 1.4305

Max. Working Pressure	Temperature	DN	Thread	Operation	Type of valve	Media	
PN 15 bar	+5°C – +200°C	6	ISO 228/ NPT	One-hand	single/ double/ straight-thr.	Tempered Media	Coupl. 5 / Plug. 10

Couplings with straight standard hose stem without/ with valve

Hose connection	L	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
Hose i.D. 9	59	19.5	22.5	9.4	6	59	ESFM 9 TL	ESFM 9 TLAB

Couplings with 45° standard hose stem without/ with valve

Hose connection	L	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
Hose i.D. 9	52	19.5	22.5	9.4	6	72	ESFM 9 TL-45	ESFM 9 TL-45AB

Couplings with 90° standard hose stem without/with valve

Hose connection	L	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
Hose i.D. 9	50	19.5	22.5	9.4	6	83	ESFM 9 TL-90	ESFM 9 TL-90AB

Couplings with straight male thread without/with valve (inner cone DIN 3863)

Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 1/4 m	54	17	19.5	9	9.4	6	74	ESFM 14 A 3	ESFM 14 AAB 3

Couplings with 90° male thread without/with valve (inner cone DIN 3863)

Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 1/4 m	52	16	19.5	9	9.4	6	91	ESFM 14 A-90 3	ESFM 14 A-90AB 3

Couplings with straight female thread without/ with valve (inner cone DIN 3863)

Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 1/4 f	47	17	19.5	12	9.4	8	63	ESFM 14 I	ESFM 14 IAB
NPT 1/4 f	49	17	19.5	13.5	9.4	8	64	ESFM 14 I-NPT	ESFM 14 IAB-NPT

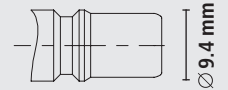
Temperature Regulation Quick Connect Couplings

Plug size 9.4 mm

Series ESFM

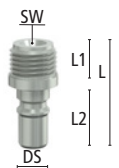
DN 6

Plug Profile (original size)



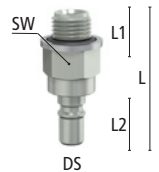
Plugs with straight male thread without valve (inner cone DIN 3863)

Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
G 1/8 m	30	5	9	17.8	9.4	5.2	10	ESFM 18 NA
R 1/8 m	31	5	10	17.8	9.4	5.2	11	ESFM 18 NAR
NPT 1/8 m	31	5	10	17.8	9.4	5.2	11	ESFM 18 NA-NPT
G 1/4 m	30	5	9	17.8	9.4	5	16	ESFM 14 NA
R 1/4 m	32	5	11	17.8	9.4	5	18	ESFM 14 NAR
NPT 1/4 m	36	5	15	17.8	9.4	5	21	ESFM 14 NA-NPT



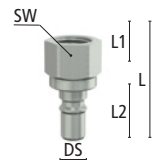
Plugs with straight male thread with valve (inner cone DIN 3863)

Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
NPT 1/8 m	45	17	10	17.8	9.4	6	31	ESFM 18NAAB-NPT
G 1/4 m	45	17	9	17.8	9.4	6	35	ESFM 14 NAAB 
R 1/4 m	46	17	11.4	17.8	9.4	6	36	ESFM 14 NARAB
NPT 1/4 m	49	17	15	17.8	9.4	6	31	ESFM 14NAAB-NPT



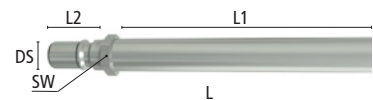
Plugs with straight female thread without valve

Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
G 1/4 f	34	17	11	17.8	9.4	6	24	ESFM 14 NI



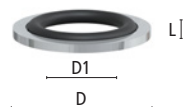
Plug Tubes for countersunk mould threads (for length cutting as needed)

D	L	SW	L1	L2	DS	Passage	Weight	Type No.
9.4	120	11	99	17.8	9.4	6	50	ESFM 120 R
9.4	240	11	219	17.8	9.4	6	100	ESFM 240 R



CS seal kit

Version	L	D	D1	Material	Temp.°C	Color	Shore A	Weight	Art.Nr.
For G 1/4 m	1.9	20.5	11	FKM/ stainless steel 1.4305	+5 – +200	black	70°	2	CS 14

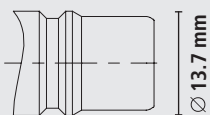


Temperature Regulation Quick Connect Couplings

Series ESF Plug size 13.7 mm

DN 9

Plug Profile (original size)



French Plug Profile

- One-hand quick connect couplings made of brass MS 58
- High flow rates with low pressure drop due to optimised technology
- Closed sleeve position to prevent dirt from collecting in the system
- For temperature regulation applications with hot or cold water as well as tempered oil
- Couplings and plugs marked accordingly are supplied with sealing ring, support ring and protective cap at the connection as standard (see note ③)
- Also available as version for high temperature applications
- On demand available with straight-through valve (sleeve = brass nickel-plated) or shut-off valve (sleeve = brass plain)

Materials

- Body, sleeve: Brass MS 58 plain/ nickel-plated
- Valve body, valve: Brass MS 58 plain
- Plug: Brass MS 58 nickel-plated
- Springs, retaining ring: Stainless steel 1.4310
- Seals: FKM
- Balls: Stainless steel 1.4034
- Support ring: Stainless steel 1.4305

Max. Working Pressure	Temperature	DN	Thread	Operation	Type of valve	Media	
PN 15 bar	+5°C – +200°C	9	ISO 228/ NPT	One-hand	single/ double/ straight-thr.	Tempered Media	Coupl. 5 / Plug. 10

Couplings with straight standard hose stem without/ with valve

Hose connection	L	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
Hose i.D. 13	67	24	25	13.7	9	101	ESF 13 TL	ESF 13 TLAB

Couplings with 45° standard hose stem without/ with valve

Hose connection	L	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
Hose i.D. 13	59	24	22.5	13.7	9	126	ESF 13 TL-45	ESF 13 TL-45AB

Couplings with 90° standard hose stem without/ with valve

Hose connection	L	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
Hose i.D. 13	59	24	25	13.7	9	155	ESF 13 TL-90	ESF 13 TL-90AB

Couplings with straight male thread without/ with valve (inner cone DIN 3863)

Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 3/8 m	57	22	24	9	13.7	9	114	ESF 38 A ③	ESF 38 AAB ③

Couplings with 90° male thread without/with valve (inner cone DIN 3863)

Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 3/8 m	59	21	24	9	13.7	9	147	ESF 38 A-90 ③	ESF 38 A-90AB ③

Couplings with straight female thread without/ with valve (inner cone DIN 3863)

Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 3/8 f	51	22	24	9	13.7	9	103	ESF 38 I	ESF 38 IAB
NPT 3/8 f	55	22	24	14	13.7	9	111	ESF 38 I-NPT	ESF 38 IAB-NPT

Diversion coupling for temperature regulation bridges with 90° tube connection with valve

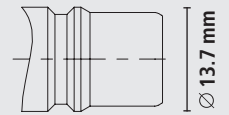
Connection	L	D	DS	Passage	Weight	Type No. w valve
Tube 10/8	58	24	13.7	8	145	ESF 10-UAB

Temperature Regulation Quick Connect Couplings

Plug size 13.7 mm **Series ESF**

DN 9

Plug Profile (original size)



Plugs with straight male thread without valve (inner cone DIN 3863)

Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
G 1/4 m	31	8	9	19	13.7	8.2	17	ESF 14 NA
R 1/4 m	34	8	11	19	13.7	8.2	20	ESF 14 NAR
NPT 1/4 m	38	8	15	19	13.7	8.2	23	ESF 14 NA-NPT
G 3/8 m	32	8	9	19	13.7	8.2	25	ESF 38 NA
R 3/8 m	34	8	11.4	19	13.7	8.2	29	ESF 38 NAR
G 1/2 m	37	22	11	19	13.7	9.5	50	ESF 12 NA*
NPT 1/2 m	47	22	20	19	13.7	9.5	69	ESFM 12 NA-NPT*

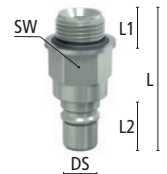
*External hexagon



Plugs with straight male thread with valve (inner cone DIN 3863)

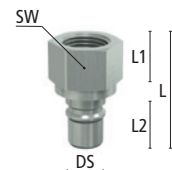
Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
G 1/4 m	49.5	19	9	19	13.7	9	52	ESF 14 NAAB CS
NPT 1/4 m	52.5	19	15	19	13.7	9.5	47	ESF 14 NAAB-NPT
G 3/8 m	48	19	9.5	19	13.7	9.5	51	ESF 38 NAAB CS
R 3/8 m	48	19	11.4	19	13.7	9.5	49	ESF 38 NARAB
NPT 3/8 m	52.5	19	15	19	13.7	9.5	50	ESF 38 NAAB-NPT
G 1/2 m	37	22	11	19	13.7	9.5	39	ESF 12 NAAB**
NPT 1/2 m	47	22	20	19	13.7	9.5	49	ESF 12 NAAB-NPT**

**one-piece



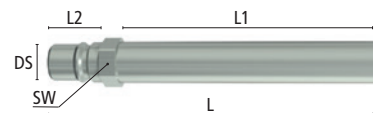
Plugs with straight female thread without valve

Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
G 3/8 f	37	22	12	19	13.7	9.5	46	ESF 38 NI



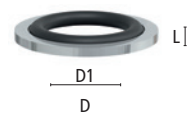
Plug Tubes for countersunk mould threads (for length cutting as needed)

D	L	SW	L1	L2	DS	Passage	Weight	Type No.
13,5	150	15	125	19	13.7	9	113	ESF 150 R
13,5	300	15	277	19	13.7	9	227	ESF 300 R



CS seal kit

Version	L	D	D1	Material	Temp. °C	Color	Shore A	Weight	Art.Nr.
For G 1/4 m	1.9	20,5	11	FKM/ stainless steel 1.4305	+5 – +200	black	70°	2	CS 14
For G 3/8 m	1.5	24	14	FKM/ stainless steel 1.4305	+5 – +200	black	70°	2,1	CS 38

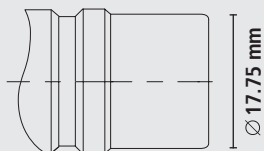


Temperature Regulation Quick Connect Couplings

Series ESFG Plug size 17.75 mm

DN 12

Plug Profile (original size)



French Plug Profile

- One-hand quick connect couplings made of brass MS 58
- High flow rates with low pressure drop due to optimised technology
- Closed sleeve position to prevent dirt from collecting in the system
- For temperature regulation applications with hot or cold water as well as tempered oil
- Couplings and plugs marked accordingly are supplied with sealing ring, support ring and protective cap at the connection as standard (see note 3)
- Also available as version for high temperature applications
- On demand available with straight-through valve (sleeve = brass nickel-plated) or shut-off valve (sleeve = brass plain)

Materials

- Body, sleeve: Brass MS 58 plain/ nickel-plated
- Valve body, valve: Brass MS 58 plain
- Plug: Brass MS 58 nickel-plated
- Springs, retaining ring: Stainless steel 1.4310
- Seals: FKM
- Balls: Stainless steel 1.4034
- Support ring: Stainless steel 1.4305

Max. Working Pressure	Temperature	DN	Thread	Operation	Type of valve	Media	
PN 15 bar	+5°C – +200°C	12	ISO 228/ NPT	One-hand	single/ double/ straight-thr.	Tempered Media	Coupl. 5 / Plug. 10

Couplings with straight standard hose stem without/ with valve

Hose connection	L	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
Hose i.D. 16	81	31	28	17.75	12	190	ESFG 16 TL	ESFG 16 TLAB

Couplings with 90° standard hose stem without/ with valve

Hose connection	L	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
Hose i.D. 16	76	31	28	17.75	12	341	ESFG 16 TL-90	ESFG 16 TL-90AB

Couplings with straight male thread without/ with valve (inner cone DIN 3863)

Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 1/2 m	71	27	31	12	17.75	12	223	ESFG 12 A 3	ESFG 12 AAB 3

Couplings with 90° male thread without/with valve (inner cone DIN 3863)

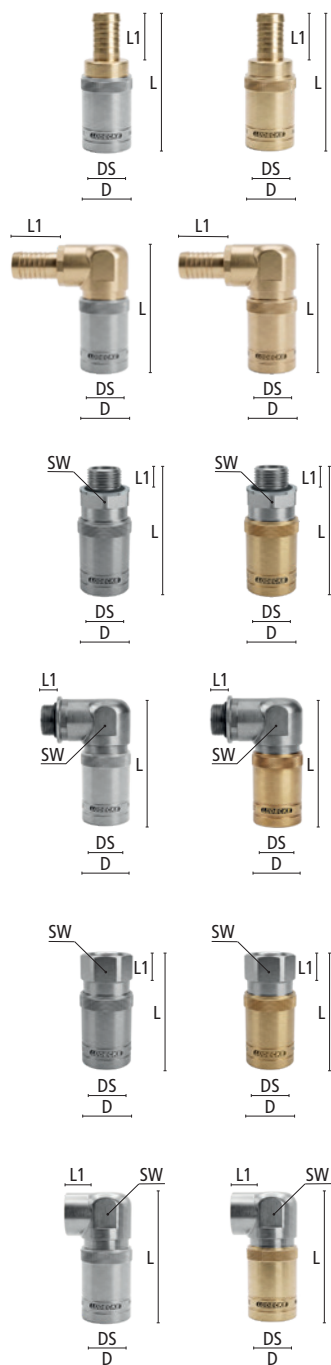
Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 1/2 m	76	27	31	12	17.75	12	341	ESFG 12 A-90 3	ESFG 12 A-90AB 3

Couplings with straight female thread without/ with valve (inner cone DIN 3863)

Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 1/2 f	65	27	31	12	17.75	12	203	ESFG 12 I	ESFG 12 IAB
NPT 1/2 f	65	27	31	14.5	17.75	12	199	ESFG 12 I-NPT	ESFG 12 IAB-NPT

Couplings with 90° female thread without/with valve (inner cone DIN 3863)

Thread connection	L	SW	D	L1	DS	Passage	Weight	Type No. w/o valve	Type No. w valve
G 1/2 f	76	27	31	11	17.75	12	285	ESFG 12 I-90	ESFG 12 I-90AB



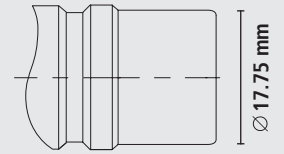
Temperature Regulation Quick Connect Couplings

Plug size 17.75 mm

Series ESFG

DN 12

Plug Profile (original size)



Plugs with straight male thread without valve (inner cone DIN 3863)

Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
G 3/8 m	39	10	13	20	17.75	12	35	ESFG 38 NA*
NPT 3/8 m	39	10	16	20	17.75	12	33	ESFG 38 NA-NPT*
G 1/2 m	44	22	12	23.6	17.75	12	50	ESFG 12 NA*
R 1/2 m	44	22	16	23.6	17.75	12	54	ESFG 12 NAR
NPT 1/2 m	44	22	16	23.6	17.75	12	52	ESFG 12 NA-NPT*
G 3/4 m	46	27	16	23.6	17.75	12	78	ESFG 34 NA

*Internal hexagon



Plugs with straight male thread with valve (inner cone DIN 3863)

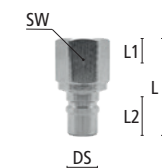
Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
G 3/8 m	60.5	27	11	23.6	17.75	12	115	ESFG 38 NAAB 
NPT 3/8 m	62.5	27	13	23.6	17.75	12	111	ESFG 38NAAB-NPT
G 1/2 m	61.5	27	12	23.6	17.75	12	125	ESFG 12 NAAB** 
R 1/2 m	67.5	27	16	23.6	17.75	12	135	ESFG 12 NARAB
NPT 1/2 m	62.5	27	14	23.6	17.75	12	129	ESFG 12NAAB-NPT**
G 3/4 m	65	32	16	23.6	17.75	12	176	ESFG 34 NAAB

**one-piece



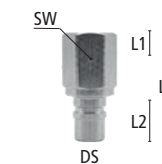
Plugs with straight female thread without valve

Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
G 1/2 f	45	27	12	23.6	17.75	12	81	ESFG 12 NI
NPT 1/2 f	45	27	16	23.6	17.75	12	64	ESFG 12 NI-NPT



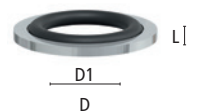
Plugs with straight female thread with valve

Thread connection	L	SW	L1	L2	DS	Passage	Weight	Type No.
G 1/2 f	59	27	12	23.6	17.75	12	125	ESFG 12 NIAB
NPT 1/2 f	62	27	14	23.6	17.75	12	123	ESFG 12NIAB-NPT



CS seal kit

Version	L	D	D1	Material	Temp. °C	Color	Shore A	Weight	Art.Nr.
For G 3/8 m	1.5	24	14	FKM/ stainless steel 1.4305	+5 – +200	black	70°	2,1	CS 38
For G 1/2 m	2.3	29	24	FKM/ stainless steel 1.4305	+5 – +200	black	70°	2,3	CS 12



LÜDECKE

LÜDECKE

Since 1930. The perfect connection.

LÜDECKE GmbH - Heinrich-Hauck-Str. 2 - D-92224 Amberg - Phone: +49 9621 7682 0
info@luedecke.de - www.luedecke.de