

LÜDECKE

Since 1930. The perfect connection.



Edition 2.0

TEMPERATURE REGULATION
QUICK CONNECT COUPLINGS
FRENCH SYSTEM (SERIES ESR)

Efficiency and Safety for Temperature Regulation Applications



The **LÜDECKE** quick connect couplings series ESR offer a very simple and flexible system for temperature regulation applications in a lower temperature range.

It is a system with a straight-through passage, which guarantees high flow rates. Thanks to the different colour types of the socket and plug, media cycles can be easily differentiated, and incorrect coupling can be reduced. An enhanced locking system allows for reliable sealing of circuits.

The ESR series also convinces with quick and efficient handling via one-hand operation – perfectly suited for the plastics processing industry.

Advantages:

- High flow rates and unimpeded media circulation
- Simple coupling process (one-hand operation)
- Ergonomic design
- Coloured rings for visual differentiation of media circuits
- Superior sealing materials for high temperature resistance
- Great flexibility due to different connection types and extensions

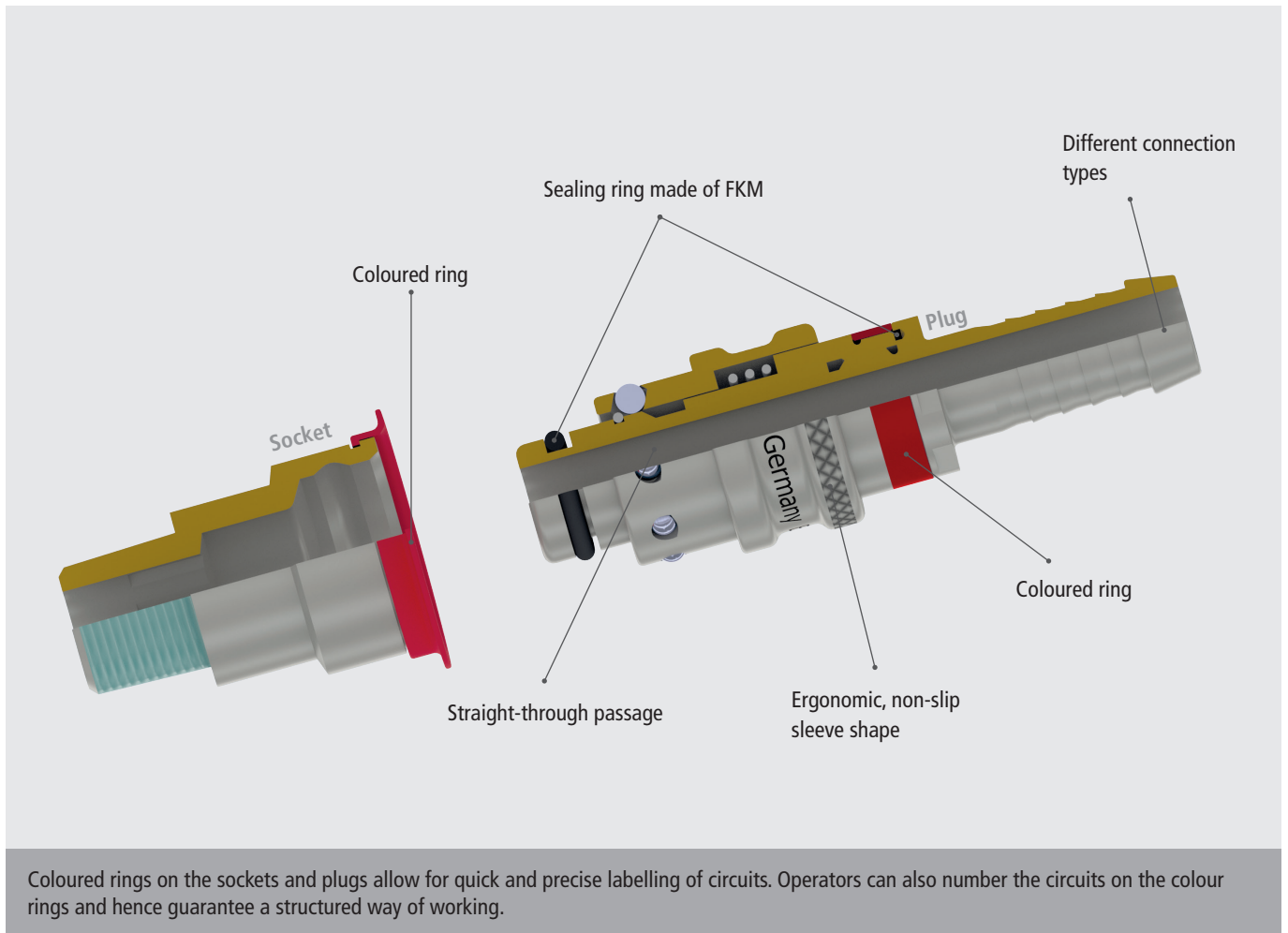
Great Flexibility

The products of the ESR series are a French system. To ensure highest flexibility, customers can choose between different sizes, connection and colour types.



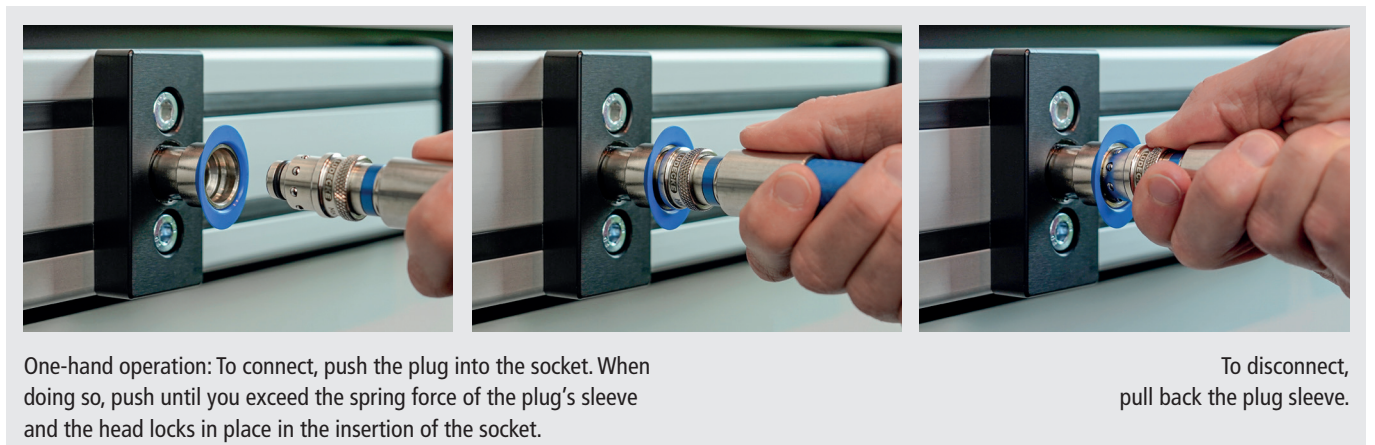
Selected Materials for Maximum Reliability

Through selected, high-quality materials, **LÜDECKE** assures optimal functionality, safety, and a long service life for every product.



Operating Principle

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



Temperature Regulation Quick Connect Couplings

Series ESR Plug size 12 mm

DN 8

Plug Profile (original size)



French System

- Temperature regulation quick connect couplings made of brass MS 58
- Straight-through valve on both sides for maximum flow rates
- Coloured rings on socket and plug for visual differentiation of media circuits
- For temperature regulation applications with hot or cold water as well as tempered oil
- Hose couplings available with standard stem profile for standard hoses or quick-fit profile for quick-fit hoses

Materials

- Socket, Plug: Brass MS 58 nickel-plated
- Springs, retaining ring: Stainless steel 1.4310
- Seals: FKM
- Balls: Stainless steel 1.4034

Max. Working Pressure	Temperature	DN	Thread	Operation	Type of valve	Media	
PN 10 bar	-15°C – +100°C	8	ISO 228 / DIN 13/ DIN EN 10226	One-Hand	Straight-through	Tempered media	Socket 10/ Plug 5

Plugs with straight standard hose stem

Hose connection	L	SW	D	L1	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.D. 10	66	15	20	25	12	7.5	59	ESR 10 TL	-RO	-BL
Hose i.D. 13	66	15	20	25	12	7.5	64	ESR 13 TL	-RO	-BL

Plugs with straight quick-fit hose stem

Hose connection	L	SW	D	L1	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.D. 10	65	15	20	24.2	12	7.5	60	ESR 10 T	-RO	-BL
Hose i.D. 13	70	15	20	29	12	7.5	77	ESR 13 T	-RO	-BL

Plugs with 45° standard hose stem

Hose connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.D. 10	44	18	20	25	33	12	7.5	82	ESR 10 TL-45	-RO	-BL
Hose i.D. 13	44	18	20	25	33	12	7.5	94	ESR 13 TL-45	-RO	-BL

Plugs with 45° quick-fit hose stem

Hose connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.D. 10	44	18	20	24.2	32.2	12	7.5	83	ESR 10 T-45	-RO	-BL
Hose i.D. 13	44	18	20	27.9	37.4	12	7.5	100	ESR 13 T-45	-RO	-BL

Plugs with 90° standard hose stem

Hose connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.D. 10	48.3	18	20	25	33.2	12	7.5	86	ESR 10 TL-90	-RO	-BL
Hose i.D. 13	48.3	18	20	25	33.2	12	7.5	98	ESR 13 TL-90	-RO	-BL

Plugs with 90° quick-fit hose stem

Hose connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.D. 10	48.3	18	20	24.2	33.5	12	7.5	87	ESR 10 T-90	-RO	-BL
Hose i.D. 13	48.3	18	20	27.9	37.5	12	7.5	105	ESR 13 T-90	-RO	-BL

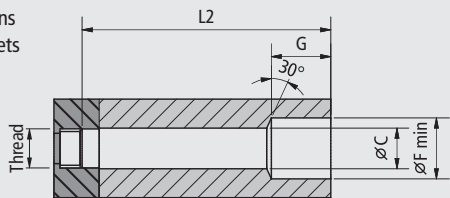
*Add the abbreviation "-RO" respectively "-BL" to the type number (i.e. ESR 18 NAR-RO or ESR 18 NAR-BL)

Temperature Regulation Quick Connect Couplings

Plug size 12 mm **Series ESR**

DN 8

Installation dimensions of the extended sockets

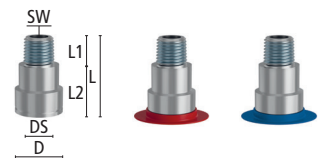


Plug Profile (original size)



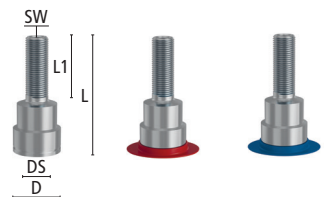
Straight sockets with tapered male thread and self-sealing coating

Thread connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No.	neutral	red*	blue*
R 1/8 m	32	6	21	10	22	12	6.2	29	ESR 18 NAR	-RO	-BL	
R 1/4 m	33	8	21	12	21	12	8.2	32	ESR 14 NAR	-RO	-BL	
R 3/8 m	24	8	21	13	-	12	8.2	26	ESR 38 NAR	-RO	-BL	
M 10x1 m	32	6	21	10	22	12	6.2	30	ESR 101 NA	-RO	-BL	
M 14x1,5 m	32	8	21	11	21	12	8.2	33	ESR 1415 NA	-RO	-BL	



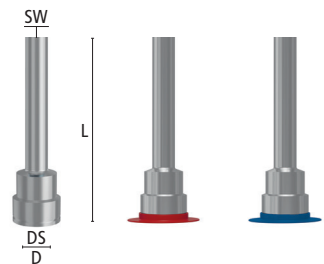
Extended sockets with thread

Thread connection	L	SW	D	L1	L2	DS	ØC	G	ØFmin	Passage	Weight	Type No.	neutral	red*	blue*
G 1/8 m	50	6	21	26	L-5.5	12	11	23	22.5	7.5	35	ESR 18X50 NA	-RO	-BL	
G 1/8 m	100	6	21	60	L-5.5	12	11	23	22.5	7.5	53	ESR 18X100 NA	-RO	-BL	
G 1/8 m	150	6	21	60	L-5.5	12	11	23	22.5	7.5	70	ESR 18X150 NA	-RO	-BL	
G 1/4 m	50	8	21	26	L-7.5	12	14	23	22.5	7.5	43	ESR 14X50 NA	-RO	-BL	
G 1/4 m	100	8	21	60	L-7.5	12	14	23	22.5	7.5	77	ESR 14X100 NA	-RO	-BL	
G 1/4 m	150	8	21	60	L-7.5	12	14	23	22.5	7.5	110	ESR 14X150 NA	-RO	-BL	
G 1/4 m	200	8	21	60	L-7.5	12	14	23	22.5	7.5	144	ESR 14X200 NA	-RO	-BL	



Extended sockets without thread

Tube Ø	L	SW	D	L2	DS	ØC	G	ØFmin	Passage	Weight	Type No.	neutral	red*	blue*
10	100	6	21	L-5.5	12	11	23	22.5	7.5	58	ESR 100 R10	-RO	-BL	
10	150	6	21	L-5.5	12	11	23	22.5	7.5	78	ESR 150 R10	-RO	-BL	
10	200	6	21	L-5.5	12	11	23	22.5	7.5	103	ESR 200 R10	-RO	-BL	
10	250	6	21	L-5.5	12	11	23	22.5	7.5	125	ESR 250 R10	-RO	-BL	
13	100	8	21	L-7.5	12	14	23	22.5	7.5	84	ESR 100 R13	-RO	-BL	
13	150	8	21	L-7.5	12	14	23	22.5	7.5	122	ESR 150 R13	-RO	-BL	
13	200	8	21	L-7.5	12	14	23	22.5	7.5	161	ESR 200 R13	-RO	-BL	
13	250	8	21	L-7.5	12	14	23	22.5	7.5	199	ESR 250 R13	-RO	-BL	



Diversion coupling for temperature regulation bridges with 90° tube connection without valve

Connection	L	SW	D	DS	Passage	Weight	Type No.
Tube 11	58	21	18	12	7.5	112	ESR 11-U



Tube (chamfered) for diversion couplings (temperature regulation tube), hardened brass

Connection	L	D	Passage	Weight	Type No.
Tube 11	500	11	8	186	TR 500-11



Coloured rings for sockets

for coupling type	D	Colour	Weight	Type No.
ESR (DN 8)	33	blue	1	ESR-BL
ESR (DN 8)	33	red	1	ESR-RO



Sealing ring

Version	D	S	Material	Temp °C	Colour	Shore A	Weight	Type No.
For DN 8	8	2	FKM	-15 – +100	black	75	1	ESR-FKM



*Add the abbreviation "-RO" respectively "-BL" to the type number (i.e. ESR 18 NAR-RO or ESR 18 NAR-BL)

Temperature Regulation Quick Connect Couplings

Series ESRG Plug size 19 mm

DN 12

Plug Profile (original size)



French System

- Temperature regulation quick connect couplings made of brass MS 58
- Straight-through valve on both sides for maximum flow rates
- Coloured rings on socket and plug for visual differentiation of media circuits
- For temperature regulation applications with hot or cold water as well as tempered oil
- Hose couplings available with standard stem profile for standard hoses or quick-fit profile for quick-fit hoses

Materials

- Socket, Plug: Brass MS 58 nickel-plated
- Springs, retaining ring: Stainless steel 1.4310
- Seals: FKM
- Balls: Stainless steel 1.4034

Max. Working Pressure	Temperature	DN	Thread	Operation	Type of valve	Media	
PN 10 bar	-15°C – +100°C	8	ISO 228 / DIN 13/ DIN EN 10226	One-Hand	Straight-through	Tempered media	Socket 10/ Plug 5

Plugs with straight standard hose stem

Hose connection	L	D	L1	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.d. 13	75.6	28	25	19	12	156	ESRG 13 TL	-RO	-BL
Hose i.d. 16	78.6	28	28	19	12	156	ESRG 16 TL	-RO	-BL

Plugs with straight quick-fit hose stem

Hose connection	L	D	L1	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.d. 13	78.1	28	28	19	12	158	ESRG 13 T	-RO	-BL

Plugs with 45° standard hose stem

Hose connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.d. 13	58	29	28	25	37.7	19	12	262	ESRG13 TL-45	-RO	-BL
Hose i.d. 16	58	29	28	28	40.7	19	12	262	ESRG16 TL-45	-RO	-BL

Plugs with 45° quick-fit hose stem

Hose connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.d. 13	58	29	28	28	40.2	19	12	265	ESRG 13 T-45	-RO	-BL

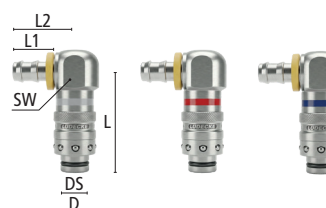
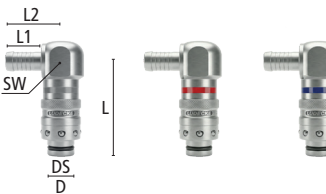
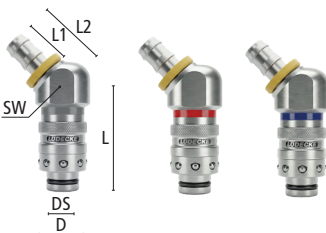
Plugs with 90° standard hose stem

Hose connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.d. 13	66	29	28	25	38	19	12	286	ESRG13 TL-90	-RO	-BL
Hose i.d. 16	66	29	28	28	41	19	12	286	ESRG16 TL-90	-RO	-BL

Plugs with 90° quick-fit hose stem

Hose connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No. neutral	red*	blue*
Hose i.d. 13	66	29	28	28	40.5	19	12	289	ESRG 13 T-90	-RO	-BL

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Temperature Regulation Quick Connect Couplings

Plug size 19 mm **Series ESRG**

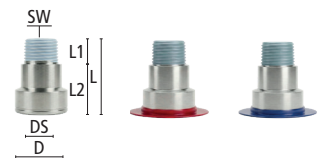
DN 12

Plug Profile (original size)



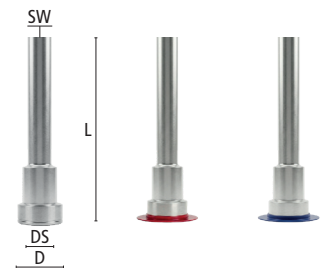
Straight sockets with tapered male thread and self-sealing coating

Thread connection	L	SW	D	L1	L2	DS	Passage	Weight	Type No.	neutral red*	blue*
R 3/8 m	41	10	32	13	28	19	10.2	72	ESRG 38 NAR	-RO	-BL
R 1/2 m	43	14	32	15	28	19	14.2	78	ESRG 12 NAR	-RO	-BL
R 3/4 m	32	14	32	17	15	19	14.2	76	ESRG 34 NAR	-RO	-BL



Extended sockets without thread

Tube∅	L	SW	D	L2	DS	∅C	G	∅Fmin	Passage	Weight	Type No.	neutral red*	blue*
17	150	14	32	L-8.5	19	18	43	33.5	12	199	ESRG 150 R17	-RO	-BL
17	200	14	32	L-8.5	19	18	43	33.5	12	250	ESRG 200 R17	-RO	-BL
17	250	14	32	L-8.5	19	18	43	33.5	12	300	ESRG 250 R17	-RO	-BL
21	150	14	32	L-11.5	19	21	43	33.5	12	315	ESRG 150 R21	-RO	-BL
21	200	14	32	L-11.5	19	21	43	33.5	12	419	ESRG 200 R21	-RO	-BL
21	250	14	32	L-11.5	19	21	43	33.5	12	521	ESRG 250 R21	-RO	-BL



Coloured rings for sockets

for coupling type	D	Colour	Weight	Type No.
ESRG (DN 12)	49	blue	1	ESRG-BL
ESRG (DN 12)	49	red	1	ESRG-RO

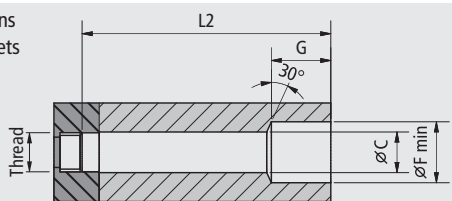


Sealing ring

Version	D	S	Material	Temp°C	Colour	Shore A	Weight	Type No.
For DN 12	13.94	2.62	FKM	-15 – +100	black	75	1	ESRG-FKM



Installation dimensions of the extended sockets



*Add the abbreviation "-RO" respectively "-BL" to the type number (i.e. ESRG 18 NAR-RO or ESRG 18 NAR-BL)

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