

Temperature Regulation Quick Connect Couplings

Plug size 13.5 mm **Series ESD**

- One-hand quick connect couplings made of brass MS 58
- For temperature regulation applications with hot or cold water as well as tempered oil
- Optional with straight-through, single or double shut-off valves
- Hose couplings available with standard stem profile for standard hoses or quick-fit profile for quick-fit hoses
- All couplings available with security lock with a surcharge, just add "S" on Type No. (Surcharge: 2.19 Euro gross)

Materials

- Body, valve body, valve: Brass MS 58 plain
- Sleeve, plug: Brass MS 58 plain/ nickel-plated
- Springs, retaining ring: Stainless steel 1.4310
- Balls: Stainless steel 1.4034
- Seals: FKM

| Max. Working Pressure | Temperature | DN | Thread | Operation | Type of valve | Media | |
|-----------------------|-----------------|----|------------------|-----------|--------------------------------|----------------|--------------------|
| PN 15 bar | -20°C – +200°C* | 9 | ISO 228 / DIN 13 | One-hand | Single/double/straight-through | 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 | 61.5 | 22 | 25 | 13.5 | 7 | 72 | ESD 9 TL | ESD 9 TLAB |
| Hose i.D. 13 | 61.5 | 22 | 25 | 13.5 | 9 | 81 | ESD 13 TL | |
| Hose i.D. 13 | 61.5 | 22 | 25 | 13.5 | 9 | 81 | | ESD 13 TLAB |

NEW! Couplings with straight quick-fit 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. 10 | 64.5 | 22 | 28 | 13.5 | 7 | 88 | ESD 10 T | ESD 10 TAB |
| Hose i.D. 13 | 64.5 | 22 | 28 | 13.5 | 9 | 90 | ESD 13 T | ESD 13 TAB |

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 | 51 | 22 | 30 | 13.5 | 7 | 103 | ESD 9 TL-45 | ESD 9 TL-45AB |
| Hose i.D. 13 | 51 | 22 | 30 | 13.5 | 9 | 109 | ESD 13 TL-45 | ESD 13 TL-45AB |

NEW! Couplings with 45° quick-fit 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. 10 | 51 | 22 | 28 | 13.5 | 7 | 112 | ESD 10 T-45 | ESD 10 T-45AB |
| Hose i.D. 13 | 51 | 22 | 28 | 13.5 | 9 | 118 | ESD 13 T-45 | ESD 13 T-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 | 51 | 22 | 30 | 13.5 | 7 | 105 | ESD 9 TL-90 | ESD 9 TL-90AB |
| Hose i.D. 13 | 51 | 22 | 30 | 13.5 | 9 | 111 | ESD 13 TL-90 | ESD 13 TL-90AB |

NEW! Couplings with 90° quick-fit 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. 10 | 51 | 22 | 28 | 13.5 | 7 | 115 | ESD 10 T-90 | ESD 10 T-90AB |
| Hose i.D. 13 | 51 | 22 | 28 | 13.5 | 9 | 121 | ESD 13 T-90 | ESD 13 T-90AB |

Marking rings for easy and clear identification of quick-fit hose lines

| Version | D | Colour | | Weight | Type No. |
|------------------|----|--------|----|--------|----------|
| For Hose i.D. 10 | 17 | blue | 50 | 0.5 | AR-BL 10 |
| For Hose i.D. 10 | 17 | red | 50 | 0.5 | AR-RO 10 |
| For Hose i.D. 10 | 17 | yellow | 50 | 0.5 | AR-GE 10 |
| For Hose i.D. 13 | 20 | blue | 50 | 0.7 | AR-BL 13 |
| For Hose i.D. 13 | 20 | red | 50 | 0.7 | AR-RO 13 |
| For Hose i.D. 13 | 20 | yellow | 50 | 0.7 | AR-GE 13 |

To put on coupling or plug stem before assembling the quick-fit hose

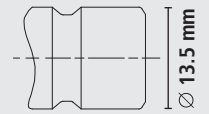
Suitable hose clips, double-ear hose clips or crimping ferrules for standard hoses – (© page 194 - 197)

Safety instruction: Only use quick-fit hose stems in combination with suitable quick-fit hoses (up to max. 100°C)!

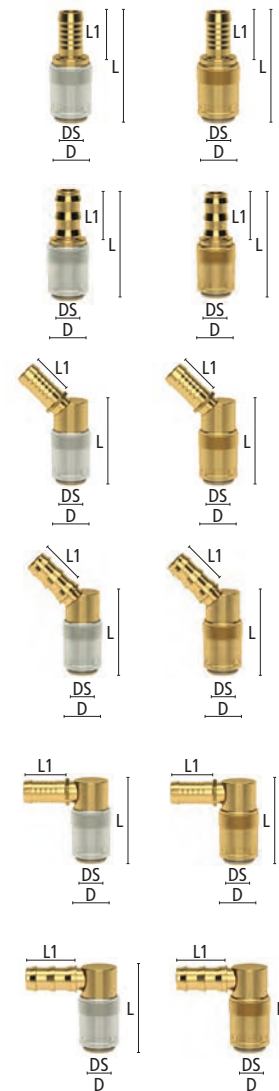
*subject to media (oil: 200°C, water: 150°C, air: 200°C)

DN 9

Plug Profile (original size)



International Plug Profile

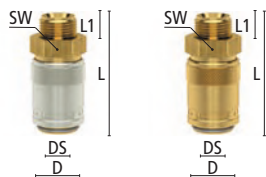
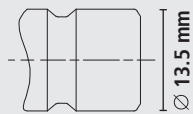


Temperature Regulation Quick Connect Couplings

Series ESD Plug size 13.5 mm

DN 9

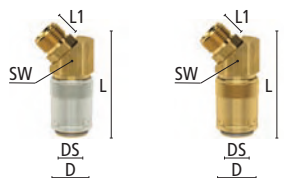
Plug Profile (original size)



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 | 52 | 22 | 22 | 9 | 13.5 | 9 | 90 | ESD 14 A | ESD 14 AAB |
| G 3/8 m | 52 | 22 | 22 | 9 | 13.5 | 9 | 94 | ESD 38 A | ESD 38 AAB |
| G 1/2 m | 53 | 24 | 22 | 10 | 13.5 | 9 | 95 | ESD 12 A | ESD 12 AAB |
| M 16x1.5 m | 52 | 22 | 22 | 9 | 13.5 | 9 | 93 | ESD 1615 A | ESD 1615 AAB |
| G 3/8 m | 52 | 22 | 22 | 11 | 13.5 | 9 | 94 | ESD 38 AL | ESD 38 ALAB |
| G 1/2 m | 54.5 | 24 | 22 | 12 | 13.5 | 9 | 110 | ESD 12 AL | ESD 12 ALAB |
| M 16x1.5 m | 52 | 22 | 22 | 11 | 13.5 | 9 | 105 | ESD 1615 AL | ESD 1615 ALAB |

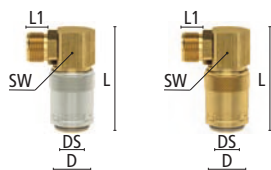
Version AL with long male thread mainly used for assembly with Ermeto fittings.



Couplings with 45° 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 | 54 | 22 | 22 | 9 | 13.5 | 9 | 114 | ESD 38 A-45 | ESD 38 A-45AB |
| M 16x1.5 m | 54 | 22 | 22 | 9 | 13.5 | 9 | 114 | ESD 1615 A-45 | ESD 1615 A-45AB |
| G 3/8 m | 54 | 22 | 22 | 11 | 13.5 | 9 | 125 | ESD 38 AL-45 | ESD 38 AL-45AB |

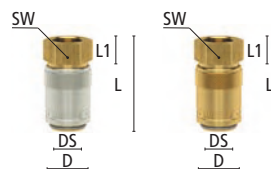
Version AL with long male thread mainly used for assembly with Ermeto fittings.



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

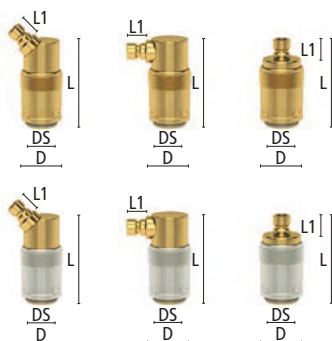
| Thread connection | L | SW | D | L1 | DS | Passage | Weight | Type No. w/o valve | Type No. w valve |
|-------------------|----|----|----|----|------|---------|--------|--------------------|------------------|
| G 3/8 m | 54 | 22 | 22 | 9 | 13.5 | 9 | 126 | ESD 38 A-90 | ESD 38 A-90AB |
| M 16x1.5 m | 54 | 22 | 22 | 9 | 13.5 | 9 | 126 | ESD 1615 A-90 | ESD 1615 A-90AB |
| G 3/8 m | 54 | 22 | 22 | 11 | 13.5 | 9 | 125 | ESD 38 AL-90 | ESD 38 AL-90AB |

Version AL with long male thread mainly used for assembly with Ermeto fittings.



Couplings with straight female thread without/with valve

| Thread connection | L | SW | D | L1 | DS | Passage | Weight | Type No. w/o valve | Type No. w valve |
|-------------------|------|----|----|----|------|---------|--------|--------------------|------------------|
| G 1/4 f | 44.5 | 17 | 22 | 9 | 13.5 | 9 | 75 | ESD 14 I | ESD 14 IAB |
| G 3/8 f | 46 | 22 | 22 | 9 | 13.5 | 9 | 84 | ESD 38 I | ESD 38 IAB |
| G 1/2 f | 49 | 24 | 22 | 12 | 13.5 | 9 | 110 | ESD 12 I | ESD 12 IAB |



Couplings with plug DN 6 - ESHM - System Adapter and ESH-ESD System Adapter

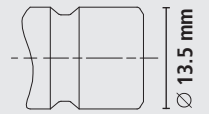
| Connection | L | D | L1 | DS | Passage | Version | Weight | Type No. w/o valve | Type No. w valve |
|-------------|----|----|------|------|---------|----------|--------|--------------------|------------------|
| DN 9 - DN 6 | 48 | 22 | 10.5 | 13.5 | 6 | straight | 85 | ESDK-ESDMS | ESDK-ESDMS-AB |
| DN 9 - DN 6 | 54 | 22 | 10.5 | 13.5 | 6 | 45° | 100 | ESDK-ESDMS-45 | ESDK-ESDMS-45AB |
| DN 9 - DN 6 | 54 | 22 | 10.5 | 13.5 | 6 | 90° | 100 | ESDK-ESDMS-90 | ESDK-ESDMS-90AB |
| DN 9 - DN 6 | 51 | 22 | 14 | 13.5 | 6 | straight | 85 | ESDK-ESHMS | ESDK-ESHMS-AB |
| DN 9 - DN 9 | 51 | 22 | 14 | 13.5 | 9 | straight | 100 | ESDK-ESHS | ESDK-ESHS-AB |

Temperature Regulation Quick Connect Couplings

Plug size 13.5 mm **Series ESD**

DN 9

Plug Profile (original size)



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

| Connection | L | D | DS | Passage | Weight | Type No. w/o valve | Type No. w valve |
|------------|----|----|------|---------|--------|--------------------|------------------|
| Tube 10/8 | 53 | 17 | 13.5 | 8 | 118 | ESD 10-U | ESD 10-UAB |

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

| Connection | L | D | Passage | Weight | Type No. |
|------------|-----|----|---------|--------|-----------|
| Tube 10/8 | 250 | 10 | 8 | 60 | TR 250-10 |
| Tube 10/8 | 500 | 10 | 8 | 120 | TR 500-10 |

Plain End Coupling

| Connection | L | D | DS | Weight | Type No. |
|------------|----|----|------|--------|----------|
| closed | 37 | 22 | 13.5 | 67 | ESD-B |

Plugs with standard hose stem without valve

| Hose connection | L | D | L1 | L2 | DS | Passage | Weight | Type No. |
|-----------------|------|------|------|------|------|---------|--------|-----------|
| Hose i.D. 6 | 41 | 14.5 | 22.5 | 15.5 | 13.5 | 5 | 20 | ESD 6 SL |
| Hose i.D. 9 | 41 | 14.5 | 22.5 | 15.5 | 13.5 | 7 | 23 | ESD 9 SL |
| Hose i.D. 13 | 43.5 | 16 | 25 | 15.5 | 13.5 | 9 | 25 | ESD 13 SL |

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

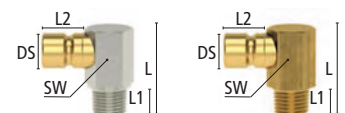
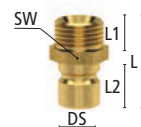
| Thread connection | L | SW | L1 | L2 | DS | Passage | Weight | Type No. |
|-------------------|------|----|----|------|------|---------|--------|-------------|
| G 1/8 m | 27 | 15 | 7 | 15.5 | 13.5 | 6 | 16 | ESD 18 NA* |
| G 1/4 m | 29 | 15 | 9 | 15.5 | 13.5 | 9 | 17 | ESD 14 NA* |
| R 1/4 m | 32 | 15 | 12 | 15.5 | 13.5 | 9 | 21 | ESD 14 NAR* |
| G 3/8 m | 29 | 17 | 9 | 15.5 | 13.5 | 9 | 22 | ESD 38 NA* |
| R 3/8 m | 32 | 17 | 12 | 15.5 | 13.5 | 9 | 26 | ESD 38 NAR* |
| G 1/2 m | 32 | 22 | 12 | 15.5 | 13.5 | 9 | 42 | ESD 12 NA* |
| G 3/4 m | 36.5 | 27 | 16 | 15.5 | 13.5 | 9 | 77 | ESD 34 NA* |
| M 10x1 m | 27 | 15 | 7 | 15.5 | 13.5 | 6.5 | 14 | ESD 101 NA |
| M 14x1.5 m | 29 | 15 | 9 | 15.5 | 13.5 | 9 | 16 | ESD 1415 NA |
| M 16x1.5 m | 29 | 17 | 9 | 15.5 | 13.5 | 9 | 20 | ESD 1615 NA |

Plugs with straight female thread without valve

| Thread connection | L | SW | L1 | L2 | DS | Passage | Weight | Type No. |
|-------------------|------|----|----|------|------|---------|--------|------------|
| G 1/4 f | 27 | 17 | 9 | 15.5 | 13.5 | 9 | 21 | ESD 14 NI* |
| G 3/8 f | 27.5 | 22 | 10 | 15.5 | 13.5 | 9 | 32 | ESD 38 NI* |
| G 1/2 f | 29.5 | 24 | 12 | 15.5 | 13.5 | 9 | 55 | ESD 12 NI* |

Plugs with 90° male thread without valve (metrical thread DIN 158/ R-thread DIN EN 10226)

| Thread connection | L | SW | L1 | L2 | DS | Passage | Weight | Type No. |
|-------------------|------|----|----|------|------|---------|--------|----------------|
| R 1/4 m | 35.5 | 17 | 11 | 15.5 | 13.5 | 9 | 45 | ESD 14 NA-90* |
| R 3/8 m | 35.5 | 17 | 12 | 15.5 | 13.5 | 9 | 45 | ESD 38 NA-90* |
| M 14x1.5 m | 35.5 | 17 | 11 | 15.5 | 13.5 | 9 | 47 | ESD 1415 NA-90 |



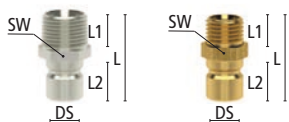
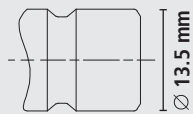
*Plugs with inch thread nickel-plated for simple distinction

Temperature Regulation Quick Connect Couplings

Series ESD Plug size 13.5 mm

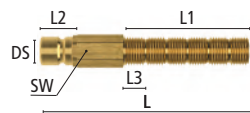
DN 9

Plug Profile (original size)



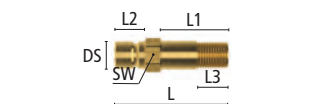
Plugs with straight male thread with valve

| Thread connection | L | SW | L1 | L2 | DS | Passage | Weight | Type No. |
|-------------------|----|----|------|------|------|---------|--------|---------------|
| G 1/4 m | 30 | 15 | 9.5 | 15.5 | 13.5 | 6 | 24 | ESD 14 NAAB* |
| G 3/8 m | 31 | 17 | 10.5 | 15.5 | 13.5 | 9 | 28 | ESD 38 NAAB* |
| R 3/8 m | 34 | 17 | 13.5 | 15.5 | 13.5 | 9 | 32 | ESD 38 NARAB* |
| M 14x1.5 m | 30 | 15 | 9.5 | 15.5 | 13.5 | 6 | 26 | ESD 1415 NAAB |
| M 16x1.5 m | 31 | 17 | 10.5 | 15.5 | 13.5 | 9 | 28 | ESD 1615 NAAB |



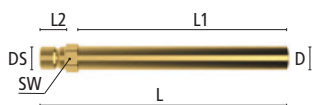
Plugs with straight male long thread without valve (for length cutting as needed)

| Thread connection | L | SW | L1 | L2 | L3 | DS | Passage | Weight | Type No. |
|-------------------|-----|----|----|------|----|------|---------|--------|----------------|
| G 1/4 m | 100 | 14 | 60 | 15.5 | 10 | 13.5 | 9 | 60 | ESD 14-60 NA |
| G 1/4 m | 57 | 15 | 34 | 15.5 | 16 | 13.5 | 9 | 38 | ESD 14 NAL18 |
| G 1/4 m | 110 | 15 | 87 | 15.5 | 16 | 13.5 | 9 | 75 | ESD 14 NAL71 |
| G 3/8 m | 100 | 17 | 60 | 15.5 | 10 | 13.5 | 9 | 91 | ESD 38-60 NA |
| M 14x1.5 m | 100 | 14 | 60 | 15.5 | 10 | 13.5 | 9 | 55 | ESD 1415-60 NA |
| M 16x1.5 m | 100 | 17 | 60 | 15.5 | 10 | 13.5 | 9 | 93 | ESD 1615-60 NA |



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

| D | L | SW | L1 | L2 | DS | Passage | Weight | Type No. |
|----|-----|----|-----|------|------|---------|--------|-----------|
| 14 | 150 | 15 | 127 | 15.5 | 13.5 | 9 | 114 | ESD 150 R |
| 14 | 300 | 15 | 277 | 15.5 | 13.5 | 9 | 230 | ESD 300 R |
| 14 | 450 | 15 | 427 | 15.5 | 13.5 | 9 | 344 | ESD 450 R |



Plug System Adapters

| Connection | L | D | L1 | L2 | DS | DS1 | Passage | Weight | Type No. |
|-------------|----|----|------|------|------|------|---------|--------|----------|
| DN 9 - DN 6 | 31 | 14 | 15.5 | 10.5 | 13.5 | 9.4 | 6 | 18 | ESD-ESDM |
| DN 9 - DN 9 | 34 | 14 | 15.5 | 15.5 | 13.5 | 13.5 | 9 | 24 | ESD-ESD |
| DN 9 - DN 9 | 34 | 14 | 15.5 | 14 | 13.5 | 13 | 9 | 24 | ESD-ESH |

Protection cap (plastic) for plug profile ESD

100

ESD-K

*Plugs with inch thread nickel-plated for simple distinction