

Temperature Regulation Quick Connect Couplings

Plug size 13 mm **Series ESH**

- 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, 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-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 | 61.5 | 22 | 25 | 13 | 7 | 72 | ESH 9 TL | ESH 9 TLAB |
| Hose i.D. 13 | 61.5 | 22 | 25 | 13 | 9 | 81 | | ESH 13 TLAB |
| Hose i.D. 13 | 61.5 | 22 | 25 | 13 | 9 | 81 | ESH 13 TL | |

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 | 7 | 76 | ESH 10 T | ESH 10 TAB |
| Hose i.D. 13 | 64.5 | 22 | 28 | 13 | 9 | 84 | ESH 13 T | ESH 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 | 7 | 103 | ESH 9 TL-45 | ESH 9 TL-45AB |
| Hose i.D. 13 | 51 | 22 | 30 | 13 | 9 | 109 | ESH 13 TL-45 | ESH 13 TL-45AB |

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 | 33 | 13 | 7 | 108 | ESH 10 T-45 | ESH 10 T-45AB |
| Hose i.D. 13 | 51 | 22 | 33 | 13 | 9 | 111 | ESH 13 T-45 | ESH 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 | 7 | 105 | ESH 9 TL-90 | ESH 9 TL-90AB |
| Hose i.D. 13 | 51 | 22 | 30 | 13 | 9 | 111 | ESH 13 TL-90 | ESH 13 TL-90AB |

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 | 33 | 13 | 7 | 110 | ESH 10 T-90 | ESH 10 T-90AB |
| Hose i.D. 13 | 51 | 22 | 33 | 13 | 9 | 113 | ESH 13 T-90 | ESH 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

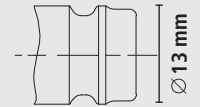
Suitable hose clips, double-ear hose clips or crimping ferrules for standard hoses (© page 194 - 197)

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)

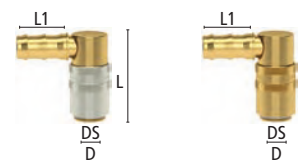
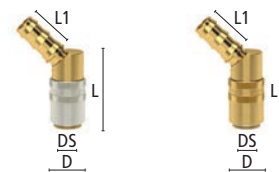
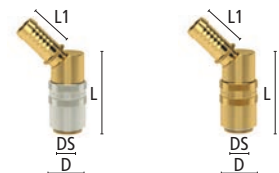
DN 9

Plug Profile (original size)



Also in Stainless Steel
Series ESHE
Page 317

European
Plug Profile

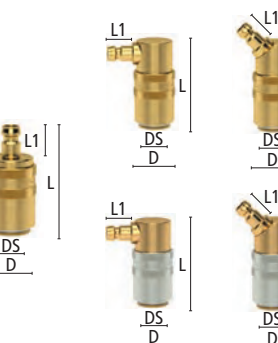
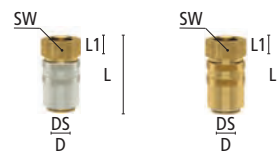
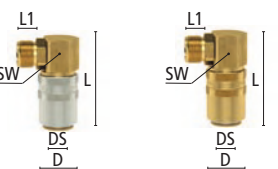
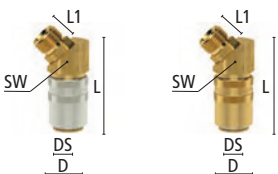
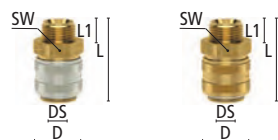
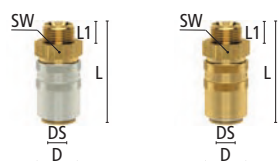
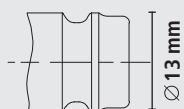


Temperature Regulation Quick Connect Couplings

Series ESH Plug size 13 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 | 23.5 | 9 | 13 | 9 | 90 | ESH 14 A | ESH 14 AAB |
| G 3/8 m | 52 | 22 | 23.5 | 9 | 13 | 9 | 94 | ESH 38 A | ESH 38 AAB |
| G 1/2 m | 53 | 24 | 23.5 | 10 | 13 | 9 | 95 | ESH 12 A | ESH 12 AAB |
| M 14x1.5 m | 56 | 22 | 23.5 | 11 | 13 | 9 | 90 | ESH 1415 A | ESH 1415 AAB |
| M 16x1.5 m | 52 | 22 | 23.5 | 9 | 13 | 9 | 93 | ESH 1615 A | ESH 1615 AAB |
| M 18x1.5 m | 54 | 22 | 23.5 | 11 | 13 | 9 | 105 | ESH 1815 A | ESH 1815 AAB |
| G 3/8 m | 56 | 22 | 23.5 | 11 | 13 | 9 | 105 | ESH 38 AL* | ESH 38 ALAB* |
| G 1/2 m | 57 | 24 | 23.5 | 14 | 13 | 9 | 110 | ESH 12 AL* | ESH 12 ALAB* |
| M 16x1.5 m | 56 | 22 | 23.5 | 13 | 13 | 9 | 105 | ESH 1615 AL* | ESH 1615 ALAB* |

Couplings with straight male thread (short version) with valve

| Thread connection | L | SW | D | L1 | DS | Passage | Weight | Type No. w/o valve | Type No. w valve |
|-------------------|----|----|----|----|----|---------|--------|--------------------|------------------|
| G 3/8 m | 38 | 22 | 22 | 9 | 13 | 9 | 61 | ESH 38 AK | ESH 38 AKAB |

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 1/4 m | 54 | 22 | 23.5 | 9 | 13 | 9 | 128 | ESH 14 A-45 | ESH 14 A-45AB |
| G 3/8 m | 54 | 22 | 23.5 | 9 | 13 | 9 | 114 | ESH 38 A-45 | ESH 38 A-45AB |
| M 14x1.5 m | 56 | 22 | 23.5 | 11 | 13 | 9 | 114 | ESH 1415 A-45 | ESH 1415 A-45AB |
| M 16x1.5 m | 54 | 22 | 23.5 | 9 | 13 | 9 | 114 | ESH 1615 A-45 | ESH 1615 A-45AB |
| G 1/4 m | 54 | 22 | 23.5 | 11 | 13 | 9 | 128 | ESH 14 AL-45 | ESH 14 AL-45 AB |
| G 3/8 m | 58 | 22 | 23.5 | 11 | 13 | 9 | 125 | ESH 38 AL-45* | ESH 38 AL-45AB* |

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 | 54 | 22 | 23.5 | 9 | 13 | 9 | 126 | ESH 14 A-90 | ESH 14 A-90AB |
| G 3/8 m | 54 | 22 | 23.5 | 9 | 13 | 9 | 126 | ESH 38 A-90 | ESH 38 A-90AB |
| M 14x1.5 m | 56 | 22 | 23.5 | 11 | 13 | 8 | 126 | ESH 1415 A-90 | ESH 1415 A-90AB |
| M 16x1.5 m | 54 | 22 | 23.5 | 9 | 13 | 9 | 126 | ESH 1615 A-90 | ESH 1615 A-90AB |
| G 1/4 m | 54 | 22 | 23.5 | 11 | 13 | 9 | 126 | ESH 14 AL-90* | ESH 14 AL-90AB |
| G 3/8 m | 58 | 22 | 23.5 | 11 | 13 | 9 | 125 | ESH 38 AL-90* | ESH 38 AL-90AB* |

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 | 23.5 | 9 | 13 | 9 | 75 | ESH 14 I | ESH 14 IAB |
| G 3/8 f | 46 | 22 | 23.5 | 9 | 13 | 9 | 110 | ESH 38 I | ESH 38 IAB |
| G 1/2 f | 49 | 24 | 23.5 | 12 | 13 | 9 | 110 | ESH 12 I | ESH 12 IAB |

Couplings with Plugs 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 | 51 | 22 | 14 | 13 | 6 | straight | 100 | ESHK-ESHMS | ESHK-ESHMS-AB |
| DN 9 - DN 6 | 51 | 22 | 14 | 13 | 6 | 45° | 100 | ESHK-ESHMS-45 | ESHK-ESHMS-45AB |
| DN 9 - DN 6 | 51 | 22 | 14 | 13 | 6 | 90° | 100 | ESHK-ESHMS-90 | ESHK-ESHMS-90AB |
| DN 9 - DN 6 | 51 | 22 | 10.5 | 13 | 6 | straight | 85 | ESHK-ESDMS | ESHK-ESDMS-AB |
| DN 9 - DN 9 | 51 | 22 | 15.5 | 13 | 9 | straight | 100 | ESHK-ESDS | ESHK-ESDS-AB |

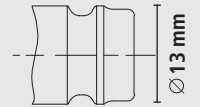
*Version AL with longer male thread mainly used for assembly with Ermeto fittings.

Temperature Regulation Quick Connect Couplings

Plug size 13 mm **Series ESH**

DN 9

Plug Profile (original size)



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

| Connection | L | D | DS | Passage | Weight | Type No. w/o valve | Type No. w valve |
|------------|----|----|----|---------|--------|--------------------|------------------|
| Tube 10/8 | 53 | 22 | 13 | 9 | 118 | ESH 10-U | ESH 10-UAB |



Tube (chamfered) for diversion couplings (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 | 67 | ESH-B |



Plugs with straight standard hose stem without valve

| Hose connection | L | D | L1 | L2 | DS | Passage | Weight | Type No. |
|-----------------|------|------|------|----|----|---------|--------|-----------|
| Hose i.D. 9 | 39.5 | 14.5 | 22.5 | 14 | 13 | 7 | 23 | ESH 9 SL |
| Hose i.D. 13 | 42 | 16 | 25 | 14 | 13 | 9 | 25 | ESH 13 SL |



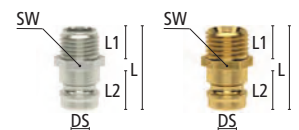
Plugs with straight quick-fit hose stem without valve

| Hose connection | L | D | L1 | L2 | DS | Passage | Weight | Type No. |
|-----------------|------|------|----|----|----|---------|--------|----------|
| Hose i.D. 10 | 43.5 | 14.5 | 28 | 14 | 13 | 7 | 24 | ESH 10 S |
| Hose i.D. 13 | 43.5 | 16 | 28 | 14 | 13 | 9 | 26 | ESH 13 S |



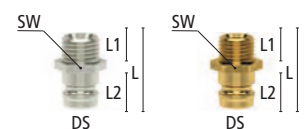
Plugs with straight male thread without valve (inner cone DIN 3863)

| Thread connection | L | SW | L1 | L2 | DS | Passage | Weight | Type No. |
|-------------------|----|----|----|----|----|---------|--------|-------------|
| G 1/8 m | 24 | 15 | 7 | 14 | 13 | 6 | 16 | ESH 18 NA* |
| G 1/4 m | 26 | 15 | 9 | 14 | 13 | 9 | 17 | ESH 14 NA* |
| G 3/8 m | 26 | 17 | 9 | 14 | 13 | 9 | 22 | ESH 38 NA* |
| G 1/2 m | 31 | 22 | 12 | 14 | 13 | 9 | 42 | ESH 12 NA* |
| G 3/4 m | 35 | 27 | 16 | 14 | 13 | 9 | 110 | ESH 34 NA* |
| M 10x1 m | 24 | 15 | 7 | 14 | 13 | 6.5 | 14 | ESH 101 NA |
| M 14x1.5 m | 26 | 15 | 9 | 14 | 13 | 9 | 16 | ESH 1415 NA |
| M 16x1.5 m | 26 | 17 | 9 | 14 | 13 | 9 | 20 | ESH 1615 NA |
| M 18x1.5 m | 26 | 19 | 9 | 14 | 13 | 9 | 25 | ESH 1815 NA |



Plugs with straight male thread with inner Hexagon without valve

| Thread | L | SW | L1 | L2 | DS | Passage | Weight | Version | Type No. |
|------------|----|----|----|----|----|---------|--------|-----------------|---------------|
| G 1/4 m | 26 | 17 | 9 | 14 | 13 | 9 | 17 | SW8, 17mm depth | ESH 14 NAIB* |
| M 14x1.5 m | 26 | 17 | 9 | 14 | 13 | 9 | 16 | SW8, 17mm depth | ESH 1415 NAIB |



For easy assembly with Allen key countersunk in the tool

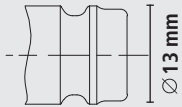
*Plugs with inch thread nickel-plated for simple distinction

Temperature Regulation Quick Connect Couplings

Series ESH Plug size 13 mm

DN 9

Plug Profile (original size)



Plugs with straight female thread without valve

| Thread connection | L | SW | L1 | L2 | DS | Passage | Weight | Type No. |
|-------------------|----|----|----|----|----|---------|--------|------------|
| G 3/8 f | 26 | 19 | 10 | 14 | 13 | 9 | 42 | ESH 38 NI* |
| G 1/2 f | 29 | 24 | 10 | 14 | 13 | 9 | 55 | ESH 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 | 34 | 17 | 11 | 25 | 13 | 9 | 45 | ESH 14 NA-90* |
| M 14x1.5 m | 34 | 17 | 11 | 25 | 13 | 9 | 47 | ESH 1415 NA-90 |
| R 3/8 m | 35 | 17 | 12 | 25 | 13 | 9 | 45 | ESH 38 NA-90* |

Plugs with straight male thread with valve

| Thread connection | L | SW | L1 | L2 | DS | Passage | Weight | Type No. |
|-------------------|----|----|----|----|----|---------|--------|---------------|
| G 1/4 m | 30 | 15 | 11 | 14 | 13 | 6 | 24 | ESH 14 NAAB* |
| G 3/8 m | 31 | 17 | 12 | 14 | 13 | 9 | 28 | ESH 38 NAAB* |
| G 1/2 m | 31 | 22 | 12 | 14 | 13 | 9 | 48 | ESH 12 NAAB* |
| M 14x1.5 m | 30 | 15 | 11 | 14 | 13 | 6 | 26 | ESH 1415 NAAB |
| M 16x1.5 m | 31 | 17 | 12 | 14 | 13 | 9 | 28 | ESH 1615 NAAB |
| M 18x1.5 m | 30 | 19 | 12 | 14 | 13 | 9 | 30 | ESH 1815 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 | 14 | 10 | 13 | 9 | 60 | ESH 14-60 NA |
| G 1/4 m | 57 | 15 | 34 | 14 | 16 | 13 | 9 | 38 | ESH 14 NAL18 |
| G 1/4 m | 110 | 15 | 87 | 14 | 16 | 13 | 9 | 75 | ESH 14 NAL71 |
| G 3/8 m | 100 | 17 | 60 | 14 | 10 | 13 | 9 | 91 | ESH 38-60 NA |
| M 14x1.5 m | 100 | 14 | 60 | 14 | 10 | 13 | 9 | 55 | ESH 1415-60 NA |
| M 16x1.5 m | 100 | 17 | 60 | 14 | 10 | 13 | 9 | 93 | ESH 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 | 14 | 13 | 9 | 114 | ESH 150 R |
| 14 | 300 | 15 | 277 | 14 | 13 | 9 | 210 | ESH 300 R |
| 14 | 450 | 15 | 427 | 14 | 13 | 9 | 344 | ESH 450 R |
| 10 | 150 | 15 | 127 | 14 | 13 | 6 | 65 | ESH 150 R-10 |

Plug System - Adapters

| Connection | L | D | L1 | L2 | DS | DS1 | Passage | Weight | Type No. |
|-------------|----|----|----|----|----|-----|---------|--------|----------|
| DN 9 - DN 6 | 34 | 14 | 14 | 14 | 9 | 13 | 6 | 18 | ESH-ESHM |
| DN 9 - DN 9 | 34 | 14 | 14 | 14 | 13 | 13 | 9 | 24 | ESH-ESH |

Plugs with counterpart system "ARBURG" – System Adapters

| System | Thread | L | SW | L1 | L2 | DS | DS1 | Passage | Weight | Type No. |
|-----------------|---------|----|----|----|----|----|------|---------|--------|-----------|
| DN 9 ESH-Arburg | - | 64 | - | 22 | 14 | 13 | 14.8 | 9 | 77 | ESH-ARB |
| Arburg | G 1/4 f | 50 | 21 | 22 | 14 | - | 14.8 | 9 | 85 | ARB 14 NI |
| Arburg | G 3/8 f | 50 | 21 | 22 | 14 | - | 14.8 | 9 | 84 | ARB 38 NI |

| | | |
|---|-----|-------|
| Protection cap (plastic) for plug profile ESH | 100 | ESH-K |
|---|-----|-------|

*Plugs with inch thread nickel-plated for simple distinction