

7/8" connectors

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Product description

Connectors with threads measured in inches have been used for many years, mainly outside Europe. The 7/8" thread types are the main group found within this group of products. They are essentially used in bus systems like Fieldbus Foundation or DeviceNet. In recent years these connectors also have become popular as supply ports for I/O nodes, due to the low number of pins and their sturdy construction.

Weidmüller now offers this product range in the following versions:

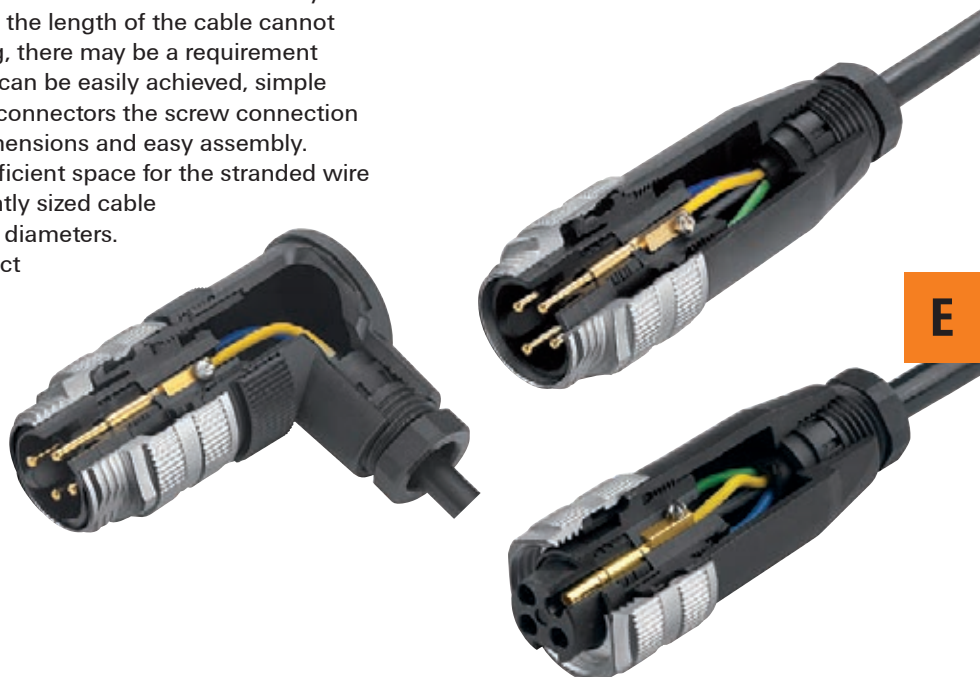
- Customisable connectors
- Built-in connectors
- Moulded cables.

7/8" connectors are available in 3-pole (2 + PE), 4-pole (3 + PE), 5-pole (4 + PE) versions. Connectors with different pole counts are not plug compatible. The contact surfaces are gold-plated.



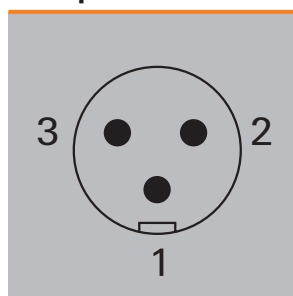
Customisable connectors

In certain circumstances it may be required to be able to assemble cables yourself. This may be for various reasons. For example, the length of the cable cannot be determined in advance, or during servicing, there may be a requirement to produce connections yourself. So that this can be easily achieved, simple connection solutions are required. With 7/8" connectors the screw connection provides the best solution due to its small dimensions and easy assembly. These customisable connectors also have sufficient space for the stranded wire ends. Weidmüller offers versions with differently sized cable glands to properly fit larger and smaller cable diameters. The contacts are gold-plated, for higher contact reliability.

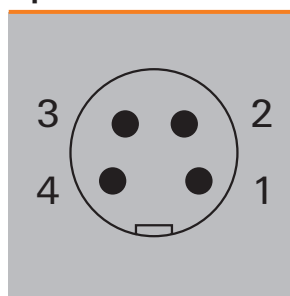


Pin out

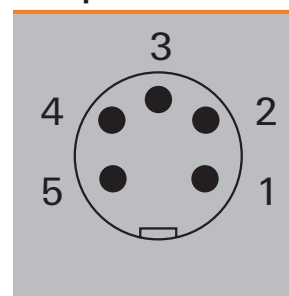
Male insert (mating side) 2+PE-pole



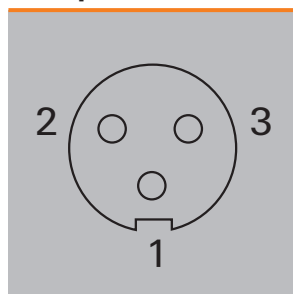
4-pole



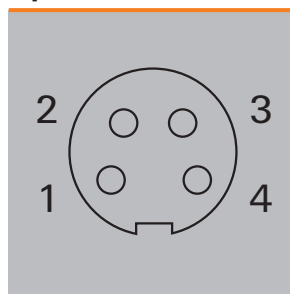
4+PE-pole



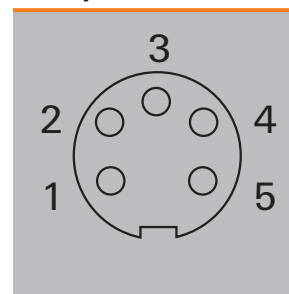
Female insert (mating side) 2+PE-pole



4-pole

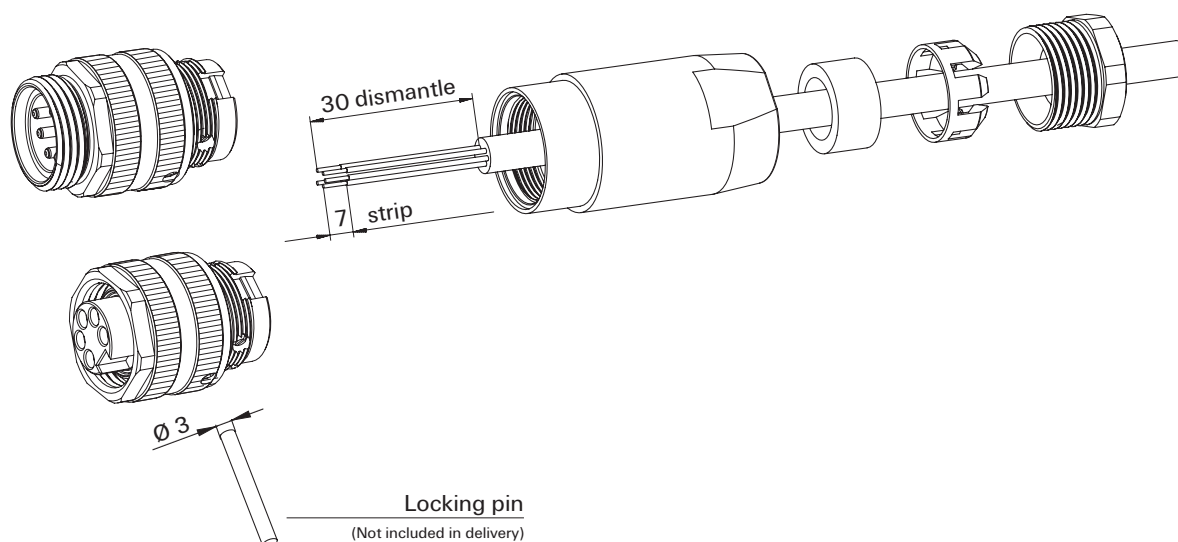


4+PE-pole

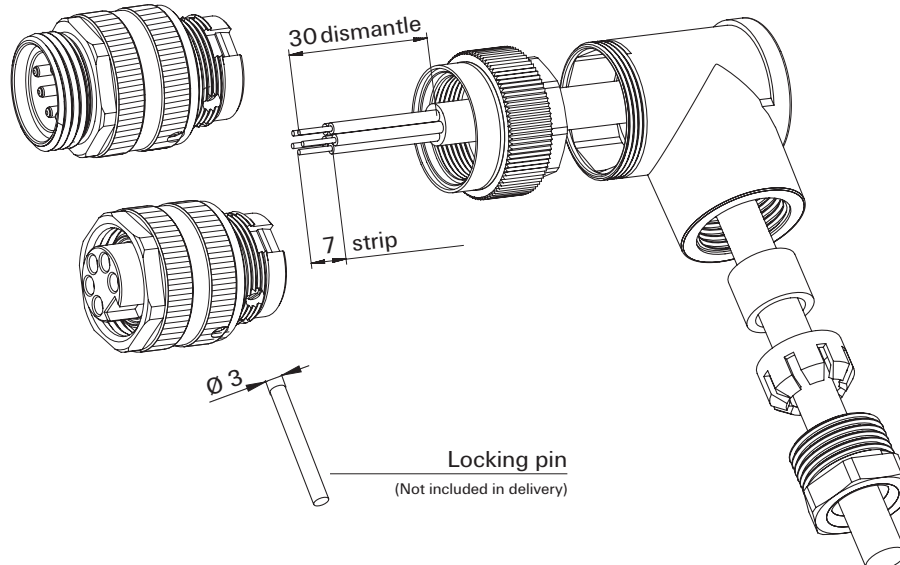


Customisable connector assembly instructions

Straight connector

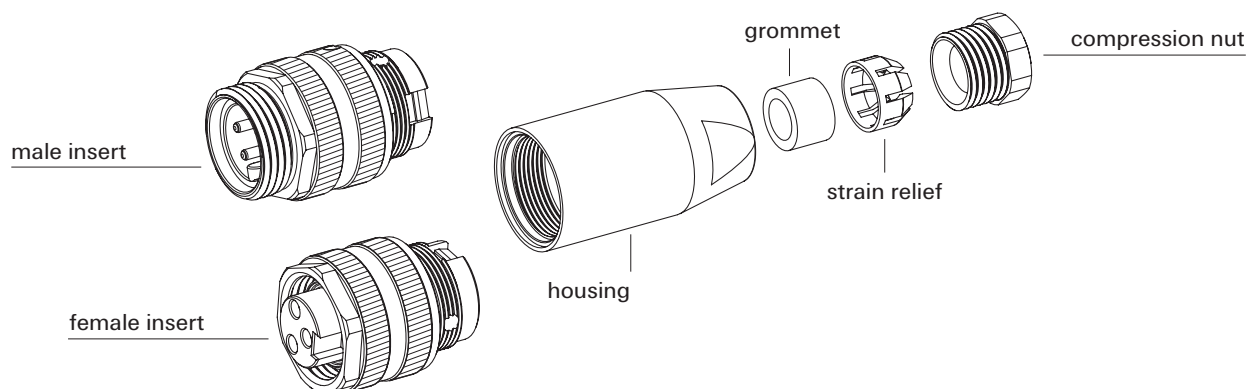


Angled connector

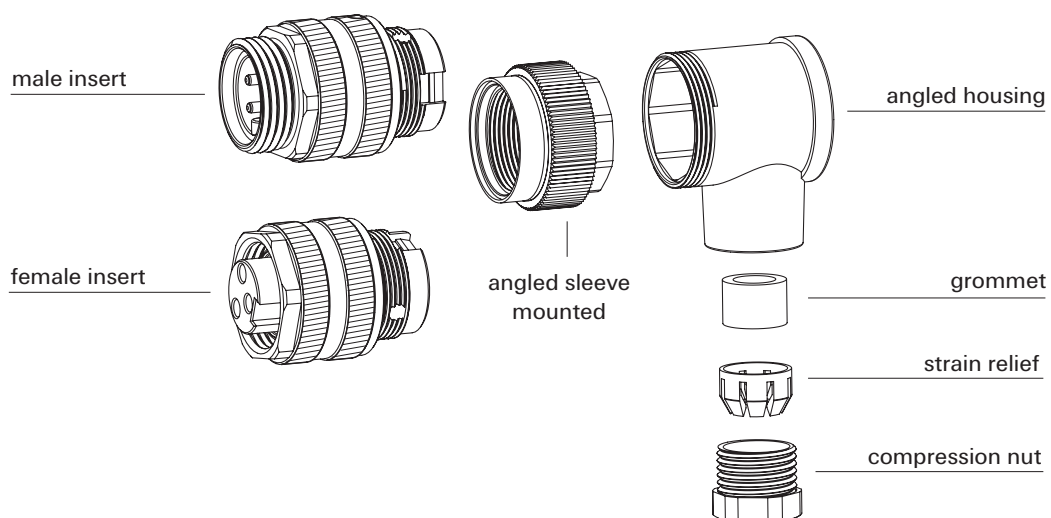


Individual component drawing of the customisable connector

Straight connector



Angled connector



7/8" connector

Screw connection 7/8", PG9
Cable diameter 6...8 mm

SAIS / SAIB

Straight



SAISW / SAIBW

Angled



Ordering data

Male	
3-pole. PG 9	
4-pole. PG 9	
5-pole. PG 9	
Socket	
3-pole. PG 9	
4-pole. PG 9	
5-pole. PG 9	
Note	

Type	QTY	Order No.
SAIS-3/9-7/8"	1	1291870000
SAIS-4/9-7/8"	1	1808840000
SAIS-5/9-7/8"	1	1301220000
SAIB-3/9-7/8"	1	1291910000
SAIB-4/9-7/8"	1	1812480000
SAIB-5/9-7/8"	1	1292000000

Type	QTY	Order No.
SAISW-3/9-7/8"	1	1291890000
SAISW-4/9-7/8"	1	1808830000
SAISW-5/9-7/8"	1	1291980000
SAIBW-3/9-7/8"	1	1291930000
SAIBW-4/9-7/8"	1	1812470000
SAIBW-5/9-7/8"	1	1292020000

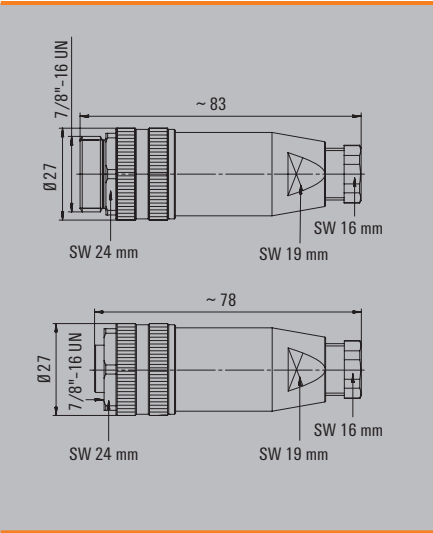
Technical data

Type of connection	Screw connection
Housing main material	PBT
Contact tube diameter	7/8"
Cable diameter	6...8 mm (PG9)
Wire cross-section, min. / max.	0.5...1.5 mm ²
Rated current	9A (4- and 5-pole), 12A (3-pole)
Rated voltage	250 V
Temperature range of housing	-25...+85 °C
Protection degree	IP 67
Contact surface	Gold-plated
Contact material	CuZn
Plugging cycles	≥ 50
Pollution severity	3
Note	

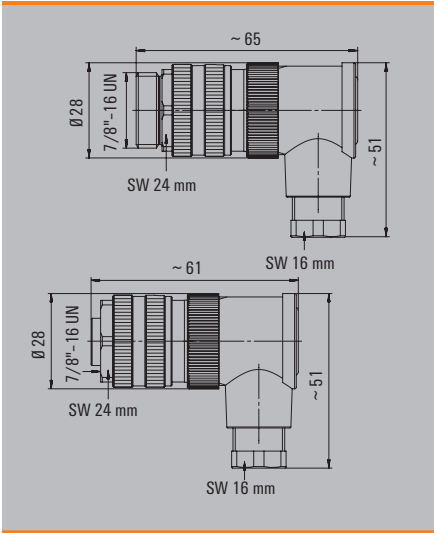
Type of connection	Screw connection
Housing main material	PBT
Contact tube diameter	7/8"
Cable diameter	6...8 mm (PG9)
Wire cross-section, min. / max.	0.5...1.5 mm ²
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Temperature range of housing	-25...+85 °C
Protection degree	IP 67
Contact surface	Gold-plated
Contact material	CuZn
Plugging cycles	≥ 50
Pollution severity	3
Note	

Dimensioned drawing



Dimensioned drawing



Torque, see E.12

Screw connection 7/8", PG11
Cable diameter 8...10 mm

SAIS / SAIB

Angled



SAISW / SAIBW

Angled



Ordering data

Male	
3-pole. PG 11	
4-pole. PG 11	
5-pole. PG 11	
Socket	
3-pole. PG 11	
4-pole. PG 11	
5-pole. PG 11	
Note	

Type	QTY	Order No.
SAIS-3/11-7/8"	1	1291880000
SAIS-4/11-7/8"	1	1291950000
SAIS-5/11-7/8"	1	1291970000
SAIB-3/11-7/8"	1	1291920000
SAIB-4/11-7/8"	1	1292050000
SAIB-5/11-7/8"	1	1292010000

Type	QTY	Order No.
SAISW-3/11-7/8"	1	1291900000
SAISW-4/11-7/8"	1	1292040000
SAISW-5/11-7/8"	1	1291990000
SAIBW-3/11-7/8"	1	1291940000
SAIBW-4/11-7/8"	1	1292070000
SAIBW-5/11-7/8"	1	1292030000

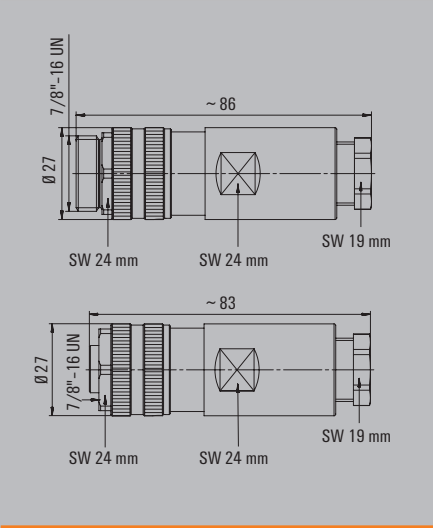
Technical data

Type of connection
Housing main material
Contact tube diameter
Cable diameter
Wire cross-section, min. / max.
Rated current
Rated voltage
Temperature range of housing
Protection degree
Contact surface
Contact material
Plugging cycles
Pollution severity
Note

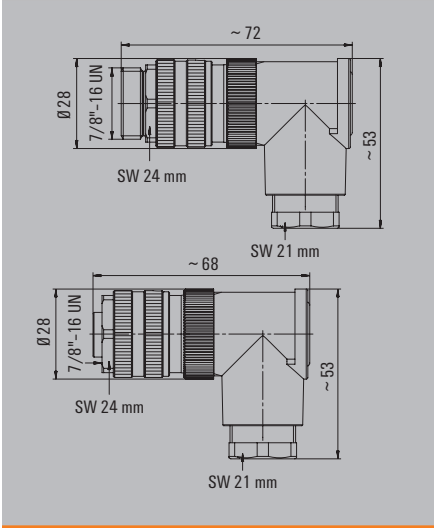
Screw connection
PBT
7/8"
8...10 mm (PG11)
0.5...1.5 mm ²
9A (4- and 5-pole), 12A (3-pole)
250 V
-25...+85 °C
IP 67
Gold-plated
CuZn
≥ 50
3
Torque, see E.12

Screw connection
PBT
7/8"
8...10 mm (PG11)
0.5...1.5 mm ²
9A (4- and 5-pole), 12A (3-pole)
250 V
-25...+85 °C
IP 67
Gold-plated
CuZn
≥ 50
3
Torque, see E.12

Dimensioned drawing



Dimensioned drawing



Torque, see E.12

7/8" built-in connector

7/8"

Mounts behind wall



Ordering data

Male	
	3-pole
	4-pole
	5-pole
Socket	
	3-pole
	4-pole
	5-pole
Note	

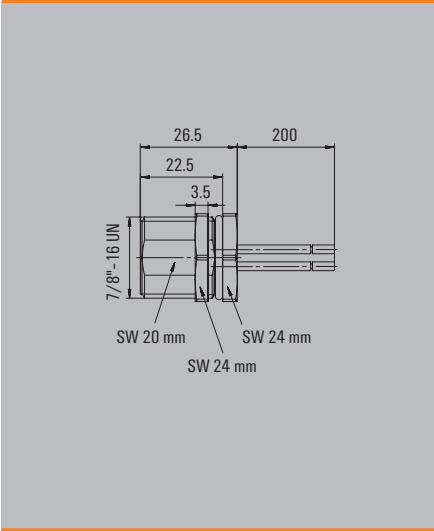
Type	QTY	Order No.
SAIE-7/8"S-3-0.2U-H	1	1292350000
SAIE-7/8"S-4-0.2U-H	1	1292420000
SAIE-7/8"S-5-0.2U-H	1	1292490000
SAIE-7/8"B-3-0.2U-H	1	1292390000
SAIE-7/8"B-4-0.2U-H	1	1292450000
SAIE-7/8"B-5-0.2U-H	1	1292520000

Technical data

Housing main material	
Contact tube diameter	
Core cross-section	
Rated current	
Rated voltage	
Temperature range of housing	
Protection degree	
Contact surface	
Contact material	
Plugging cycles	
Note	

Zinc diecast, nickel-plated	
7/8"	
0.75 mm²	
8A (4- and 5-pole), 10A (3-pole)	
300 V	
-25...+85 °C	
IP 67	
Gold-plated	
CuZn	
≥ 100	

Dimensioned drawing



7/8"

PG 11



Ordering data

Male	
	3-pole
	4-pole
	5-pole
Socket	
	3-pole
	4-pole
	5-pole
Note	

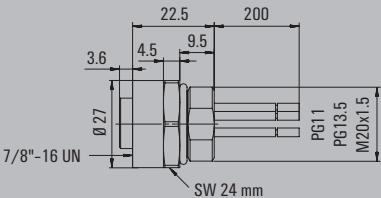
Type	QTY	Order No.
SAIE-7/8"S-3-0.2U-PG11	1	1292330000
SAIE-7/8"S-4-0.2U-PG11	1	1292400000
SAIE-7/8"S-5-0.2-PG11	1	1292470000
SAIE-7/8"B-3-0.2U-PG11	1	1292370000
SAIE-7/8"B-4-0.2U-PG11	1	1292430000
SAIE-7/8"B-5-0.2U-PG11	1	1292500000

Technical data

Housing main material
Contact tube diameter
Core cross-section
Rated current
Rated voltage
Temperature range of housing
Protection degree
Contact surface
Contact material
Plugging cycles
Note

Zinc diecast, nickel-plated
7/8"
0.75 mm ²
8A (4- and 5-pole), 10A (3-pole)
300 V
-25...+85 °C
IP 67
Gold-plated
CuZn
≥ 100

Dimensioned drawing



7/8" built-in connector

7/8"

PG 13.5



Ordering data

Male	
	3-pole
	4-pole
	5-pole
Socket	
	3-pole
	4-pole
	5-pole
Note	

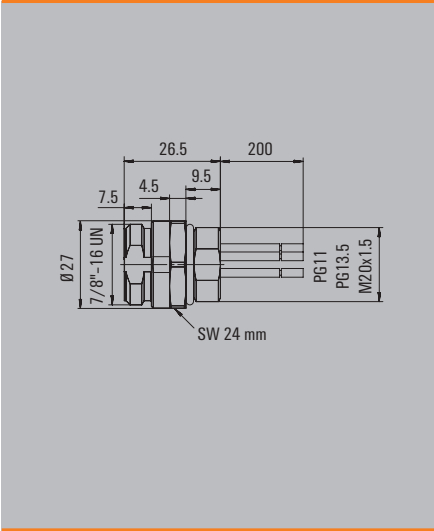
Type	QTY	Order No.
SAIE-7/8"S-3-0.2U-PG13.5	1	1292340000
SAIE-7/8"S-4-0.2U-PG13.5	1	1292410000
SAIE-7/8"S-5-0.2U-PG13.5	1	1292480000
SAIE-7/8"B-3-0.2U-PG13.5	1	1292380000
SAIE-7/8"B-4-0.2U-PG13.5	1	1292440000
SAIE-7/8"B-5-0.2U-PG13.5	1	1292510000

Technical data

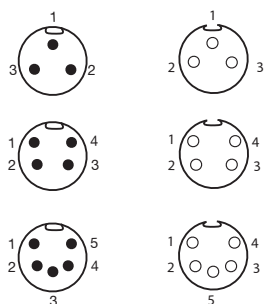
Housing main material	
Contact tube diameter	
Core cross-section	
Rated current	
Rated voltage	
Temperature range of housing	
Protection degree	
Contact surface	
Contact material	
Plugging cycles	
Note	

Zinc diecast, nickel-plated	
7/8"	
0.75 mm²	
8A (4- and 5-pole), 10A (3-pole)	
300 V	
-25...+85 °C	
IP 67	
Gold-plated	
CuZn	
≥ 100	

Dimensioned drawing



7/8" one end without connector



Ordering data

Male, straight	1.5 m
Male, angled	1.5 m
Female, straight	1.5 m
Female, angled	1.5 m
Note	

3-pole

Type	Order No.
SAIL-7/8"G-3-1.5U	1292080150
SAIL-7/8"W-3-1.5U	1292090150
SAIL-7/8"BG-3-1.5U	1292100150
SAIL-7/8"BW-3-1.5U	1292110150

4-pole

Type	Order No.
SAIL-7/8"G-4-1.5U	1292120150
SAIL-7/8"W-4-1.5U	1292130150
SAIL-7/8"BG-4-1.5U	1292140150
SAIL-7/8"BW-4-1.5U	1292150150

5-pole

Type	Order No.
SAIL-7/8"G-5-1.5U	1292170150
SAIL-7/8"W-5-1.5U	1292180150
SAIL-7/8"BG-5-1.5U	1292190150
SAIL-7/8"BW-5-1.5U	1292200150

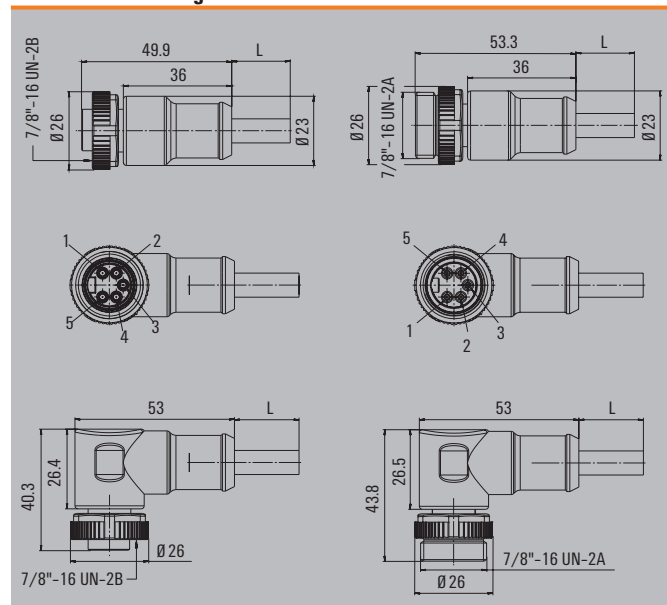
Standard cable lengths

All cables listed in the ordering data have a length of 1.5 metres. The last four ordering digits must be changed when ordering other standard cable lengths.	1.5 m	xxxxxx0150
	3.0 m	xxxxxx0300
	5.0 m	xxxxxx0500
	10.0 m	xxxxxx1000

Technical data

Rated current / Rated voltage	9 A (4- and 5-pole) / 12 A (3-pole) / 300 V
Protection degree	IP 67, IP 68
Core cross-section	1.5 mm ²
Contact surface / Contact material	Ni/Au / CuZn
Housing main material	PUR
Sheathing colour	black (similar to RAL 9005)
Temperature range of housing	-25...+85 °C
Plugging cycles	≥ 100
Pollution severity	3

Dimensioned drawing



Torques and spanner sizes

Torques and distances across flats of the cable gland

The following values for strain relief apply to plug-in connectors with strain relief

Cable Ø	Min. cable pull strength	Recommended torque of the clamping screw
2 - 3	min. 20 N	0.3 - 0.4 Nm
3 - 4	min. 30 N	0.3 - 0.4 Nm
4 - 5	min. 40 N	0.8 - 1.0 Nm
5 - 6	min. 50 N	0.8 - 1.0 Nm
6 - 7	min. 60 N	0.8 - 1.0 Nm
7 - 8	min. 70 N	0.8 - 1.0 Nm
8 - 12	min. 80 N	1.0 - 1.4 Nm
12 - 14	min. 120 N	1.0 - 1.4 Nm
Note: Torque of the: 7/8" plug-in connector: 1.5 Nm (spanner size: 24) M 2.5 Threaded bolt: 0.4 Nm		