

Accessories – Bus cables

PROFIBUS-PA cables

Straight version



TM-I marker sleeve

Ordering data

Designation	Type	Order No.
Industrial zone		
One side without connector, male		
M12 EMC/black/1M	1 m	
M12 EMC/black/2M	2 m	
M12 EMC/black/5M	5 m	
M12 EMC/black/10M	10 m	
One side without connector, female		
M12 EMC/black/1M	1 m	
M12 EMC/black/2M	2 m	
M12 EMC/black/5M	5 m	
M12 EMC/black/10M	10 m	
Connecting cables, male – female		
M12 EMC/black/1M	1 m	
M12 EMC/black/2M	2 m	
M12 EMC/black/5M	5 m	
M12 EMC/black/10M	10 m	
Information		
Other lengths available on request.		

Technical data

Wire resistance (loop)	max. Ω /km	44
Insulation resistance	min. $G\Omega \times km$	5
Working capacity at 800 Hz	nom. nF/km	52
Inductance 800 Hz	mH/km	approx. 0.4
Characteristic impedance at 31.25 kHz		$100 \pm 20 \%$
	at ≥ 1 MHz	nom. Ω
Wave attenuation		
– at 39 kHz	max. d/B 100 m	0.3
– at 100 kHz	nom. d/B 100 m	0.35
– at 1 MHz	nom. d/B 100 m	1.2
Signal dispersion speed	nom. %	79
Coupling resistance up to 30 MHz	max. mOhm/m	250
Operating voltage (not for three-phase use)		
	Peak value V	200
Test voltage	wire/wire U_{eff} V	1500
	wire/shield U_{eff} V	1500
Mechanical specifications		
Stationary bending radius	mm	65
Temperature range		
stationary	$^{\circ}\text{C}$	-5 ... 60
moving	$^{\circ}\text{C}$	-30 ... 80
Information		

PROFIBUS-PA Ex i cables

Straight version



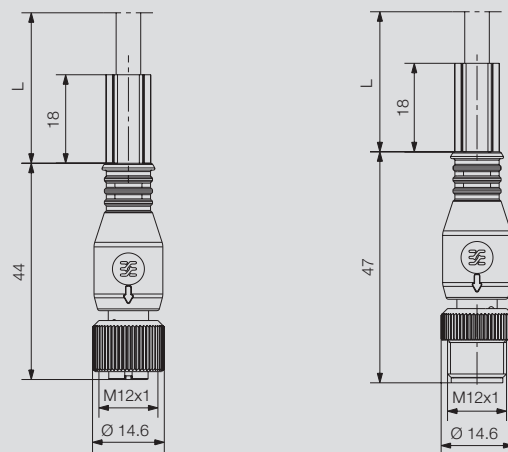
TM-I marker sleeve

Ordering data

Designation	Type	Order No.
Intrinsically safe zone Exi		
One side without connector, male		
M12 EMC/blue/1M	1 m	
M12 EMC/blue/2M	2 m	
M12 EMC/blue/5M	5 m	
M12 EMC/blue/10M	10 m	
One side without connector, female		
M12 EMC/blue/1M	1 m	
M12 EMC/blue/2M	2 m	
M12 EMC/blue/5M	5 m	
M12 EMC/blue/10M	10 m	
Connecting cables, male – female		
M12 EMC/blue/1M	1 m	
M12 EMC/blue/2M	2 m	
M12 EMC/blue/5M	5 m	
M12 EMC/blue/10M	10 m	
Information		
Other lengths available on request.		

Type	Order No.
PROFIBUS-PA cable	
One side without connector, male	
FBCEX PA M12 M 1M	1785150100
FBCEX PA M12 M 2M	1785150200
FBCEX PA M12 M 5M	1785150500
FBCEX PA M12 M 10M	1785151000
One side without connector, female	
FBCEX PA M12 FM 1M	1785140100
FBCEX PA M12 FM 2M	1785140200
FBCEX PA M12 FM 5M	1785140500
FBCEX PA M12 FM 10M	1785141000
Connecting cables, male – female	
FBCEX PA M12 M-FM 1M	1785130100
FBCEX PA M12 M-FM 2M	1785130200
FBCEX PA M12 M-FM 5M	1785130500
FBCEX PA M12 M-FM 10M	1785131000
Information	
Other lengths available on request.	

Dimensioned drawing



M12 screw connection Metal (shielded) – A-coded

**M12 tension-clamp connection
Stainless steel – A-coded**

SAIS / SAIB

4- and 5-pole, straight



Ordering data

Pin	
	Standard, 4-pole, PG 9
	Standard, 5-pole, PG 9
	Stainless steel, 5-pole, PG 9

Socket

	Standard, 4-pole, PG 9
	Standard, 5-pole, PG 9
	Stainless steel, 5-pole, PG 9

Information

Type	Qty.	Order No.
FBCon M12 4P M EMC	1	9455640000
SAIS-M-5/8S M12 5P A-COD	1	1784740000
SAIS 5/9-VA	1	1920700000

Type	Qty.	Order No.
FBCon M12 4P FM EMC	1	8426220000
SAIB-M-5/8S M12 5P A-COD	1	1784750000
SAIB 5/9-VA	1	1920710000

Other variants available on request.

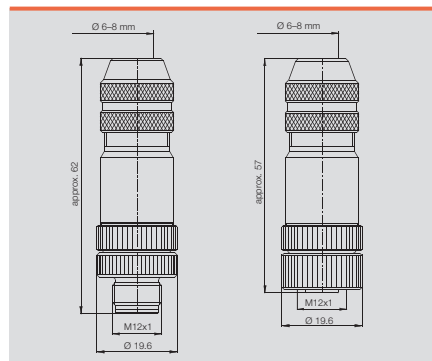
Technical data

No. of poles	
Type of connection	
Enclosure material	
Connecting thread	
Cable connection diameter	mm
Connection cross-section	mm ²
Rated current	A
Rated voltage	V
Temperature range	°C
Protection degree	
Contact surface	

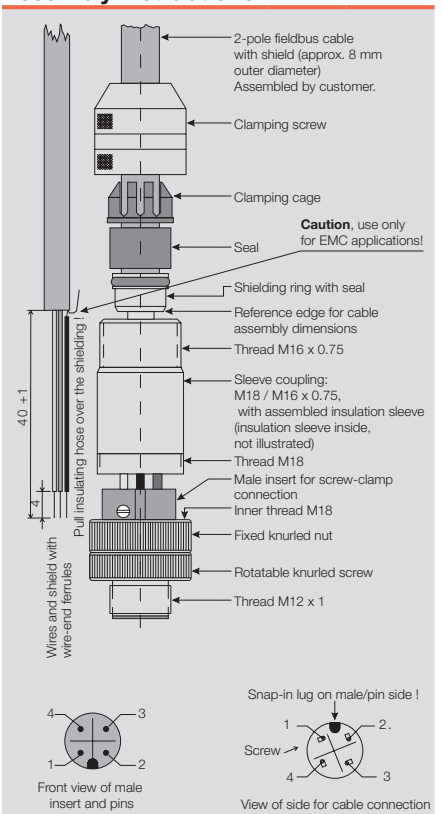
Standard	Stainless steel (VA)
4/5	5
Screw	Tension clamp connection
Nickel-plated CuZn	14V32
M12	M12
6...8	6...8
0.25...0.75	0.25...0.5
4	4
250 (4-pole)/ 125 (5-pole)	125
-25 ... 85	-25 ... 85
IP 67	IP 69 k
CuSnZn	Au

Information

Dimensioned drawing



Assembly instructions



Socket	Wire-colour	Bus	Reference
1	brown	PA+	B
2	unassigned	n.c.	n.c.
3	blue	PA+	A
4	black	shield	S

Reference to other Weidmüller PROFIBUS PA products or order numbers:
9455650000, 8425910000, 8425930000, 8425940000

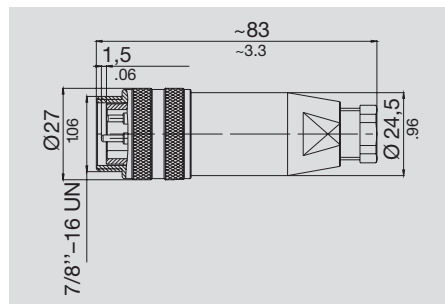
Assembly steps:

- As shown in the illustration, put the clamping screw, clamping cage, seal and shielding ring (with seal) onto the fieldbus cable.
- Caution:** use only for EMC applications!
Strip the fieldbus cable here. Widen the shield and place over the shielding ring. Cut off the remaining shielding braid. As illustrated, the shield can also be connected to connection S. Prepare the cable as shown.
- Pull the prepared cable end through the sleeve coupling, together with the shield and insulation tube when necessary. Push the shielding ring with seal and shielding braid into the sleeve coupling. Tighten the clamping ring.
- Screw the cable end tightly into the male insert. Screw together the sleeve coupling and the male insert. Tighten clamping screw.

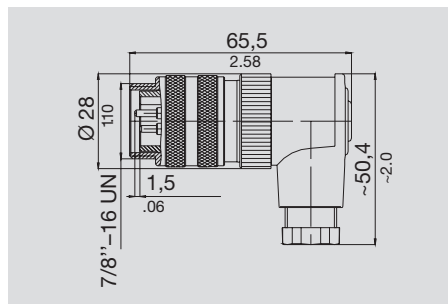
Plug-in connector FBCon 7/8"

FBCon

Plug-in connector straight (plug)



Plug-in connector 90° (plug)



Ordering data

4-pole

Type	Qty	Order No.
FBCon 7/8" 4P M	1	1808830000

Ordering data

4-pole

Type	Qty	Order No.
FBCon 7/8" 4P M (A)	1	1808840000

Technical data

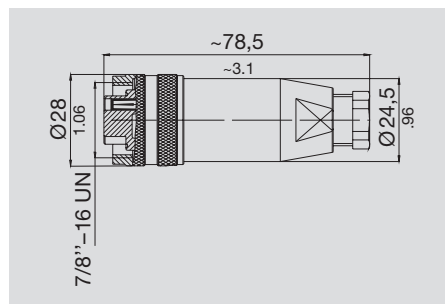
No. of poles	4
Lock	Screw 7/8" UNF
Connection	Screw
Connection cross-section	Max. 1.5 mm ²
Connection cross-section	16 AWG
Enclosure protection class	IP 67
Mechanical service life	> 500 plugging cycles
Upper limit temperature	+85 °C
Lower limit temperature	-40 °C

Electrical data	
Rated voltage	250 V
Rated surge voltage	4000 V

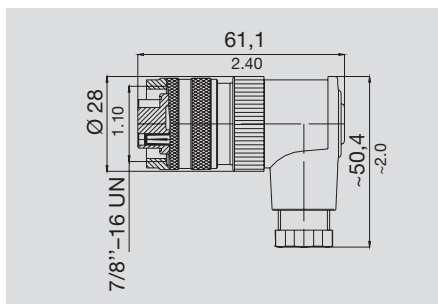
Pollution severity	3
Surge category	II
Insulation material group	III
Test surge voltage	4800 V
Rated current	9 A (40°)
Volume resistivity	≤ 5 m Ω
Insulation resistance	> 10 ¹⁰ Ω

Materials	
Contact pins	CuZn (brass)
Contact surface	Au (gold)
Socket body	PUR/PA (UL 94 HB)
Enclosure cable plug	PBT (UL 94 V-0)
Threaded ring	Anodised aluminium

Plug-in connector straight (socket)



Plug-in connector 90° (socket)



Ordering data

4-pole

Type	Qty	Order No.
FBCon 7/8" 4P FM	1	1812470000

Ordering data

4-pole

Type	Qty	Order No.
FBCon 7/8" 4P FM (A)	1	1812480000

Cable gland M16



Cable gland M16 EEx



Screw cap brass M16



Screw cap brass M16 EEx



Protective cap M12 metal



Thread sealing ring



Socket protective plug



Ordering data

Type	Order No.
Cable gland M16	1772210000
Cable gland M16 EEx	1737210000
Screw cap brass M16	1777790000
Screw cap brass M16 EEx	1737140000
Protective cap SAI-SK-M12-M1	1802750000
Protective cap plug (yellow)	1781520000
Protective cap socket (black)	9456050000
Thread sealing ring	1719550000

Profibus DP

Ordering data

Designation	Type	Qty	Order No.
M12 DP coded B plug	SAI SM 5/8S M12 5P B-COD	1	1784790000
M12 DP coded B socket	SAI BM 5/8S M12 5P B-COD	1	1784780000
Pre-assembled cable with plug	SAI L-M12G-PB-DP-0.3	1	1810520030
Locating plug-in connector	POS-5P M12/M20 300 MM	1	1795500000

Order key:

- CG: Connection of master line with cable gland
- M12: Connection of measuring devices with M12 plug-in connection
- PCG: Plastic cable gland M16 metric thread
- 7/8": Connection of measuring devices with 7/8" plug-in connection