



V6

FBP PROFIBUS DP
Accessories



PROFIBUS DP FieldBusPlug Accessories

Technical Description



V 6

PROFIBUS DP FieldBusPlug Accessories

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Technical changes reserved



PROFIBUS DP FieldBusPlug Accessories

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PDX11-FBP.100, PDX11-FBP.300, PDX11-FBP.500

PROFIBUS DP extension cables (lengths 1 m, 3 m, 5 m)
socket/plug (M12), vibration-resistant, shielded

Temperature range -30°C ... + 90°C

Materials

Moulded body	TPU, self-extinguishing
Contact (female)	CuSn, pre-nickel and 0.3 µm gold-plated
Contact (male)	CuZn, pre-nickel and 0.8 µm gold-plated
Body	TPU, self-extinguishing
Knurled screw, knurled nut	CuZn, nickel
O-ring	Viton

Mechanical data

Degree of protection IP 67
(only in fully locked position with their plugs)

Use of this connector range in aggressive environments must be tested in each case.

Elektrical data

Max. current load	4 A
Nominal voltage	30 V AC / 36 V DC
Insulation group	C acc. to VDE 0110
Test voltage	1.5 kV AC / 60 s
Insulation resistance	> 10 ⁹ Ω

Cable data

Number of poles	5	
Colours of cores	Meaning	Cross section
1 = brown	+24 V DC	0.5 mm ²
2 = green	line A / N	0.22 mm ²
3 = blue	0 V DC	0.5 mm ²
4 = red	line B / P	0.22 mm ²
5 = bare	bare flexible lead	ca. 0.5 mm ²
M12 thread = braided shield->shield		

Sheath/jacket PUR
(free of PVC and halogen)

Cable colour violet (vi RAL 4001)

Further cable data see page 7

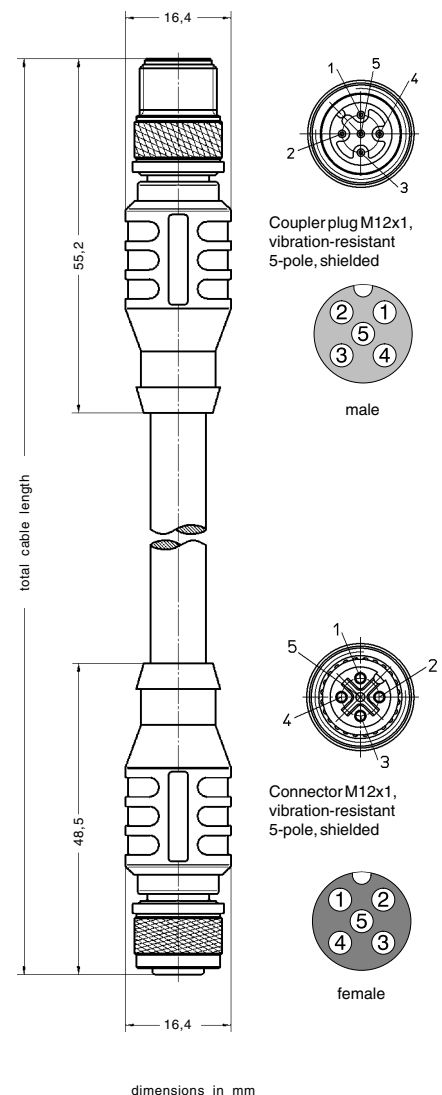
Technical changes reserved

Order numbers

PDX11-FBP.100	1SAJ 924 001 R0010
PDX11-FBP.300	1SAJ 924 001 R0030
PDX11-FBP.500	1SAJ 924 001 R0050



2CDC341047F003



PROFIBUS DP FieldBusPlug Accessories

Technical Description



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PDF11-FBP.050

PROFIBUS DP round cable with female plug, 0.5 m
shielded, sheath partly bared, with wire-end ferrules

Supply voltage 24 V DC, connection PROFIBUS DP master

Temperature range -30°C ... + 90°C

Materials

Moulded body	TPU, self-extinguishing
Contact (female)	CuSn, pre-nickel and 0.3 µm gold-plated
Body	TPU, self-extinguishing
knurled nut	CuZn, nickeled
O-ring	Viton

Mechanical data

Degree of protection IP 67
(only in fully locked position with their plugs)

Use of this connector range in aggressive environments must be tested in each case.

Elektrical data

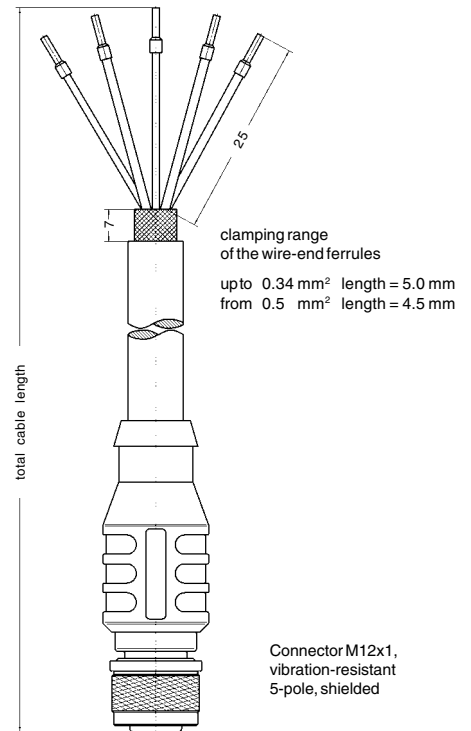
Max. current load	4 A
Nominal voltage	30 V AC / 36 V DC
Insulation group	C acc. to VDE 0110
Test voltage	1.5 kV AC / 60 s
Insulation resistance	> 10 ⁹ Ω

Cable data

Number of poles	5	
Colours of cores	Meaning	Cross section
1 = brown	+24 V DC	0.5 mm ²
2 = green	line A / N	0.22 mm ²
3 = blue	0 V DC	0.5 mm ²
4 = red	line B / P	0.22 mm ²
5 = bare	bare flexible lead	ca. 0.5 mm ²
M12 thread = braided shield->shield		
Sheath/jacket	PUR (free of PVC and halogen)	
Cable colour	violet (vi RAL 4001)	
Further cable data	see page 7	



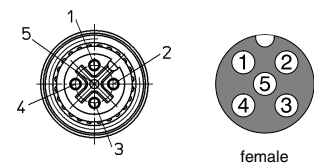
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Technical changes reserved

Order number

PDF11-FBP.050 1SAJ 924 002 R0005



dimensions in mm



PROFIBUS DP FieldBusPlug Accessories

Technical Description

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PDM11-FBP.050

PROFIBUS DP round cable with male plug, 0.5 m
shielded, sheath partly bared, with wire-end ferrules

for connecting devices without an FBP-M12-plug-socket

Temperature range -30°C ... + 90°C

Materials

Moulded body	TPU, self-extinguishing
Contact (male)	CuSn, pre-nickelated and 0.3 µm gold-plated
Body	TPU, self-extinguishing
knurled screw	CuZn, nickelated
O-ring	Viton

Mechanical data

Degree of protection IP 67
(only in fully locked
position with their plugs)

Use of this connector range in aggressive
environments must be tested in each case.

Elektrical data

Max. current load	4 A
Nominal voltage	30 V AC / 36 V DC
Insulation group	C acc. to VDE 0110
Test voltage	1.5 kV AC / 60 s
Insulation resistance	> 10 ⁹ Ω

Cable data

Number of poles	5	
Colours of cores	Meaning	Cross section
1 = brown	+24 V DC	0.5 mm ²
2 = green	line A / N	0.22 mm ²
3 = blue	0 V DC	0.5 mm ²
4 = red	line B / P	0.22 mm ²
5 = bare	bare flexible lead	ca. 0.5 mm ²
M12 thread = braided shield->shield		

Sheath/jacket PUR
(free of PVC and halogen)

Cable colour violet (vi RAL 4001)

Further cable data see page 7

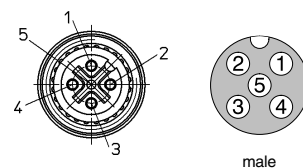
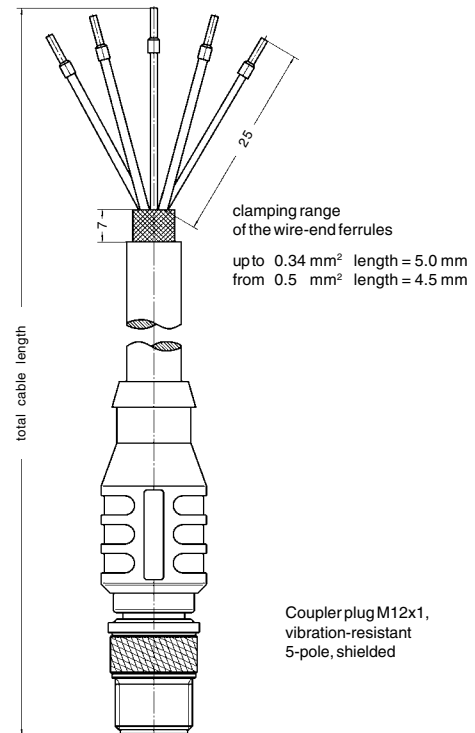
Technical changes reserved

Order number

PDM11-FBP.050 1SAJ 924 003 R0005



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dimensions in mm

PROFIBUS DP FieldBusPlug Accessories

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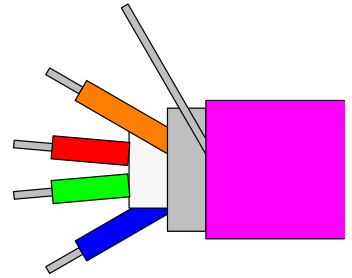
PDC11-FBP.999

PROFIBUS DP drop cable 100 m

Construction

Data lines

Conductors	Cu-litz wire 7 x 0.20 blw -0.22 mm ²
Core insulation	Foam-Skin PE
Core colours	red and green
Twisted pair	2 cores are twisted in pairs
Shielding of pairs	PETP/AL laminated film metal side outside



Supply voltage

Conductors	Cu-litz wire 16 x 0.20 blw -0.5 mm ²
Core insulation	PE
Core colours	brown and blue



Cores

shielded twisted pairs 0.22 mm² and cores 0.5 mm²
laid up together

Overall shield

braided shield of tinned Cu wire 0.15 mm
optical covering ca. 85 %
with shielded wire 16 x 0.20 tinned

Cablejacket

PUR, colour: violet (vi RAL 4001)
overall diameter: 7.7 mm ± 0.2 mm

Electrical data

Supply voltage

Conductor resistance	≤ 38.9 Ω/km
Insulation resistance	≥ 2000 MΩ/km x km

Data lines

Conductor resistance	≤ 93.0 Ω/km
Insulation resistance	≥ 5000 MΩ/km x km
Capacity in operation	nom. 30 nF/km
Characteristic impedance at 3 - 20 MHz	150 Ω ± 15 Ω

Cores

Nominal voltage	225 V (peak value)
Test voltage core / core	1200 V
core / shield	1200 V

Mechanical data

Minimum bending radius	
non-detachable	10 * cable diameter
flexible wiring	15 * cable diameter

Temperature range	
flexible wiring	5°C ... + 80°C
non-detachable	- 30°C ... + 80°C

Order number

PDC11-FBP.999 1SAJ 924 004 R1000

Technical changes reserved



PROFIBUS DP FieldBusPlug Accessories

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PDM11-FBP.0

PROFIBUS DP male connector M12 for round cable
with screwed connection, shielded, metal

Temperature range -25°C ... + 90°C

Materials

Moulded body	PA, self-extinguishing
Contact (male)	CuZn, pre-coppered 2-4 µm CuSnZn
Body	CuZn, nickeled
knurled nut	CuZn, nickeled

Mechanical data

Degree of protection IP 67
(only in fully locked
position with their plugs)

Use of this connector range in aggressive
environments must be tested in each case.

Elektrical data

Max. current load	4 A
Nominal voltage	30 V AC / 36 V DC
Insulation group	C acc. to VDE 0110
Test voltage	1.5 kV AC / 60 s
Insulation resistance	> 10 ⁹ Ω

Connection data

Number of poles	5 (pin 5 early closing)
Cable gland	∅ 4.0 - 6.0 mm
Connection type	screw-type terminals

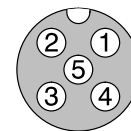
Cable data

Colours of cores	Meaning	Cross section
1 = brown	+24 V DC	0.5 mm ²
2 = green	line A / N	0.22 mm ²
3 = blue	0 V DC	0.5 mm ²
4 = red	line B / P	0.22 mm ²
5 = bare	bare flexible lead	ca. 0.5 mm ²

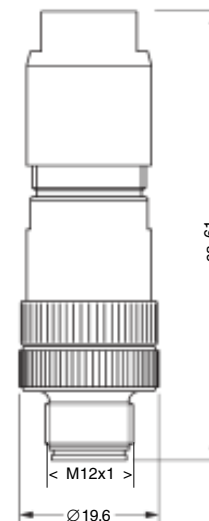
M12 thread = braided shield->shield



2CDC341051F003



male



Technical changes reserved

Order number

PDM11-FBP.0 1SAJ 924 005 R0001

PROFIBUS DP FieldBusPlug Accessories



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Technical Description

PDM11-FBP.0

PROFIBUS DP male connector M12 for round cable
with screwed connection, shielded, metal

Connection of the shielded plug (M12x1, 5-pole) to a PROFIBUS cable

1. Stripping the insulation:
Cable juts out 18 mm from the shown tool.
Thus a piece of 7 mm in length is pre-notched.

Distance between notch and cable end: 30 mm.

The shown insulation-stripping tool:
PSM-STRIP-FC/PROFIB (PHOENIX)
Part No.. 2744623

2. Remove the sheath
3. Cut the shield carefully, the shield wire must not be cut
4. Remove the aluminium shield layer
5. Strip the insulation from the cores at a length of 10 mm
6. Put-on and crimp the wire-end ferrules, shield wire without wire-end ferrules

7. Shorten wire-end ferrules (metallic part ca. 5 mm)
8. Put the rubber O-ring in the notch
9. Stick the plug
10. Shorten the :
to the shield

11. Connect the shield wire to pin 5 and pull the sleeve over it
12. Remove the 7 mm piece of sheath

13. Connect the PROFIBUS DP cores (green and red) to pin 2 and 4
14. Screw together the front parts of the plug
15. Fold the braided shield to the back part of the plug (with the O-ring)

16. Screw-on the clamp-type sleeve, done



PROFIBUS DP FieldBusPlug Accessories

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PDF11-FBP.0

PROFIBUS DP female connector M12 for round cable
with screwed connection, shielded, metal

Temperature range -25°C ... + 90°C

Materials

Moulded body	PA, self-extinguishing
Contact (female)	CuZn, pre-coppered 2-4 µm CuSnZn
Body	CuZn, nickeled
knurled nut	CuZn, nickeled

Mechanical data

Degree of protection IP 67
(only in fully locked
position with their plugs)

Use of this connector range in aggressive
environments must be tested in each case.

Elektrical data

Max. current load	4 A
Nominal voltage	30 V AC / 36 V DC
Insulation group	C acc. to VDE 0110
Test voltage	1.5 kV AC / 60 s
Insulation resistance	> 10 ⁹ Ω

Connection data

Number of poles	5 (pin 5 early opening)
Cable gland	∅ 4.0 - 6.0 mm
Connection type	screw-type terminals

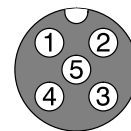
Cable data

Colours of cores	Meaning	Cross section
1 = brown	+24 V DC	0.5 mm ²
2 = green	line A / N	0.22 mm ²
3 = blue	0 V DC	0.5 mm ²
4 = red	line B / P	0.22 mm ²
5 = bare	bare flexible lead	ca. 0.5 mm ²

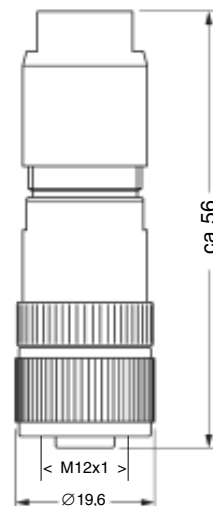
M12 thread = braided shield->shield



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Buchsen



Technical changes reserved

Order number

PDF11-FBP.0 1SAJ 924 006 R0001

PROFIBUS DP FieldBusPlug Accessories



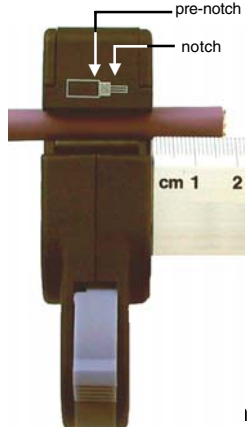
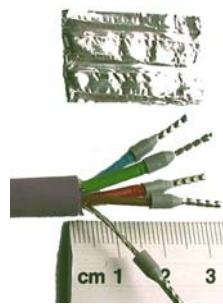
V 6

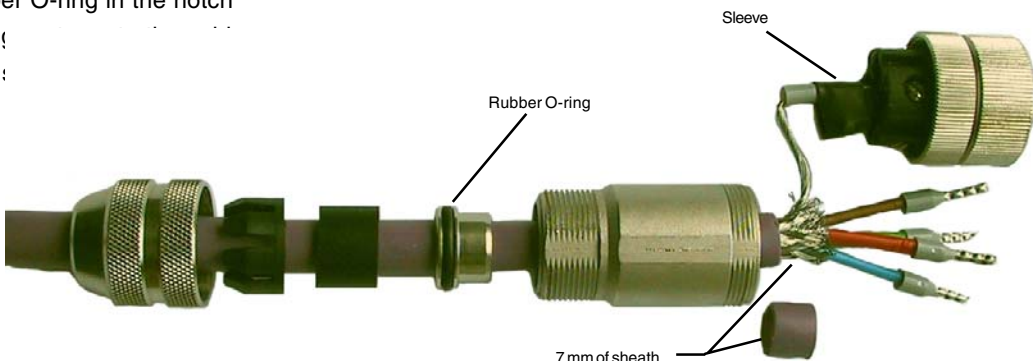
Technical Description


PDF11-FBP.0


PROFIBUS DP female connector M12 for round cable
with screwed connection, shielded, metal

Connection of the shielded plug (M12x1, 5-pole) to a PROFIBUS cable

 <p>1. Stripping the insulation: Cable juts out 18 mm from the shown tool. Thus a piece of 7 mm in length is pre-notched.</p> <p>Distance between notch and cable end: 30 mm.</p> <p>The shown insulation-stripping tool: PSM-STRIP-FC/PROFIB (PHOENIX) Part No.. 2744623</p>	 <p>2. Remove the sheath 3. Cut the shield carefully, the shield wire must not be cut 4. Remove the aluminium shield layer 5. Strip the insulation from the cores at a length of 10 mm 6. Put-on and crimp the wire-end ferrules, shield wire without wire-end ferrules</p>
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<p>7. Shorten wire-end ferrules (metallic part ca. 5 mm) 8. Put the rubber O-ring in the notch 9. Stick the plug 10. Shorten the : to the shield</p>	 <p>11. Connect the shield wire to pin 5 and pull the sleeve over it 12. Remove the 7 mm piece of sheath</p>
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	<p>13. Connect the PROFIBUS DP cores (green and red) to pin 2 and 4 14. Screw together the front parts of the plug 15. Fold the braided shield to the back part of the plug (with the O-ring)</p>
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	<p>16. Screw-on the clamp-type sleeve, done</p>
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PROFIBUS DP FieldBusPlug Accessories

Technical Description

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PDR11-FBP.150

PROFIBUS DP terminating resistor 150 Ω

Male plug M 12, 5 poles

Temperature range Storage -20...+75 °C
Operation 0...+55 °C

Materials

Moulded body PA, self-extinguishing
Contact CuZn, pre-nickel and 0.8 μ m gold-plated
Body TPU, self-extinguishing
Knurled screw CuZn, nickel



2CDC341054F003

Mechanical data

Degree of protection IP 67
(only in fully locked position
with their plugs)

Good resistance to oil and chemicals.

Use of this connector range in aggressive
environments must be tested in each case.

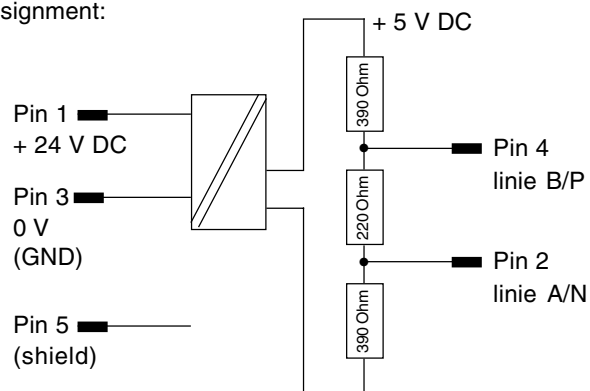
Elektrical data

Input voltage range 19.2 ... 31.2 V
Input current 11 mA \pm 20 %
(typ. 12.5 mA at 19.2 V / 9.7 mA at 30 V)
Output voltage 1.1 V \pm 10 %
Test voltage 24 V to signal 500 V / 1 min.

Connection data

Number of poles 5

Pin assignment:



Technical changes reserved

Order number

PDR11-FBP.150 1SAJ 924 007 R0001

PROFIBUS DP FieldBusPlug Accessories



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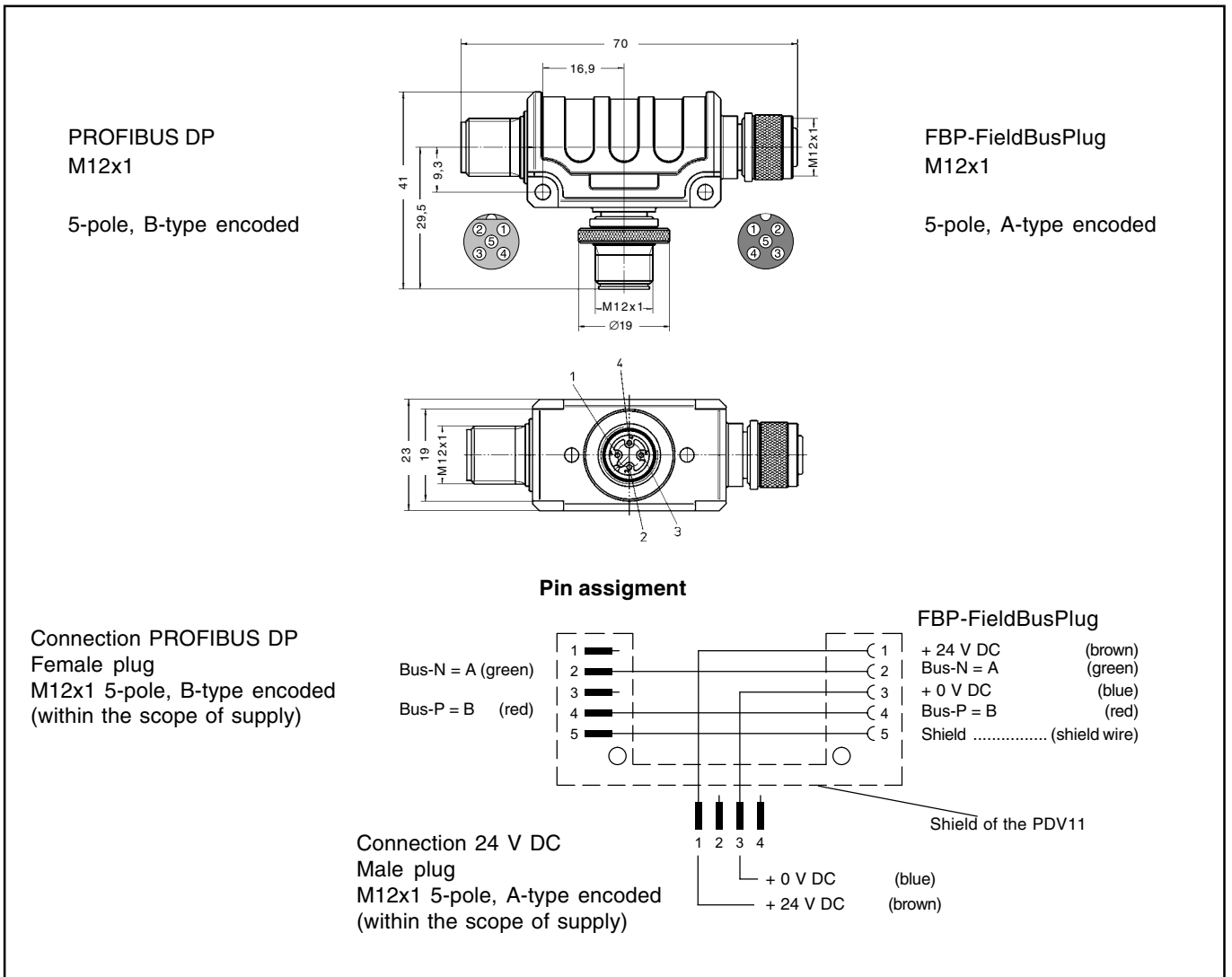
Technical Description

PDV11-FBP.0

PROFIBUS DP feeding connector
24 V DC, code B-A



2CDC341053F003



Technical changes reserved

Order number

PDV11-FBP.0

1SAJ 924 008 R0001



PROFIBUS DP FieldBusPlug Accessories Technical Description

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PDV11-FBP.0 PROFIBUS DP feeding connector 24 V DC

Connection of the shielded plug (M12x1, 5-pole / B-type encoded) to a PROFIBUS cable

1. Stripping the insulation:
Cable juts out 18 mm from the shown tool.
Thus a piece of 7 mm in length is pre-notched.

Distance between notch and cable end: 30 mm.

of the shown insulation-stripping tool:
PSM-STRIP-FC/PROFIB (PHOENIX)
Part No.. 2744623

2. Remove the sheath

3. Cut the shield carefully, the shield wire must not be cut

4. Remove the aluminium shield layer

5. Strip the insulation from the cores at a length of 10 mm

6. Put-on and crimp the wire-end ferrules, shield wire without wire-end ferrules

7. Shorten wire-end ferrules (metallic part ca. 5 mm)

8. Put the rubber O-ring in the notch

9. Stick the

10. Shorten to the sh

11. Connect the shield wire to pin 5 and pull the sleeve over it

12. Remove the 7 mm piece of sheath

13. Connect the PROFIBUS DP cores (green and red) to pin 2 and 4

14. Screw together the front parts of the plug

15. Fold the braided shield to the back part of the plug (with the O-ring)

16. Screw-on the clamp-type sleeve, done

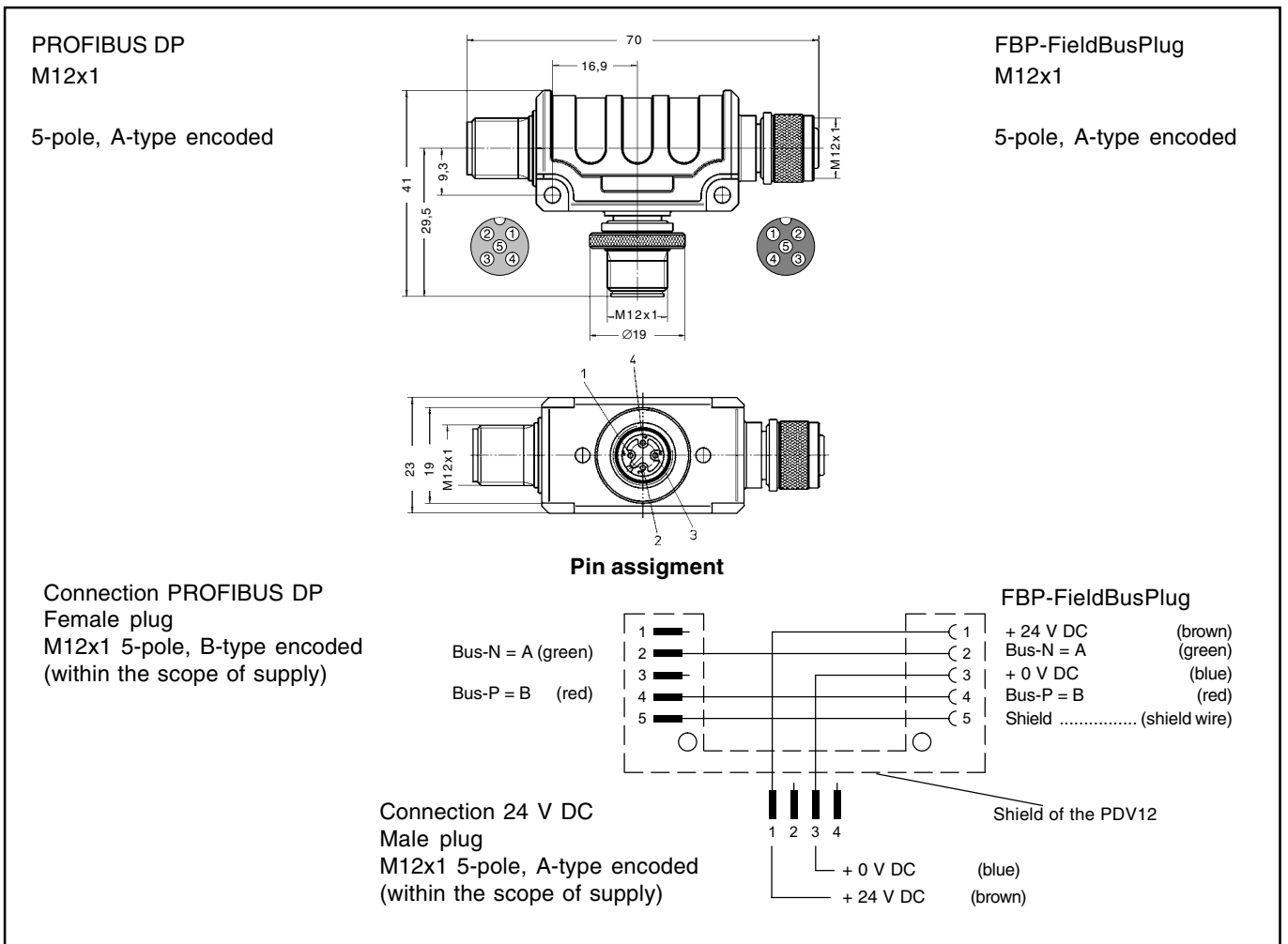
PROFIBUS DP FieldBusPlug Accessories



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Technical Description

PDV12-FBP.0
PROFIBUS DP feeding connector
24 V DC, code A-A



Technical changes reserved

Order number

PDV12-FBP.0 1SAJ 924 011 R0001



PROFIBUS DP FieldBusPlug Accessories Technical Description

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PDA11-FBP.050

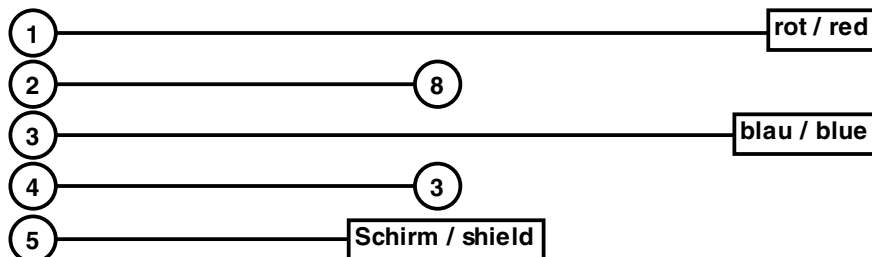
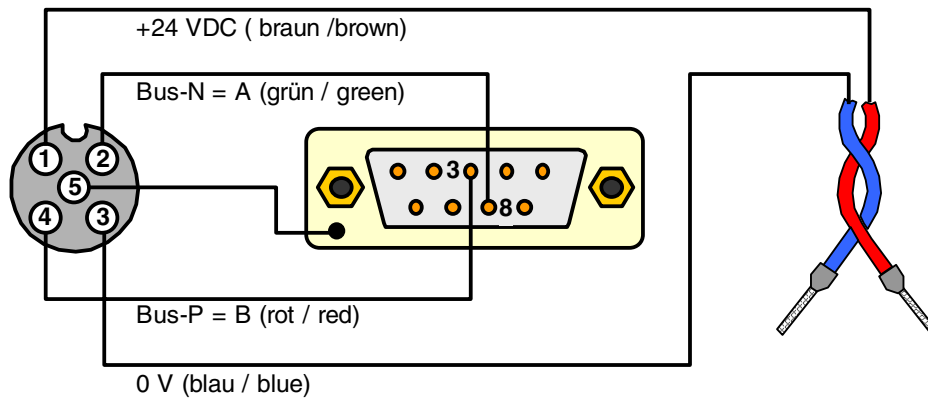
PROFIBUS DP Adaptor cable Dsub9-M12, length 2 x 0.50 m



2CDC341006F0004

M12, Ansicht auf Buchsen
M12, view to socket

Dsub9, Ansicht auf Stifte
Dsub9, view to socket



Technical changes reserved

Order number

PDA11-FBP.05

1SAJ 924 009 R0005

PROFIBUS DP FieldBusPlug Accessories Technical Description



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PDA12-FBP.050

PROFIBUS DP Adaptor cable M12-Dsub9-M12, length 2 x 0.50 m

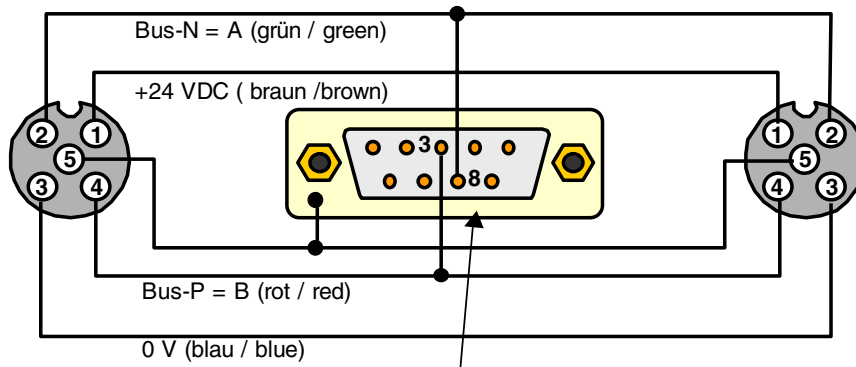


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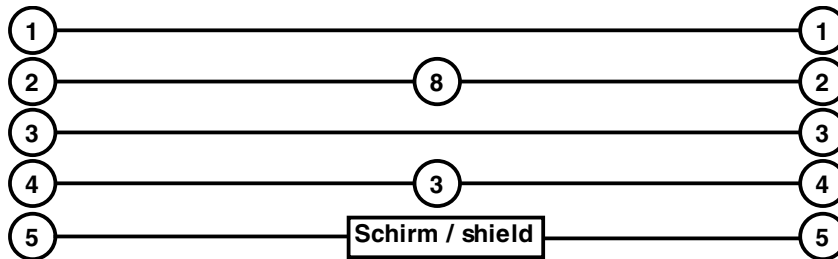
M12, Ansicht auf Stifte
M12, view to pins

Dsub9, Ansicht auf Stifte
Dsub9, view to socket

M12, Ansicht auf Buchsen
M12, view to socket



Hinweis: Der Schalter auf der Frontseite muss auf OFF (nach oben) gestellt sein
Notice: The switch on the front must be set to OFF (upwards)



Technical changes reserved

Order number

PDA12-FBP.05

1SAJ 924 010 R0005



PROFIBUS DP FieldBusPlug
Accessories
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