

M40 Size 1.5/Size 1.5i Power Connectors



Features

- Variable cable clamp (Ø 9-25mm)
- Termination cross section up to 16 mm² (65A)
- Plug and receptacle with "contact click-in function" insulator to reduce assembly time
- Plastic shell plug (PPCM) for lower cost applications
- Earth connection
- Higher current applications

Advantages

- Low contact resistance
 - High current and voltage ratings
 - Saving overall weight and space
- Shock and vibration proof
 - In the most demanding environments
 - Ensuring failure free performance
- Low mating force
 - Long life and low rate of wear
 - Minimising servicing requirements
 - Reducing ownership costs
- UL certification available. Contact the factory for relevant part numbers

Approvals

- Tested acc. to DIN EN 61984
- UL/CSA metallic connectors

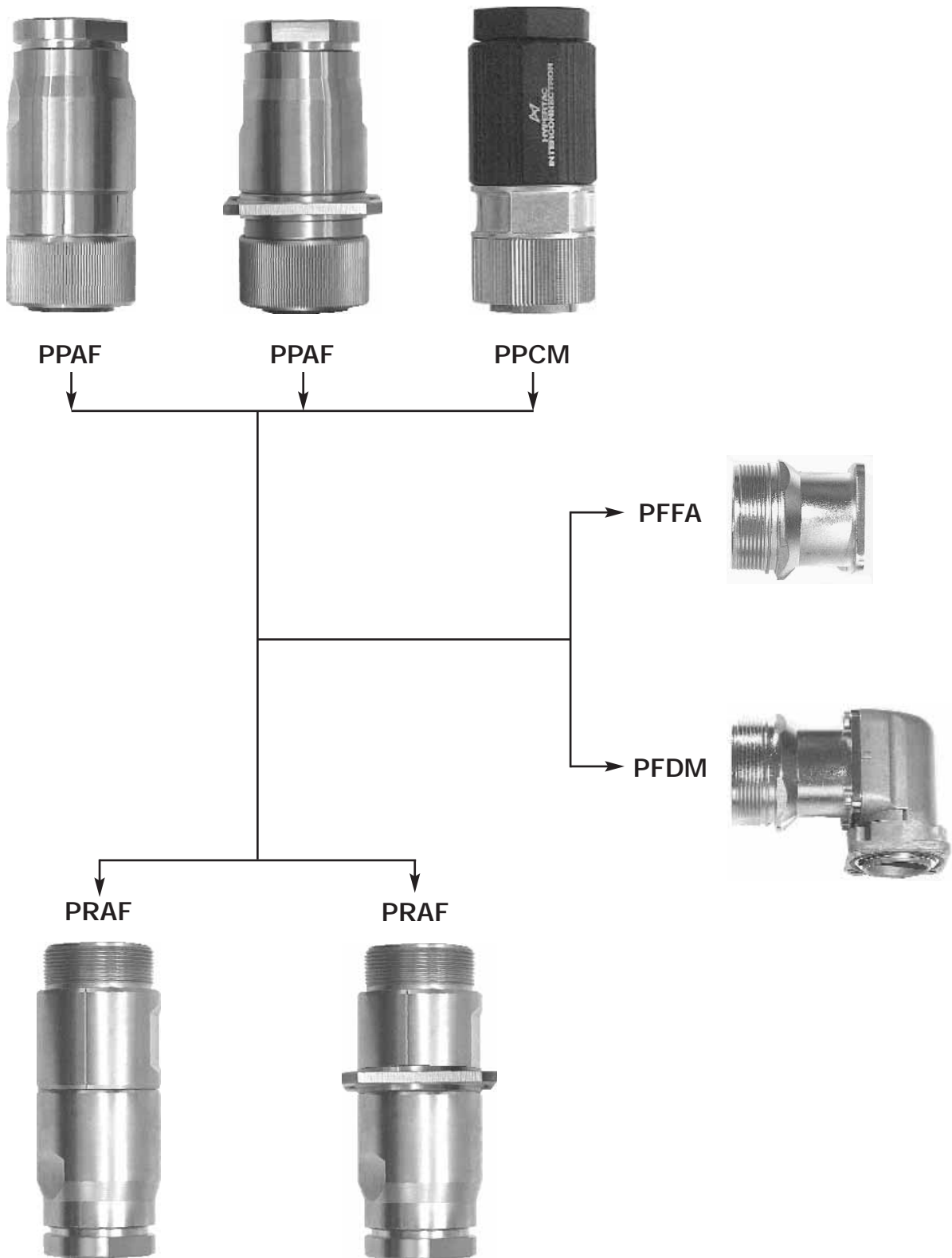
Markets

Press lines, punching machines, servo drives

Technical Characteristics

Number of ways:	6way, 8way
Contact diameter:	6way (4 x 3,6mm + 2 x 2mm) 8way (4 x 3,6mm + 4 x 2mm)
Nominal current (VDE) / 20°C:	Ø 3,6 mm 65 A Ø 2,0 mm 30 A
Nominal current (UL):	Ø 3,6 mm 50 A Ø 2,0 mm 20 A
Nominal current (CSA):	Ø 3,6 mm 35 A Ø 2,0 mm 12 A
Contact resistance:	Ø 3,6 mm <1 mΩ Ø 2,0 mm <3 mΩ
Connector life cycle	500 mating cycles
Test voltage (kV):	Ø 3,6 mm 6kV Ø 2,0 mm 4kV
Nominal voltage (VDE):	Ø 3,6 mm 630 V Ø 2,0 mm 250 V
Nominal voltage (UL):	Ø 3,6 mm 600 V Ø 2,0 mm 250 V
Nominal voltage (CSA):	Ø 3,6 mm 600 V Ø 2,0 mm 250 V
Operating temperature range (VDE): Operating temperature range (UL/CSA):	-40 °C to 125 °C -40 °C to 110 °C
Storage conditions:	-40 °C to +70 °C / humidity
Insulation resistance	10 ¹³ Ωcm
Insulator material	PA, PBT
Contacts: a) material; b) plating	a) CuZn alloy b) nickel plated and gold-plated
Shell: a) material, b) plating	a) CuZn alloy, zinc-diecast, aluminium, plastics b) nickel-plated, chemical nickel plated, chromium plated
Seals:	FKM, NBR
IP code:	IP 67 (mated)
Contamination level:	3 (mated)
Over voltage category:	III
Installation altitude:	up to 2000 m

Connector type overview

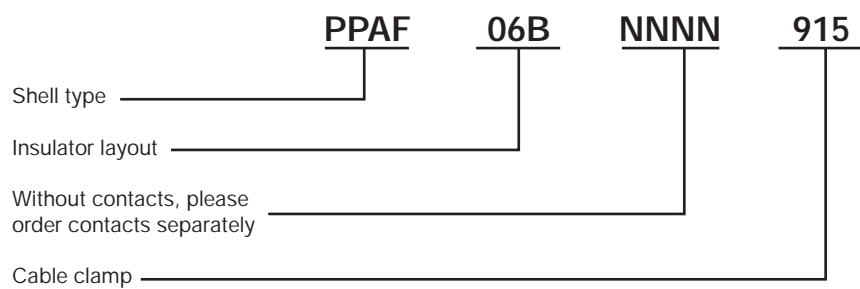


Connector dimensions

TYPE	DESCRIPTION	DRAWING
PFFA	Straight receptacle, connecting earth pin to the shell	
PFDM	Rotateable angled receptacle, connecting earth pin to the shell	
PRAF	Extension metallic shell with variable shield connection and variable cable clamp	
PRAF with mounting flange	Extension metallic shell with variable shield connection, variable cable clamp and square flange	
PPAF	Plug, metallic shell with variable shield connection and variable cable clamp	
PPAF with mounting flange	Plug, metallic shell with variable shield connection, variable cable clamp and square flange	
PPCM	Plug, plastic shell with variable shield connection and variable cable clamp	

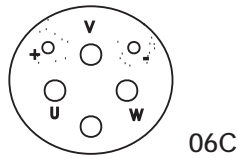
Dimensions are in mm

Ordering information guide



Ordering Information

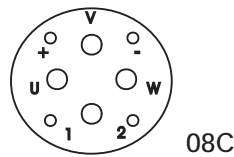
Receptacle 6way
(4 x 3,6mm + 2 x 2mm)



Insulator seen from wired side

Connectors including insulator	Part numbers
Straight receptacle, connecting earth pin to the shell	PFFA06CNNNN000
Rotatable angled receptacle, connecting earth pin to the shell	PFDM06CNNNN000
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2 mm, 0,75 – 2,5 mm ² (AWG 18-14)	021.368.1020
Crimp pin Ø 3,6 mm, 4 – 10 mm ² (AWG 12-8)	021.367.1020
Crimp pin Ø 3,6 mm, 2,5 – 4 mm ² (AWG 14-12)	021.369.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B151
Crimp tool Ø 3,6 mm (AWG 12-8)	B271
Crimp tool Ø 3,6 mm (AWG 14-12)	B179
Positioner Ø 3,6 mm	B263

Receptacle 8way
(4 x 3,6mm + 4 x 2mm)

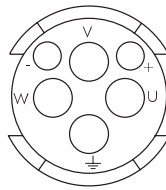


Insulator seen from wired side

Connectors including insulator	Part numbers
Straight receptacle, connecting earth pin to the shell	PFFA08CNNNN000
Rotatable angled receptacle, connecting earth pin to the shell	PFDM08CNNNN000
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2 mm, 0,75 – 2,5 mm ² (AWG 18-14)	021.368.1020
Crimp pin Ø 3,6 mm, 4 – 10 mm ² (AWG 12-8)	021.367.1020
Crimp pin Ø 3,6 mm, 2,5 – 4 mm ² (AWG 14-12)	021.369.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B151
Crimp tool Ø 3,6 mm (AWG 12-8)	B271
Crimp tool Ø 3,6 mm (AWG 14-12)	B179
Positioner Ø 3,6 mm + Ø 2 mm	B263

Ordering Information

Extension 6way
(4 x 3,6mm + 2 x 2mm)

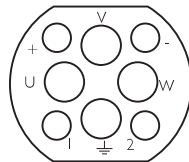


Insulator seen from wired side

06A

Connectors including insulator and cable clamp	Part numbers
Extension with variable shield connection and variable cable clamp	PRAF06ANNNN915
Extension with variable shield connection, variable cable clamp and square flange	PRAF06ANNNN91502
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2 mm, 1 – 2,5 mm ² (AWG 18-14)	021.285.2000
Crimp pin Ø 3,6 mm, 1 – 4 mm ² (AWG 18-12)	021.282.2000
Crimp pin Ø 3,6 mm, 6 – 16 mm ² (AWG 10-6)	021.283.2000
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B152
Crimp tool Ø 3,6 mm (AWG 18-12)	B179
Crimp tool Ø 3,6 mm (AWG 10-6)	B271
Positioner Ø 2 mm	B166
Positioner Ø 3,6 mm (AWG 18-12)	B167
Positioner Ø 3,6 mm (AWG 10-6)	B168

Extension 8way
(4 x 3,6mm + 4 x 2mm)



Insulator seen from wired side

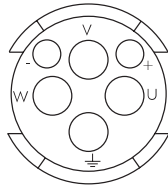
08A

Connectors including insulator and cable clamp	Part numbers
Extension with variable shield connection and variable cable clamp	PRAF08ANNNN915
Extension with variable shield connection, variable cable clamp and square flange	PRAF08ANNNN91502
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2 mm, 1 – 2,5 mm ² (AWG 18-14)	021.285.2000
Crimp pin Ø 3,6 mm, 1 – 4 mm ² (AWG 18-12)	021.282.2000
Crimp pin Ø 3,6 mm, 6 – 16 mm ² (AWG 10-6)	021.283.2000
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B152
Crimp tool Ø 3,6 mm (AWG 18-12)	B179
Crimp tool Ø 3,6 mm (AWG 10-6)	B271
Positioner Ø 2 mm	B166
Positioner Ø 3,6 mm (AWG 18-12)	B167
Positioner Ø 3,6 mm (AWG 10-6)	B168

Ordering Information

Plug 6way (4 x 3,6mm + 2 x 2mm)

Insulator seen from wired side

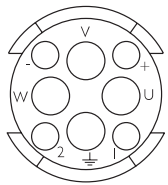


06B

Connectors insulator and cable clamp	Part numbers
Plug, metallic shell with variable shield connection and variable cable clamp	PPAF06BNNNN915
Plug, metallic shell with variable shield connection, variable cable clamp and square flange	PPAF06BNNNN91503
Plug, plastic shell with variable shield connection and variable cable clamp	PPCM06DNNNN920
Contacts <i>please order separately</i>	Part numbers
Crimp socket 0,75 – 2,5 mm ² (AWG 18-14)	020.123.1020
Crimp socket 1,5 – 4 mm ² (AWG 16-12)	020.370.1020
Crimp socket 6 – 16 mm ² (AWG 10-6)	020.371.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B152
Crimp tool Ø 3,6 mm (AWG 16-12)	B179
Crimp tool Ø 3,6 mm (AWG 10-6)	B271
Positioner Ø 2 mm	B154
Positioner Ø 3,6 mm (AWG 16-12)	B281
Positioner Ø 3,6 mm (AWG 10-6)	B158

Plug 8way (4 x 3,6mm + 4 x 2mm)

Insulator seen from wired side



08B





Connectors insulator and cable clamp	Part numbers
Plug, metallic shell with variable shield connection and variable cable clamp	PPAF08BNNNN915
Plug, metallic shell with variable shield connection, variable cable clamp and square flange	PPAF08BNNNN91503
Plug, plastic shell with variable shield connection and variable cable clamp	PPCM08DNNNN920
Contacts <i>please order separately</i>	Part numbers
Crimp sockets 0,75 – 2,5 mm ² (AWG 18-14)	020.123.1020
Crimp sockets 1,5 – 4 mm ² (AWG 16-12)	020.370.1020
Crimp sockets 6 – 16 mm ² (AWG 10-6)	020.371.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B152
Crimp tool Ø 3,6 mm (AWG 16-12)	B179
Crimp tool Ø 3,6 mm (AWG 10-6)	B271
Positioner Ø 2 mm	B154
Positioner Ø 3,6 mm (AWG 16-12)	B281
Positioner Ø 3,6 mm (AWG 10-6)	B158

Mounting styles / dimensions

<p>Drilling drawing PFFA</p>	
<p>Variable position PFDM</p>	
<p>Drilling drawing PFDM</p>	
<p>drilling drawing PRAF/PPAF</p>	
<p>cable clamp for PPAF/PRAF clamp range: with reducing sleeve from 9 – 17 mm without reducing sleeve from 17 – 25 mm</p>	
<p>cable clamp for PPCM clamp range: with reducing sleeve from 9 – 17 mm without reducing sleeve from 17 – 25 mm</p>	

Dimensions are in mm

Accessories

Crimp tools	Positioner	Insertion/extraction tools
 <p>B152, B151, B179, B271</p>	 <p>B166, B263, B167, B168 B154, B281, B158</p>	 <p>B117</p>  <p>B107/A</p>

Other accessories

 <p>Thread protection cap</p>	<p>Part number: 031.223.1000</p>
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