



M23 Size 1 System 2000 Power Connectors

Approvals

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

Features

- Termination cross section up to 4 mm²
- Variable cable clamp for cable dia. 7.5 – 18.5 mm
- Thickness of shielding up to 1 mm
- Earth connection
- Rotateable angled receptacle
- Integrated connection between ground pin and shell
- Vibration protection option
- UL certification available. Contact the factory for relevant part numbers

Advantages

Low contact resistance

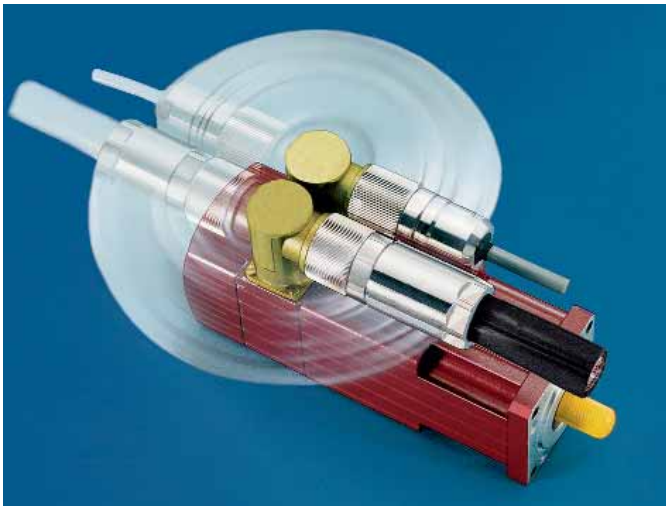
- high current and voltage ratings
- saving overall weight and space

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



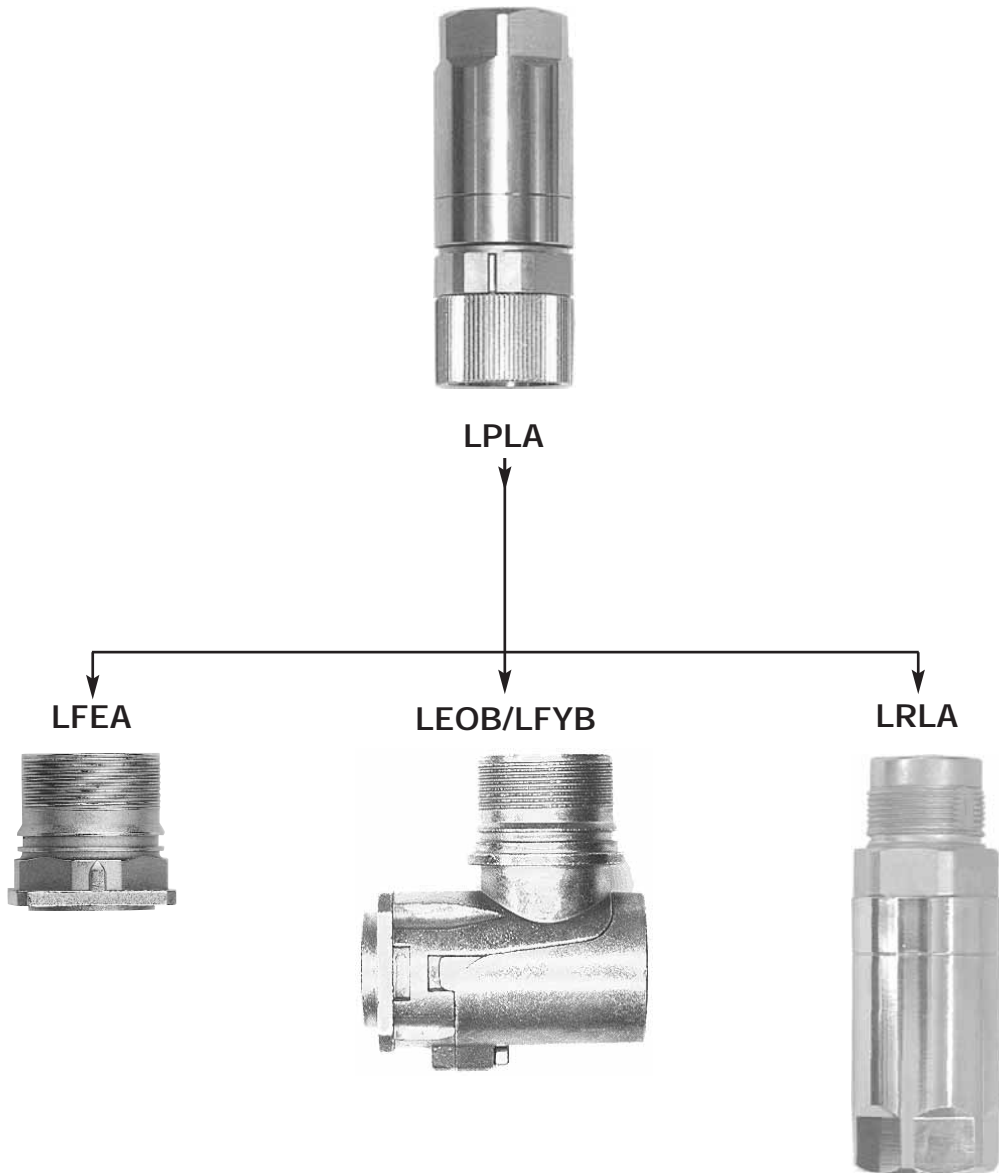
Markets

Robots, machine tools, production machinery

Technical Characteristics

Number of ways:	6way, 8way, 9way
Contact diameter:	6way (6 x 2mm) 8way (4 x 1mm + 4 x 2mm) 9way (5 x 1mm + 4 x 2mm)
Nominal current (VDE) / 20°C: Nominal current (URS/UL): Nominal current (CRN/CSA):	Ø 1mm 9 A, Ø 2mm 30 A Ø 1mm 9 A, Ø 2mm 30 A Ø 1mm 7,5 A, Ø 2mm 18 A
Contact resistance:	Ø 1mm <5 mΩ Ø 2mm <3 mΩ
Connector life cycle	500 mating cycles
Rated impulse voltage:	Ø 1mm 2500 Vrms Ø 2mm 6000 Vrms
Max. operating voltage (VDE): Max. operating voltage (URS/UL): Max. operating voltage (CRN/CSA):	6way (Ø 2mm 630 V), 8way (Ø 1mm 125 V; Ø 2mm 630 V) 9way (Ø 1mm 63 V, Ø 2mm 630 V) 6way (Ø 2mm 600 V), 8way (Ø 1mm 63 V; Ø 2mm 600 V) 9way (Ø 1mm 63 V, Ø 2mm 600 V) 6way (Ø 2mm 600 V), 8way (Ø 1mm 63 V; Ø 2mm 600 V) 9way (Ø 1mm 63 V, Ø 2mm 600 V)
Operating temperature range (VDE): Operating temperature range (UL/CSA):	-40°C to +125°C -40°C to +110°C
Storage	-40 °C to +70 °C / humidity 40%
Insulation resistance	10 ¹³ Ωcm
Insulator material	PA
Contacts: a) material; b) plating	a) CuZn alloy; b) gold plated
Shell: a) material, b) plating	a) CuZn alloy, zinc die-cast; b) nickel plated, chromium plated
Seals:	FKM
IP code:	IP 67 mated
Contamination level:	3 mated
Over voltage category:	III
Installation altitude:	up to 2000m

Connector type overview

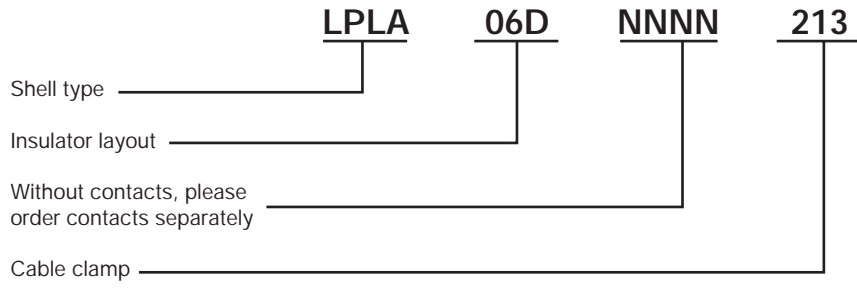


Connector dimensions

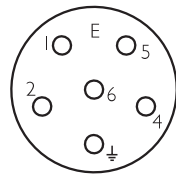
TYPE	DESCRIPTION	DRAWING
<p>LEOB</p> <p>Rotateable angled receptacle with axial sealing to the device</p> <p>LFYB</p> <p>Fixed angled receptacle with axial sealing to the device</p>		
<p>LFEA</p> <p>Straight receptacle with axial sealing to the device</p>		
<p>LRLA</p> <p>Extension with variable cable clamp 7.5 - 18.5 mm and variable shield connection</p>		
<p>LPLA</p> <p>Plug with variable cable clamp 7.5 to 18.5 mm and variable shield connection</p>		

Dimensions are in mm

Ordering information guide



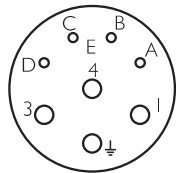
Ordering Information

Receptacle 6way
(6 x 2mm)


Insulator seen from wired side

06C

Connectors including insulator	Part numbers
Rotateable angled receptacle	LEOB06CNNNN000
Fixed angled receptacle	LFYB06CNNNN000
Straight receptacle	LFEA06CNNNN000
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2mm, 0,75 – 2,5 mm ² , AWG 18-14	021.380.1020
Crimp pin Ø 2mm, 4 mm ² , AWG 12	021.415.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2mm pins	B 179
Positioner Ø 2mm pins	B 245
Insertion tool Ø 2mm pins	B 117
Extraction tool Ø 2mm pins	B 037/A

Receptacle 8way
(4 x 1mm + 4 x 2 mm)


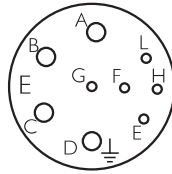
Insulator seen from wired side

08K

Connectors including insulator	Part numbers
Rotateable angled receptacle	LEOB08KNNNN000
Fixed angled receptacle	LFYB08KNNNN000
Straight receptacle	LFEA08KNNNN000
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2mm, 0,75 – 2,5 mm ² , AWG 18-14	021.380.1020
Crimp pin Ø 2mm, 4 mm ² , AWG 12	021.415.1020
Crimp pin Ø 1mm, 0,24 – 1 mm ² , AWG 24-18	021.382.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2mm + 1mm pins	B 179
Positioner Ø 2mm + 1mm pins	B 245
Insertion tool Ø 2mm pins	B 117
Insertion tool Ø 1mm pins	B 118
Extraction tool Ø 2mm pins	B 037/A
Extraction tool Ø 1mm pins	B 038/A

Ordering Information

Receptacle 9way
(5 x 1mm + 4 x 2 mm)

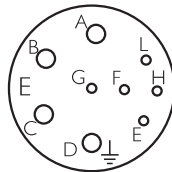


Insulator seen from wired side

09A

Connectors including insulator	Part numbers
Rotateable angled receptacle	LEOB08KNNNN000
Fixed angled receptacle	LFYB08KNNNN000
Straight receptacle	LFEA08KNNNN000
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2mm, 0,75–2,5 mm ² , AWG 18-14	021.380.1020
Crimp pin Ø 2mm, 4 mm ² , AWG 12	021.415.1020
Crimp pin Ø 1mm, 0,24–1 mm ² AWG 24-18	021.382.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2mm + 1mm pins	B 179
Positioner Ø 2mm + 1mm pins	B 245
Insertion tool Ø 2mm pins	B 117
Insertion tool Ø 1mm pins	B 251
Extraction tool Ø 2mm pins	B 037/A
Extraction tool Ø 1mm pins	B 038/A

Extension 9way
(5 x 1mm + 4 x 2 mm)

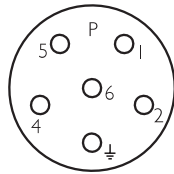


Insulator seen from wired side

09A

Connectors including insulator and cable clamp	Part numbers
Extension, variable cable clamp, variable shield connection	LRLA09ANNNN213
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2mm, 0,75–2,5/4 mm ² , AWG 18–14/12	021.384.1020
Crimp pin Ø 1mm, 0,34–1/1,5 mm ² , AWG 22–18/16	021.385.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2mm + 1mm pins	B 179
Positioner Ø 2mm + 1mm pins	B 252
Insertion tool	---
Extraction tool	---

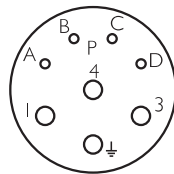
Ordering Information

 Plug 6way
 (6 x 2mm)


Insulator seen from wired side

06D

Connectors including insulator and cable clamp	Part numbers
Plug, variable cable clamp, variable shield connection	LPLA06DNNNN213
Contacts <i>please order separately</i>	Part numbers
Crimp socket Ø 2mm, 0,75–2,5 mm ² , AWG 18-14	020.331.1020
Crimp socket Ø 2mm, 1–2,5/4 mm ² , AWG 18–14/12	020.281.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2mm sockets	B 179
Positioner Ø 2mm sockets	B 252
Insertion tool	–
Extraction tool	–

 Plug 8way
 (4 x 1mm + 4 x 2 mm)


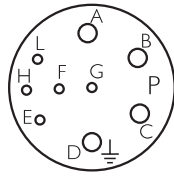
Insulator seen from wired side

08L

Connectors including insulator and cable clamp	Part numbers
Plug, variable cable clamp, variable shield connection	LPLA08LNNNN213
Contacts <i>please order separately</i>	Part numbers
Crimp socket Ø 2mm, 0,75–2,5 mm ² , AWG 18-14	020.331.1020
Crimp socket Ø 2mm, 1–2,5/4 mm ² , AWG 18–14/12	020.281.1020
Crimp socket Ø 1mm, 0,24–1 mm ² , AWG 24-18	020.256.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2mm + 1mm sockets	B 179
Positioner Ø 2mm sockets	B 252
Positioner Ø 1mm sockets	B 200
Insertion tool	–
Extraction tool	–

Ordering Information

Plug 9way
(5 x 1mm + 4 x 2 mm)

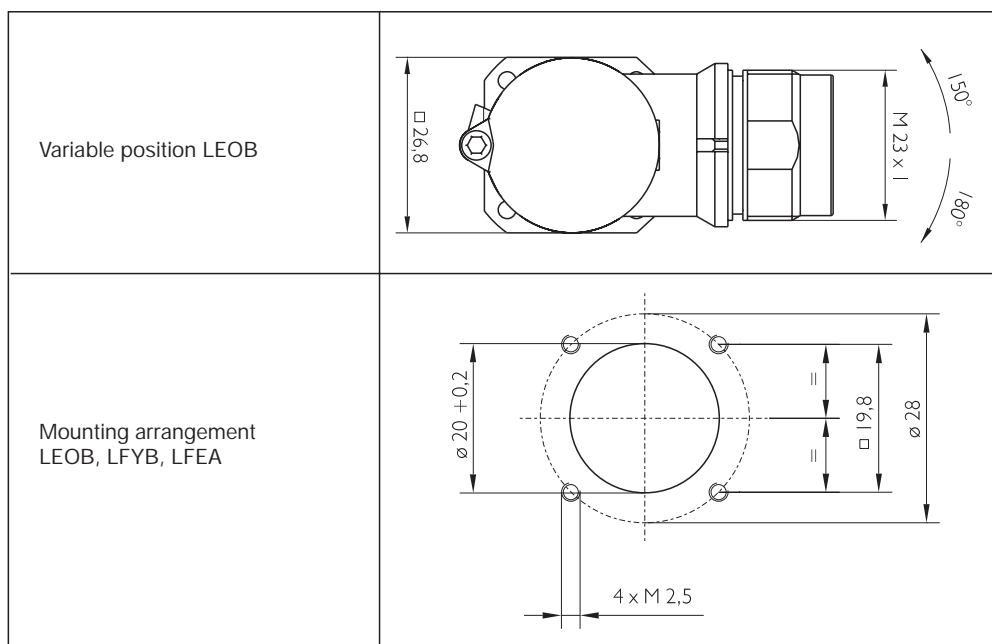


Insulator seen from wired side

09B

Connectors including insulator and cable clamp	Part numbers
Plug, variable cable clamp, variable shield connection	LPLA09BNNNN213
Contacts <i>please order separately</i>	Part numbers
Crimp socket Ø 2mm, 1-2,5/4 mm ² , AWG 18-14/12	020.281.1020
Crimp socket Ø 1mm, 0,24-1/1,5 mm ² , AWG 24-18/16	020.332.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2mm + 1mm sockets	B 179
Positioner Ø 2mm + 1mm sockets	B 252
Insertion tool Ø 1mm sockets	-
Extraction tool Ø 1mm sockets	-

Mounting styles / dimensions



Accessories

Crimp tools	Positioner	Insertion/extraction tools
<p>B179</p>	<p>B 245, B252, B200</p>	<p>B 037/A, B 038/A</p>

Other accessories

<p>Thread protection cap</p>	<p>Part number: 031.287.1000 (short version) 031.405.1000 (long version)</p>
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