



## M23 Size 1i Power Connectors

### Approvals

Tested acc. to DIN EN 61984

### Features

- Various types of cable clamps available (5-16 mm)
- Metallic shell, different types
- Optional vibration protection
- Crimp termination for various cross sections
- Earth connection
- Stamped/rolled hyperboloid contacts **HCS™** available

### Advantages

- Same outside diameter (26,4 mm) for power and signal connectors  
allow connector mounting in smaller space  
allow use of the same external flange
- New cable clamp technology  
provides a wide cable diameter range (5 - 16 mm)
- Power and signal connectors have interchangeable or some parts  
for spare reduction and stock pile saving
- New shielding device between braid and metallic connector body  
easier and quicker braid grounding
- Reduced assembly time  
number of operations are reduced and simplified
- New external flange made of one piece
- Improved mechanical stability
- Compatible with all connectors of L series
- UL certification available. Contact the factory for relevant part numbers

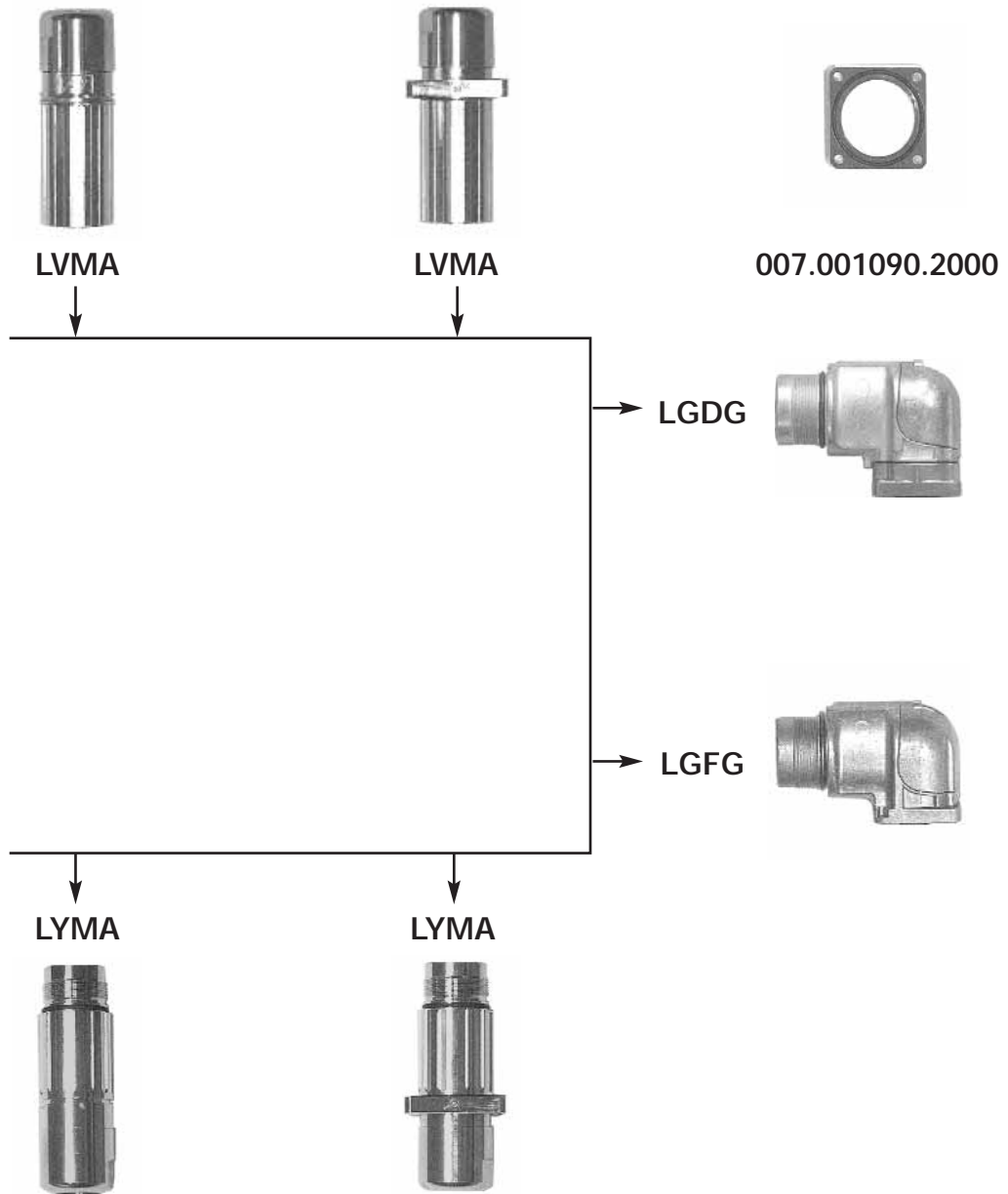
### Markets

Servo drives, robots, machine tools, production machinery, handling machines

## 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 / 20°C:	Ø 1 mm HCS™ contacts: 8 A (assembled with 1,0 mm <sup>2</sup> ) Ø 2 mm HCS™ contacts: 30 A (assembled with 4,0 mm <sup>2</sup> )
Contact resistance:	Ø 1 mm HCS™ contacts: <5 mΩ Ø 2 mm HCS™ contacts: <3 mΩ
Connector life cycle	500 mating cycles
Rated impulse voltage:	8way: Ø 1mm 2,5 kV; 9way: Ø 1 mm 1,5 kV 6way, 8way, 9way: Ø 2 mm 6 kV
Max. operating voltage:	6way (Ø 2 mm 630 V), 8way (Ø 1 mm 125 V; Ø 2 mm 630 V) 9way (Ø 1 mm 63 V, Ø 2 mm 630 V)
Operating temperature range:	-40 °C to +125 °C
Storage conditions	-40 °C to +70 °C / humidity 40%
Insulation resistance	10 <sup>13</sup> Ωcm
Insulator material	PA
Contacts: a) material; b) plating	a) CuZn alloy, tin-bronze; b) gold plated and partly 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 2000 m

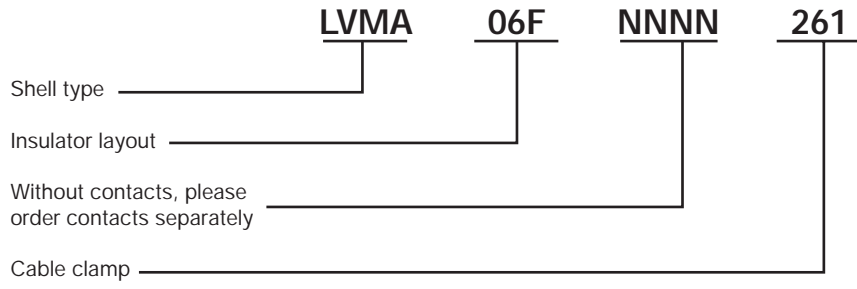
Connector type overview



Connector dimensions

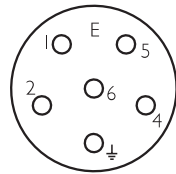
TYPE	DESCRIPTION	DRAWING
LGDG	Rotateable angled receptacle with axial sealing to the device	
LGFG	Fixed angled receptacle with axial sealing to the device	
LYMA	Extension with variable cable clamp 5.0 – 16.0 mm and variable shield connection	
LVMA	Plug with variable cable clamp 5.0 – 16.0 mm and variable shield connection	
LYMA	Extension with mounting flange <i>Please order flange separately (see other accessories)</i>	
LVMA	Plug with mounting flange <i>Please order flange separately (see other accessories)</i>	

Ordering information guide



Ordering Information

Receptacle 6way  
(6 x 2mm)

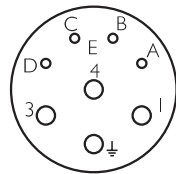


Insulator seen from wired side

06E

Connectors including insulator	Part numbers
Rotateable angled receptacle	LGDG06ENNNN000
Straight angled receptacle	LGFG06ENNNN000
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2 mm, 0,24 – 1,5 mm <sup>2</sup> , AWG 24-18	021.001009.1020
Crimp pin Ø 2 mm, 1,5 – 2,5 mm <sup>2</sup> , AWG 16-14	021.001004.1020
Crimp pin Ø 2 mm, 4 mm <sup>2</sup> , AWG 12	021.415.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B179
Positioner Ø 2 mm	B297
Positioner Ø 2 mm (AWG 12)	B245
Insertion tool Ø 2 mm	B117
Extraction tool Ø 2 mm	B037/A

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



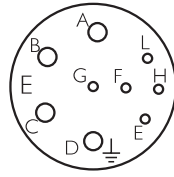
Insulator seen from wired side

08T

Connectors including insulator	Part numbers
Rotateable angled receptacle	LGDG08TNNNN000
straight angled receptacle	LGFG08TNNNN000
Contacts <i>please order separately</i>	Part numbers
crimp pin Ø 2 mm, 0,24 – 1,5 mm <sup>2</sup> , AWG 24-18	021.001009.1020
crimp pin Ø 2 mm, 1,5 – 2,5 mm <sup>2</sup> , AWG 16-14	021.001004.1020
crimp pin Ø 2 mm, 4 mm <sup>2</sup> , AWG 12	021.415.1020
crimp pin Ø 1 mm, 0,24 – 1,0 mm <sup>2</sup> , AWG 24-18	021.382.1020
Tools <i>please order separately</i>	Part numbers
crimp tool Ø 2 mm	B179
crimp tool Ø 1 mm	B151
positioner Ø 2 mm	B297
positioner Ø 2 mm + 1mm (AWG 12, AWG 24-18)	B245
insertion tool Ø 2 mm	B117
insertion tool Ø 1 mm	B118
extraction tool Ø 2 mm	B037/A
extraction tool Ø 1 mm	B038/A

## Ordering Information

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

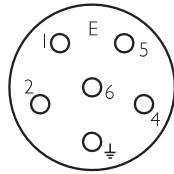


Insulator seen from wired side

09A

Connectors including insulator	Part numbers
Rotateable angled receptacle	LGDG09ANNNN000
Straight angled receptacle	LGFG09ANNNN000
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2 mm, 0,75 – 2,5 mm <sup>2</sup> , AWG 18-14	021.380.1020
Crimp pin Ø 2 mm, 4 mm <sup>2</sup> , AWG 12	021.415.1020
Crimp pin Ø 1 mm, 0,24 – 1,0 mm <sup>2</sup> , AWG 24-18	021.382.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B179
Crimp tool Ø 1 mm	B151
Positioner Ø 2 mm + 1mm (AWG 12, AWG 24-18)	B245
Insertion tool Ø 2 mm	B117
Insertion tool Ø 1 mm	B118
Extraction tool Ø 2 mm	B037/A
Extraction tool Ø 1 mm	B038/A

Extension 6way  
(6 x 2 mm)



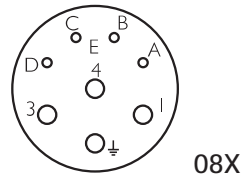
Insulator seen from wired side

06E

Connectors including insulator and cable clamp	Part numbers
Extension with cable clamp range 5 – 9 mm	LYMA06JNNNN260
Extension with cable clamp range 9 - 15 mm	LYMA06JNNNN261
Extension with cable clamp range 16 mm	LYMA06JNNNN262
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2 mm, 0,34/1,5 mm <sup>2</sup> , AWG 22/16	021.001025.1020
Crimp pin Ø 2 mm, 1,5/4 mm <sup>2</sup> , AWG 16/12	021.001018.1020
Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B179
Positioner Ø 2 mm	B305

Ordering Information

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



Insulator seen from wired side

Connectors including insulator and cable clamp	Part numbers
Extension with cable clamp range 5 – 9 mm	LYMA08XNNNNN260
Extension with cable clamp range 9 - 15 mm	LYMA08XNNNNN261
Extension with cable clamp range 16 mm	LYMA08XNNNNN262

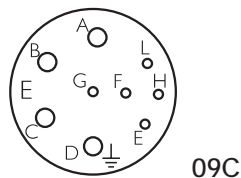
  

Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2 mm, 0,34/1,5 mm <sup>2</sup> , AWG 22/16	021.001025.1020
Crimp pin Ø 2 mm, 1,5/4 mm <sup>2</sup> , AWG 16/12	021.001018.1020
Crimp pin Ø 1 mm, 0,24 - 1,5 mm <sup>2</sup> , AWG 24 - 16	021.001017.1020

Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B179
Crimp tool Ø 1 mm	B151
Positioner Ø 2 mm	B305
Positioner Ø 1 mm	B306

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



Insulator seen from wired side

Connectors including insulator and cable clamp	Part numbers
Extension with cable clamp range 5 – 9 mm	LYMA09CNNNNN260
Extension with cable clamp range 9 – 15 mm	LYMA09CNNNNN261
Extension with cable clamp range 16 mm	LYMA09CNNNNN262

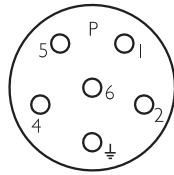
Contacts <i>please order separately</i>	Part numbers
Crimp pin Ø 2 mm, 0,34/1,5 mm <sup>2</sup> , AWG 22/16	021.001025.1020
Crimp pin Ø 2 mm, 1,5/4 mm <sup>2</sup> , AWG 16/12	021.001018.1020
Crimp pin Ø 1 mm, 0,24 – 1,5 mm <sup>2</sup> , AWG 24 – 16	021.001017.1020

Tools <i>please order separately</i>	Part numbers
Crimp tool Ø 2 mm	B179
Crimp tool Ø 1 mm	B151
Positioner Ø 2 mm	B305
Positioner Ø 1 mm	B306

## Ordering Information

### Plug 6way (6 x 2mm)

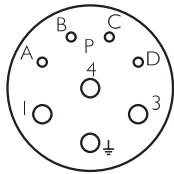


Insulator seen from wired side

06F

Connectors including insulator and cable clamp	Part numbers
Plug with cable clamp range 5 – 9 mm	LVMA06FNNNNN260
Plug with cable clamp range 9 – 15 mm	LVMA06FNNNNN261
Plug with cable clamp range 16 mm	LVMA06FNNNNN262
Contacts please order separately	Part numbers
Stamped/rolled socket Ø 2 mm, 0,5-1,0 mm <sup>2</sup> , AWG 20-16 <b>HCS™</b>	020.001001.2000 (4.000 pcs./reel)
Stamped/rolled socket Ø 2 mm, 0,5-1,0 mm <sup>2</sup> , AWG 20-16 <b>HCS™</b>	020.001001.2000.A2 (150 pcs./reel)
Stamped/rolled socket Ø 2 mm, 1,0-2,0 mm <sup>2</sup> , AWG 18-14 <b>HCS™</b>	020.001002.2000 (3.500 pcs./reel)
Stamped/rolled socket Ø 2 mm, 1,0-2,0 mm <sup>2</sup> , AWG 18-14 <b>HCS™</b>	020.001002.2000.A2 (150 pcs./reel)
Stamped/rolled socket Ø 2 mm, 2,5-4,0 mm <sup>2</sup> <b>HCS™</b>	020.001003.2000 (2.500 pcs./reel)
Stamped/rolled socket Ø 2 mm, 2,5-4,0 mm <sup>2</sup> <b>HCS™</b>	020.001003.2000.A2 (150 pcs./reel)
Tools please order separately	Part numbers
Crimp tool 0,5-1,0 mm <sup>2</sup>	B295/0.5-1.0
Crimp tool 1,0-2,0 mm <sup>2</sup>	B295/1.0-2.0
Crimp tool 2,5-4,0 mm <sup>2</sup>	B295/2.5-4.0

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



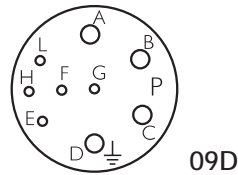
Insulator seen from wired side

08U

Connectors including insulator and cable clamp	Part numbers
Plug with cable clamp range 5 – 9 mm	LVMA08UNNNNN260
Plug with cable clamp range 9 – 15 mm	LVMA08UNNNNN261
Plug with cable clamp range 16 mm	LVMA08UNNNNN262
Contacts please order separately	Part numbers
Stamped/rolled socket Ø 2 mm, 0,5-1,0 mm <sup>2</sup> , AWG 20-16 <b>HCS™</b>	020.001001.2000 (4.000 pcs./reel)
Stamped/rolled socket Ø 2 mm, 0,5-1,0 mm <sup>2</sup> , AWG 20-16 <b>HCS™</b>	020.001001.2000.A2 (150 pcs./reel)
Stamped/rolled socket Ø 2 mm, 1,0-2,0 mm <sup>2</sup> , AWG 18-14 <b>HCS™</b>	020.001002.2000 (3.500 pcs./reel)
Stamped/rolled socket Ø 2 mm, 1,0-2,0 mm <sup>2</sup> , AWG 18-14 <b>HCS™</b>	020.001002.2000.A2 (150 pcs./reel)
Stamped/rolled socket Ø 2 mm, 2,5-4,0 mm <sup>2</sup> <b>HCS™</b>	020.001003.2000 (2.500 pcs./reel)
Stamped/rolled socket Ø 2 mm, 2,5-4,0 mm <sup>2</sup> <b>HCS™</b>	020.001003.2000.A2 (150 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,032-0,08 mm <sup>2</sup> , AWG 32-28 <b>HCS™</b>	020.000376.2000 (9.000 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,032-0,08 mm <sup>2</sup> , AWG 32-28 <b>HCS™</b>	020.000376.2000.A2 (300 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,08-0,20 mm <sup>2</sup> , AWG 28-24 <b>HCS™</b>	020.000377.2000 (9.000 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,08-0,20 mm <sup>2</sup> , AWG 28-24 <b>HCS™</b>	020.000377.2000.A2 (300 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,20-0,52 mm <sup>2</sup> , AWG 24-20 <b>HCS™</b>	020.000378.2000 (9.000 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,20-0,52 mm <sup>2</sup> , AWG 24-20 <b>HCS™</b>	020.000378.2000.A2 (300 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,75-1,00 mm <sup>2</sup> <b>HCS™</b>	020.000379.2000 (9.000 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,75-1,00 mm <sup>2</sup> <b>HCS™</b>	020.000379.2000.A2 (300 pcs./reel)
Tools please order separately	Part numbers
Crimp tool, AWG 32-28	B287/32-28
Crimp tool, AWG 28-24	B287/28-24
Crimp tool, AWG 24-20	B287/24-20
Crimp tool, 0,75-1,0 mm <sup>2</sup>	B287/0.75-1.0

## Ordering Information

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



Insulator seen from wired side








Connectors including insulator and cable clamp	Part numbers
Plug with cable clamp range 5 – 9 mm	LVMA09DNNNN260
Plug with cable clamp range 9 – 15 mm	LVMA09DNNNN261
Plug with cable clamp range 16 mm	LVMA09DNNNN262
Contacts <i>please order separately</i>	Part numbers
Stamped/rolled socket Ø 2 mm, 0,5-1,0 mm <sup>2</sup> , AWG 20-16 <b>HCS™</b>	020.001001.2000 (4.000 pcs./reel)
Stamped/rolled socket Ø 2 mm, 0,5-1,0 mm <sup>2</sup> , AWG 20-16 <b>HCS™</b>	020.001001.2000.A2 (150 pcs./reel)
Stamped/rolled socket Ø 2 mm, 1,0-2,0 mm <sup>2</sup> , AWG 18-14 <b>HCS™</b>	020.001002.2000 (3.500 pcs./reel)
Stamped/rolled socket Ø 2 mm, 1,0-2,0 mm <sup>2</sup> , AWG 18-14 <b>HCS™</b>	020.001002.2000.A2 (150 pcs./reel)
Stamped/rolled socket Ø 2 mm, 2,5-4,0 mm <sup>2</sup> <b>HCS™</b>	020.001003.2000 (2.500 pcs./reel)
Stamped/rolled socket Ø 2 mm, 2,5-4,0 mm <sup>2</sup> <b>HCS™</b>	020.001003.2000.A2 (150 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,032-0,08 mm <sup>2</sup> , AWG 32-28 <b>HCS™</b>	020.000376.2000 (9.000 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,032-0,08 mm <sup>2</sup> , AWG 32-28 <b>HCS™</b>	020.000376.2000.A2 (300 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,08-0,20 mm <sup>2</sup> , AWG 28-24 <b>HCS™</b>	020.000377.2000 (9.000 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,08-0,20 mm <sup>2</sup> , AWG 28-24 <b>HCS™</b>	020.000377.2000.A2 (300 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,20-0,52 mm <sup>2</sup> , AWG 24-20 <b>HCS™</b>	020.000378.2000 (9.000 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,20-0,52 mm <sup>2</sup> , AWG 24-20 <b>HCS™</b>	020.000378.2000.A2 (300 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,75-1,00 mm <sup>2</sup> <b>HCS™</b>	020.000379.2000 (9.000 pcs./reel)
Stamped/rolled socket Ø 1 mm, 0,75-1,00 mm <sup>2</sup> <b>HCS™</b>	020.000379.2000.A2 (300 pcs./reel)
Tools <i>please order separately</i>	Part numbers
Crimp tool, AWG 32-28	B287/32-28
Crimp tool, AWG 28-24	B287/28-24
Crimp tool, AWG 24-20	B287/24-20
Crimp tool, 0,75-1,0 mm <sup>2</sup>	B287/0.75-1.0

Mounting styles / dimensions







<p>Drilling drawing for receptacle LGDG/LGFG</p>	
<p>Drilling drawing for receptacle LYMA/LVMA with flange</p>	
<p>Variable position LGDG</p>	

Dimensions are in mm

Accessories

Crimp tools	Positioner	Insertion/extraction tools
 <p>B151 / B179</p>	 <p>B245, B297, B305, B306</p>	 <p>B117</p>
 <p>B287 / B295 with feeder line for stamped/rolled contacts</p>		 <p>B118</p>
 <p>B295/2.4-4 without feeder line</p>		 <p>B037/, B038/A</p>

Other accessories

 <p><b>Part number:</b> 007.001090.2000</p> <p>Flange mounting by pushing from the connection site and fixing by a grub screw.</p>	 <p><b>Part number:</b> 031.287.1000 (short version) 031.405.1000 (long version)</p> <p><i>Thread protection caps</i></p>		
<p><i>Dust shield caps</i></p>			
 <p><b>Part number:</b> C/BEL/1</p> <p>Dust shield cap for LYMA/LGDG/LGFG</p>	 <p><b>Part number:</b> C/BEL/2</p> <p>Identical to C/BEL/1 with chain 7.5 mm</p>	 <p><b>Part number:</b> C/BEL/7</p> <p>Identical to C/BEL/1 with chain 12 mm</p>	 <p><b>Part number:</b> C/BEL/5</p> <p>Dust shield cap for LVMA with chain 12 mm</p>