

Section 3

Series 309

Cylindrical Connectors with Bayonet Coupling
Neoprene Push-Pull Lock or Flange Mounting

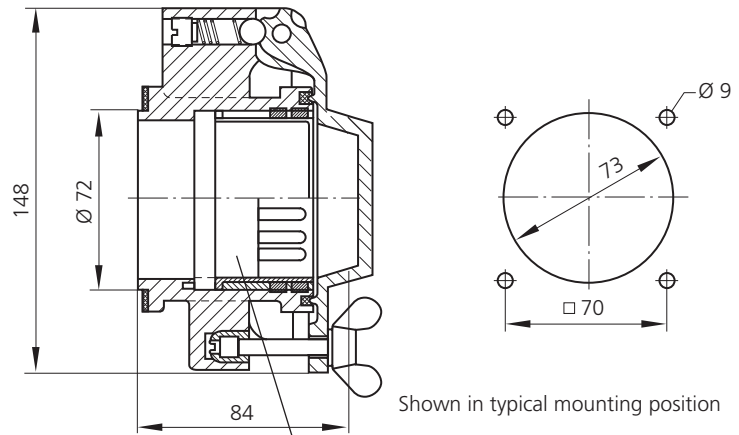


Selected Technical Data

Positions:	2 – 90
Test Voltage:	to 3000 V AC
max. Single Contact Load:	to 500 A
Insulation Body and Contact Insert Material:	Duroplast, glass-filled, UL 94 V-0
Contacts:	Springtac™ sockets and solid pins
Contact Finish:	silver-plated and passivated
Housing Material:	Aluminum-alloy or Bronze, Ni-plated
Housing Finish:	painted or Ni-plated
Coupling Mechanism:	Bayonet, Neoprene push-pull, or flange mounting
Protection:	in mated and locked Condition up to IP 67

Type 309

Straight Receptacle with Snap Cover for Bayonet Coupling (mated and locked IP 55)



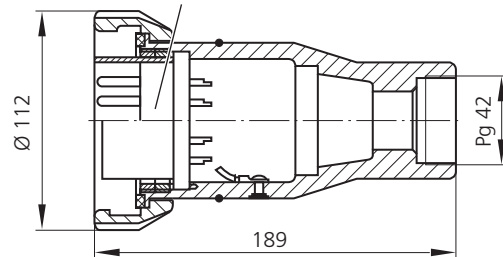
Contact inserts see page 37 – 39

Part Number Alu-cast, painted	Part Number Bronze, Ni-plated	Comments
309.010.000.642.000	309.010.000.554.000	

Straight Plug with Bayonet Coupling

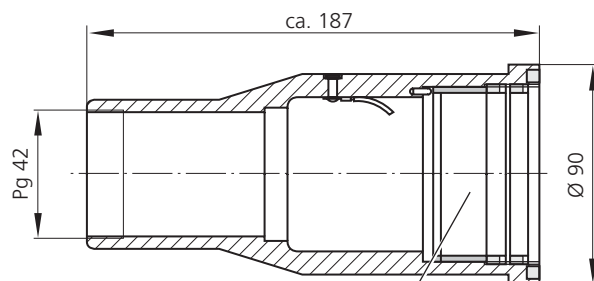


Contact inserts see page 37 – 39



Part Number ¹⁾ Alu-cast, painted	Part Number ¹⁾ Bronze, Ni-plated	Comments
309.020.000.642.000	309.020.000.554.000	

In-line Receptacle, Straight, Bayonet Coupling



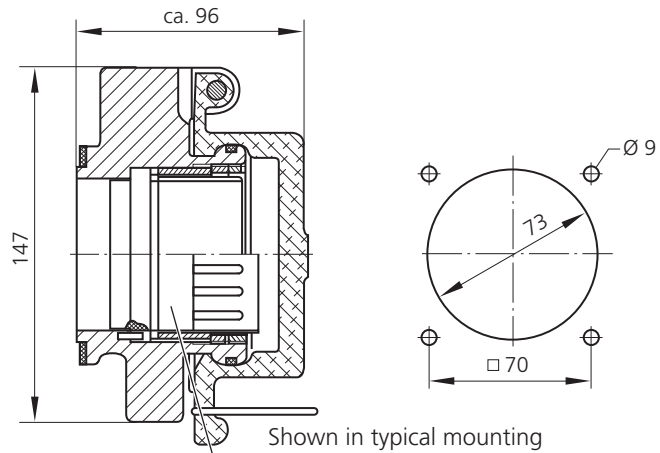
Contact inserts see page 37 – 39

Part Number ¹⁾ Alu-cast, painted	Part Number ¹⁾ Bronze, Ni-plated	Comments
309.030.000.642.000	309.030.000.554.000	

¹⁾ Cable clamp is not included in part number (see page 45 and 46)
Assembly instructions see page 47

Type 309

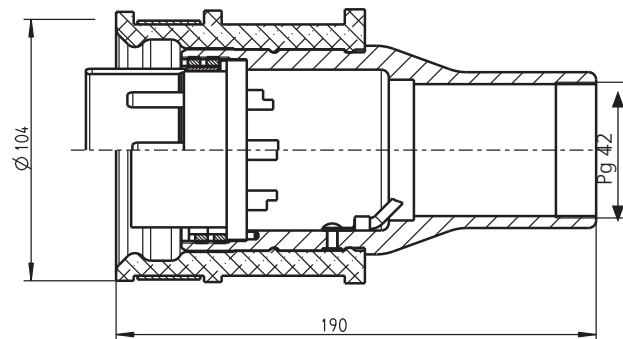
Straight Receptacle with Neoprene Snap-Lock (when mated and locked with plug below: IP 67, 1 bar/8 h)



Contact inserts see page 37 – 39

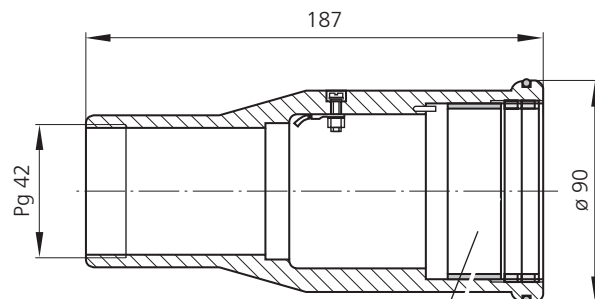
Part Number Bronze, Ni-plated	Comments
309.012.000.554.000	with locked lid max 0.5 bar

Straight Plug with Neoprene Snap-Lock (when mated and locked IP 67, 1 bar/8 h)



Part Number ¹⁾ Bronze, Ni-plated	Comments
309.021.000.554.000	with cable clamp 026 642... (see page 46)

In-line Receptacle for Neoprene Snap-Lock (when mated and locked IP 67, 8 h)



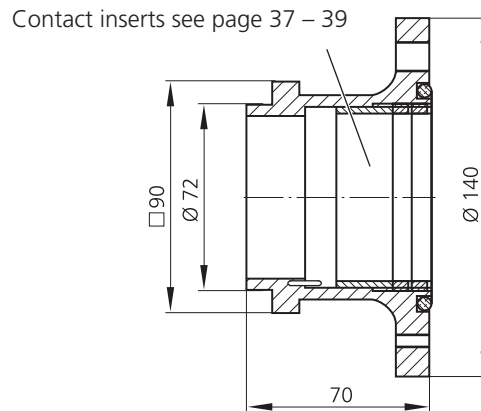
Contact inserts see page 37 - 39

Part Number ¹⁾ Bronze, Ni-plated	Comments
309.031.000.554.000	with cable clamp 026 642... (see page 46)

¹⁾ Cable clamp is not included in part number (see page 45 and 46); relevant for IP class
Assembly instructions see page 47

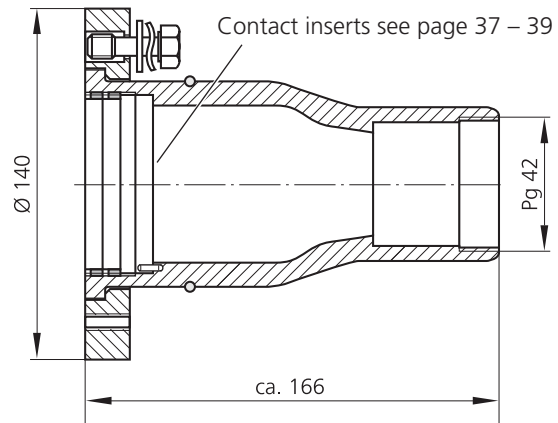
Type 309

Straight Receptacle with Mounting Flange (when mated and locked IP 67, 3 bar/8 h)



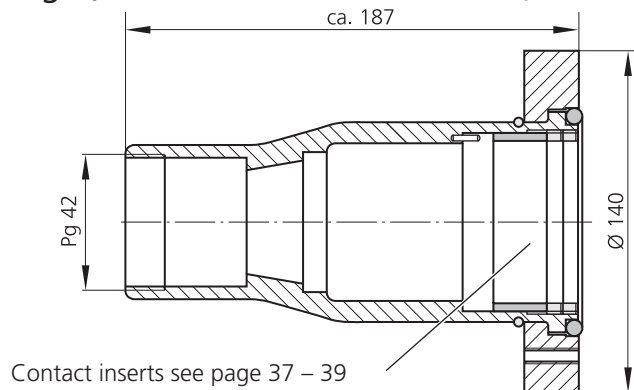
Part Number Alu-cast, painted	Part Number Bronze, Ni-plated	Comments
309.013.000.642.000	309.013.000.554.000	

Straight Plug with Mounting Flange (when mated and locked IP 67, 3 bar/8 h)



Part Number ¹⁾ Alu-cast, painted	Part Number ¹⁾ Bronze, Ni-plated	Comments
309.023.000.642.000	309.023.000.554.000	with cable clamp 026 642... (see page 46)

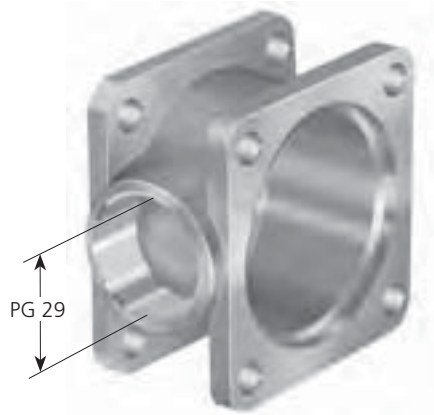
In-line Receptacle, Straight, with Mounting Flange (when mated and locked IP 67, 3 bar/8 h)



Part Number ¹⁾ Alu-cast, painted	Part Number ¹⁾ Bronze, Ni-plated	Comments
309.033.000.642.000	309.033.000.554.000	with cable clamp 026 642... (see page 46)

¹⁾ Cable clamp is not included in part number (see page 45 and 46); relevant for IP class
 Assembly instructions see page 47

Type 309
Extension for Box Mounting



Part Number ¹⁾ Alu-cast, painted	Part Number ¹⁾ Bronze, Ni-plated	Comments
309.095.101.642.000	309.095.101.554.000	for Receptacle (309.010) and (309.012)

Dummy Receptacle for Storage of Decoupled Plug



Part Number Alu-cast, painted	Part Number Bronze, Ni-plated	Comments
309.093.100.642.000	309.093.100.554.000	for Plug (309.020)

Plug Cover



Part Number Alu-cast, painted	Part Number Bronze, Ni-plated	Comments
309.097.001.642.000	309.097.001.554.000	for Plug (309.020)

¹⁾ Cable clamp is not included in part number (see page 45 and 46)
Assembly instructions see page 47

Type 309
Cover for In-line Receptacle



Part Number Alu-cast, painted	Part Number Bronze, Ni-plated	Comments
309.097.003.642.000	309.097.003.554.000	for In-line Receptacle (309.030)

Plastic Cover for Plug



Part Number Cover (Plastic)	Comments
309.097.002.924.000	for Plug (309.021)

Quick Lock for Plug



Part Number	Comments
309.021.018.200.000	for Plug (309.021)

Type 309

Plastic Cover for Panel Receptacle and In-line Receptacle



Part Number Cover (plastic)	Comments
309.097.005.926.000	for Receptacle (309.013) and In-line Receptacle (309.033) with Flange

Plastic Cover for Plug



Part Number Cover (plastic)	Comments
309.097.004.926.000	for Plug with Mounting Flange (309.023)

Series 308, 309 and 310
Cable Clamp with Strain Relief
and Cable Bending Protection Sleeve (IP 55)



Cable Ø	Part Number Pg 29	Part Number Pg 36	Part Number Pg 42	Part Number Pg 48
7.5 - 9.0	026.529.075.090.000			
9.0 - 11.0	026.529.090.110.000			
11.5 - 13.0	026.529.115.130.000	026.536.115.130.000		
13.5 - 15.0	026.529.135.150.000	026.536.135.150.000	026.542.135.150.000	
15.0 - 17.0	026.529.150.170.000	026.536.150.170.000		
17.0 - 19.0	026.529.170.190.000	026.536.170.190.000		
18.0 - 20.0	026.529.180.200.000	026.536.180.200.000	026.542.180.200.000	
21.0 - 23.0	026.529.210.230.000	026.536.210.230.000		
23.0 - 25.0	026.529.230.250.000	026.536.230.250.000		
23.0 - 26.0		026.536.230.260.000	026.542.230.260.000	026.548.230.260.000
27.0 - 30.0		026.536.270.300.000	026.542.270.300.000	026.548.270.300.000
30.0 - 33.0		026.536.300.330.000	026.542.300.330.000	026.548.300.330.000
32.0 - 35.0		026.536.320.350.000	026.542.320.350.000	026.548.320.350.000
35.0 - 38.0			026.542.350.380.000	026.548.350.380.000
36.0 - 40.0			026.542.360.400.000	026.548.360.400.000
40.0 - 44.0				026.548.400.440.000

Cable Clamp with Environmental Seal (Protection IP 68)

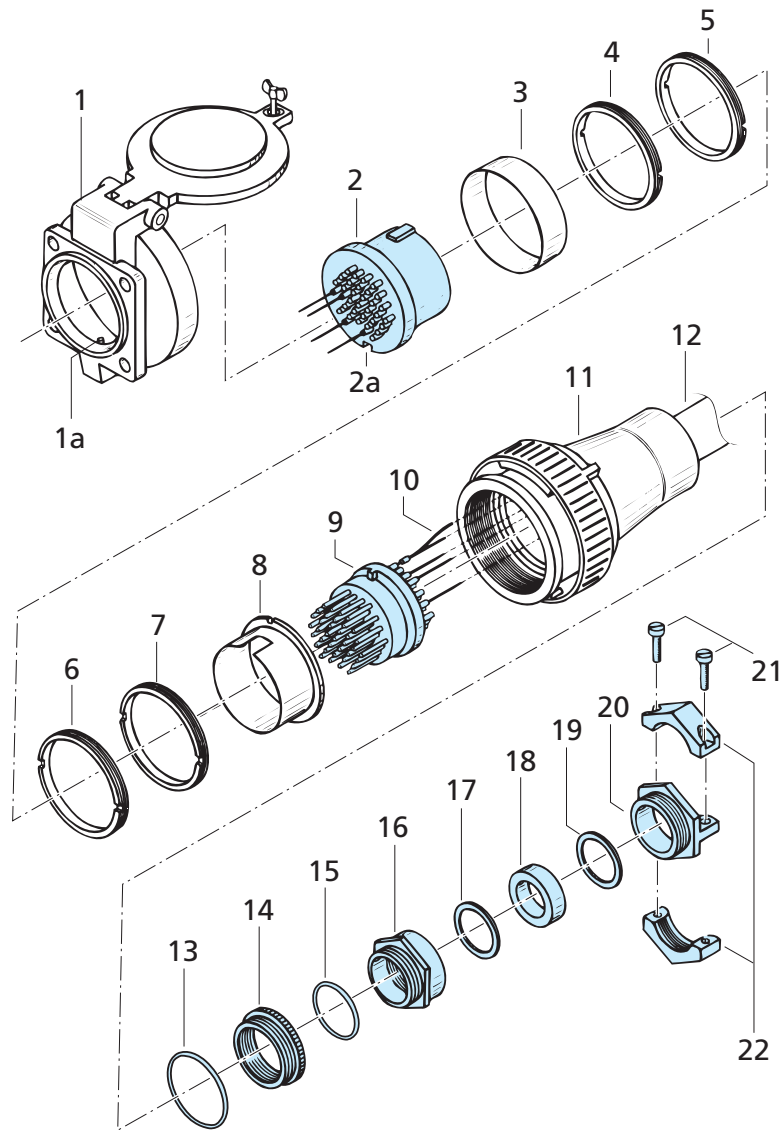
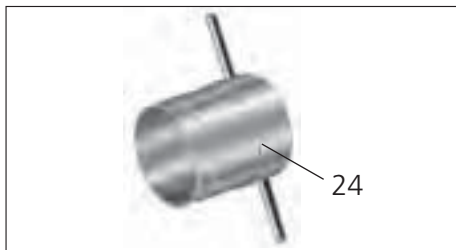
Water- and oil-tight cable clamp for wide range of temperatures from -40 °C to +125 °C



Cable Ø	Part Number Pg 29	Part Number Pg 36	Part Number Pg 42	Part Number Pg 48
7.0 - 15.0	026.629.070.150.000			
7.9 - 16.9				
11.9 - 21.9	026.629.119.219.000	026.636.119.219.000		
17.8 - 29.8	026.629.178.298.000	026.636.178.298.000	026.642.178.298.000	
25.0 - 39.0		026.636.250.390.000		026.648.250.390.000
29.2 - 45.2			026.642.292.452.000	
33.0 - 50.0				026.648.330.500.000

Series 309 Assembly Instructions

Parts Description	
1	Receptacle Housing
2	Socket Insert
3	Spacer Ring
4 - 7	Threaded Ring
8	Guide Ring (only for unprotected pins)
9	Pin Insert
10	Ground Cable
11	Plug Housing
12	Cable
13 - 22	Cable Clamp
order separately	



Assembly Tool

for Series 308, 309 and 310

for Series	Part Number for Assembly Key
308	308.098.001.719.000
309	309.098.000.719.000
310	310.098.001.719.000

Assembly of Receptacle

1. Push stripped conductors through receptacle (1).
2. Solder conductors to contacts.
3. Either socket or pin Insert (2) into Receptacle (1); important, Pin (1a) must snap into groovet (2a).
4. With Socket Insert spacer ring (3) must be used.
5. Fasten threaded ring (4, 5) with assembly tool.

Assembly of Plug

1. Push cable clamp (13 - 22) and plug housing (11) over Cable (12).
2. Connect ground strap (10) to ground cable (12).
3. Solder stripped conductors to contacts.
4. Mount either pin oder socket insert (9) into plug housing (11), important: Pin (1a) must snap into groovet (2a).
5. With pin Insert guide ring (8) on insert (9). Watch out for keying!
6. Fasten threaded ring (4 - 7) with assembly tool.
7. Connect cable clamp (13 - 22).

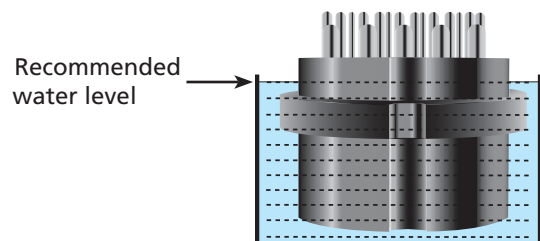
Instruction about blowtorch soldering > 6 mm²

During heat-stress it can come to a damage on the contact-elements on the insulating materials as well. (Limit temperature 120°C)

Remedy: Put the inserts into the water. (If possible, distilled water)

Attention! Warmed water at 35°C must be renewed.

After the solder process the connector has to be carefully dried.



Odu 309 Parts used with Gottwald & Liebherr Cranes

Item No.	Description	Odu for Gottwald	Odu for Liebherr
1	Receptacle Housing	309.012.000.554.000	309.010.000.554.000
2,3	Socket Insert	309.703.150.037.000	309.703.160.037.000
4,5,6	Spacer & Threaded Rings	Included with Housing	Included with Housing
7,8,9	Guide Ring & Threaded Rings	Included with Plug	Included with Plug
10	Pin Insert	309.803.156.037.151	309.803.160.037.151
12	Plug Housing	309.021.000.554.000	309.020.000.554.000
		or	
		309.021.050.554.000	
14 to 23	Cable Gland Clamp	026.642.178.298.000	026.642.178.298.000
24	Threaded Ring Assembly Tool	309.098.000.719.000	309.098.000.719.000

Series 309

Tools and Accessories

Crimp tools have a safety release which opens when the correct crimp pressure is reached. Premature opening of the crimp tool is thereby prevented.



Hexagonal Crimp Tool for termination cross section from 1.5 to 2.5 mm² with locking system.

Part number for cross section 1.5 mm² **080.000.021.000.000**
 Part number for cross section 2.5 mm²: **080.000.012.000.000**



Hydraulic Hexagonal Crimp Tool for cross sections 16 mm² – 120 mm² with safety valve which opens only if correct crimp pressure is reached.

Part-No. crimp tool: **080.000.017.000.000**

Part-No. crimp dies:

For cable cross section	Part Number Crimp Dies
16 mm ²	921.000.005.000.002
25 mm ²	921.000.005.000.005
35 mm ²	921.000.005.000.006
50 mm ²	921.000.005.000.008
70 mm ²	921.000.005.000.009
95 mm ²	921.000.005.000.011
120 mm ²	921.000.005.000.013