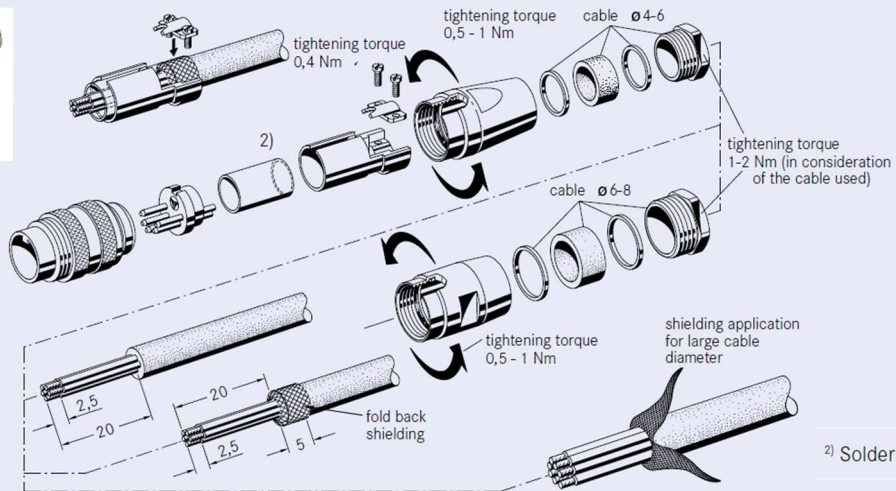


C 091 D Male cable connector

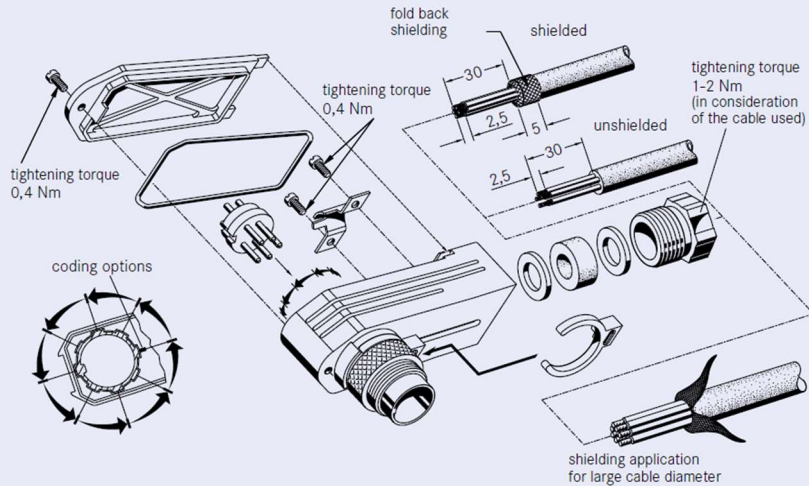
Assembly instruction¹⁾



Assembly Tool:
FH 0300 091



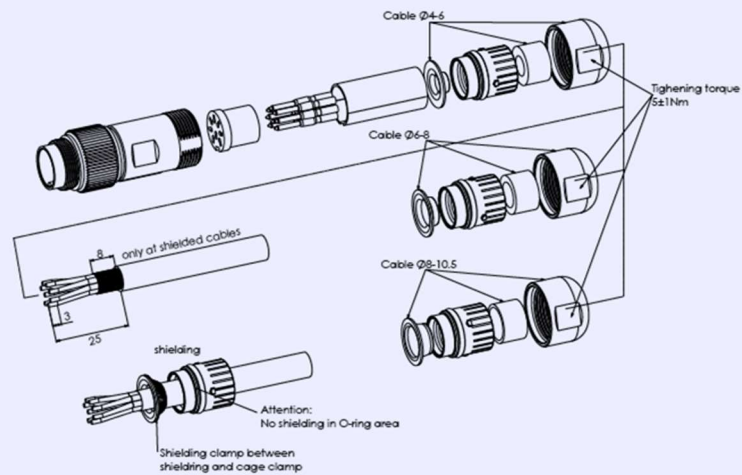
Assembly instruction¹⁾, can be keyed to 8 angle positions



Assembly instruction



Assembly Tool:
FH 0300 091

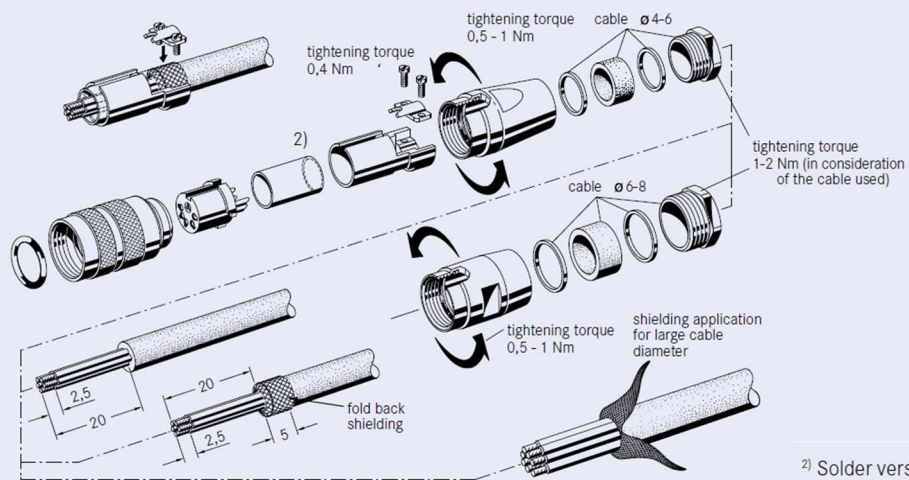


C 091 D Female cable connector

Assembly instruction¹⁾

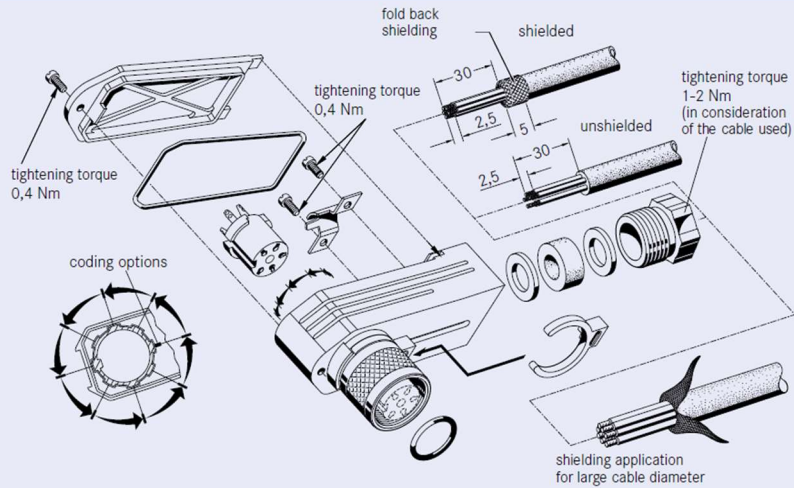


Assembly Tool:
FH 0300 091



²⁾ Solder version only

Assembly instruction¹⁾, can be keyed to 8 angle positions

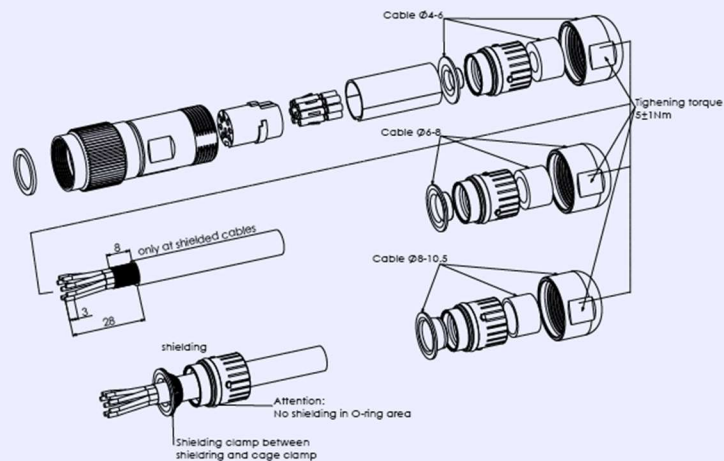


C 091 D+ Female cable connector

Assembly instruction



Assembly Tool:
FH 0300 091

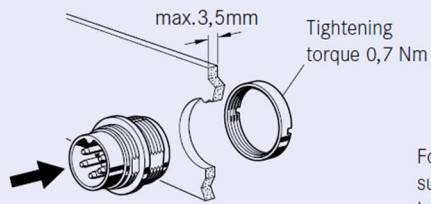


C 091 D Male receptacle | front mounting

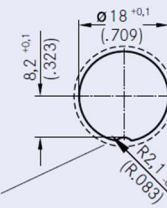
Assembly instruction



Assembly Tool:
N 45 091 000 1



Panel cutout



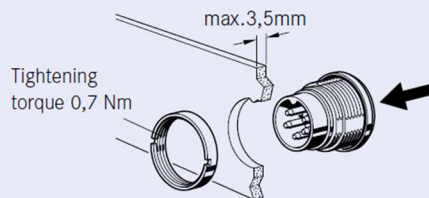
For sealing reasons the surface for the gasket needs to be level and free of burrs.

C 091 D Male receptacle | rear mounting

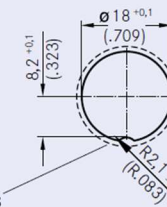
Assembly instruction



Assembly Tool:
N 45 091 000 1



Panel cutout

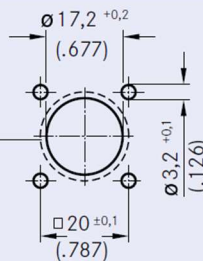


For sealing reasons the surface for the gasket needs to be level and free of burrs.

C 091 D Male receptacle | flange mounting

Panel cutout

For sealing reasons the surface for the gasket needs to be level and free of burrs. Provide suitable sealing for the screws.

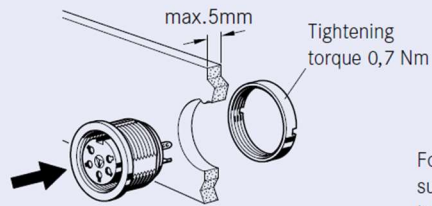


C 091 D Female receptacle | front mounting

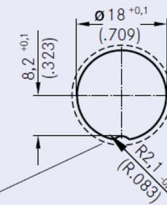
Assembly instruction ³⁾



Assembly Tool:
N 45 091 000 1



Panel cutout



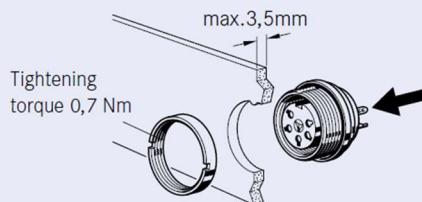
For sealing reasons the surface for the gasket needs to be level and free of burrs.

C 091 D Female receptacle | rear mounting

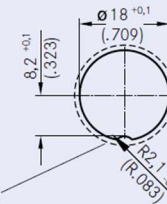
Assembly instruction ³⁾



Assembly Tool:
N 45 091 000 1



Panel cutout



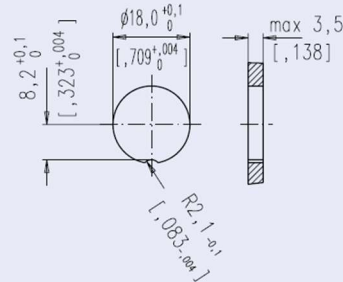
For sealing reasons the surface for the gasket needs to be level and free of burrs.

C 091 D Female receptacle | 90° | PCB mounting

Panel cutout ³⁾ | Female receptacle | 90° | PCB mounting | PCB mounting with board lock



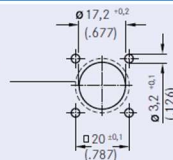
Assembly Tool:
N 45 091 000 1



C 091 D Female receptacle | flange mounting

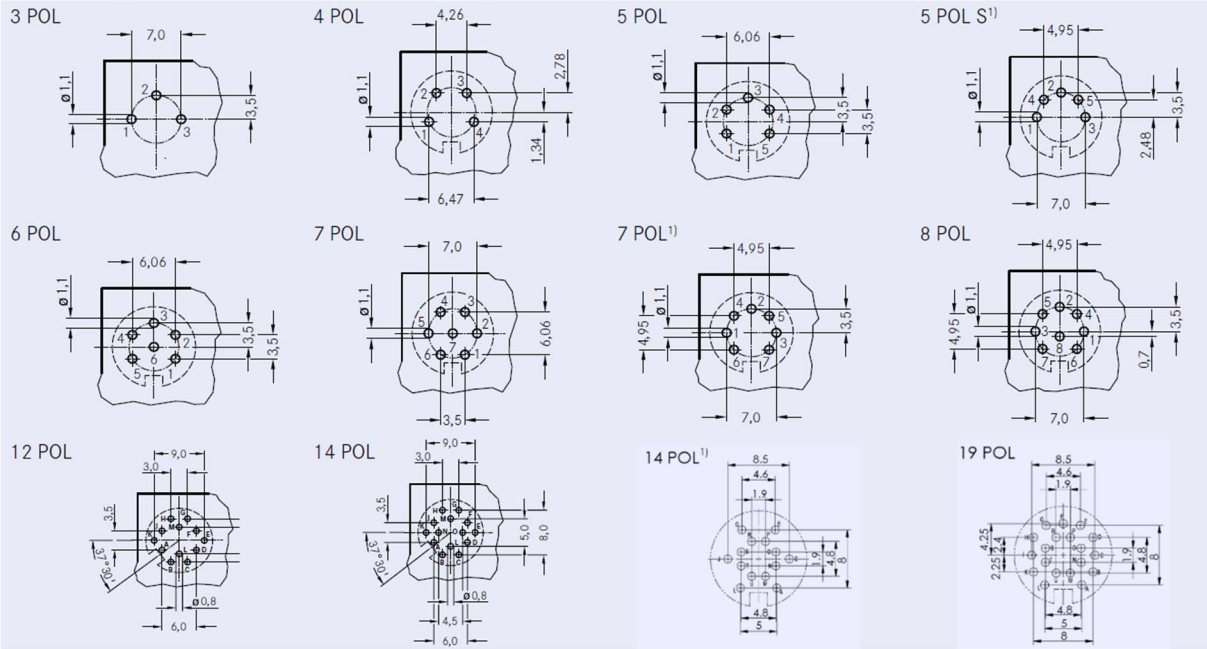
Panel cutout

For sealing reasons the surface for the gasket needs to be level and free of burrs. Provide suitable sealing for the screws.

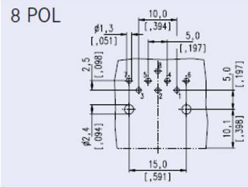


PCB-Layout (components side of circuit board)

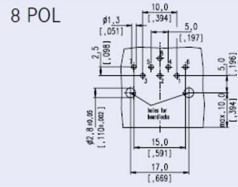
Female receptacle | front mounting | rear mounting



Female receptacle | 90° | PCB mounting



PCB mounting with board lock



C 091 Remarks, Safety classification



1. General Remarks

These connectors are designed and produced in conformity with the low voltage directive (73/23/EWG) respectively Gerätesicherheitsgesetz (German law) and are especially in accordance with the standards DIN EN 61984 (VDE 0627); IEC 60664-1 (VDE 0110-1) and IEC 60529.

The connectors may be used only within the technical ratings. All technical data refer to mated connectors under live conditions. The safety of the connector system depends on the correct selection of products, proper assembly of the connector device, and a precise fit of the connectors.

2. Application Remarks

Connectors with / without breaking capacity must be used according to specified technical ratings. The technical data represent the initial value of mated parts under predetermined conditions and length of time. These values could change with different test parameters or product requirements. The C 091 Series connectors are used in a wide variety of industries and equipment. Some of these include industrial machines and controls, data processing, instrumentation and test equipment, medical devices, telecommunication's network and equipment, plus outdoor and marine applications.

All rated data for the connectors listed in this catalog are based on over-voltage category and pollution degree for electronic applications. Connectors were completely mated according to their respective safety locking mechanism. Selection and testing of connectors with / without breaking capacity to meet specific product or industrial requirements such as rated voltage and the related clearances and creepage distances are the responsibility of the user.

3. Assembling Remarks

Certain appliances and equipment include protective measures that relate to the coupling devices of the male and female receptacle housings. (See also DIN VDE 0100 part 410; IEC 60364-4-41.)

Care must be taken to insure the parts are correctly mated and screws are tightened with the proper torque. Protection against electrical shock on the termination side of the connector (receptacles, contact insert) shall be secured by suitable mounting.

4. Termination Remarks

The dimensions as stated in the assembly instructions are for general information only and can vary depending on cable styles and types. Please note in the case of an internal strain relief. Always clamp the outer cable mantle (not the individual lead wires) to avoid damage of the lead wire insulation. In case of shielded cables, fold the braid over the outer mantle to avoid damage of the lead wire insulation when clamping the braid. In case of clamping rings, make sure that the lead wire insulation is not damaged when connecting (clamping) the braid. Cable connectors are effectively secured when using the internal cable clamp. When the connector contains a simple gland bushing for retention the cable should have a strain relief close behind the connector. All cable properties or specifications must be compatible with the connector design and materials.

Designated wire conductors must be terminated to the correct poles in the connector. Please make sure that the usability of the cable in conjunction with the clamping ring is given. Crimp contacts must be fully inserted into the plastic housing and retention assured with a slight tug on the wire. Wire should be stripped correctly according to printed specifications to ensure no electrical contact can be made between the conductors. There should be no nicked or cut strains during the stripping action.

5. Classification according to DIN EN 61984 / IEC 61984 (VDE 0627)

Style	enclosed	unenclosed	protective earthing contact	cable clamp	finger safety mated	finger safety unmated	hand back safety mated	Connector with breaking capacity ¹⁾	rewirable
Male cable connector		X		X	X				X
Female cable connector	X			X	X	X	X		X
Male panel connector					X ¹⁾				X
Female panel connector		X			X ¹⁾	X ¹⁾	X ¹⁾		X

¹⁾ Protection against electrical shock on the termination side has to be secured by proper mounting.

C 091 Crimp contacts

Supplied as	Wire Gauge	Insul. Ø mm	Pieces	Part Number		Figure		
				Silver	Gold			
Pin contact Ø 1.5 mm								
single contact	0.09-0.25 mm ²	0.7-1.6	100	VN01 015 0052 (1)	VN01 015 0052 (2)			
contacts on reel								
right			2000	HN01 015 0052 (1)	HN01 015 0052 (2)			
left			2000	TN01 015 0052 (1)	TN01 015 0052 (2)			
single contact	0.35-0.50 mm ²	1.0-2.0	100	VN01 015 0046 (1)	VN01 015 0046 (2)			
contacts on reel			200	ZN01 015 0046 (1)	ZN01 015 0046 (2)			
right			2000	HN01 015 0046 (1)	HN01 015 0046 (2)			
left			2000	TN01 015 0046 (1)	TN01 015 0046 (2)			
single contact	0.75-1.0 mm ²	1.6-2.1	100	VN01 015 0047 (1)	VN01 015 0047 (2)			
contacts on reel			200	ZN01 015 0047 (1)	ZN01 015 0047 (2)			
right			2000	HN01 015 0047 (1)	HN01 015 0047 (2)			
left			2000	TN01 015 0047 (1)	TN01 015 0047 (2)			
Pin contact Ø 1.0 mm								
	0.09-0.25 mm ²	0.7-1.3	100	VN01 010 0158 (1)	VN01 010 0158 (2)			
			2000	HN01 010 0158 (1)	HN01 010 0158 (2)			
			2000	TN01 010 0158 (1)	TN01 010 0158 (2)			
Socket contact Ø 1.5 mm								
single contact	0.09-0.25 mm ²	0.7-1.6	100	VN02 015 0052 (1)	VN02 015 0052 (2)			
contacts on reel								
right			2000	HN02 015 0052 (1)	HN02 015 0052 (2)			
left			2000	TN02 015 0052 (1)	TN02 015 0052 (2)			
single contact	0.35-0.50 mm ²	1.0-2.0	100	VN02 015 0046 (1)	VN02 015 0046 (2)			
contacts on reel			200	ZN02 015 0046 (1)	ZN02 015 0046 (2)			
right			2000	HN02 015 0046 (1)	HN02 015 0046 (2)			
left			2000	TN02 015 0046 (1)	TN02 015 0046 (2)			
single contact	0.75-1.0 mm ²	1.6-2.1	100	VN02 015 0047 (1)	VN02 015 0047 (2)			
contacts on reel			200	ZN02 015 0047 (1)	ZN02 015 0047 (2)			
right			2000	HN02 015 0047 (1)	HN02 015 0047 (2)			
left			2000	TN02 015 0047 (1)	TN02 015 0047 (2)			
Socket contact Ø 1.0 mm								
	0.09-0.25 mm ²	0.7-1.3	100	VN02 010 0158 (1)	VN02 010 0158 (2)			
			2000	HN02 010 0158 (1)	HN02 010 0158 (2)			
			2000	TN02 010 0158 (1)	TN02 010 0158 (2)			
Connecting Range mm ²	Wire Gauge		Stripping Length mm	Crimp Height (Average Values) mm	Crimp Retention Force acc. DIN EN 60352-2 N			
	mm ²	AWG						
0.09-0.25	0.09	28	3.0 + 0.5	0.85-0.89	11			
		26						
	0.14					0.86-0.90		
		24						
0.25		0.91-0.97	32					
0.35-0.50	0.35			22	3.0 + 0.5	0.90-1.06	40	
	0.50			20				
0.75-1.00	0.75		3.5 + 1.0	1.33-1.50	85			
		18						
	1.00					90		
				1.36-1.53	108			

These min. values are based on the copper wire tensile strength with $\delta_B \approx 230 \text{ N/mm}^2$.