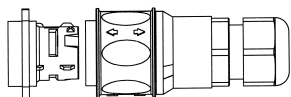


Plastic circular connector - Serie 544



Socket Plug Backshell

Operating temperature: -40°C / +125°C

Mating cycles: 1000

Material:

- Shell: thermoplastic with glass fibre
- Locking ring: thermoplastic with glass fibre
- Insulator: thermoplastic with glass fibre
- Contact: copper alloy and gold plated
- Seal: Nitril

Before using the connector, read the following operating information:

- Connectors are devices, which do not allow to be engaged or disengaged under voltage or current.
- Connections to current/voltage supply could only be done in conformance with the safety requirements of VDE.
- Do never operate under voltage or current, it could be very dangerous for you because of electrical shock or you could destroy other connected devices.

Connector Locking

The connector consists of a cylindrical shell and a locking ring.

The system of locking the plug is based on a 'Push-Pull' mechanism.

The locking ring is pushed forward in order to lock the connector, and it is pulled back to free the connection.

Assembling the Connector

Connector with Solder Contacts

The contacts are mated with the wires and soldered before fitting into the insulation insert.

Connector with Crimp Contacts

The contacts may only be crimped by using the specified tool.

The crimping is done with a crimp tool equipped with the correct positioner for each contact size.

Before crimping, shut the tool once completely in order to reset the intender in the correct position.

Place the contact, with the contact barrel facing up, through the intender opening into turret positioner.

Partly close the tool in order to grip the contact. Insert the stripped section of the wire as far as possible into the contact barrel.

Maintain light pressure on the contact.

When inserting the wire braid ensure that all the strands go in and that it is not significantly unbraided.

Now close the tool completely, only then, the locking mechanism will be able to release the contact.

Extract the contact from the tool and verify that the braid is fully into the contact barrel by checking through the sighting hole.

After crimping, the contact should not be bent or damaged.

The wire should not be pulled out of the contact, damaged or distorted such that it is unusable before attaining the specified pull out force.

Wire breaks that occur at low pull out force but not as result of crimping are not treated as failures.

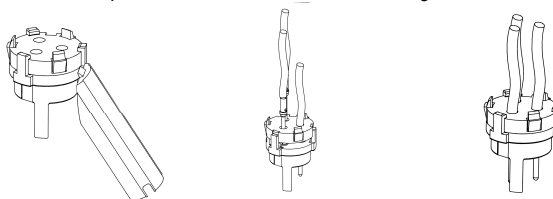
CAUTION:

- Plugs and Sockets in harnesses should be connected so that male contacts, while unmated, are never under Voltage.



Wiring the insulation insert

- unlock the rear part of the insert by using the plastic tool;
- crimp or solder the contact to the wire;
- place the contacts into the apertures and push into place;
- push the two parts of the insulation insert back together.



Mounting the wired insert into the connector shell

The insulation can be installed in one of three positions. This permits 3 polarisation settings. On the back of the socket and the plug, there are 3 positions marked:

1, 2 & 3.

The male contact insert has a projecting tab, while the female contact has a slot.

- for position 1:

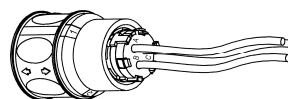
place the tab or slot opposite the 1 ident and push in until locked;

- for position 2:

place the tab or slot opposite the 2 ident and push in until locked;

- for position 3:

place the tab or slot opposite the 3 ident and push in until locked.



Fitting the backshell

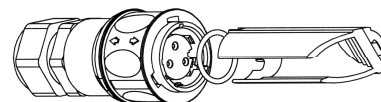
- Screw the backshell onto the connector shell and secure the cable by tightening the nut.

CAUTION:

The elbow joint on the backshell must first be set at the desired angle before tightening the nut onto the cable.

Fitting the O-Ring-Seal

Push the O-Ring-Seal over the insulation insert and push it into the connector until it is in place.

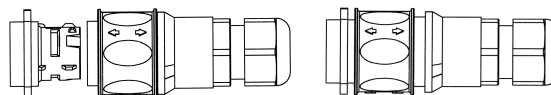


Locking and unlocking the connector

In unlocked state the locking ring cannot move forward or back and will not rotate.

Once the plug has been inserted into the socket the locking ring is free and can be pushed forward.

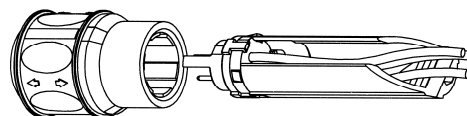
When the plug is inserted in the socket the locking ring can be rotated through about 20 degrees and locked onto the socket. The connector is unlocked by retracting the locking ring and withdrawing the plug.



Demounting the insulation insert

Demounting the backshell

Push the tool over the cable and into the connector. The tool engages in two slots. Hold cable and tool together and simultaneously extract cable and tool. To help this operation one can push from the other end of the insert with the finger.

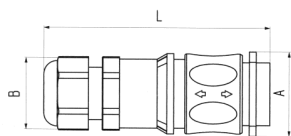


Demounting the contacts

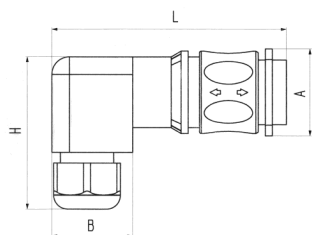
Use the tool to separate the two parts of the insulation insert. Then carefully pull the contacts individually from the insert and then remove cable and contacts from the connector.

Assembly permutations

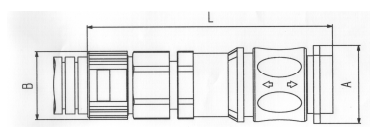
Backshells MDA and MDB



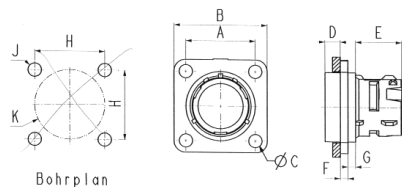
Backshells MCA and MCB



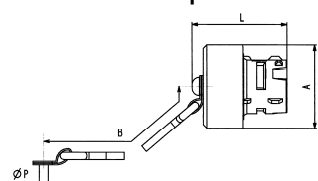
Backshell MSA



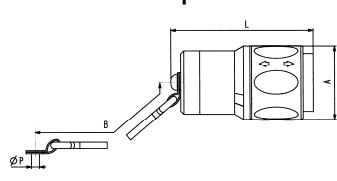
Socket E



Cap for free shell BM



Cap for Socket BE

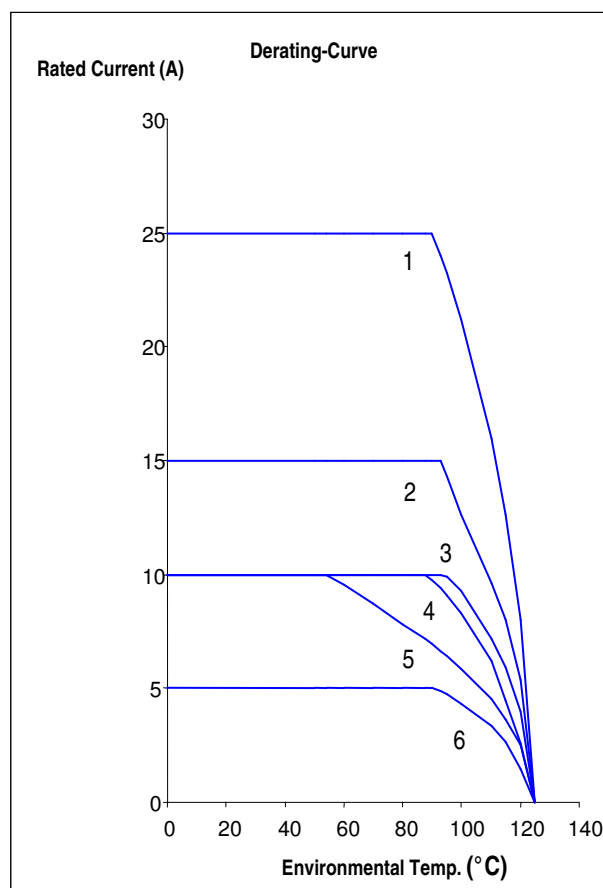


Technical information

Insulator	Rated Voltage (V) *	Rated Current (A) *	Crimp Tool	Positioner	Extract-Tool *	Cross section	
						mm²	AWG
Serie 5440 103 M/F-	1000	5A	5440 OP 05	5440 OS 17/18	5440 OT 01	0,25-0,6	20-24
		10A	5440 OP 04	5440 OS 15		0,25-1	18-24
Serie 5440 105 M/F-	630	5A	5440 OP 05	5440 OS 17/18	5440 OT 01	0,25-0,6	20-24
		10A	5440 OP 04	5440 OS 15		0,25-1	18-24
Serie 5440 107 M/F-	630	5A	5440 OP 05	5440 OS 17/18	5440 OT 01	0,25-0,6	20-24
		10A	5440 OP 04	5440 OS 15		0,25-1	18-24
Serie 5440 203 M/F-	1000	25A	5440 OP 01	5440 OS 16	5440 OT 02	2-3	12-14
Serie 5440 205 M/F-	800	25A	5440 OP 01	5440 OS 16	5440 OT 02	2-3	12-14
Serie 5440 209 M/F-	630	5A	5440 OP 05	5440 OS 17/18	5440 OT 01	0,25-0,6	20-24
		10A	5440 OP 04	5440 OS 15		0,25-1	18-24
Serie 5440 212 M/F-	630	5A	5440 OP 05	5440 OS 17/18	5440 OT 01	0,25-0,6	20-24
		10A	5440 OP 04	5440 OS 15		0,25-1	18-24
Serie 5440 219 M/F-	630	5A	5440 OP 05	5440 OS 17/18	5440 OT 01	0,25-0,6	20-24
		10A	5440 OP 04	5440 OS 15		0,25-1	18-24
Serie 5440 293 M/F-	1000	15A	5440 OP 01	5440 OS 16	5440 OT 02	0,6-2	14-20
Serie 5440 295 M/F-	1000	15A	5440 OP 01	5440 OS 16	5440 OT 02	0,6-2	14-20
Serie 5440 327 M/F-	630	5A	5440 OP 05	5440 OS 17/18	5440 OT 03	0,25-0,6	20-24
		10A	5440 OP 04	5440 OS 15		0,25-1	18-24

*) formed contacts - 5A / machined contacts – 10A

Rated Voltage for pollution category 1 - Rated current for +40°C - With the extract-tool, it is possible to take out the insulator.



Curve No.	Contact Layout	Cable type
1	203 und 205	2,5mm²
2	293 und 295	1,5mm²
3	103, 105 und 107	1 mm²
4	209 und 212	1 mm²
5	219 und 327	1 mm²
6	Contact #20, formed	AWG 20

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