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Instruction Sheet

IS-54

C90 Series: Circular Connectors



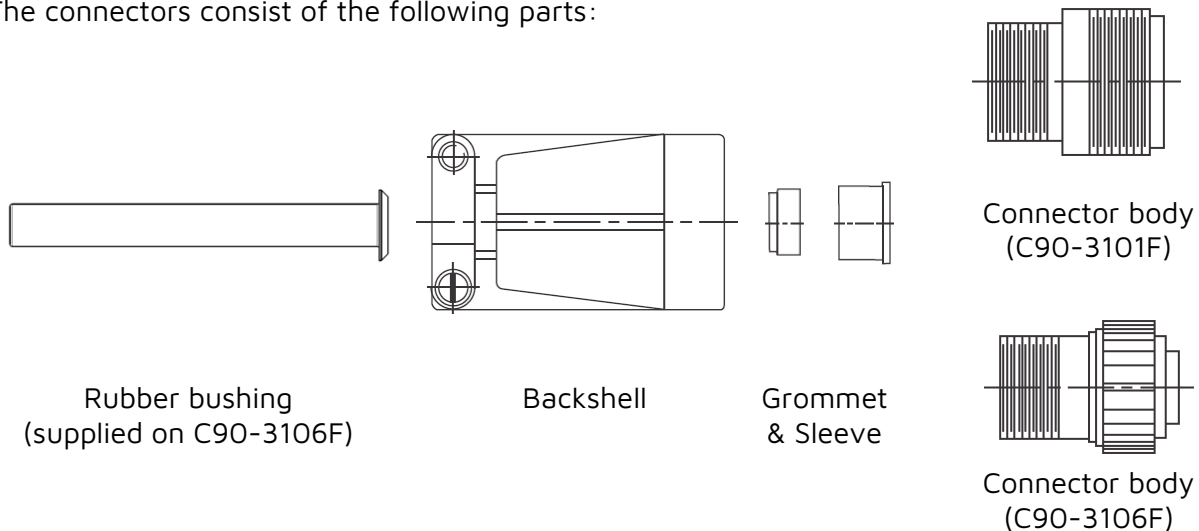
CONNECTOR INFORMATION

The C90 free cable connectors consist of 2 designs of shell or connector body:

- [C90-3101F](#) series Cable connector with backshell (external thread on mating end)
- [C90-3106F](#) series..... Straight Plug with backshell (internal thread with collar on mating end)

Both shell designs can be supplied with either male or female contacts inserted. The assembly method is the same for both shell designs, and both contact genders.

The connectors consist of the following parts:



Harwin recommends the use of 16 to 22 AWG insulated wire. The rubber bushing is supplied with the C90-3106F connectors, but is also available separately for use with C90-3101F series (see part numbers [C90-3420-4](#), [C90-3420-5](#) and [C90-3420-6](#)).

ASSEMBLY PROCEDURE

1. Prepare the cable end. Strip the jacket from the cable end by approximately 24mm. This will leave enough of the jacket to remain under the cable clamp after assembly is completed.
2. Strip the insulation from the wire ends by 7.5mm.
3. Pre-tin the wires, ensuring that there are no loose strands.
4. Unscrew the backshell from the connector body. Take out the grommet and grommet sleeve.
5. Push the backshell (and rubber bushing if supplied/added) down the cable, loosen the cable clamp screws as required.
6. Separate the rubber grommet and the plastic grommet sleeve. Push the grommet sleeve over the cable, checking that it is the correct direction to be pushed back over the rubber grommet later.
7. Ensure these parts are away from the working end of the cable.
8. Push the rubber grommet over the wires, in the direction as shown in the images above, placing each wire into the correct cavity.
9. Solder the wires into the solder cups. Take care not to damage the rubber grommet.

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10. Push the rubber grommet over the solder joints so that it fits up against the connector body insulator.
 11. Bring the grommet sleeve along the cable and push it over the rubber grommet.
 12. Bring the backshell (and rubber bushing if fitted) along the cable to the connector body assembly. Screw the backshell assembly to the connector body assembly. Recommended torque for assembling the backshell to the body is 2.3Nm (20lb-in) max.
 13. Tighten the cable clamp screws to secure the connector on the cable.

If you have any questions about this instruction sheet, or the C90 connectors, please consult our Experts via the [Contact us page on the website](#).