

Rebling Datasheet: 8002 Avionics Receptacles & 8003 Avionics Cable-Mounted Plug

The members of Rebling's family of avionics bulkhead-mounted receptacle connectors conform to and are QPL'd to Mil Specs MS25182, MS3509, Mil-PRF-18148, Mil-E-18148 and Mil-E-81099 and are available under Rebling's Cage Code 30525. All of our two pole, avionics-grade, quick disconnect, cable-mounted plugs are designed to mate with our avionics-grade, bulkhead-mounted receptacles. The quick disconnect feature enables an operator, even with double-gloved hands, to rotate the handle clockwise to engage the connector and lock it in place then to rotate the handle counter-clockwise to disengage the electrical contacts and unlock the connector. All fastening and mechanical hardware components are composed of stainless steel. 8002 Receptacle and 8003 Plug were defined in 1954 by MIL-B-83769 & MS3349-3 and were adopted on the C-130 transport plane in 1957



Electrical (per MIL PRF 18148)

Current	
Rated Current	750 amps
Peak Current	1,500 amps
Voltage & Resistance	
Rated Voltage (DC)	750 volts
Dielectric Withstanding Voltage (DC)	2,500 volts
Contact Resistance (maximum)	60 micro-ohms

Mechanical (per MIL PRF 18148)

Flammability Rating	UL94 HB
Environmental Sealing	with standard Kit Components with Optional Gasket
Operating Temperature	-85 to +71 C°
Mechanical Shock	20 Gs – 3 axes
Vibration	10 Gs – 3 axes
Mating Cycles (no electrical load)	1,500 cycles
Maximum Wire Size	3/0 (80 mm²)
Maximum Terminal Lug Tongue Width	0.76" (19.3 mm) Maximum
Terminal Lug Web Width	0.22" (5.6 mm)
Recommended Torque on Electrical Connection Nuts	30 - 40 in-lbs (3.4 - 4.5 Nm)

Compliance

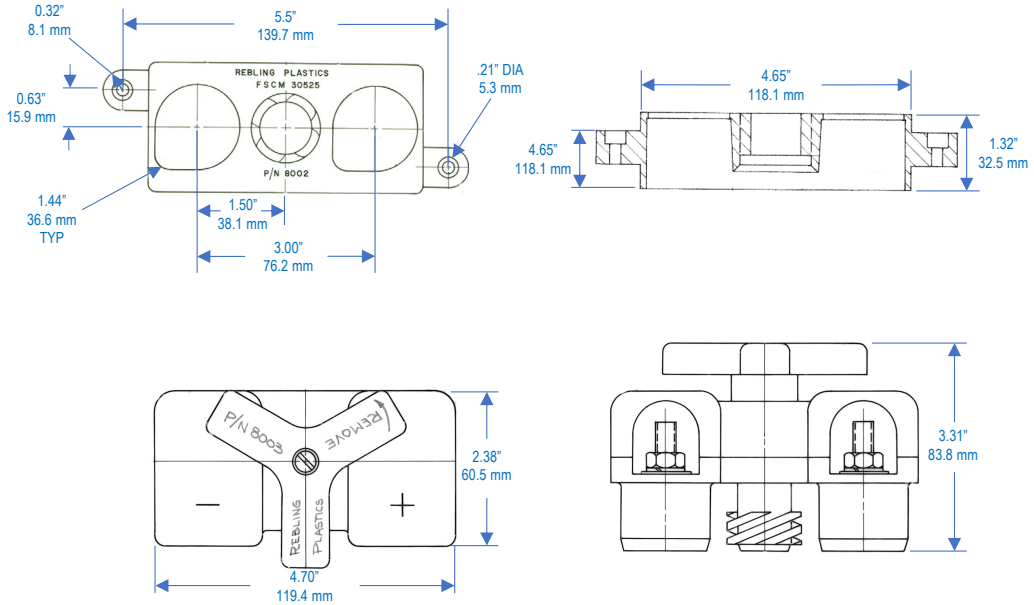
RoHS, REACH, CMRT/3TG All parts listed on this datasheet are RoHS, REACH and CMRT/3TG Compliant

Mounting and Assembly

Recommended Torque on the 5/16 electrical connection nuts	30-40 in-lbs (3.4-4.5 Nm)
Torque on the 5/16 electrical connection nuts that causes material failure	80 in-lbs (9 Nm)

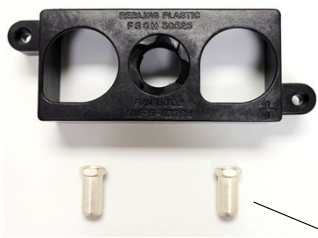
Application Notes

1. When attaching large cables to the rear threaded posts, use Burndy narrow tongue crimp lugs
2. #8 or M4 flathead 82 degree screws are recommended for mounting the connector to the panel
3. EMI Shielded Receptacles - see the datasheet for Rebling's EMI Receptacle P/N 7009-51



For complete dimensions, download 3D Step files of Receptacle and Accessories at Rebling.com

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P/N	Description	Plastic Color	Weight (Grams)
098A1190	Male Pin Contact, Copper, Silver-Plated a component of 8002 ADPT kit	N/A	13
8002-1 w/ Kit	Receptacle Housing, Acme Screw Style, Pink+ 8002 ADPT Kit mates w 8003	Pink	104
8002-1 w/o Kit	Receptacle Housing, Acme Screw Style, Pink+ No Contacts mates w 8003	Pink	72
8002 ADPT Kit	Male Pin Contact Kit in poly bag(2 pcs # 098A1190 silver-plated copper contact +2 pcs 10-32 x 3/4 fillister head screw, steel, nickel-plated + 2 pcs #10 split washer, steel, nickel-plated)used with for 8002-xx Receptacle		104
8002-2B w/ Kit	Receptacle Housing, Acme Screw Style, Black, with Contacts, mates w 8003	Black	104
8002-2B w/o Kit	Receptacle Housing, Acme Screw Style, Black+ No Contacts mates w 8003	Black	72
8003	Cable-mounted Plug, 2 wire, Acme Screw Style, Black, mates w 8002	Black	342

*Kit = one Receptacle housing + two silver-plated copper contacts + two head screws + two Split Washers
Gaskets and Protective Backshells can be found on the Avionics Receptacle Accessories Datasheet