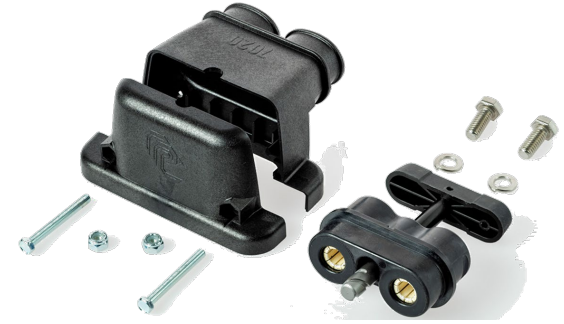


Rebling Datasheet: Commercial Cable-mounted Plug

Rebling's Commercial Grade, Keyable, two wire, high amperage, high voltage, quick release connector was designed for extreme power applications requiring maximum reliability, performance and safety. The environmental design keeps the elements out, providing an IP56 seal. The keying combinations can be used to differentiate various voltage or current levels to prevent errors by your system assembly, operations or maintenance personnel. These two pole, cable-mounted, keyable plugs are designed to mate with our commercial grade, panel-mounted receptacle connectors which have the same keying option. Our keyable plugs, if no key is inserted, can mate with any of our legacy non-keyable panel-mounted receptacle connectors. A magnetic HVIL switch is available as an option.



Electrical

Current

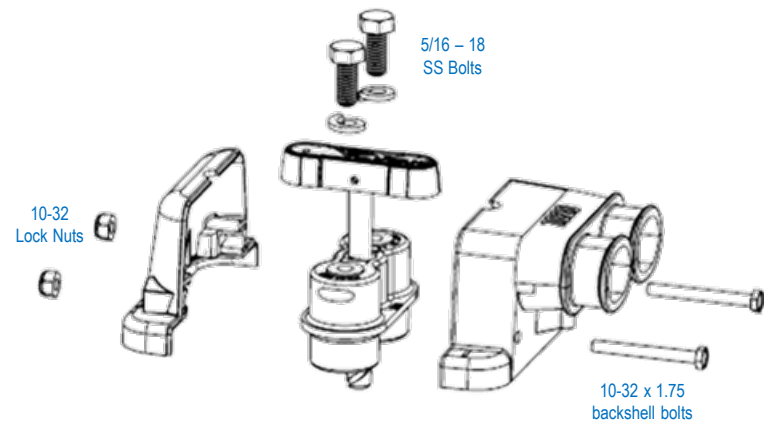
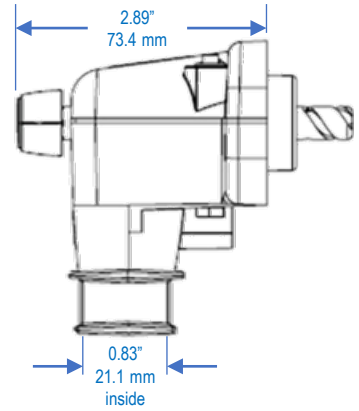
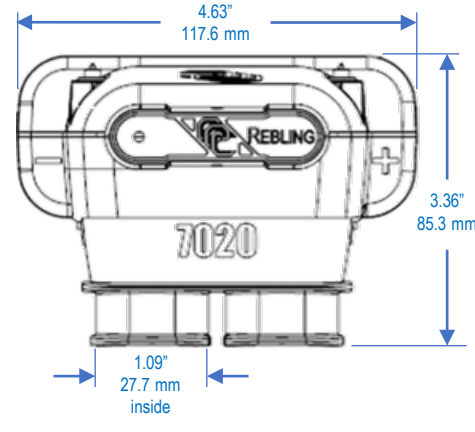
| | | | |
|--------------------|--|-------|------------|
| Current Profile #1 | Continuous Rated Current (CRC) (per UL1977) | ----- | 500 amps |
| Current Profile #2 | 50% CRC for 60min + 1 sec peak + 50% CRC for 60 min | | 3,000 amps |
| Current Profile #3 | 50% CRC for 60min + 10 sec peak + 50% CRC for 60 min | ----- | 2,000 amps |
| Current Profile #4 | 50% CRC for 60min + 30 sec peak + 50% CRC for 60 min | | 1,500 amps |
| Current Profile #5 | 50% CRC for 60min + 60 sec peak + 50% CRC for 60 min | ----- | 1,000 amps |

Voltage & Resistance

| | | |
|---|-------------------------------|----------------|
| Continuous Rated Voltage | UL1977 Section 17 | 1,500 volts |
| Minimum Dielectric Withstanding Voltage | UL1977 Section 17 | 5,000 volts |
| Insulation Resistance | MIL-PRF-18148D Section 3.12.6 | 500 mega-ohms |
| Maximum Contact Resistance | MIL-STD-202H Method 307 | 70 micro-ohms |
| HVIL Circuit | | Yes - Optional |
| EMI Shielded version is P/N 7020-E see separate datasheet | | Yes - Optional |

Mechanical & Environmental

| | | | |
|---------------------------------------|------------------------------|---|----------------------------|
| Flammability Rating: | ----- | UL 94 | V-0 |
| Environmental Sealing: | with standard Kit Components | ----- | IEC 60529 |
| | with Optional Shrink Tubing | | IEC 60529 |
| Operating Temperature: | ----- | | -40 to +125 C° |
| Mechanical Shock | | MIL-STD-202H Method 213 Condition A | 50 Gs – 3 axes |
| Vibration | | MIL-STD-202H Method 204 Condition A | 10 Gs – 3 axes |
| Mating Cycles | | No Electrical Load | 5,000 |
| Mating Force | | Maximum Mating or Unmating Torque after 10 matings | 12 in-lbs (1.36 Nm) |
| | | Maximum Mating or Unmating Torque after 5,000 matings | 12 in-lbs (1.36 Nm) |
| Maximum Wire Size: | ----- | | 4/0 (110 mm ²) |
| Maximum Terminal Lug Tongue Width | | | 1.08 (28 mm) |
| Maximum Terminal Lug Web Width | | | 0.45 (12 mm) |
| Torque on Electrical Connection Bolts | | Recommended | 30-40 in-lbs (3.4-4.5 Nm) |
| | | Material Failure | 80 in-lbs (9 Nm) |
| Torque on the 10-32 Backshell Bolts | | Recommended | 6-8 in-lbs (0.68-0.90 Nm) |

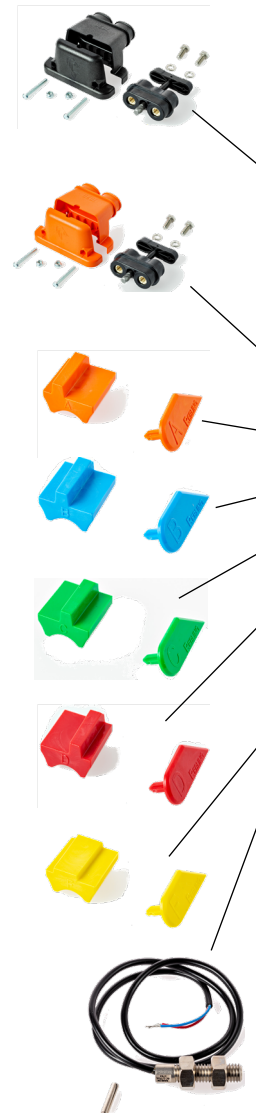


Compliance & Conformance

RoHS, REACH, CMRT/3TG
 UL and CE Conformance

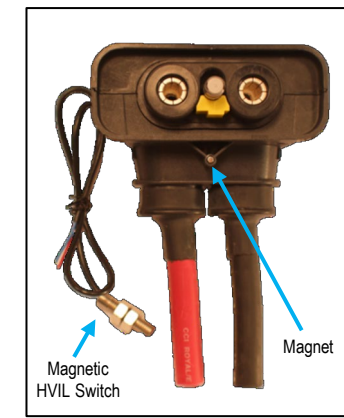
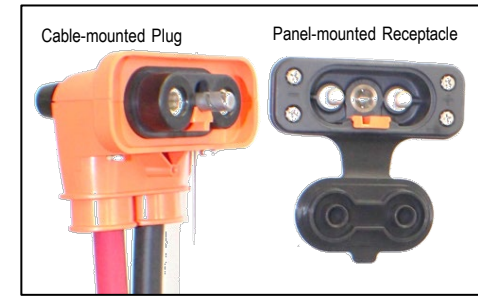
All parts listed on this datasheet are RoHS, REACH and CMRT/3TG Compliant
 Declarations of UL and CE Conformity can be downloaded from Rebling.com

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



| P/N | Description | Plastic Color | Weight (Grams) | UL 94 Rating | UL Material Yellow Card # ** |
|------------|---|---------------|----------------|--------------|------------------------------|
| 7020-T | Cable-mounted Plug Kit*, Keyable, with non-conductive Black Backshell | Black | 300 | V-0 | E95746-102108324 |
| - | Backshell 7020-T included in Kit (no H/W) | Black | 88 | V-0 | E121562-220886 |
| - | T-Handle for 7020-x included in kit | Black | 15 | V-0 | E44716-101084022 |
| 7020-O | Cable-mounted, Keyable, with non-conductive Orange Backshell* | Orange | 300 | V-0 | E95746-102108324 |
| 684A1763-A | Key Set for 7020 Plug | Orange | 2.5 | V-0 | E113219-219240 |
| 684A1763-B | Key Set for 7020 Plug | Blue | 2.5 | V-0 | E113219-219240 |
| 684A1763-C | Key Set for 7020 Plug | Green | 2.5 | V-0 | E113219-219240 |
| 684A1763-D | Key Set for 7020 Plug | Pink | 2.5 | V-0 | E113219-219240 |
| 684A1763-E | Key Set for 7020 Plug | White | 2.5 | V-0 | E113219-219240 |
| 684A1763-F | Key Set for 7020 Plug | Yellow | 2.5 | V-0 | E113219-219240 |
| 643A1757 | HVIL Switch & Magnet Kit | - | 25 | - | n/a |

*Plug Kit includes Connector + two Backshell Halves + two 5/16-18 bolts + two 5/16 split washers + two 10-32 x 1.75 bolts + two 10-32 locknuts
 **UL Material Yellow Cards can be downloaded from ULprospector.com



Mounting and Assembly

Recommended Torque on the 5/16 bolts
 Torque on the 5/16 bolts that causes material failure
 Recommended Torque on the 10-32 backshell bolts

30-40 in-lbs (3.4-4.5 Nm)
 80 in-lbs (9 Nm)
 6-8 in-lbs (0.68-0.90 Nm)

Application Notes

1. For extreme vibration applications which exceed the limits shown on page 1 of this datasheet, use a small amount of adhesive to glue each key into its slot. Recommended adhesive: 3M's DP190
2. Optional HVIL Switch - HVIL Kit P/N 643A1757 includes a 1/8" x 5/8" cylindrical neodymium magnet which is inserted into a cylindrical opening on the face of the cable-mounted plug which aligns with the magnetic reed switch which is mounted on the panel below the panel-mounted receptacle
3. EMI Shielding - see separate datasheet for EMI Plug P/N 7020-E