

Rebling Datasheet

Commerical Cable-Mounted Keyable 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, bulkhead-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 bulkhead-mounted receptacle connectors. A magnetic HVIL switch is available as an option.



ELECTRICAL

Current

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

Voltage

▶ Rated Voltage (volts DC)	1,500
▶ Dielectric Withstanding Voltage (volts DC)	5,000

Contact Resistance Max (Micro Ohms)

70

HVIL Circuit

Yes - Optional

EMI Shielded

Yes - see datasheet for 7020-E

MECHANICAL

Wire Size Range

▶ Maximum Wire Size	4/0
▶ Maximum Cable OD (inches)	0.82
▶ Maximum Terminal Lug Tongue Width (inches)	1.08
▶ Maximum Terminal Lug Web Width (inches)	0.45

Environmental Sealing when mated

▶ With standard kit components	IP55
▶ With optional, shrink tubing	IP56

Operating Temperature

▶ Minimum (°C) to Maximum (°C)	-40° to 125°
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Flammability Rating (per UL94)

V-0

Mechanical Shock

50gs - 3 axes

Vibration

10gs - 3 axes

Mating Cycles

▶ No Electrical Load	5,000
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Mating Force

▶ Maximum Mating or Unmating torque after 10 matings	12 in-lbs
▶ Maximum Mating or Unmating torque after 5,000 matings	12 in-lbs

Torque on Electrical Connections

▶ Recommended	30-40 in-lbs
▶ Material Failure	80 in-lbs

Torque on Backshell Bolts

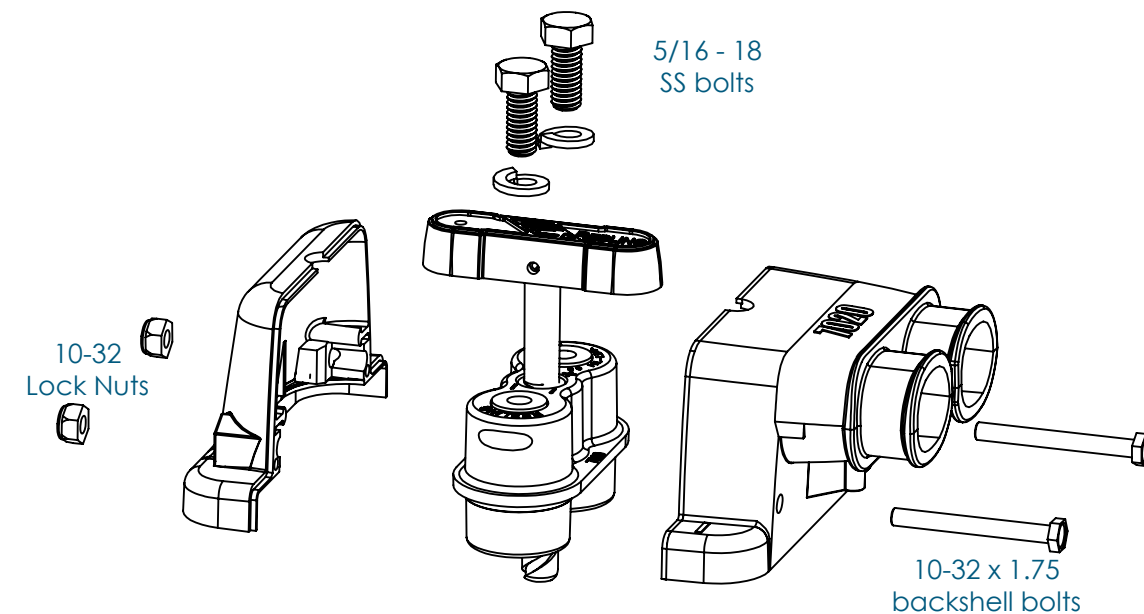
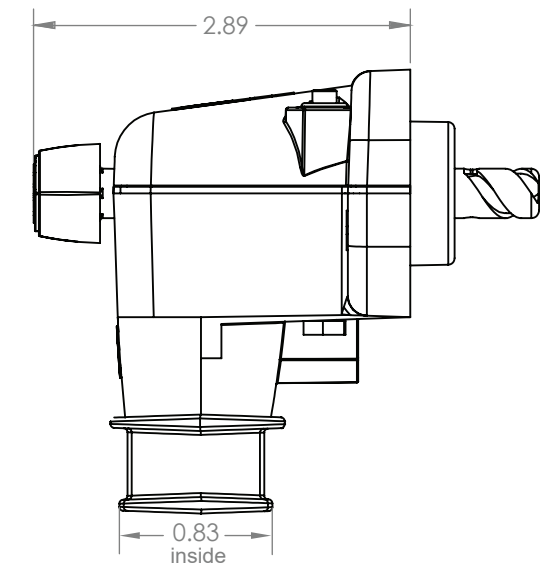
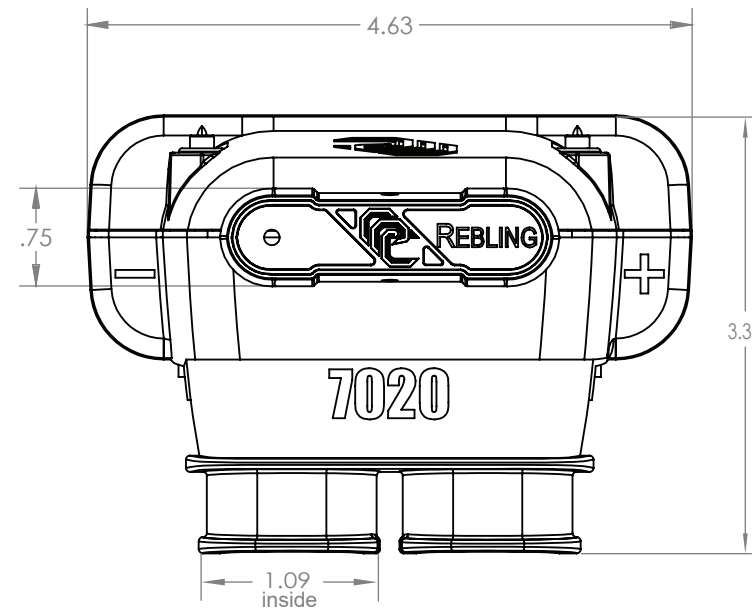
▶ Recommended	6-8 in-lbs
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CERTIFICATIONS

UL Conformance

RoHS Compliance

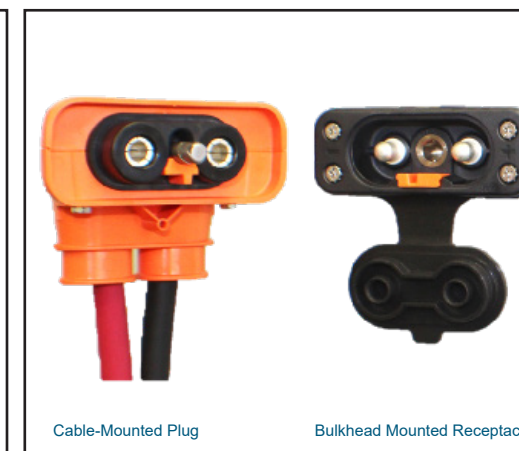
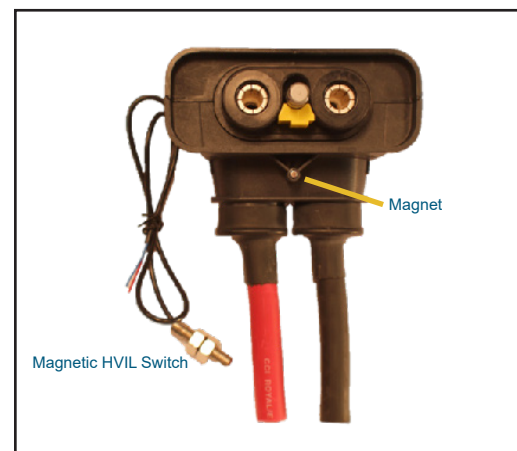
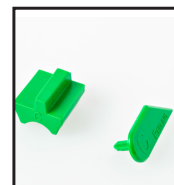
Certificate is downloadable from Rebling.com
All parts itemized on this datasheet are RoHS compliant



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P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	Plastic Material #
7020-T	Cable-mounted, Keyable, with non-conductive Black Backshell*	Black	300	3.4	V-O	000A1272
7020-O	Cable-mounted, Keyable, with non-conductive Orange Backshell*	Orange	300	3.4	V-O	000A1272
-	Backshell 7020-T included in Kit (no H/W)	Black	88	1.5	V-O	000A1824
-	Backshell 7020-O included in Kit (no H/W)	Orange	88	1.5	V-O	000A1824
-	T-Handle for 7020-x included in kit	Black	15	1.5	V-O	000A1861
684A1765-A	Key Set for 7020 Plug	Orange	2.5	1.5	V-O	000A1862
684A1765-B	Key Set for 7020 Plug	Blue	2.5	1.5	V-O	000A1862
684A1765-C	Key Set for 7020 Plug	Green	2.5	1.5	V-O	000A1862
684A1765-D	Key Set for 7020 Plug	Pink	2.5	1.5	V-O	000A1862
684A1765-E	Key Set for 7020 Plug	White	2.5	1.5	V-O	000A1862
684A1765-F	Key Set for 7020 Plug	Yellow	2.5	1.5	V-O	000A1862
643A1757	HVIL Switch & Magnet Kit	-	25	-	-	-

*Plug includes two stainless 5/16-18 bolts and split washers and two 10-32 x 1.75 bolts and locknuts



MOUNTING and ASSEMBLY

Recommended Torque on Electrical Connection bolts
Application Recommendations

30 to 40 in-lbs

- ▶ For extreme vibration applications which exceed the limits published above, use a small amount of adhesive to glue each key into its slot. Recommended adhesive: 3M's DP190
- ▶ 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 bulkhead-mounted receptacle
- ▶ EMI Shielding - see datasheet for EMI plug 7020-E
- ▶ Torque on Backshell Bolts

6 to 8 in-lbs