

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

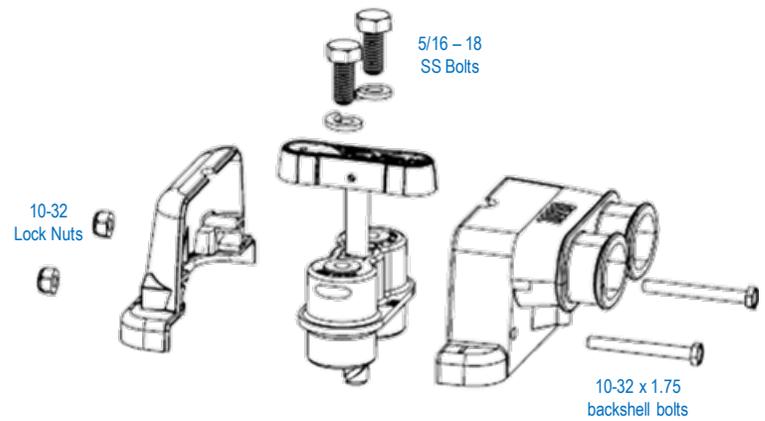
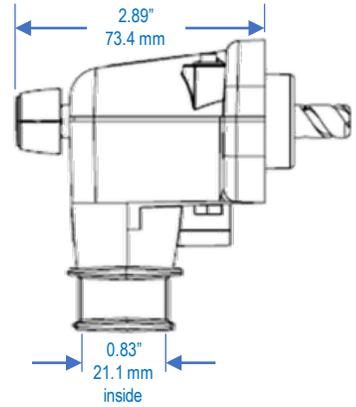
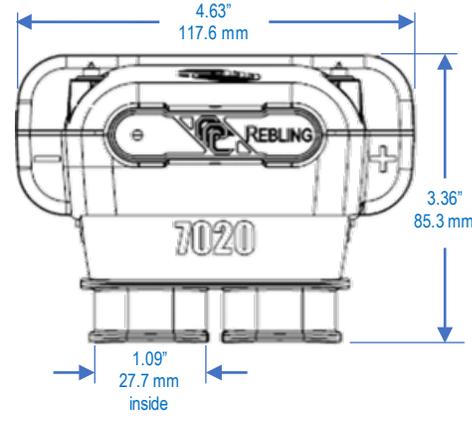
Current Profile #1	Continuous Rated Current (CRC) (per UL1977)	-----	500 amps
Current Profile #2	50% CRC for 60min + 1 sec peak + 50% CRC for 60 min		3,000 amps
Current Profile #3	50% CRC for 60min + 10 sec peak + 50% CRC for 60 min	-----	2,000 amps
Current Profile #4	50% CRC for 60min + 30 sec peak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

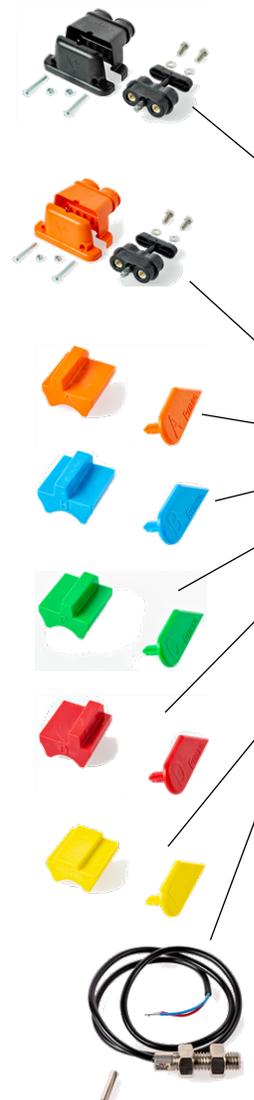


Compliance & Conformance

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

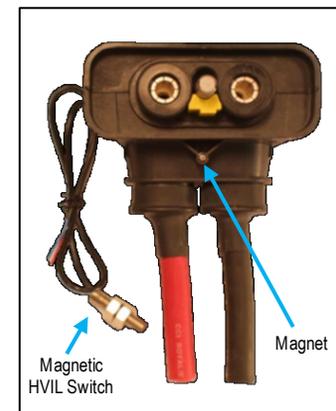
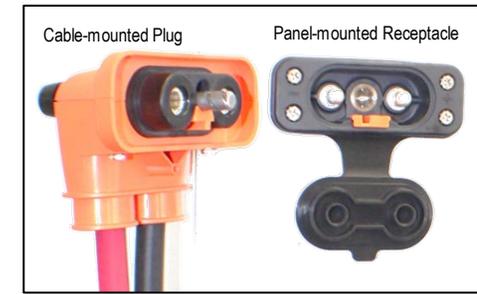
All parts listed on this datasheet are RoHS, REACH and CMRT/3TG Compliant
 Declarations of UL and CE Conformity can be downloaded from Rebling.com

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
684A1765-A	Key Set for 7020 Plug	Orange	2.5	V-0	E113219-219240
684A1765-B	Key Set for 7020 Plug	Blue	2.5	V-0	E113219-219240
684A1765-C	Key Set for 7020 Plug	Green	2.5	V-0	E113219-219240
684A1765-D	Key Set for 7020 Plug	Pink	2.5	V-0	E113219-219240
684A1765-E	Key Set for 7020 Plug	White	2.5	V-0	E113219-219240
684A1765-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