

Rebling Datasheet: Commercial Panel-Mounted Keyable Receptacle

As work truck, electrified vehicle, auxiliary power and stationary power applications trend toward higher voltages and currents and faster charging times, improved features are needed to enable the OEMs in those markets to maintain their competitive edge and reduce their end users' total cost of ownership. In keeping with our commitment to deliver new features at economical prices, we offer a commercial grade receptacle with six color-coded mechanical keying combinations. These 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, panel-mounted, keyable receptacles are designed to mate with our commercial grade, cable-mounted plug connectors which have the same keying option. Our keyable receptacles, if no key is inserted, can mate with any of our legacy non-keyable cable-mounted plug connectors.

Electrical

Current

Current Profile #1	Continuous Rated Current (CRC) (per UL 1977)	-----	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

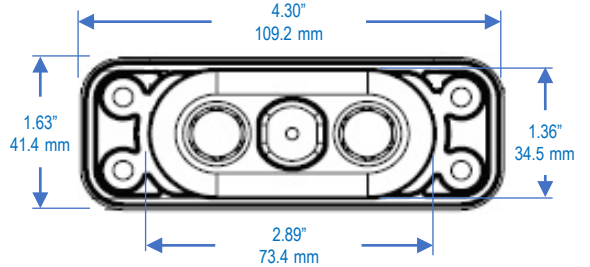
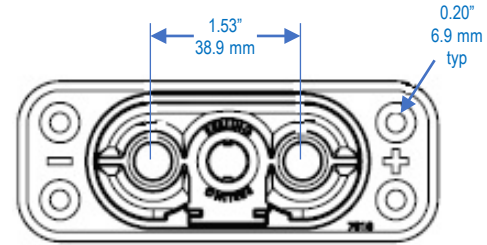
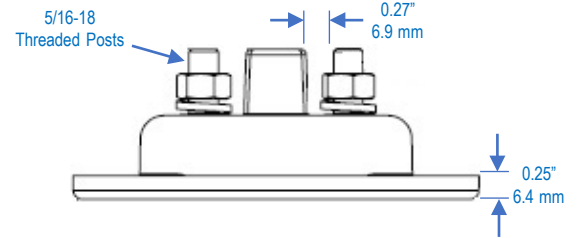
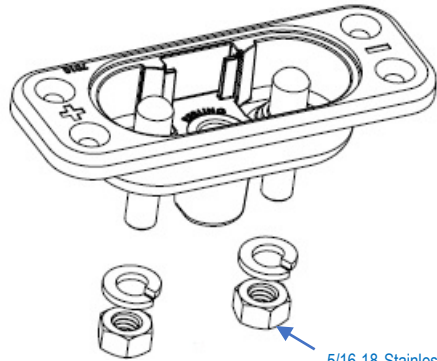
Mechanical & Environmental

Flammability Rating:	-----	UL 94	V-0
Environmental Sealing:	with standard Kit Components	-----	IEC 60529
	with Optional Gasket		IEC 60529
Operating Temperature:	-----		-40 to +140 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
Maximum Wire Size:	-----		4/0 (110 mm ²)
Maximum Terminal Lug Tongue Width			0.82" (21 mm)
Maximum Terminal Lug Web Width			0.26" (7 mm)
Keying			6 Colored Keys
Torque on Electrical Connections	-----	Recommended	30-40 in-lbs (3.4-4.5 Nm)
		Material Failure	80 in-lbs (9 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



Front

Back

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

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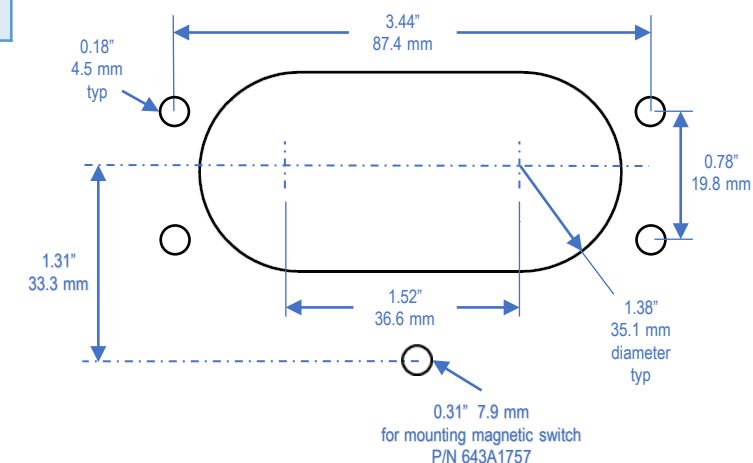


P/N	Description	Plastic Color	Weight (Grams)	Min Thick (mm)	UL 94 Rating	UL Material Yellow Card # **
7010-3	Receptacle Kit*, Keyable, w Threaded Posts	Black	120	2.5	V-0	E95746-102108324
685A1766	Gasket with attached Dust Cover for 7010	Black	18	1.0	V-0	E84658-102047001
100A1784	Foam Gasket for 7010	Black	2.5	1.3	HBF	E55798-542111
643A1757	HVIL Switch & Magnet Kit	-	25	N/A	-	n/a
684A1763-A	Key for 7010 Receptacle	Orange	1.8	2.0	V-0	E113219-219240
684A1763-B	Key for 7010 Receptacle	Blue	1.8	2.0	V-0	E113219-219240
684A1763-C	Key for 7010 Receptacle	Green	1.8	2.0	V-0	E113219-219240
684A1763-D	Key for 7010 Receptacle	Pink	1.8	2.0	V-0	E113219-219240
684A1763-E	Key for 7010 Receptacle	White	1.8	2.0	V-0	E113219-219240
684A1763-F	Key for 7010 Receptacle	Yellow	1.8	2.0	V-0	E113219-219240

*Receptacle Kit = one Receptacle + two Nuts + two Split Washers, all parts in a small poly bag
 **UL Material Yellow Cards can be downloaded from ULprospector.com



Mounting Hole Pattern



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 4/0 cable to the rear threaded posts, use Burndy narrow tongue crimp lugs
2. 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 is 3M's DP190
3. #8 or M4 flathead 82 degree screws are recommended for mounting the connector to the panel
4. 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
5. EMI Shielding - see the datasheet for Rebling's EMI Receptacle P/N 7009-51