Ratings:
Voltage: 48 V
Current: 14 A, (not mated under load)
Connector current ratings based on individual contact temperature rise (<30 °C)

Materials

1. Insulator: PA10T + 30% GF, UL94 V-0, black
2. Shell: SUS301 Stainless steel, Nickel plated
3. Spring contacts: C5210 Phosphor bronze, Gold flashing contact, Solder cup tin plated
4. Center contact: C5210 Phosphor bronze, Gold flashing contact, Solder cup tin plated

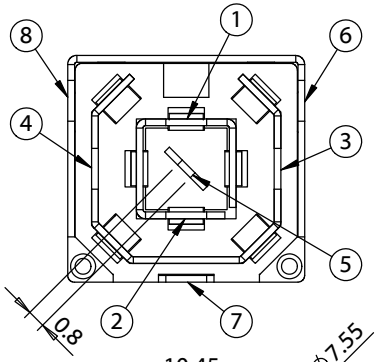
Electrical Requirements
Dielectric strength: 1 min @ 500 Vac
Insulation resistance: 100 MΩ @ 500 Vdc
Contact resistance: 30 mΩ or less

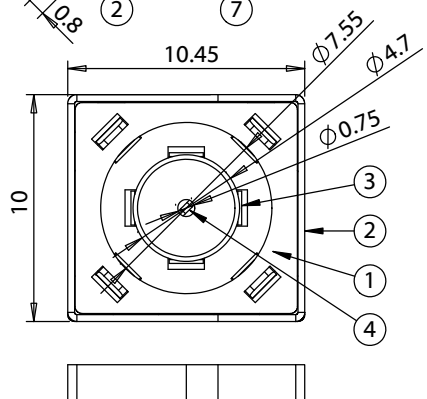
Mechanical Requirements
Insertion force: 0.3 ~ 3.0 kgf
Withdrawal force: 0.3 ~ 3.0 kgf
Life cycle: 5000 mating cycles

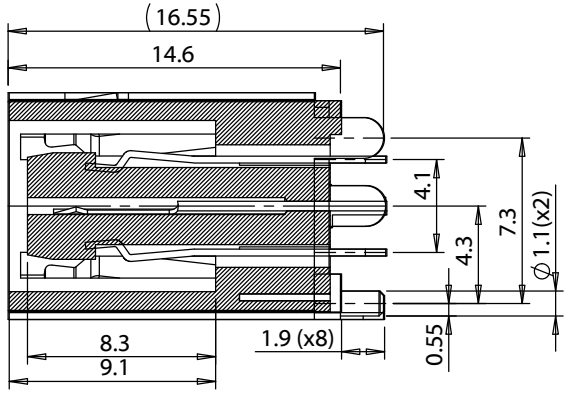
Environmental Requirements
Cold test: -25 ± 3 °C for 48 hours without deformation
Heat test: 70 °C, relative humidity 70 - 85 % for 96 hours while maintaining contact resistance: 100 mΩ or less, insulation resistance: 50 MΩ @ 500 Vdc, without looseness or deformation
Humidity test: 30 °C, relative humidity 60 % for 168 hours without deformation
Salt spray test: 35 °C, relative humidity 90 - 95 %, 5 % NaCl mist for 48 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 mΩ.

Operating Temperature Range
-40ºC ~ 200 ºC, relative humidity of 85 % or less

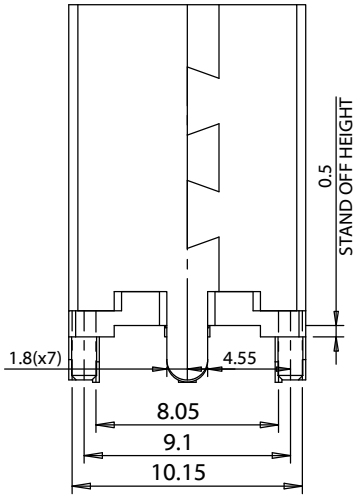
Mates with connector
50-01040



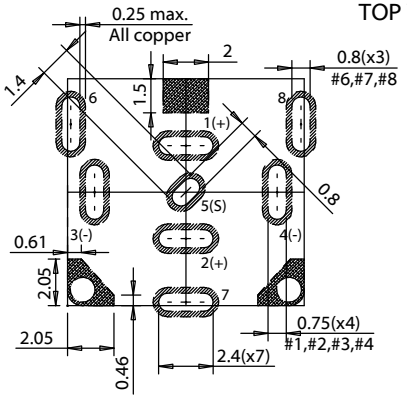


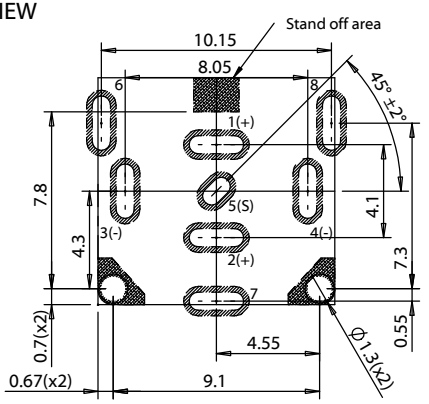


Schematic	
	1 - 2 Contact (+)
	5 - Signal (S)
	3 - 4 Spring (-)
	6 - 7 - 8 GND



Recommended P.C.B layout
TOP VIEW





Revision:	Date:	Description:
A	10/08/2025	Initial release

Prepared: KM Digitally signed by KM Date: 2025.10.08 10:06:15 -07'00'

Verified: CR Digitally signed by CR Date: 2025.10.09 16:29:55 -07'00'

Dimensions are in millimeters.
Tolerances:
X: ± 0.5 mm
X.X: ± 0.3 mm
X.XX: ± 0.2 mm

Notes:
RoHS compliant
Halogen free

Description:
Connector, dc jack, 7.4x5.1xL16.55 mm, thru hole, gold plated

TENSILITY
tel 1.541.323.3228 800 877.670.7118
fax 1.541.323.4202 web tensility.com

Size: A
Part number: 54-00429
Scale: 3:1
Sheet 1 of 1

To see a custom version of this cable assembly, call Tensility at 541-323-3228 or email engineering@tensility.com

5 4 3 2 1