

**Materials**

Connector: 50-00590

- ① Insulator, PBT + 15% glass fiber, UL94 V-0, black
- ② Shell, H65, nickel plated
- ③ Tray, C3602, nickel plated
- ④ Center contact, C5191 phosphor bronze, nickel plated
- ⑤ Ground contact, brass, nickel plated

Inner Sleeve: 56-00002

- ⑥ Inner sleeve, Nylon UL 94V-0

Outer Sleeve: 56-00003

- ⑦ Outer sleeve, TPU, black

**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 kgf

Withdrawal force: 0.3~3 kgf

Durability: 5000 mating cycles while maintaining;  
0.3~3 kgf insertion force, 0.3~3 kgf withdrawal force and a  
less than 100 mΩ contact resistance.

**Environmental requirements**

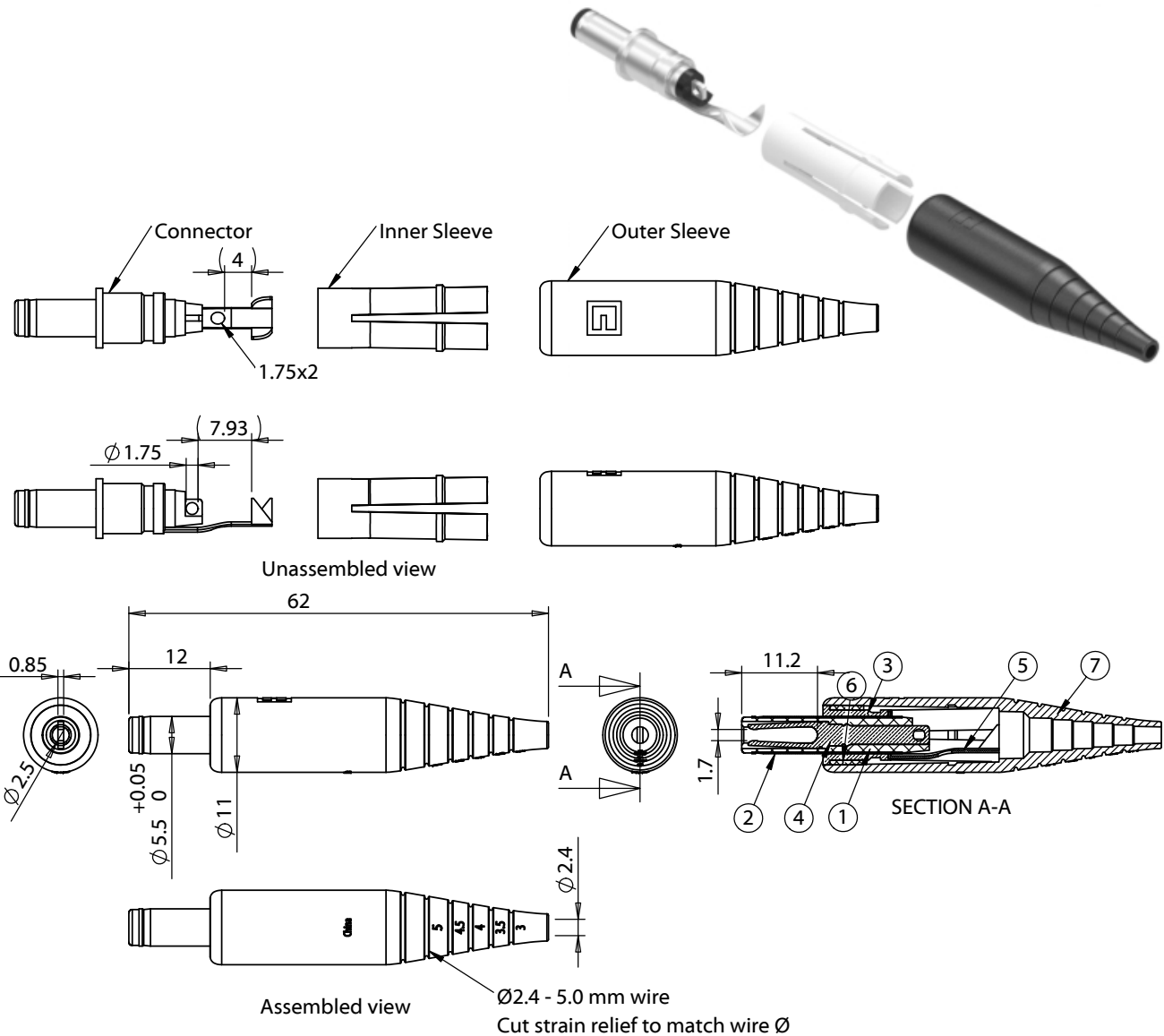
Cold test: -25 ±3 °C for 48 hours without deformation

Heat test: 70 ±2 °C for 48 hours without deformation

Humidity test: 40 ±2 °C and humidity between 90 and  
98 % for 96 hours without deformation

Salt spray test: 35 °C, RH 90-95%, 5% NaCl mist for 24 hrs.

Wash parts after test. Maintain mechanical and electrical  
requirements.



Revision:	Date:	Description:
A2	11/2/2016	Updated materials
A3	3/8/2017	Changed length, diameter, design
A4	7/14/2017	Changed inner sleeve design
A5	8/22/2017	Changed connector P/N
A6	4/9/2018	Updated current rating

Prepared:
Verified:
Dimensions are in millimeters. Tolerances: X: ± 0.5 mm X.X: ± 0.3 mm X.XX: ± 0.05 mm

Notes: RoHS and REACH compliant
Function test: no open, no short circuit, no intermittent
Description: Connector, 5.5x2.5xL12 mm dc plug, nickel plated, assembly type, spring contacts

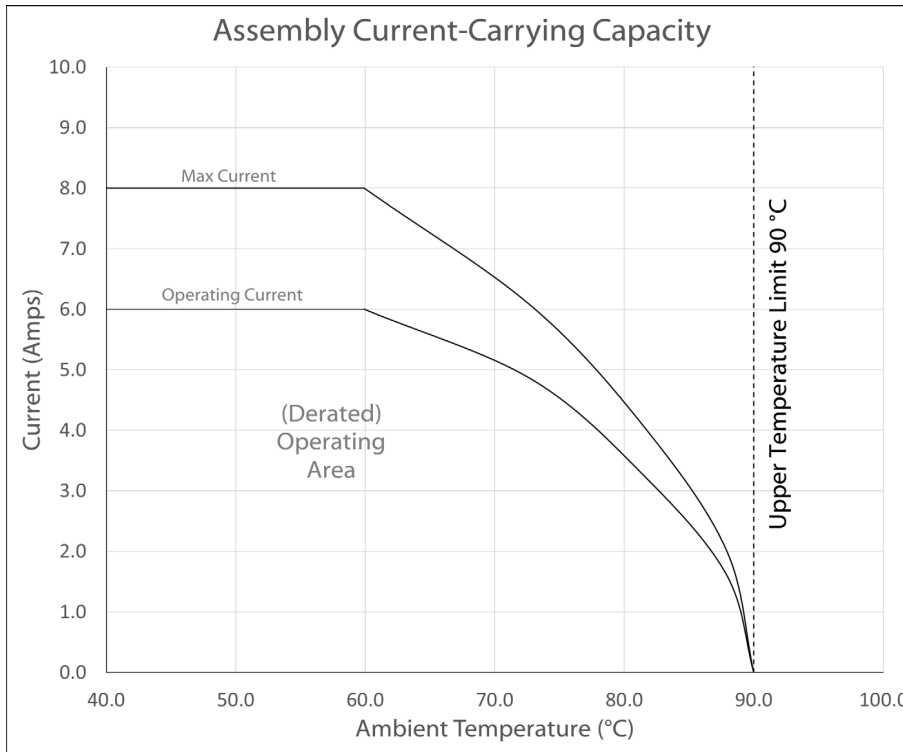
<b>TENSILITY</b>	
tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com	
Size: A	Part number: 55-00050
Scale: 1:1	Sheet 1 of 2

**Ratings**

Rated voltage: 48 V  
 Rated current: 6 A

**Operating range**

-25 to 90°C, relative humidity of 85% or less



Testing based on IEC 60512-5-2. Max current curve generated with isolated test article under controlled environmental conditions, and does not take into account external factors such as housings, mating cables, or other circuitry. Operating current curve (derated by 20% of maximum values) accounts for external factors, and manufacturing variation.

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