

Materials

1. Insulator: PBT + 15% glass fiber, UL 94 V-0, black
2. Terminal: C5191 phosphor bronze, 2 μ m nickel plated
3. Shell: C2700 brass, 2 μ m nickel plated

Electrical Requirements

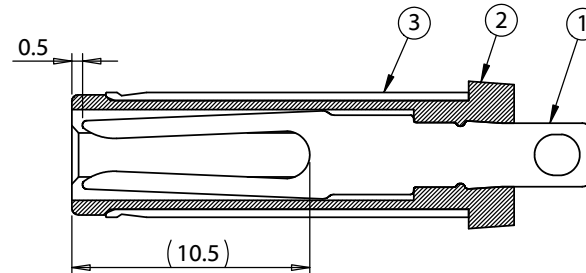
Dielectric strength: 1 min @ 500 Vac
Insulation resistance: 100 M Ω @ 500 Vdc
Contact resistance: 30 m Ω maximum

Mechanical Requirements

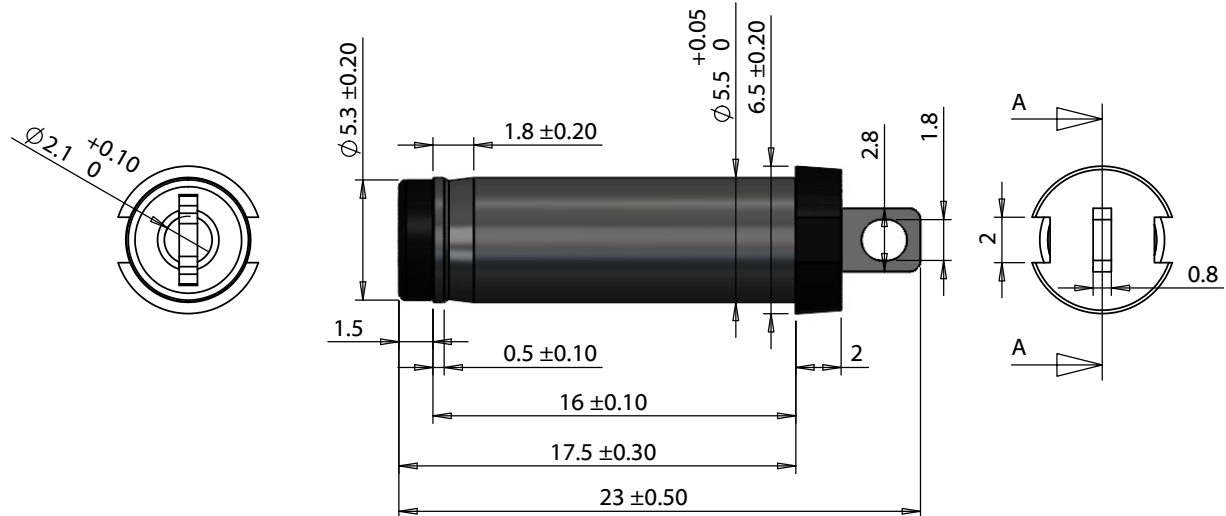
Insertion force: 0.3-3 kgf
Withdrawal force: 0.3-3 kgf
Life cycle: 5000 mating cycles while maintaining 0.3-2.0 kgf min. insertion force, 0.2-1.5 kgf min. withdrawal force and less than 100 m Ω contact resistance.

Environmental Requirements

Heat test: 70 °C, relative humidity 70-85% for 96 hours while maintaining contact resistance: 100 m Ω maximum, insulation resistance: 50 M Ω minimum, without looseness or deformation
Humidity test: 40 °C, relative humidity 90-100% for 96 hours, while maintaining dielectric strength: 1 min @ 500 Vac, insulation resistance: 50 M Ω @ 500 Vdc, contact resistance: 100 m Ω maximum
Salt spray test: 35 $\pm$ 2 °C, relative humidity 90-95%, 5% NaCl mist for 24 hrs. Wash parts after test. Maintain mechanical requirements and a contact resistance of less than 80 m Ω .



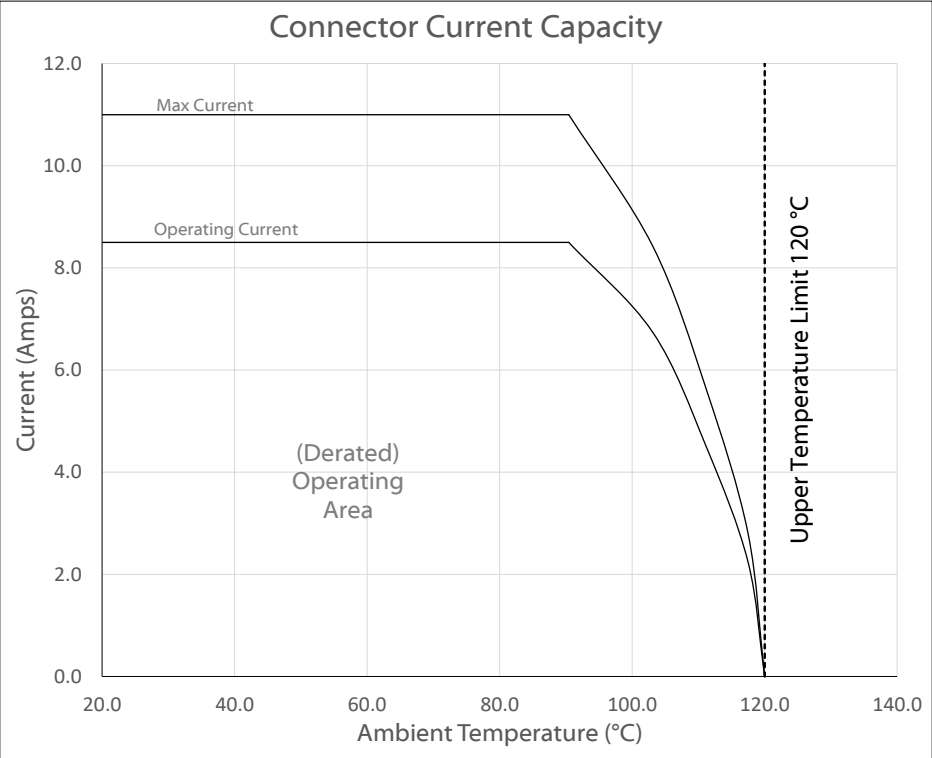
SECTION A-A



Revision:	Date:	Description:	Prepared:	Notes:	TENSILITY tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com		
A	09/02/2009	Initial release	KM Digitally signed by KM Date: 2026.02.06 12:05:22 -08'00'	RoHS compliant			
A1	11/09/2012	Added test data	Verified: KW Digitally signed by KW Date: 2026.02.06 12:07:47 -08'00'	Function test: no open, no short circuit, no intermittent	Size:	Part number:	
A2	12/29/2015	Modified tolerances	Dimensions are in millimeters. Tolerances: X: $\pm$ 0.3 mm X.X: $\pm$ 0.1 mm X.XX: $\pm$ 0.05 mm	Description:	A	50-00024	
A3	10/03/2019	Increased connector ratings		Connector, dc plug, 5.5x2.1xL23 mm, molding style, spring contacts, LF	Scale:	3:1	Sheet 1 of 2
A4	02/06/2026	Updated shell material					

Ratings
Maximum Operating Voltage: 48 Vdc
Maximum Operating Current: 8.5 A

Operating Temperature Range
-25° to 120 °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.

Revision:	Date:	Description:	Prepared: KM Digitally signed by KM Date: 2026.02.06 12:05:36 -08'00'	Notes:	TENSILITY tel 1.541.323.3228800 877.670.7118 fax 1.541.323.4202web tensility.com
A	09/02/2009	Initial release	Verified: KW Digitally signed by KW Date: 2026.02.06 12:07:58 -08'00'	RoHS compliant	
A1	11/09/2012	Added test data	Dimensions are in millimeters. Tolerances: X: ± 0.3 mm X.X: ± 0.1 mm X.XX: ± 0.05 mm	Function test: no open, no short circuit, no intermittent	
A2	12/29/2015	Modified tolerances		Description:	
A3	10/03/2019	Increased connector ratings		Connector, dc plug, 5.5x2.1xL23 mm, molding style, spring contacts, LF	
A4	02/06/2026	Updated shell material			Size: APart number: 50-00024 Scale: 3:1 Sheet 2 of 2