## Materials

- 1. Insulator: PBT + 15% glass fiber, black
- 2. Terminal: C5191 phosphor bronze, 2 µm nickel plated
- 3. Shell: C3604 brass, 2 µm nickel plated

# **Electrical Requirements**

Dielectric strength: 1 min @ 500 Vac Insulation resistance: 100 M $\Omega$  @ 500 Vdc Contact resistance: 30 m $\Omega$  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  $100 \text{ m}\Omega$  contact resistance.

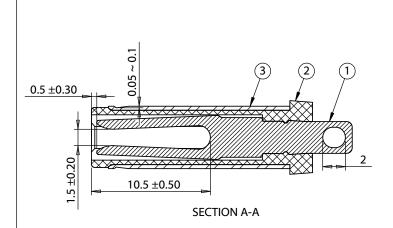
### 100 mt2 contact resistance

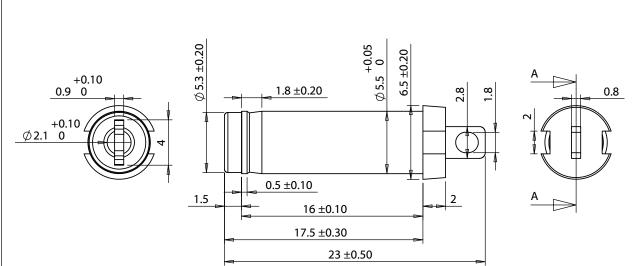
Environmental Requirements
Heat test: 70 °C, relative humidity 70-85% for 96 hours while maintaining contact resistance: 100 m $\Omega$  maximum, insulation resistance: 50 M $\Omega$  minimum, without looseness or deformation Humidity test: 40 °C, relative humidity 90-100% for 96 hours,

Humidity test: 40 °C, relative humidity 90-100% for 96 hours, while maintaining dielectric strength: 1 min @ 500 Vac, insulation resistance: 50 MΩ @ 500 Vdc, contact resistance: 100 mΩ maximum

100 m $\Omega$  maximum Salt spray test: 35±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 $\Omega$ .

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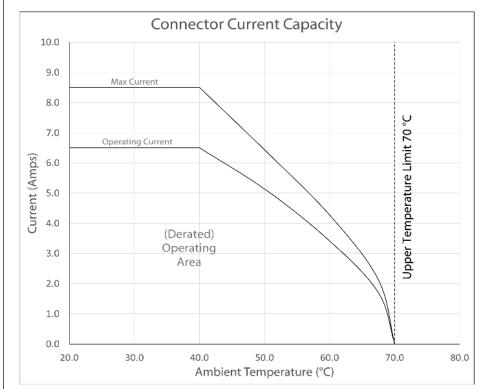
Revision:	Date:	Description:	Prepared:	Notes:					
А	09/02/2009	Initial release	GL Digitally signed by GL Date: 2019.01.25 09:38:52 -08'00'	RoHS compliant		E	NSIL	ITY	
A1	11/09/2012	Added test data	Verified:  AG  Digitally signed by AG Date: 2019.03.06 08:48:03	Function test: no open, no short circuit, no intermittent		el 1.541.323.3228 800 877.670.7118			
A2	12/29/2015	Modified tolerances	Dimensions are in			fax 1.541.323.4202 web tensility.com			
			millimeters.	Description:	Size:	ze: Part number:			
			Tolerances: X: ± 0.3 mm	Connector, dc plug, 5.5x2.1xL23 mm, molding style, spring contacts		50-00024			
			X.X: ± 0.1 mm X.XX: ± 0.05 mm			3:1		Sheet 1 of 2	

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# Ratings

Maximum Operating Voltage: 48 Vdc Maximum Operating Current: 6.5 A

Operating Temperature Range -25° to 70°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:	Notes:					
А	09/02/2009	Initial release	GL Digitally signed by GL Date: 2019.01.25 09:39:26 - 08'00'	RoHS compliant		FN	JSIL	ITY	
A1	11/09/2012	Added test data	Verified:  AG  Digitally signed by AG Date: 2019.03.06 08:48:15-08'00'	Function test: no open, no short circuit, no intermittent	te	1.541.3	23.3228 800 87	7.670.7118	
A2	12/29/2015	Modified tolerances	Dimensions are in			fax 1.541.323.4202 web tensility.com			
			- 7 0.5 mm	Description:	Size:	Part number:			
				Connector, dc plug, 5.5x2.1xL23 mm, molding style,	А 50-00024				
			X.X: ± 0.1 mm X.XX: ± 0.05 mm	spring contacts	Scale:	3:1		Sheet 2 of 2	

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