Materials

1. Insulator, POM, yellow 2. Insulator, PBT, black 3. Center contact, C5191 phosphor bronze, 2 um nickel plated 4. Shell, C3604 brass, 2 µm nickel plated

Electrical requirements

Dielectric strength: 1 min @ 500 Vac Insulation resistance: 100 MΩ @ 500 Vdc Contact resistance: 30 m Ω or less

Mechanical requirements

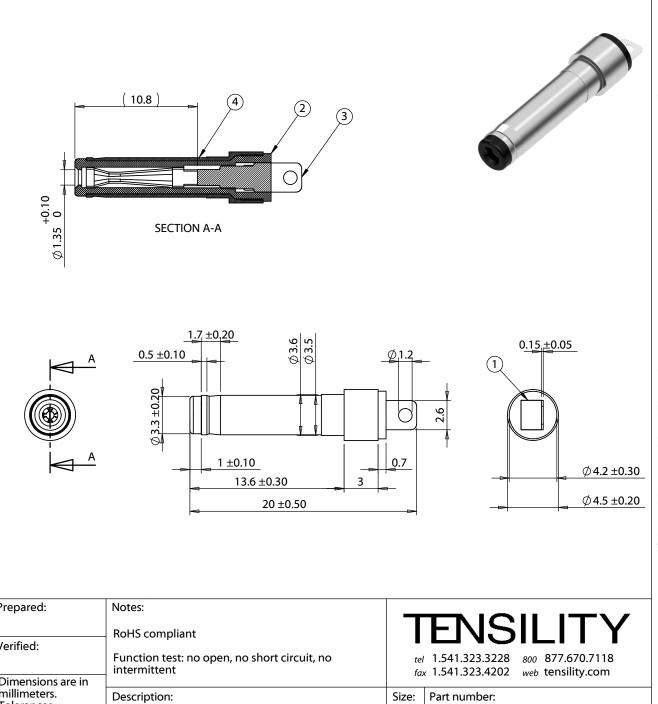
Insertion force: 0.5-2 kgf Withdrawal force: 0.3-1.5 kgf Durability: 5000 mating cycles while maintaining; 0.4-2 kgf insertion force, 0.2-1.5 kgf withdrawal force and a less than 100 m Ω contact resistance.

Environmental requirements

Damp test: 40 °C, RH 90-100% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain dielectric strength of 500 Vac for 1 min, insulation resistance of 50 M Ω @ 500 Vdc minimum and a contact resistance of 100 m Ω or less.

Dry test: 70 °C, RH 70-85% for 96 hrs. Cool to ambient and recover for 2 hours. Maintain insulation resistance of 50 $M\Omega @ 500$ Vdc minimum and a contact resistance of 100 $m\Omega$ or less.

Salt spray test: 35 °C, RH 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 .



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

Revision:	Date:	Description:	Prepared:	Notes:					
А	10/21/2009	Initial release		RoHS compliant			Εſ	NSIL	
A1	11/09/2012	Added test data	Verified:	Function test: no open, no short circuit, no intermittent		tel 1.541.323.3228 800 877.670.7118 fax 1.541.323.4202 web tensility.com			
			Dimensions are in millimeters. Tolerances: X: ± 0.3 mm	Description: Connector, dc plug, 3.5x1.35xL20mm, molding		Size: Part number: A 50-00056			
			X.X: ± 0.3 mm X.X: ± 0.1 mm X.XX: ± 0.05 mm	style, spring contacts	,	Scale:			Sheet 1 of 2
		5	4	3	2				1

5

3

Ratings

Revision:

А

A1

Date:

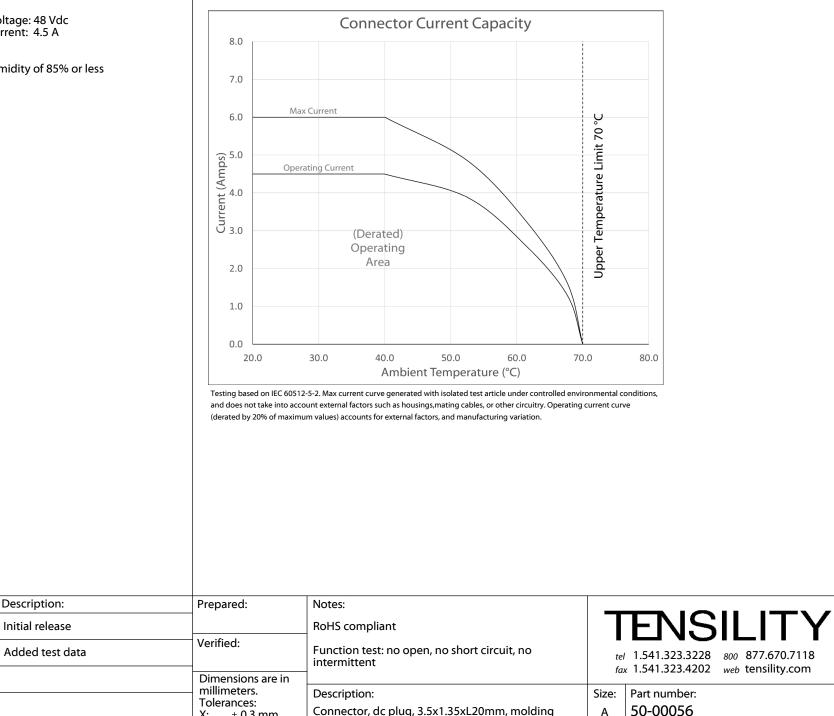
10/21/2009

11/09/2012

Maximum Operating Voltage: 48 Vdc Maximum Operating current: 4.5 A

Operating range

-25 to 70 °C, relative humidity of 85% or less



5

Description:

Initial release

style, spring contacts

3

± 0.3 mm

X.X: ± 0.1 mm

X.XX: ± 0.05 mm

X:

Connector, dc plug, 3.5x1.35xL20mm, molding

А

2

Scale: 2:1

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Sheet 2 of 2

1