

part number: description:

50-00066

Connector, dc plug, 3.5x1.1xL17.5 mm, spring contacts, 3 conductors, Nylon PA66

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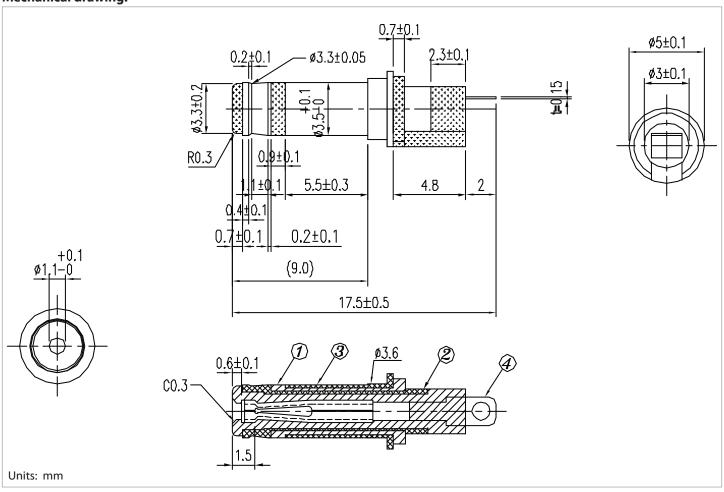
## **Materials:**

1	PA66, black
2	brass, nickel-plated, 2µm min.
3	brass, nickel-plated, 2µm min.
4	P-bronze, nickel-plated, 2μm min.

#### **Notes:**

RoHS compliant

## **Mechanical drawing:**



tolerance X:  $\pm 0.5$  mm .X:  $\pm 0.3$  mm .XX:  $\pm 0.05$  mm applicable unless otherwise indicated in specification or on drawings

Initial Date



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## **Materials:**

insulator	nylon, PA66, black
center contact (DC in +)	P-bronze C5191
ring (Data)	brass C3604
outer sleeve (DC in -)	brass C3604

# **Electrical:**

dielectric strength	500 Vdc/1 minute
insulation resistance	500 Vdc/100 M Ω
contact resistance	$30\ m\ \Omega$ or less between plug and jack
rated voltage	24 Vdc
rated current (DC in +)	5A @ 30 °C max. ΔT over ambient
rated current (DC in -)	5A @ 30 °C max. ΔT over ambient
rated current (Data)	1A @ 30 °C max. ΔT over ambient

## **Mechanical:**

insertion force	0.5 ~ 2 kgf when mating with a standard jack
withdrawal force	0.3 ~ 1.5 kgf when mating with a standard jack
durability	mated with a standard jack for 5000 cycles and meets the following: insertion force: $0.4\sim2$ kgf; withdrawal force: $0.2\sim1.5$ kgf; contact resistance: $100$ m $\Omega$ or less between plug and jack

# **Environmental requirements:**

#### damp test

test conditions	40 °C, relative humidity 90-100%, 96 hours then cool to ambient, 2 hours at ambient conditions	
requirements	dielectric strength: 500 Vac at 1 minute; insulation resistance: 500 Vdc / 50 M $\Omega$ min.; contact resistance: 100 m $\Omega$ max.	

## dry test

test conditions	70 °C, relative humidity 70-85%, 96 hours then cool to ambient, 2 hours at ambient conditions
requirements	no deformation; insulation resistance: 500 Vdc / 50 M $\Omega$ min.; contact resistance: 100 m $\Omega$ max.

## salt spray test

test conditions	5% NaCl salt mist, 35 $\pm$ 2 °C, relative humidity 90-95%, 24 hours; parts washed after testing
requirements	electrical and mechanical specifications above are met; contact resistance: 80 m $\Omega$ max.

# **Operating range:**

temperature	-25 °C to 70° C
humidity	85% or less



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## **Revision notes:**

Rev	Date	Description
Α	October 19, 2009	initial release
A1	December 4, 2012	added supplementary specification details (electrical, mechanical, environmental, etc.)

## **Specification Approval**

Spec sign-off verifies that you have reviewed the entire specification, tested a sample of the product, and confirm that it meets your requirements. This specification reflects the part as it will be ordered. Orders will not be processed until the specification pages have been initialed and the approval page has been signed. This specification is confidential and is not to be transmitted without prior approval from Tensility.

Signature	Title ————
Name	Date
Company	Branch