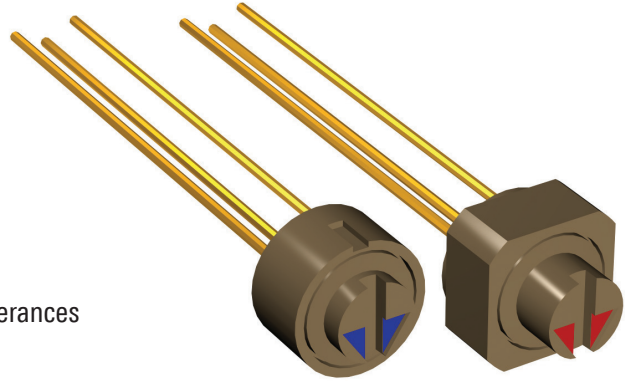


Features

- ⊕ PJ 11: Square housing
- ⊕ PJ 12: Circular housing with fixation key
- ⊕ Rotors available in different heights
- ⊕ Low mounting depth
- ⊕ Color coding of rotor arrow head
- ⊕ Different plastic colors available
- ⊕ Accurate tapers. Linear, logarithmic, double logarithmic and custom-made
- ⊕ Customer specified electrical resistance values and tolerances



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Sonion reserves the right to make changes at any time to improve reliability, function or design, in order to provide the best product possible.

History Revision

Revision Number/Date	Change from last revision
05 / Nov 05	History Revision added. New layout. PJ 11: Rotor style 02 removed.
MT1028.A (07/08)	Minimum resistance value on linear tapers increased to 200 Ω .
006/JUL-14-2009	No technical updates
007/JUL-13-2011	Operational temperature and humidity removed. Storage humidity added.

Mechanical Specifications

Rotational angle, mechanical.....	220° ±3°
Resistance curve angle.....	190°
End stop torque	Min. 100 cNcm
Rotational torque.....	Max. 10 cNcm, typical 4-8 cNcm
Lifetime	Min. 5,000 cycles

Electrical Specifications

Resistance value:	
-Linear.....	200 Ω to 1MΩ
-Logarithmic.....	500 Ω to 600 kΩ
-Double logarithmic.....	2 kΩ to 500 kΩ
Resistance value tolerance	±20% (-20% to +30% for values ≤ 1 kΩ)
Resistance taper.....	See 'Tapers Data Sheet'
Wiper contact resistance.....	Typ. better than 20 dB rel. R
Max. load.....	1 mW

Material Specifications

All materials comply with RoHS directive (2002/95/EC)



Solder terminals	Ag, gold flash plated
Other metal parts	CuBe2, silver plated
Plastic parts	PA 6.6
Carbon track base	Reinforced glass epoxy
Resistance material	Carbon / Silver composite

Lubricant, glue / seal, and paint specifications are proprietary information.

Environmental Conditions

Storage temperature -40 to + 60°
Storage humidity 10 to 95% RH

Recommended Process Parameters

Gluing:

Types of glue Cyanoacrylates (non-blooming) , i.e. Loctite 401, 408, 460 and Sicomet 50, 63, 77
Non-blooming types must be used to ensure that residuals from the curing process do not degrade the component.

Soldering:

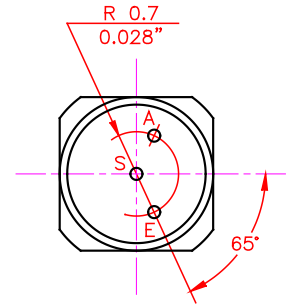
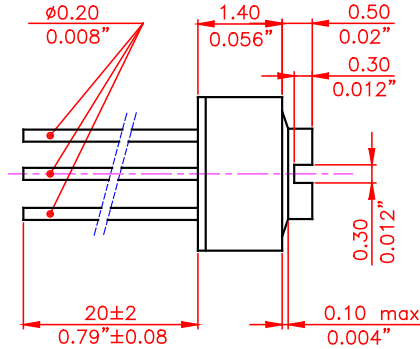
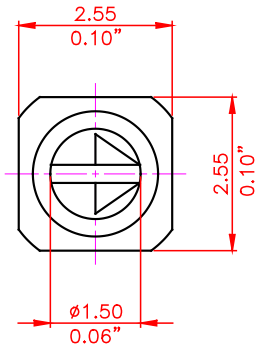
Soldering temperature and time 300°C [572°F] for 3 s or 350°C [662°F] for 1 s
To prevent damage to the carbon taper as a result of the soldering process, the knob must be turned either fully CW or CCW during soldering

Soldering distance Min. 0.3 mm [0.012"] from housing
***Exceeding temperature, time and distance recommendations may damage the component.
Mechanical stress on soldering terminals must be avoided during soldering.***

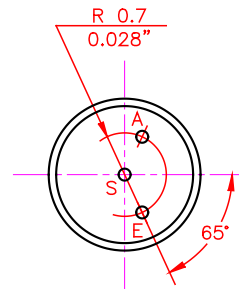
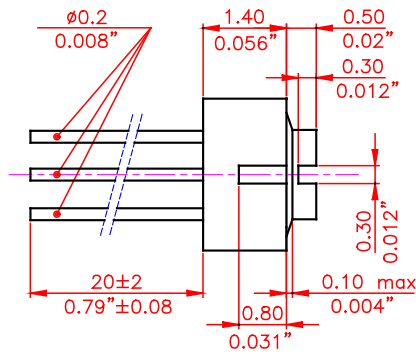
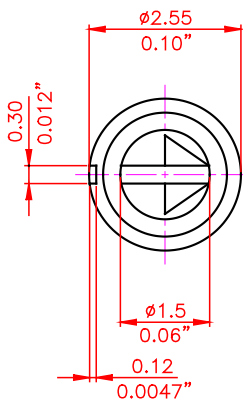
Cleaning:

Cleaning solvents Aqua wash (Alpha 2110), Benzine
Ultrasonic cleaning must be avoided as it may remove the lubricant inside the component.

Mechanical Dimensions PJ 11



PJ 12

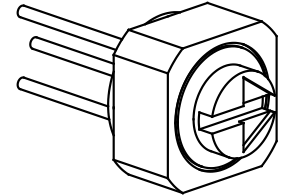
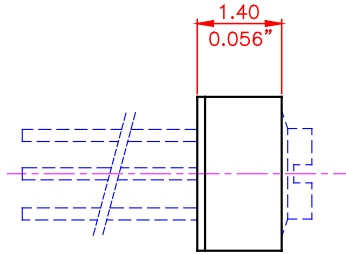
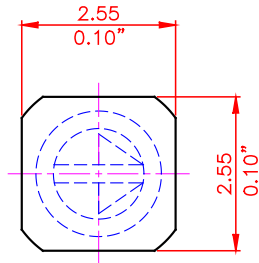


Note:

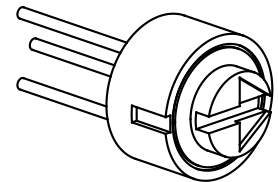
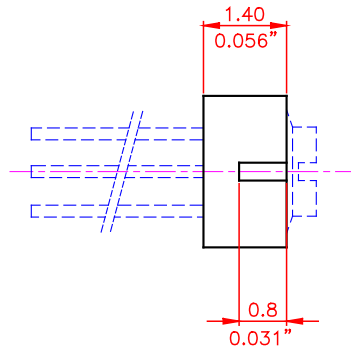
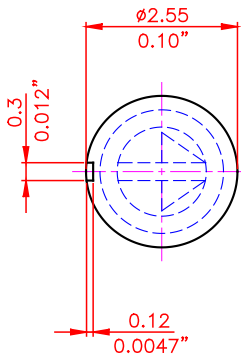
The standard measurement tolerance on the drawings is ± 0.05 mm/[0.002"]. Tolerances which differ from this value will be indicated on the drawings.

Housing Styles

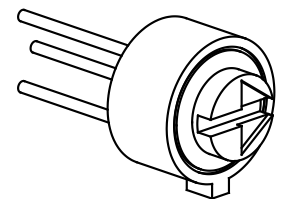
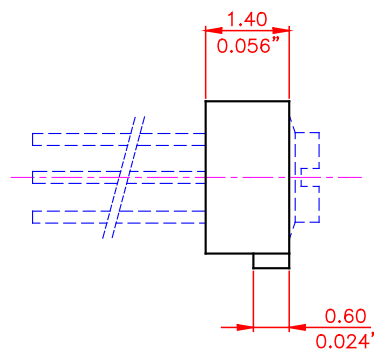
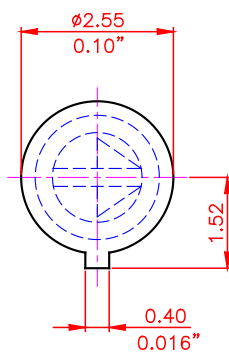
PJ 11 No. 01



PJ 12 No. 01

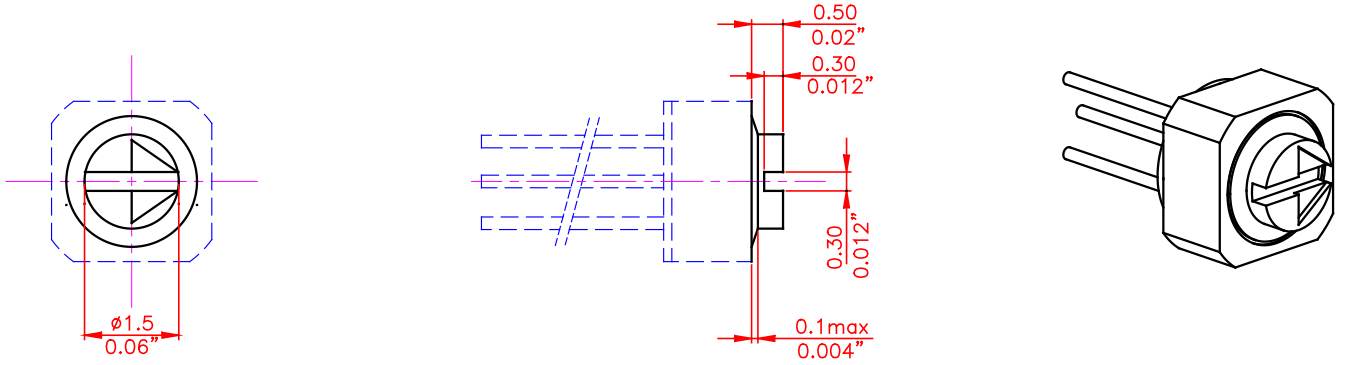


PJ 12 No. 02

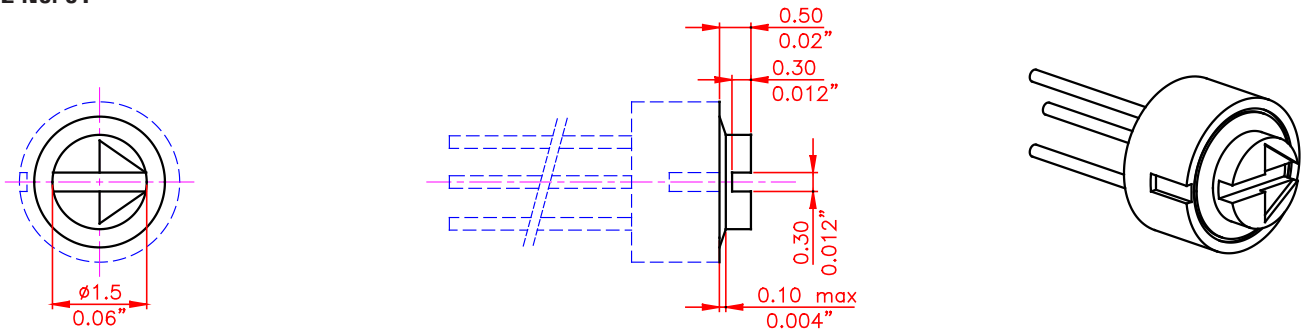


Rotor Style

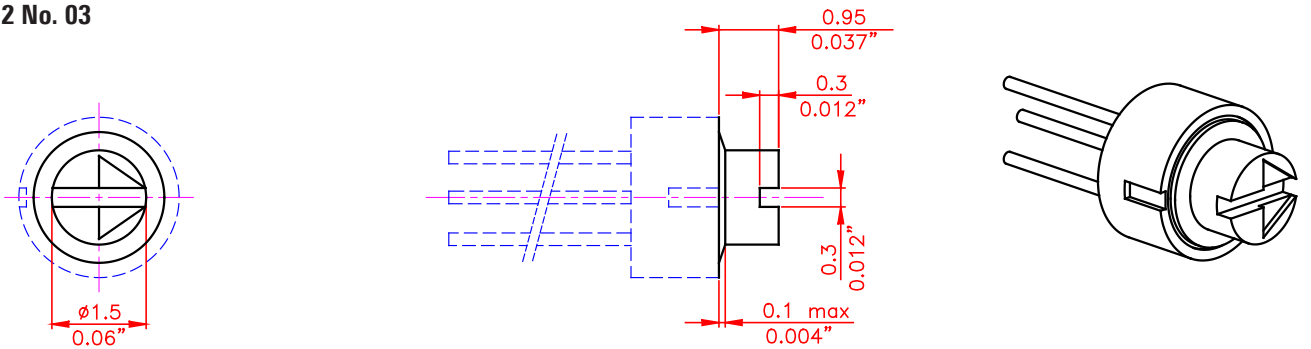
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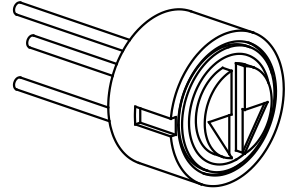
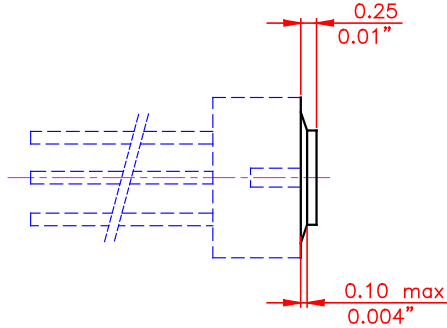
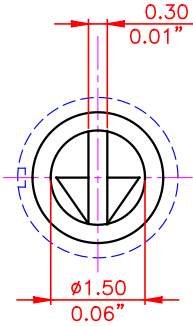
PJ 12 No. 01



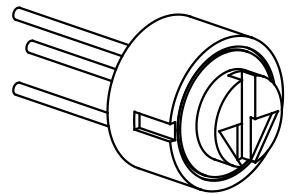
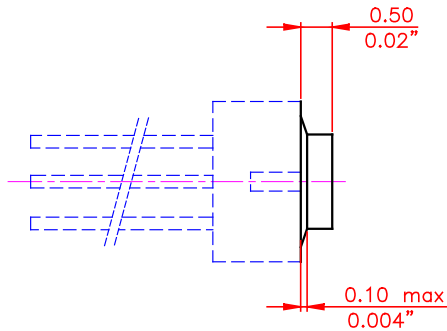
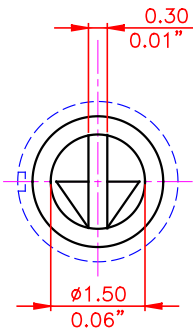
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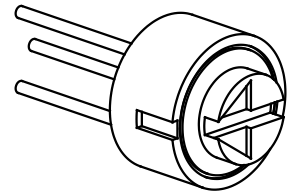
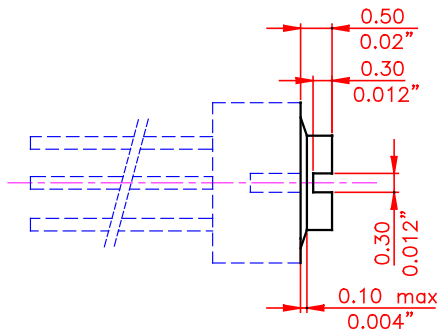
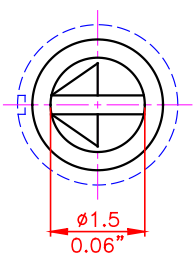
PJ 12 No. 04



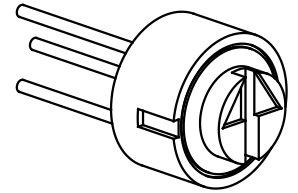
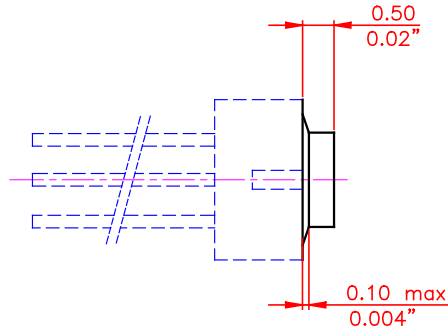
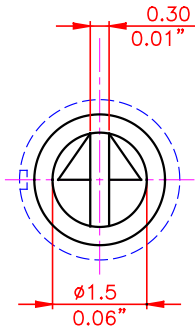
PJ 12 No. 05



PJ 12 No. 06



PJ 12 No. 07



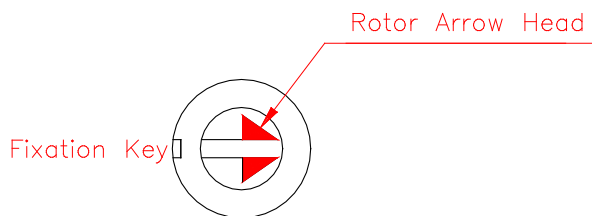
Plastic Colors

Please refer to the series 100 included in the Sonion 'Plastic Color Assortment' binder.

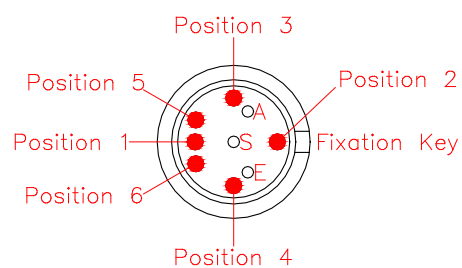
Color Coding

Please see colors for coding in the Sonion 'Plastic Color Assortment' binder or in the Product Overview.

Rotor Color Coding

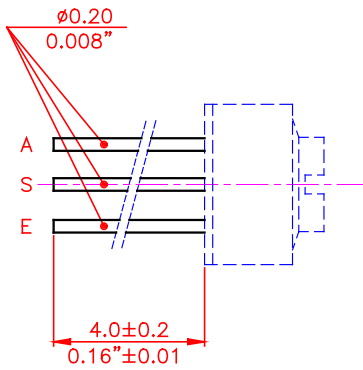


Bottom Color Coding

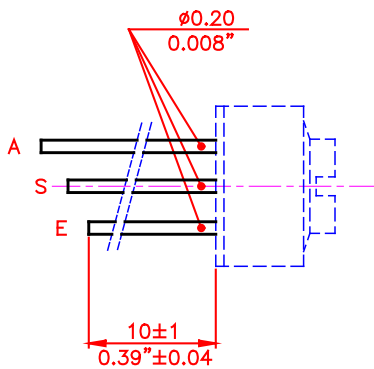


Terminal Length

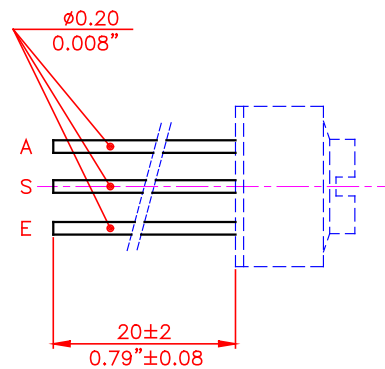
4 mm.



10 mm. stepped cut



20 mm.



Resistance Values and Tapers

Please see options under the paragraph 'Electrical Specifications' as well as the 'Tapers Data Sheet'

Product Specification Form

Name: _____

Company: _____

Customer Part No.: _____

Parameters	Look at Page	Enter your choices	Guidelines
Model	1		Please enter PJ 11 or PJ 12
Housing Style	6		
Rotor Style	7-9		
Plastic Colors	9		Please refer to the series 100 included in the Sonion 'Plastic Color Assortment' binder
Color Coding	9		Rotor Color Coding Please see colors for coding included in the Sonion 'Plastic Color Assortment' binder
		1 2 3 4 5 6	Bottom Color Coding Please see colors for coding included in the Sonion 'Plastic Color Assortment' binder
Terminal length	10		Please enter terminal length
Resistance Value	10		Please see 'Electrical Specifications' and 'Tapers Data Sheet'
Resistance Taper	10		Please see 'Electrical Specifications' and 'Tapers Data Sheet'