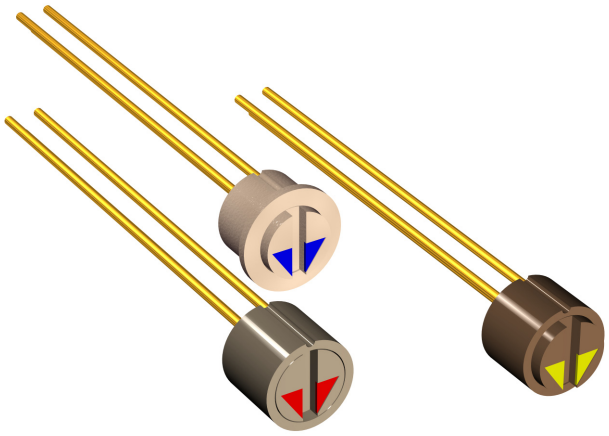
Data Sheet

Trimmers
Model PJ 63

Features

- Optional extended housing for increased robustness
- Very small mechanical dimensions Ø 1.9 mm/[0.075"]
- With or without flange
- Optional color coding on rotor
- Accurate tapers. Linear, logarithmic and custommade
- Customer specified electrical resistance values and tolerances



Contents

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 / Sep 01	History Revision added
06 / Sep 01	Optional extended housing for increased robustness added
MT1035.A (07/08)	Minimum resistance value on liniear tapers increased to 200 Ω.
007/JUL-20-2009	Operational temperature and humidity removed. Storage humidity added. New layout.

Mechanical Specifications

Rotational angle, mechanical	240° ±5°
Resistance curve angle	210°
End stop torque	Min. 60 cNcm
Rotational torque	Max. 10 cNcm
Lifetime:	
-Resistance element	Min. 1,000 cycles
Bending of terminals	Min. 0.5 mm [0.02"] from housing Min. 3 bending cycles 90°, with 0.25 N load
Forces:	
Torque to be applied repeatedly to mechanical stop	Max. 50 cNcm, max. 10 times
Force to be applied axially to knob	Min. 10 N, without electrical intermittence
Base retention force	Min. 4 N

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
Insulation resistance between terminals	Min. 1MΩ

Material Specifications

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

RoHS 2002/95/EC

Solder terminals	Ag, gold flash plated
Metal parts	PdAg
Plastic parts	PA 6.6
Carbon circuit 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°C
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 rotor 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.

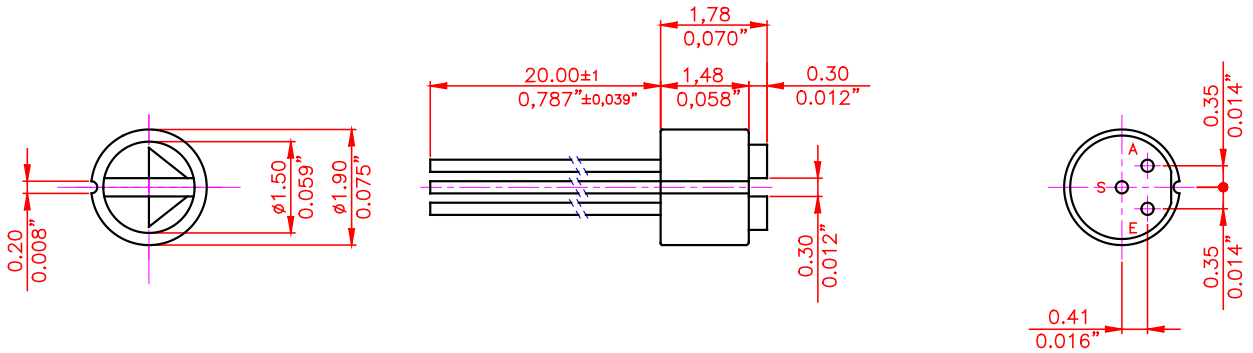
Cleaning:

Cleaning solvents ..... Aqua wash (Alpha 2110), Benzine

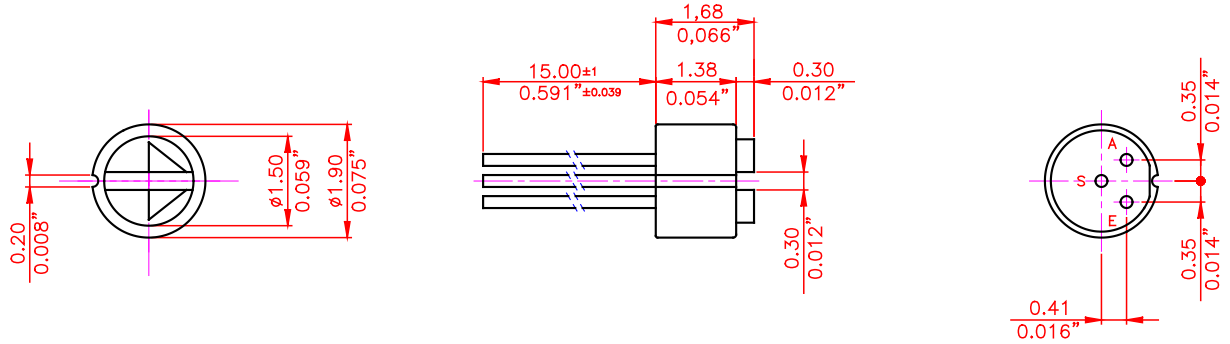
Ultrasonic cleaning must be avoided as it may remove the lubricant inside the component.

Mechanical Dimensions

Extended Housing Styles



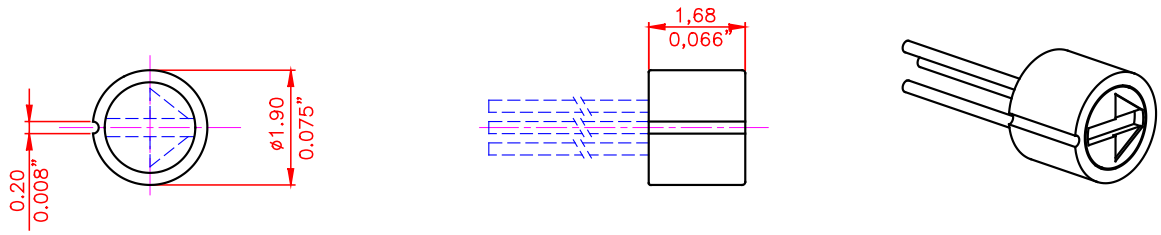
Housing Styles no. 01-04



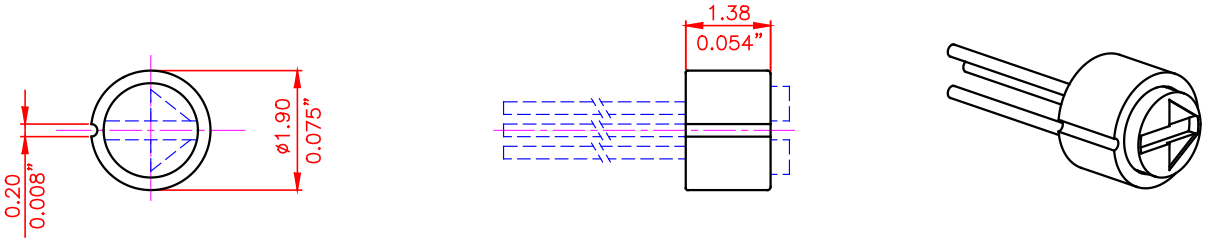
Note:
The standard measurement tolerance on the drawings is ±0.05 mm/[0.002"]. Tolerances which differ from this value will be indicated on the drawings.

Housing Styles

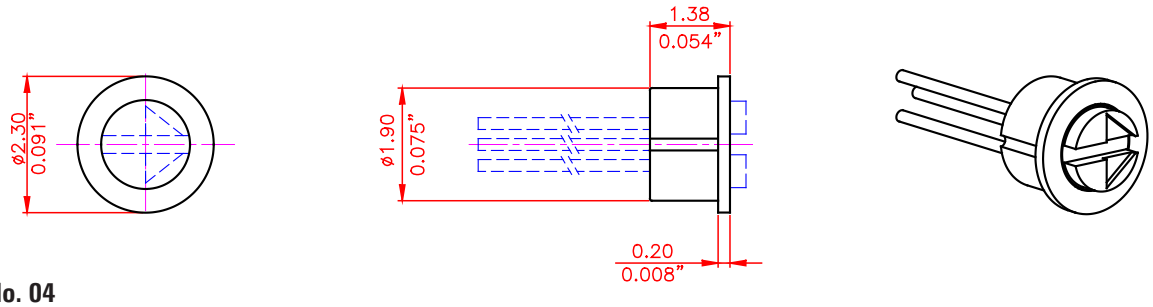
No. 1



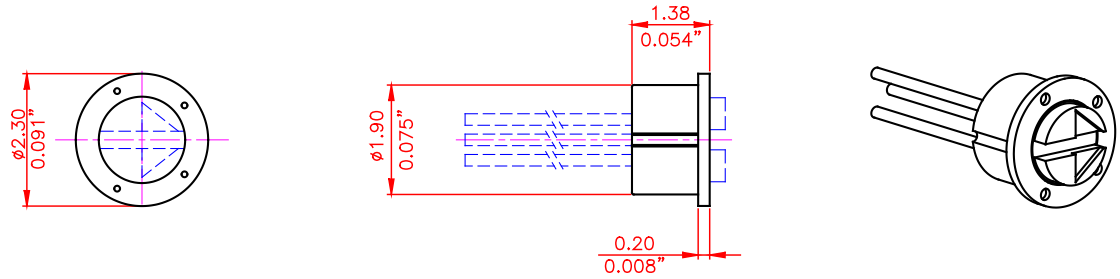
No. 02



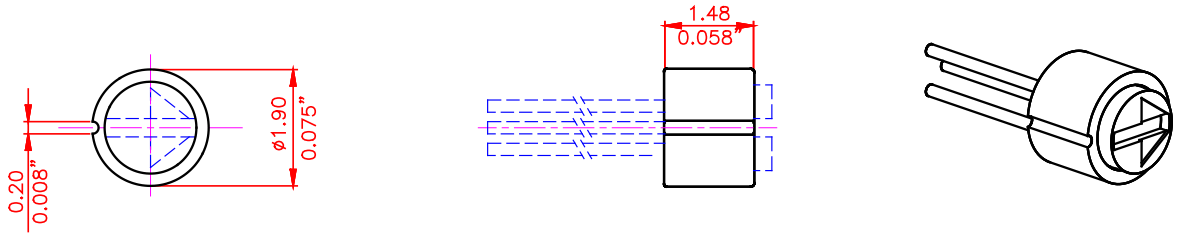
No. 03



No. 04



No. 12 Extended housing with thicker resistance element for increased robustness



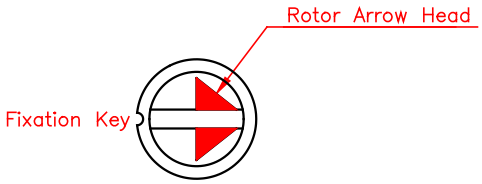
Plastic Colors

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

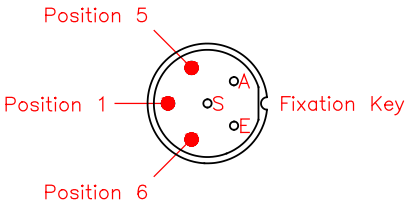
Color Coding

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

Rotor Color Coding

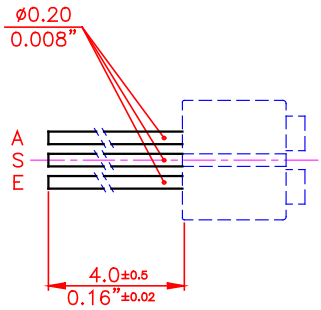


Bottom Color Coding

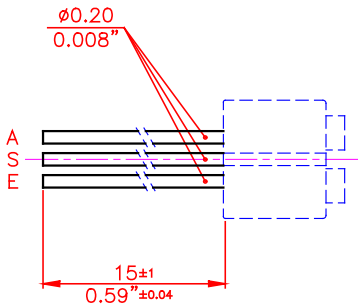


Terminal Length

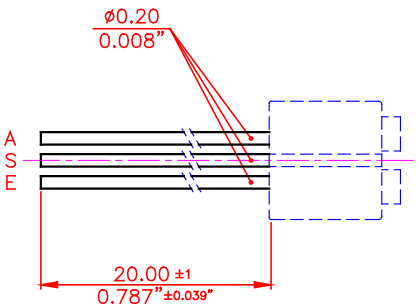
4 mm. All Housing Styles



15 mm. Housing Styles 01-04



20 mm. Extended Housing



Product Specification Form

Name: _____

Company: _____ **Customer Part No.:** _____

Parameters	Look at Page	Enter your choices	Guidelines
Model	1	PJ 63	
Housing Styles	5-6		Choose Housing Style 12 for improved robustness
Plastic Colors	7		Please refer to the series 100 included in the Sonion 'Plastic Color Assortment' binder
Color Coding	7		Rotor Color Coding Please see colors for coding included in the Sonion 'Plastic Color Assortment' binder
			Bottom Color Coding Please enter position and color Please see colors for coding included in the Sonion 'Plastic Color Assortment' binder
Terminal length	7		Please enter 4 mm: All housing styles 15 mm: Housing styles nos. 01-04 20 mm: Housing style no. 12
Resistance Value	7		Please see 'Electrical Specifications' and 'Tapers Data Sheet'
Resistance Taper	7		Please see 'Electrical Specifications' and 'Tapers Data Sheet'