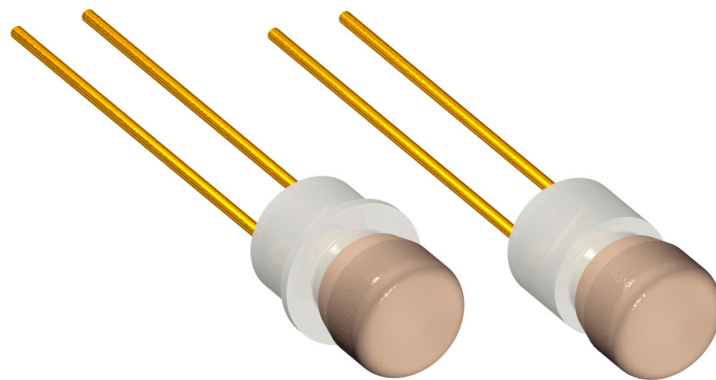
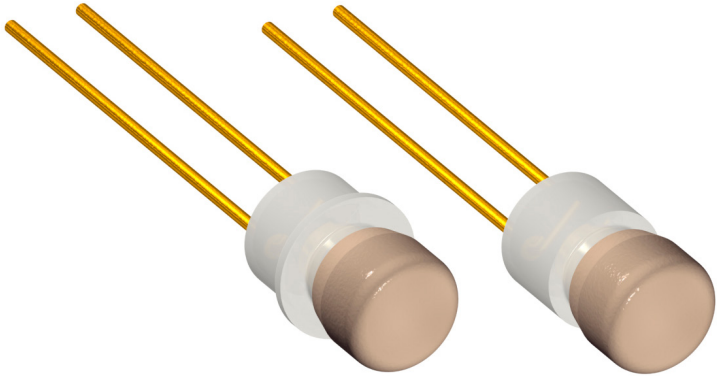




Switches PB100

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



Features

- Very small dimensions, Ø 1.9mm [0.075"]
- With or without flange
- Different plastic colors available
- Different lead wire lengths available

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1. History revision

Revision number / date	Change from last revision
1 / 00 Oct 2002	First released version
2 / 00 Oct 2002	History revision added, color choices for housing styles added
3 / 00 Feb 2006	Knob design changed to tapered shape, new layout
MT1013.A / Jul 2008	No technical updates
4 / 20 Jul 2009	Operational temperature and humidity removed
5 / 01 Oct 2014	Update design and new RoHS logo directive (2011/65/EU)
6 / 02 Sep 2019	Change of storage temperature and humidity (CR3860)
7 / 15 May 2020	New product drawing (CR4108)

2. Mechanical specifications

Switch travel	0.25 mm
Switch activating force	Min. 0.35 N, Max. 0.70 N
Knob retention force	Min. 15N
Lifetime	Min. 100.000 cycles
Bending of terminals	Min. 3 bending cycles 90° with 0.25N load

Durability of switch button	Specification
Allowed force to be applied continuously in operational direction (normal use)	Max. 5 N
Allowed force to be applied for max. 20 cycles in operational direction	Max. 20 N
Allowed force to be applied for max. 20 cycles in a 45° angle to switch button	Max. 5 N
Allowed force to be applied for max. 20 cycles perpendicular to switch button	Max. 7 N
Durability of solder terminals	Min. 4 N pull strength

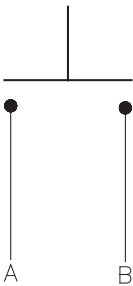
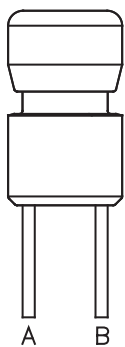
Definition of knob shear and knob pull strength forces:
from top of knob to shear force attack point: 0.75mm

3. Electrical specifications

Switch contact resistance	Max. 150 mOhm
Switch insulation resistance	Min. 1 MOhm
Switching current	Max. 10 mA
Continuous current	Max. 100 mA

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4. Switching diagram



5. Material specifications

All materials comply with RoHS directive (2011/65/EU)

Switch terminals	Ag, gold flash plated
Housing	PA 6.6, glass reinforced
Knob	POM
Base	PEEK

6. Environmental conditions

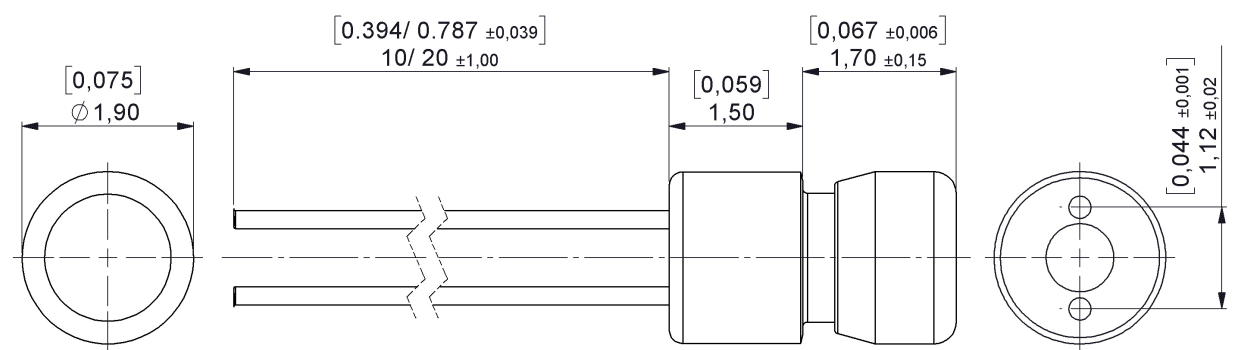
Storage	
Storage temperature	25°C
Storage humidity	60% RH
Purpose is to protect from high humidity and keep at driest condition as possible	

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7. Recommended processing conditions

Gluing	
Types of glue	Cyanoacrylate (non-blooming), i.e. Loctite 401, 408, 460 and Sicomet 50, 63 and 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	Max. 300°C [572°F] for 3s or 350°C [662°F] for 1s
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

8. Mechanical dimensions

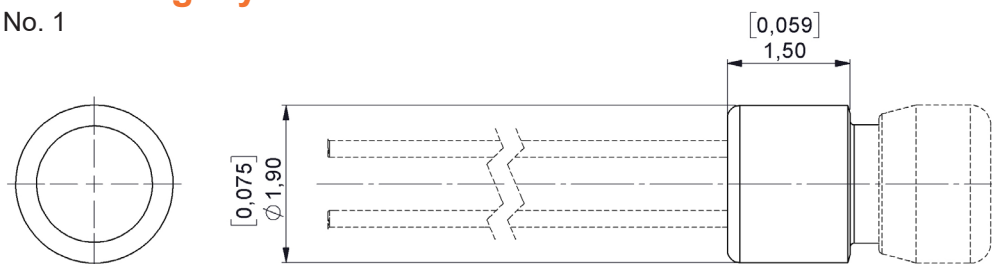


Note: The standard measurement tolerance on the drawing is ±0.05 mm [0.002"]. Tolerance which differ from this value will be indicated on the drawings.

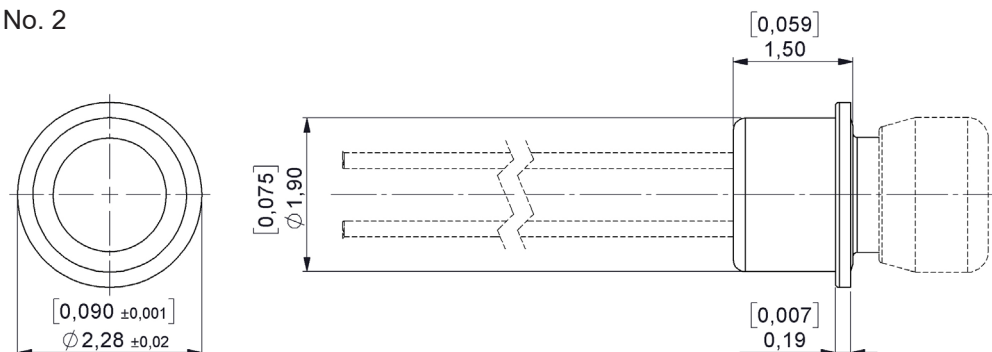
Sonion reserves the right to make changes at any time to improve reliability, function or design, in order to provide the best product possible.

9. Housing styles

No. 1

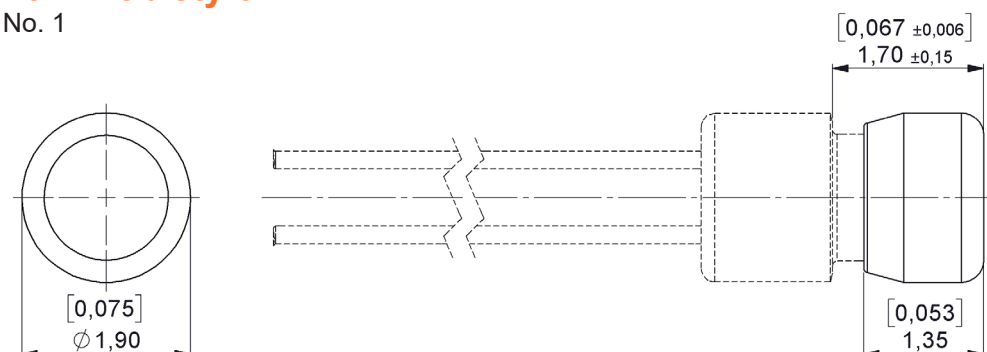


No. 2



10. Knob style

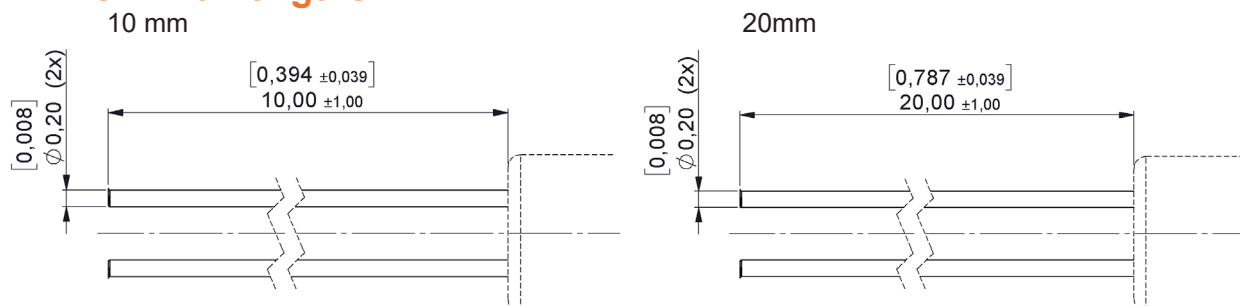
No. 1



11. Knob plastic colors

Please refer to the series 500 in the Sonion 'Plastic Color Assortment' binder for knob plastic colors

12. Terminal lengths



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13. Product specification form

Name

Company.....

Customer part no.

Parameters	Look at page	Enter your choices	Guidelines
Model	2	PB100	
Housing styles	6		Please enter no. 01 or 02 Housing style no. 01 available on color no. 100 (uncolored)
Housing colors			Housing style no. 02 available in color no. 100 (uncolored) and 131 (brown)
Knob style	6	No. 01	
Knob colors	6		Please refer to the series 500 included in the Sonion 'Plastic Color Assortment' binder
Terminal lengths	6		Please enter terminal length 10 mm or 20 mm

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