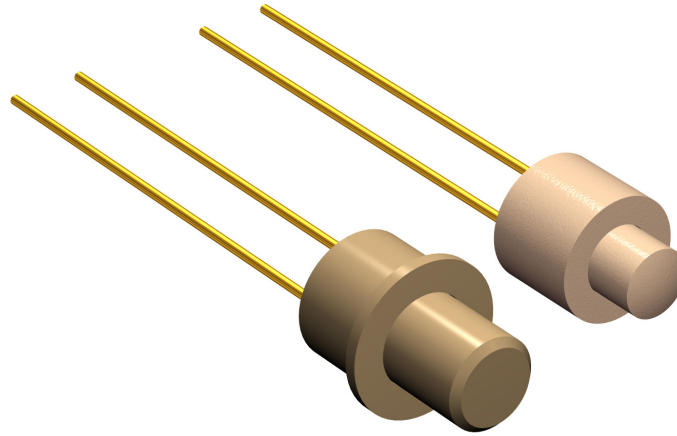


Switches Model PB 95



Features

- Very small dimensions, Ø2.54 [0.1"]
- With or without flange
- With different travel of the knob
- With different activating force
- Different plastic colors available
- Different lead wire lengths available

Contents

1. History Revision.....	3
2. Mechanical Specifications.....	4
3. Electrical Specifications.....	5
4. Material Specifications.....	6
5. Environmental Conditions.....	6
6. Recommended Processing Conditions.....	6
7. Mechanical Dimensions.....	7
8. Housing Styles.....	7
9. Knob Style.....	8
10. Lead Wires.....	10
11. Knob Plastic Colors.....	10
12. Product Specification Form.....	11

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

1. History Revision

Revision Number/Date	Change from last revision
07 / Jan. 02	History Revision added. Solder terminals gold flash plated. Electrical load specified for continuous and switching currents.
08 / Aug. 05	New lay-out. Force definition added.
MT1012.A (02/09)	Knob no. 16 added.
009/JUL-20-2009	No technical updates
010/JUL-13-2011	Operational temperature removed.
011/2014-10-01	Updated design and new RoHS logo directive (2011/65/EU)
012/2014-02-17	Discontie knob 16
013/2019-09-02	Change of storage temperature and humidity (CR3860)

2. Mechanical Specifications

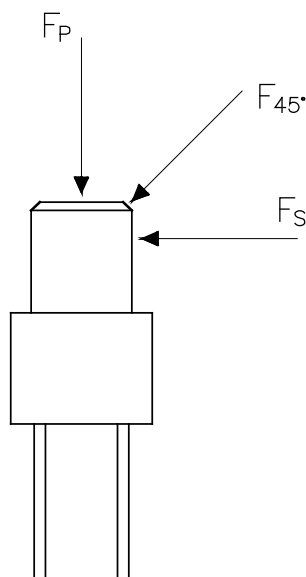
Switch travel	
Standard	0.35 mm [0.014"]
Reduced	0.15 mm [0.006"]

Switch activating force	
Standard	Min. 75 cN, Max. 150 cN, for knob style 01, 02 and 03
Low	Min. 35 cN, Max. 60 cN, for knob style 01 and 03

Lifetime	Min. 100,000 cycles
Bending of terminals	Min. 3 bending cycles 90°, Min. 0.5 mm/[0.02"] from bottom
Terminal retention force	Min. 4 N

Durability of knob	
F _p : continuous	Max. 5 N
F _p : max. 20 cycles	Max. 20 N
F _{45°} : max. 20 cycles	Max. 5 N
F _s : max. 20 cycles	Max. 5 N

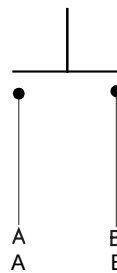
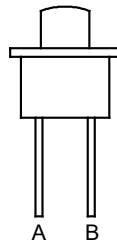
Definition of shear force and knob retention force



3. Electrical Specifications

Switch contact resistance	Max. 150 mΩ
Switch insulation resistance	Min. 1 MΩ
Switching current	Max. 10 mA
Continuous current	Max. 100 mA

Switching Diagram



4. Material Specifications

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

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

5. Environmental Conditions

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

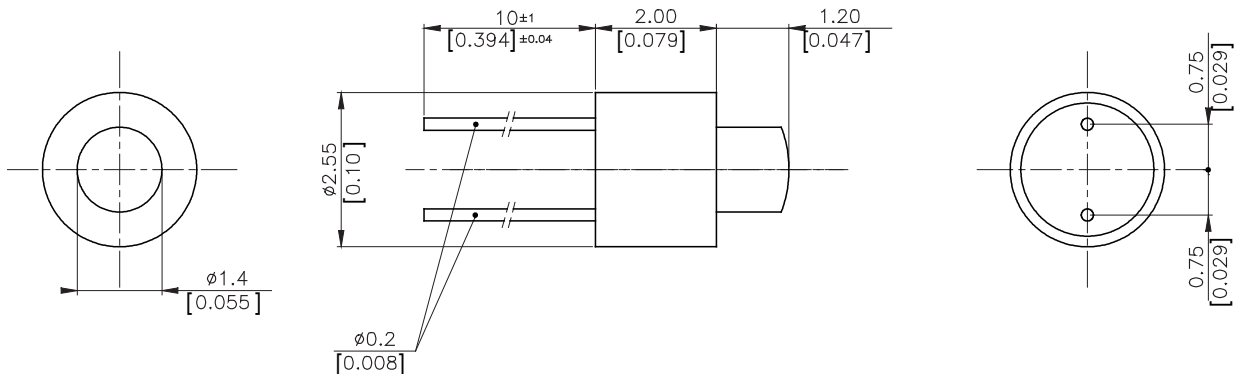
6. Recommended Processing Conditions

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

Soldering	
Soldering temperature and time	<p>Max. 300°C [570°F] for 3 s</p> <p>or 350°C [660°F] for 1 s</p>
Soldering distance	<p>Min. 0.3 mm [0.012"] from housing</p> <p>Exceeding temperature, time and distance recommendations may damage the component. Mechanical stress on soldering terminals must be avoided during soldering.</p>

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

7. Mechanical Dimensions

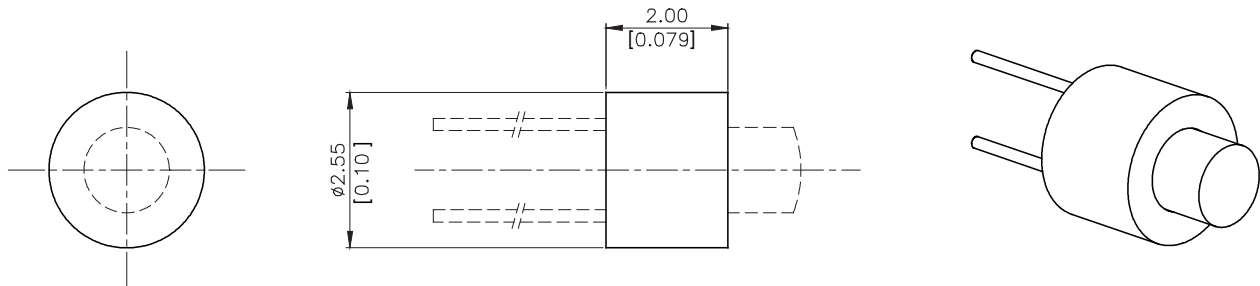


Note:

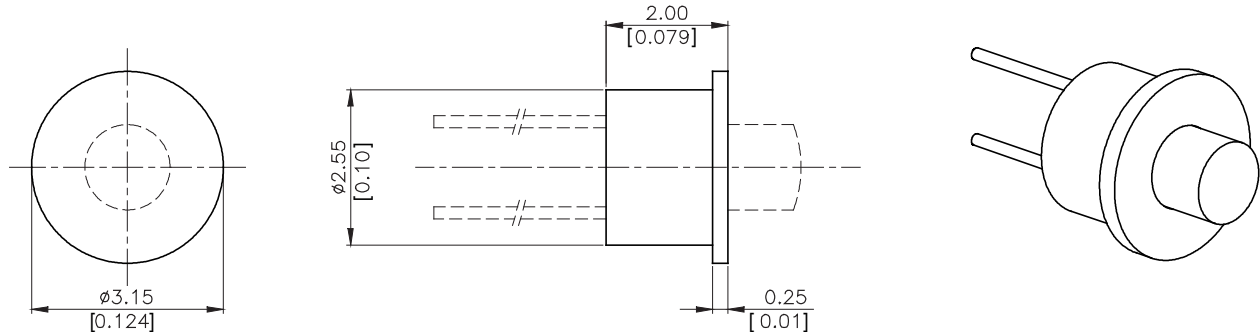
The standard measurement tolerance on the drawings is ± 0.05 mm/[0.002"]. Tolerances which differ from this value will be indicated on the drawings.

8. Housing Styles

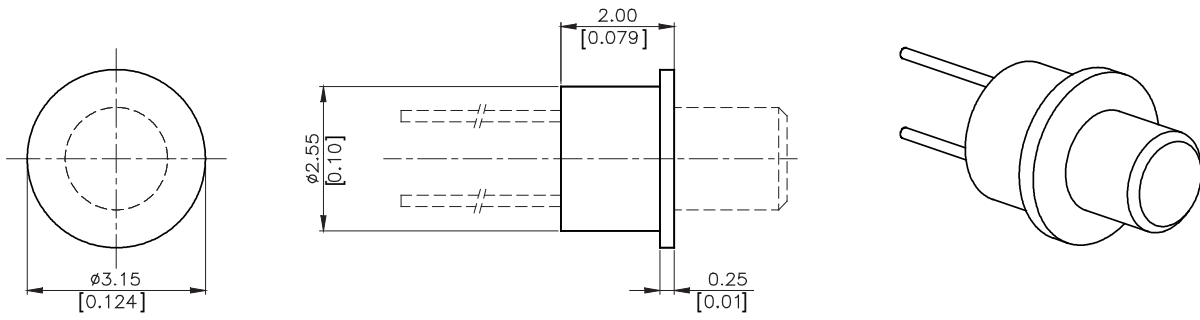
No. 01



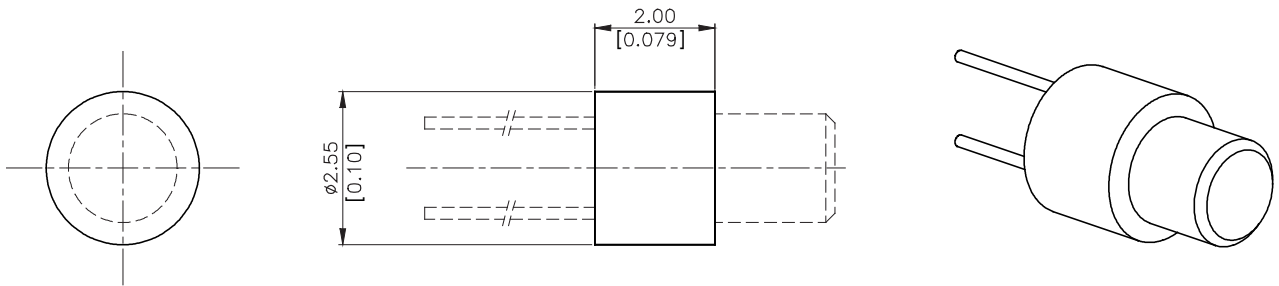
No. 02



No. 03



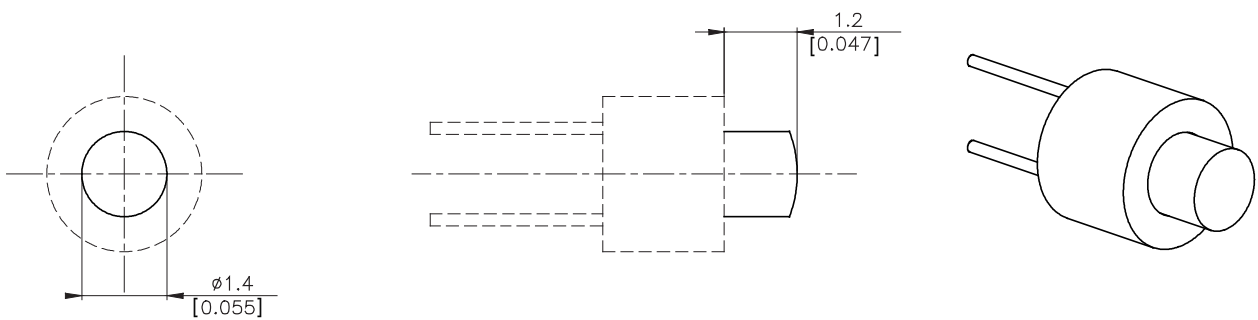
No. 07



9. Knob Style

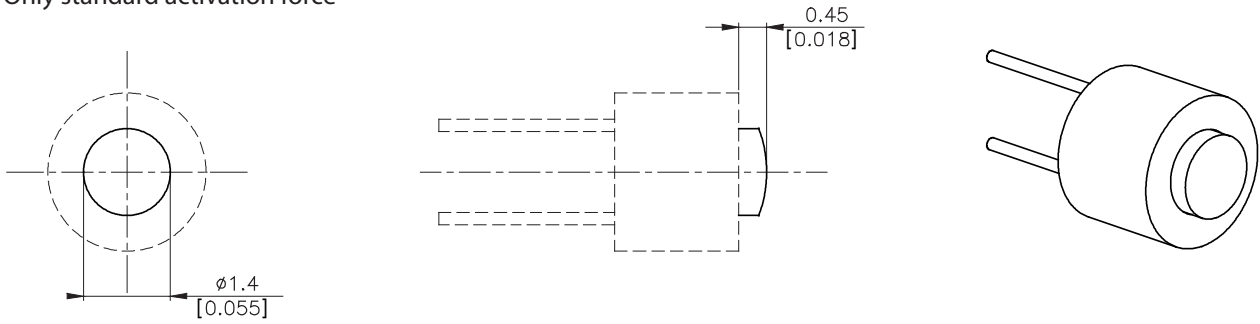
No. 01, knob travel 0.35 mm [0.014"]

Standard/low activation force available



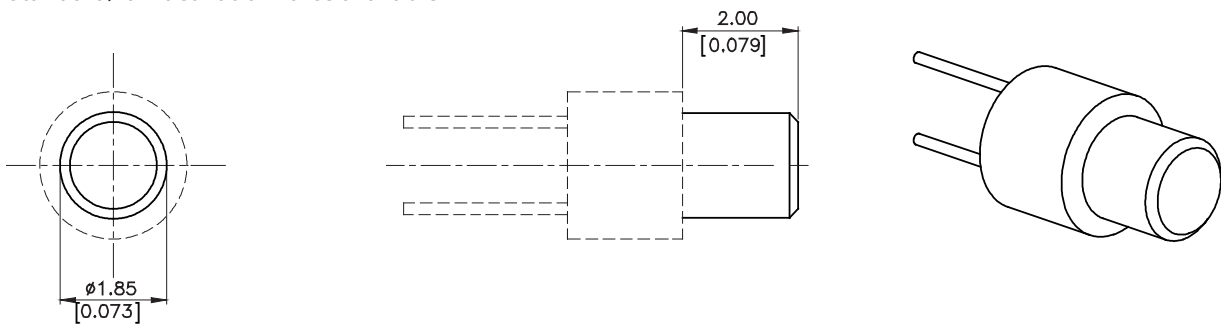
No. 02, knob travel reduced to 0.15 mm [0.006"]

Only standard activation force



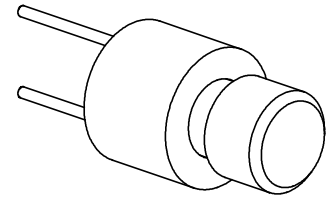
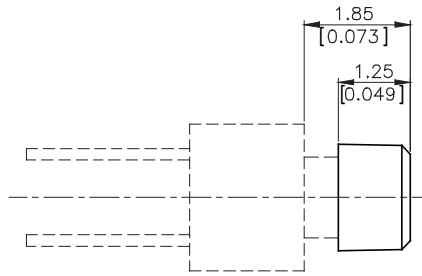
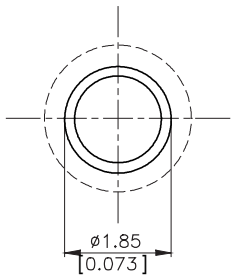
No. 03, knob travel 0.35 mm [0.014"]

Standard/low activation force available



Extension No. 01

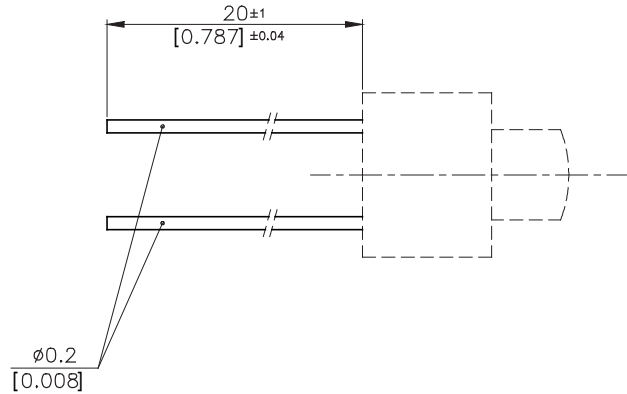
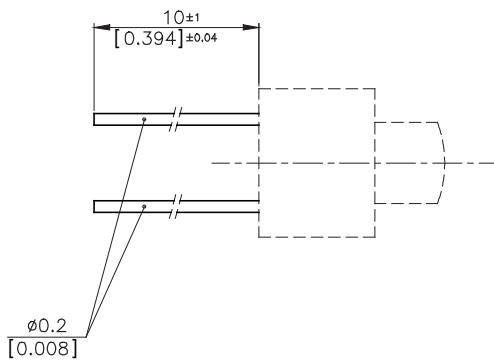
Fits knob style No. 01 only



10. Terminal Length

10 mm

20 mm



11. Knob Plastic Colors

Please refer to the series 100 in the Sonion 'Plastic Color Assortment' binder for knob plastic colors.

12. Product Specification Form

Name _____

Company _____

Customer Part No. _____

Parameters	Look at Page	Enter your choices	Guidelines
Model	2	PB 95	
Housing Styles	7-8		Knob Styles nos. 01 and 02 are only available for Housing Styles nos. 01 and 02 Knob Styles no. 03 is available for Housing Styles nos. 03 and 07
Knob Styles	8-9		Housing Styles nos. 01 and 02 are only available for Knob Styles nos. 01 and 02 Housing Styles nos. 03 & 07 is available for Housing Knob no. 03
Activation Force	4	Standard	Nos. 01, 02 and 03 knob styles
		Low	Nos. 01 and 03 knob styles
Knob Extension	10		Fits knob style no. 01 only
Plastic Colors	10		Please refer to the series 100 included in the Sonion 'Plastic Color Assortment' binder
Terminal Length	9		Please enter lead wire length 10 mm or 20 mm