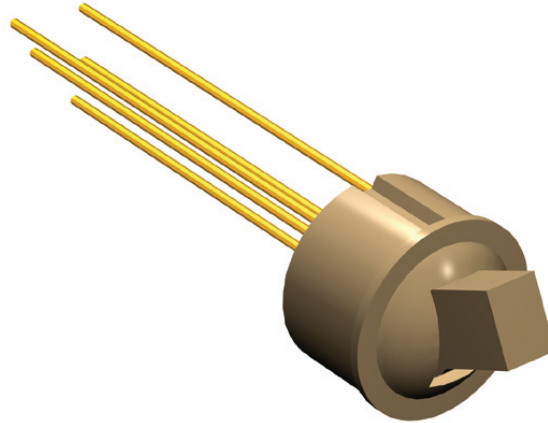


Features

- ⊕ Circular design with flange
- ⊕ 3 position double switch
- ⊕ Built-in fixation key
- ⊕ Different plastic colors available
- ⊕ Different terminal lengths available



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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

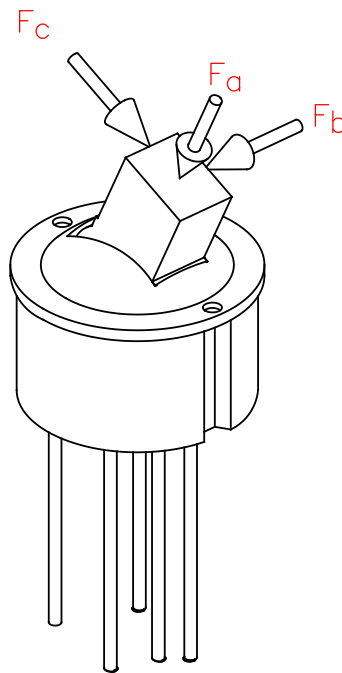
Revision Number/Date	Change from last revision
06 / Jan. 02	History Revision added. Solder terminals gold flash plated
07 / Jun. 08	Force definition drawing added. Storage humidity added. Operational temperature and humidity removed. New data sheet design. New lay-out.
MT1025.A (07/08)	No technical updates
008/JUL-22-2009	No technical updates

Mechanical Specifications

Toggle angle.....	50° ±5°
Switch operating torque.....	Min. 10 cNcm, Max. 15 cNcm
Terminal retention force.....	Min. 6 N
Durability of toggle:	
Fa, max. 20 cycles.....	5 N
Fb, max. 20 cycles.....	2 N
Fc, max. 20 cycles.....	5 N
Lifetime.....	Min. 50,000 cycles
Bending of terminals.....	Min. 3 bending cycles 90°, min. 0.5 mm [0.02"] from bottom

Definition of shear force and toggle retention force:

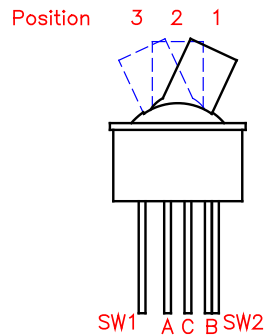
Fb, Fc: Attack point is 0.75 mm from top of toggle



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



Position \ Terminal	1	2	3
A		●	
B			●
C		●	●

Position \ Terminal	1	2	3
SW1		●	●
SW2		●	●

Material Specifications

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



On/Off switch terminals	CuSn, gold flash plated
Selector switch terminals	AgCu3, gold flash plated
Housing	PA 6.6, glass reinforced
Base	PEEK

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 <i>Non-blooming types must be used to ensure that residuals from the curing process do not degrade the component.</i>
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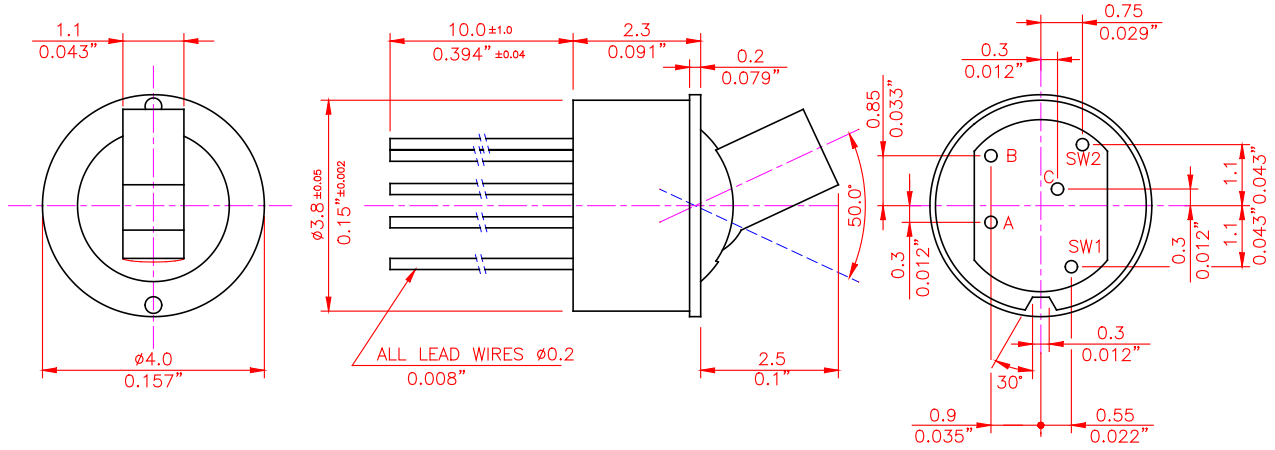
Soldering:

Soldering temperature and time	300°C [572°F] for 3 s or 350°C [662°F] for 1 s
Soldering distance	Min. 0.5 mm [0.02"] from housing <i>To prevent damage of the switch system as a result of the soldering process, the On/Off switch must be turned to the ON position.</i> <i>Exceeding temperature, time and distance recommendations may damage the component. Mechanical stress on soldering terminals must be avoided during soldering.</i>

Cleaning:

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



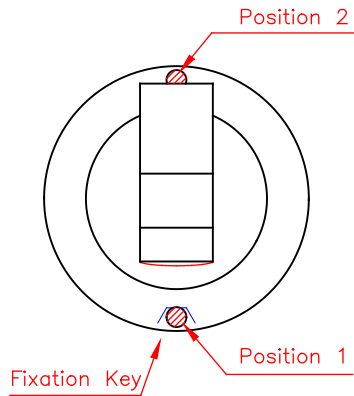
Note:

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.

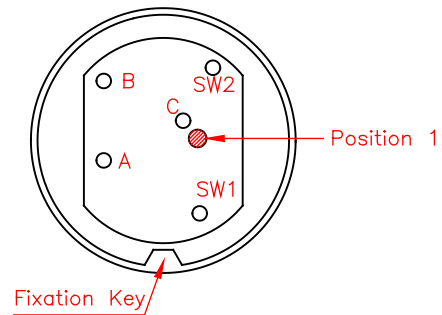
Color Coding

Please refer to colors for coding included in the Sonion 'Plastic Color Assortment' binder

SW 511 Housing Color Coding



SW 511 Bottom Color Coding

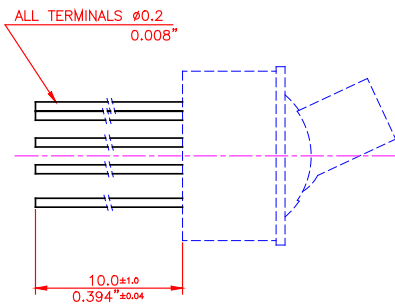


Plastic Colors

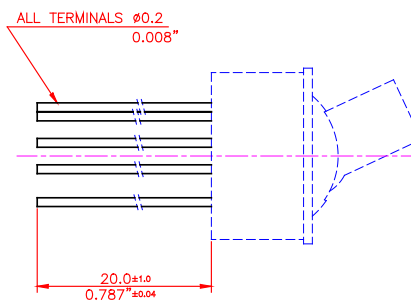
Please refer to the series 100 included in the Sonion 'Plastic Color Assortment' binder

Terminal Length

10 mm



20 mm



Product Specification Form

Name: _____

Company: _____

Customer Part No.: _____

Parameters	Look at Page	Enter your choices	Guidelines
Model	1	SW 511	
Plastic Colors	7		Please refer to the series 100 included in the Sonion 'Plastic Color Assortment' binder
Color Coding Housing	7		Position 1 Please refer to colors of coding included in the Sonion 'Plastic Color Assortment' binder
	7		Position 2 Please refer to colors of coding included in the Sonion 'Plastic Color Assortment' binder
Color Coding Bottom	7		Bottom Color Coding Please refer to colors of coding included in the Sonion 'Plastic Color Assortment' binder
Terminal Length	7		Please enter 10 or 20 mm terminal length