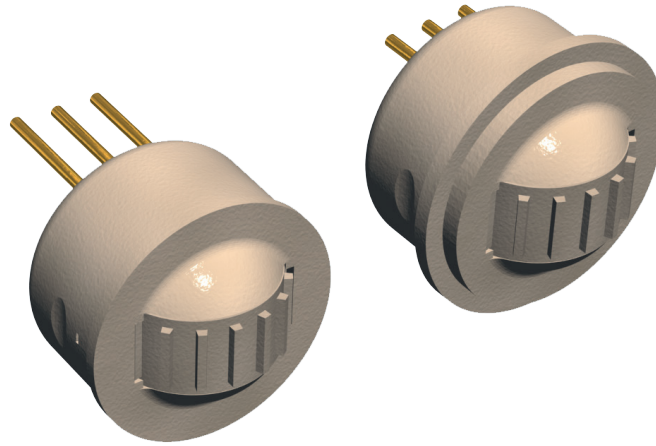


# Volume Controls Model DCU Scroller



### Features

- For ITE and BTE
- Size compatible to PJ 88/DCU 193
- User-friendly interface
- BTE style linear rotation
- Tight fit between BTE shells and housing gives:
  - Reduced humidity exposure
  - Reduced acoustic leakage/feedback

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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.

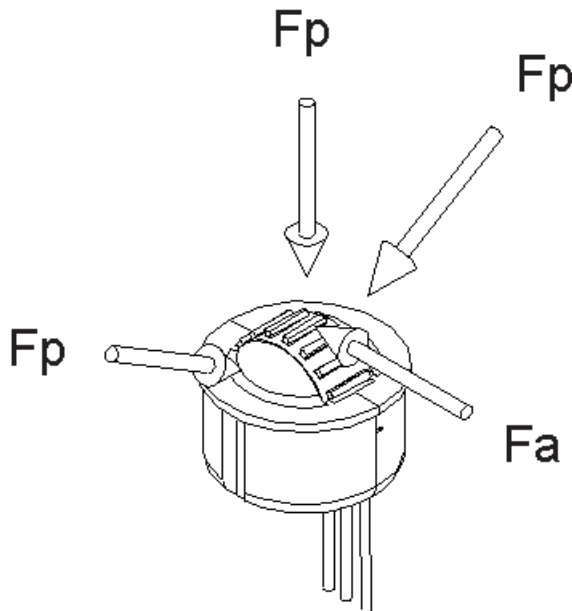
## 1. History Revision

Revision Number/Date	Change from last revision
MT1044.A (12/08)	History Revision added.
001/JUL-07-2009	No technical updates
002/2014-01-17	Updated design and new RoHS logo directive (2011/65/EU)
003/2019-09-03	Change of storage temperature and humidity (CR3860)

## 2. Mechanical Specifications

Rotational angle, mechanical	250° ±5°
Rotational angle, mechanical	250° ±5° Rotational angle Continuous rotation, no end stop
Rotational speed	Min. 4 rpm. Max. 120 rpm
Activation force (Fa)	Max. 0.45 N
Terminal retention force	Min. 5 N
Bending of terminals	Min. 1 bending cycle 90°, with 0.25 N load
Lifetime	Min. 10,000 cycles  1 cycle = 360° CW followed by 360° CCW rotation
Durability of knob (Fp)	Max. 10 N

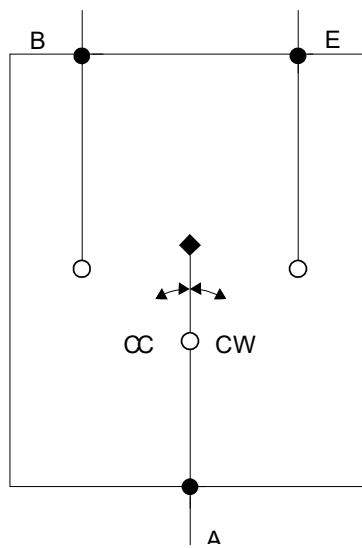
Force definitions:



## 3. Electrical Specifications

Contact resistance	Max. 500 mΩ
Number of pulses per rotation	10
Insulation resistance	Min. 1 MΩ
Parasitic capacitance	Max. 10 pF between any two leads
Switching current	Max. 0.1 mA
Pulse width	3° - 10°
Bounce time	Max. 20 ms. Measured at 25 rpm, 2μA and 0.7 V
Inaccuracy of pulse generation	Max. 1 pulse per 100 pulses. Measured at 25 rpm

### Switching Diagram



## 4. Material Specifications

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

Terminals	AgCu3, gold flash plated
Housing	PA 6.6, glass reinforced
Knob	POM
Base	LCP

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

## 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 Process Parameters

Gluing	
Types of glue	<p>Cyanoacrylates (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>

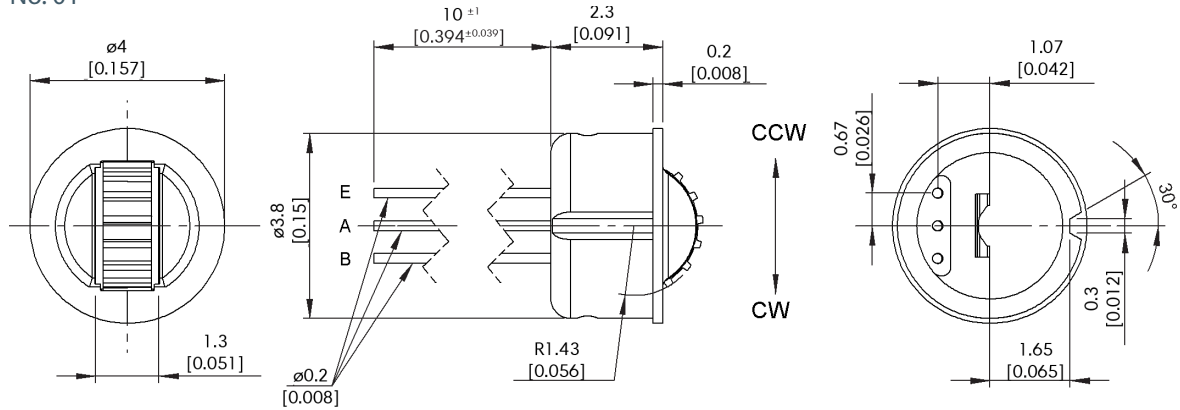
Soldering	
Soldering temperature and time	300°C [572°F] for 3 s or 350°C [662°F] for 1 s
Soldering distance	<p>Min. 0.3 mm [0.012"] from housing</p> <p>Exceeding temperature, time and distance recommendations may damage the component. Mechanical stress on soldering terminals must be avoided during soldering.</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>

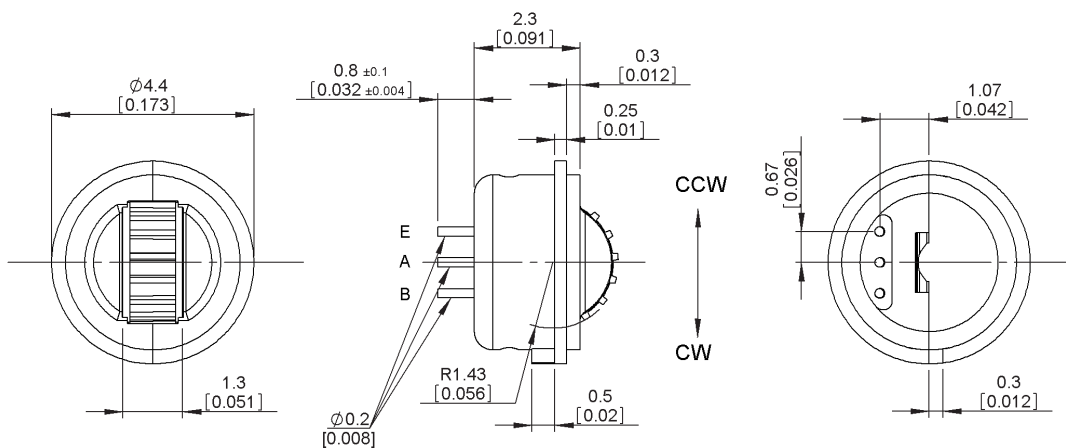
## 7. Mechanical Dimensions

## 8. Housing Styles

No. 01



No. 02



### Note:

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

## 9. Knob Plastic Colors

Please refer to the series 500 included in the Sonion 'Plastic Color Assortment' binder.

## 10. Housing Plastic Colors

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

## 11. Terminal Length

Housing style 01: 0.8 mm or 10 mm

Housing style 02: 0.8 mm



## 12. Product Specification Form

Name \_\_\_\_\_

Company \_\_\_\_\_

Customer Part No. \_\_\_\_\_

Parameters	Look at Page	Enter your choices	Guidelines
Model	2	DCU Scroller	
Housing Style	7		Please enter no. 01 or 02
Knob Plastic Colors	8		Please refer to the series 500 included in the Sonion 'Plastic Color Assortment' binder
Housing Plastic Colors	8		Please refer to the series 100 included in the Sonion 'Plastic Color Assortment' binder
Terminal length	8		Housing style 01: 0.8 mm or 10 mm Housing style 02: 0.8 mm