

## Product description

### MAIN FEATURES

- › Gray coding 16 positions
- › Switching mode: Shorting
- › Switching torque: 3 Ncm
- › Body size: 10 x 11 x 9.1 mm
- › THT
- › Switching cycles: 15'000
- › Operating temperature range: -40 to +85 °C



ELV (2000/53/EC)  
RoHS (2011/65/EU)

**C16**



### PRODUCT VARIETY

- Detent angle 20°, 16 positions, with end stop
- Detent angle 22.5°, 16 positions, endless rotating

### POSSIBLE CUSTOMIZATIONS

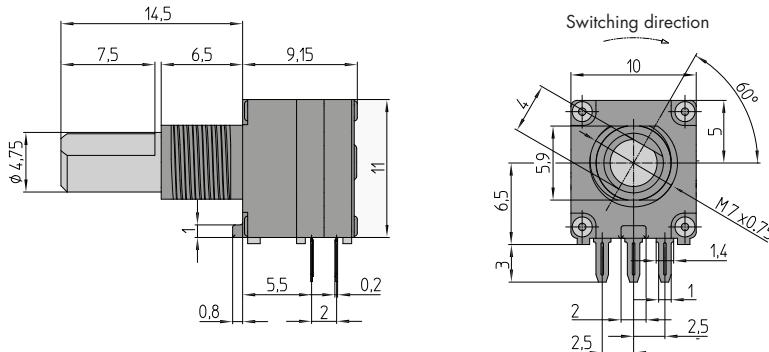
- Shaft dimension, shape and material

### TYPICAL APPLICATION

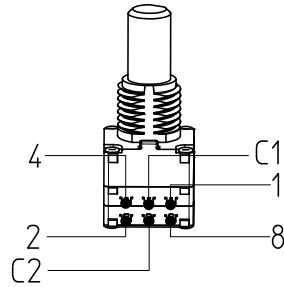
- Frequency and channel selection for two way radios
- Other miniaturized mobile applications

## Dimensions and pin assignment

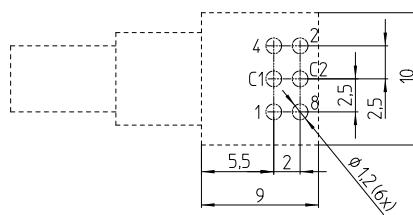
### SWITCH DESIGN



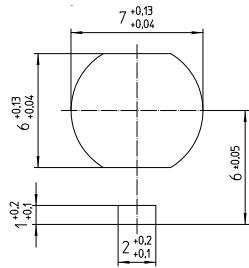
### PIN ASSIGNMENT



### DRILLING DIAGRAM AND FOOTPRINT



### FRONT PANEL CUT OUT



Dimensions in mm  
 Tolerances according to DIN ISO 2768-1 (m), unless otherwise specified

## Specifications

### MECHANICAL DATA

Detent angle   positions:	20° detent angle   16 positions 22.5° detent angle   16 positions
Rotary limitation   end stop:	20°: With end stop 22.5°: Without end stop
Switching torque:	3 Ncm ( $\pm 30\%$ in new condition)
Rotational life:	> 15'000 cycles (tested at room temperature)
Allowed shaft load:	150 N push and 100 N pull
Rotational stop strength:	> 65 Ncm
Fastening torque of nut (front panel mounting):	M7 x 0.75: < 100 Ncm

### ELECTRICAL DATA

Electrical connection:	Pins 0.15 x 1 mm
Switching voltage:	< 10 VDC (resistive load)
Switching current:	< 10 mA (resistive load)
Contact resistance:	< 1 $\Omega$
Signal   coding:	Gray
Switching mode:	Shorting
Dielectric strength:	250 VAC during 60 s (pin-to-pin, pin-to-housing)
Insulation resistance:	> 100 M $\Omega$ at 500 VDC (pin-to-pin, pin-to-housing, in new condition)

### MATERIALS

Shaft:	Stainless steel 1.4305
Bushing   housing:	Zinc die casting (nickel plated)

### ENVIRONMENTAL DATA

Operating temperature:	-40 to +85 °C (IEC 60068-2-14)
Storage temperature:	-65 to +125 °C (IEC 60068-2-14, MIL-STD202G, method 107G, condition B-3)
Humidity:	< 93 % relative humidity (MIL-STD-202G, method 103B, condition B)
IP sealing against front panel:	IP67 only shaft sealing
Vibration:	10 G <sub>RMS</sub> at 50 to 2'000 Hz (MIL-STD-202G, method 214A, duration 15 min)

### SOLDERING CONDITIONS

Hand soldering:	< 350 °C during 3 s
Wave soldering:	< 270 °C during 5 s

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