# **CODED SWITCH**



## **Product description**

#### **MAIN FEATURES**

- > Gray coding16 positions
- > Switching mode: Shorting
- > Switching torque: 3.0 Ncm
- > Body size 10 x 11 x 9.1 mm
- > THT
- > Switching cycles: 15'000
- ➤ Operating temperature range: -40 to +85 °C



## 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

## **CODED SWITCH**



## **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:	3.0 Ncm (±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:	<10
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 $G_{\text{RMS}}$ 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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