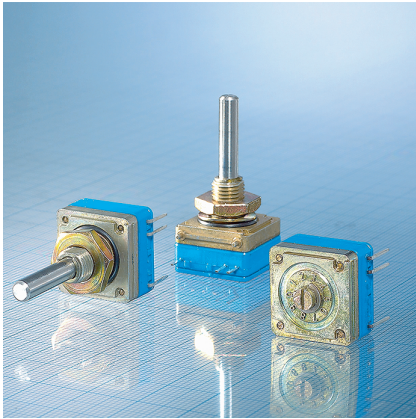# Rotary Encoder BG17

Rotary pulse generator for quick and simple adjustment of digital values.

- Dimensions like miniature code switch SC17.
- Rotary encoders, code switches and rotary step switches can be easily used alongside each other as their dimensions are the same.
- Adjustment forward and backward.
- Digit-exact precision adjustment by precise mechanical detent.
- Recognition of rotation sense by two separate outputs.
- Complete immersion in ultrasonic bath possible.
- Insensitive against aggressive atmosphere, dust etc.
- Shaft parallel or rectangular to PC board.

1.0 Construction

1.1	Function	Rotary encoder with detent mechanism
1.2	Detent angle	22°30′
1.3	Detent graduation	16 detents per revolution
1.4	Indication of revolution direction*	2 independent outputs
1.5	Contacts	Soldering pins
1.6	Mounting	Soldering or central mounting

* See impulse diagram.

2.0 Electrical Data

2.1	Switching power		$3\,VA/W$ max. $5 \cdot 10^{-7}\,W$ min.
2.2	Switching voltage		$30\,V\simeq$ max. $10\,mV\simeq$ min.
2.3	Switching current		100 mA max. 50 µA min.
2.4	Rest current max. at ∂u 20°C		0,5 A
2.5	Test voltage at 50 Hz		100 V
2.6	Life expectancy	without electrical load	$\geq 1,6 \times 10^{6}$ detents
			$\geq 100\,000$ cycles
		with power max.	$\geq 640\,000$ detents
			$\geq\ \ 40\,000$ cycles
2.7	Contact resistance	initial value	$\leq 100\,m\Omega$
		after life expectancy	$\leq 200\,m\Omega$
2.8	Insulation resistance		$\geq 10^{10}\,\Omega$
2.9	Capacity between 2 contacts		$\leq 2\,pF$
	Capacity between contact and ground		$\leq 2\,pF$

3.0 Mechanical Data

3.1	Detent mechanism	Mechanical
3.2	Operating torque	1,4 Ncm
3.3	Vibratory strength	10 g
3.4	Shock strength	50 g
3.5	Waterproofing	Watertight against front panel up to 0,2 bar
3.6	Cleaning*	Complete immersion in ultrasonic bath

* With the known agents as Freon, Arklone etc. Without washtight on request.

4.0 Other Data

|		
4.1	Contact material	Au
4.2	Insulating material	Polybutylentherephthalate, PBTP
4.3	Soldering time and temperature max.	5 s at 260°C

Ordering Codes

Designation of type	**BG 17**
1. Detent graduations	**16** per revolution
2. Shaft length	in mm
3. Shaft design	**A** = smooth shaft, standard
4. Contact directions	**A** = axial, **R** = radial

EBE

we create solutions

The bold-typed data in the yellow order blocks remain unchanged.
Normal-typed data match the drawings and can be modified according to your wishes.
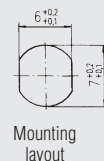Blanks need to be completed according to the ordering details on the previous page.

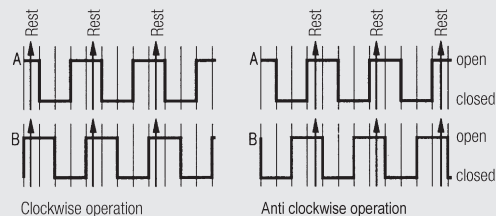**Dimensional Drawings** · Dimensions in mm
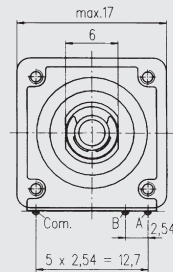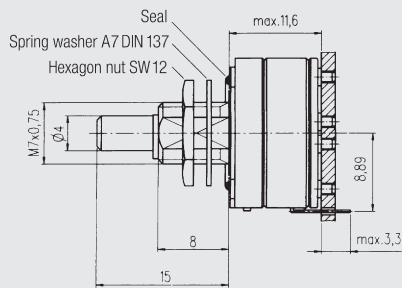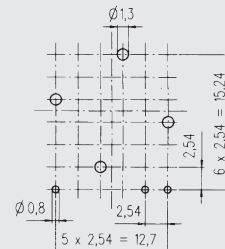
Seal
Spring washer A7 DIN 137
Hexagon nut SW 12
M7x0,75
Ø4

View without hexagon nut
spring washer and seal

Hole location
diagram

Mounting
layout

Cross section
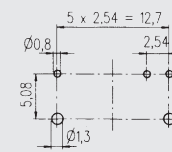of soldering pin

Rest Rest Rest

A open
closed
B open
closed

Clockwise operation   Anti clockwise operation

Impulse diagram viewed from operating side

BG 17 - 16¹ - 15² - A³ - A⁴

BG 17 · Axial
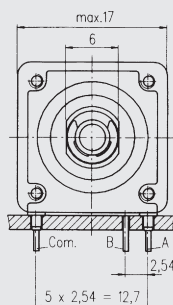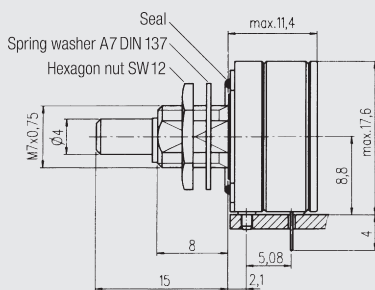
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View without hexagon nut
spring washer and seal

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diagram

Mounting
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Cross section
of soldering pin

Rest Rest Rest

A open
closed
B open
closed

Clockwise operation   Anti clockwise operation
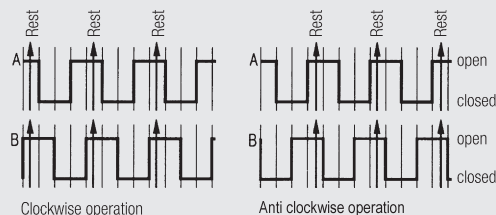
Impulse diagram viewed from operating side

BG 17 - 16¹ - 15² - A³ - R⁴

BG 17 · Radial

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