

Rotary Encoder BG20



Optical rotary pulse generator for quick and simple adjustment of digital values.

- Low-cost solution for quick adjustments.
- Suitable for miniaturized equipment due to its small dimensions.
- Digit-exact precision adjustment by precise mechanical detent. Optional without detent mechanism.
- Recognition of rotation sense by two separate outputs.
- With O-ring watertight against front panel available.

1.0 Construction

1.1 Function	Optical rotary encoder with or without detent mechanism
1.2 Detent angle	14° 24' oder 7° 12'
1.3 Detent graduation	25 or 50 detents per revolution
1.4 Indication of revolution direction*	2 independent outputs
1.5 Contacts	Flat wire 80 mm
1.6 Mounting	Central mounting

* See impulse diagram.

2.0 Electrical Data

2.1 Switching voltage max.	5 VDC $\pm 5\%$
2.2 Switching current max.	50 mA
2.3 Life expectancy without electrical load	$\geq 10^5$ detents with rest $\geq 5 \times 10^5$ detents without rest
2.4 Output signal rectangular	$\geq +4,5V$ high $\leq +0,5V$ low
2.5 Impulse per output	25 or 50 pulse per revolution

3.0 Mechanical Data

3.1 Detent mechanism	Optical
3.2 Operating torque without rest	0,5 Ncm without O-ring 2,0 Ncm with O-ring
Operating torque with rest	1,0 Ncm without O-ring 2,5 Ncm with O-ring
3.3 Waterproofing	With O-ring tight against front panel up to 0,2 bar

4.0 Other Data

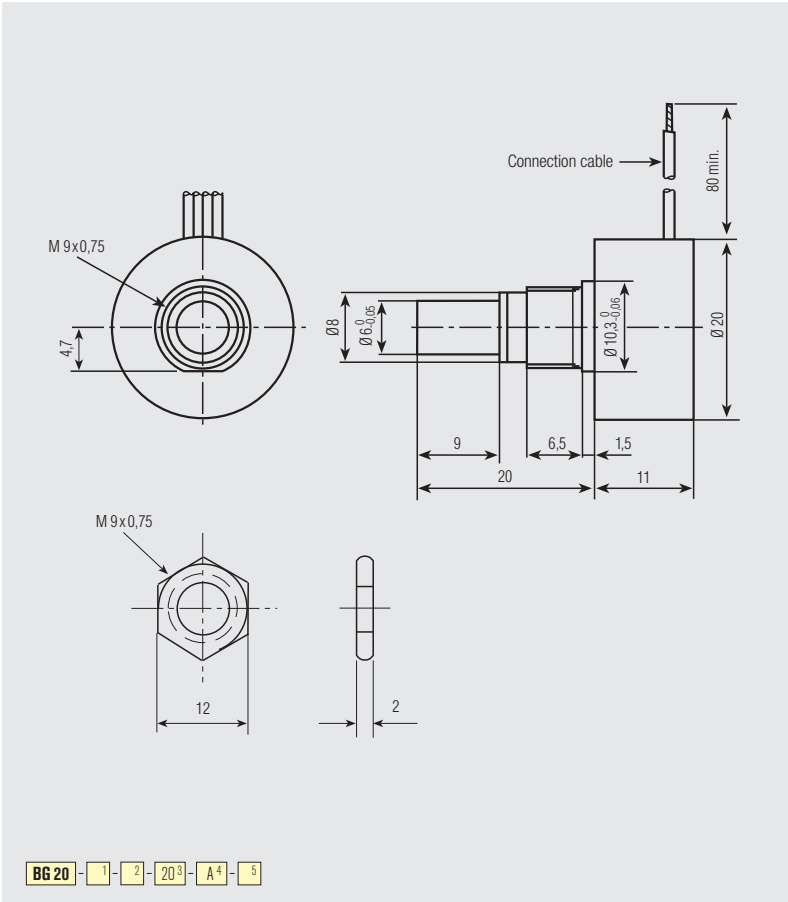
4.1 Insulating material	Polybutylenterephthalate, PBTP
4.2 Ambient temperature	0 to 50°C
4.3 Storage temperature	-20 to 80°C
4.4 Soldering time and temperature max.	10 s to 260°C

Ordering Codes

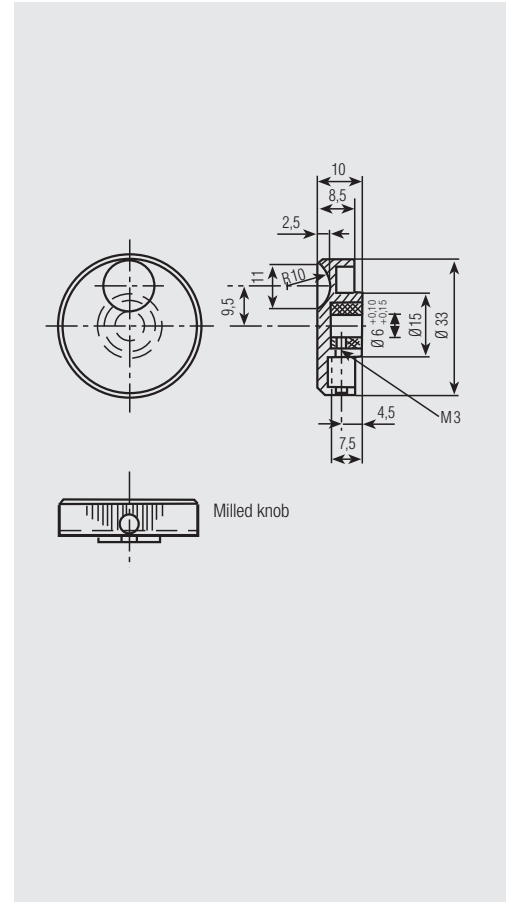
Designation of type	BG 20
1. Detent graduations	25 or 50 per revolution
2. Detent mechanism	0 = without, 1 = with
3. Shaft length	20 mm = standard
4. Shaft design	A = standard
5. Seal	0 = without O-Ring, 1 = with O-Ring

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.

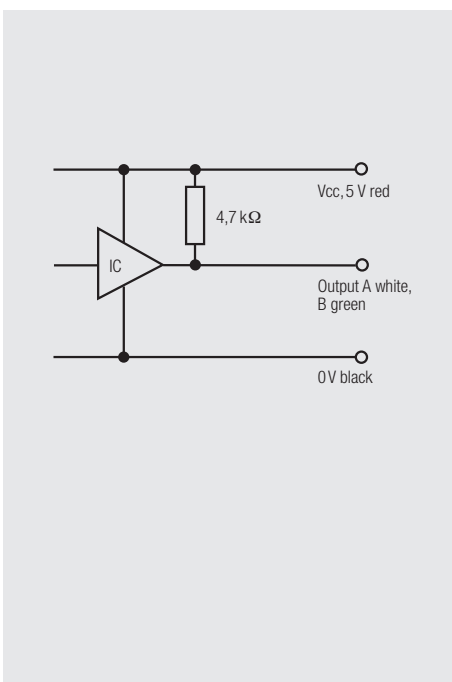
Dimensional Drawings · Dimensions in mm



BG 20 · Standard version



BG 20 · Accessories



BG 20 · Principle wiring diagram

