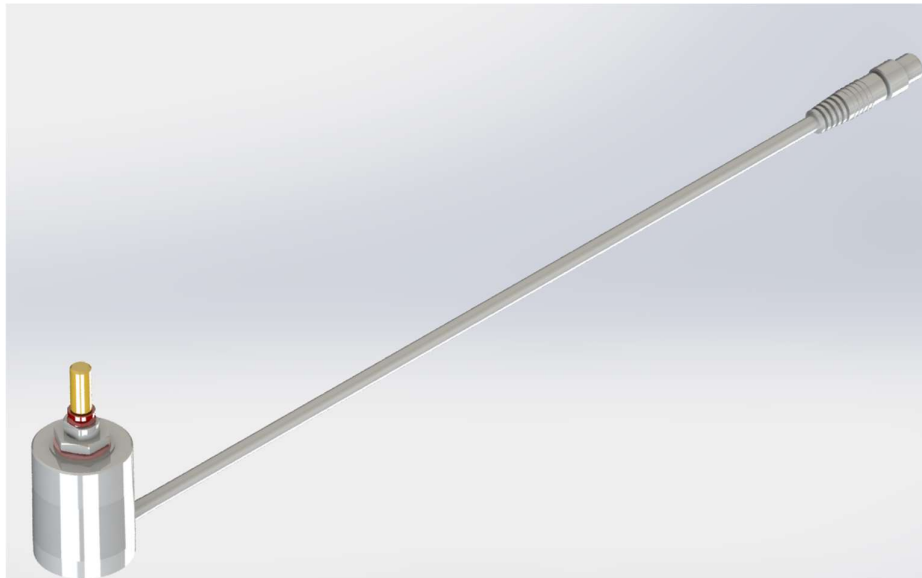


BGE27 and BGE27AG



DESCRIPTION

Magnetic rotary pulse encoder without detent and rest for applications in extreme conditions. BGE27 and BGE27AG come with a long durability due to double ball bearing shaft, IP65 protection class with a completely enclosed housing and a wear-free signal generation due to HALL effect sensors.

Available in two versions, one with quadrature signals (AB track signals) with open collector output for direct connection to SPS control units – also for small switching loads.

The second version (BGE27AG) comes with a short circuit proof 0 to 10V output signal for direct connection to SPS control units. The BGE27AG is a direct substitute for 10k multi-turn potentiometer (current consumption <10 mA).

TECHNICAL DATA

CONSTRUCTION AND MECHANICAL DATA

DETENT ANGLE	n.a.
DETENT GRADUATION	n.a.
MOUNTING	central mounting
PROTECTION CLASS	IP65
DETENT MECHANISM	magnetic
DETENT TORQUE WITH INDEX	n.a.
BEARING	double ball bearing
ACTIVATING BUTTON	n.a.
ACTUATING PATH	n.a.
FASTENING TORQUE MAX.	tbd.
MAX. LOAD ON SHAFT	axial: tbd. radial: tbd.
LIFE EXPECTANCY	> 30 x 10 ⁶ turns
REVOLUTION SPEED MAX.	1.000 rpm
SHAFT LENGHT	customizable
SHAFT DESIGN	customizable
PUSHBUTTON / SWITCHING FUNCTION	n.a.
DETENT ANGLE	n.a.

ELECTRICAL DATA

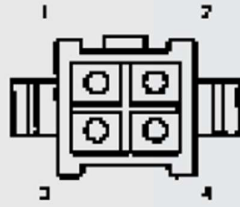
OPERATION VOLTAGE BGE27	5 VDC ± 10%
OPERATION VOLTAGE BGE27AG	10 VDC ±0.1V (no inverse polarity protection)
CURRENT CONSUMPTION	< 20 mA
INDICATOR OF REVOLUTION DIRECTION	BGE27: A/B signal BGE27AG: CW 10 V -> 0 V (view on shaft)
OUTPUT SIGNAL BGE27	open collector max. 30 V, short-circuit proof low < 0,5 V with max. 5 mA per output
OUTPUT SIGNAL BGE27AG	0.2 to 9.8 V @ 100 kΩ (short circuit proof); 10 revolutions with 1V per revolution and 2.8° angle resolution last value is restored after a power failure lower limit < 0,3V upper limit > 9,7V linearity ±0.02V
IMPULSES PER OUTPUT BGE27	32
CONNECTOR	BGE27: AMP Mini Mate-N-Lok 4-pol. BGE27AG: M8x1, 3-pol.

ELECTRICAL DATA


OPERATING TEMPERATURE	-20°C to +70°C
STORAGE TEMPERATURE	-40°C to +125°C

DRAWINGS / OTHER INFORMATION

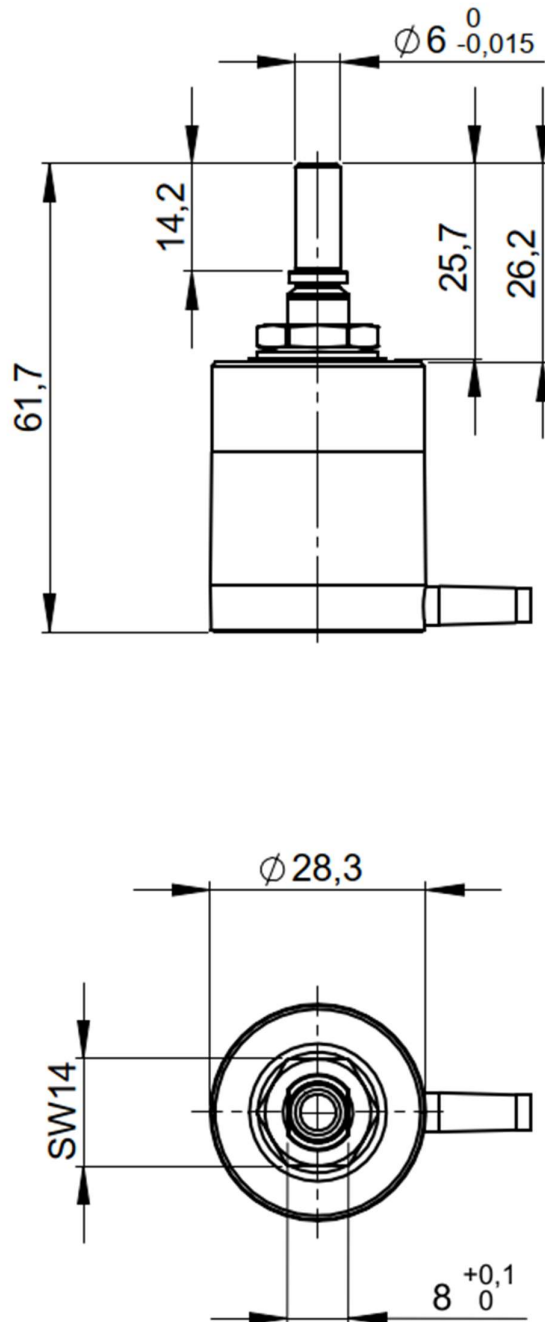
PINOUT – BGE27 WITH A/B LINE SIGNAL

Connection cable PUR 4x0,25 mm ²			
Function	color of conductor	Contact	Plug connection
+5V	BN	1	
0V	BU	2	
A	BK	3	
B	WH	4	

PINOUT – VERSION BGE27AG ABSOLUTE ENCODER

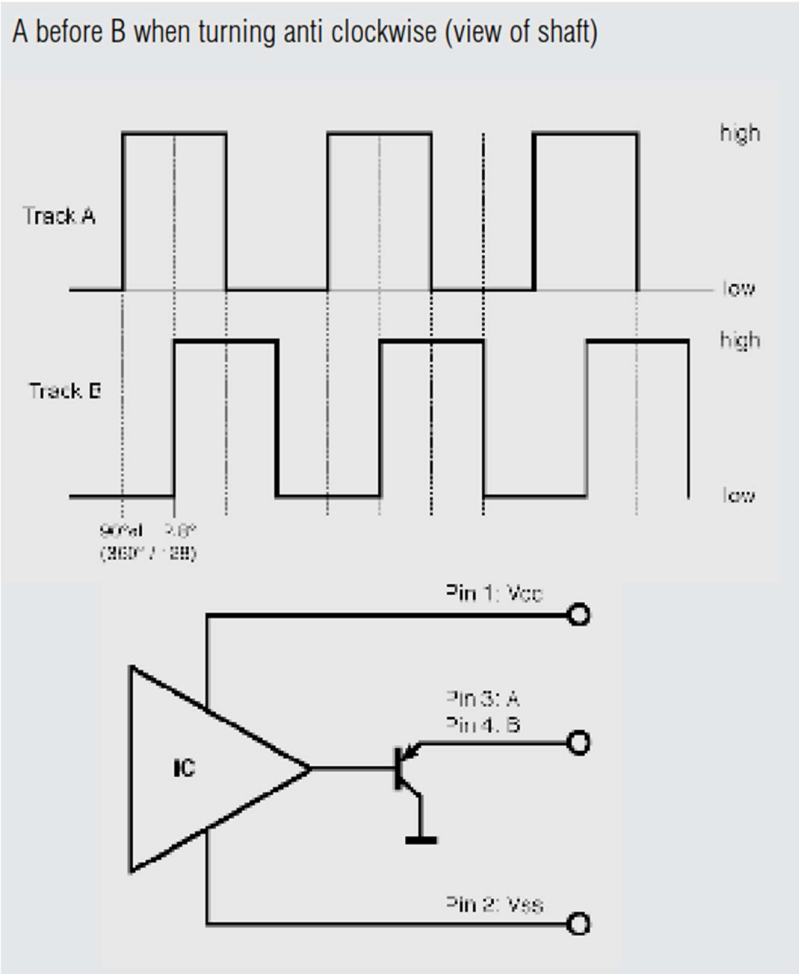
Function	Contact Nr.	plug connector view A
Earth	1	
10V	3	
Signal	4	

SAMPLE DRAWING BGE27 and BGE27AG

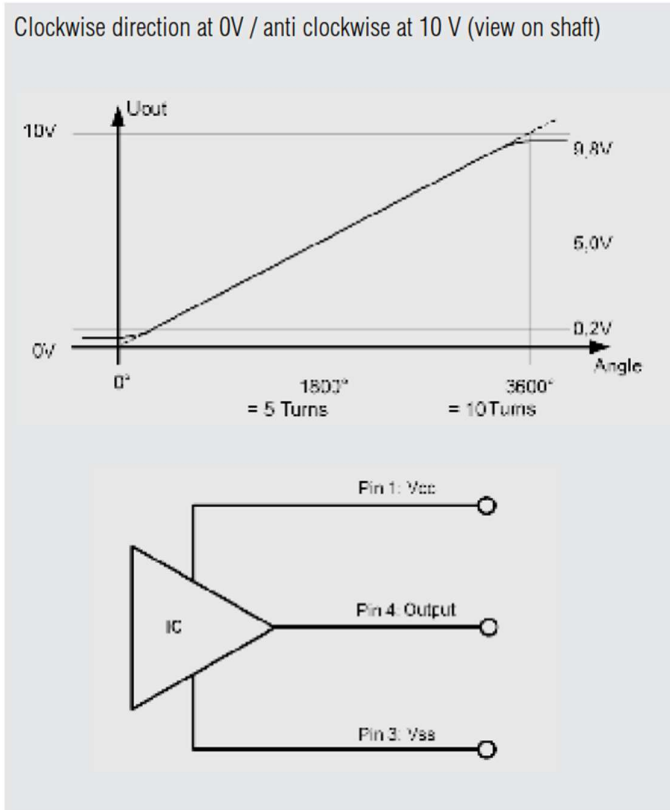


units in mm

VERSION BGE27 WITH A/B LINE SIGNAL



VERSION BGE27AG ABSOLUTE ENCODER



DISCLAIMER

The information contained in this document is for general guidance only. The user is responsible for determining the suitability of the technical information referred to herein for his application. On delivery of the component, EBE is only obliged to implement those properties set out and agreed upon in this technical data sheet. Further properties are not included. No guarantee is given. The component has been designed for installation in our customer's products. Manufacturer of the resulting product and consequent liability according to the Product Liability Act lies with the customer."

REVISION

REVISION	DATE	DESCRIPTION
0.9	06.12.2022	DRAFT Initial Data Sheet BGE27 and BGE27AG