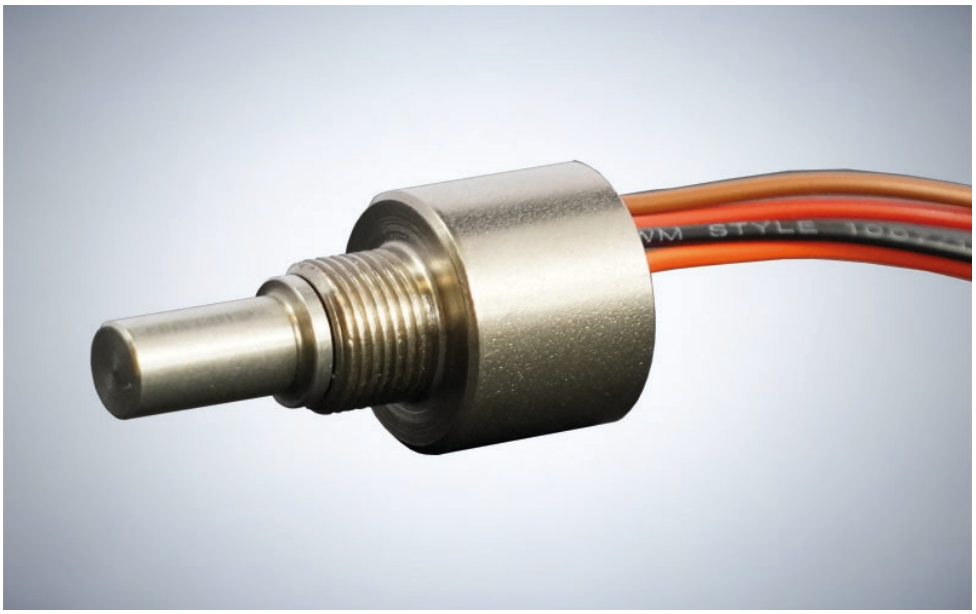
BGE16 A/B SIGNAL ENCODER WITHOUT PUSHBUTTON



DESCRIPTION

Electronic rotary pulse generator in a very compact design for quick and easy adjustment of digital values. Also suitable for motion and angle tracking up to 33.000 rpm. Recognition of rotation sense via quadrature signals (AB-track signals).

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TECHNICAL DATA

CONSTRUCTION AND MECHANICAL DATA

ANGLE RESOLUTION	max. 10 bit
DETENT GRADUATION	none
MOUNTING	central mounting M10x0,75
PROTECTION CLASS	IP54 or IP65
DETENT MECHANISM	none
DETENT TORQUE WITH INDEX	n.a.
BEARING	friction
SWITCHING BUTTON ACTUATION FORCE	n.a.
SWITCHING PATH	n.a.
FASTENING TORQUE MAX.	approx. 3 Nm
MAX. LOAD ON SHAFT	axial: 10 N radial: 4 N
LIFE EXPECTANCY	> $2x10^6$ 180° left-right cycles
SHAFT LENGTH	customizable
REVOLUTION SPEED MAX.	max. 33.000 rpm
SHAFT DESIGN	customizable
PUSHBUTTON / SWITCHING FUNCTION	n.a.
REACH AND ROHS	conform

ELECTRICAL DATA

OPERATION VOLTAGE	5 VDC ± 10 % or 3,3 VDC ± 10 %
CURRENT CONSUMPTION	< 25 mA
OUTPUT SIGNAL	AB track signals TTL: high > Vcc -0,5 V, low < Vss +0,5 V capacity max. 4 mA per output
INDICATOR OF REVOLUTION DIRECTION	AB track signals
RESOLUTION	standards: 64, 128 and 256 lines AB others on request
CONNECTOR	standard: 4 open wires connector is customizable

ENVIRONMENTAL CONDITIONS

OPERATING TEMPERATURE	-40°C to +85°C
STORAGE TEMPERATURE	-40°C to +125°C

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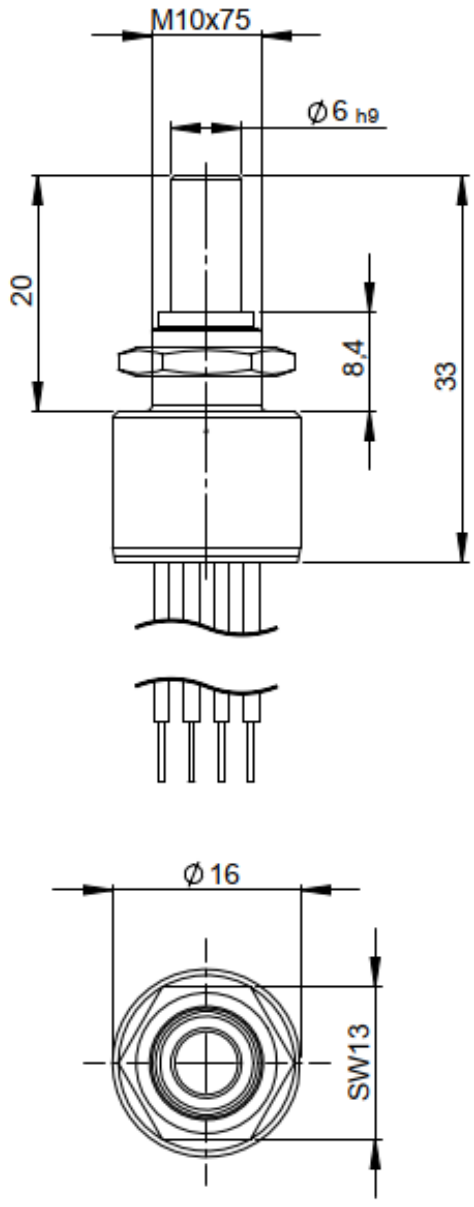
PINOUT AND DRAWING

CABLE COLOUR	SIGNAL
YELLOW	Track A
GREEN	Track B
WHITE	Vcc
BROWN	Vss



Units in mm

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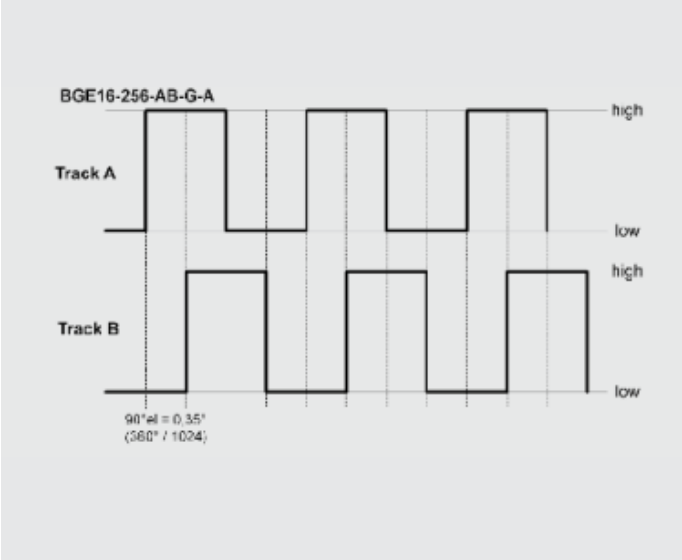
OUTPUT SIGNAL



BGE 16 · AB Track signal

SAFETY AND WARNING NOTES

The components are solely for use by technically qualified, professional electronics experts who are familiar to the dangers and application risks associated with handling electrical mechanical components, systems and subsystems. User assumes all responsibility and liability for proper and safe handling and use and agrees with the restrictions and disclaimer at the end of this document.

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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 herein for his application. On delivery of the component, EBE is only obliged to implement those properties set out and agreed upon in this document. 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. Warranty is limited to below mentioned extent.

The component is not intended for installation in end products for medical, life-saving, or safety-related applications. The use of the component is also not permitted and expressly prohibited in vehicles of any kind (including trailers and watercraft), as a component in aerospace products (including radio transmitter for aerospace purposes), or in offshore structures.

User assumes all responsibility and liability to determine whether the component is subject to any applicable international, federal, state, or local laws and regulations related to user's handling and use of the component and, if applicable, user assumes all responsibility and liability for compliance in all respects with such laws and regulations.

Disclaimer for improper use

The manufacturer accepts no liability for damage resulting from improper, inappropriate, or non-compliant use of the component. Any liability for direct or indirect damage, consequential damage or loss resulting from improper use is excluded. The Customer (user) is obliged to use the component exclusively in accordance with the instructions and information given in this document.

The limitation of liability described above does not apply in the case of mandatory statutory liability such as under the German Product Liability Act (Produkthaftungsgesetz) or in the case that a guarantee is given or in the case of willful deceit or fraudulent misrepresentation or with regard to claims for an injury of the life or limb or health or in the case of intentional or grossly negligent breach of fundamental contractual duties (“wesentliche Vertragspflichten”).

REVISION

REVISION	DATE	DESCRIPTION
1.1	28.04.2026	Update legal notices
1.0	25.04.2023	Initial Data Sheet BGE16-64-AB-G-A