SENSOR SHOP BD

Techsense Bangladesh Ltd

Rotary Encoder, Code- BRGE1-WAE256-00-P-R-S

Rotary encoders are electromechanical devices used for sensing in myriad applications--on motors paired with drives and automated machinery for everything from consumer electronics, elevators, and conveyor speed monitoring to position control on automated industrial machines and robotics. They track the turning of motor shafts to generate digital position and motion information. Whether incremental or absolute, magnetic or optical, rotary encoders track motor shaft rotation to generate digital position and motion information. Their use proliferates in industrial and commercial designs.

General Attributes

- Outputs : 8, short circuit protected
- Resolution max. : 256
- Accuracy : ±½ bit (at 24 V DC)
- Repeatability : ±45° el.
- Switching frequency : ≤ 25 kHz (LSB)
- Supply voltage Vs : 15 ... 30 V DC
- Ripple : ≤ 10%
- Output voltage Vo : ≥ VS - 3.3 V (without load)
- No-load current : IR typ. 20 mA (at VS = 24 V DC)
- Output current : Io < 50 mA (at VS = 24 V DC)
- Load capacitance : C 50 nF (incl. cable capacity)
- Housing material : aluminium
- Mounting method : clamps
- Operating temperature : 0° to 60 °C
- Storage temperature : -20° to +80 °C
- Enclosure : IP 67 IEC 529
- RPM max. : 6000/min
- Shaft loading : FAX ≤ 10 N; FRAD ≤ 25 N
- Vibration : 10 g, 10...150 Hz (IEC 68: 2-6)
- Shock : 50 g/11ms (IEC 68: Part 2-27)

Wiring diagram:

Application Notes

Series BRG encoders are used for electri -cal detection of mechanical positions e.g. tool revolvers, drill heads etc

To track motor shaft movement for myriad pieces of industrial equipment and com -mercial devices.

To ensure synchronization of the motor stator and rotor positions to drive-supplied current, so current is applied to the wind ings when the rotor magnets are within a proper position range (to maximize torque).

For further information please visit : https://goo.gl/xzBYCD

CE c UL us LISTED IND. CONT. EQ. 81U2 for use in the secondary of a class 2 source of supply

c UL us LISTED IND. CONT. EQ 81U2 for use in the secondary of a class 2 source of supply Environmental - Type 1 Enclosure

EAC

We are the authorized distributor of MP-Elektronik in Bangladesh.

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EN 61 326-2-3 (Emission and Noise Immunity)
Emission Tests:

RF Emission**:** EN 55011:1997+A1

Immunity Tests:

Static Electricity (ESD): EN 61 000-4-2, Severity Level 3

Elektromagnetic Fields (RFI):

EN 61 000-4-3, Severity Level 3

Fast Transients (BURST):

Line-fed disturbances by high-frequency field

EN 61 000-4-4, Severity Level 4 EN 61 000-4-6, Severity Level 3

Installation and Operation:

Installation and Operation should be carried out by trained personnel only. Unauthorized handling and use will lead to loss of warranty and liability claims. When mounting and wiring, carefully read the corresponding sections of this guide.

Use and Checking:
Follow all relevant safety procedures when using this product. Take all steps necessary to ensure that failure of this product will not cause danger to persons or equipment (e.g. limit switches, safety devices). Regularly check the functionality of the encoder and all associated components.

Fault Conditions:
When It is suspected that the encoder is faulty, take it out of service and take measures to ensure that It is not used.

Please note the following: -

Never use force (e.g. hammer or blows) to install or align the encoder. - Do not exceed the bad tolerances given for the encoder shaft (see technical data). - Never step on the encoder, cord seal, or connector.

Using the coupling: -

-Attach the encoder to the drive rigidly at one point only, either flange to flange or shaft to shaft. Use the couplings.

- Be sure that the encoder shaft and the drive are on the same axis. Check the datasheet for the coupling to find the permissible axial or radial offset and the maximum angle error of the two shafts.

- Be sure not to damage or bend the coupling excessively while installing and aligning it.
- Tighten all mounting screws very carefully.

Note the following:
- Connect all cable according to the table at lower right.
- Isolate all unused grounds (to avoid short circuit).
- Make sure that self-wired connectors are sealed properly. Oil or water entering along the cable can enter the electronics
area and destroy the unit.
- The IP 67 rating can be assured only if your connections, especially in the case of short cables, meet the IP 67 specification also.

- Do not route the BRG encoder cable parallel to AC lines, in order to avoid noise coupling.
- Use shielded cable only, in order to avoid noise coupling.
- Ground the shield on the control side only.
- Plug or unplug the encoder connector only after power has been turned off.

-Turn power on and off to the encoder and the input device at the same time only.

Output Driver:
Overloaded all outputs will shut off together and then back on automatically after the fault has been removed he outputs will be switched on again
automatically.
Pin Configuration

Track	Pin	Cable	
+VS	A	BN	brown
0V	B	BU	blue
1	C	BK	black
2	D	WH	white
3	E	YE	yellow
4	F	GN	green
5	G	VI	violet

Track	Pin	Cable	
6	H	PK	pink
7	J	GY/RD	grey/red
8/not con.	K	RD	red
not con.	L	GY/PK	grey/red
not con.	M	RD/BU	red/blue
Shield	-		transparent