

CONTACTLESS ENCODER CANopen



QR24 with CANopen Interface

TURCK has expanded its QR24-encoder series by a version with CANopen interface. The new wear-free QR24 CANopen version is optimally equipped for use in mobile machines and industrial applications. The areas of application include cranes and lifting equipment, transport equipment, construction equipment, wind power, but also special machinery.

Bus input and output of the QR24 are each separately connected via a standard M12 connector. An additional T-piece for a possible bus wiring is thus not required. Another highlight is the bus terminating resistor that can be activated via a CAN Object, making conventional, separately used bus terminations redundant.

As with all QR24 models, sensor and positioning element are completely potted and constructed as two independent, completely tight units. Susceptible to wear ball bearings or seals that may cause machine downtime or long service time, are eliminated.

The permanently tight IP69K encoder can be mounted with adapter rings on all common shaft diameters thanks to its elaborate mounting concept.

Your Benefits

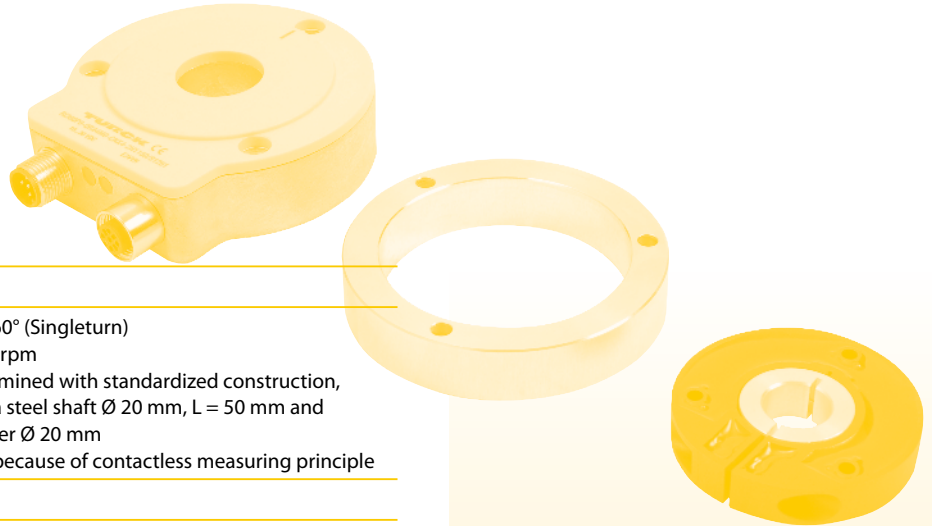
- Wear-free through contactless measuring principle
- Permanently sealed, since fully potted
- One encoder for various shaft diameters
- Easy installation without T-piece
- Bus termination can be parametrized

Sense it! Connect it! Bus it! Solve it!



Product Highlights

- CANopen according to CiA DS-301, CiA 305, CiA406
- 2 x standard M12 x 1 for bus in/out
- EDS file available for download



Measuring Range Specifications

Measuring range	0...360° (Singleturn)
Max. rotation speed	2,000 rpm
	Determined with standardized construction, with a steel shaft Ø 20 mm, L = 50 mm and reducer Ø 20 mm
Starting torque, Shaft load	n. a., because of contactless measuring principle

System

Resolution singleturn mode	16 bit
Repeatability	0.01 %
Linearity deviation	≤ 0.05 % full scale
Temperature drift	≤ ± 0.003 %/K
Ambient temperature	-25...+85 °C
Nominal distance	1.5 mm

Electrical Data

Operating Voltage	15...30 VDC
Ripple	≤ 10 % U _{ss}
Rated insulation voltage	≤ 0.5 kV
Reverse polarity protection	yes (power supply)
Interface	CANopen, profile DS406 V.3.2, LSS DS 305
Node ID	1...127; Factory settings: 3
Baud rate	10/20/50/125/250/500/1000 kbps, Factory settings 125 kbps
Sampling rate	800 Hz
Current consumption	60 mA

Housing

Dimensions	81 x 78 x 24 mm
Housing material	Metal/Plastic, ZnAlCu1/PBT-GF30-V0
Connection	Male connector, 2 x standard M12 x 1 for bus in/out
Vibration resistance	55 Hz (1 mm)
Vibration resistance (EN 60068-2-6)	20 g, 10...3000 Hz, 50 cycles, 3 axis
Shock resistance (EN 60068-2-27)	100 g, 11 ms ½ sine; 3 x 3 axis
Continuous shock resistance (EN 60068-2-29)	40 g, 6 ms ½ sine, each 4000 x, 3 axis
Protection Class	IP68/IP69K,
MTTF	138 years acc. to SN 29500 (Ed. 99) 40 °C

LED Indications

Power-on	LED green
CANopen status	LED green/red
Measuring range	LED, yellow, yellow flashing



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