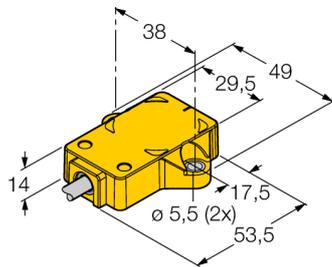
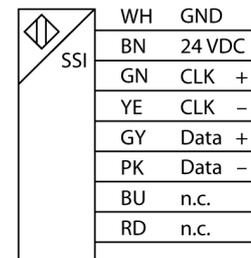


Inductive angle sensor
Ri360P1-QR14-ESG25X2



- Rectangular, plastic
- Many mounting possibilities
- Positioning element P1-Ri-QR14 included in delivery
- Measuring range indication via LED
- Immune to electromagnetic interferences
- 16 bit resolution
- 15...30 VDC
- Cable connection, 8-pole
- SSI output
- 25 bit, gray coded
- 62.5 kHz ... 1 MHz

Wiring diagram



Functional principle

The measuring principle of rotary position sensors is based on oscillation circuit coupling between the transducer and the sensor, whereby an output signal is provided proportional to the angle of the positioning element. Owing to the non-contact principle, the robust sensors are maintenance and wear-free and they excel in terms of optimum repeatability, resolution and linearity within a broad temperature range. Thanks to the innovative technology, electromagnetic interferences have no influence on the measured signal.

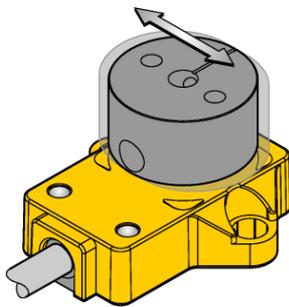
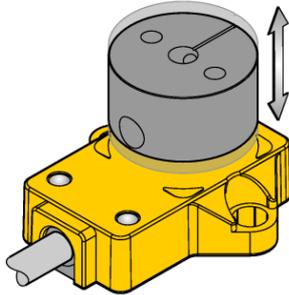
Type	Ri360P1-QR14-ESG25X2
Ident-No.	1590809
Measuring range	0...360°
Repeatability	≤ 0.025 % of measuring range IA - BI
Linearity deviation	≤ 0.3 % of full scale
Temperature drift	≤ ± 0.0001 % / K
Ambient temperature	-25...+70 °C
Operating voltage	15...30VDC
Residual ripple	≤ 10 % U _s
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage / Reverse polarity protection	yes/ yes (voltage supply)
Output function	8-wire, SSI, 25 Bit, Gray coded
Process data area	Bit 1 ... Bit 16
Diagnostic bits	Bit 22: Positioning element is in the measuring range, lower signal quality (e.g. distance too large) Bit 23: Positioning element is outside the measuring range
Sample rate	700 Hz
Current consumption	< 100 mA
Design	rectangular, QR14
Dimensions	53.5 x 49 x 14 mm
Housing material	Plastic, PBT-GF30-V0
Connection	cable
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	138years acc. to SN 29500 (Ed. 99) 40 °C
Operating voltage	LED green
Measuring range display	Multifunction LED, green
Included in scope of supply	Positioning element P1-Ri-QR14

Inductive angle sensor Ri360P1-QR14-ESG25X2

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Mounting instructions



A large selection of accessories provide multiple mounting possibilities. Due to the measuring principle based on oscillating circuit coupling, the linear position sensor is immune to magnetized metal splinters and other interferences.

Measuring range displayed via LED:

green:

Positioning element is in the measuring range

yellow:

Positioning element is in the measuring range, lower signal quality (e.g. distance too large), see status bit 22

yellow flashing:

Positioning element is outside the measuring range, see status bit 23

off:

Positioning element is outside the programmed measuring range (only with teachable versions)

Inductive angle sensor
Ri360P1-QR14-ESG25X2

Accessories

Type code	Ident-No.	Short text	Dimension drawing
P1-Ri-QR14	1590812	Positioning element for inductive angle sensors	
P2-Ri-QR14	1590819	Positioning element for inductive angle sensors	
HSA-M6-QR14	6901051	Adapter for Ri-QR14 specific positioning elements, hollow on solid shaft, Ø 6 mm	
HSA-M8-QR14	6901052	Adapter for Ri-QR14 specific positioning elements, hollow on solid shaft, Ø 8 mm	
DS-Ri-QR14	1590814	Distanzhülsen zur rückwärtigen Montage von Ri-QR14, 2 Stück pro Verpackung	