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# TURCK

## Ri360-QR20

# Miniature Encoder with 4...20 mA



## Contactless measuring principle

Turck is expanding its encoder portfolio by adding the robust Ri360-QR20 product series with 4...20 mA output signal. Like its "big brother" QR24, this encoder with IP68/IP69K protection is based on the contactless resonator measuring principle and is therefore absolutely wear-free, even in environments with extremely fine dust. The devices are ideally suited for recording the actual position values of dancer rollers, for example on printing, packaging, textile or wire-winding machines.

The highlight is the compact housing, measuring just 71 x 64 x 20 mm, that completely surrounds the positioning element and fully seals it off from the outside. Alternatively, the position element can also be positioned above the housing. This design principle promises a high degree of flexi-

bility in terms of mounting. Selecting the covered mounting option not only protects against the ingress of dust or moisture, but also provides mechanical protection for the shaft. The housing is also permanently sealed. There are no areas where the seal could potentially fail, such as LED lenses, because the QR20 is made of a translucent plastic that keeps the integrated status LEDs visible at all times.

The Ri-QR20 offers a resolution of 0.09° and outputs the respective angle positions using a 4...20 mA analog output. If the positioning element cannot be detected, the output signal passes to an error level of 22 mA. Damage can thus be reported directly to the control system for easy and quick diagnostics.

## Your benefits

- Maintenance-free
- No protective or auxiliary constructions required
- Simple diagnostics
- High mounting flexibility

# Ri360-QR20 – Miniature Encoder with 4...20 mA

Analog output 4...20 mA

| Dimensions | Type designation for 6 mm shaft | Type designation for 1/4" shaft | Measuring range |
|------------|---------------------------------|---------------------------------|-----------------|
|            | RI360P1-QR20-LI2X2              | RI360P2-QR20-LI2X2              | 0...360°        |
|            | RI20P1-QR20-LI2X2               | RI20P2-QR20-LI2X2               | -10...10°       |
|            | RI40P1-QR20-LI2X2               | RI40P2-QR20-LI2X2               | -20...20°       |
|            | RI60P1-QR20-LI2X2               | RI60P2-QR20-LI2X2               | -30...30°       |
|            | RI90P1-QR20-LI2X2               | RI90P2-QR20-LI2X2               | -45...45°       |
|            | RI120P1-QR20-LI2X2              | RI120P2-QR20-LI2X2              | -60...60°       |
|            | RI240P1-QR20-LI2X2              | RI240P2-QR20-LI2X2              | -120...120°     |
|            | RI360P1-QR20-LI2X2-H1141        | RI360P2-QR20-LI2X2-H1141        | 0...360°        |
|            | RI20P1-QR20-LI2X2-H1141         | RI20P2-QR20-LI2X2-H1141         | -10...10°       |
|            | RI40P1-QR20-LI2X2-H1141         | RI40P2-QR20-LI2X2-H1141         | -20...20°       |
|            | RI60P1-QR20-LI2X2-H1141         | RI60P2-QR20-LI2X2-H1141         | -30...30°       |
|            | RI90P1-QR20-LI2X2-H1141         | RI90P2-QR20-LI2X2-H1141         | -45...45°       |
|            | RI120P1-QR20-LI2X2-H1141        | RI120P2-QR20-LI2X2-H1141        | -60...60°       |
|            | RI240P1-QR20-LI2X2-H1141        | RI240P2-QR20-LI2X2-H1141        | -120...120°     |

Positioning element included in scope of delivery

## Accessories

| Dimensions | Type designation   |
|------------|--|
|            | Positioning element P1-Ri-QR20, operating at a distance of 0-5 mm to the sensor surface. Nominal distance is 1 mm. |
|            | Positioning element P2-Ri-QR20, operating at a distance of 0-5 mm to the sensor surface. Nominal distance is 1 mm. |
|            | 4-wire connecting cable with M12 x 1 connector, RKS 4.4T-2/TXL   |
|            | M12 connector cordset for the US, RK 4.4T-*/S618   |