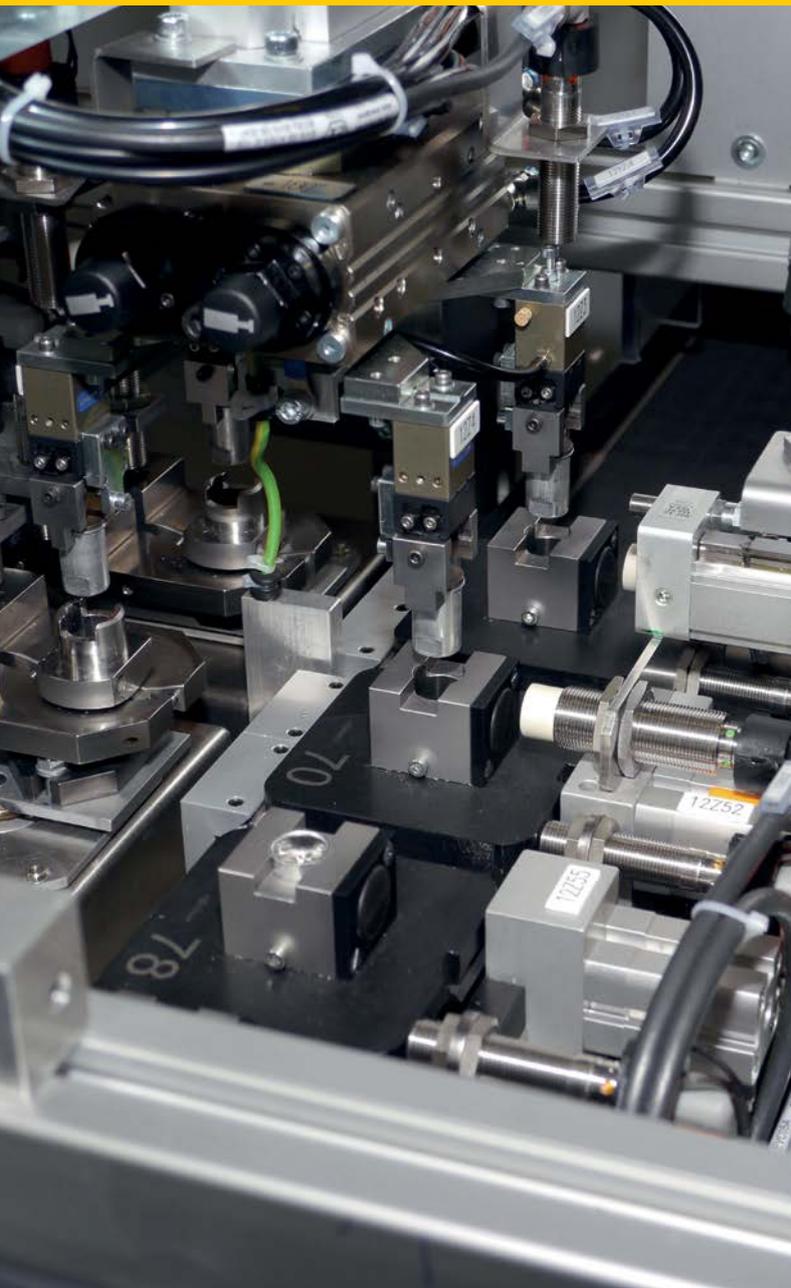


Your Global Automation Partner

# TURCK

## Encoders Measuring Rotary Motion or Angular Change



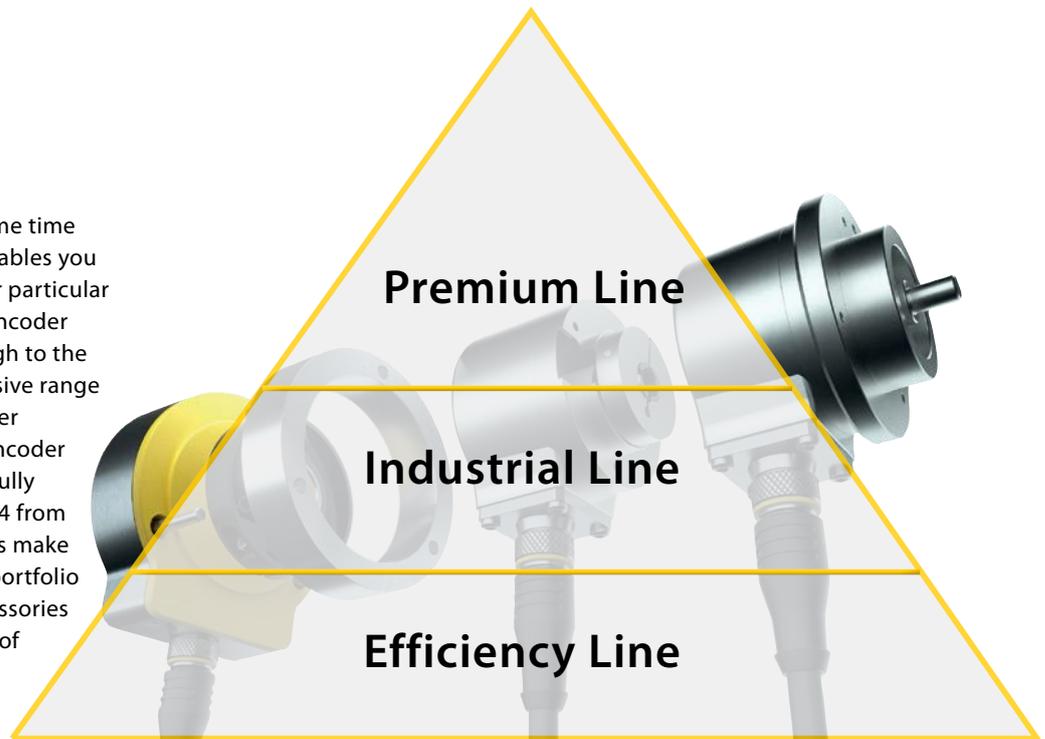
# Encoders – Measuring Rotary Motion or Angular Change

Encoders are an indispensable part of industrial automation. They detect and monitor positions, rotation angles or speeds. Every application requires a special product that meets the requirements of the

relevant measurement task and environment. Turck's encoder portfolio therefore offers solutions for a wide range of markets and applications.

Easy, flexible and clear

An extensive, clear and at the same time flexible product line structure enables you to meet the requirements of your particular application. From the standard encoder of our Industrial Line right through to the Premium model, the comprehensive range meets every requirement. Whether a standard 58 mm incremental encoder with a solid shaft is needed or a fully wear-free model such as the QR24 from the Premium Line, you will always make the right choice with Turck. The portfolio includes a large selection of accessories that make the onsite installation of the encoder child's play.



## Efficiency Line

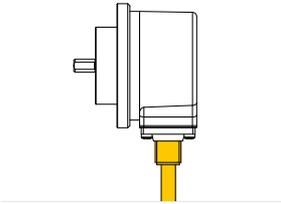
With protection to IP64 and a temperature range down to  $-20^{\circ}\text{C}$ , the incremental and absolute multi-turn encoders of the Efficiency Line are ideal for many standard applications. The high stock availability of the most popular variants rounds off the benefits of this line.



## Industrial Line

Encoders of the Industrial Line come with a robust design and are available in many variants. Compliance with the most demanding standards enable protection types up to IP69K, while the double bearing technology also allows for larger shaft loads. Incremental as well as single and multiturn output types are covered.

### Output type



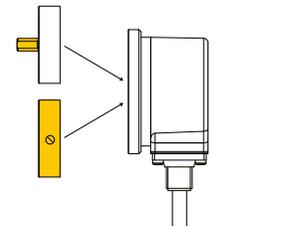
#### Incremental

Incremental encoders provide information about the change of an angle. The data of incremental encoders can only be read during a change in the rotation angle.

**Singleturn** encoders output an absolute value in relation to one rotation.

**Multiturn** encoders make it possible to output an absolute value over several rotations. Semi-multiturn encoders likewise measure the number of rotations but only when switched on.

### Shaft type



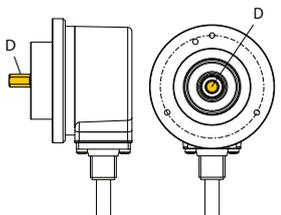
#### Hollow shaft

With hollow shaft encoders, the subcircuit of the encoder is connected directly to the shaft to be measured. The scan unit is run over ball bearings on the shaft and supported by the so-called stator coupling.

#### Solid shaft

Encoders designed for a separate shaft coupling are provided with a solid shaft. The shaft coupling recommended for connecting the measured shaft balances out radial and axial tolerances.

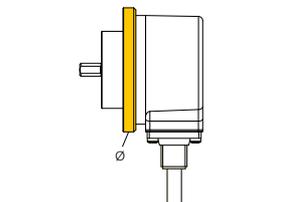
### Shaft diameter



#### Optimum fit accuracy

Different shaft diameters are available in order to ensure the optimum connection of the encoder to the application.

### Construction size



#### The right diameter

By construction size is meant the typical outer diameter of an encoder, e.g. 58 mm.



#### Premium Line

Thanks to the fully contactless measurement, combined with a permanently sealed housing, the QR20 and QR24 inductive encoders are ideal for particularly demanding applications. The wear-free devices of the Premium Line operate reliably both in outdoor environments and also in harsh environmental conditions.



#### Accessories

A comprehensive range of mounting accessories is available for all three product lines. This includes bellows coupling for the play-free and angle synchronous transfer of the shaft movement, as well as flange adapters for mounting support with special subcircuit diameters.

# The Quick Route to Your Encoder

The product filters provided at [www.turck.de/en](http://www.turck.de/en) enable you to easily find the right encoder for your task. The choice of output type sets the first filter, followed by shaft type and diameter until you finally select the right construction size for your application.



You will find the product filter at [www.turck.de/en](http://www.turck.de/en)



For further information visit [www.turck.com/encoder](http://www.turck.com/encoder)

Over 30 subsidiaries and  
60 representatives worldwide!

