





Features: TK50 - robust incremental optical encoder suitable for different industrial applications, especially indicated for harsh environments. Thanks to its robust construction and high protection degree this model allows to operate in harsh environments where challenging ambient conditions such as dust, liquids, temperatures, shocks and vibrations are available, ensuring high reliability and long service life. - robust design for applications in harsh environments; - high reliability and long service life; - resolution up to 20.000 ppr; others on demand; - high protection degree up to IP66; - cable and connector outputs **Body diameter (mm)**63.5 **Flange** square flange, servo standard, servo-clip, FRE (REO444) **Diameter shaft (mm)** 6, 8, 9.52, 10, 11, 11R **Resolution (PPR)** up to 20.000 ppr, others on demand **Output frequency** up to 300 kHz **Protection class** (EN60529) K4, K5, K6 **Interface** LD, LD2, PP2, NPN, PNP

## ALTERNATIVE ENERGY

A high reliability and accuracy of reading is also required in the field of renewable energy (photovoltaic, wind) particularly in the development of photovoltaic fields where the solutions developed by **ITALSENSOR** provide programmable absolute encoders with protection degree IP67, manufactured with materials treated to resist on an ongoing exposure of the elements (rain, sun, UV radiation), currently thousands of devices are employed for the control of solar tracking systems (biaxial and uniaxial tracker) allowing an accurate orientation of the photovoltaic modules based on the position of the Sun maximizing in this way the final yield and the reliability of the entire photovoltaic plant.

### MACHINE TOOLS / ELECTRICAL MOTORS / METAL PROCESSING

Incremental and absolute encoders find application on automatic or semiautomatic tools machines providing indications about the rotation speed of the spindles or axes feed processing and the absolute value of the position allowing the repeatability over time and the respect of the units of processing. (used on machines for molding and in particular on hydraulic, pneumatic and electric presses)

#### MEDICAL

**MRI mobile bed scanner (magnetic resonance)** It is possible to customize the size of the encoder to adapt it for each application, from the smallest size commonly used in automation industry

#### MILITARY

Italsensor has fundamental components in some of the most advanced defense systems.

#### PACKAGING INDUSTRY

An important factor for systems that must run on a continuous 7 days a week 24 hours a day every day of the year. Currently Italsensor encoders have lifetimes of over 10 years, contributing to reduce the time associated with downtime.

#### **FOOD INDUSTRY**

Italsensor is able to produce transducers in accordance with current regulations and in particular can customize in a relatively short time very specific solutions for the final customer.

#### WOODWORKING

The models of encoders used may be of the incremental type for controlling the drive speed of the laminae or the absolute type for the realization of cuts and machining on the rough wooden planks, encoders can be equipped with wheels and different materials

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