

ACCURATE BY DESIGN

**SENSOR TECHNOLOGY FOR
SOLAR TRACKING APPLICATIONS**



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Pepperl+Fuchs is a leading developer and manufacturer of electronic sensors and components for the global automation market. We continuously set new standards in quality and innovative technology.

Using precise positioning technology, our sensors are the key to reliability and efficiency in solar power generation systems.

Pepperl+Fuchs sensors provide the signals to continually move photovoltaic arrays or mirrors to follow the sun, thus, maximizing the efficiency of solar power generation. Choose from our standard product range or a customized solution developed to your specific needs.

Want more information?
Simply go to:
www.pepperl-fuchs.us/renewable-energy

ROTATION

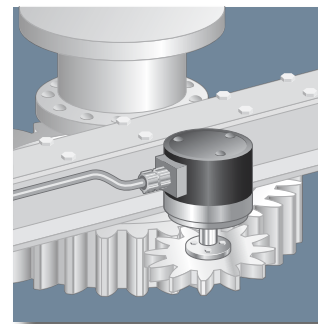
MNI40 MAGNETIC INCREMENTAL ENCODER

- Complete encapsulation against harsh environmental conditions
- Operating temperature -40 °C ... 100 °C
- Self-diagnostic and assistance function facilitates adjustment
- Ultra rugged – up to 200 g shock resistance, 40 g vibration resistance
- Up to 3600 pulses per revolution



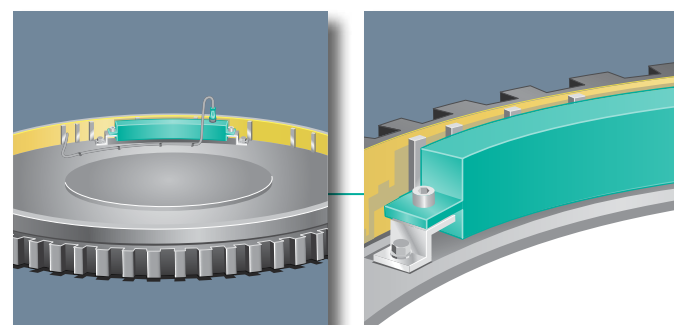
ABSOLUTE ROTARY ENCODERS

- Absolute position with high precision up to 30 bit resolution
- Absolute position maintained even through loss of power
- Single turn and multturn versions available
- Wide variety of interfaces, including CANopen and DeviceNet



PCI INDUCTIVE POSITION CODING SYSTEM

- Determines absolute angular position by noncontact inductive detection of steel pins on a code rail
- Resistant to humidity, dirt and changes of temperature, thus extremely reliable and wear-free
- Absolute position capability makes it suitable for energy-saving, intermittent system operation
- Customized housing and interface configurations available

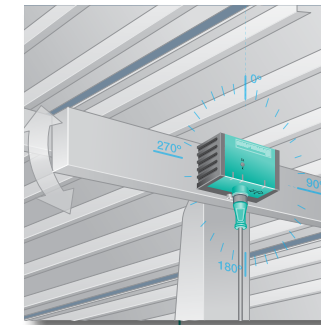


SENSING SOLUTIONS FOR ROTATIONAL ADJUSTMENT (AZIMUTH)

SENSING SOLUTIONS FOR ELEVATION ADJUSTMENT (ZENITH)

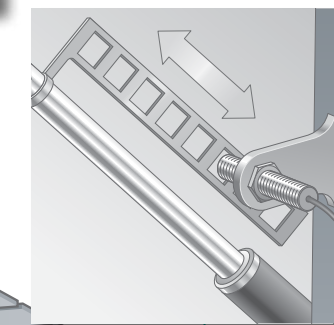
F99 INCLINATION SENSOR

- Angle detection 0° ... 360° (custom ranges available upon request)
- Rugged construction for harsh environments (IP68/IP69K)
- Analog output signal proportional to inclination angle and two user-programmable switch outputs for setpoints or limits
- Resolution $\leq 0.1^\circ$



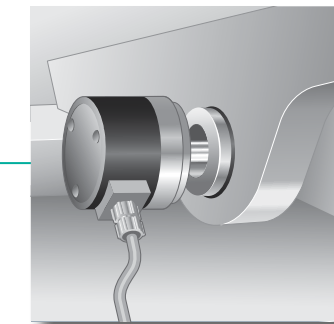
INDUCTIVE PROXIMITY SWITCH

- Senses metal targets for position detection
- Precise switching position regardless of the type of metal target used
- Reliable position detection even under harsh environmental conditions



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- Wide range of interfaces, including CANopen and DeviceNet

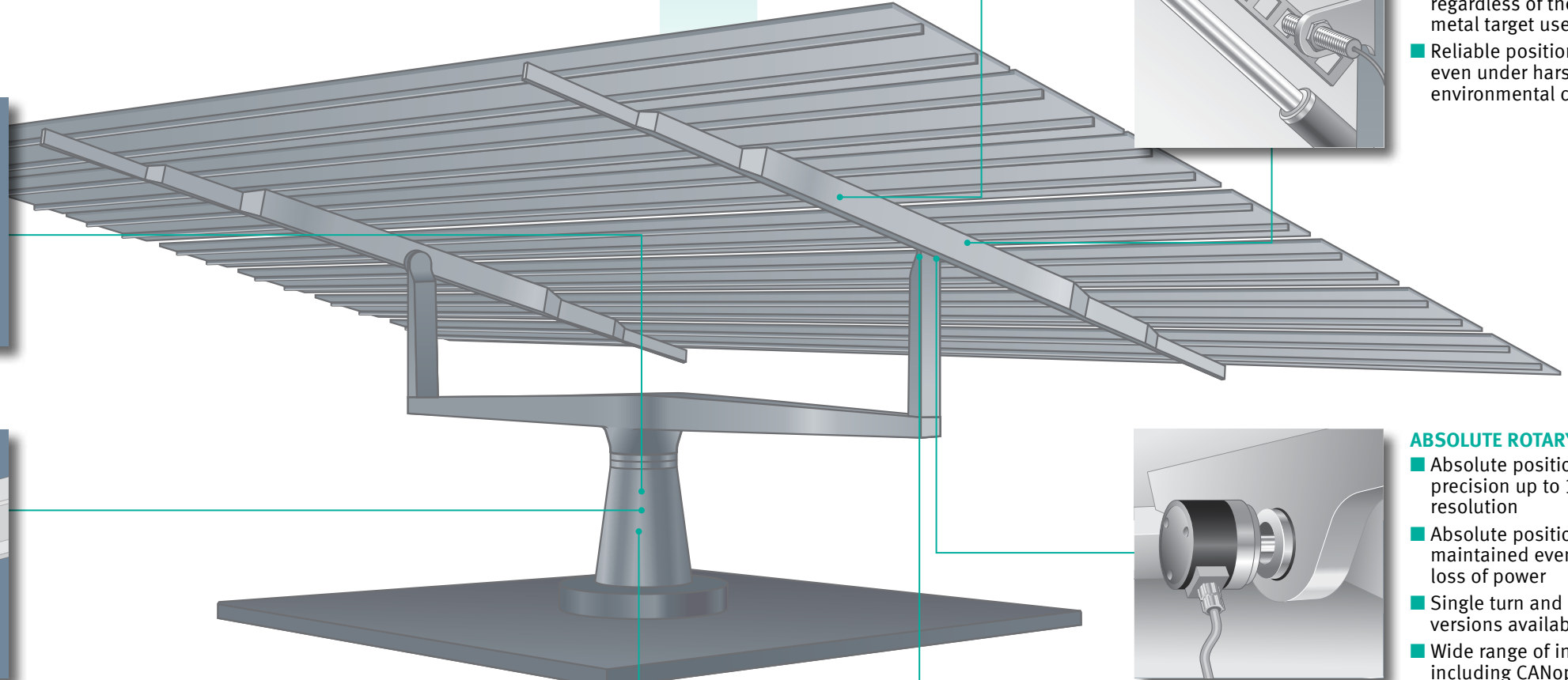


PMI INDUCTIVE POSITION MEASURING SYSTEM

- Absolute, single turn rotary position detection
- Noncontact sensing, maintenance- and wear-free
- Scalable rotation angle supplies angular-proportional, analog current and voltage value
- Analog output and two user-programmable switching points with LED display



ELEVATION



PEPPERL+FUCHS – YOUR TRUSTED PARTNER

Extreme performance, durability and reliability are prerequisites for all key components used in solar energy applications. This is the only way to achieve high operating efficiencies required in today's competitive energy market. Pepperl+Fuchs' field-proven sensors and rotary encoders meet these demanding requirements, providing dependable performance in even the most challenging environments and applications.

Our experts will help you select the appropriate sensing technologies for your specific application. You can choose from our broad product range available from a single source. Additionally, we offer you a comprehensive selection of industrial and mechanical accessories.

With locations on six continents our global presence enables Pepperl+Fuchs to offer you the best of both worlds: extremely high engineering and service standards combined with flexible manufacturing capabilities. We have exactly what you need to make your solar systems efficient, rugged and reliable.



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SENSING YOUR NEEDS