

Encoder/ Inclination sensor

This device converts angular or linear displacement data into a signal which can be used for communication, transmission and storage. It is used for engineering measurement widely.

Encoder/ Inclination sensor

DERZMANN



Application field:

Wind energy
Crane equipment
Lifting equipment
Level-off for machinery
Far distance measurement
Position and Angle measurement

Reliable and high precision, Maximizing the performance by shorten the system shut-down time. With a wide range of sensors combination, we provide the best solution. You will find the most ideal inertial sensor products from Derzmann.

Technical Data

Inclination sensor

Voltage supply	10...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤100 mA (24 VDC)
Initializing time typ.	250 ms after power on
Interface	CANopen@Profibus-DPV0
Device address	Rotary switches in bus cover
Measuring range	±15°/±30°/±60° or 360°
Resolution	0.001..1 ° or 0.1..1 °
Accuracy (+25 °C)	±0.1 ° or ±0.2 °
Settling time max.	0.5 s
Measuring cycle	10 Hz
Code	Binary
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Programmable parameters	Resolution Preset and offset
Diagnostic function	Parameter error
Status indicator	DUO-LED integrated in bus cover
Approval	UL approval / E63076
Dimensions mounting plate	91 x 40x 26 mm
Protection DIN EN 60529	IP 66 or IP 67
Material	zinc die-cast/aluminium
Operating temperature	-25...+85 °C or -40...+85 °C
Relative humidity	95 % non-condensing

Encoder

Voltage supply	10...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤50 mA (24 VDC)
Initializing time typ.	20 ms after power on
Interface	SSI; Incremental A 90° B (optional)
Function	Multiturn
Steps per turn	≤16384 / 14 bit
Number of turns	4096 / 12 bit
Incremental output	2048 pulses A90°B + inverted
Absolute accuracy	±0.025 °
Sensing method	Optical
Code	Gray or binary
Code sequence	CW/CCW coded by connection
Inputs	SSI clock
Output stages	SSI data: linedriver RS485
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Diagnostic function	Self-diagnosis/Multiturn sensing
Approval	UL approval / E63076
Size (flange)	ø58 mm
Shaft type	ø10 mm; ø12 mm; ø14 mm
Protection DIN EN 60529	IP 54 or IP 65
Operating speed	≤6000 rpm
Starting acceleration	≤1000 U/s ²
Starting torque	≤0.04 Nm (+25 °C, IP 54)
Rotor moment of inertia	20 gcm ²
Material	Housing/Flange: aluminium
Operating temperature	-25...+85 °C or -40...+85 °C
Relative humidity	95 % non-condensing
Resistance	DIN EN 60068-2-6, Vibration 10 g, 16-2000Hz DIN EN 60068-2-27, Shock 200 g, 6 ms

