



IND-MAX inductive angle encoders provide robust, high-precision measurement in extreme environment applications across land, sea, and air.

 System Data

IND-MAX-160	
Type	Axial, frameless, true absolute, inductive measuring principle
Standard Resolution	22 bits, 1'048'576 4'194'304 ppr(beforex4) cpr(afterx4)
ENOB in entire mounting tolerance range	20 bits
High Accuracy	Enhanced accuracy can be achieved depending on the mounting setup
Standard Accuracy	$\pm 018^{\circ}, \pm 0.005^{\circ}, \pm 090 \mu\text{rad}$
Thickness	10.95
Hysteresis	none
Repeatability	1 resolution count
Position update rate and signal latency	Real-time
Power-up Time	max. 0.8 sec

 Electrical Data

Supply voltage	min.4.35Vdc.max.36Vdc
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Reverse polarity protection	yes
Current Consumption	max. 150 mA @ 5 Vdc max. 50 mA @ 24 Vdc



Mechanical Data

Stator Base Material	Anodized aluminum CTE ~ 24 ppm/°C
Stator Weight	180.00 g
Rotor Base Material	Anodized aluminum CTE ~ 24 ppm/°C
Rotor Weight	110.00 g
Vibration	EN 60068-2-6, 20 g, 55 .. 2000 Hz
Shock	EN 60068-2-27, 200 g, 6 ms



Mounting Tolerances

Nominal Axial (air-gap)	0.50 mm
Axial Tolerance	0.30 mm (0.20 mm to 0.80 mm)
Radial Tolerances	0.20 mm



Environmental Data

Temperature Range - Standard Operating	-20°C .. +85°C
Temperature Range - Standard Storage	-20°C .. +85°C
Temperature Range - Extended Operating	-40°C .. +105°C
Temperature Range - Extended Storage	-55°C .. +125°C
Ingress Protection	IP67
EMC Immunity	complies with EN IEC 61000-6-2
EMC Emission	complies with EN IEC 61000-6-4

Advantages

Plug-n-play

No field calibration required

Wide mounting tolerances

High accuracy

Benefits

Low installation cost

Low integration effort

Easy installation