



An absolute encoder of highest quality in the smallest possible size.

System Data

IND-ROT-055-C21-WB-AL	
Type	Axial, frameless, true absolute INDUCTIVE encoder INDUCTIVE-ROTARY-FLUX GmbH (patentpending)
Standard Resolution	21 bits, 524'288 2'097'152 ppr(beforex4) cpr(afterx4)
ENOB in entire mounting tolerance range	19 bits
High Accuracy	Enhanced accuracy can be achieved depending on the mounting setup
Standard Accuracy	$\pm 90^\circ$, $\pm 0.025^\circ$, $\pm 450\mu\text{rad}$
Thickness	5.80
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	Option5V:min.4.35Vdc.max.6Vdc
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Reverse polarity protection	yes
Current Consumption	max.100mA@ 5Vdc, max. 30mA@24Vdc

Mechanical Data

Stator Base Material	FR4 (CTE~18ppm/°C)
Stator Weight	7.00 g
Rotor Base Material	Stainless steel (CTE~10ppm/°C)
Rotor Weight	7.00 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	IP00
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



Zoning de la Rivière, 65
7330 Saint-Ghislain (Belgium)

T : +32 (0)65 76 40 40
E : service@pes-sa.com