

variables/V-color

Encoder | GMI® Rotary | GMI-ROT-055- A11-AL





System Data

GMI-ROT-055-A11-AL

Type	Axial, frameless, true absolute Giant Magneto Impedance encoder GMITechnology-FLUX GmbH proprietary
Standard Resolution	21 bits
ENOB in entire mounting tolerance range	20 bits
High Accuracy	$\pm 36''$, $\pm 0.010^\circ$, $\pm 175\mu\text{rad}$
Standard Accuracy	$\pm 50''$, $\pm 0.014^\circ$, $\pm 244\mu\text{rad}$
Thickness	7.50
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	OptionAV: min.4.35Vdc.max.36Vdc Option5V: min.4.35Vdc.max.6Vdc Option24V: min.6Vdc.Max.30Vdc
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Reverse polarity protection yes

Current Consumption max. 150 mA @ 25 Vdc, max. 140 mA @ 24 Vdc



Mechanical Data

Stator Base Material Stainless steel (option-ST) CTE~10ppm/°C
Aluminum (option-AL) CTE~24ppm/°C

Stator Weight 45.22 g

Rotor Base Material Stainless steel (option-ST) CTE~10ppm/°C
Aluminum (option-AL) CTE~24ppm/°C

Rotor Weight 15.80 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) 0.30 mm

Axial Tolerance -0.20 mm, +0.50 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



Benefits

- Plug-n-play
- No field calibration required
- Wide mounting tolerances
- High accuracy
- Low installation cost
- Low integration effort
- Easy installation



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