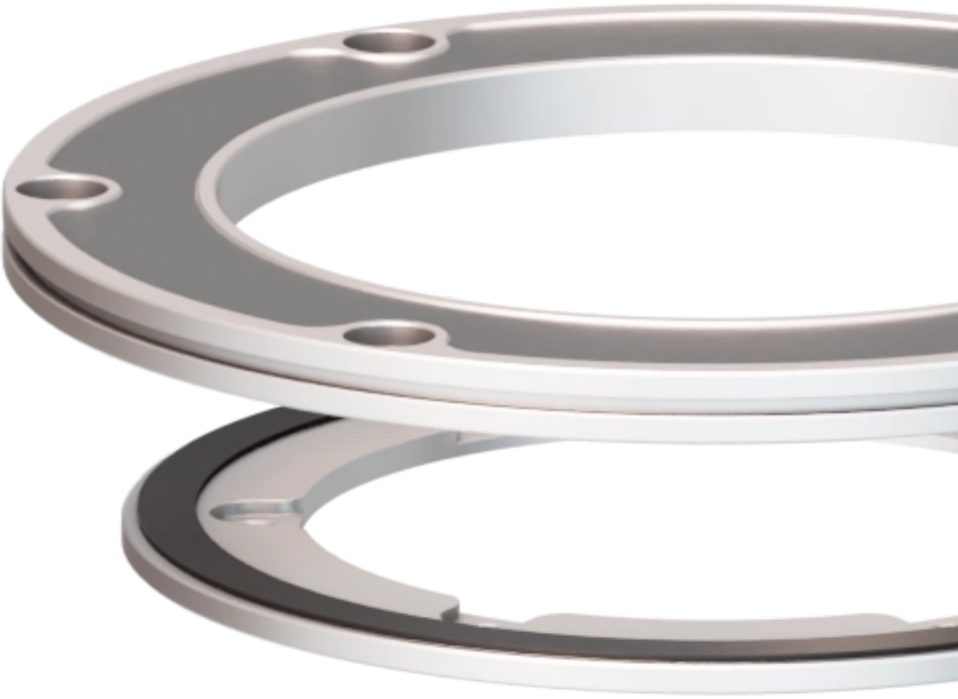
variables/V-color

Encoder | GMI® Rotary | GMI-ROT-096-A11-AL



System Data

	GMI-ROT-096-A11-AL
Type	Axial, frameless, true absolute Giant Magneto Impedance encoder GMITechnology-FLUX GmbH proprietary
Standard Resolution	23 bits
ENOB in entire mounting tolerance range	22 bits
High Accuracy	±10”, ±0.003°, ±48µrad
Standard Accuracy	±18”, ±0.005°, ±87µrad
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

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	115.45 g
Rotor Base Material	Stainless steel (option-ST) CTE~10ppm/°C Aluminum (option-AL) CTE~24ppm/°C
Rotor Weight	36.17 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

- Plug-n-play
- No field calibration required
- Wide mounting tolerances
- High accuracy

Benefits

- Low installation cost
- Low integration effort
- Easy installation