

variables/V-color

Encoder | GMI® Angle | GMI-ANG-160





System Data

GMI-ANG-160

Type	Axial, frameless, true absolute Giant Magneto Impedance encoder GMITechnology-FLUX GmbH proprietary
Standard Resolution	24 bits
ENOB in entire mounting tolerance range	22 bits
High Accuracy	$\pm 5.5''$, 0.001° , $\pm 26\mu\text{rad}$
Standard Accuracy	$\pm 7''$, 0.002° , $\pm 35\mu\text{rad}$
Thickness	10.80
Hysteresis	none
Repeatability	1 resolution count
Position update rate and signal latency	Real-time
Power-up Time	max. 0.8 sec



Electrical Data

	OptionAV:min.4.35Vdc.max.36Vdc
Supply voltage	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 CTE ~ 10 ppm/°C
Stator Weight	440.00 g
Rotor Base Material	Stainless steel CTE ~ 10 ppm/°C
Rotor Weight	320.00 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)	0.30 mm
Axial Tolerance	0.25 mm
Radial Tolerances	0.20 mm



Environmental Data

Temperature Range - Standard Operating	-20°C .. +85°C
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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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