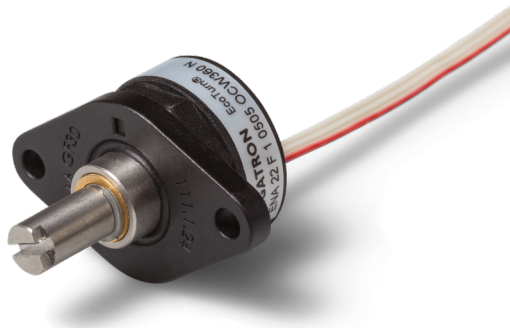


Data Sheet for Angle Sensors

Hall-Effect Single-Turn Rotary Encoder with Incremental Output

Series ENI22 F



- Optional read out of the absolute position
- Up to 1024 pulses per revolution
- With high or low torque
- Life expectancy > 25 x 10⁶ shaft revolutions
- Potted electronics

The Series ENI22 F closes the gap between potentiometric sensors and high end sensors with ball bearings. Due to the easy connection of the flat ribbon cable, e.g. using IDC, the cost of soldering can be reduced as well. For safety critical applications there is a redundant version available.

Electrical Data

Output signal	TTL	Open Collector
Number of pulses	1...128; 256; 512; 1024 pulses per revolution	
Limit frequency	500 kHz	
Supply voltage	5 VDC ± 10 %	8-30 VDC
Power consumption (no load)	≤ 20 mA	
Insulation voltage 1.)	1000 VAC @ 50 Hz, 1 min	
Insulation resistance 1.)	2 MOhm @ 500 VDC, 1 min	

Mechanical Date, Environmental Conditions, Miscellaneous

Lifetime 2.)	> 25 x 10 ⁶ rotations Depending on the application - values determined at room temperature +20 °C, with a radial load of 1 N
Bearing	Sleeve bearing
Max. operational speed	4000 rpm
Starting torque @ ambient temperature 1.) 2.)	< 0,6 Ncm
Operating temperature range	-40..+85 °C (fixed cable, extended temperature range on request)
Storage temperature range	-40..+105 °C
Protection grade (IEC 60529)	IP65
Sealing shaft / bearing	no sealing (IP40)
Vibration (IEC 68-2-6, Test Fc)	±1,5 mm / 20 g / 10 bis 2000 Hz / 16 frequency cycles (3x4 h)
Shock (IEC 68-2-27, Test Ea)	50 g / 11 ms / halfsine (3x6 shocks)
max. radial load	1 N
Mass	approx. 22 g
Material shaft	stainless steel
Material housing	plastic

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Emission / Immunity

EN 55011 Emission AC/DC power	Class B
EN 55011 Emission housing	Class B
EN 61000-4-2 Immunity housing ESD	Class B
EN 61000-4-3 Immunity RF sine wave	Class A
EN 61000-4-4 Immunity DC power, I/O cable: Burst	Class B
EN 61000-4-5 Immunity DC power, I/O cable: Surge	Class B
EN 61000-4-6 Immunity DC power, I/O cable: Conducted sine wave	Class A

1.) According IEC 60393

2.) Determined by climatic conditions according to IEC 68-1, para. 5.3.1 without load collectives

Order code

Description		Options					
Series ENI22	ENI22						
Shaft diameter Ø 6 mm / M10 Ø 6,35 mm (1/4") (*)		F1 F2 (*)					
Number of pulses [pulses per revolution] 1024 512 (*) 256 (*) 2...128 free of choice (*)			1024 512 (*) 256 (*) 2...128 (*)				
Supply voltage / Output signal 5 V / TTL 5 V / Open Collector 24 V / Open Collector				05 BZ TTL 05 BZ OC 24 BZ OC			
Zero point alignment of the index pulse Flattening against the zero point slot (*)					N (*)		
Other shaft length [mm] (*)						Axx (*)	
Other cable length [m] (*)							CVxx (*)

short-term stock types can be found on: <http://www.megatron.de/en/stocklists/angle-sensors/lagerliste.html>

bold print = standard option

(*) = on request available for projects

For higher quantities or on-going demand, additional options are available as described below

For example:

- Read out of the absolute position
- Changed signal edges
- Special housing
- Special shaft
- Mu-Metal shielding against disturbing magnetic fields
- Other operational torques

For technical advice, projects, samples, questions about pricing, delivery times and availability please contact us

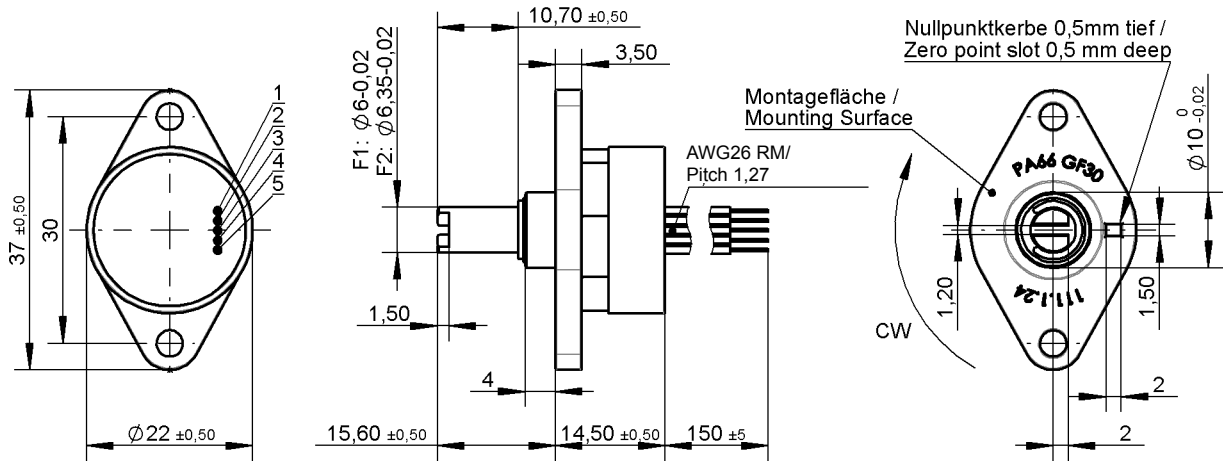
Tel.: +49 89 46094-500
export@megatron.de

Data Sheet for Angle Sensors

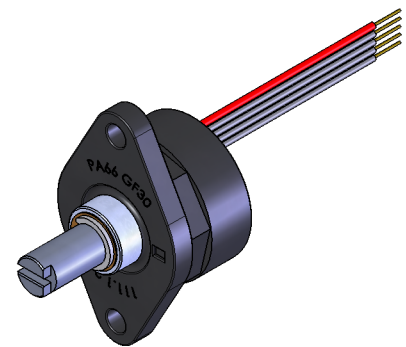
Hall-Effect Single-Turn Rotary Encoder with Incremental Output

Series ENI22 F

Drawing

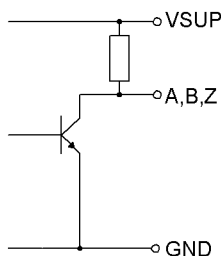


Cable assignment	
VSUP (red)	1
Z	2
B	3
A	4
GND	5

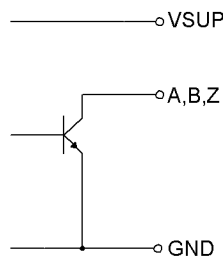


Internal connection

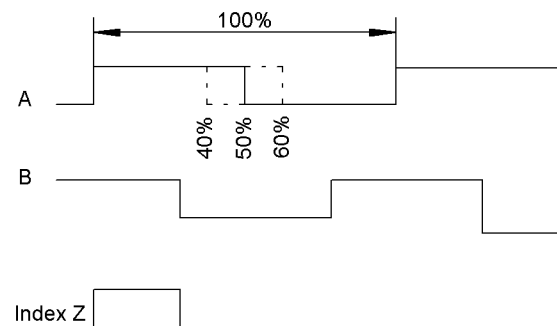
TTL:



Open Collector:



Signal edges



29.10.2012