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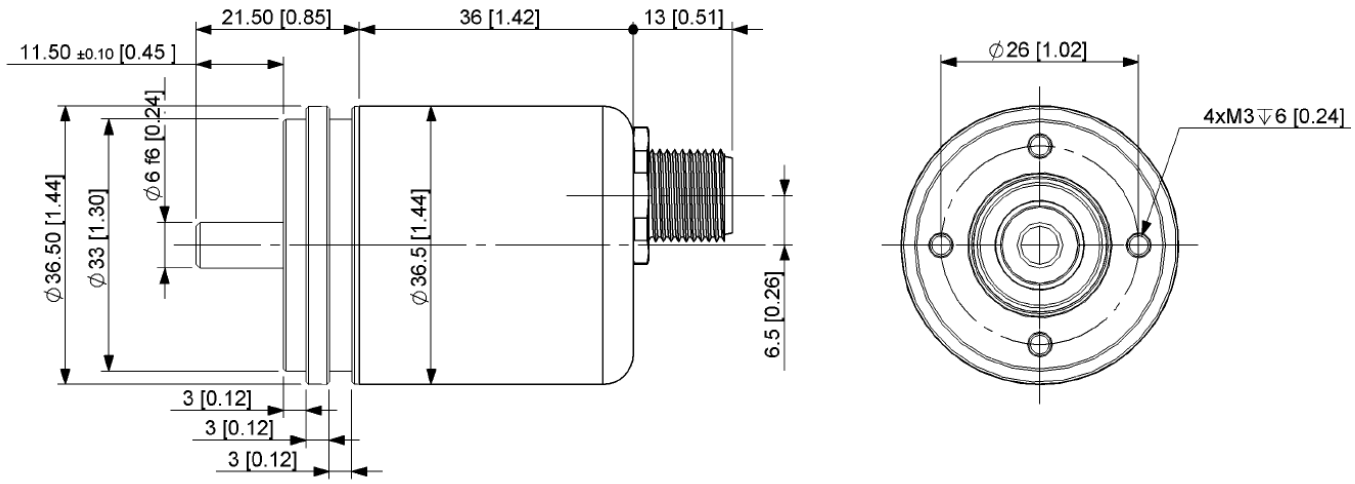
AHM4

MAGNETIC ENCODERS - CANOPEN ABSOLUTE SINGLE TURN - AHM4 RANGE

AHM4 is a Ø36mm singleturn encoder with CANopen interface :

- Compact and robust design.
- Solid shaft Ø 6 mm version.
- Precision sealed bearings.
- High temperature performance –40°C to 85°C.
- Hall effect technology.
- CANopen interface, binary code.
- 12 bits resolution = 4096 steps / turn (13 bits option available).
- Polarity inversions and surges protections.
- High integration SMD technology.

AHM4 M12 AXIAL DIMENSIONS



MECHANICAL CHARACTERISTICS

Material	Cover : steel	Shocks (EN 60068-2-27)	≤ 100 g (demi sinus, 6 ms)
	Body : aluminium	Shocks (EN 60028-2-29)	≤ 10 g (demi-sinus, 16ms)
	Blind shaft: stainless steel	Vibrations (EN 60068-2-6)	≤ 10 g (10Hz… 1 000Hz)
Maximum loads	Axial : 40 N	Weight (approx.)	150 g
	Radial : 110 N	Operating temperature	- 40 … + 85°C
Shaft inertia	≤ 30 g.cm²	Storage temperature	- 40 ... + 85°C
Torque	≤ 3 N.cm	Relative humidity	98 % without condensation
Max. speed (continuous)	12 000 rpm	Protection grade	IP65

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CE

ELECTRICAL CHARACTERISTICS

Interface	According to ISO 11898	Consumption	max 2,5W
Transmission	Max 1 MBauds	Accuracy	+/- 0,36°
Internal cycle time	<600 µs	EMC	EN 61000-6-4 EN 61000-6-2
Supply	10 – 30Vdc	Electrical life-time	> 10^5 h

TRANSMISSION MODES

POLLED mode	By a remote-transmission-request telegram the connected host calls for the current process value. The absolute rotary encoder reads the current position value, calculates eventually set-parameters and sends back the obtained process value by the same identifier
CYCLIC mode	The absolute rotary encoder transmits cyclically - without being called by the host - the current process value. The cycle time can be programmed in milliseconds for values between 1 ms and 65536 ms
SYNC mode	After receiving a sync telegram by the host, the absolute rotary encoder answers with the current process value. If more than one node number (encoder) shall answer after receiving a sync telegram, the answer telegrams of the nodes will be received by the host in order of their node numbers. The programming of an offset-time is not necessary. If a node should not answer after each sync telegram on the CAN network, the parameter sync counter can be programmed to skip a certain number of sync telegrams before answering again.

PROGRAMMABLE PARAMETERS

Operating Parameters	This parameter determines the counting direction, in which the output code increases or decreases. As an important operating parameter the code sequence (complement) can be programmed
Resolution per turn	Value between 1 and 4096 can be programmed
Preset Value	The preset value is the desired position value, which should be reached at a certain physical position of the axis
Limit Switch, Min. and Max	Two position values can be programmed as limit switches. By reaching these values one bit of the 32 bit process value is set to high level

CONFIGURATION

The standard configuration is : node number = 32 and Baurate = 125kBaud. These configurations can be modified with SDO frames. The Baudrate can be modified from 20kBaud to 1MBaud. The node number can de programmed between 0 and 89.

CANopen CONNECTION

GND	+Ub = 10-30Vdc	CAN-High	CAN-Gnd	CAN-Low
3	2	4	1	5

ORDERING REFERENCE (specific manufacture on demand. ex: flange / specific connection...)

AHM4	CA00	B	0012	R060	PAM
Absolute singleturn encoder	CANopen	Binary	12 bits per turn	6mm Solid shaft	M12 axial

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