



ETMR

MAGNETIC INCREMENTAL KIT ENCODER



Specifications

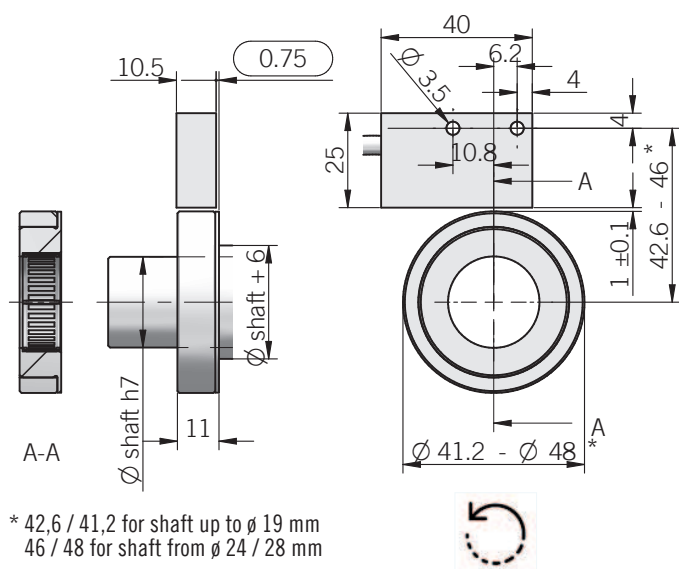
Contactless encoder with through hollow shaft up to 28 mm. The compact size (only 11 mm thickness), the high IP grade and resistance to vibrations make this product an excellent solutions for heavy duty applications.

- 2 channel encoder (A / B) up to 4096 ppr
- Power supply up to +28 VDC with several electronic interfaces available
- Up to 350 kHz output frequency
- Cable output, connector available on cable end
- Through hollow shaft diameter up to 28 mm
- Shaft mounting with star-ring
- Wide operating temperature -20° ... +85°C (-4° ... +185°F)

ORDERING CODE	ETM	R	4096	S	5	L	9	S	8	PR	.XXX
SERIES magnetic incremental encoder series ETM											
MODEL through hollow ring R											
RESOLUTION ppr from 64 to 4096 see table for pulses availability											
ZERO PULSE without zero pulse S											
POWER SUPPLY (with L electronic interface) 5 V DC 5 (with L or PC electronic interface) 8 ... 24 V DC 8/24 5 ... 28 V DC 5/28											
ELECTRONIC INTERFACE push-pull P push-pull protected (AEIC-7272) PC line driver L power supply 5/28 V - output RS-422 RS											
BORE DIAMETER mm 9 (3/8") mm 9,52 mm 10 mm 11 mm 14 mm 19 mm 24 mm 28											
ENCLOSURE RATING IP 67 S											
MAX ROTATION SPEED 8000 rpm 8											
OUTPUT TYPE radial cable (standard length 1,5 m) PR											
VARIANT custom version XXX											

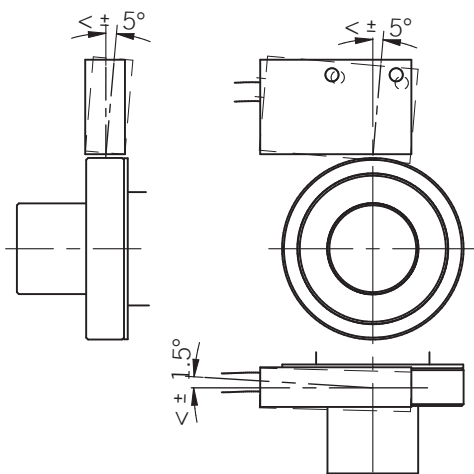


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* 42,6 / 41,2 for shaft up to \varnothing 19 mm
46 / 48 for shaft from \varnothing 24 / 28 mm

Mounting tolerances



dimensions in mm

ELECTRICAL SPECIFICATIONS

Resolution	from 64 to 4096 ppr (powers of 2)
Power supply	5 = 4,5 ... 5,5 V DC 5/28 = 4,75 ... 29,4 V DC 8/24 = 7,6 ... 25,2 V DC (reverse polarity protection)
Power draw without load	800 mW max
Max load current	20 mA / channel
Output type*	push-pull / line driver
Max output frequency	350 kHz
Linearity error	$\pm 0,35^\circ$ typical
Counting direction	A leads B counterclockwise
Electromagnetic compatibility	IEC 61000-6-2 IEC 61000-6-4

*output levels according to power supply, for further details please see under Technical basics section

MECHANICAL SPECIFICATIONS

Bore diameter	\varnothing 9 / 9,52 (3/8") / 10 / 11 / 14 / 19 / 24 / 28 mm En-
closure rating	IP 67 (IEC 60529)
Max rotation speed	8000 rpm
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	20 G, 10 ... 2000 Hz (IEC 60068-2-6)
Moment of inertia	$115 \times 10^{-6} \text{ kgm}^2$ ($27,29 \times 10^{-4} \text{ lbft}^2$)
Sensor body material	anodized aluminum
Magnet-actuator material	1.4305 / AISI 303 stainless steel
Operating temperature	-20° ... +85°C (-4° ... +185°F)
Storage temperature	-20° ... +85°C (-4° ... +185°F)
Weight	100 g (3,53 oz)
Magnet-actuator mounting tolerances	$\pm 1 \text{ mm}$ (axial) $\pm 0.1 \text{ mm}$ (radial)

RESOLUTIONS

64* - 128 - 256 - 512 - 1024 - 2048 - 4096

* available with shaft \varnothing 24 / 28 mm; please directly contact our offices for other pulses

CONNECTIONS

Function	Cable output Push-pull	Cable output Line driver
+V DC	red	red
0 V	black	black
Ch. A	green	green
Ch. A-	/	brown
Ch. B	yellow	yellow
Ch. B-	/	orange
Ch. Z	blue	blue
Ch. Z-	/	white
---	shield	shield