

**MAIN FEATURES**

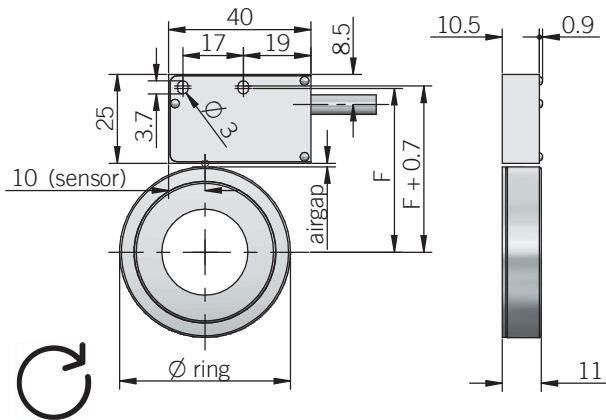
Contactless encoder with through hollow shaft up to 28 mm. The compact size (only 11 mm thickness), the high IP grade and resistance to vibrations make this product an excellent solutions for heavy duty applications.

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



ORDERING CODE	ETMR	A	4096	S	5	L	9	S	8	PR	.XXX
<b>SERIES</b> incremental encoder with magnetic ring <b>ETMR</b>											
<b>MODEL</b> bore diameter from 9 ... 19 mm <b>A</b> bore diameter 24 / 28 mm <b>B</b>											
<b>RESOLUTION</b> ppr from <b>64</b> to <b>4096</b> refer to the available pulses list											
<b>ZERO PULSE</b> without zero pulse <b>S</b>											
<b>POWER SUPPLY</b> (with L electrical interface) 5 V DC <b>5</b> 5 ... 28 V DC <b>5/28</b>											
<b>ELECTRICAL INTERFACE</b> push-pull <b>P</b> line driver <b>L</b> power supply 5/28 V - output RS-422 <b>RS</b>											
<b>BORE DIAMETER</b> mm <b>9</b> (3/8") mm <b>9,52</b> mm <b>10</b> mm <b>11</b> mm <b>14</b> mm <b>19</b> mm <b>24</b> mm <b>28</b>											
<b>ENCLOSURE RATING</b> IP 67 <b>S</b>											
<b>MAX ROTATION SPEED</b> 8000 rpm <b>8</b>											
<b>OUTPUT TYPE</b> cable (standard length 1,5 m) <b>PR</b> preferred cable lengths 2 / 3 / 5 / 10 m, to be added after OUTPUT TYPE (eg. PR5)											
<b>VARIANT</b> custom version <b>XXX</b>											

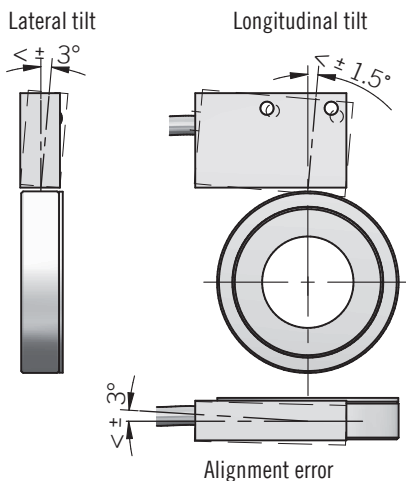
## ETMR A / B



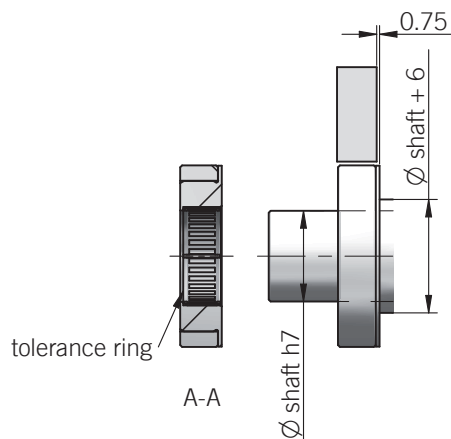
Model	A	B
Ø ring	41,2	48
Fixing (F)	41,9	46
Airgap	0,3 ± 0,1	1 ± 0,1

tolerance ring is included  
for mounting instruction please refer to product installation notes

## MOUNTING TOLERANCES



## RECOMMENDED INTERFACE FLANGE DESIGN



dimensions in mm

## ELECTRICAL SPECIFICATIONS

<b>Resolution</b>	from 64 to 4096 ppr (powers of 2)
<b>Pole pitch</b>	model A = 2 mm model B = 5 mm
<b>Power supply<sup>1</sup></b>	5 = 4,5 ... 5,5 V DC 5/28 = 4,5 ... 30 V DC (reverse polarity protection)
<b>Power draw without load</b>	800 mW max
<b>Max load current</b>	20 mA / channel
<b>Electrical interface<sup>2</sup></b>	push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AEIT-5000 or similar)
<b>Max output frequency</b>	350 kHz
<b>Counting direction</b>	A leads B clockwise
<b>Accuracy</b>	± 0,35° typical / ± 0,50° max
<b>Electromagnetic compatibility</b>	according to 2014/30/EU directive
<b>RoHS</b>	according to 2011/65/EU directive
<b>UL / CSA</b>	certificate n. E212495

## MECHANICAL SPECIFICATIONS

<b>Bore diameter</b>	Ø 9 / 9,52 (3/8") / 10 / 11 / 14 / 19 / 24 / 28 mm
<b>Enclosure rating</b>	IP 67 (IEC 60529)
<b>Max rotation speed</b>	8000 rpm
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	20 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Moment of inertia</b>	115 x 10 <sup>-6</sup> kgm <sup>2</sup> (27,29 x 10 <sup>-4</sup> lbfm <sup>2</sup> )
<b>Sensor body material</b>	anodized aluminum
<b>Magnet-actuator material</b>	1.4305 / AISI 303 stainless steel
<b>Operating temperature<sup>3,4</sup></b>	-20° ... +85°C (-4° ... +185°F)
<b>Storage temperature<sup>4</sup></b>	-20° ... +85°C (-4° ... +185°F)
<b>Weight</b>	100 g (3,53 oz)

<sup>1</sup> as measured at the transducer without cable influences

<sup>2</sup> for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section

<sup>3</sup> measured on the transducer flange

<sup>4</sup> condensation allowed

## CONNECTIONS

Function	Cable P	Cable L / RS
+V DC	red	red
0 V	black	black
A+	green	green
A-	/	brown or grey
B+	yellow	yellow
B-	/	orange
⊕	shield	shield

## RESOLUTIONS

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

\* available with mod.B; please directly contact our offices for other pulses