

## MAIN FEATURES

It is a no-contact encoder with through hollow shaft up to 28 mm. The compact size (only 11 mm of axial thickness), the high IP grade and resistance to vibrations make this product an excellent solutions for heavy duty applications.

- Up to 4096 ppr
- Line driver / push pull output
- Fixing with Star-ring
- 8000 rpm max
- IP 67 protection degree
- Working temperature: -20° ... +85°C



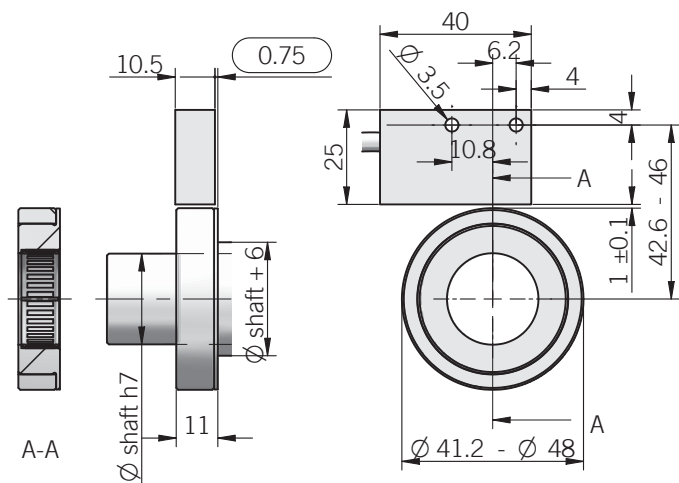
## ORDERING CODE

**ETM R 4096 S 5 L 9 S 8 PR . XXX**

<b>SERIES</b> magnetic incremental encoder <b>ETM</b>	<b>VARIANT</b> <b>XXX</b> custom version
<b>TYPE</b> standard <b>R</b>	<b>OUTPUT TYPE</b> <b>PR</b> radial cable output (standard length 1.5 m)
<b>RESOLUTION</b> (only powers of 2) ppr from <b>64</b> to <b>4096</b>	<b>MAX ROTATION SPEED</b> <b>8</b> 8000 rpm
<b>ZERO PULSE</b> without zero pulse <b>S</b>	<b>ENCLOSURE RATING</b> <b>S</b> IP 67
<b>POWER SUPPLY</b> (available only with L electronic output) 5 V DC <b>5</b> (available only with L or PC electronic output) 8 ... 24 V DC <b>8/24</b> 5 ... 28 V DC <b>5/28</b>	<b>BORE DIAMETER</b> 9 mm 9.52 mm (3/8") 10 mm 11 mm 14 mm 19 mm 21 mm 24 mm 28 mm
<b>ELECTRONIC INTERFACE</b> push-pull <b>P</b> protected push-pull (AEIC-7272) <b>PC</b> line driver <b>L</b>	

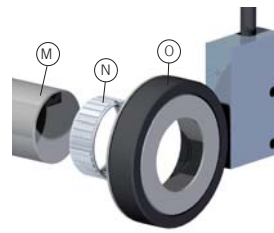
*N.B.: please directly contact our offices for availability*

## ETMR



Shaft  $\varnothing$  9/9,52/10/11/14/19 for magnetic ring  $\varnothing$  41,2mm  
Shaft  $\varnothing$  21/24/28 for magnetic ring  $\varnothing$  48mm

## How to mount it



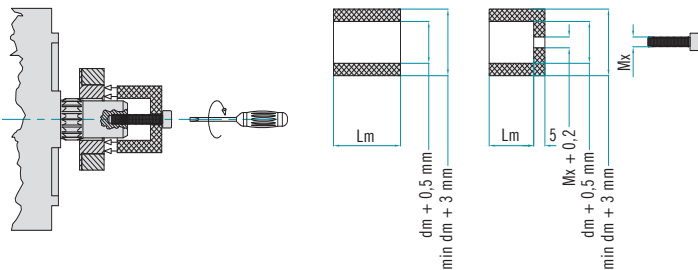
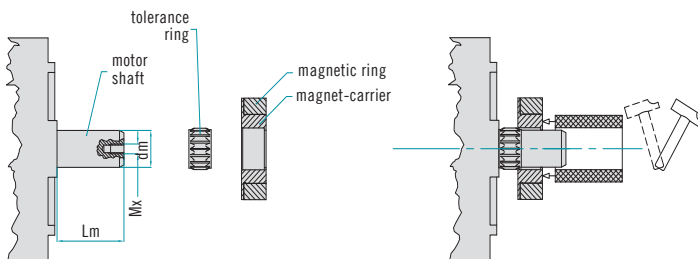
Don't hit the magnetic ring with hard objects to prevent breaking or damage!  
Keep the magnetic ring away from magnetic fields to avoid distortion of magnetic pattern!

- Slip the tolerance ring (N) on to the motor shaft (M).
- Then slip the magnet (O) on to the tolerance ring till the stop, pressing lightly only on the steel surface of the magnet-carrier.

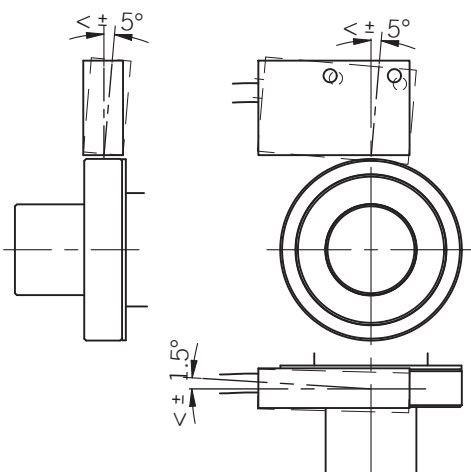
## Electrical specifications

<b>Resolution</b>	from 64 to 4096 ppr (only powers of 2)
<b>Power supply</b>	5 V DC $\pm$ 10% 5 ... 28 V DC $\pm$ 5% 8 ... 24 V DC $\pm$ 5% (reverse polarity protection)
<b>Current consumption without load</b>	40 mA max
<b>Max load current</b>	20 mA per channel
<b>Electronic interface</b>	line driver push-pull
<b>Max output frequency</b>	350 kHz
<b>Linearity error</b>	0,25° max
<b>Electromagnetic compatibility</b>	IEC 61000-6-2 IEC 61000-6-4

## Magnet mounting precautions



## Mechanical tolerances



## Mechanical specifications

<b>Bore diameter</b>	9 / 9,52 / 10 / 11 / 14 / 19 / 21 / 24 / 28 mm
<b>Enclosure rating</b>	IP 67
<b>Max rotation speed</b>	8000 rpm
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Magnet-carrier material</b>	1.4305 / AISI 303 stainless steel
<b>Mounting tolerances</b>	axial: $\pm$ 1 mm radial: $\pm$ 0,1 mm
<b>Operating temperature</b>	-20° ... +85 °C
<b>Storage temperature</b>	-25° ... +85 °C
<b>Weight</b>	200 g

## Connections and standard colours

Function	Push pull	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
$\text{---}$	shield	shield