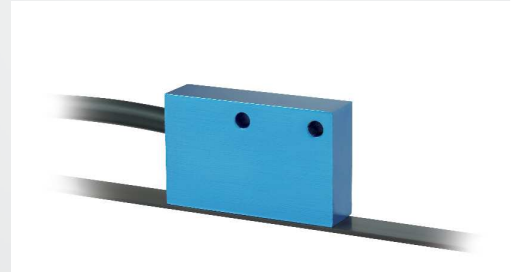


### MAIN FEATURES

Incremental linear system based on magnetic principle without wear thanks to no-contact technology. Thanks to high IP rating ETMA is suitable for harsh environment applications such as marble and glass working machines, washing systems machines.

- Resolution up to 0,01 mm
- Power supply up to +30 V DC with several electrical interfaces available
- Up to 4 m/s travel speed
- IP 67 as protection grade
- Cable output, connector available on cable end



### ORDERING CODE

ETMA 1 Z 5 L S PR3 .XXX

SERIES  
magnetic incremental linear sensor **ETMA**

**RESOLUTION**

0,1 mm **1**  
0,04 mm **2**  
0,2 mm **4**  
0,5 mm **5**  
1 mm **6**

**ZERO PULSE**

without zero pulse **S**  
with zero pulse **Z**

**POWER SUPPLY**

(with L electrical interface) 5 V DC **5**  
5 ... 28 V DC **5/28**

**ELECTRICAL INTERFACE**

push-pull **P**  
line driver **L**  
power supply 5/28 V - output RS-422 **RS**

**ENCLOSURE RATING**

IP 67 **S**

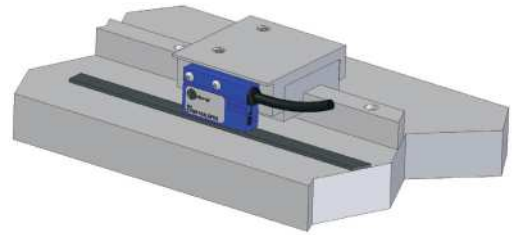
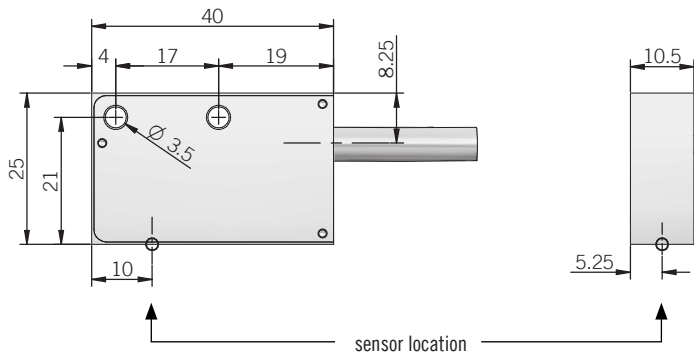
**OUTPUT TYPE**

cable length 3m **PR3**  
preferred cable lengths 6 / 10 / 20 m, to be added after output type

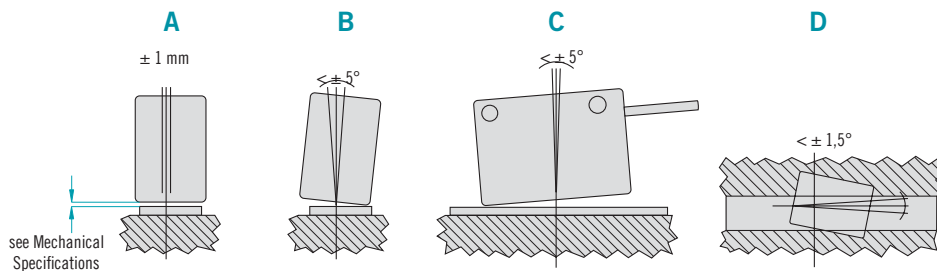
**VARIANT**

custom version **XXX**

ETMA 1 / 2



Mechanical tolerances



dimensions in mm

ELECTRICAL SPECIFICATIONS	
<b>Resolution</b>	1 = 0,1 mm (0,025 mm after quad eval) 2 = 0,04 mm (0,01 mm after quad eval) 4 = 0,2 mm (0,05 mm after quad eval) 5 = 0,5 mm (0,125 mm after quad eval) 6 = 1 mm (0,25 mm after quad eval)
<b>Zero pulse</b>	ETMA 1 / 4 / 5 = every 5 mm ETMA 2 / 6 = every 2 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>Current consumption without load</b>	30 mA 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 (AELT-5000 or equivalent)
<b>Linearity error</b>	± 1/4 pulse
<b>Travel speed</b>	4 m/s
<b>Electromagnetic compatibility</b>	according to 2014/30/EU directive
<b>RoHS</b>	according to 2015/863/EU directive
<b>UL / CSA</b>	certificate n. E212495

<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 transducer housing  
<sup>4</sup> condensation allowed

MECHANICAL SPECIFICATIONS	
<b>Enclosure rating</b>	IP 67 (IEC 60529)
<b>Shock</b>	50 G, 11 ms (IEC 60068-2-27)
<b>Vibration</b>	20 G, 10 ... 2000 Hz (IEC 60068-2-6)
<b>Housing material</b>	anodized aluminium
<b>Fixing</b>	n. 2 holes $\varnothing$ 3,5 mm
<b>Operating temperature<sup>3,4</sup></b>	-20° ... +85°C (-4° ... +185°F)
<b>Storage temperature<sup>4</sup></b>	-25° ... +70°C (-13° ... +158°F)
<b>Working distance from magnetic tape</b>	ETMA 1 / 4 / 5 < 1,5mm with magnetic tape protection < 2mm without cover ETMA 2 / 6 < 0,5mm with magnetic tape protection < 1mm without cover
<b>Weight</b>	150 g (5,29 oz)

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
Z+	blue	blue
Z-	/	white
⊖	shield	shield