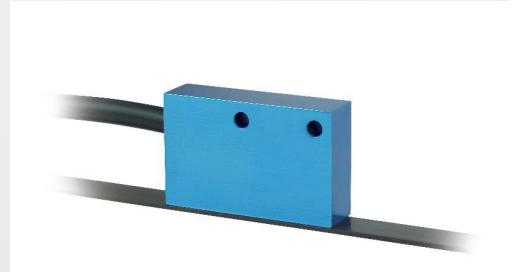


MAIN FEATURES

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, connectors 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 DC - output RS-422 **RS**

ENCLOSURE RATING

IP 67 **S**

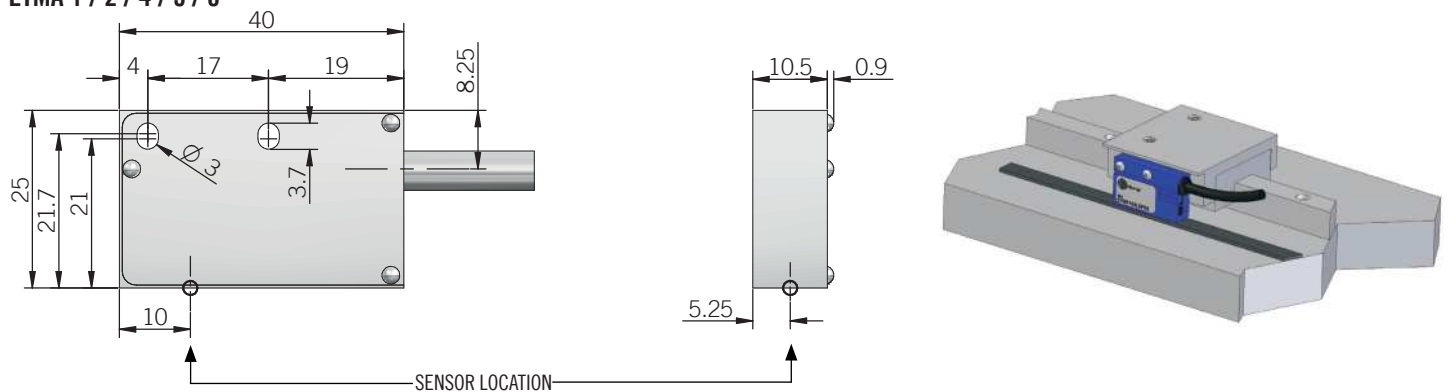
OUTPUT TYPE

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

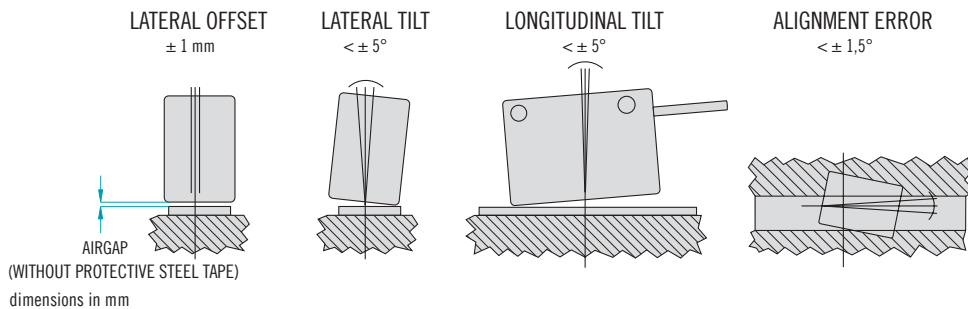
VARIANT

custom version **XXX**

ETMA 1 / 2 / 4 / 5 / 6



MECHANICAL TOLERANCES



ELECTRICAL SPECIFICATIONS

Resolution	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)
Zero pulse	ETMA 1 / 4 / 5 = every 5 mm ETMA 2 / 6 = every 2 mm
Power supply¹	5 = 4,5 ... 5,5 V DC 5/28 = 4,5 ... 30 V DC (reverse polarity protection)
Current consumption without load	30 mA max
Max load current	20 mA / channel
Electrical interface²	push-pull / line driver HTL (AEIC-7272 or similar) line driver RS-422 (AELT-5000 or similar)
Accuracy (at +20°C / +68°F)	± 1/4 pulse with recommended airgap
Travel speed	4 m/s
Cable type	shielded - fixed or flexible installation conductors section 0,14 mm ² / AWG 26 min bending radius min 60 mm
Mean time to dangerous failure (MTTF_d)³ according to EN ISO 13849-1	318 years
Mission time (Tm)³	20 years
Diagnostic coverage (DC)³	0%
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2011/65/EU directive
UL / CSA	file n. E212495

¹ as measured at the transducer without cable influences
² for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section
³ this product is not a safety component, for further details refer to TECHNICAL BASICS section
⁴ measured on the transducer flange
⁵ condensation allowed

MECHANICAL SPECIFICATIONS

Enclosure rating	IP 67 (IEC 60529)
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	20 G, 10 ... 2000 Hz (IEC 60068-2-6)
Housing material	anodized aluminium
Fixing	n.2 holes \varnothing 3 mm
Operating temperature^{4,5}	-20° ... +85°C (-4° ... +185°F)
Storage temperature⁵	-25° ... +70°C (-13° ... +158°F)
Air gap	ETMA 1 / 4 / 5 1 ... 2 mm (1,5 mm recommended) ETMA 2 / 6 0,1 ... 1 mm (0,3 mm recommended)
Weight	150 g (5,29 oz)

CONNECTIONS

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