

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.

- 0,01 mm max resolution (after quad eval)
- Power supply up to +28 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**

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**

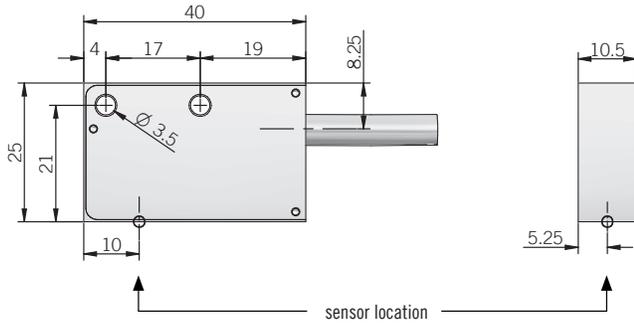
ELECTRICAL INTERFACE
push-pull **P**
line driver **L**
power supply 5/28 V - output RS-422 **RS**

ENCLOSURE RATING
IP 67 **S**

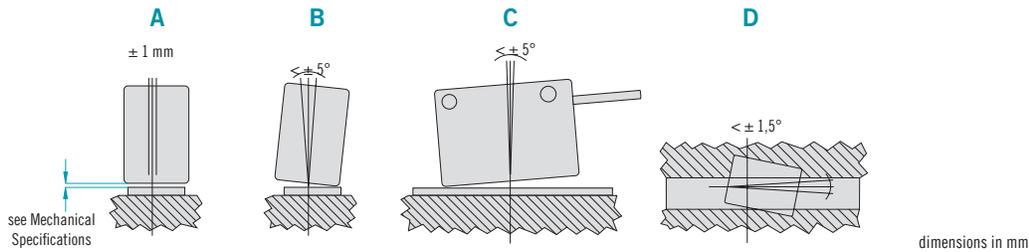
OUTPUT TYPE
cable length 3m **PR3**
preferred cable lengths 6 / 10 / 20 m, to be added after output type

VARIANT
custom version **XXX**

ETMA 1 / 2



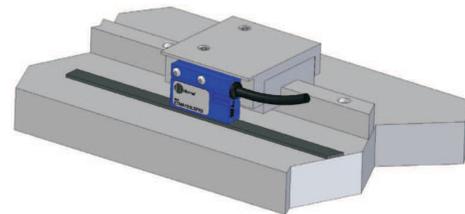
Mechanical tolerances



ELECTRICAL SPECIFICATIONS

Resolution	ETMA1 = 0,1 mm (0,025 mm after quad eval) ETMA2 = 0,04 mm (0,01 mm after quad eval)
Zero pulse	ETMA1 = every 5 mm ETMA2 = every 2 mm
Power supply	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
Output type *	push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or equivalent)
Linearity error	$\pm 0,025$ mm (ETMA 1) $\pm 0,01$ mm (ETMA 2)
Travel speed	4 m/s
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2011/65/EU directive
UL / CSA	certificate n. E212495

* for further details please see OUTPUT LEVELS under TECHNICAL BASICS section



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 $\varnothing 3,5$ mm
Operating temperature	-20° ... +85°C (-4° ... +185°F)
Storage temperature	-25° ... +70°C (-13° ... +158°F)
Working distance from magnetic tape	ETMA 1 < 1,5mm with magnetic tape protection ETMA 1 < 2mm without cover ETMA 2 < 0,5mm with magnetic tape protection ETMA 2 < 1mm without cover
Weight	150 g (5,29 oz)

CONNECTIONS

Function	Cable P	Cable L / RS
+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