



ETMA 1 / 2

MAGNETIC INCREMENTAL LINEAR SENSOR

Specifications

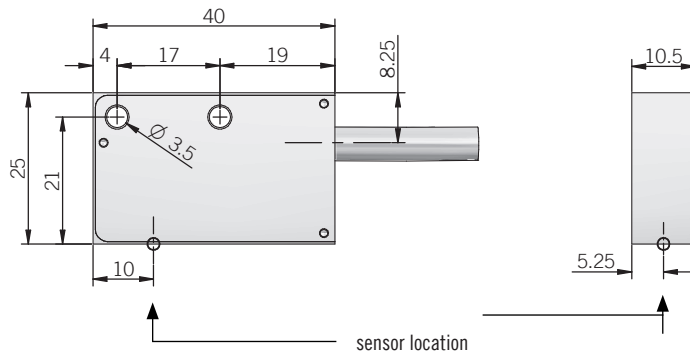
Incremental linear system based on magnetic principle without wear thanks to no-contact technology. Thanks to high IP rating ETMA is suitable for harsh environment applications such as marble and glass working machines, washing systems machines.

- 0,01 mm max resolution (after quad eval)
- Power supply up to +28 VDC with several electronic interfaces available
- Up to 4 m/s travel speed
- IP 67 as protection grade
- Cable output, connector available on cable end

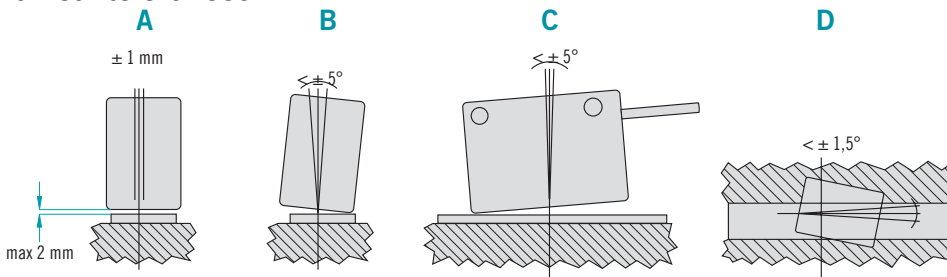


| ORDERING CODE | ETMA | 1 | Z | 5 | P | S | PR3 | .XXX |
|---|-------------|----------------------|----------|--|--|----------|------------|------------|
| SERIES magnetic incremental linear sensor | ETMA | | | | | | | |
| RESOLUTION 0,1 mm 0,04 mm | | 1 2 | | | | | | |
| ZERO PULSE without zero pulse with zero pulse | | | Z | | | | | |
| POWER SUPPLY (with L electronic interface) (with L or PC electronic interface) | | | | 5 8/24 5/28 | | | | |
| ELECTRONIC INTERFACE push-pull (AEIC-7272) protected push-pull line driver power supply 5/28 V - output RS-422 | | | | | P PC L RS | | | |
| ENCLOSURE RATING IP 67 | | | | | | S | | |
| OUTPUT TYPE cable length preferred cable length | | | | | | | PR3 | |
| VARIANT custom version | | | | | | | | XXX |

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Mechanical tolerances

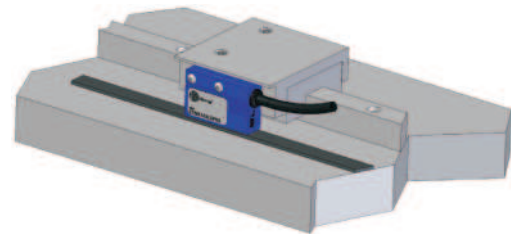


dimensions in mm

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 = 4,75 ... 29,4 V DC 8/24 = 7,6 ... 25,2 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 / RS-422 |
| Linearity error | ± 0,025 mm (ETMA 1) ± 0,01 mm (ETMA 2) |
| Travel speed | 4 m/s |
| Electromagnetic compatibility | IEC 61000-6-2 IEC 61000-6-4 |

*output levels according to power supply, for further details please see 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 | -10° ... +60°C (+14° ... +140°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 output Push-pull | Cable output 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 |
| ⊕ | shield | shield |