



LINEAR TRANSDUCERS

HIGH RELIABILITY EVEN IN THE HEAVY ENVIRONMENTS

Easy installation made easier for the presence of a groove in the housing potentiometer represent an ideal solution for the most used machine of material manufacture, for example injection press for plastic and gum.

ELTRA's linear transducers are engineered for high accuracy, high cycle-life and easy installation. Standard strokes are from 10 (4/10") mm to 1250 mm (4 ft).

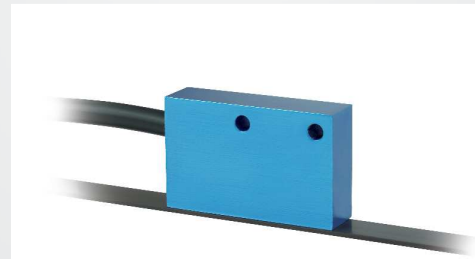
ELTRA's linear transducers provide accurate sensing in a wide range of configurations. Rod style for fitting within hydraulic pistons or profile housing for a convenient mounting are available.

ELTRA's linear sensors feature absolute positioning, greater reliability, easy control, noise reduction, robustness, increased productivity, reduced shock and stress on mechanical parts, high precision for high performances, cost-effective solutions.

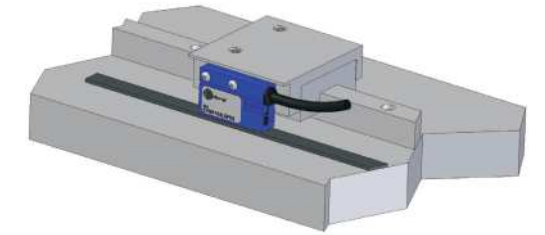
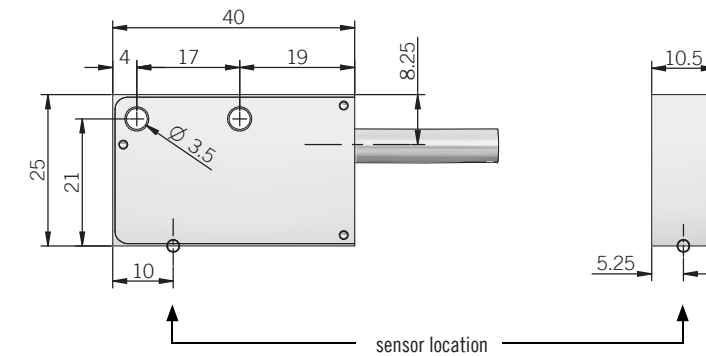
MAIN FEATURES

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.

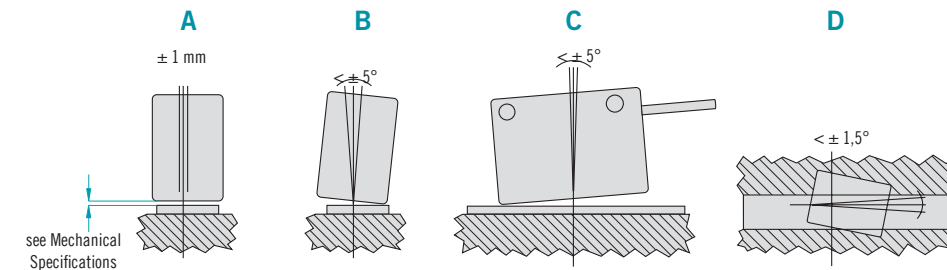
- Resolution up to 0,01 mm
- Power supply up to +30 V DC with several electrical interfaces available
- Up to 4 m/s travel speed
- IP 67 as protection grade
- Cable output, connector available on cable end



ETMA 1 / 2



Mechanical tolerances



dimensions in mm

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 (AEC-7272) line driver RS-422 (AELT-5000 or equivalent)
Linearity error	$\pm 1/4$ pulse
Travel speed	4 m/s
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2015/863/EU directive
UL / CSA	certificate n. E212495

¹ as measured at the transducer without cable influences

² for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section

³ measured on transducer housing

⁴ 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 $\varnothing 3,5$ mm
Operating temperature^{3,4}	-20° ... +85°C (-4° ... +185°F)
Storage temperature⁴	-25° ... +70°C (-13° ... +158°F)
Working distance from magnetic tape	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
Weight	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

ORDERING CODE

ETMA	1	Z	5	L	S	PR3	.XXX
SERIES magnetic incremental linear sensor ETMA							
RESOLUTION							
	1						
	2						
	4						
	5						
	6						
ZERO PULSE							
	S						
	Z						
POWER SUPPLY							
	5						
	5/28						
ELECTRICAL INTERFACE							
	P						
	L						
	RS						
ENCLOSURE RATING							
	S						
OUTPUT TYPE							
	PR3						
preferred cable lengths 6 / 10 / 20 m, to be added after output type							
VARIANT custom version XXX							