



OTHER PRODUCTS

SPECIAL PRODUCTS FOR DIFFERENT APPLICATION'S NEEDS.

Complementing the extensive range of incremental, absolute and linear transducers, Eltra also offers specific products and adaptation boards to match precise factory automation application needs.

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

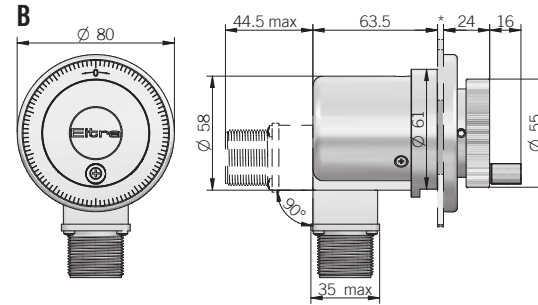
Electronic handwheel series designed for positioning on CNC machines with manual drive.

- 3 channel encoder (A / B / Z) up to 2500 ppr
- Power supply up to +30 V DC with several electrical interfaces available
- Up to 220 kHz output frequency
- Cable or connector output
- Solid shaft diameter up to 10 mm
- Mounting by fixing flange

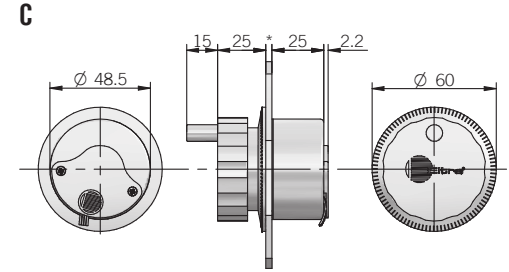
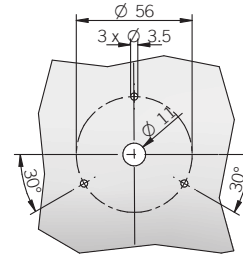


ORDERING CODE

EV	B	*S	100	S	5	L	10	P	R	.XXX
<p>SERIES electronic handwheel EV</p> <p>MODEL fixing flange screw holes \varnothing 56 mm B fixing flange screw holes \varnothing 40 mm C</p> <p>KNOB * add to ordering code if without knob S</p> <p>RESOLUTION (mod. B) see table ppr 100 to 2500 (mod. C) ppr 100 refer to the available pulses list</p> <p>ZERO PULSE without zero pulse S (mod. B) with zero pulse Z</p> <p>POWER SUPPLY (with L electrical interface) 5 V DC 5 5 ... 28 V DC 5/28</p> <p>ELECTRICAL INTERFACE NPN open collector C push-pull P line driver L (mod. B) power supply 5/28V - output RS-422 RS</p> <p>SHAFT DIAMETER (mod. C) mm 6 (mod. B) mm 10</p> <p>OUTPUT TYPE cable (standard length: mod. B = 1,5 m - mod. C = 0,3 m) P preferred cable lengths 2 / 3 / 5 / 10 m, to be added after DIRECTION TYPE (eg. PR5) (mod. B) MIL connector M (mod. B) JIS-C-5432 connector J female connector included, without female please add 162 as variant code</p> <p>DIRECTION TYPE (mod. B) axial A radial R</p> <p>VARIANT custom version XXX</p>										



RECOMMENDED INTERFACE FLANGE DESIGN



dimensions in mm

ELECTRICAL SPECIFICATIONS

Resolution	from 100 to 2500 ppr (mod. B) 100 ppr (mod. C)
Power supply¹	5 = 4,5 ... 5,5 V DC 5/28 = 4,5 ... 30 V DC (reverse polarity protection)
Current consumption without load	100 mA max
Max load current	C / P = 50 mA / channel L / RS = 20 mA / channel
Electrical interface²	NPN open collector (AEIC-7273, pull-up max +30 V DC) push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or equivalent)
Max output frequency	200 kHz mod. B 150 kHz mod. C
Counting direction	A leads B clockwise (shaft view)
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2015/863/EU directive
UL / CSA	certificate n. E212495

EVB SERIES RESOLUTIONS

100 - 200 - 360 - 500 - 512 - 720 - 1000 - 1024 - 1440 - 2000 - 2048 - 2500

please directly contact our offices for other pulses, preferred resolutions in bold

CONNECTIONS

Function	Cable C / P	Cable L / RS	7 pin J C / P	7 pin J L / RS no Zero	7 pin M C / P	7 pin M L / RS no Zero	10 pin J L / RS with Zero	10 pin M L / RS with Zero
+V DC	red	red	6	4	F	D	4 - 5	D - E
0 V	black	black	1	6	A	F	6	F
A+	green	green	3	1	C	A	1	A
A-	/	brown or grey	/	3	/	C	7	G
B+	yellow	yellow	5	2	E	B	2	B
B-	/	orange	/	5	/	E	8	H
Z+	blue	blue	4	/	D	/	3	C
Z-	/	white	/	/	/	/	9	I
⏏	shield	shield	7	7	G	G	10	J

MECHANICAL SPECIFICATIONS

Shaft diameter	\varnothing 6 / 10 mm
Enclosure rating IEC 60529	IP 64 (mod. B) IP 40 (mod. C)
Mechanical indexes per turn	100
Shock	50 G, 11 ms (IEC 60068-2-27)
Vibration	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
Bearing stage material	EN-AW 2011 aluminum
Shaft material	1.4305 / AISI 303 stainless steel
Housing material	PA 66 glass fiber reinforced (mod. B) nickel plated brass (mod. C)
Bearings	n.2 ball bearings
Bearings life	10 ⁹ revolutions
Operating temperature^{3,4}	-10° ... +60°C (+14° ... +140°F)
Storage temperature⁴	-25° ... +70°C (-13° ... +158°F)
Weight	450 g (15,87 oz) mod. B 150 g (5,29 oz) mod. C

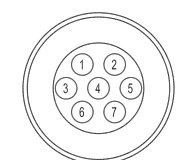
¹ as measured at the transducer without cable influences

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

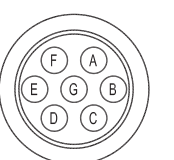
³ measured on the transducer flange

⁴ condensation not allowed

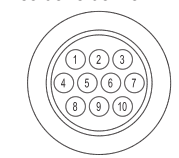
J connector (7 pin)
JIS-C-5432 Size 16
solder side view FV



M connector (7 pin)
Amphenol MS3102-E-16-S
solder side view FV



J connector (10 pin)
JIS-C-5432 Size 16
solder side view FV



M connector (10 pin)
Amphenol MS3102-E-18-1
solder side view FV

