



# EV A/B/C ELECTRONIC HAND WHEEL



## Electronic hand wheel

Electronic hand wheels series studied for positioning on the numerical control machines with manual drive.

- Resolution up to 10.000 ppr with zero
- Several electronic output configurations available. Up to 28 Vdc power supply.
- Output frequency up to 100 kHz
- Output cable with connector and several flanges available

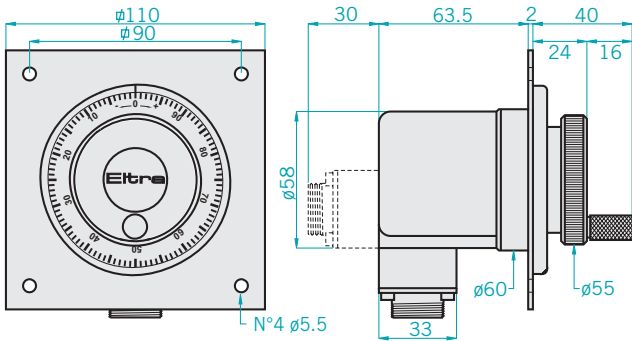


## Ordering code

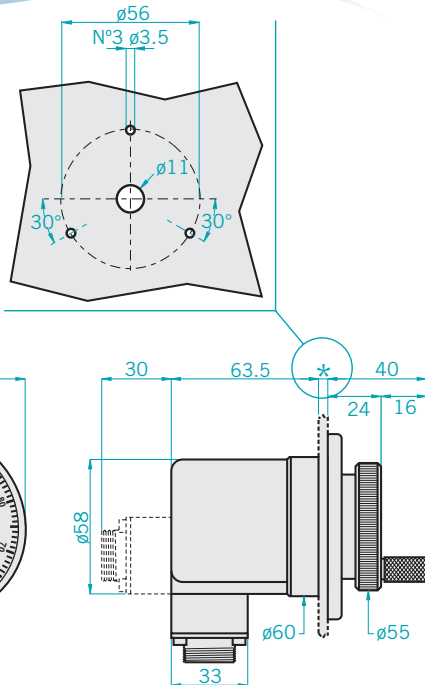
Full stop to separate special versions

EV	A	M	100	Z	5	L	10	M	R	.	XXX
Electronic hand wheel	Type of flanges										Special version code numbered from 001 to 999
EV	mod. EV A mod. EV B mod. EV C	with grip handle without grip handle							A axial (only EVA/B) R radial		
			Resolutions						P cable output (standard length 1,5 m for EVA/B) cable output (standard length 0,3 m for EVC)		
			from 1 to 10000 PPR for EV A/B 100 PPR for EV C <i>Please, directly contact our offices for pulses availability</i>						M connector M53106E 165-15 or 18-15 for EVA/B J connector JMSP 1607 F or 1610 F for EVA/B		
			Zero pulse						Shaft diameter		
			without zero pulse with zero pulse	S Z					6 ø 6 g6 mm ( EVC) 10 ø 10 g6 mm (EVA/B)		
			Input voltage:						Output types		
			(EVC available only with 5 Vdc) 5 5 ÷ 28 <i>LINE DRIVER available only with 5 Vdc or 8 ÷ 24 Vdc</i>						N NPN C NPN OPEN COLLECTOR P PUSH PULL L LINE DRIVER <i>For optionals about output types please refer to incremental outputs section</i>		

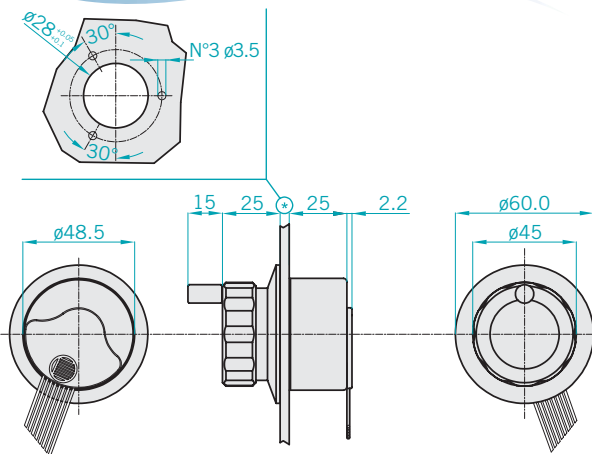
## EVA



## EVB



## EVC



### Electrical specifications

<b>Resolution</b>	from 1 to 10000 PPR for EVA/B 100 PPR for EVC
<b>Input voltage</b>	5 Vdc for EVC 5 Vdc / 5 ÷ 28 for EVA/B LINE DRIVER only available with input voltage 5/8-24 Vdc
<b>Input current with no output load</b>	100 mA MAX
<b>Source and sink current</b>	50 mA for channel 20 mA for channel with LINE DRIVER
<b>Output types</b>	NPN / NPN-OPEN COLLECTOR / PUSH PULL / LINE DRIVER
<b>MAX output frequency</b>	100 kHz MAX
<b>Frequency response</b>	$F = \frac{\text{RPM} \times \text{Resolution}}{60}$

### Mechanical specifications

<b>Shaft diameter</b>	$\phi 6$ mm g6 for EVC $\phi 10$ mm g6 for EVA/B
<b>Enclosure rating</b>	IP64 standard for EVA/B IP40 standard for EVC
<b>Mechanical lines per turn</b>	100
<b>Shock</b>	50 G for 11 msec
<b>Vibrations</b>	10G 10 ÷ 2000 Hz
<b>Bearings life</b>	$10^9$ revolutions
<b>Bearings</b>	n° 2 ball bearings
<b>Shaft material</b>	Stainless steel AISI303
<b>Housing material</b>	Aluminium D11S - UNI 9002/5
<b>Housing material</b>	PA 66 reinforced with fiber glass for EVA/B Fe for EVC
<b>Operating temperature</b>	$0^\circ \div +60^\circ\text{C}$
<b>Storage temperature</b>	$-25^\circ \div +70^\circ\text{C}$
<b>Weight</b>	150g for EVC 450g for EVA/B

