

art.EPLC

Absolute potentiometric linear transducer with cursor

The **EPLC** linear transducers are a very good alternative to the incremental Encoders described in the previous pages in that they allow “absolute” control of position, without any problems should the screw be turned whilst the machine is switched off but they do have the restriction of a shorter length of travel. The **art.EPLC** is composed of an anodized aluminium structure the needs to be fixed to the machine table and by means of the “cursor” screwed to the mobile carriage controls the position of the latter along the entire run of the Group itself. The entire length of the **EPLC Transducer** has a good rapport in reference to effective travel that can controlled (electric stroke) and therefore its application does not require additional bases in that it falls within the distance used for applying the fixed supports, components of our Manoeuvring Groups (see diagram at foot of page). When choosing the item, other than its size, the “degree of protection” also has to be considered as, being **IP40**, it can only be used in dry, clean environments. Whenever a high degree of protection is necessary **IP65/IP67** is possible, also with good economy, by using **Transducers EPLA** and **EPLB** with cylindrical rod, but with a larger size given the cylindrical body plus electric stroke given by the exit of the rod (see illustration and diagram on the opposite page). The Visualizer to use for power to and reading of the **EPLC Transducer** is model **HA217.01A/...**, different to that required for the incremental Encoders (see page 298).



TECHNICAL FEATURES

- **Linearity:** $\pm 0,5\%$
- **Displacement speed:** 4 m/s max (10 m/s max on request)
- **Displacement force:** 1,2 N max
- **Applicable voltage:** 60 V max
- **Electrical insulation:** > 100 M Ω , 500 VDC, 1 bar, 2 s
- **Dielectric rigidity:** < 100 μ A, 500 VAC, 50 Hz, 1 bar, 2 s
- **Power dissipation:** 3 W a 40°C / 0 W a 120°C
- **Protection class:** IP 40
- **Working temperature:** -30° ÷ 100°C
- **Storage temperature:** -50° ÷ 120°C
- **Thermal coefficient of the output volatge:** < 1,5 ppm/°C
- **Vibrations:** 20 G, 5 ÷ 2000 Hz
- **Shock rating:** 50 G per 11 ms
- **Acceleration:** 200 m/s² max (20 G)
- **Resistance tolerance:** $\pm 20\%$
- **Recommended cursor current:** < 0,1 μ A max
- **Max cursor current:** 10 mA max
- **Enclosure material:** anodized aluminium Nylon 66 G 25
- **Fitting method:** brackets of variable inter-axis

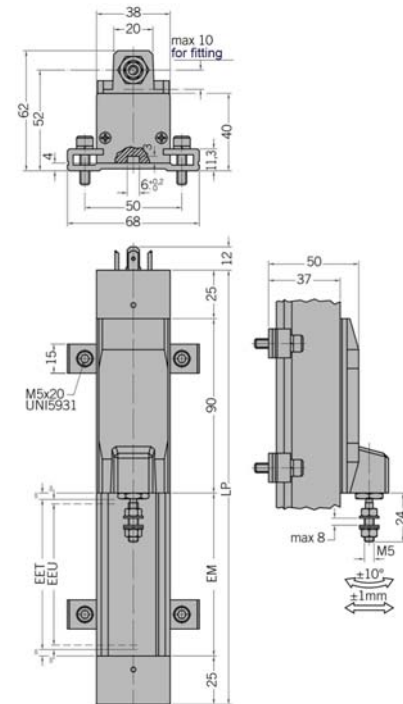
TECHNICAL/MECHANICAL DATA

- **Model:** 100/150/200/250/300/400/500/600/700/850/900/1000/1250.
- **Useful electric stroke (EEU) (+3/0 mm):** corresponds to model in mm.
- **Theoretical electric stroke (EET) (± 1 mm):** 103 mm (100), 153 mm (150), 204 mm (200), 254 mm (250), 305 mm (300), 406 mm (400), 509 mm (500), 611 mm (600), 713 mm (700), 865 mm (850), 915 mm (900), 1017 mm (1000), 1271 mm (1250).
- **Mechanical stroke (EM):** EET+10 mm (100 ÷ 1250)
- **Resistance (on EET):** 5k Ω (100 ÷ 300), 10k Ω (350 ÷ 1000), 20k Ω (1250).
- **Case length (LP):** EET+150 mm (100 ÷ 1250)

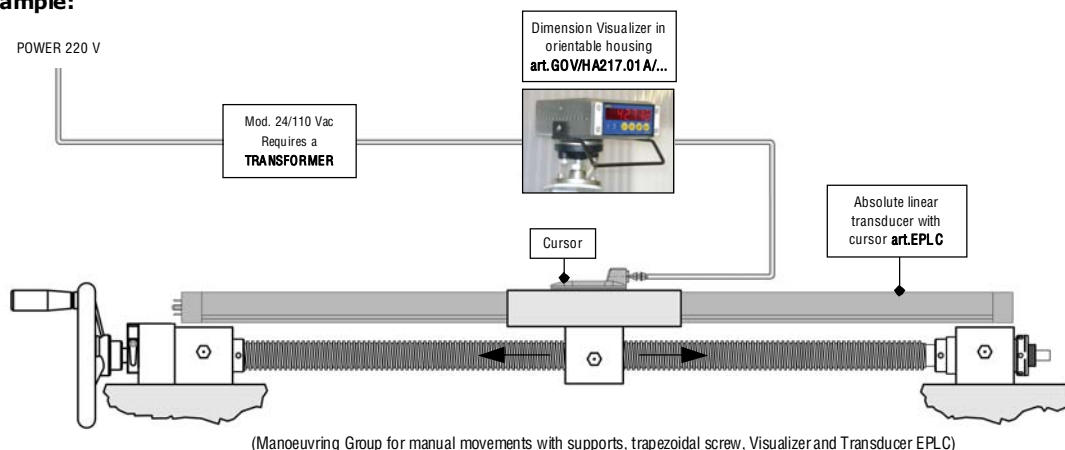
- For ordering show l'art. EPLC + the model determined by the stroke

EXAMPLE: Eltra Transducer art.EPLC mod.500

Absolute linear transducer with mobile fitting to the base and cursor.
Travel mm 0 ÷ 100 / max 0 ÷ 1250



Application example:



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art.EPLA

art.EPLB

Absolute potentiometric linear transducer with cylindrical rod

The **EPLA** and **EPLB** transducers differ from the **EPLC** substantially for the cylindrical rod that runs within them and with which it is possible to control the positioning up to a maximum of 500 mm with a greater degree of protection, **IP65/IP67**, but with a larger size given by the cylinder plus the electrical stroke (see diagram at the foot of this page). The high degree of protection of models **EPLA** and **EPLB** allows for uses in environments with the presence of dust, humidity and liquids. Excluding the diverse methods of applying each individual model, together with the degree of protection and size in length of the *Eltra* Transducers, the remaining technical features are similar between them and anyway, for an ideal choice, we recommend referring to website www.Eltra.it. Also for the **EPLA** and **EPLB** models the Visualizer to use for the power and reading of these transducers is model **HA217.01A/...**, different to that required for the incremental Encoders (see the following pages).



Absolute linear transducer with mobile fitting to the base and cylindrical rod **art.EPLA**
Travel mm 0 ÷ 50 / max 0 ÷ 500



Absolute linear transducer with cylindrical rod and joints **art.EPLB**
Travel mm 0 ÷ 50 / max 0 ÷

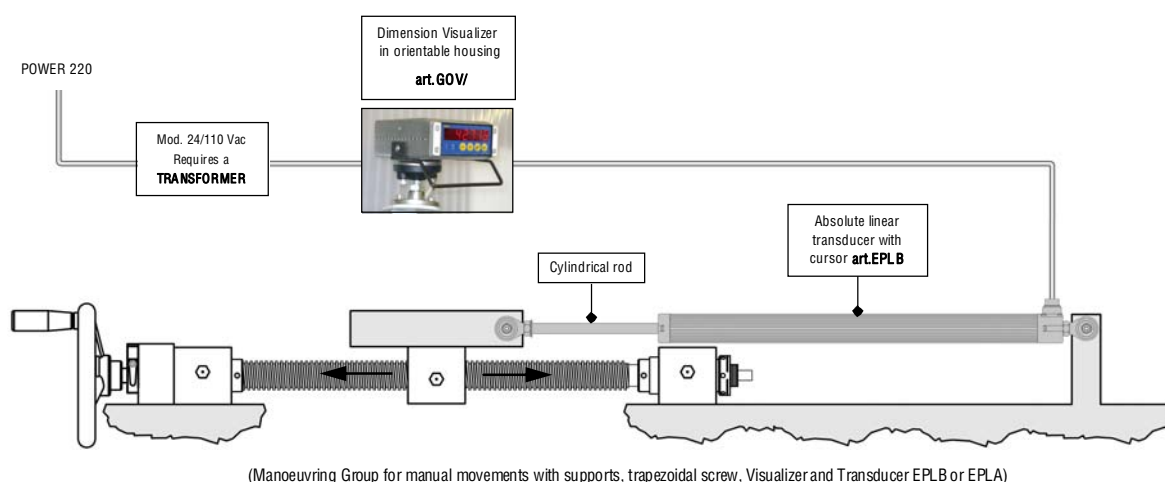


Models **EPLA** and **EPLB** with electrical stroke mm 50/100/150/200/250/300/400/450/500.

For ordering show l'art. **EPLA** or **EPLB** + the model determined by the stroke

EXAMPLE: : Eltra Transducer art.EPLB mod.300

Application example:



The better technical alternative to the above standard Transducers is certainly given by the use of dimension Visualizers with Optical Scales described on the following pages.