## MAIN CHARACTERISTICS

EPLT is an absolute linear potentiometer transducer.
This model is characterized by the absence of cursor and the presence of a sensing system, composed by a moving rod, stainless steel sphere mounted on a threaded tip with a spring.
This transducer is suitable for applications where short strokes are requested.
The presence of the spring assures an automatic head positioning making this device suitable for being used in precise applications on cams or to control products coming from automatic production line. EPLT is also characterized by the absence of variations on the electrical output signal outside of the theoretical electrical stroke.

ORDERING CODE

dimensions in mm

## CONNECTIONS

| Function | Cable <br> $\mathbf{P}$ | 5 pin <br> $\mathbf{C 5}$ |
| :---: | :---: | :---: |
| + | blue | 3 |
| - | brown | 1 |
| OUTPUT | yellow | 2 |
| NC | $/$ | $/$ |
| NC | $/$ | $/$ |
| $\frac{1}{=}$ | shield | $/$ |

C5 connector (5 pin)
DIN 45322
solder side view FV

fixing kit (brackets, M4×10 screws, washer) and tip with ball included female connector not included, please refer to Accessories

ELECTRICAL SPECIFICATIONS

| Resolution | virtually infinite |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stroke | mm | 10 | 25 | 50 | 75 | 100 |
| Independent linearity | \% | $\pm 0,3$ | $\pm 0,2$ | $\pm 0,1$ | $\pm 0,1$ | $\pm 0,1$ |
| Resistance tolerance | $\pm 20$ \% |  |  |  |  |  |
| Recommended cursor current | $<0,1 \mu \mathrm{~A}$ |  |  |  |  |  |
| Output voltage temperature coefficient | $<1,5 \mathrm{ppm} /{ }^{\circ} \mathrm{C}$ |  |  |  |  |  |
| Power dissipation at $40^{\circ} \mathrm{C}$ ( 0 W at $+120^{\circ} \mathrm{C}$ ) | W | 0,2 | 0,6 | 1,2 | 1,8 | 2,4 |
| Max cursor current | 10 mA max |  |  |  |  |  |
| Max applicable voltage | V | 14 | 25 | 60 | 60 | 60 |
| Electrical insulation | $>100 \mathrm{M} \Omega, 500 \mathrm{~V}$ DC, 1 bar, 2 s |  |  |  |  |  |
| Dielectric strenght | $<100 \mu \mathrm{~A}, 500 \mathrm{VAC}, 50 \mathrm{~Hz}, 1 \mathrm{bar}, 2 \mathrm{~s}$ |  |  |  |  |  |
| RoHS | according to 2011/65/EU directive |  |  |  |  |  |

Important: data are valid if the transducer is used as a ratiometric device with a maximum applicable current $\leq 0,1 \mu \mathrm{~A}$

## MECHANICAL SPECIFICATIONS

| Stroke | mm | 10 | 25 | 50 | 75 | 100 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Useful electric stroke (EEU) (+1/-0 mm) | mm | 10 | 25 | 50 | 76 | 101 |
| Theoretical electric stroke (EET) $( \pm 1 \mathrm{~mm}$ ) | mm | 11 | 26 | 51 | 76 | 101 |
| Mechanical stroke (EM) | mm | 15 | 30 | 55 | 81 | 106 |
| Resistance (on EET) | $k \Omega$ | 1 | 1 | 5 | 5 | 5 |
| Case length (LP) | mm | 48 | 63 | 88 | 114 | 139 |
| Sensing probe length | mm | 32 | 32 | 40 | 40 | 40 |
| Additional length (D) | mm | - | - | - | 5 | 11 |
| Total length (LT) | mm | 108 | 138 | 196 | 251 | 307 |
| Travel speed | $10 \mathrm{~m} / \mathrm{s}$ max |  |  |  |  |  |
| Enclosure rating | IP 40 (IEC 60529) |  |  |  |  |  |
| Shock | $50 \mathrm{G}, 11 \mathrm{~ms}$ (IEC 60068-2-27) |  |  |  |  |  |
| Vibration | $20 \mathrm{G}, 5 \ldots 2000 \mathrm{~Hz}$ (IEC 60068-2-6) |  |  |  |  |  |
| Displacement force | $\leq 4 \mathrm{~N}$ |  |  |  |  |  |
| Housing material | anodized aluminium / Nylon 66 G 25 |  |  |  |  |  |
| Rod material | 1.4305 / AISI 303 stainless steel |  |  |  |  |  |
| Mounting | brackets with variable center-to-center distance |  |  |  |  |  |
| Life | $>25 \times 10^{6} \mathrm{~m}$ strokes or $>100 \times 10^{6}$ operations |  |  |  |  |  |
| Operating temperature ${ }^{1,2}$ | $-30^{\circ} \ldots+100^{\circ} \mathrm{C}\left(-22^{\circ} \ldots+212^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |
| Storage temperature ${ }^{2}$ | $-50^{\circ} \ldots+120^{\circ} \mathrm{C}\left(-58^{\circ} \ldots+248^{\circ} \mathrm{F}\right)$ |  |  |  |  |  |

${ }^{1}$ measured on transducer
${ }^{2}$ condensation not allowed

nstallation warning instructions:
connect the transducer according to the reported connections
DO NOT use it as a variable resistance
the transducer calibration has to be done setting the stroke in order to have an output signal between 1
\% and $99 \%$ of the voltage level

