

Precision Linear Transducers, Designed for Mounting in Hydraulic or Pneumatic Cylinder, Conductive Plastic Element (Sealed Series/Ø 16 mm)



Those sensors are to be installed in the high pressure chamber of cylinders and are equipped with glass-sealed electrical outputs.

FEATURES

- Large range of strokes from 25 mm to 2000 mm
- High accuracy
- Very good repeatability
- Continuous resolution
- Easy mounting
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT

QUICK REFERENCE DATA

Sensor type	LINEAR, conductive plastic
Output type	Wires
Market appliance	Industrial
Dimensions	L x 16 mm dia. (with L = TET + 77 mm)

ELECTRICAL SPECIFICATIONS

Theoretical electrical travel (TET = E)	From 25 mm to 2000 mm in increments of 25 mm
Independent linearity over TET On request	$\leq \pm 1\%$; $\leq \pm 0.1\%$ $\leq \pm 0.05\%$ if $E \geq 100$ mm, $\leq \pm 0.025\%$ if $E \geq 200$ mm
Actual electrical travel (AET)	TET + 6 mm \pm 0.5
Total resistance R_T	150 Ω /cm
Resistance tolerance at 20 °C	$\pm 20\%$
Repeatability	$\leq 0.01\%$
Maximum power rating	0.05 W/cm at 70 °C, 0 W at 125 °C
Wiper current	Recommended: a few μ A - 1 mA max. (continuous)
Load impedance	1000 times R_T minimum
Insulation resistance	> 1000 M Ω 500 V _{DC}
Dielectric strength	> 300 V _{RMS} at 50 Hz

MECHANICAL SPECIFICATIONS

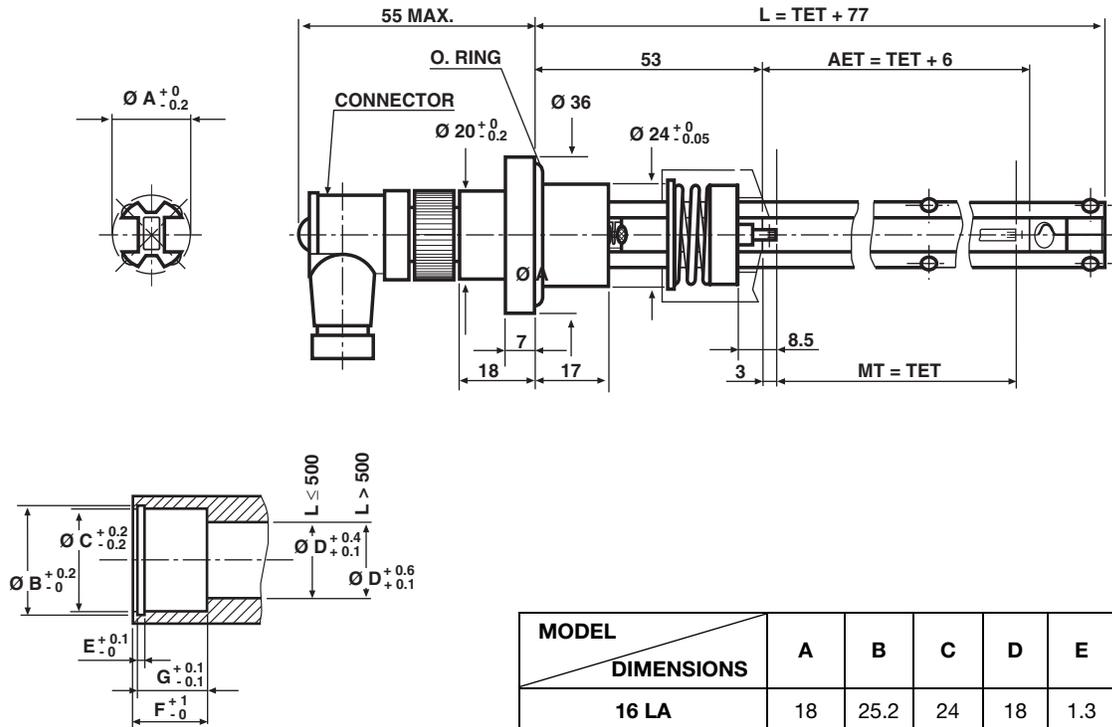
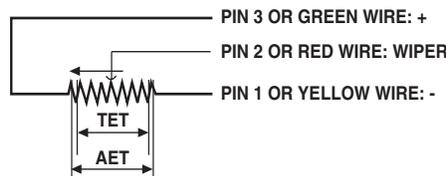
Mechanical travel MT	MT = TET
Body	Anodized aluminum
Rod internal diameter	16 LA: Ø 18 mm
Support	Stainless steel
Operating force	1 N typical
Sealing	Glass-sealing on electrical outputs
Electrical outputs On request	Connector Wires
Oil	Insulating mineral hydraulic
Pressure	300 bars continuous, 1000 bars accidentally
Wiper	Precious metal multifinger

PERFORMANCE

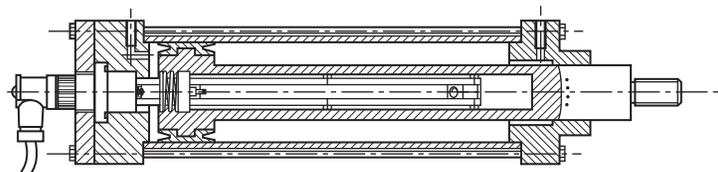
Life	25 million cycles typical/1 Hz/T° = 20 °C \pm 5 °C/80 % TET
Temperature limits	-20 °C to +80 °C
Speed at 20 °C	1.5 m/s max.

Note

- Nothing stated herein shall be construed as a guarantee of quality or durability.

DIMENSIONS in millimeters, general tolerance ± 1 mm

ELECTRICAL CONNECTIONS


TET = Theoretical electrical travel
 AET = Actual electrical travel

MOUNTING IN ACTUATOR




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