

# 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](http://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 $\Omega$ /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 $\mu$ A - 1 mA max. (continuous)
Load impedance	1000 times $R_T$ minimum
Insulation resistance	> 1000 M $\Omega$ 500 V <sub>DC</sub>
Dielectric strength	> 300 V <sub>RMS</sub> at 50 Hz

**MECHANICAL SPECIFICATIONS**

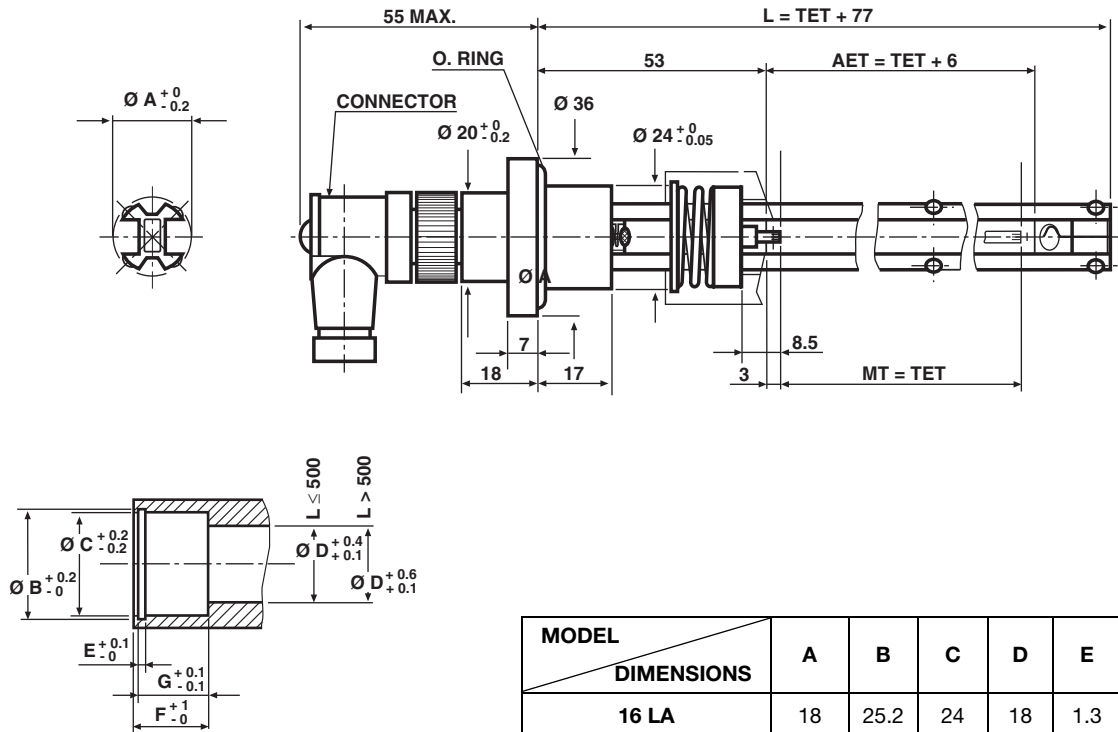
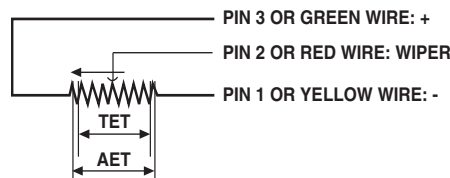
Mechanical travel MT	MT = TET
Body	Anodized aluminum
Rod internal diameter	16 LA: Ø 18 mm
Support	Stainless steel
Operating force	1 N typical
Sealing	Glass-sealing on electrical outputs
Electrical outputs On request	Connector Wires
Oil	Insulating mineral hydraulic
Pressure	300 bars continuous, 1000 bars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

**PERFORMANCE**

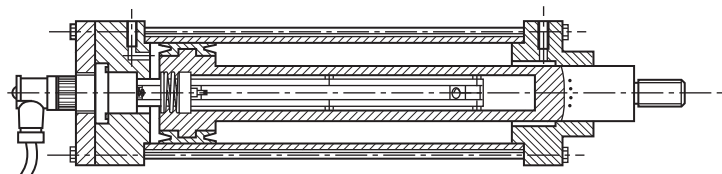
Life	25 million cycles typical/1 Hz/T° = 20 °C $\pm$ 5 °C/80 % TET
Temperature limits	-20 °C to +80 °C
Speed at 20 °C	1.5 m/s max.

**Note**

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

**DIMENSIONS** in millimeters, general tolerance  $\pm 1$  mm

**ELECTRICAL CONNECTIONS**


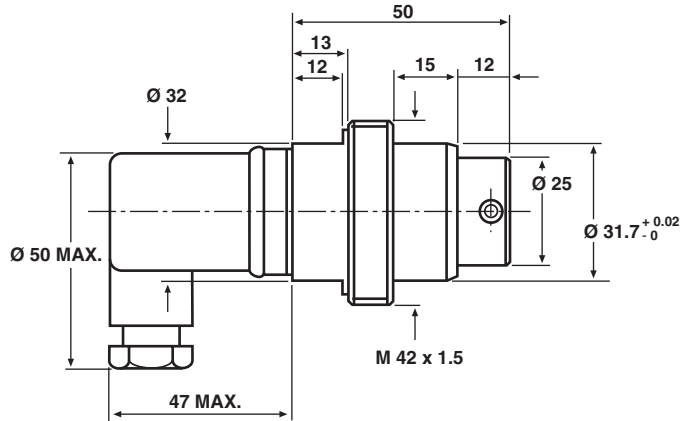
TET = Theoretical electrical travel  
 AET = Actual electrical travel

**MOUNTING IN ACTUATOR**


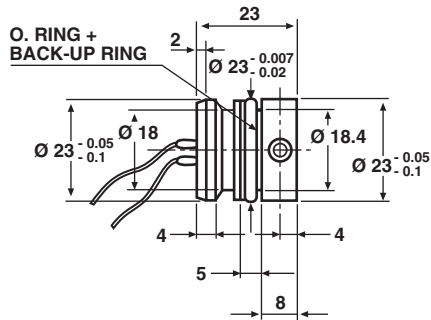
**DIMENSIONS** in millimeters, general tolerance  $\pm 1$  mm

OTHER DESIGNS OF SUPPORT

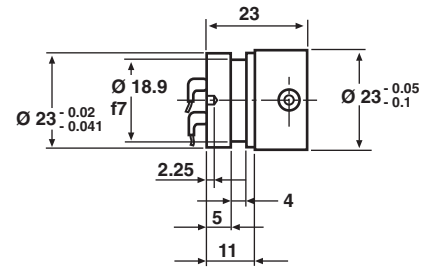
...W04200



...W04700



...W04707



**ORDERING INFORMATION/DESCRIPTION**

REC SERIES	16 MODEL	LA TYPE	4 THEORETICAL ELECTRICAL TRAVEL	D LINEARITY	152 RESISTANCE	W... MODIFICATIONS	e. LEAD FINISH
		Sealed	Times 25 mm	A: $\leq \pm 1\%$ D: $\leq \pm 0.1\%$ E: $\leq \pm 0.05\%$ F: $\leq \pm 0.025\%$	First 2 digits are significant numbers 3 <sup>rd</sup> indicates number of zeros	Special feature code number	

**SAP PART NUMBERING GUIDELINES**

RE SERIES	16 LA MODEL	4 TET	D LINEARITY	152 OHMIC VALUE	W... SPECIAL FEATURES
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