

Vishay Sfernice

## Precision Linear Transducers, Designed for Mounting in Hydraulic or Pneumatic Cylinder, Conductive Plastic (Sealed Series/Ø 10 mm)



This sensor is to be installed in the high pressure chamber of small cylinders and is equipped with glass-sealed electrical outputs.

### FEATURES

- Large range of strokes from 25 mm to 500 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	10 mm dia.

### ELECTRICAL SPECIFICATIONS

Theoretical electrical travel (TET) = E	From 25 mm to 500 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 resistance	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	Ø 12 mm
Support	Stainless steel
Operating force	1 N typical
Sealing	Glass-sealing on electrical outputs
Electrical outputs	Wires AWG 26 L = 300 mm
Oil	Insulating mineral hydraulic
Pressure	300 bars continuous, 1000 bars accidentally
Wiper	Precious metal multifinger

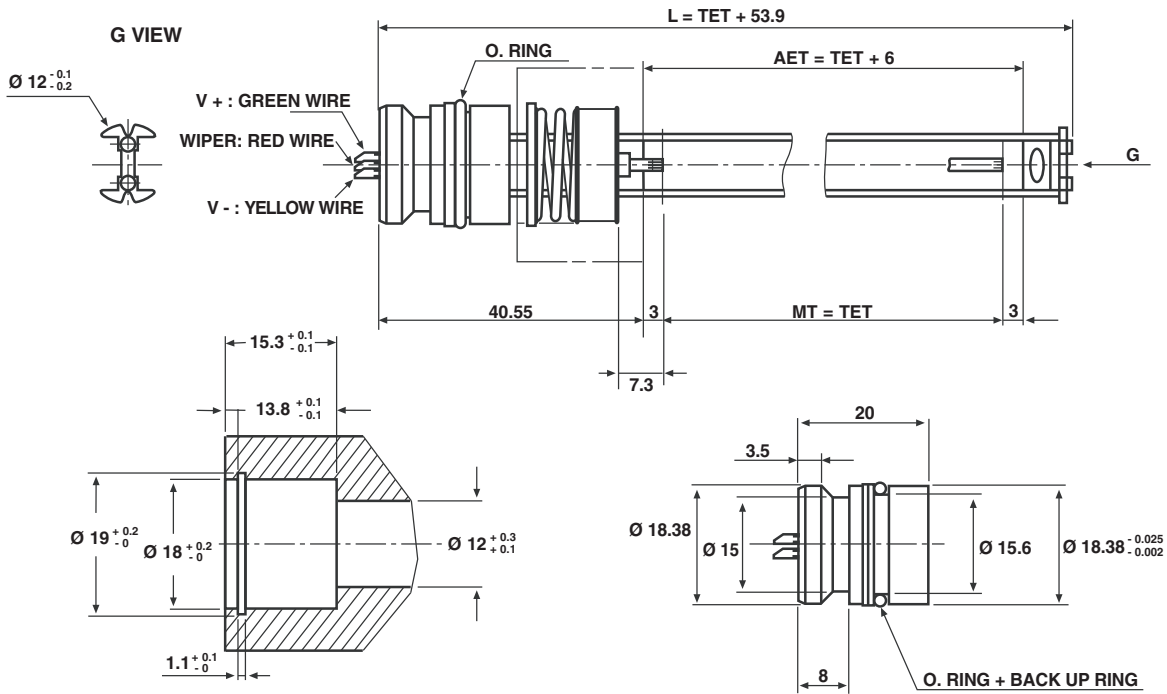
### PERFORMANCE

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**

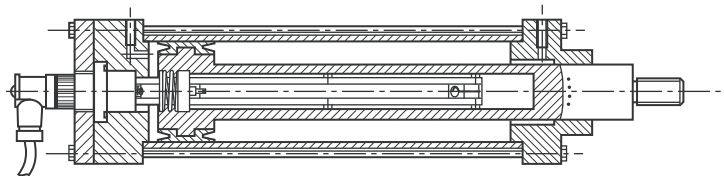
- Nothing stated herein shall be construed as a guarantee of quality or durability.

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

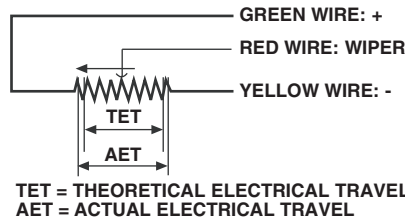


General Tolerance:  $\pm 1$  mm

**MOUNTING IN ACTUATOR**



**ELECTRICAL CONNECTIONS**



**ORDERING INFORMATION/DESCRIPTION**

REC	10	LA	4	D	152	W...	e.
SERIES	MODEL	TYPE	THEORETICAL ELECTRICAL TRAVEL	LINEARITY	RESISTANCE	MODIFICATIONS	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> digit indicates number of zeros	Special feature code number	

**SAP PART NUMBERING GUIDELINES**

RE	10 LA	4	D	152	W...
SERIES	MODEL	TET	LINEARITY	OHMIC VALUE	SPECIAL FEATURES