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

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	≤ ± 1 %; ≤ ± 0.1 % ≤ ± 0.05 % if E ≥ 100 mm ≤ ± 0.025 % if E ≥ 200 mm
Actual electrical travel (AET)	TET + 6 mm ± 0.5
Total resistance R_T	150 Ω/cm
Resistance tolerance at 20 °C	± 20 %
Repeatability	≤ 0.01 %
Maximum power rating	0.05 W/cm at 70 °C, 0 W at 125 °C
Wiper current	Recommended: a few µA - 1 mA max. (continuous)
Load resistance	1000 times R_T minimum
Insulation resistance	> 1000 MΩ, 500 V_{DC}
Dielectric strength	> 300 V_{RMS} 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 ± 5 °C/80 % TET
Temperature limits	-20 °C to +80 °C
Speed at 20 °C	1.5 m/s max.

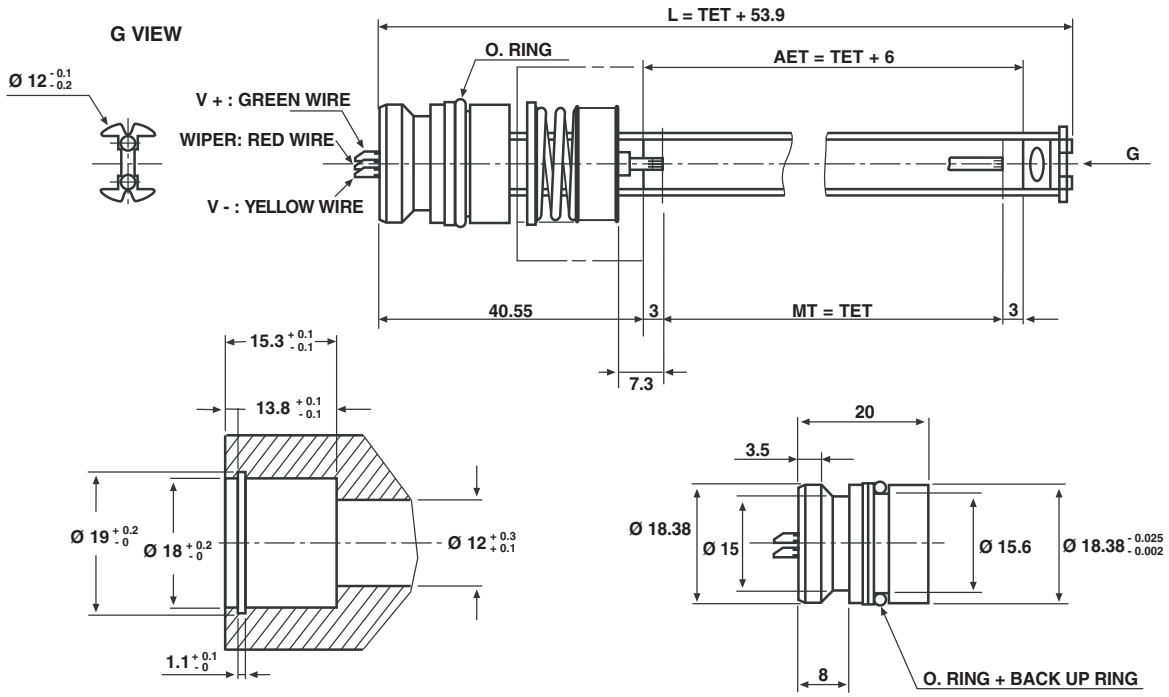
Note

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

For technical questions, contact: sferprecisionpot@vishay.com

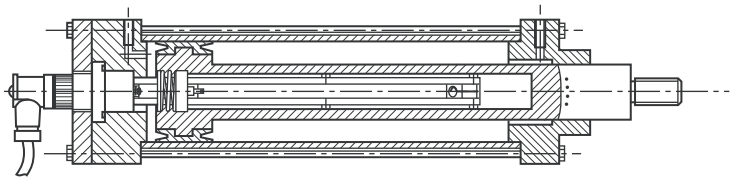
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DIMENSIONS in millimeters, general tolerance ± 1 mm

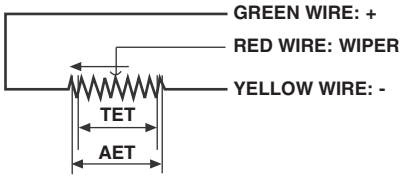


General Tolerance: ± 1 mm

MOUNTING IN ACTUATOR



ELECTRICAL CONNECTIONS



TET = THEORETICAL ELECTRICAL TRAVEL
AET = ACTUAL ELECTRICAL TRAVEL

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: ≤ ± 1 % D: ≤ ± 0.1 % E: ≤ ± 0.05 % F: ≤ ± 0.025 %	First 2 digits are significant numbers 3rd 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

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