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Vishay Sfernice

Precision Linear Transducers, Conductive Plastic, up to 1000 mm



DESIGN SUPPORT TOOLS

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The 115 L is a simply mounted, robust, high precision industrial linear motion transducer.

FEATURES

- Measurement range 25 mm to 1000 mm
- High accuracy ± 1 % down to ± 0.025 %



- · Excellent repeatability
- Essentially infinite resolution
- Non sensitive to temperature variations
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

QUICK REFERENCE DATA			
Sensor type	LINEAR, conductive plastic		
Output type	Connector		
Market appliance	Industrial		
Dimensions	$L \times 31.7 \text{ mm} \times 34.8 \text{ mm} \text{ (with } L = \text{TET} + 75 \text{ mm)}$		

ELECTRICAL SPECIFICATIONS					
Theoretical electrical travel (TET) = E	From 25 mm to 1000 mm in increments of 25 mm				
Independent linearity (over TET) on request	\leq \pm 1 % \leq \pm 0.1 % \leq \pm 0.05 % for E \geq 100 mm \leq \pm 0.025 % for E \geq 200 mm				
Actual electrical travel (AET)	AET = TET + 1.5 mm min.				
Ohmic values (R _T)	400 Ω /cm to 2 k 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	minimum 10 ³ x R _T				
Insulation resistance	≥ 1000 MΩ, 500 V _{DC}				
Dielectric strength	≥ 1000 V _{RMS} , 50 Hz				
Protection resistor	Integrated inside the transducer to protect against errors when setting up (short circuit)				

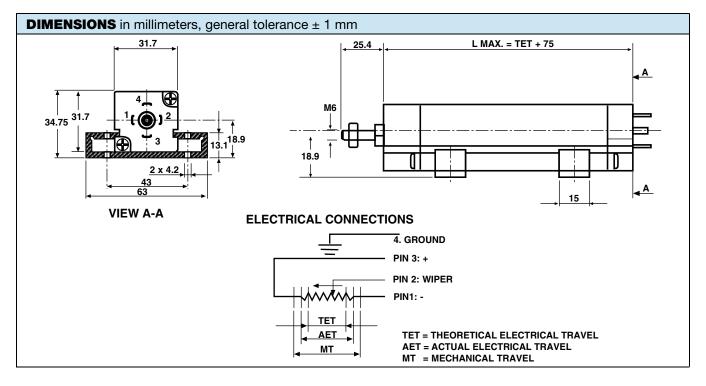
MECHANICAL SPECIFICATIONS					
Mechanical travel E + 8 ± 2 mm					
Housing	Anodized aluminum				
Operating force	7.5 N typical				
Shaft (free rotation)	Stainless steel				
Termination Hydraulic type connector DIN 43650					
Wiper	Precious metal multifinger				
Mounting	Movable brackets				

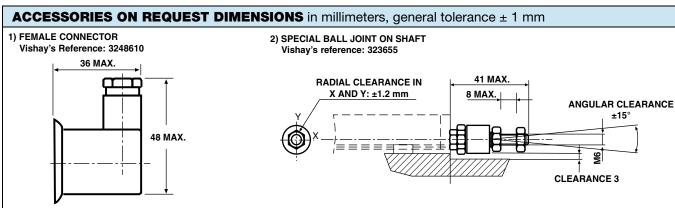
PERFORMANCE					
Operating life	40 million cycles typical / 1 Hz / T° = 20 °C ± 5 °C / 80 % TET				
Temperature range	-55 °C to +125 °C				
Sine vibration on 3 axes	1.5 mm peak to peak 0 Hz to 10 Hz $9 - 10$ Hz $- 2000$ Hz				
Mechanical shocks on 3 axes	50 g - 11 ms - half sine				
Speed (max.)	8 m/s for f < 2 Hz; 3 m/s for f < 5 Hz				

Note

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







ORDERING INFORMATION/DESCRIPTION							
REC	115	L	23	D	103	W	e.
SERIES	MODEL	NUMBER OF TRACKS	THEORETICAL ELECTRICAL TRAVEL	LINEARITY	OHMIC VALUE	MODIFICATIONS	LEAD FINISH
		L = 1	Times 25 mm	A: ± 1 % D: ± 0.1 % E: ± 0.05 % F: ± 0.025 %	First 2 digits are significant numbers 3 rd digit indicates number of zeros	Special feature code number	

SAP PART NUMBERING GUIDELINES							
RE	115 L	23	D	103	W		
SERIES	MODEL	TET	LINEARITY	OHMIC VALUE	SPECIAL FEATURES		



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