Precision Linear Transducers, Conductive Plastic (REC)

FEATURES

- Measurement Range 25mm to 1000mm

- High Accuracy ± 1% down to ± 0.025%

- Excellent Repeatability

- Long Life

- Essentially Infinite Resolution

- Not Sensitive to Temperature Variations

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

ELECTRICAL SPECIFICATIONS

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Theoretical electrical travel (TET = E)	From 25mm to 1000mm in increments of 25mm
Independent linearity (over TET) on request	$\leq \pm 1\%$ - $\leq$ - $\pm 0.1\%$ $\leq \pm 0.05\%$ for E $\geq$ 100mm, $\leq \pm 0.025\%$ for E $\geq$ 200mm
Actual electrical travel (AET)	AET = TET + 1.5mm min.
Ohmic values (R_T)	400Ω/cm to 2kΩ/cm
Resistance tolerance at 20°C	± 20%
Repeatability	$\leq \pm 0.01\%$
Maximum power rating	0.05W/cm at 70°C, 0W at 125°C
Wiper current	recommended: a few µA - 1mA max. continuous
Load resistance	minimum 10^3 x R_T
Insulation resistance	$\geq$ 1000MΩ 500VDC
Dielectric strength	$\geq$ 1000VRMS 50Hz
Protection resistor	Integrated inside the transducer to protect against errors when setting up (short circuit)

MECHANICAL SPECIFICATIONS

Mechanical travel	E + 8 ± 2mm
Housing	anodized aluminum
Operating force	7.5N typical
Shaft (free rotation)	stainless steel
Termination	hydraulic type connector DIN 43650
Wiper	precious metal multifinger
Mounting	movable brackets

PERFORMANCE

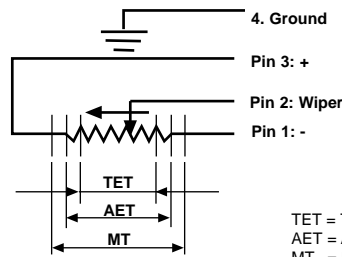|	
Operating life	40 million cycles typical
Temperature range	- 55°C +125°C
Sine vibration on 3 axes	1.5mm peak to peak 0 - 10Hz 15g - 10Hz - 2000Hz
Mechanical shocks on 3 axes	50g - 11ms - half sine

DIMENSIONS in millimeters, general tolerance ± 1mm

VIEW A-A

L max. = TET + 75
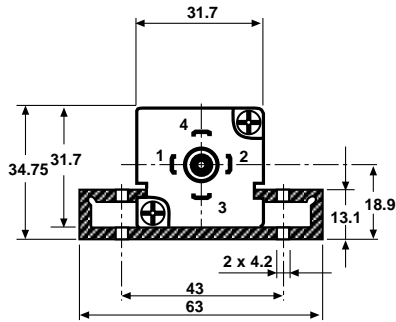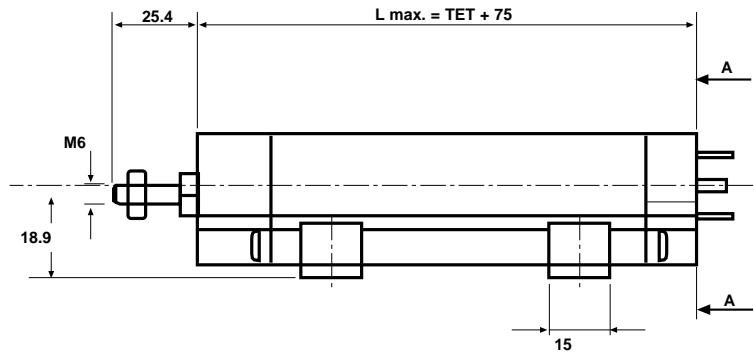
ELECTRICAL CONNECTIONS

4. Ground

Pin 3: +

Pin 2: Wiper

Pin 1: -

TET
AET
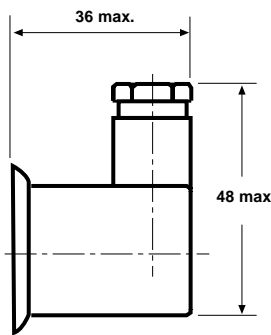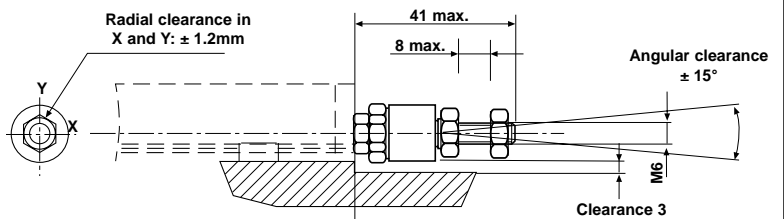MT

TET = Theoretical electrical travel
AET = Actual electrical travel
MT = Mechanical travel

ACCESSORIES ON REQUEST DIMENSIONS in millimeters, general tolerance ± 1mm

1) FEMALE CONNECTOR
   Vishay's Reference: 3248610

36 max.

48 max

2) SPECIAL BALL JOINT ON SHAFT
   Vishay's reference: 323655

Radial clearance in
X and Y: ± 1.2mm

41 max.

8 max.

Angular clearance
± 15°

M6

Clearance 3

ORDERING INFORMATION

REC	115	L	23	D	103	W...
SERIES	MODEL	NUMBER OF TRACKS	THEORETICAL ELECTRICAL TRAVEL	LINEARITY	OHMIC VALUE	MODIFICATIONS
		L = 1	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