

Precision Linear Transducers, Conductive Plastic (REC)



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

FEATURES

- Measurement Range 25mm to 1000mm
- High Accuracy $\pm 1\%$ down to $\pm 0.025\%$
- Excellent Repeatability
- Long Life
- Essentially Infinite Resolution
- Not Sensitive to Temperature Variations

ELECTRICAL SPECIFICATIONS	
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 $E \geq 100\text{mm}$, $\leq \pm 0.025\%$ for $E \geq 200\text{mm}$
Actual electrical travel (AET)	AET = TET + 1.5mm min.
Ohmic values (R _T)	400Ω/cm to 2kΩ/cm
Resistance tolerance at 20°C	$\pm 20\%$
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 $10^3 \times R_T$
Insulation resistance	$\geq 1000\text{M}\Omega$ 500VDC
Dielectric strength	$\geq 1000\text{VRMS}$ 50Hz
Protection resistor	Integrated inside the transducer to protect against errors when setting up (short circuit)

MECHANICAL SPECIFICATIONS	
Mechanical travel	$E + 8 \pm 2\text{mm}$
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 ± 1 mm

VIEW A-A

ELECTRICAL CONNECTIONS

4. Ground
Pin 3: +
Pin 2: Wiper
Pin 1: -

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

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

1) FEMALE CONNECTOR
Vishay's Reference: 3248610

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

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 : $\pm 1\%$ D : $\pm 0.1\%$ E : $\pm 0.05\%$ F : $\pm 0.025\%$	First 2 digits are significant numbers 3rd digit indicates number of zeros	Special feature code number