Precision Linear Transducers, Conductive Plastic, up to 3000 mm

The 139 L is a robust industrial linear motion transducer with a side actuation, ideally suited for applications with very long travels.

FEATURES

- Measurement range 25 mm to 3000 mm
- High accuracy ± 1 % down to ± 0.025 %
- Excellent repeatability
- Essentially infinite resolution
- Simple mounting
- Actuation tolerant to some misalignment
- Reduced bulk

RoHS COMPLIANT

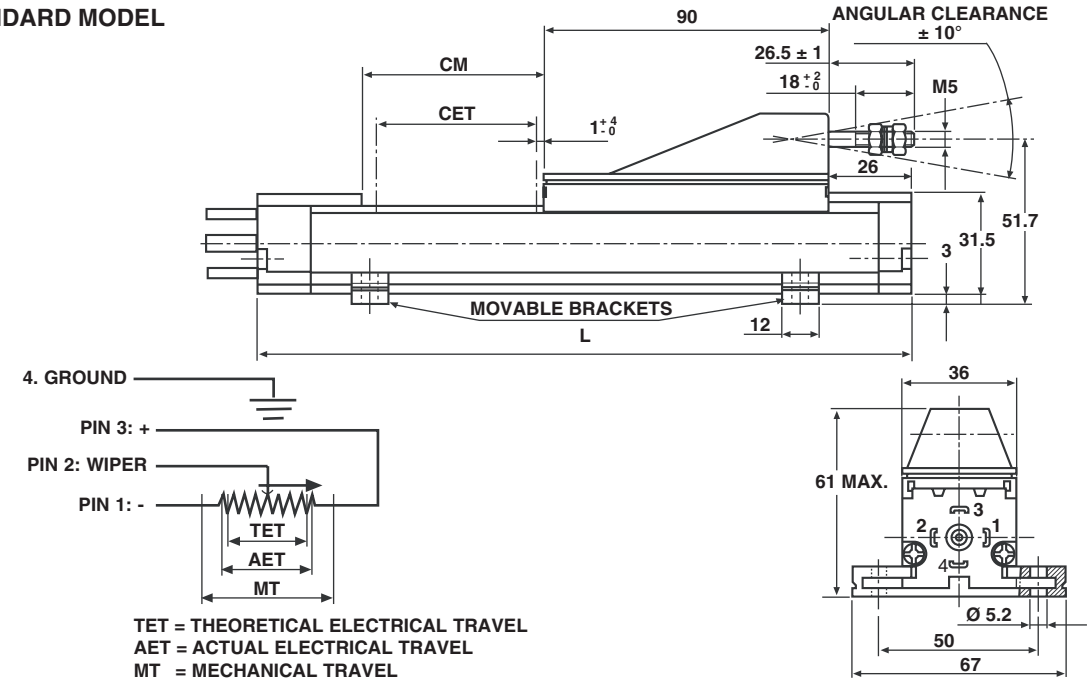
ELECTRICAL SPECIFICATIONS	
Theoretical Electrical Travel (TET) = E	From 25 mm to 3000 mm in increments of 25 mm
Independent Linearity (over TET) On Request	≤ ± 1 %; ≤ ± 0.1 % ≤ ± 0.05 % for E ≥ 100 mm ≤ ± 0.025 % for E ≥ 200 mm
Actual Electrical Travel (AET)	AET = E + 1.5 mm min.
Ohmic Value (R_T)	400 Ω/cm to 2 kΩ/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

MECHANICAL SPECIFICATIONS	
Mechanical Rravel (MT)	See dimensions table 1
Housing	Anodized aluminum
Operating Force	2.5 N typical
Coupling	Self alignment
Termination	Hydraulic type connector DIN 43650
Wiper	Precious metal multifinger
Sealed to	IP53
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 or 15 g - 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

DIMENSIONS in millimeters, general tolerance ± 1 mm

STANDARD MODEL

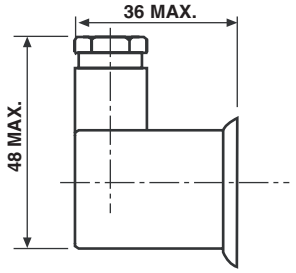


TET = THEORETICAL ELECTRICAL TRAVEL
AET = ACTUAL ELECTRICAL TRAVEL
MT = MECHANICAL TRAVEL

LENGTH	AET	MT	L
L1 to L20	TET + 1.5 min.	TET + 7 min.	TET + 158 max.
L21 to L40	TET + 1.5 min.	TET + 11 min.	TET + 163 max.
L41 to L120	TET + 1.5 min.	TET + 15 min.	TET + 169 max.

ELECTRICAL CONNECTIONS

FEMALE CONNECTOR
Vishay's Reference: 3248610



ORDERING INFORMATION/DESCRIPTION

REC	139	L	43	D	103	W...	e3
SERIES	MODEL	NUMBER OF TRACKS	THEORETICAL ELECTRICAL	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 3rd digit indicates number of zeros	Special feature code number	Pure tin

SAP PART NUMBERING GUIDELINES

RE	139 L	43	D	103	W....
SERIES	MODEL	TET	LINEARITY	OHMIC VALUE	SPECIAL FEATURES

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