Precision Linear Transducers, Conductive Plastic, up to 150 mm

The 38 L is a very compact model especially designed for precise measurement of short travels.

FEATURES

- Measurement range 12.5 mm to 150 mm
- High accuracy ± 1 % down to ± 0.1 %
- Long life
- Essentially infinite resolution
- Very small dimension: External diameter = 9.52 mm

RoHS COMPLIANT

ELECTRICAL SPECIFICATIONS	
Theoretical Electrical Travel (TET)	From 12.5 mm to 150 mm see table 1
Actual Electrical Rravel (AET)	AET = TET + 1 mm
Independent Linearity (over TET)	≤ ± 1 % - ≤ ± 0.5 % ≤ ± 0.25 % for E ≥ 25 mm ≤ ± 0.1 % for E ≥ 50 mm
Repeatability	≤ 0.01 %
Ohmic Values (R_T)	From 400 Ω/cm to 2 kΩ/cm
Resistance Tolerance at 20 °C	± 20 %
Wiper Current	Recommended: a few µA - 1 mA max. (continuous)
Load Resistance	Minimum 10^3 x R_T
Insulation Cesistance	≥ 1000 MΩ, 500 V_{DC}
Dielectric Strength	≥ 500 V_{RMS}, 50 Hz

MECHANICAL SPECIFICATIONS	
Mechanical Travel (MT)	MT = TET + 3 ± 1 mm
Housing	Anodized aluminum
Operating Force	0.35 N typical
Termination	3 wires PTFE AWG 28 length: 300 mm
Wiper	Precious metal multifinger

PERFORMANCE	
Operating Life	25 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

DIMENSIONS in millimeters, general tolerance ± 1 mm

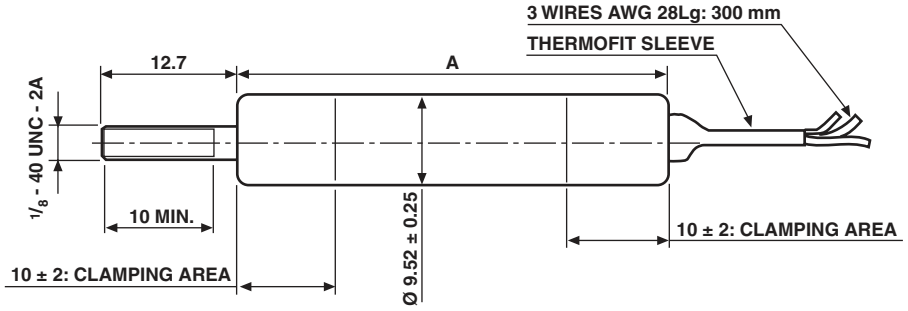
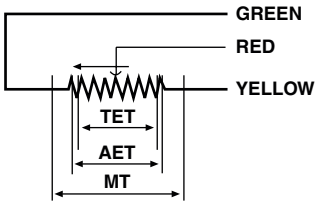


TABLE 1

SIZE	TET	MT	A
38 L0.5	12.5	15.5	43.5
38 L01	25	28	56
38 L02	50	53	81
38 L03	75	78	106
38 L04	100	103	131
38 L05	125	128	156
38 L06	150	153	181

ELECTRICAL CONNECTIONS



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

ORDERING INFORMATION/DESCRIPTION

REC	38	L	0.5	C	102	W...	e1
SERIES	MODEL	NUMBER OF TRACKS	ELECTRICAL TRAVEL	LINEARITY	OHMIC VALUE	MODIFICATIONS	LEAD FINISH
		L = 1 track	0.5 = 12.5 mm 1 = 25 mm 2 = 50 mm 3 = 75 mm 4 = 100 mm 5 = 125 mm 6 = 150 mm	A: ± 1 % B: ± 0.5 % C: ± 0.25 % D: ± 0.1 %	First 2 digits are significant numbers 3rd digit indicates number of zeros	Special feature code number	Sn Ag Cu

SAP PART NUMBERING GUIDELINES

RE	38 L	0.5	C	102	W....
SERIES	MODEL	TET	LINEARITY	OHMIC VALUE	SPECIAL FEATURES

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