

**38 L****REC**

precision linear transducer – conductive plastic

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

- MEASUREMENT RANGE from 12,5 mm to 150 mm
- HIGH ACCURACY $\pm 1\%$ down to $\pm 0,1\%$
- LONG LIFE
- ESSENTIALLY INFINITE RESOLUTION
- VERY SMALL DIMENSION : external diameter = 9,52 mm



ELECTRICAL SPECIFICATIONS

Theoretical electrical travel (TET)	from 12,5 mm to 150 mm see table 1
Actual electrical travel (AET)	AET = TET + 1 mm
Independent linearity (over TET)	$\leq \pm 1\%$ - $\leq \pm 0,5\%$ $\leq \pm 0,25\%$ - $\leq \pm 0,1\%$
Repeatability	$\leq \pm 0,01\%$
Ohmic values (R_T)	from 400 Ω /cm to 2 k Ω /cm
Resistance tolerance at 20°C	$\pm 20\%$
Wiper current	recommended : a few μ A 1 mA max. continuous
Load resistance	minimum $10^3 \times R_T$
Insulation resistance	$\geq 1000\text{ M}\Omega$ 500 VDC
Dielectric strength	$\geq 500\text{ V RMS}$ 50 Hz

MECHANICAL SPECIFICATIONS

Mechanical travel (MT)	MT = TET + 3 ± 1 mm
Housing	anodized aluminium
Operating force	0,35 N typical
Termination	3 wires PTFE AWG 26 length : 300 mm
Wiper	precious metal multifinger

PERFORMANCES

Operating life	50 millions cycles typical
Temperature range	-55°C +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

ORDERING PROCEDURE

SERIES	MODEL	NUMBER OF TRACKS	ELECTRICAL TRAVEL	LINEARITY	OHMIC VALUE	MODIFICATIONS
REC	38	L L = 1	0,5 0,5 = 12,5 mm 1 = 25 mm 2 = 50 mm 3 = 75 mm 4 = 100 mm 5 = 125 mm 6 = 150 mm	C A : $\pm 1\%$ B : $\pm 0,5\%$ C : $\pm 0,25\%$ D : $\pm 0,1\%$	102 First 2 digits are significant numbers 3rd digit indicates number of zeros	W... Special feature code number

38 L

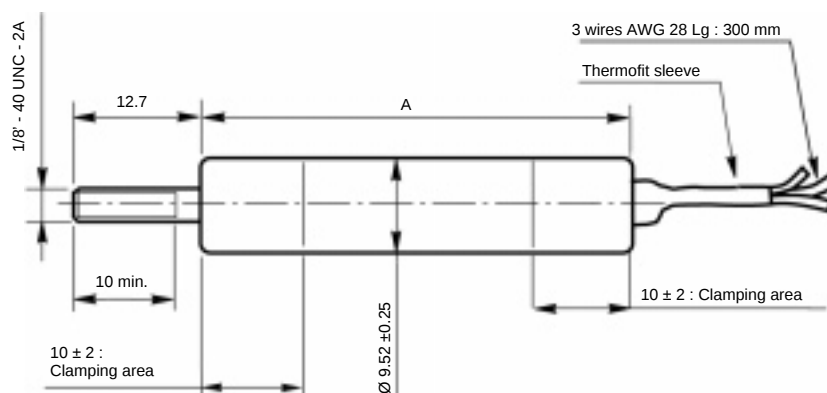
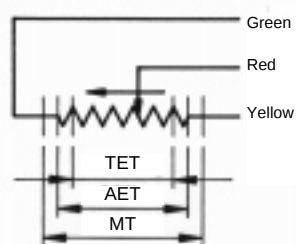


Table 1

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

General tolerance ±1 mm
Dimensions in mm



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