Conductive Plastic Motion Transducer Elements (KIT), up to 1000 mm

The LMF is a reduced bulk, precision motion transducer, designed for easy integration into equipment.

FEATURES

- Measurement range 25 mm to 1000 mm
- High accuracy ± 1 % down to ± 0.025 %
- Good repeatability
- Simple and flexible mounting
- Essentially infinite resolution
  Made in two separate parts:
  - the sensing element
  - the wiper
  Special designs available on request
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

RoHS COMPLIANT

QUICK REFERENCE DATA	
Sensor type	LINEAR, conductive plastic
Output type	Solder pads
Market appliance	Industrial
Dimensions	L x 15 mm x 1.6 mm (with L = TET + 18 mm)

ELECTRICAL SPECIFICATIONS		
Theoretical electrical angle (TEA = E)	From 25 mm to 1000 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 = TET + 2 mm	
Ohmic value	From 400 Ω/cm to 2 kΩ/cm	
Resistance tolerance at 20 °C	± 20 %	
Repeatability	≤ 0.01 %	
Maximum power rating	0.05 W/cm at 40 °C	0 W at 85 °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	≥ 750 V_{RMS}, 50 Hz	

MECHANICAL SPECIFICATIONS	
Support of element On request	Fiberglass epoxy Plastic moulding
Wiper (non insulated) On request	Precious metal multifinger Insulated
Terminals On request	Soldering pads By wires
Fixing On request	Glued: Double face Isotac Screwed: Holes in the support

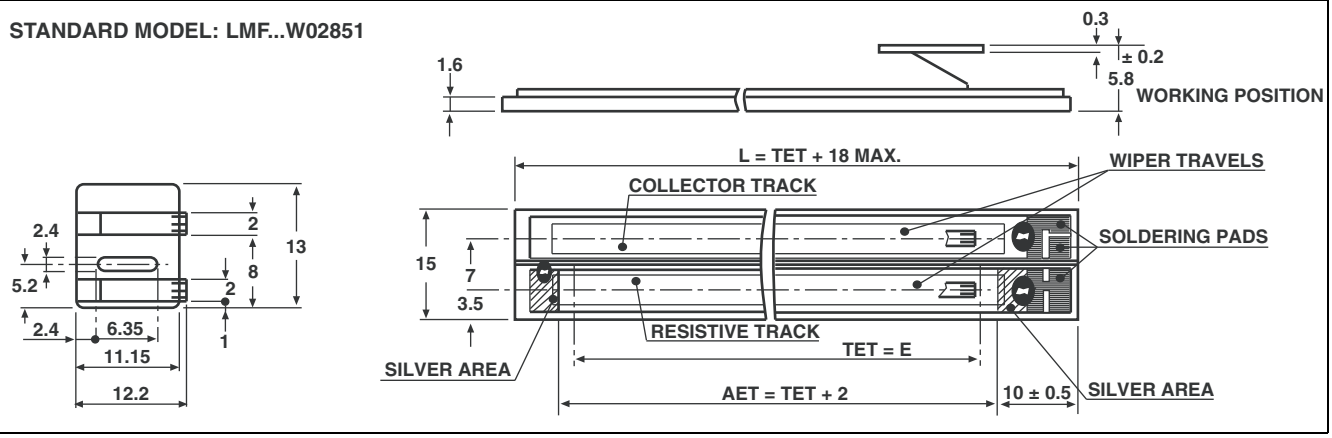
PERFORMANCE	
Operating life	25 million cycles typical/1 Hz/T° = 20 °C ± 5 °C/80 % TET
Temperature range	-55 °C to +125 °C

Note

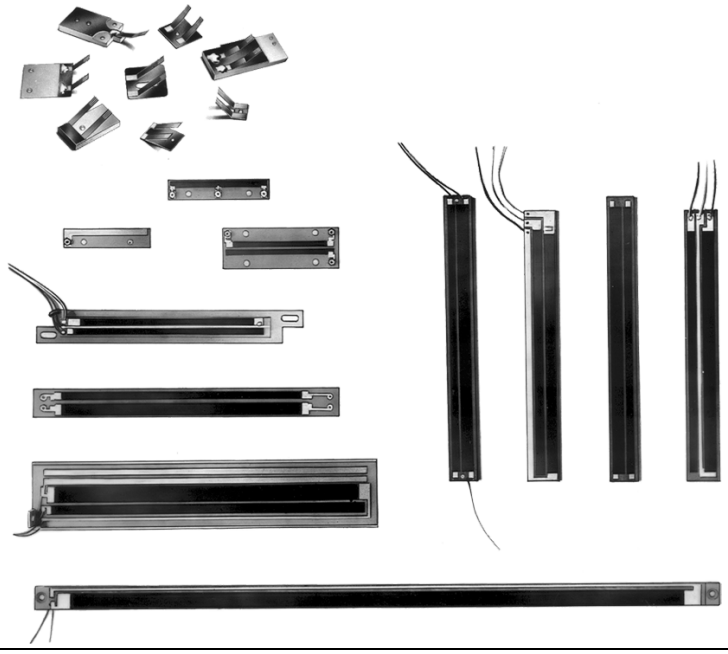
- Nothing stated herein shall be construed as a guarantee of quality or durability.

DIMENSIONS in millimeters, general tolerance ± 0.2 mm

STANDARD MODEL: LMF...W02851



EXAMPLES OF SPECIAL DESIGNS



ORDERING INFORMATION/DESCRIPTION

KIT	LM	F	3	D	103	W...	e.
SERIES	MODEL	CONDUCTOR	THEORETICAL ELECTRICAL TRAVEL	LINEARITY	OHMIC VALUE	MODIFICATIONS	LEAD FINISH
		F: Plastic S: Serigraphy	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	

SAP PART NUMBERING GUIDELINES

LMF	3	D	103	W....
MODEL	TET	LINEARITY	OHMIC VALUE	SPECIAL FEATURES

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