

# Conductive Plastic Motion Transducer Elements (KIT)



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

## FEATURES

- Large Measurement Range 25mm to 1000mm
- High Accuracy  $\pm 1\%$  down to  $\pm 0.025\%$
- Long Life - 50 000 000 cycles
- Simple and Flexible Mounting
- Essentially Infinite Resolution

Made in two separate parts:

- the sensing element
- the wiper.

Special designs available on request.

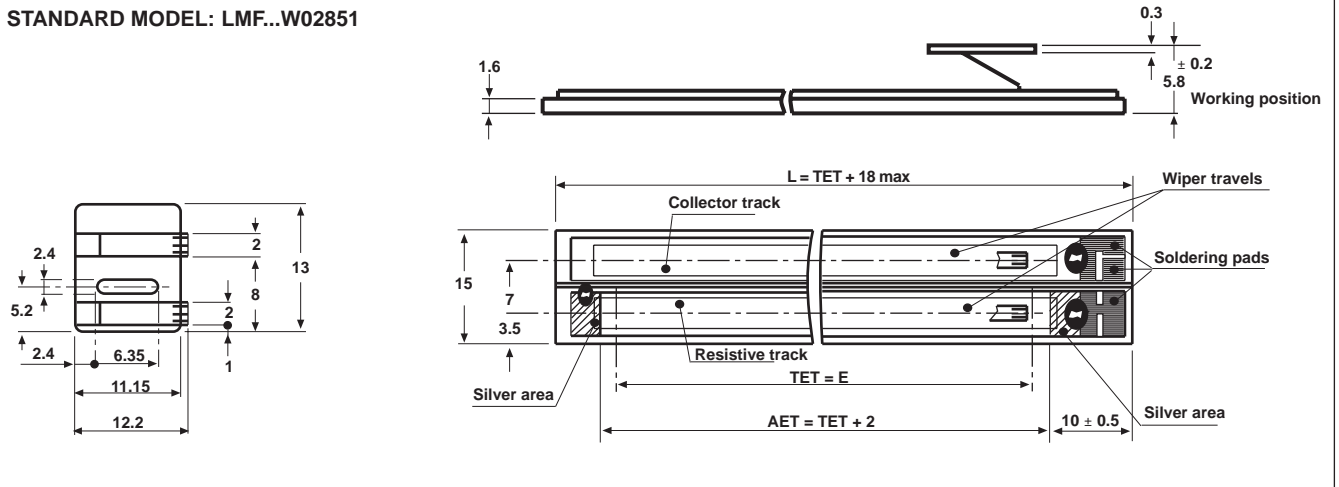
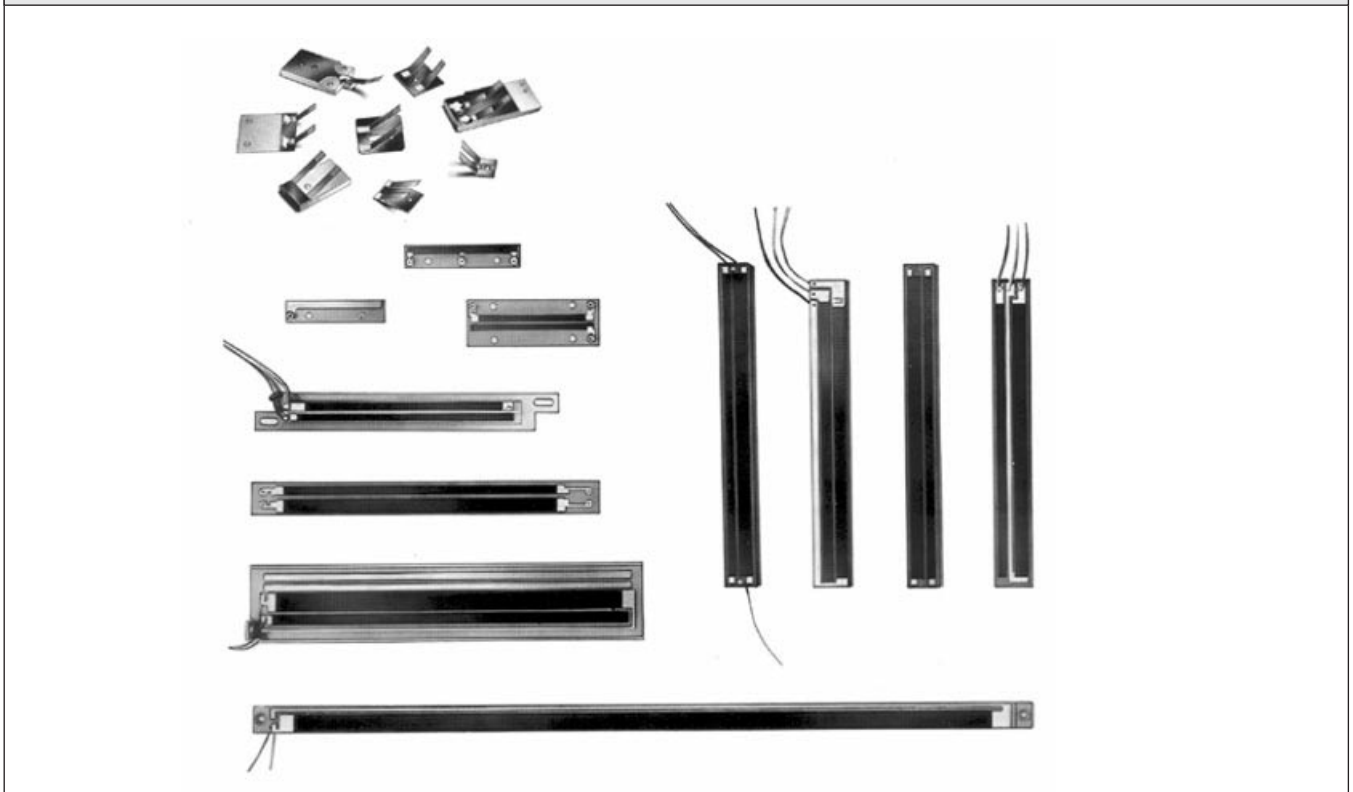
ELECTRICAL SPECIFICATIONS	
Theoretical electrical angle (TET = E)	From 25mm to 1000mm in increments of 25mm
Independent linearity (over TET) on request	$\leq \pm 1\%$ ; $\leq \pm 0.1\%$ $\leq \pm 0.05\%$ for $E \geq 100\text{mm}$ $\leq \pm 0.025\%$ for $E \geq 200\text{mm}$
Actual electrical travel (AET)	AET = TET + 2mm
Ohmic value	from 400 $\Omega$ /cm to 2k $\Omega$ /cm
Resistance tolerance at 20°C	$\pm 20\%$
Repeatability	$\leq 0.01\%$
Maximum power rating	0.05W/cm at 40°C      0W at 85°C
Wiper current	recommended: a few $\mu\text{A}$ 1mA max. continuous
Load resistance	minimum $10^3 \times R_T$
Insulation resistance	$\geq 1000\text{M}\Omega$ , 500VDC
Dielectric strength	$\geq 750\text{VRMS}$ 50Hz

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	50 million cycles typical
Temperature range	- 55°C + 125°C

**DIMENSIONS** in millimeters, general tolerance  $\pm 0.2\text{mm}$ 

STANDARD MODEL: LMF...W02851


**EXAMPLES OF SPECIAL DESIGNS**

**ORDERING INFORMATION**

KIT SERIES	LM MODEL	F CONDUCTOR	3 THEORETICAL ELECTRICAL TRAVEL Times 25mm	D LINEARITY	103 OHMIC VALUE	W... MODIFICATIONS
		F: Plastic S: Serigraphy		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