

## 精密直线位移传感器：导电塑料 (LMT)

## Linear Motion Transducer, Conductive Plastic



LMT series , Simple mounting , robust , high precision  
Designed with Vishay/ sfernice's Kit in the transducer

## Features

- Measurement range: 25mm to 1000mm
- High accuracy:  $\pm 1\%$  down to  $\pm 0.025\%$
- Excellent repeatability
- Essentially infinite resolution
- Non sensitive to temperature variations
- Key element fit to RoHS compliant
- Analog DC Voltage (without AD module)
- Analog output : 4-20mA / 0-5/10V \*

| 电 气 参 数  | ELECTRICAL DATA   |
|--|---|
| Theoretical Electrical Travel<br>(TET=E)       | From 25mm to 900mm<br>in increments of 25mm   |
| Independent Linearity                          | $E \leq 175\text{mm}$ , $\pm 1\% \sim \pm 0.05\%$<br>$E \geq 200\text{mm}$ , $\pm 1\% \sim \pm 0.025\%$                   |
| Actual Electrical Travel:                      | AET = $E \pm 2 \pm 0.5\text{mm}$ , ( $E \leq 275\text{mm}$ )<br>AET = $E \pm 2 \pm 1.5\text{mm}$ , ( $E > 275\text{mm}$ ) |
| Ohmic Values(RT)                               | 65 $\Omega$ — 2 K $\Omega$ /cm  |
| Resistance Tolerance                           | $\pm 20\%$ (at 20 environment)  |
| Repeatability                                  | 0.01%(Max)  |
| Load Resistance                                | 1000XRT(min)  |
| Insulation Resistance                          | >1000M $\Omega$ , 500 VDC   |
| Dielectric Strength                            | 750 Veff, 50HZ  |
| Permissible load voltage                       | 5-27V/cm(40 $^{\circ}\text{C}$ )  |
| Wiper Current                                  | Recommended: a few $\mu\text{A}$ -1mA max   |
| Temperature drift<br>coefficient of resistance | $\Delta R < 10 \text{ppm}/^{\circ}\text{C}$<br>$\Delta V < 25 \text{ppm}/^{\circ}\text{C}$                                |
| Potecton circuit                               | The sensor contains a protective circuit<br>to overload of current and voltage  |
| Output   | Analog DC Voltage (Without AD module)<br>4-20MA, $\pm 5\text{V}$ , $\pm 10\text{V}$ , 0-5V, 0-10V                         |

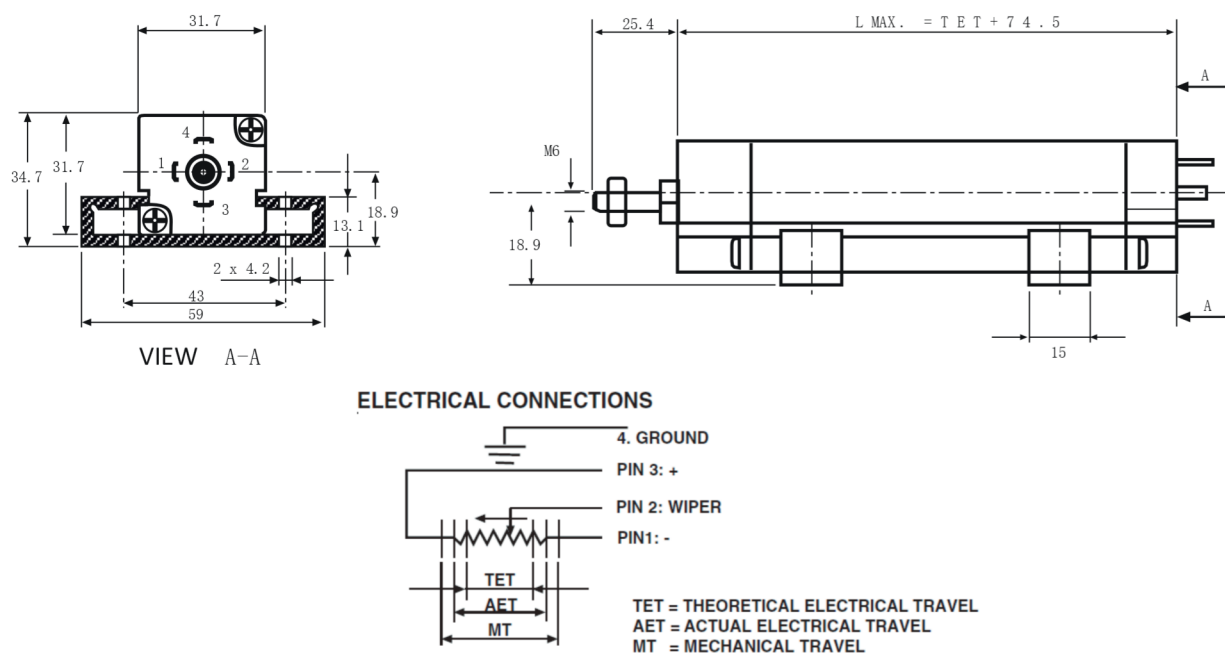
\* 需内置信号变送器，（技术参数详见：FL-EMB100，模拟  
信号变送器电路板说明书）

| 机 械 参 数                | MECHANICAL DATA               |
|------------------------|-------------------------------|
| Mechanical Travel      | MT = TET + $8 \pm 2\text{mm}$ |
| Length of the shell    | TET + 74.5mm                  |
| Surface of the shell   | Anodic alumina                |
| Front and rear plastic | Blue                          |
| Operating Force        | 7.5 N typical                 |
| Shaft                  | Stainless steel               |
| Electrical connector   | Hydraulic type connector      |
| Termination            | DIN 43650                     |
| Wiper                  | Precious metal multifinger    |
| Mounting               | Movable brackets              |
| Sealed to              | IP53                          |

NOTICE : Please don't screw without permission. It will affect the  
anti-vibration and impact effect of the sensor

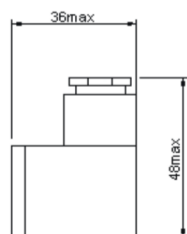
| 环 境 参 数-                    | ENVIRONMENTAL DATA                               |
|-----------------------------|--|
| Operating Life              | 50 million cycles typical                        |
| Temperature Range           | -30 $^{\circ}\text{C}$ to +85 $^{\circ}\text{C}$ |
| Speed                       | 2.5m/s (Max)                                     |
| Sine Vibration on 3Axes     | 1.5mm peak to peak<br>15g-10HZ-2000HZ            |
| Mechanical Shocks on 3 Axes | 50g-11ms   |

Dimensions in millimeters, general tolerance  $\pm 1\text{mm}$

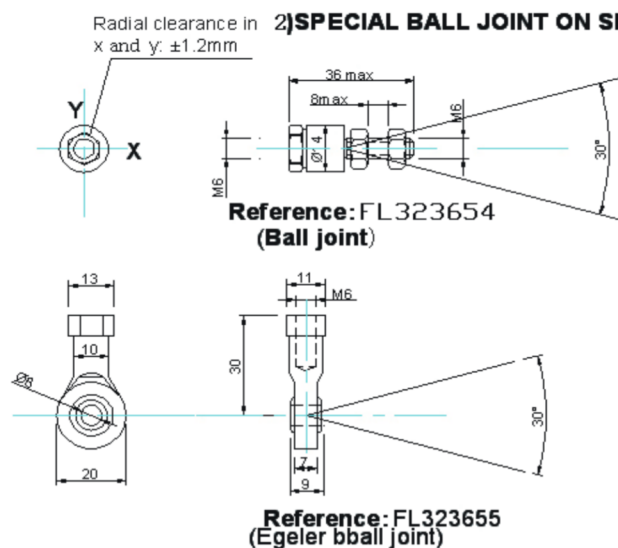


ACCESSORIES ON REQUEST Dimensions in millimeters, general tolerance $\pm 1$ mm

### 1) FEMALE CONNECTOR



Radial clearance in **2)SPECIAL BALL JOINT ON SHAFT**



## ORDER INFORMATION

[illegible]