



### MLT003N4500F5C



*Actual product appearance may vary.*

**MLT Series Linear Position Transducer,  
76,2 mm [3.0 in] Electrical Travel, 1.0 %  
Linearity, Item Number F38000103**

#### Features

- MystR® plastic element - Tested up to one billion operations
- 3/8 inch diameter - Fits in tight spaces and clamps easily to cylinders
- Dual wiper design - Improves shock and vibration performance
- Extruded wiper block guides - Smooth quiet motion, extends operating life
- Internal spring loaded ball joint - Less error from shaft misalignment
- Anodized extruded aluminum housing - Tolerates clamping loads
- Stainless steel shaft - Full performance in hostile environments
- Precious metal contact - Low noise level over entire life
- Absolute continuous measurement - Accurate position at power up

#### Potential Applications

- Medical equipment
- Hospital beds
- Linear actuators
- Animated characters
- Gauging
- Woodworking guides
- Fluid flow meters
- Seismology
- Semiconductor Processing

#### Description

The MLT Series is a small-diameter linear position transducer that is rugged enough to withstand hostile factory environments. Using a proprietary dual wiper, internal ball joint and the MystR® conductive plastic film the MLT provides a usable output at high vibration levels over long periods of time. MLT transducers use precious metal wipers to further enhance reliability.

The MLT's 3/8 inch diameter is among the smallest available and can be used to replace LVDT's in many applications.

Intrinsically safe for Class I, II and III Division I, Groups A, B, C, D, E, F and G for hazardous (indoor/outdoor) NEMA 4 locations. V max.=30 V, I max.=100 mA, Ci=0, Li.=0mH.

Product Specifications	
Supply Voltage	30 Vdc max.
Measurement Type	Linear
Housing Size	106,68 mm [4.2 in]
Total Mechanical Travel	77,47 mm [3.05 in]
Electrical Travel	76,2 mm [3.0 in]
Starting Force (max.)	28,35 g max. [1.0 oz max.]
Linearity	± 1.0 %
Backlash	0,0127 mm max. [0.0005 in max.]
Bearing Type	Sleeve
Shaft Material	Stainless Steel
Shaft Diameter	1/8 in - #4-40 UNC-2A thread
Type of Element	MystR® conductive plastic film
Housing Style	Anodized Aluminum
Termination	26 awg, 3 cond. - 305,0 mm [12.0 in] cable
Wiper Current	<1 µA
Resolution	Infinite
Operating Temperature Range	-40 °C to 80 °C [-40 °F to 176 °F]
Vibration	20 g / 0,75 mm (rms) 5 hz to 2 khz
Shock	50 g 11 ms half sine
Operating Life	one billion dither operations
Total Resistance	4,500 Ohms
Resistance Tolerance	± 20 %
Insulation Resistance	500 MOhm @ 500 Vdc
Dielectric Strength	1000 V rms
Weight (Ranges)	23 g [0.81 oz]
Sealing	NEMA 4
UNSPSC Code	41111945
UNSPSC Commodity	41111945 Linear position sensors
Availability	Global
Comments	Options; Electrical Travel, Total Resistance, Rod End Bearing, Metric Shaft Adapter
Series Name	MLT