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### AQMLT03N04500FC



Actual product appearance may vary.

**AQMLT Series Shaftless Waterproof Linear Position Transducer, 76,2 mm [3.0 in] Electrical Travel, Item Number 9812103**

#### Features

3/8 inch (AQMLT) and 1/2 inch (AQLT) body diameter - Fit in tight spaces and clamps easily to cylinders  
 Multiple finger wiper design - Improves shock and vibration performance  
 Extruded wiper block guides - Smooth quiet motion; extends operating life  
 MystR<sup>2</sup> plastic element- tested up to one billion operations  
 Anodized extruded aluminum housing- Tolerates clamping loads  
 Sealed construction - Full performance in hostile environments  
 Precious metal contact- Low noise level over entire life  
 Absolute continuous measurement- Accurate position at power up

#### Potential Applications

In-tank level sensing  
 Robotic motion control  
 Woodworking guides  
 Seismology  
 Packaging and processing equipment  
 Animated characters  
 Marine steering systems  
 Off-road vehicles  
 Semiconductor Process Equipment  
 Medical Equipment

#### Description

The AQ Series are shaftless waterproof linear potentiometers designed to operate in wet/washdown and in -tank environments.

The AQ series features an external actuator magnetically coupled to a position feedback element. The magnetic actuator replaces the shaft found in traditional linear transducers, which eliminates the need for additional stroke length mounting space and improves shock and vibration performance.

Precious metal dual wipers, MystR<sup>2</sup> proprietary conductive plastic, and anodized aluminum housings assure long life and reliable operation in numerous 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.

#### Supporting Documentation

- [Dimensions](#)
- [Circuitry](#)

Product Specifications	
Supply Voltage	30 Vdc max.
Measurement Type	Linear
Housing Size	114.3 mm [4.5 in]
Total Mechanical Travel	78,74 mm [3.1 in]
Electrical Travel	76,2 mm [3.0 in]
Starting Force (max.)	28,35 g max. [1.0 oz max.]
Linearity	± 1.0 %
Type of Element	MystR <sup>®</sup> conductive plastic film
Housing Style	Anodized Aluminum
Termination	28 awg, 3 cond. - 3,048 m [10 ft] cable
Wiper Current	<1 µ A
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	3,000 Ohms
Resistance Tolerance	± 20 %
Insulation Resistance	500 MOhm @ 500 Vdc
Dielectric Strength	250 V rms
Sealing	Sealed Construction IP68
UNSPSC Code	41111945
UNSPSC Commodity	41111945 Linear position sensors
Availability	Global
Series Name	AQMLT

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