

## 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

## AQMLT • HARSH DUTY POSITION TRANSDUCER

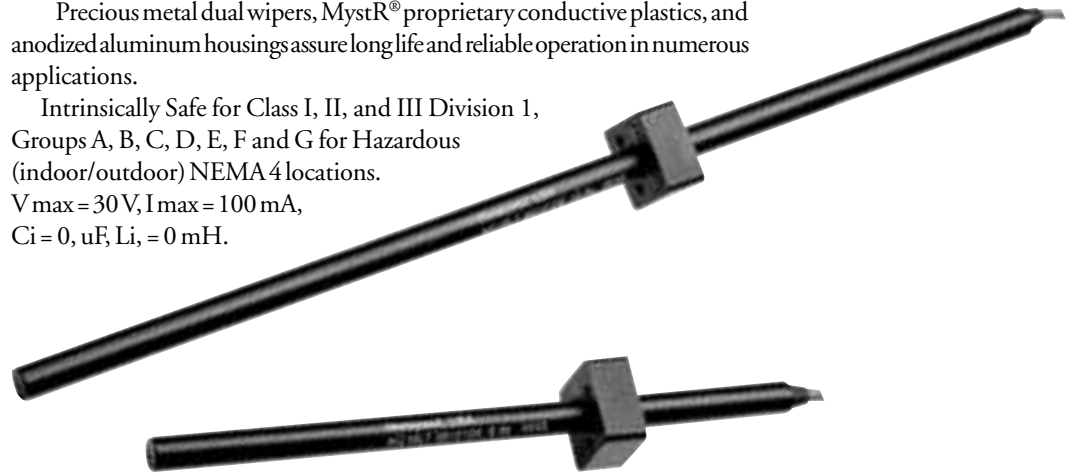
The AQMLT is a shaftless waterproof linear potentiometer designed to operate in wet/washdown and in-tank environments.

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 and eliminates the need for additional stroke length mounting space.

Precious metal dual wipers, MystR® proprietary conductive plastics, and anodized aluminum housings assure long life and reliable operation in numerous applications.

Intrinsically Safe for Class I, II, and III Division 1, Groups A, B, C, D, E, F and G for Hazardous (indoor/outdoor) NEMA 4 locations.

$V_{max} = 30\text{ V}$ ,  $I_{max} = 100\text{ mA}$ ,  
 $C_i = 0$ ,  $\mu\text{F}$ ,  $L_i = 0\text{ mH}$ .



# AQMLT SERIES

## HARSH DUTY POSITION TRANSDUCER

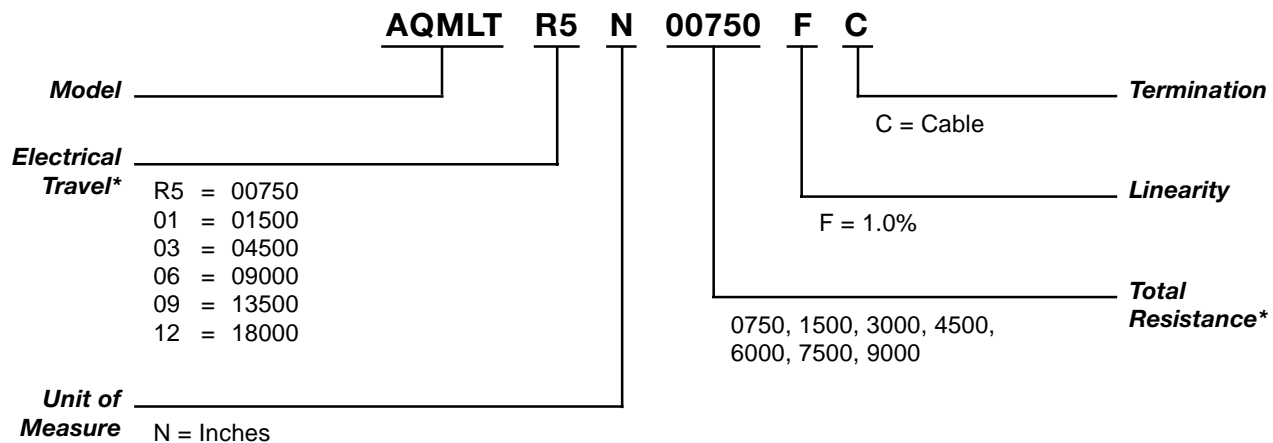
## FEATURES

- 3/8 inch diameter
- Multiple finger wiper design
- Extruded wiper block guides
- MystR plastic element
- Anodized extruded aluminum housing
- Sealed construction - IP68 rated
- Precious metal contact
- Absolute continuous measurement

## BENEFITS

- Fits into tight spaces, clamps easily to cylinders
- Improves shock and vibration performance
- Smooth quiet motion; extends operating life
- Tested up to one billion dither operations
- Tolerates clamping loads
- Full performance in hostile environments
- Low noise level over entire life
- Accurate position at power up

## HOW TO ORDER



Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.

\* Note: The *Electrical Travel* correlates to the *Total Resistance (Ohms)*.

## TECHNICAL SPECIFICATIONS

### MECHANICAL

Total Mechanical Travel 0.6 to 12.1 in (min)  
(15.2 TO 307.3 mm) (min)

Starting Forces 1.0 oz

Shock 50g 1 ms half sine

Vibration 20g rms 5Hz to 2kHz

Life One Billion dither operations

### ELECTRICAL

Theoretical Electrical Travel 0.5 to 12 in.  
(12.7 to 304.8 mm)

Independent Linearity\*  $\pm 1.0\%$

Total Resistance 1500 W per inch of electrical travel

Resistance Tolerance  $\pm 20\%$

Operating Temperature  $-40^{\circ}$  to  $80^{\circ}$  C  
( $-40^{\circ}$  to  $176^{\circ}$  F)

Resolution Infinite

Insulation Resistance 500m W @ 500Vdc

Dielectric Strength 250 V rms

Maximum Applied Voltage 30 Vdc

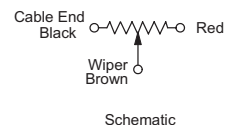
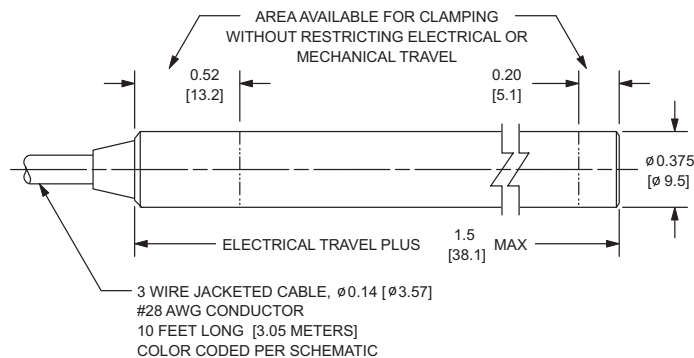
Recommended Wiper Current † <1mA

\* 5-95% of Theoretical Electrical Travel

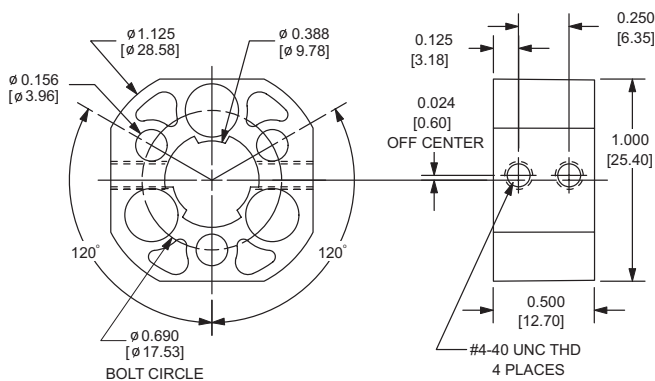
† Do not test using an Ohmmeter on Rx 1 scale or other current devices.  
Excessive wiper current can cause output errors or damage.  
Zero side load is recommended to achieve maximum life.

### DIMENSIONS

xx.xx = inches  
(xx.x) = mm



### ACTUATOR



NOTE: MECHANICAL TRAVEL = ELECTRICAL TRAVEL + 0.10[2.5]

### WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

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**Honeywell**

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