



# ZX-HM SERIES - Analog Position Transducer

## HALL EFFECT VOLTAGE OUTPUT

**UniMeasure ZX-HM Series** employs a non-contact hall effect internal sensing element. With an overall measurement range of 1.5" (38mm), model ZX-HM-1.5 is ideal for applications where space is at a premium or where dithering motion or continuous oscillation may be encountered. With a wide operating temperature range, the non-contact internal hall effect sensing element allows for an extremely long service life without output signal degradation.

The mounting holes in the housing allow mounting with two #2 or two 2 mm screws. Alternatively the unit may be mounted with two 4-40 screws that thread directly into the housing. The wire rope of the unit may be ordered with an eye fitting termination or with a length of leader wire rope, a clip, and several crimp fittings to hold the clip in place.



### SPECIFICATIONS

#### GENERAL

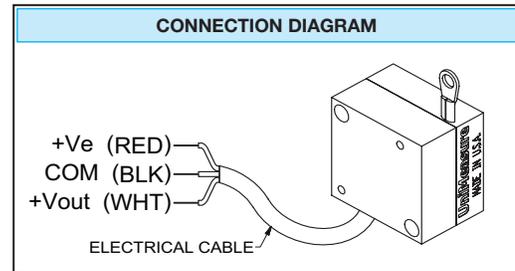
Measurement Range ..... 1.5 inch (38 mm)  
 Sensing Device..... Non Contact Hall Effect Device  
 Resolution..... 0.0004 in (0.01 mm)  
 Linearity ..... ±0.5% Full Scale  
 Repeatability..... ±0.0012 in (0.03 mm)  
 Construction..... Anodized Aluminum Housing  
 Wire Rope..... Ø0.018" (0.46 mm) Nylon Jacketed Stainless Steel  
 Wire Rope Tension..... 4 oz (1.1 N)  
 Weight..... 0.52 oz (15 gm)  
 Electrical Connection..... 3 conductor cable  
 Dynamic Response..... 25 Hz over full range extension  
 Life..... 30,000,000 full stroke cycles

#### ENVIRONMENTAL

Operating Temperature..... -40° C to 100° C  
 Storage Temperature..... -55° C to 100° C  
 Vibration ..... 15 G's 0.1 ms max.  
 Shock ..... 50 G's 0.1 ms max.  
 Ingress Protection..... IP-40 (NEMA 1)

#### ELECTRICAL

Excitation Voltage ..... 5.00 ± 0.25 VDC  
 Excitation Current ..... 21 mA Max.  
 Output Voltage..... 89% ± 3% of Excitation Voltage  
 Minimum Load Impedance ..... 30K Ohms



### MODEL NUMBER CONFIGURATION

## ZX-HM-1.5-



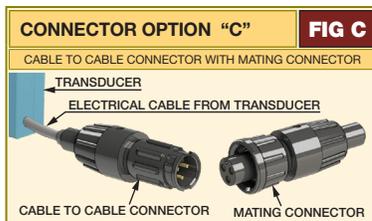
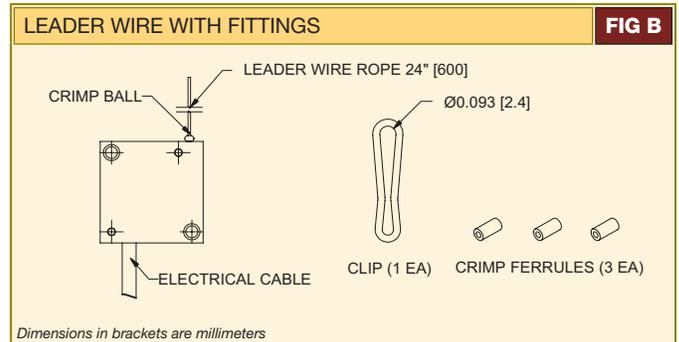
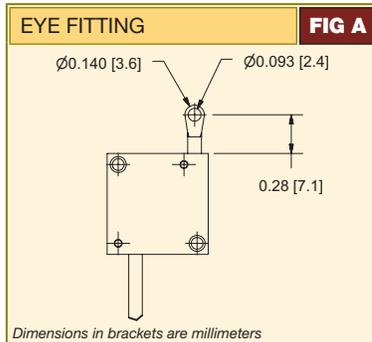
### BASIC CONFIGURATION

## ZX-HM-1.5-AQN

**1 WIRE ROPE CONFIGURATION**  
**A** ..... Eye Fitting. See **FIG A**  
**B** ..... 24" (600 mm) Leader Wire Rope with Fittings, See **FIG B**

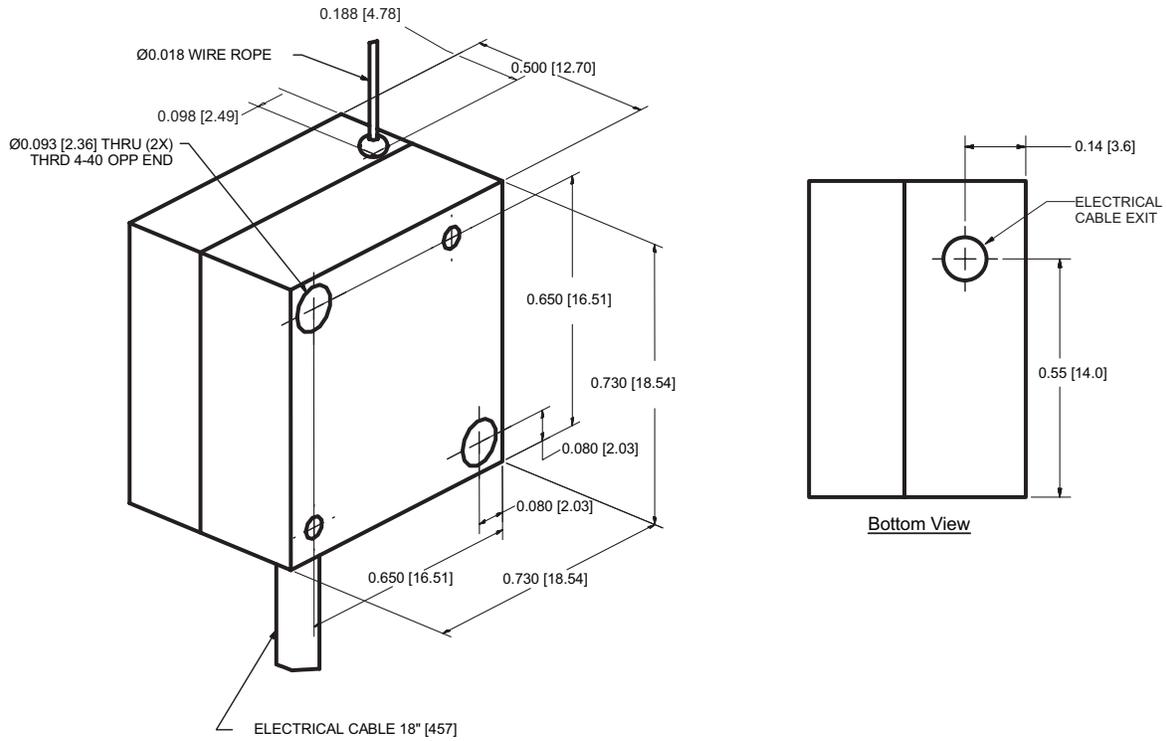
**2 ELECTRICAL CABLE**  
**P** ..... 0.15m (6")  
**Q** ..... 0.5m (20")  
**1** ..... 1m (3')  
**2** ..... 2m (6.5')

**3 CONNECTOR**  
**N** ..... No connector  
**C** ..... Cable to cable connector with mating connector. See **FIG C**  
**K** ..... Cable to cable connector with **NO** mating connector. See **FIG D**  
 For Option "K", mating connector with electrical cable is available as **P/N 10248-xM** where "x" is required length in meters



## DIMENSIONAL INFORMATION

### ZX-HM Series



Dimensions in brackets are millimeters