The FX-HM series linear position transducer provides up to 15” (381mm) of measurement range in a subcompact plastic package. With a two point mounting system and a diameter of 1.5 inches, it is ideal for use in areas where space is a premium. The device employs a non-contacting hall effect internal sensor which permits use in applications where a very high cycle life is required. With an excitation voltage requirement anywhere in the range of 4.9 to 30 volts and a very low current requirement, the unit may be battery powered or operated from most standard instrumentation power supplies. The analog voltage output of nominally 0 to 10 VDC may be easily interfaced to most popular data acquisition, PLC and display devices. The FX-HM with a dynamic response capability up to 25 Hz over a 1.5” range is acceptable for use in measuring suspension travel, throttle position, machine mechanism monitoring and many other applications where space restrictions exist.

**SPECIFICATIONS**

**GENERAL**
- Measurement Range: See Range Table below
- Sensing Device: Precision Hall Effect Device
- Resolution: 0.024% of Measurement Range
- Linearity: ±0.0% Full Scale
- Repeatability: ±0.03% of Full Scale
- Construction: Thermoplastic Body
- Wire Rope: 0.018 (0.46 mm) Nylon Jacketed Stainless Steel
- Nominal Wire Rope Tension: 9 oz (1.5 N)
- Weight: 1.2 oz (35gm)
- Connections: Electrical cable with or without plastic connector
- Life: 100,000,000 inches of travel

**ENVIRONMENTAL**
- Operating Temperature: -25°C to 75°C
- Storage Temperature: -50°C to 80°C
- Operating Humidity: 95% R.H. non-condensing
- Vibration: 15 G’s 0.1 ms max.
- Shock: 50 G’s 0.1 ms max.
- INGRESS PROTECTION
  - Standard: IP-52 (NEMA 12)
  - Optional: IP-65 (NEMA 4X)

**ELECTRICAL**
- Output: 0 to 10VDC +0.0 -0.2 VDC
- Excitation Voltage: 4.9 to 30 VDC
- Excitation Current: 30 mA max
- Output Impedance: 100KΩ min
- Output Load: 100KΩ max
- Protection: Reversed Polarity

**CONNECTION DIAGRAM**

**MODEL NUMBER CONFIGURATION**

<table>
<thead>
<tr>
<th>FX-HM</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tr>
<td>RANGE</td>
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<tr>
<td>WIRE ROPE</td>
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<td>2</td>
<td>3</td>
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<tr>
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<tr>
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</tr>
</tbody>
</table>

**OPTIONAL CONNECTOR**
- N: No connector
- C: Cable to cable connector with mating connectorSee FIG C
- K: Cable to cable connector with NO mating connectorSee FIG C

For Option "K", mating connector with electrical cable is available as P/N 10248-xM where “x” is required length in meters

**DIMENSIONS**

- Dimensions in brackets are millimeters

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PM Instrumentation | 59 rue Emile Deschanel | F-92400 Courbevoie | France
+33(0) 1 46 91 93 32 | contact@pm-instrumentation.com | www.pm-instrumentation.com
**FX-HM Series**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Value</th>
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</thead>
<tbody>
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<td>ø1.119</td>
<td>[3.0]</td>
</tr>
<tr>
<td>ø1.500</td>
<td>[38.1]</td>
</tr>
<tr>
<td>.500</td>
<td>[12.7]</td>
</tr>
<tr>
<td>1.25</td>
<td>[31.8]</td>
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<tr>
<td>.122</td>
<td>[3.1] (2x)</td>
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<tr>
<td>.750</td>
<td>[19.1]</td>
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</table>

*Dimensions in brackets are in millimeters.*

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**ACCESSORIES**

### 10443 – RIGHT ANGLE MOUNTING BRACKET

The Right Angle Mounting Bracket serves as a base for mounting the FX-HM transducer perpendicular to a surface. The transducer may be mounted in any of eight different wire rope exit orientations when mounted on the outside of the bracket (see figure) or any of five orientations when placed above the bracket mounting holes.

*Order model number: 10443*

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### 10442 – TWO AXIS SWIVEL BASE

With a capability of 360° rotation about the vertical axis and 260° rotation about the horizontal axis, the 10442 Two Axis Swivel Base allows easy setup of the FX-HM transducer. The axes may be locked in place after the transducer is oriented. Ideal for quick setups.

*Order model numbers: 10442*

---

### 10443 – DIMENSIONAL INFORMATION

*Dimensions in brackets are in millimeters.*

### 10442 – DIMENSIONAL INFORMATION

*Dimensions in brackets are in millimeters.*

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