Passive Speed Sensors

UL/ATEX/CSA Sensors

Ordering Part #  Thread Length (A)
70085-1010-081     1.500 (38.10)
70085-1010-411     1.875 (47.63)
70085-1010-005     2.750 (69.85)
70085-1010-329     4.000 (101.60)
70085-1010-327     6.000 (152.40)

Rating: UL and CSA listed for hazardous locations. Class I, Div 1, Groups A, B, C & D; Class II, Div 1, Groups E, F, G. Temp Code T3C. ATEX Group II, Category 3G, Zone 2

Performance Curves

Specifications:
- Output Voltage (Standard): 54 V (P-P)
- Output Voltage (Guarantee Point): 13.4 V (P-P)
- DC Resistance: 240 ohms max.
- Typical Inductance: 30 mH ref.
- Output Polarity: White lead positive
- Operating Temperature: -65 to 100°C
- Lead Length: 10 ft (3.05 m)
- Housing Ground: Green/Yellow Tracer
- Net Weight: 14 oz. max.

Dimensions in inches and (mm).
Passive Speed Sensors

**FM / ATEX Sensors**

<table>
<thead>
<tr>
<th>Ordering Part #</th>
<th>Thread Length (A)</th>
<th>Thread Size (B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>70085-1010-404</td>
<td>1.500</td>
<td>5/8-18 UNF-2A</td>
</tr>
<tr>
<td>70085-1010-544</td>
<td>1.875</td>
<td>5/8-18 UNF-2A</td>
</tr>
<tr>
<td>70085-1010-406</td>
<td>2.750</td>
<td>5/8-18 UNF-2A</td>
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<tr>
<td>70085-1010-417</td>
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<tr>
<td>70085-1010-420</td>
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<tr>
<td>70085-1010-541</td>
<td>1.875</td>
<td>3/4-20 UNEF-2A</td>
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<tr>
<td>70085-1010-542</td>
<td>2.750</td>
<td>3/4-20 UNEF-2A</td>
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<tr>
<td>70085-1010-540</td>
<td>4.000</td>
<td>3/4-20 UNEF-2A</td>
</tr>
<tr>
<td>70085-1010-543</td>
<td>6.000</td>
<td>3/4-20 UNEF-2A</td>
</tr>
</tbody>
</table>

**Rating:** FM listed Intrinsically Safe, Class I, Division 1, Groups A, B, C, D; ATEX Group II, Category 3G, Zone 2.

**Performance Curves**

**Specifications:**
- Output Voltage (Standard): 60V (P-P)
- Output Voltage (Guarantee Point): 13.4V (P-P)
- DC Resistance: 210 ohms max.
- Typical Inductance: 75 mH max.
- Output Polarity: White lead positive
- Operating Temperature: -55 to +220°C
- Cable Length: 15 ft (4.57m)
- Net Weight: 16 oz. max.

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**FM / ATEX Sensors**

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<th>Thread Size (B)</th>
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<tr>
<td>70085-1010-403</td>
<td>1.500</td>
<td>5/8-18 UNF-2A</td>
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<tr>
<td>70085-1010-415</td>
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<tr>
<td>70085-1010-405</td>
<td>2.750</td>
<td>3/4-20 UNEF-2A</td>
</tr>
<tr>
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<td>6.000</td>
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</tr>
</tbody>
</table>

**Rating:** FM listed Intrinsically Safe, Class I, Division 1, Groups A, B, C, D; ATEX Group II, Category 3G, Zone 2.

**Performance Curves**

**Specifications:**
- Output Voltage (Standard): 90 V (P-P)
- Output Voltage (Guarantee Point): 9.4 V (P-P)
- DC Resistance: 750 ohms max.
- Typical Inductance: 210 mH max.
- Output Polarity: White lead positive
- Operating Temperature: -55 to +232°C
- *Mounting Thread: -0405, 3/4 - 20 UNEF-2A
- Cable Length: 15 ft (4.57 m)
- Net Weight: 16 oz. max.
Passive Speed Sensors

IEC EX Sensors

**Ordering Part #** | **Thread Length (A)** | **Thread Size (B)** | **Cable Length (C)** | **Conduit Thread**
--- | --- | --- | --- | ---
70085-3030-111 | 1.500 (38.10) | 5/8-18 UNF-2A | 3 m | 1/2 NPT
70085-3030-112 | 2.750 (68.85) | 5/8-18 UNF-2A | 3 m | 1/2 NPT
70085-3030-113 | 4.000 (101.6) | 5/8-18 UNF-2A | 3 m | 1/2 NPT
70085-3030-114 | 6.000 (152.4) | 5/8-18 UNF-2A | 3 m | 1/2 NPT
70085-3030-211 | 1.500 (38.10) | 5/8-18 UNF-2A | 10 m | 1/2 NPT
70085-3030-212 | 2.750 (68.85) | 5/8-18 UNF-2A | 10 m | 1/2 NPT
70085-3030-213 | 4.000 (101.6) | 5/8-18 UNF-2A | 10 m | 1/2 NPT
70085-3030-214 | 6.000 (152.4) | 5/8-18 UNF-2A | 10 m | 1/2 NPT
70085-3030-222 | 2.750 (68.85) | 3/4-20 UNEF-2A | 10 m | 1/2 NPT
70085-3030-235 | 1.575 (40.00) | M16 x 1.5 6g | 10 m | G 1/2
70085-3030-237 | 3.937 (100.0) | M16 x 1.5 6g | 10 m | G 1/2

**Figure 1: Dimension Drawing**

**Rating:** ATEX and IEC Ex Equip Group II, Category 2G, Gas Group IIC, Zone 1

Sensor must be used with MTL 7764ac intrinsic barrier

User must install sensor in such a manner as to limit the output voltage to less than 12V Pk-Pk and a total energy of less than 26 microjoules

**Performance Curves**

- **Output Voltage (Standard):** 54 V (P-P)
- **Output Voltage (Guarantee Point):** 13.4 V (P-P)
- **DC Resistance:** 240 ohms max.
- **Typical Inductance:** 30 mH ref.
- **Output Polarity:** White lead positive
- **Operating Temperature:** -65 to 100°C
- **Net Weight:** 14 oz. max.

Based on 8 D.P. Gear

Available in a range of inch and metric thread lengths and sizes and cable lengths of 3 or 10 meters. Consult factory for additional details.