PRODUCT DESCRIPTION
The 0191 Gear Actuated Directional Zero Speed Sensor provides a square wave quadrature signal at Frequency A and Frequency B outputs and contains internal decoding logic to determine Clockwise/Counterclockwise direction. The direction information is available as a logic level at the direction output. Operation is consistent down to zero speed. All outputs are available with 5V TTL compatible and Open Collector options.

SPECIFICATIONS
Vs, Supply Voltage: Standard: 5-30 Vdc @ ≤15 mA
Vo, Output/Logic: Refer to Page 2 tabulation. 25mA max current sinking.
Frequency Range: 0 to ~ 25 kHz depending on Target size and distance
Air Gap: 5 DP: ≤ .160" (4mm)
48 DP: ≤ .025" (2mm)
Low Mag ~ 50% less
Rise/Fall Time: Std: 0.04 μs/0.18 μs (Nom.)
Direction: Logic 1: 5V max. Forward target gear rotates toward alignment mark.
Logic 0: .06V max. Reverse
Lead Wire Assignments: 22 AWG, Shielded Cable Length 36" (91cm) Standard. Other lengths are available, please specify.
Red: Vs, Supply Voltage
Black: Common
White: VoA, Signal Out
Yellow: VoB, Signal Out
Green: Direction, Signal Out
Temperature Range: -40° to 185° F (85° C) T5
Construction: 300 Series Stainless Steel, solid epoxy encapsulation
CE Compliance: EN55011, EN50022-2
### Intrinsically Safe, *Digispec Directional, Zero Speed* Pickup, Feature Selections:

<table>
<thead>
<tr>
<th>SPECTEC P/N</th>
<th>Body</th>
<th><strong>T</strong> Thread</th>
<th><strong>A</strong> Thread Length</th>
<th><strong>L</strong> Overall Length</th>
<th><strong>LW</strong> Shielded Cable Length</th>
<th><strong>V₀</strong> Output/Logic/LED</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IS191-xx</strong></td>
<td>K</td>
<td>5/8-18</td>
<td>1.75 (45mm)</td>
<td>2.5 (64mm)</td>
<td>36&quot; (1m)</td>
<td>0-5V, NPN (2.2k)</td>
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<td></td>
<td></td>
<td></td>
<td>3.0 (76mm)</td>
<td>3.6 (91mm)</td>
<td>120&quot; (3m)</td>
<td>0-5V, NPN, OC</td>
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<td></td>
<td></td>
<td></td>
<td>4.0 (102)</td>
<td>4.6 (117mm)</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>5.0 (127)</td>
<td>5.6 (142mm)</td>
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<td></td>
<td></td>
<td>11/16-24</td>
<td>1.5 (38mm)</td>
<td>2.5 (64mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>A</strong></td>
<td></td>
<td>3/4-20</td>
<td>2.0 (51mm)</td>
<td>2.5 (64mm)</td>
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<td></td>
<td></td>
<td>M18</td>
<td>2.0 (51mm)</td>
<td>2.5 (64mm)</td>
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<tr>
<td><strong>Y</strong></td>
<td></td>
<td>5/8-18</td>
<td>1.5 (38mm)</td>
<td>3.0 (76mm)</td>
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<td></td>
<td></td>
<td>11/16-24</td>
<td>1.5 (38mm)</td>
<td>3.0 (76mm)</td>
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</tbody>
</table>

**NOTE:**

THE MAGNETIZATION LEVEL FOR SPECIAL OR LOW MAG SENSORS, IS DESIGNATED AS A SUFFIX TO THE PART NUMBER, i.e: IS190-xx-3G DESIGNATING A GAUSS LEVEL OF 300. (250 to 340G). (STANDARD MAG. LEVEL 600 to 1200G WILL NOT HAVE A SUFFIX.)

When ordering, please specify features selected from the above table. Most sensors have short production lead times or are in stock. Please contact sales.

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