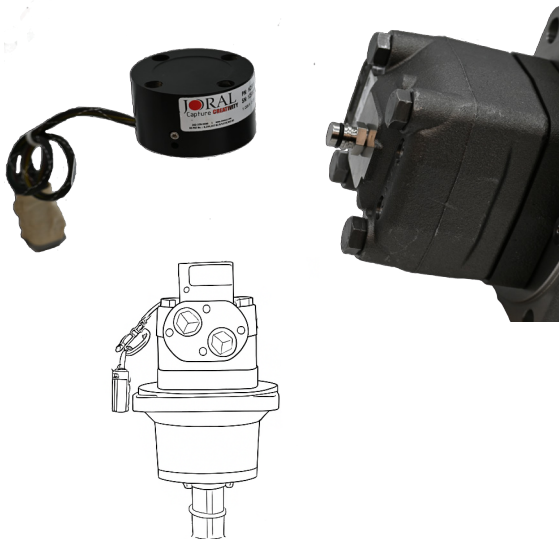


### HZ68 Non-Contact Motor Position Sensor



- Patented true non-contact position sensing
  - 0.5" (12mm) gap between sensor and application
  - 0.10" (2.5mm) center alignment
  - 30° planar tilt
- Totally sealed IP69K (connector dependent)
- LED indicators for power, communication, and output feedback
- Angle and Turns or Absolute position
- Outputs: J1939, CANopen, & BISS
- The HZ68 has multiple mounting options for attaching to the back of the motor
- Fits on the back of the Danfoss LSHT EMD Motor
- Offered as an enhancement to the Danfoss EMD Speed Sensor

#### ELECTRICAL

<b>Outputs</b>	<b>K-1939</b> : J1939 12 bit angle, 20 bit turn <b>K-CAN2</b> : CANopen 12 bit angle, 20 bit turn <b>K-BISS</b> : BISS 12 bit angle, 20 bit turn
<b>Input Power</b>	6 to 30 VDC at approx 60 mA max, not including output loads
<b>Electrical Protection</b>	Over-voltage, reverse-voltage, output short-circuit protected
<b>LED Indicators</b>	Power, communication, encoder status
<b>Connections</b>	Terminal Plug, M8, M12, M12 Pigtail, Flying Lead Cable, Shielded Cable, Deutsch (4 or 6 pin)
<b>Resolution</b>	0.3°
<b>Repeatability</b>	0.30%
<b>Nonlinearity</b>	< 1%

#### MECHANICAL

<b>Housing Diameter</b>	68mm
<b>Housing Material</b>	Black Delrin, Stainless Steel, or Red Aluminum
<b>Housing Height</b>	1.69"
<b>Mounting</b>	Mounting Screws / Set Screws / Capture System
<b>Magnet / sensor gap</b>	Standard 12mm; Custom Mag Assembly > 30mm
<b>Rated planar tilt / axial gap</b>	Planar 30°(Max 45°) / Axial 0.1" (2.5mm)(Max 0.16" [4mm])

#### ENVIRONMENTAL

<b>Operating Temperature</b>	-30° to +80° C
<b>Storage Temperature</b>	-40° to +90° C
<b>Humidity</b>	100%
<b>Shock</b>	400g/6ms (MIL STD 202)
<b>Vibration</b>	5 to 3000 Hz, 20g (MIL STD 202)
<b>Protection Class</b>	IP69K (connection dependent)

Code 1: Housing Style	Code 2: MagElec		Code 3: Connection		Code 4: Modifiers	
<b>HZ68</b> 'Zero Power' Functionality	<b>K - 1939</b> 12 bit angle, 20 bit turn	<b>K-CAN2</b> 12 bit angle, 20 bit turn	<b>M8</b>	M8 male	<b>51</b> Red Aluminum	<b>52</b> Delrin
			<b>M12</b>	M12 male		
			<b>M12P</b>	M12 male on 18' pigtail		
<i>*More outputs available, contact Joral if desired output not shown</i>	<b>K-BISS</b> 12 bit angle, 20 bit turn	<b>A-CAN1</b> 12 bit angle, 20 bit turn	<b>CXX</b>	Flying lead cable (enter XX as inches)	<b>54</b> Stainless Steel	<b>6C</b> Bolt Hole Mounting
			<b>SCXX</b>	Shielded Cable (enter XX as inches)		
			<b>CSP</b>	Cable with custom end		
			<b>DE4</b>	DT04 - 4 pin male Deutsch		
			<b>DE6</b>	DT04 - 6 pin male Deutsch		

**SPECIAL PART NUMBER INFORMATION**
**Code 1: Housing Style**

- **HZ68 = Black Delrin** / Handles **ALL back exit** connections and **CABLE ONLY side exit** connections. For side exit cable on HP58 append part number with special code 31 (available cable connection codes M12P, CXX, SCXX, DE4, & DE6).
- **HP58SE = Red Aluminum** / Handles **ALL back exit** and **ALL side exit connections** (including M12 leaded side exit). To designate back exit connection (epoxy side) on HP58SE add special code '33' to end of Joral P/N.

**Code 2: MagElec**
**K-1939**

- Standard Absolute J1939 output
- For Absolute Position and Angle and Turns

**A-CAN1**

- Standard Absolute CANopen output
- For Absolute Position and Angle and Turns

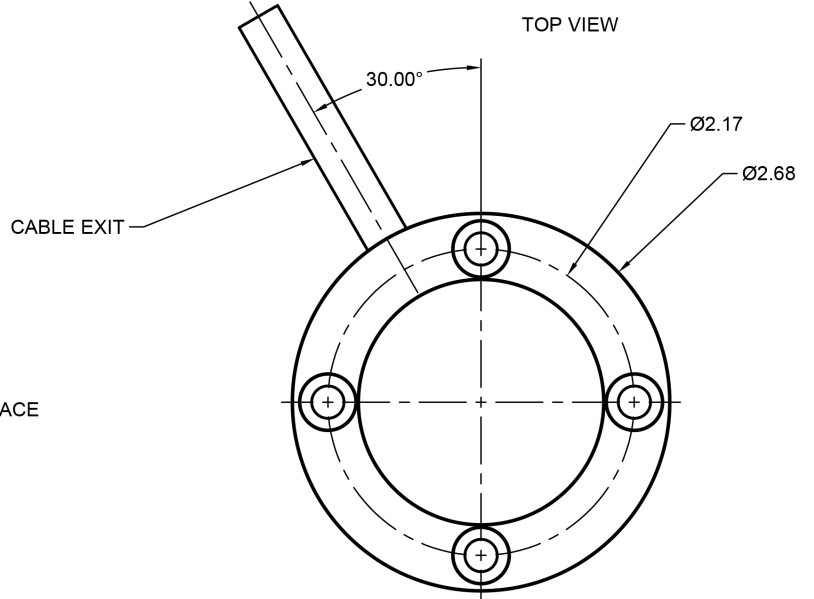
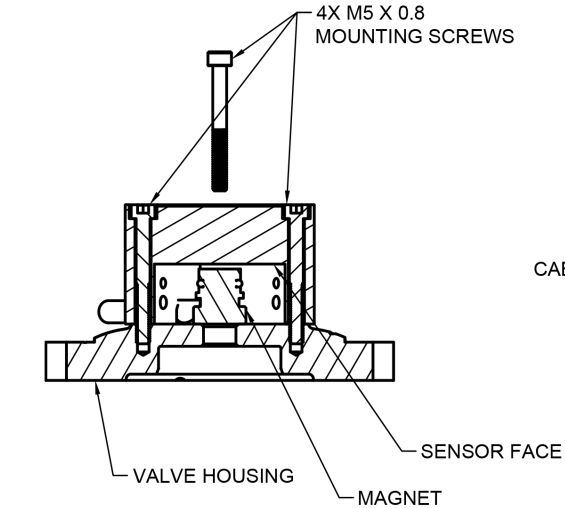
**A-BISS**

- Standard Absolute BISS output
- For Absolute Position and Angle and Turns

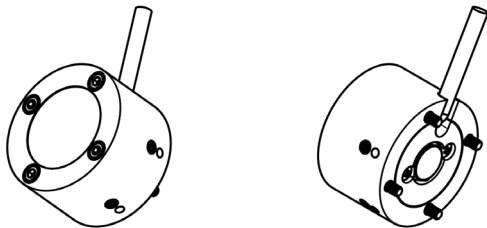
**Code 3: Connections**

- **All Outputs, All Connections** - Connector exit standard is BACK EXIT (sensor epoxy side)
- **J1939 Output** Addressing via varying value resistor in connection requires at least five conductors (M12, DE6, and Cable connections are resistor addressing compatible)
- **All Outputs - DE4 and DE6** Deutsch connectors add **\$20** to HZ68 list

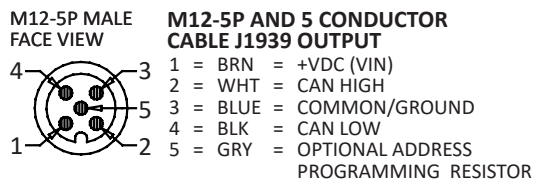
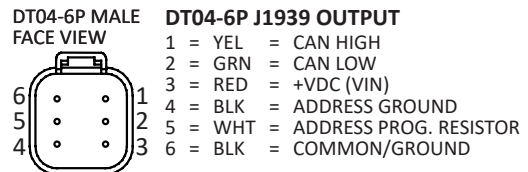
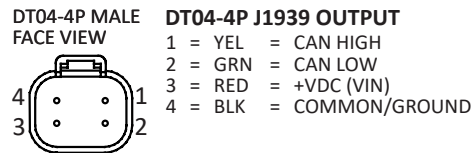
**MOTOR MOUNT METHOD**



SIDE VIEW



**GENERAL PIN OUTS**



*Dimensions informative only  
For most recent dimensions please consult factory*

**MAGNET MOUNT METHOD**

