

**JZ Shafted Sensor** *absolute zero-power rotary position sensor*

- Zero power absolute position sensor
- 10 year zero power functionality; external power wireable
- Patented zero power position sensing
- Senses movement even when machine power is off
- Totally sealed IP69K (*connector dependent*)
- LED indicators for power and output feedback



**STANDARD OPERATING CHARACTERISTICS**

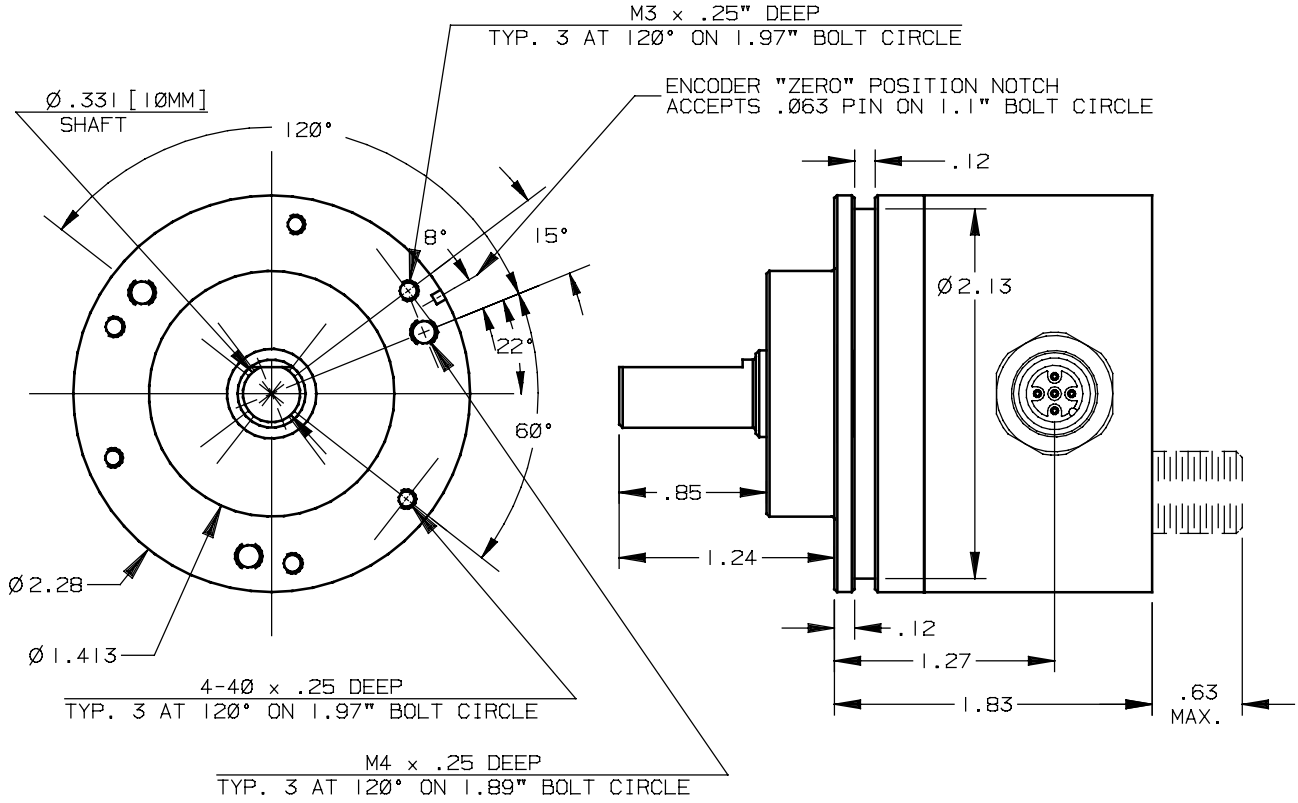
ELECTRICAL	Outputs	<b>E - 1939</b> J1939 12 bit @ 4096 positions (8192 turns maximum)
		<b>E - 485</b> RS - 485 12 Bit output
	<b>Input Power</b>	6 to 30 VDC at approx 60 mA max, <i>not including output loads</i>
	<b>Electrical Protection</b>	Over-voltage, reserve-voltage, output short-circuit protected
	<b>LED Indicators</b>	Power and output channels
	<b>Connections</b>	M12, M12 Pigtail, Flying Lead Cable, Shielded Flying Lead, or Deutsch - 4 or 6 pin
	<b>Resolution</b>	0.09°
	<b>Repeatability</b>	0.30%
	<b>Nonlinearity</b>	<1%
MECHANICAL	<b>Housing Diameter</b>	3.27" (83mm)
	<b>Housing Material</b>	Red Aluminum Standard ( <i>Stainless Steel available</i> )
	<b>Housing Height</b>	1.5" body; 1.75" w/ M12 connector
	<b>Mounting</b>	Mounting Holes or Servo groove
	<b>Weight</b>	Contact factory
	<b>Speed</b>	3000 RPM max
	<b>Operating Temperature</b>	-30° to +80° C
ENVIRONMENTAL	<b>Storage Temperature</b>	-40° to +90° C
	<b>Humidity</b>	100%
	<b>Shock</b>	400g/6ms ( <i>MIL STD 202</i> )
	<b>Vibration</b>	5 to 3000 Hz, 20g ( <i>MIL STD 202</i> )
	<b>Protection Class</b>	IP69K ( <i>connection dependent</i> )

**JZ GENERAL ORDERING GUIDE**

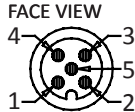
Code 1: Housing Style	Code 2: MagElec (Sensor Output)	Code 3: Connection	Code 4: Special Codes
<b>JZ58</b> JZ58 red aluminum housing includes absolute multi-turn shafted encoder in 58mm housing	<b>E - 1939</b> J1939, 12 bit @ 4096 positions	<b>M12</b> M12 male	<b>53</b> Black Aluminum
		<b>M12P</b> M12 male on 18' pigtail	<b>54</b> Stainless Steel
	<b>E - 485</b> RS - 485 12 bit	<b>CXX</b> Flying lead cable (enter XX as inches)	
		<b>DE4</b> DT04 - 4 pin male Deutsch	
		<b>DE6</b> DT04 - 6 pin male Deutsch	
* More outputs and connection options available, contact Joral if desired configuration is not listed			



**JZ J1939 Rotary Dimensions**



**M12-5P MALE**



**M12-5P/CABLE/FLYING LEAD QUADRATURE OUTPUT**

- 1 = BRN = +VDC (VIN)
- 2 = WHT = CHANNEL B
- 3 = BLUE = COMMON/GROUND
- 4 = BLK = CHANNEL A
- 5 = GRY = CHANNEL Z

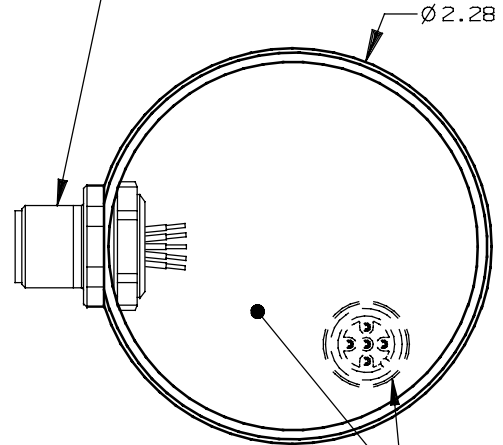
**M12-5P AND 5 CONDUCTOR CABLE J1939 OUTPUT**

- 1 = BRN = +VDC (VIN)
- 2 = WHT = CAN HIGH
- 3 = BLUE = COMMON/GROUND
- 4 = BLK = CAN LOW
- 5 = GRY = OPTIONAL ADDRESS PROGRAMMING RESISTOR

**M12-5P/CABLE/FLYING LEAD PROPORTIONAL (ANALOG) OUTPUT**

- 1 = BRN = +VDC (VIN)
  - 2 = WHT = DIG. LIMIT OUT\*
  - 3 = BLUE = COMMON/GROUND
  - 4 = BLK = PROP. VDC OUTPUT
  - 5 = GRY = NOT USED
- \*OPTION CONSULT FACTORY

**M12 MALE PIN CODE 31 OPTION & SIDE CORD GRIP OPTION**



**M12 MALE PIN CODE 33 OPTION**

ELECTRONICS AND CONNECTOR POTTED IN EPOXY

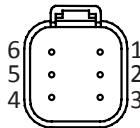
**DT04-4P MALE FACE VIEW**



**DT04-4P J1939 OUTPUT**

- 1 = YEL = CAN HIGH
- 2 = GRN = CAN LOW
- 3 = RED = +VDC (VIN)
- 4 = BLK = COMMON/GROUND

**DT04-6P MALE FACE VIEW**



**DT04-6P J1939 OUTPUT**

- 1 = YEL = CAN HIGH
- 2 = GRN = CAN LOW
- 3 = RED = +VDC (VIN)
- 4 = BLK = ADDRESS GROUND
- 5 = WHT = ADDRESS PROG. RESISTOR
- 6 = BLK = COMMON/GROUND

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

