



## LP30-X / LZ30-X Non-Contact Linear Position Sensor

- J1939 CAN Bus incremental or absolute linear
  - Totally sealed IP69K (*connector dependent*)
  - Non-contact with wide sensing range
  - Compact housings for simple integration
  - MILSPEC 202 ratings for shock and vibration
  - 1/8" resolution standard
    - Custom resolution and magnet assemblies available
  - Intelligent and rugged replacement to cable driven linear position devices such as wire reels and string potentiometers
  - Custom track options including curved paths or arc segments

ELECTRICAL	Outputs	A-1939 : J1939 13 bit @ 1000 positions
	Input Power	6 to 30 VDC at approx 60 mA max, not including output loads
	Electrical Protection	Over-voltage, reverse-voltage, output short-circuit protected
	LED Indicators	Power and J1939 communication status
	Connections	M12, M12 Pigtail, Flying Lead Cable, Shielded Cable, Deutsch (4 or 6 pin)
	Resolution	1/8" (custom resolution packages available, contact Joral)

MECHANICAL	Housing Diameter	30mm
	Housing Material	Aluminum or Stainless Steel (corrosion resistant)
	Housing Height	1.2" (30.5mm) body; 1.86" (47.2mm) w/ M12 connector
	Mounting	30mm thread (standard proximity switch thread style)
	Weight	1.0 oz w/o mounting nuts; 2.2 oz w/ recommended mounting nuts
	Magnet / sensor gap	Standard 0.5" (12mm)(Max w/ custom mag assembly up to 1" [30mm])

*\* Non-contact tolerances rated using MAG-RING 1/4x20 magnet accessory.*

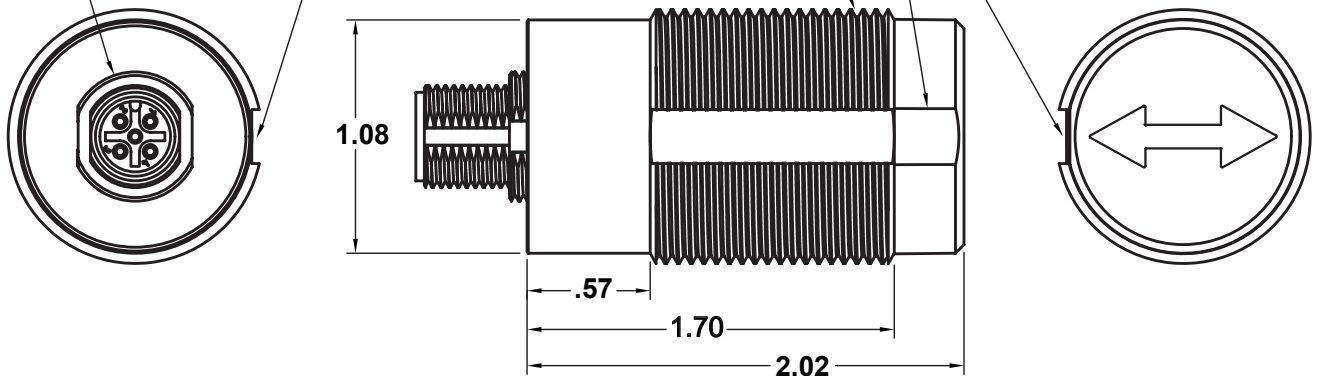
ENVIRONMENTAL	Operating Temperature	-30° to +80° C
	Storage Temperature	-40° to +90° C
	Humidity	100%
	Shock	400g/6ms (MIL STD 202)
	Vibration	5 to 3000 Hz, 20g (MIL STD 202)
	Protection Class	IP69K ( <i>connection dependent</i> )

ORDER TABLE	Code 1: Housing Style	Code 2: MagElec		Code 3: Connection		Code 4: Modifiers		
	LP30-X Standard Functionality	X-1939	J1939, Addressable, Incremental signal	M12	M12 male	51	Red Aluminum	
				M12P	M12 male on 18' pigtail	53	Black Aluminum	
	LZ30-X 'Zero Power' Functionality			CXX	Flying lead cable (enter XX as inches)	54	Stainless Steel	
				SCXX	Shielded Cable (enter XX as inches)			
				DE4	DT04-4 pin male Deutsch			
DE6				DT04-6 pin male Deutsch				
*More outputs available, contact Joral if desired output not shown								

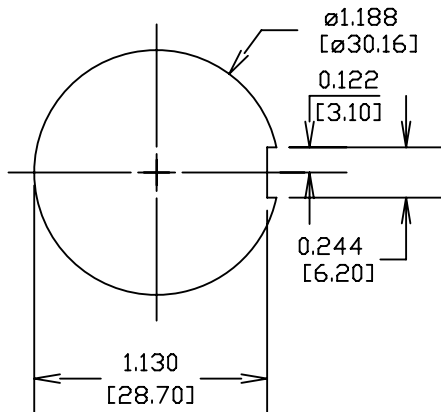
5 PIN M12 CONNECTOR  
OTHER CONNECTION  
OPTIONS AVAILABLE.

FLAT SHOWS TRAVEL DIRECTION  
OF MAGNET TRACK/ RING/ ARC

THREADED M30x1.5  
2X MOUNTING NUTS INCLUDED

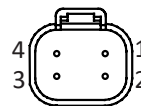


RECOMMENDED  
MOUNTING HOLE



**GENERAL PIN OUTS**

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

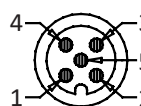
DT04-6P MALE  
FACE VIEW



**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

M12-5P MALE  
FACE VIEW

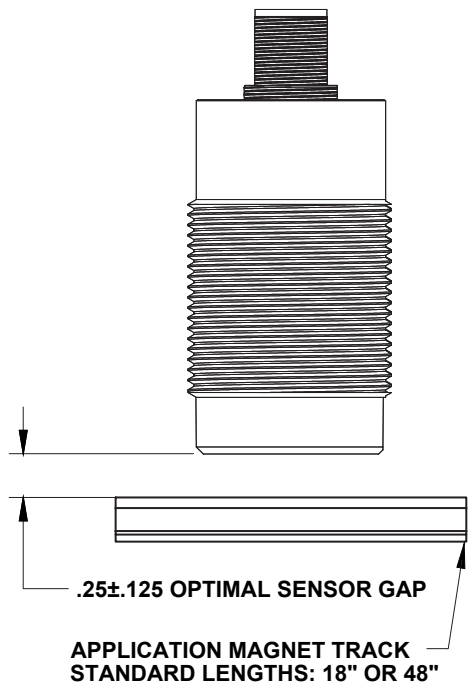
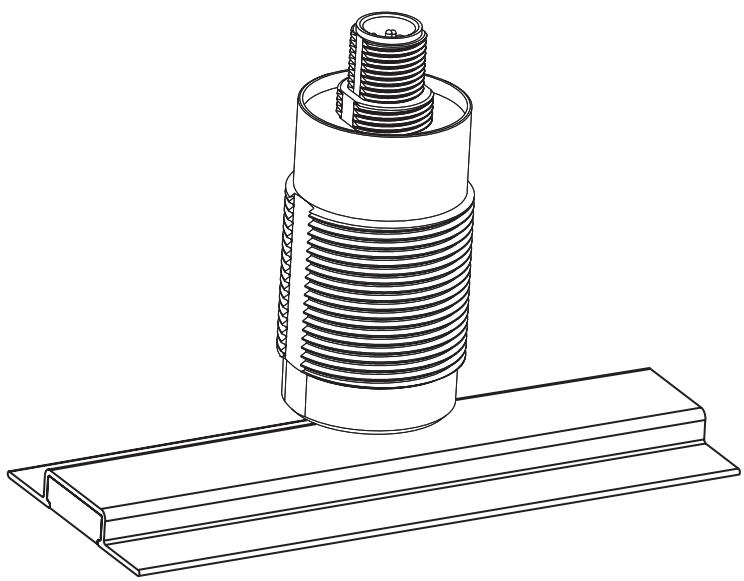
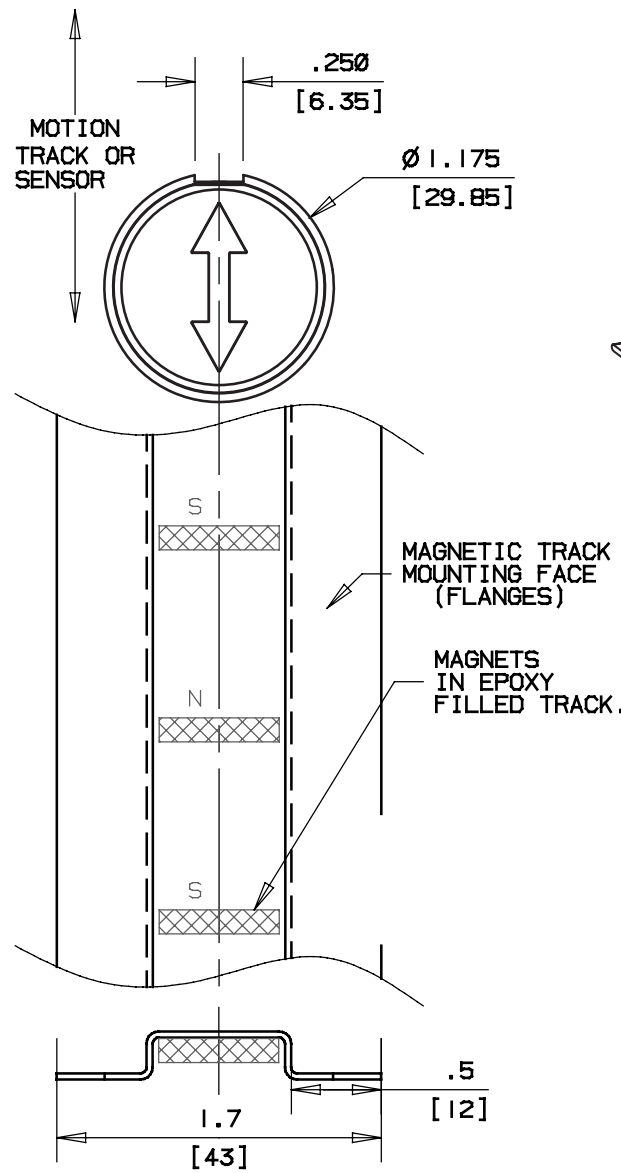


**M12-5P AND 5 CONDUCTOR  
CABLE J1939 OUTPUT**

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

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

**GENERAL PIN OUTS**



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