

LP30 Magnetic Linear Position Sensor

OVERVIEW

Joral has introduced the new Model LP30 Magnetic Linear Position Sensor.

The LP30 consists of Dual Hall Effect sensors which sense magnetic fields of a magnet which pass through the sensor field. The measurement of boom or linear device occurs when potted magnets are embedded in an aluminum housing and attached to a boom. The completely non-contacting sensor does not require a wire reel to measure the boom as it extends. The potted magnets are attached to the boom and the sensor measures the magnets as they pass.

The non-contacting sensing ability of the LP30 allows for variations in movement of the magnetic strip relative to the sensor as the machine is dynamically loaded. The variations allow for extreme differences in position along the boom length with accurate measurement.

FEATURES

- Magnetic strip and LP30 are 100% potted and sealed
- Install even in extreme conditions.
- J1939 CAN BUS interface
- Fully Sealed Packaging, IP69K
- Non-Contact with Wide Sensing Range
- 30mm Proximity Switch -Style Housing for Easy Installation
- Resists mechanical shock, vibration, temperature and contaminants
- ½ in. Resolution
- ¼ in Resolution Optional



LP30

Mfg#-GS10432-020 ½ inch Resolution

Mfg#- GS10432-010 ¼ inch Resolution

Input Voltage

8 to 32 VDC

Current

28 milli Amps

Operating Temperature

-40° C to +80° C (-40° F to 176° F)

Environmental

IP69K- for Housing - Connector Dependent.

Connector

Deutsch DT4 or M12

Rugged Duty Scaled Magnetic Strips

Available in 1,3, and 5 foot strips

Housing

Aluminum housing with magnetic strips fully potted

Body

Anodized Aluminum or Stainless Steel

LP30 Non Contacting Linear Boom Measurement



Non wire Reel Boom Measurement

The use of a magnetic strip attached to the boom as it extends allows for elimination of the wire reel version of boom measurement.

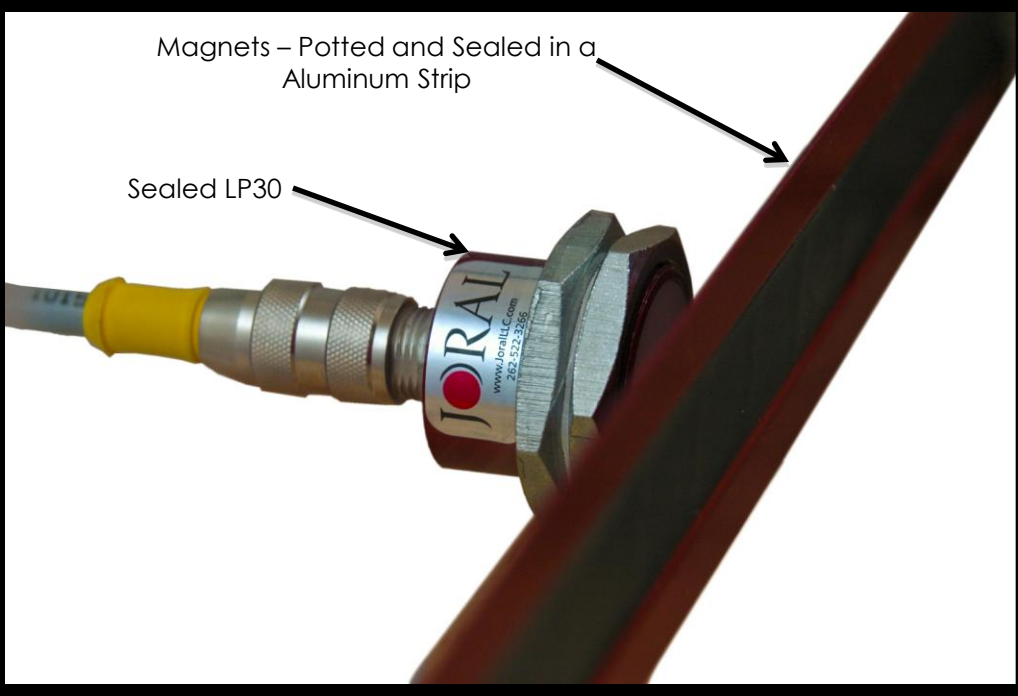
Typical Reel system failures eliminated with new design

- No Stainless Steel wire to break and retract into housing
- Elimination of ice on reel and wire caking with ice
- Elimination of water ingress into the reel and freeze

- Bolt on Magnetic strips- 100% potted in a sealed Aluminum housing.
- Sealed Sensor assembly either Analog or J1939 CAN communication.
- Sensor range from Magnet 1/2 inch gap with +/- 1/2 inch of variation of center of sensor to center of magnet strip .
- Zero point feature allows for easy calibration in home condition.



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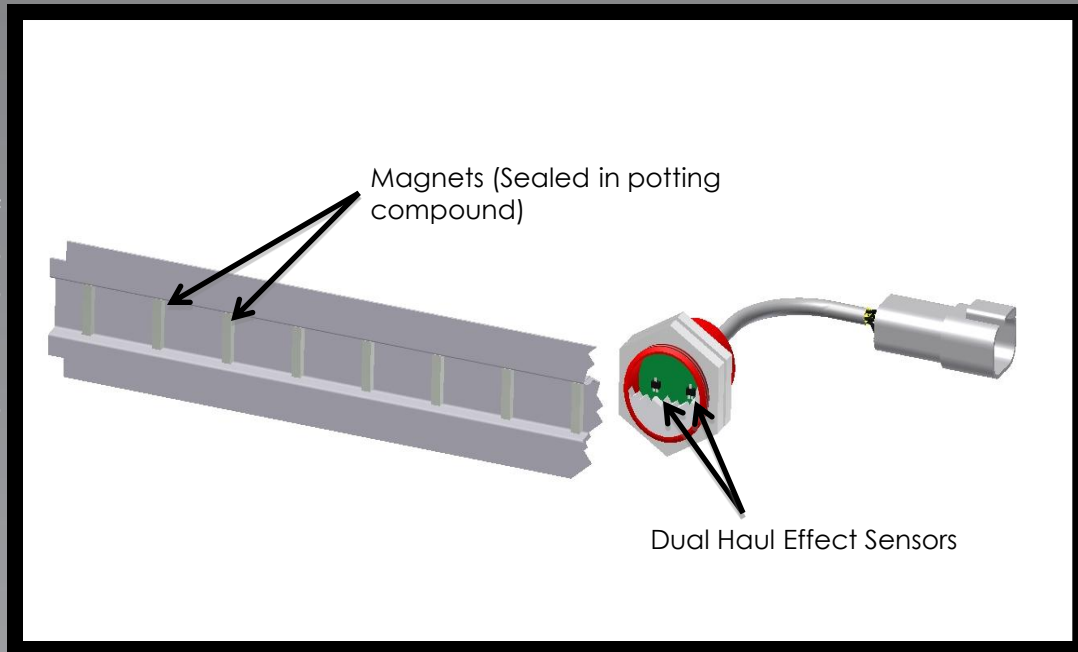
Boom Magnet Strip

The boom magnetic strip comes in 1, 3, and 5 foot lengths . The lengths can be interconnected to achieve a continuous run of magnets.

The resolution of boom measurement is 1/2 the distance between the spacing of the magnets. Currently, 1/2 inch resolution is standard with 1 inch gap between magnets.

Sensor/Strip Installation

- Variations of +/- 1/2 inch vertically allows for extreme boom dynamics.
- Allowance of 1/2 gap of sensor to magnetic strip allows for "slop" in boom tolerances to be inconsequential.
- Resolution no dependent on Reel Length. 1/2" or 1/4 Inch as specified.



!!!!!!!!!!!!!!WARNING!!!!!!!!!!!!!!

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