

Magnetic Limit Sensor

This document provides installation, wiring, technical data, and order codes for the magnetic limit sensor kit



Introduction

The magnetic limit sensors allow you to upgrade the simplest tank gauging systems with gaugeboards and indicators to provide electronic level alarm (Hi-Hi, Hi, Lo, Lo-Lo) for controls systems and devices, such as PLCs, remote terminal units, lights, or sirens. When the gaugeboard indicator with a target attached, travels past a magnetic sensor, the alarm is tripped.

Installation

The magnetic sensor comes in kits of 1, 2, 3 or 4 sensors. The kit includes brackets for the sensors, a magnetic target, a counterweight for the 6700 indicator, and other hardware.

Note Customer to determine placement and field drill locations for mounting brackets of proximity switches based on alarm requirements.

1. Mount the magnetic target and the counterweight on the 6700 indicator as shown in Figure 1. Use the included drilling template.

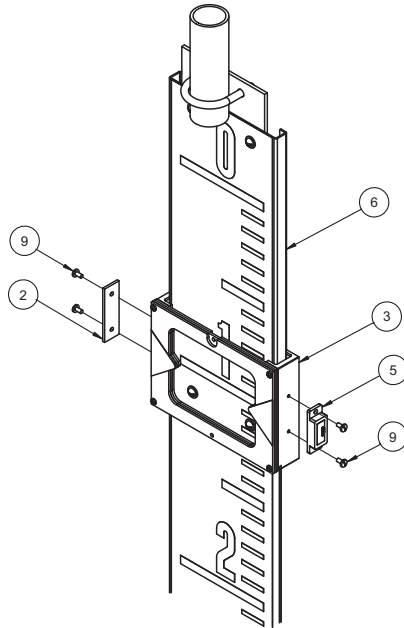


Figure 1 - Target and Counterweight Install

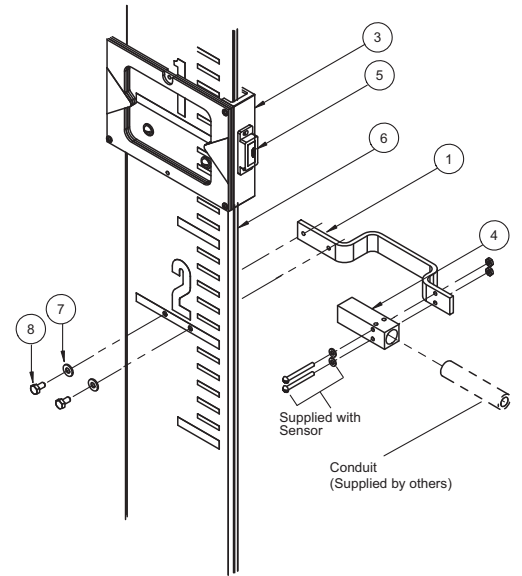


Figure 2 - Sensor Install

1	Magnetic Sensor Bracket
2	Magnetic Sensor Target Counter Weight
3	Full Travel (or Half Travel) Indicator
4	Magnetic Sensor with Fasteners
5	Magnetic Sensor Target
6	Gaugeboard Assembly
7	Washer Std 1/4
8	HHCS screw ¼
9	Screw #10

2. Mount the magnetic sensor as required on the gaugeboard as shown in Figure 2. Use the included drilling template.
3. Varec recommends the gap between the magnetic sensor and the sensor target is between ¼ and 1 inch (6 and 25 mm.)

Wiring

The magnetic sensor is supplied with 4 leads, 3 feet (0.9144 m) in length. The wiring table is shown below.

Normally Closed	Red
Normally Open	Blue
COM	Black
GND	Green

Voltage

The magnetic sensor use 120-240 VAC or 24-48-250 VDC voltage ranges. The table below shows voltage and current draw.

AC		DC	
Volts	Amps	Volts	Amps
120	6	24	2
240	3	48	*
480	*	120	*
600	*	250	0.25

Technical Data

Dimensions	1 in x 1 in x 3.25 in (25 mm x 25mm x 82 mm)
Materials	Stainless Steel type 304
Conduit size	1/2" – 14 NPT
Switch type	SPDT
Operating temperature	-40° F to 221° F (-40° C to 105° C)
Repeatability	0.002" (0.005 mm)
Response time	8 milliseconds
Sensing:	
Maximum range to target	2" (50mm)
Recommended installation range to target	¼" to 1" (6 mm to 25mm)

Approvals

UL approved	Non-hazardous locations
FM/CSA approved	Class I, II, III, DIV I, Group A-G

Order Codes

Each kit contains 1-4 sensors and brackets, one target and one counterweight, and the required mounting hardware (nuts, bolts and washers). Conduit is dependent on the installation type (UL or hazardous area approved) and is supplied by the customer.

Number of Sensors	Part Number	
	UL Approved Kits	FM/CSA Approved Kits
1	13-013327-01	13-013327-11
2	13-013327-02	13-013327-12
3	13-013327-03	13-013327-13
4	13-013327-04	13-013327-14



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