



## PRODUCT DESCRIPTION

SPECTEC's directional preamplifier for passive magnetic VRS sensors is designed to convert the sinusoidal signals from two matching magnetic VR type sensors into stable square wave pulses. It provides relative directional data from the two sensors through the signal out terminal and LED indicators. For proper applications, an (x2) output is provided, which is derived from the input of Coils A & B. It is designed to fit a GAUL-16 or similar standard explosion proof junction box.

For Class I, II, III, Division 1 applications refer to IS4033.  
 For Class I, Division 2 applications refer to N4033.

## SPECIFICATIONS

**Supply Voltage & Current:** 7.5-36Vdc @ ≤ 3mA for 0-5Vo  
 13-36Vdc @ ≤ 12mA for 0-12Vo  
 3.6Vdc min. @ ≤ 20mA for 0-Vs

**Output Voltage:** See options below  
 (@ < 20mA sink)

**Frequency Range:** -5 Hz to 10 kHz  
 Up to 40 kHz with increased signal

**Input Sensitivity:** See options below

**Output Mode:** A or B: Only Channel A provides a signal in Forward Direction, and only Channel B provides a signal in Reverse Direction  
 A and B: Both Channel A & B always provide a signal

**Direction:** Forward (A before B): 0 Vdc  
 Reverse (B before A): 5 Vdc

**Rise/Fall Time:** .03 μs nominal

**Temperature Range:** -40° to 185°F (-40° to 85°C)

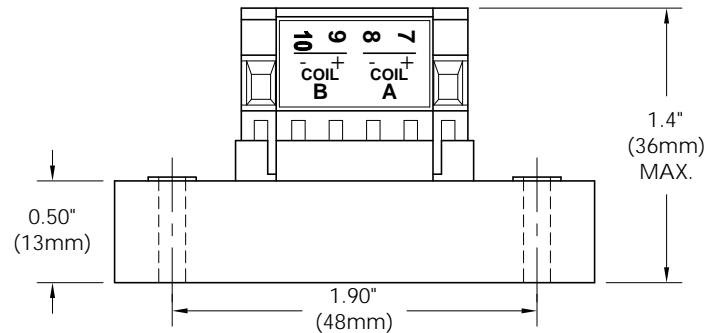
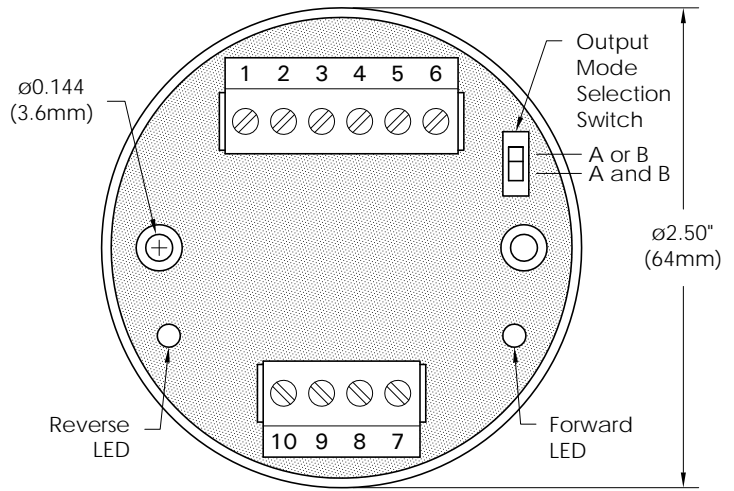
**Construction:** Plastic housing  
 Solid Epoxy Encapsulation

**Compliance:** CE: EN55011, EN50022-2

## FEATURE SELECTION

4033-	x	x	x	Mag Preamp Directional
Signal Options				1 - Standard (A or B Output Mode) 2 - Standard (A or B Output Mode) w/ LED 3 - Selectable Output Mode 4 - Selectable Output Mode w/ LED
Output Signal				1 - 0-5V, NPN 2 - 0-12V, NPN 3 - 0-Vs, NPN OC
Input Sensitivity				0 - 40 mVpp (Standard) 1 - 12 mVpp (High)

For explosion proof junction box refer to bulletin 4001.



## TERMINAL CONNECTIONS

- |                      |                       |
|----------------------|-----------------------|
| 1 - Supply Voltage   | 7 - Coil A + (white)  |
| 2 - Common           | 8 - Coil A - (black)  |
| 3 - Direction        | 9 - Coil B + (white)  |
| 4 - Output Signal A  | 10 - Coil B - (black) |
| 5 - Output Signal B  |                       |
| 6 - Output Signal x2 |                       |

## SENSOR POSITIONING

