



### PRODUCT DESCRIPTION

SPECTEC's Non-Incendive / Increased Safety directional preamplifier for passive magnetic VRS sensors is designed for installation in hazardous locations. It is available in gated and non-gated versions. It is designed to fit a GAUL-16 or similar standard explosion proof junction box.

### INSTALLATION

**CAUTION: This sensor MUST be installed following the details specified in the Installation Instruction Document #85053N.**

### SPECIFICATIONS

- Supply Voltage & Current:** 7.5-25Vdc @ ≤ 3mA for 0-5Vo  
 13-25Vdc @ ≤ 12mA for 0-12Vo  
 3.6Vdc min. @ ≤ 20mA for 0-Vs
- Output Voltage:** See below (@ < 20mA sink)
- Frequency Range:** ~5 Hz to 10 kHz  
 Up to 40 kHz with increased signal
- Input Sensitivity:** See below
- Gating:** Gated: Channel A only in Forward  
 Channel B only in Reverse  
 Non-Gated: Channel A & B always on
- Direction:** Forward (A before B): 0 Vdc  
 Reverse (B before A): 5 Vdc
- Rise/Fall Time:** .03 μs nominal
- Construction:** Plastic housing  
 Solid Epoxy Encapsulation

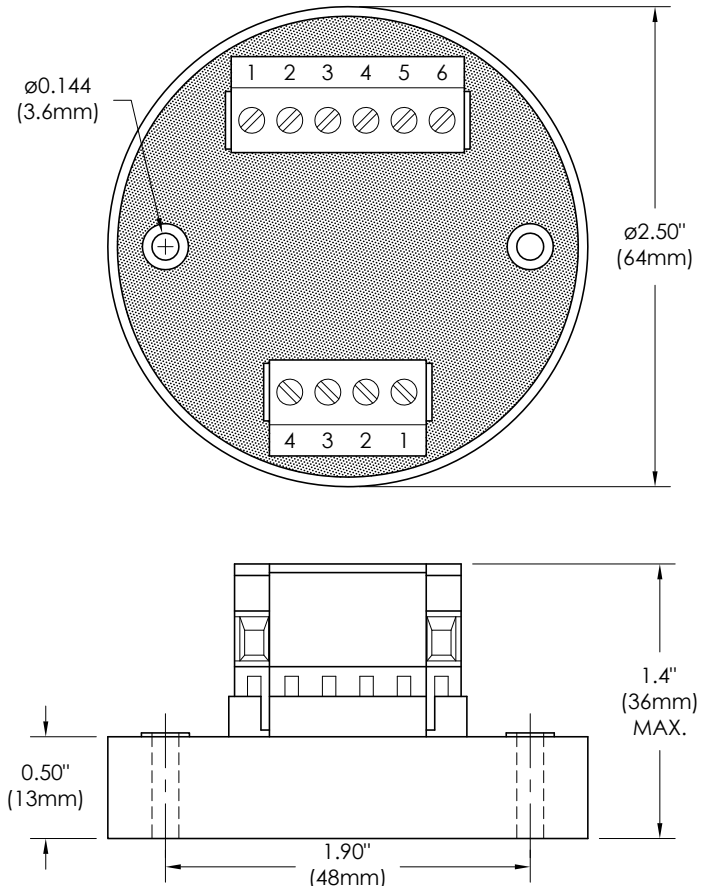
### TERMINAL CONNECTIONS

- |                      |                      |
|----------------------|----------------------|
| 1 - Supply Voltage   | 1 - Coil A + (white) |
| 2 - Common           | 2 - Coil A - (black) |
| 3 - Direction        | 3 - Coil B + (white) |
| 4 - Output Signal A  | 4 - Coil B - (black) |
| 5 - Output Signal B  | (see N40 & N41)      |
| 6 - Output Signal x2 |                      |

### FEATURE SELECTION

- N4033 -**   Mag Preamp Directional
- Output Signal
- 1 - 0-5V, NPN - Gated
  - 2 - 0-12V, NPN - Gated
  - 3 - 0-Vs, NPN OC - Gated
  - 5 - 0-5V, NPN - Non-Gated
  - 6 - 0-12V, NPN - Non-Gated
  - 7 - 0-Vs, NPN OC - Non-Gated
- Input 0 - 40 mVpp (Standard)
- Sensitivity 1 - 12 mVpp (High)

For explosion proof junction box refer to bulletin 4001.



### CERTIFICATIONS for N4033

- ATEX:** II 3 G Ex ec IIC T6...T4 Gc  
**FM08ATEX0069X**
- IECEX:** Ex ec IIC T6...T4 Gc  
**IECEX FMG 16.0003X**  
**T4 @ -40°C ≤ T<sub>amb</sub> ≤ +85°C**  
**T5 @ -40°C ≤ T<sub>amb</sub> ≤ +80°C**  
**T6 @ -40°C ≤ T<sub>amb</sub> ≤ +60°C**
- USA:** Class I, II, III, Division 2  
**GROUP ABCDEFG T6...T4**  
**Class I, Zone 0, AEx nC IIC T6...T4**
- Canada:** Class I, Division 2  
**GROUP ABCD T6...T4**  
**Class I, Zone 0, Ex nL IIC T6...T4**  
**T4 @ -40°C ≤ T<sub>amb</sub> ≤ +85°C**  
**T5 @ -40°C ≤ T<sub>amb</sub> ≤ +80°C**  
**T6 @ -40°C ≤ T<sub>amb</sub> ≤ +60°C**
- CE:** Compliance with  
**EN50081-1, EN50082-1**