

### PRODUCT DESCRIPTION

The 4003 barriers are an intrinsically safe barrier designed for passing electronic signals between safe and hazardous areas. When wired in series with a sensor the barrier limits energy to a level less than capable of igniting a flammable atmosphere.

The 4003-001 model barrier is compatible with all certified intrinsically safe SPECTEC sensors (both active and passive), and signal amplifiers.

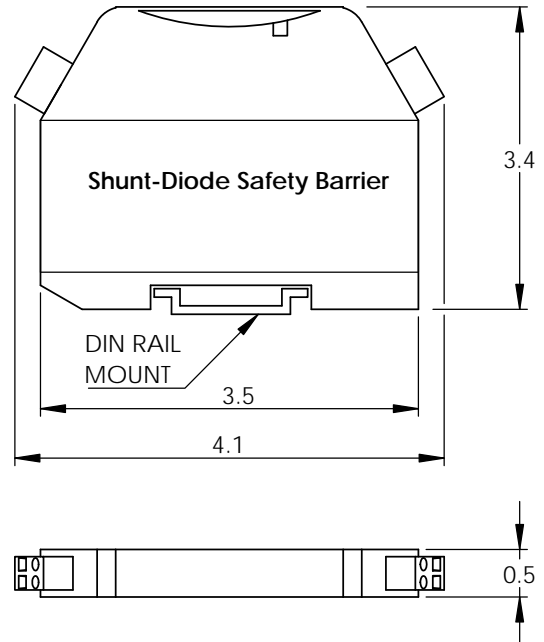
The 4003-002 model is compatible with frequency to current signal converters.

The DIN rail mounting system allows for fast installation of barriers, while the removable terminals blocks allow for easy wiring in small or crowded areas.

### ORDER INFO.

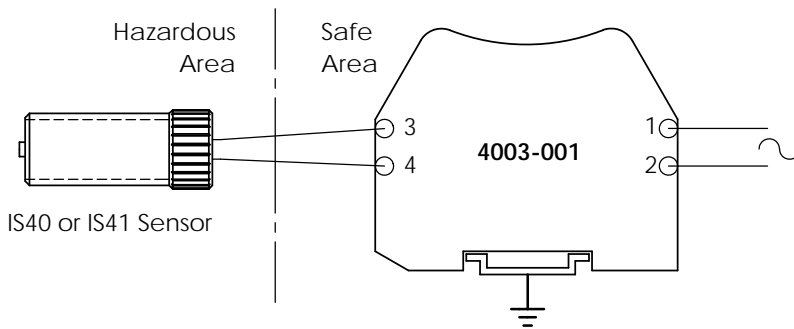
**Part Number: 4003-001**  
 for Passive & Active Sensors and Signal Amplifiers

**4003-002**  
 for Signal Converters (Frequency to current)



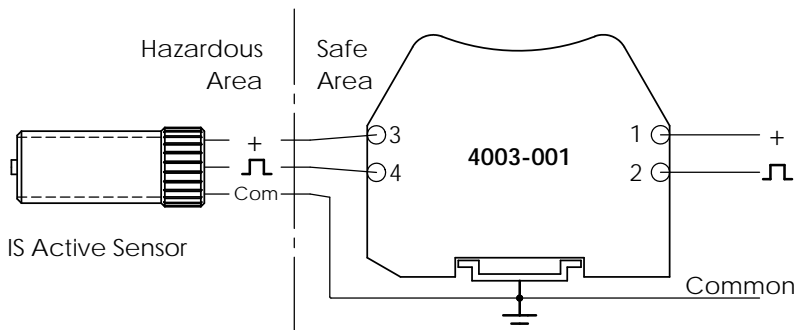
#### Passive Sensor with 4003-001

For VRS Magnetic Pickups (IS40 & IS41)



#### Active Sensor with 4003-001

For DigiSpec Digital Magnetic Sensors (IS90 & IS91),  
 Digital RF Sensors (IS100 & IS101),  
 Hall Effect Zero Speed Sensors (IS160, IS161, IS170, IS171, IS220, & IS221),  
 [Extra barrier required for additional outputs]



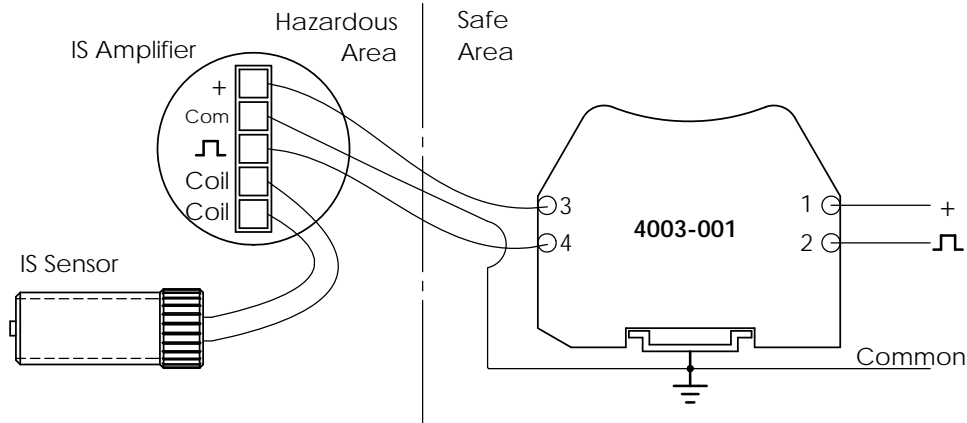
Due to the method of protection built into the barrier, the voltage level of the output signal may be from a few volts lower to half the level of the supply voltage and/or sensor signal level.

**\* NOTE:**  
 Output signal types 0-Vs NPN OC (open collector) and 0-Vs PNP OC are not recommended for use with barriers. Open Collector output type requires a 2.2 kOhm, 1Watt resistor to be installed between terminal 3 & 4 of the barrier. PNP output types requires a 2.2 kOhm, 1W resistor to be installed between terminal 4 and the Common/DIN rail. The resistor MUST be near the barrier and stay in the Safe Area.

# 4003 Shunt-Diode Safety Barrier for SPECTEC IS Products

## Signal Amplifiers with 4003-001

Signal Amplifiers (IS4021\*, IS4022, & IS4033\*),  
[\* Extra barrier required for additional outputs]



## Signal Converter with 4003-002

Signal Converter 4-20mA (IS4027 only)

