

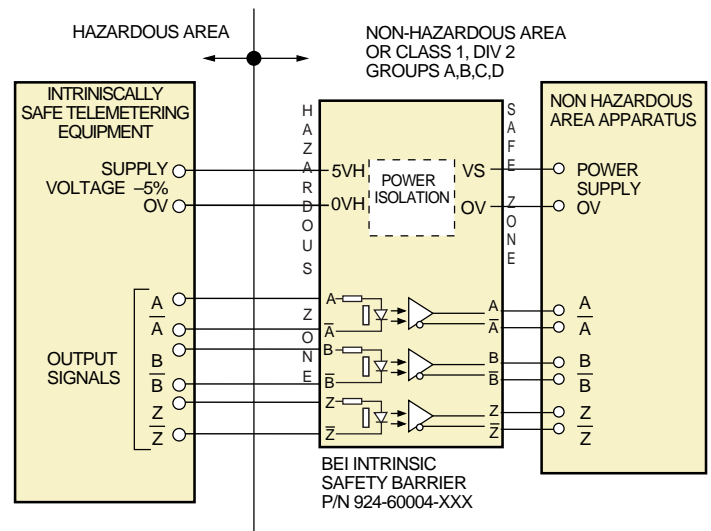
# Intrinsic Safety Barrier for Hazardous Areas



This Galvanically Isolated Electronic Module is the perfect complement to our Intrinsically Safe Encoders. Together with our cable assemblies they constitute a completely engineered solution to operation in Class I and Class II Division 1 Hazardous Environments. This single barrier provides both power and signal isolation for an incremental encoder with differential quadrature outputs and an index. This all-in-one approach saves the cost and inconvenience of buying separate power and signal barriers as required by other systems. This barrier is galvanically isolated and saves the added cost of maintaining a high integrity earth ground. With differential line driver outputs, this barrier can be used to carry signals up to 500 feet with a bandwidth of up to 250 kHz.

The Intrinsic Safety Barrier Module is designed around a standard DIN Rail mounting (Type EN 50 022, 35 mm X 7.5 mm) for easy installation in standard enclosures.

Intrinsic Safety Barrier Specifications				
POWER SUPPLY/OUTPUT TYPE				
Part Number:	Barrier Supply Vs +/-5%	Output logic to Non-Hazardous Area Apparatus:		
924-60004-002	12-24 Volts	V <sub>OUT</sub> = 5V	Line Driver	100mA Source/Sink
924-60004-003	12-24 Volts	V <sub>OUT</sub> = V <sub>IN</sub> (Nominal)	Line Driver	100mA Source/Sink
924-60004-004	12-24 Volts	Open Collector	NPN	80mA Source/Sink
BARRIER PARAMETERS				
Voltage Supply	Voc (I <sub>o</sub> ) Isc (I <sub>o</sub> )	Class I, Group D Class II, Groups E,F,G Group IIA	Class I, Group C Group IIB	Class I, Groups A,B Group IIC
+5V DC±5%	8.9V 345mA	Ca(Co) La(I <sub>o</sub> ) 590 μF 2.0 mH	Ca(Co) La(I <sub>o</sub> ) 43 μF 0.75 mH	Ca(Co) La(I <sub>o</sub> ) 5.6 μF 0.4 mH



NOTE: This system diagram is for general information only. Installation must be consistent with BEI Installation Drawing 924-08067-001.

## Intrinsic Safety Barrier Ordering Options FOR ASSISTANCE CALL 800-350-2727

Use this diagram, working from left to right to construct your model number (example: EM-DR1-IS-5-RTB-24V/V).

All notes and tables referred to can be found on pages 50-51.

