STAHL Intrinsically Safe Zener Barrier

9002-77-093-300001

Overview

The Zener Barrier provides intrinsically safe operation of thermocouple applications or any other intrinsically safe device that falls within the safety data and electrical data parameters of the Zener Barrier.

This compact, space-saving device is easy to install on a DIN rail. Simply snapping the barrier onto a grounded DIN rail provides a connection to ground.

Features

- Thermocouple input
- Space-saving design
- Easily grounded via the DIN rail
- Convenient grounding lugs on top and bottom of barrier

The Zener Barrier must be grounded in accordance with Article 504/505 of the National Electrical Code or the Canadian Electrical Code, Part 1, whichever applies. There are multiple ways to ground the Zener Barrier:

- The DIN rail connection can provide a path to ground if the DIN rail is properly grounded.
- Ground the Zener Barrier by utilizing the top or bottom grounding lug.

Refer to the installation manual for full installation instructions.
NOTE: An isolator barrier can be used if grounding is unavailable.

STAHL Intrinsically Safe Zener Barrier Selection Guide

Part Number	Price	Barrier Type	Field Device	Controller Side (PLC/DCS)	Drawing
9002-77-093-300001	$202.00	Thermocouple repeater	Ungrounded thermocouple	Equal to input signal	PDF

Replacement Fuses

STAHL Zener Barrier Replacement Fuses Selection Guide

Part Number	Price	Quantity Per Package	For Use With
158964	$40.50	5	STAHL Zener Barriers

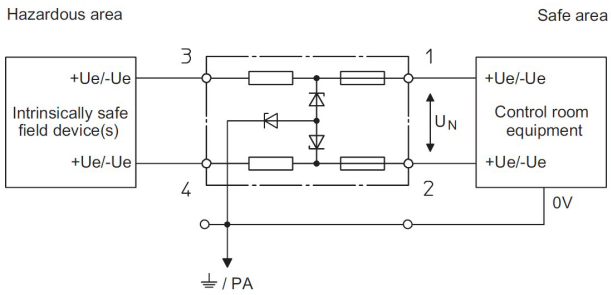
158964

STAHL Intrinsically Safe Zener Barrier

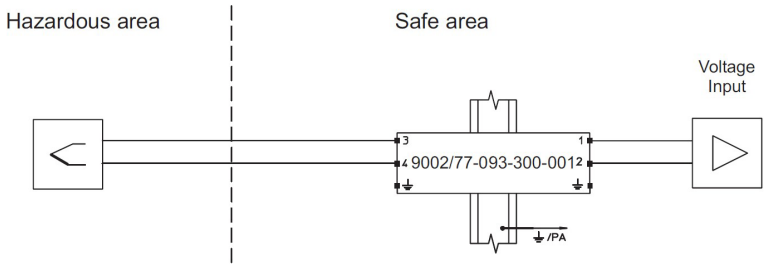
STAHL Intrinsically Safe Zener Barrier Specifications		
		9002-77-093-300001
Zener Barrier Type		Thermocouple repeater
Explosion Protection	Installation Location (per NEC 500)	Class I, Division 2
	Ex Interface (for intrinsically safe interface) (per NEC 500)	Class I, II, III Division 1 or 2
	Agency Approvals	ATEX (PTB), Brazil (ULB), Canada (CSA), China (CQST), EAC (STV), IECEx (PTB), India (PESO), Japan (CML), Korea (KGS), USA (FM), USA (UL)
Safety Data	Max Voltage (U_o)	9.3 V
	Max Current (I_o)	150mA
	Max Power (P_o)	350mW
Electrical Data	Number of Channels	2 in / 2 out (or 1 thermocouple in/out)
	Nominal Voltage (V_{nom})	6.00 V
	Minimum Resistance (R_{min})	71.7 Ω
	Maximum Resistance (R_{max})	81.5 Ω
	Thermocouple Input Type	Ungrounded thermocouples (all types)
	Output	Equal to input signal
Ambient Conditions	Operating Temperature	-20°C to 60°C [-4°F to 140°F]
	Storage Temperature	-20°C to 75°C [-4°F to 167°F]
Mechanical Data	Degree of Protection	IP20
	Mounting Type	DIN rail
	Wire Gauge Range	16AWG for terminals 12AWG for ground connections
	Weight	0.24 lb [110g]

Connection Diagrams

9002-77-093-300001



Two-channel safety barriers, star barrier / star barrier



Application: Thermocouples

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- Ground the Zener Barrier by utilizing the top or bottom grounding lug.

Refer to the installation manual for full installation instructions.
NOTE: An isolator barrier can be used if grounding is unavailable.

Safety Products

Warning: Safety products sold by AutomationDirect are Safety components only. The purchaser/installer is solely responsible for the application of these components and ensuring all necessary steps have been taken to assure each application and use meets all performance and applicable safety requirements and/or local, national and/or international safety codes as required by the application. AutomationDirect cannot certify that our products, used solely or in conjunction with other AutomationDirect or other vendors' products, will assure safety for any application. Any person using or applying any products sold by AutomationDirect is responsible for learning the safety requirements for their individual application and applying them, and therefore assumes all risks, and accepts full and complete responsibility, for the selection and suitability of the product for their respective application.

AutomationDirect does not provide design or consulting services, and cannot advise whether any specific application or use of our products would ensure compliance with the safety requirements for any application.