



***Discrete & Analog  
Non - Incendive Barriers...  
for Hazardous Locations  
Installations***

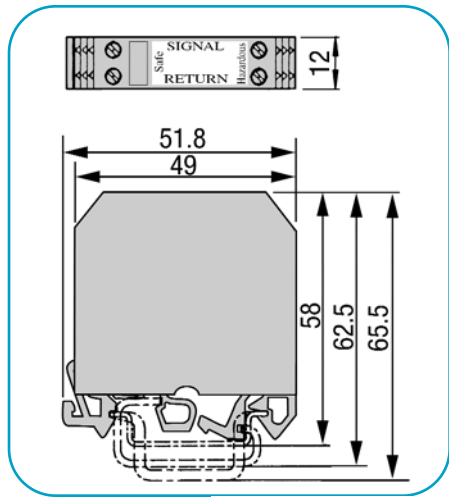
**Wieland Hazardous Location Devices**

**Protect Your Class I,  
Division 2/Zone 2 Locations  
...And Your Budget**

# Discrete Non-Incendive Barrier Terminal Blocks

Types: WT-NIC-W904-35VDC-75mA

for Hazardous Locations



Part Number : **34.243.0008.0**

**Description:**


This module is designed to provide isolation to enable circuits beyond the module to be rated as non-incendive. It is typically used on "discrete" inputs to PLC's to allow the use of non-explosion-proof wiring and end devices in Class I Division 2 Groups, A, B, C and D Hazardous Locations. The barrier is suitable for use with all gases when located outside of the hazardous location and with gases having ignition temperatures of 160° C or higher when located in the Class I Division 2 Hazardous Location. The barrier must be located in an enclosure suitable for the location. The use of a weatherproof enclosure is recommended when the barrier is located in the Hazardous Area.)

**Technical Information:**

Materials:

- Insulating Body: Polyamide 6.6, UL94 V-2
- Clamping Body: Nickel plated copper alloy
- Clamping screw: Dichromated Steel
- Color: Grey

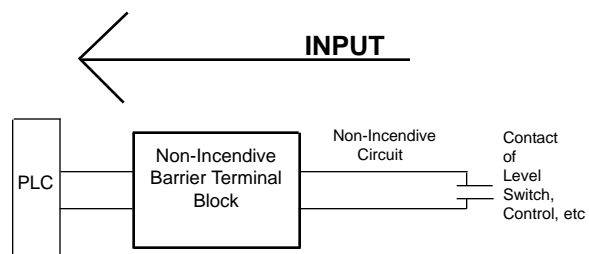
Ratings:

- Rated Voltage: 24 Volts DC
- Maximum Voltage: 35 Volts DC
- Maximum Current: 75 mA
- Internal Resistance: 470 Ohms+/-1% Hazardous
- Location Rating: Class I Div. 2 Groups A, B, C, & D
-  FM
- Temperature Code: T3C (160° C)

**Features:**

- Provides non-incendive isolation for circuits up to 24 VDC
- Eliminates need for expensive explosion proof enclosures for End Field Devices
- Eliminates costly wiring normally required in Class I, Division 2 locations.
- DIN rail mountable terminal block style housing

**Typical Application:**



**Technical Data: 05-014**

created Apr, 2005



**wieland**

2889 Brighton Rd, Oakville, On, L6H 6C9. Canada  
Phone: 905-829-8414 Fax: 905-829-8413



# Type "n" Protection Discrete Non-Incendive Barrier Terminal Block

electronics  
non-incendive

Type: DNIB-TYPE-N-24VDC-FU



Patent Pending

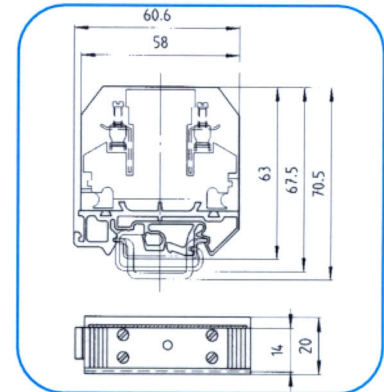
## Description:

This module is designed to meet the new Type "n" protection requirements for hazardous locations. The module provides isolation to enable circuits beyond the module to be rated as "non-incendive". It is typically used for discrete inputs to PLC's to allow the use of non-explosion proof wiring and end devices in Class I, Zone 2 / Division 2 hazardous locations. The barrier is suitable for use with all gases when located outside the hazardous location and with gases having ignition temperatures of 200 °C or higher when located in the Class I, Zone 2 / Division 2 hazardous location. The barrier must be installed in an enclosure suitable for the location. The use of a weatherproof enclosure is recommended when the barrier is located in the hazardous location.

## Features:

- Internally fused providing additional safety in the event of an over current / voltage condition.
- Red LED turns ON when the internal fuse is blown indicating the module needs to be replaced.

for Hazardous Locations



## Technical Information:

### Materials:

Insulating Body:	Polyamide 6.6, UL94 V-0
Clamping Body & Screws:	Zinc plated Steel
Current Bar:	Tin plated copper alloy
Color:	Grey
Mounting:	TS32 and TS35 DIN rails

### Electrical Ratings:

Voltage:	24VDC (nominal) 35VDC (maximum)
Current Limited to:	75 mA
Internal Ceramic Fuse:	100 mA (non-replaceable)
Red LED Turns on when fuse blown	

Resistance (internal): 470 ohms  $\pm$  1%

Wire Connection Range: #20 - 10 AWG

### Hazardous Location Ratings



Provides non-incendive connections for:  
CLASS I, ZONE 2, Ex nA, IIA, IIB, IIC  
CLASS I, ZONE 2, AEx nA, IIA, IIB, IIC  
CLASS I, DIVISION 2, groups: A,B,C,D  
TEMPERATURE CODE: T3 (200 °C)

### Typical Applications:

- Oil Refineries
- Gas Processing Plants
- Oil and Gas Production Facilities
- Petrochemical Plants
- Pipeline Facilities
- Sewage Treatment Facilities

**Wieland Part #: 34.243.0001.0**

**Technical Data: 05-017**



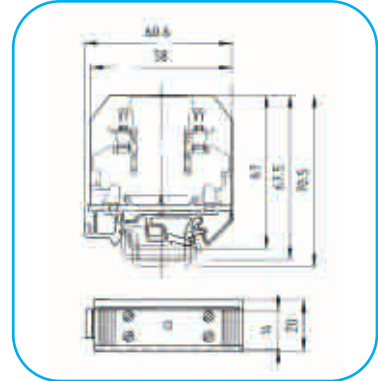
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created Apr, 2005

# Analog Non-Incendive Barrier Terminal Blocks

for Hazardous Locations

Types: WT-NIC-24VDC/4-20mA - FU



Part Numbers: **34.243.0010.0**

Patent Pending

**Description:**

The Wieland Analog Non-Incendive Barrier Terminal Blocks are designed for 4-20 mA loop applications at 24 VDC to allow the use of less expensive GP (general purpose) rated end field devices and standard wiring methods instead of the more elaborate methods normally required in Class I, Division 2, Groups: A, B, C & D Hazardous Locations. The barrier is suitable for use with all gases when located outside of the hazardous location and with gases having ignition temperatures of 160°C or higher when located in the Class I, Division 2 Hazardous Location. The barrier must be located in an enclosure suitable for the location. The use of a weatherproof enclosure is recommended when the barrier is located in the Hazardous Area.

**Features :**

- Provides non-incendive isolation for 4 - 20 mA, 24 VDC circuits
- Eliminates need for expensive explosion proof enclosures for end field devices
- Eliminates costly wiring normally required in Class I, Division 2 locations
- LED indicator turns bright red warning of a short circuit condition
- CSA Approved, FM pending
- DIN rail mountable terminal block style housing

**Technical Information:**

**Materials:**

Insulating Body:	Polyamide 6.6, UL94 V-0
Clamping Body & Screws:	Zinc plated Steel
Current Bar:	Nickel plated copper alloy
Color:	Grey
Mounting:	TS32 and TS35 rails

**Ratings:**

Rated Voltage:	24VDC
Maximum Voltage:	35VDC
Current Limited to:	25 mA
Loop Resistance:	252 ohms at 4 mA, (1.01 V <sub>d</sub> ) 187 ohms at 20 mA, (3.75 V <sub>d</sub> )
Fuse Replacement:	Use Only Ceramic Equivalent to Bussmann type: GDA-125 mA Size: 5 x 20 mm Rating: 250V, 125 mA

CSA Hazardous

Location Rating:	Class I, Division 2, Groups A,B,C & D
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Temperature Code:	T3C (160°C)
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**Typical Applications:**

**Class I, Division 2 Locations in:**

- Oil Refineries
- Gas Processing Plants
- Oil and Gas Production Facilities
- Petrochemical Plants
- Pipeline Facilities
- Sewage Treatment Facilities

Technical Data: 05-015



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For more than 90 years, Wieland Electric has offered customers the broad product range, worldwide approvals, superior designs, unsurpassed quality, and custom development capabilities necessary to guarantee the most cost-effective, space-saving and time-saving interconnect solutions. More than just terminal blocks, Wieland's total offering includes products from PC board connectors to advanced electronic modules; I/O systems to DIN rail power supplies; and rectangular connectors to hazardous location components. And more than just products, Wieland has the design support, application assistance and custom solutions necessary to meet your most challenging interconnect requirements.

The cornerstone of all Wieland products is the superior design and our philosophy of continuous improvement through innovation. Our high degree of vertical integration and attention to product detail enable our products not only to perform above established standards, but also to minimize the purchase cost as well as associated installation and maintenance costs.

Best by design, best product offering and best support.

## Wieland .... Best Connections.

Wieland Products and Industries Supported	Machine Manufacturers	Petrochemical	Heating, Ventilation & Air Conditioning	Process Controls & Instrumentation	Transportation	Water Treatment & Utilities	Telecommunications	Computers & Networking	Packaging & Material Handling	Automotive & Robotics
<b>selos, fasis, taris</b> DIN rail Mountable Terminal Blocks										
<b>flare</b> Electro-Mechanical & Solid State Relay Modules										
Signal Conditioning & Surge Suppression Modules										
<b>ricos</b> Remote Interface Communication System										
<b>wipos</b> DIN Rail Mounted Power Supplies										
Standard & Custom Interface Modules										
<b>revos</b> Industrial Multipole Connectors										
Wire Management Products										
<b>gesis</b> ST Compact Connector System										
<b>wiecon</b> Pluggable PC Board Terminal Strips										
<b>wiecon</b> Modular PC Board Terminal Strips										
<b>europa</b> & Compact Panel Mounted Terminal Strips										





# wieland

2889 Brighton Road  
Oakville, Ontario L6H 6C9  
Phone (905) 829-8414  
Fax (905) 829-8413

On the Internet  
[www.wielandelectric.ca](http://www.wielandelectric.ca)

Wieland Offers A Full Line Of  
Interconnect Components:

- Electro-Mechanical & Solid State Relay Modules
- Standard & Custom Interface Modules
- Industrial Multipole (rectangular) Connectors
- DIN rail Mountable Terminal Blocks
- Europa & Compact Panel Mounted Terminal Strips
- Wire Management Products
- *ricos* - Remote Interface For Fieldbus
- Signal Conditioning & Surge Suppression
- ST Compact Connector System
- Pluggable PC Board Terminal Strips
- Modular PC Board Terminal Strips

