# ASD-NIB
# Analog Signal & Discrete Non-Incendive Barrier

- Class 1, Division 2 Barrier
- Provides non-incendive isolation for analog and discrete signals
- Eliminates need for explosion proof enclosures
- Eliminates costly wiring
- DIN rail mountable housing
- Internal thermal fuse
- LED indicator warns of a fault condition
- CSA


| MODEL | NIB-TA25mA-1X |
|---|---|
| Type | Analog Signal & Discrete NIB |
| Wire Size | 24-12 AWG |
| Voltage Output | 24 VDC |
| Amperage Output | 35 mA |
| Width | 6.2 mm |
| Approvals | |

1 channel ASD-NIB

| Part Number Model Number | Std. Pack | Part Number Model Number | Std. Pack | Part Number Model Number | Std. Pack | Part Number Model Number | Std. Pack |
|---|---|---|---|---|---|---|---|
| 34.243.0030.0 | 1 | | | | | | |

## Mechanical

| | |
|---|---|
| Housing Material | Self-extinguishing polyamide |
| Degree of Protection | IP20 |
| Temperature Range | -40°C to +75°C |
| Temperature Code | T3C (160°C) |

## Electrical

| | |
|---|---|
| Input Voltage Range | 5 - 30 VDC |
| Maximum Input Voltage | 36 VDC |
| Maximum Output Voltage | 24 VDC |
| Input Current | 5 - 37 mA |
| Nominal Output Current | 25 mA |
| Maximum Output Current | 35 mA |
| 4..20mA insertion loss | 0.1 mA |
| Wire Gage | 24 - 12 AWG |
| Internal Resistance | 47 ohms |

## Field Wiring

| | |
|---|---|
| (Recommended) | |
| Max. Cable Inductance | Group A — 25 µH/Ω \| 0.27 µF<br>Group B — 25 µH/Ω \| 0.27 µF<br>Group C — 60 µH/Ω \| 0.81 µF<br>Group D — 200 µH/Ω \| 2.16 µF |
| Max. Loop Capacitance | |

## Indicators

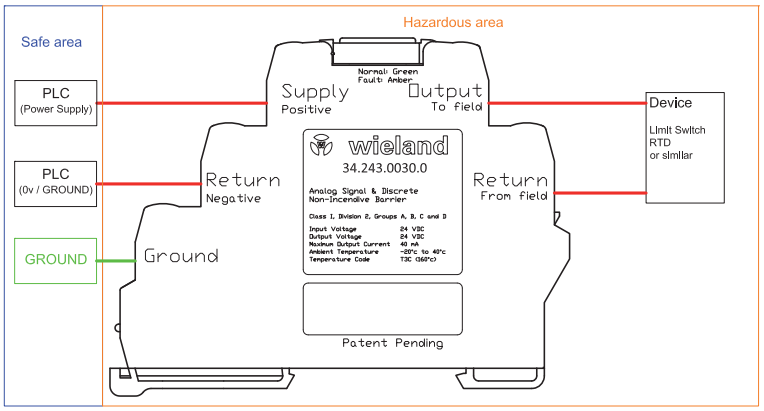
Green - Normal Operation
Amber - Fault Condition

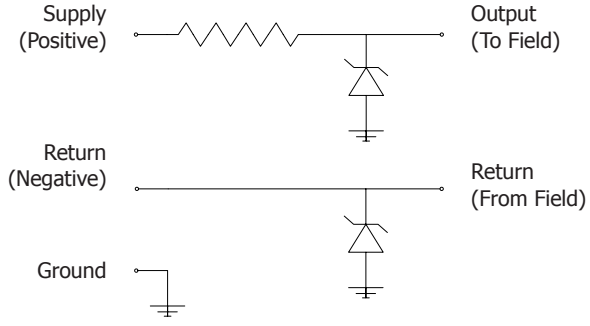
## Fault Condition

Amber light typically indicates a ground fault on the output.

At 45 VDC the fault light will illuminate (even with no output connected)

If the temperature rises above 75°C a thermal fuse will open the output.



# NIB
# Non-Incendive Barriers
## interface



- Provides non-incendive isolation for analog signals
- Eliminates need for explosion proof enclosures
- Eliminates costly wiring
- DIN rail mountable housing
- CSA Approved


| MODEL | WT-NIC-24VDC/4-20mA - FU |
|---|---|
| Type | Analog NIB |
| Wire Size | 24-12 AWG |
| Max Voltage Output | 35 VDC |
| Max Amperage Output | 35 mA |
| Width | 20 mm |
| Approvals | |

| ANIB | Part Number Model Number | Std. Pack | Part Number Model Number | Std. Pack | Part Number Model Number | Std. Pack | Part Number Model Number | Std. Pack |
|---|---|---|---|---|---|---|---|---|
| | 34.243.0010.0 | 1 | | | | | | |

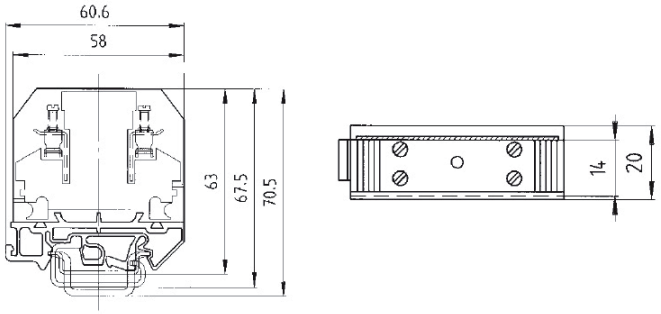
| | |
|---|---|
| **Mechanical** | |
| Housing Material | Self-extinguishing polyamide |
| Degree of Protection | IP20 |
| Temperature Range | -40°C to +85°C |
| Wire Gauge | 24 - 12 AWG |
| Tempature Code | T3C (160°C) |
| **Electrical** | |
| Nominal Input Voltage | 24 VDC |
| Input Voltage Range | 5 - 30 VDC |
| Maximum Input Voltage | 35 VDC |
| Maximum Output Voltage | 35 VDC |
| Nominal Input Current | 4 - 20 mA |
| Maximum Input Current | 25 mA |
| Nominal Output Current | 4 - 20 mA |
| Maximum Output Current | 25 mA |
| Loop Resistance | 252 ohms at 4 mA, (1.01 Vd)<br>187 ohms at 20 mA, (3.75 Vd) |
| CSA Hazardous Location | Class I, Division 2,<br>Groups A,B,C & D |

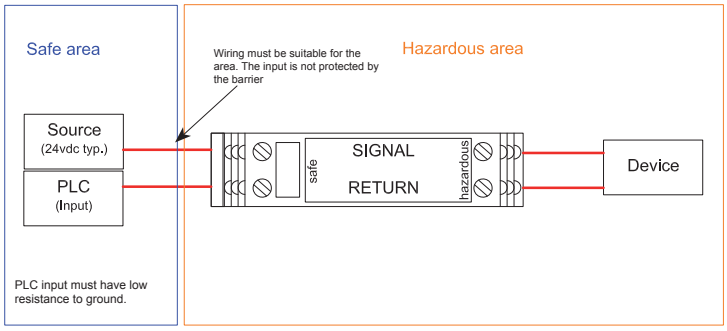
### Installation

This device is designed to provide an electrical barrier between control devices and hazardous location devices. This is a non-fused device, a failure may cause it to fail in a shorted state.

Must be installed in a suitable enclosure.

Return line must be referenced to 0V, the PLC input must have a low resistance path the 0V. This is essential to the proper operation of the barrier in over voltage situations. If a low impedance to 0V cannot be guaranteed on the return path, Wieland recommends the use of two barriers (one per signal) and to connect one of the return terminals on each barrier directly to ground



# NIB
# Non-Incendive Barriers



This module provides isolation for a circuit on the load side of the module to be rated as non-incendive, and is to be used on digital inputs or outputs. The DNIB allows the use of non-rated wiring to end devices in Class 1, Zone 2 / Division 2 areas, subject to the allowances of the Canadian Electrical Code.

Eliminates need for explosion proof enclosures

Eliminates costly wiring

DIN rail mountable housing




| MODEL | WT-NIC-W904-35VDC-75mA |
|---|---|
| Type | Discrete NIB |
| Wire Size | 24-12 AWG |
| Max Voltage Output | 35 VDC |
| Max Amperage Output | 75 mA |
| Width | 12 mm |
| Approvals | |

**DNIB**
**Discrete Non-Incendive Barrier**

| Part Number Model Number | Std. Pack | Part Number Model Number | Std. Pack | Part Number Model Number | Std. Pack | Part Number Model Number | Std. Pack |
|---|---|---|---|---|---|---|---|
| 34.243.0008.0 WT-NIC-W904-35VDC-75mA | 1 | | | | | | |

| | |
|---|---|
| **Mechanical** | |
| Housing Material | Self-extinguishing polyamide |
| Degree of Protection | IP20 |
| Temperature Range | -40°C to +85°C |
| Tempature Code | T3C (160°C) |
| **Electrical** | |
| Nominal Input Voltage | 24 VDC |
| Input Voltage Range | 5 - 30 VDC |
| Maximum Input Voltage | 35 VDC |
| Maximum Output Voltage | 35 VDC |
| Nominal Input Current | 5 - 50 mA |
| Maximum Input Current | 75 mA |
| Nominal Output Current | 50 mA |
| Maximum Output Current | 75 mA |
| Wire Gauge | 24 - 12 AWG |
| Internal Resistance | 470 ohms |

**Installation**

This device is designed to provide an electrical barrier between control devices and hazardous location devices. This is a non-fused device, a failure may cause it to fail in a shorted state.

Must be installed in a suitable enclosure.

Return line must be referenced to 0V, the PLC input must have a low resistance path the 0V. This is essential to the proper operation of the barrier in overvoltage situations. If a low impedance to 0V cannot be guaranteed on the return path, Wieland recommends the use of two barriers (one per signal) and to connect one of the return terminals on each barrier directly to ground.