Intrinsically Safe
Ethernet Isolator

9468-ET

- **Zone 2 mountable for connections to Zone 0 and 1**
- **Galvanically isolated RJ45 ports**
- **Transparent operation**
- **Compact alternative solution to fibre optics and media converters**
- **ATEX / IECEx certified**
- **FM / CSA approvals (pending)**
- **Wide temp. range –20°C to +70°C**
- **Single 20–30V DC power supply**
- **Status LEDs to show activity**

The 9468-ET 10/100Mbps, Isolating Ethernet Barrier allows the interconnection of a Zone 2 or un-certified safe area device to the intrinsically safe 9400-ET series of Ethernet networking products, operating in the hazardous area.

The isolating barrier provides a compact alternative solution to fibre optic cable and media converters and for when it is desirable to use Cat5e cables in preference to fibre.

The 9468-ET is designed for Zone 2 hazardous-area mounting inside a suitable IP6x enclosure and has intrinsically safe ATEX and IECEx approvals, with FM and CSA approvals pending. The approvals cover both surface industry and mining applications.

10/100Mb Ethernet twisted pair (Cat5e) RJ45 connections (100metres length max). These RJ45 ports provide total galvanic isolation (Um=253Vac) from safe to hazardous areas.

Status LEDs are provided on the front panel to indicate:

- 'Power On'
- Safe Area UTP 'Link 10/100Mb' established
- Safe Area UTP 'Tx/Rx Activity'
- Haz. Area UTP 'Link 10/100Mb' established
- Haz. Area UTP 'Tx/Rx Activity'

The module operates from a single supply in the Safe Area of 20...30Vdc at approx 220mA.
Transparent operation - 10/100Mbps, Full/Half Duplex with Auto-Negotiation. Supports IEEE 802.3: 10Base-T and 100Base-TX.
The module is supplied as a DIN-rail mounting device.

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SPECIFICATION

See also System Specification

POWER INPUT

Separately powered
Input voltage
24V DC (20–30V)
Input current
220mA
Input protection
Fuse + supply reversal diode

GENERAL PURPOSE ETHERNET

10/100 base T

Connector
RJ45

IS ETHERNET

Intrinsically Safe 10/100 base T

Connector
RJ45
PoEx
Power Source Equipment, on hazardous area LAN by connection of IS power supply such as 9491-IS

SAFETY

Location of module
Safe Area, Zone 2, Division 2*
Location of field wiring
Zone 0, IIC T4 hazardous area*
or Class 1, Div 1*, Groups A, B, C, D T4 hazardous location
*Certification pending
Ethernet protection
Intrinsically safe
Certification Code
See approvals
Safety description
See certificate

MECHANICAL

Mounting
DIN rail
Dimensions (mm)
Length 75
Width 100
Height (off rail) 116
Weight
380 g

LED INDICATORS

	OFF	FLASH	ON
PWR (green)	24V Power fail	N/A	24V Power OK
ACT (red)	Idle	Ethernet link activity	Ethernet link activity
10 (yellow)	No Ethernet link at 10Mbps	Poor link	Ethernet connected at 10Mbps
100 (green)	No Ethernet link at 100Mbps	Poor link	Ethernet connected at 100Mbps

ENVIRONMENTAL

Ambient temp
Operating –20°C to +70°C
Storage –20°C to +70°C
Relative Humidity
5 to 95% RH (non-condensing)
Ingress Protection
IP20 to BS EN 60529
(Additional protection by means of enclosure)

DATA & POWER TERMINALS

LAN Terminals (RJ45)
10/100 BASE-T Ethernet
Safe Area and Hazardous Area (marked blue)

Pin	Function
1	Rx +
2	Rx –
3	Tx +
4	Supply 12V - PoEx †
5	Supply 12V - PoEx †
6	Tx –
7	Supply 0V - PoEx †
8	Supply 0V - PoEx †

Tx/Rx crossed MDI-X

Screw Terminals

PWR	Function
1	+20 – 30V DC in
2	+20 – 30V DC in
3	0V
4	0V
5-13	No connections
14	Supply in 12V - PoEx †
15	Supply in 0V - PoEx †

Terminals 1+2 and 3+4 are linked internally.

† When using PoEx, inject device power into terminals 14 & 15 (marked blue).

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