

# 9474-ET(G)/BxLAN

## MTL intrinsically safe ethernet interface

- **ATEX / UKEX / IECEx certified**
- **Compact dimensions (cased- W:72xH:90xD:60 mm  
OEM- W:40xH:78xD:20 mm)**
- **DIN-rail mounting (cased version)**
- **Suitable for safe area mounting**
- **OEM version for incorporating into other designs**
- **Loop powered**
- **[Ex ia Ma] I  
[Ex ia Ga] IIC or IIB (depending on model)  
[Ex ia Da] IIIC**
- **Ta = -40°C to +70°C**



The BxLAN is available in versions to suit different applications.

### Boxed Types

- **9474-ET** 10/100Mbps Ethernet Interface
- **9474-ETG** 10/100/1000Mbps Gigabit Ethernet Interface

### OEM PCB Type

- **BxLAN** 10/100Mbps Ethernet Interface

The two Ethernet LAN ports are provided with RJ45 connectors, the two IS Safety earth conductors are terminated into screw type terminals. The OEM type may have PCB headers fitted instead of the connectors if the user wishes to mount it directly onto their PCB.

The Gigabit versions are suitable for IIB gas groups, the 100Mbps versions are suitable for IIC gas groups. All versions are suitable for Group I Mining.

The Ethernet LAN ports are marked up HAZ and SAFE. The connection going into the Hazardous Area must be plugged into the RJ45 marked HAZ and the Safe Area device is connected to the port marked SAFE.

It is recommended that the RJ45 Cat5e cable that is used for the Hazardous Area LAN connection is Blue in colour to identify this cable as carrying Intrinsically Safe signals and the Safe Area LAN cable be some other colour to avoid any confusion.

Two independent high integrity safety earths are required, this is the same requirement as with any diode safety barrier type device. The conductors used should be 0.75mm<sup>2</sup> minimum.

# 9474-ET(G) BxLAN

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## SPECIFICATION

### Ethernet dependent on model type

BxLAN: Intrinsically Safe 10/100Base-T  
9474-ET: Intrinsically Safe 10/100Base-T  
9474-ETG: Intrinsically Safe 10/100/1000Base-T

### Connector

RJ45

### Cable Length

Up to 100m Cat5e

## CONNECTIONS

<b>Safe Area LAN</b>	RJ45 Cat5e
<b>Haz Area LAN</b>	RJ45 Cat5e
<b>Earth*</b>	2 Individual conductors of 0.75mm <sup>2</sup> minimum

\*Note: Both Safety earths must be connected at all times.

## SAFETY

### Location of Unit

Safe area mounting

### Certification Code

[Ex ia Ma] I  
[Ex ia Ga] IIC or IIB (depending on model)  
[Ex ia Da] IIIC  
Ta = -40°C to +70°C

### Certificate numbers

CML 16ATEX2050X  
IECEX CML 16.0025X  
CML 21UKEX21071X

See certificates for further information

## ENVIRONMENTAL

### Operating Temperature

-40°C...+70°C

### Storage Temperature

-40°C...+70°C

### Humidity

0...95% RH, non-condensing

### Ingress Protection

Select enclosure to suit application, see certificates for information

## MECHANICAL

Boxed Version	
Width	72mm
Height	90mm
Depth	60mm
Weight	104g
Mounting	DIN-rail

OEM Version	
Width	40mm
Height	78mm
Depth	20mm
Weight	58g
Mounting	Screw

## DATA TERMINALS (Safe and Haz)

### BxLAN / 9474-ET

10/100 BASE-T Ethernet

Pin	Function
1	Tx +
2	Tx-
3	Rx +
4	*n/c
5	*n/c
6	Rx-
7	*n/c
8	*n/c

### 9474-ETG

1000BASE-T Ethernet

Pin	Function
1	BI_DA+
2	BI_DA-
3	BI_DB+
4	BI_DC+
5	BI_DC-
6	BI_DB-
7	BI_DD+
8	BI_DD-

\*n/c pairs 4+5 and 7+8 are terminated with 75R+1nF internally

## ORDERING INFORMATION

Part Number	Description
BxLAN	OEM PCB 10/100Base-T
9474-ET	Boxed 10/100Base-T
9474-ETG	Boxed 10/100/1000Base-T



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