9475-ETG

Intrinsically Safe Gigabit Ethernet Dual Port Media Converter Switch

- **Intrinsically Safe ATEX / UKEX / IECEx Certification / North America (MET$_{c/us}$) approvals**

- **Dual 1310nm Fibre-Optic Ports (10Km)**

- **CPU Management Feature**

- **Dual Port Switch 10/100/1000Mbps LAN (daisy-chain capability)**

- **Fibre-Optic Repeater Mode with 2 Local LAN Ports**

- **Compact dimensions (W: 42 x H: 160 x D: 140 mm)**

- **Ex ia op is IIB T4 Ga, [Ex ia Da] IIIC (non-mining), Ex ia op is I Ma (M1 mining).**

- **Ta = -40ºC to +70ºC**

- **Zone 1 / Zone 21 mounting (Zone 0 / Zone 20 with a suitable Ex ia Power Supply)**

The 9475-ET(G) is an Intrinsically Safe (IS) Dual Port Media Converter Module suitable for Zone 1 / Zone 21 mounting, **(Zone 0 / Zone 20 with a suitable Ex ia Power Supply).**

The use of 1310nm optics (instead of 850nm) allows a longer fibre-optic link length, typically 10Km at (Gigabit) 1000Mbps using Single Mode fibre or 500m when using multi-mode fibre

There are 2x RJ45 (LAN) ports that support 10/100/1000 IS Ethernet connections – these can allow 'daisy-chaining' of units together.

Power (12V DC) is supplied to the module locally.

The compact and cost effective design makes it the ideal choice for many applications:

Petrochem - Process Monitoring, Galvanic Isolation...

Mining - Underground Communication Links, Machine Monitoring….

Electrical connections are via cage-clamp and/or screw type plug/socket terminals along with RJ45 type connectors for the Ethernet LAN ports. The Fibre ports are duplex SC type.

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9475-ETG
June 2023

SPECIFICATION

Power supplies
12VDC IS Power Supply Input
Typically 12V @ 270mA (Inrush < 200mA)
U_i = 15.4V
9492-PS-PLUS recommended

Ethernet
Intrinsically Safe 10/100/1000Base-T
Connector
RJ45 (x2)
Cable Length
Up to 100m Cat5e

FIBRE OPTIC CONNECTIONS

Connector (Top Port TX, Bottom Port RX)
Duplex SC (Gigabit 1000Mbps single-mode or multi-mode)
1000BASE-X

SAFETY

Eye Safety
Class 1 LED/Laser Product

Location of Unit
Zone 1, IIB T4 hazardous area

Certification Code
Ex ia op is IIB T4 Ga
[Ex ia Da] IIIC T135°C (non-mining)
Ex ia op is I Ma (M1 mining)
Ta = -40°C to +70°C

Certificate numbers
CML 19ATEX2414X
IECEx CML 19.0150X
IECEx ExTC 20.0019X
CML 21UKEX21072X

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

Width	42mm
Height	160mm
Depth	140mm
Weight	1500g
Mounting	Din Rail

LED INDICATORS

	OFF	FLASH	ON
PWR (green)	Power Fail	N/A	Power OK
WDG (red/green)	Fault	Green- Healthy (10Hz)	Fault
STAT (red/green)	N/A	Green – Identify module mode	Red (fault) Green (healthy)
RJ45 ACT (yellow)	Ethernet link disconnected	Ethernet link activity	Ethernet link connected
RJ45 1000 (green)	10/100Mbps	N/A	1000Mbps
FIBRE Ports (purple)	No Link	Data	Linked

FIBRE PORT SPECIFICATION (Gigabit)

1000BASE-X

TX Output (1310nm)
Single-Mode   -9.5dBm (min),-3dBm (max)   *note1

RX Sensitivity
Single-Mode   -21dBm (max)

note1 – transmit power coupled into 9um single-mode fibre

DATA & POWER TERMINALS

Power & External LEDs (CON1)

Pin	Function	Pin	Function
1	Power In +12V	2	Power In 0V
3		4	
5		6	
7		8	
9		10	
11	0V	12	0V
13	LAN1 LED	14	LAN2 LED
15	FIBRE1 LED	16	FIBRE2 LED
17		18	

LAN (RJ45)
10/100/1000 BASE-T Ethernet

Pin	Gigabit 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-

- LEDS wire between LED terminal and 0V (no resistor required)

ORDERING INFORMATION

Part Number	Description	Comments
9475-ETG	**Dual Media Converter – 1000Mbps Gigabit Single/Multi-Mode SC**	**Standard**

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or guarantee. In the interest of further technical developments, we reserve the right to make design changes.

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