

# MTL 9492-PS-PLUS

## 12V DC intrinsically safe power supply

- Isolated power supply
- Zone 2 mountable
- DIN-rail or backplane mounting
- ATEX / IECEx certified
- 480mA @ 10.00V DC - Ex ia IIB
- 550mA @ 11.90V DC - Ex ib IIB output
- Power over Ethernet option
- Multiple outputs achieved by ganging 9492-PS-PLUS modules using 24V DC power distribution backplane
- Wide operating temperature  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$



The MTL 9492-PS-PLUS power supply is the preferred method for supplying the 9460-ET series of intrinsically safe ethernet modules and is based on an isolating power supply. It takes a 24V DC safe area / Zone 2 supply and produces an intrinsically safe, 12V DC nominal output capable of powering the ethernet modules mounted in a Zone 1 hazardous area. The 9492-PS-PLUS may be mounted in a safe area or Zone 2 hazardous area.

Each 9492-PS-PLUS can power a single ethernet module. In order to provide multiple outputs required for several ethernet modules, the 9492-PS-PLUS power supply module is ganged up to the required number of ways, either DIN-rail mounted or using the power distribution backplane to simplify the 24VDC input connection to the modules.

The 9492-PS-PLUS module has LED power indication for both input and output along with internal current limiting and electronic auto-reset circuit breaker action to protect the module in the event of its output being short circuited or overloaded. This also minimises the power dissipation during the fault to a negligible level, thus improving reliability.

The output can be from either the Ex ia IIB or Ex ib IIB output connectors depending upon application. The 'ib' IIB output provides a higher useable output power where the Gas Group and Zone allows.

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## SPECIFICATION

See also System Specification

### POWER INPUT

Separately powered

#### Input voltage

24V DC (20–30V)

#### Input current

390mA

### Input protection

Fuse + supply reversal diode

### Connectors (see dimension drawing)

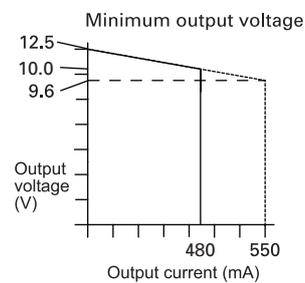
DIN rail mounting: screw terminals – capacity 2.5mm<sup>2</sup> stranded or single core

Backplane mounting: multipin connector

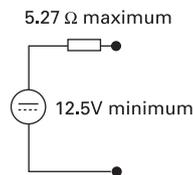
### POWER OUTPUT

#### [Ex ia] output (pins 1 & 3)

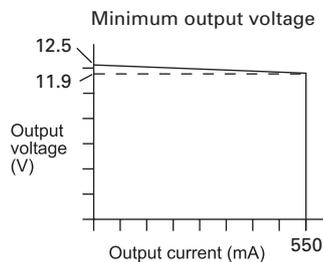
Graph shows normal working range & total available range



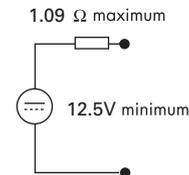
#### Equivalent circuit



#### [Ex ib] output (pins 5 & 6)



#### Equivalent circuit



### Connectors

9492-PS-PLUS is supplied with two IS output connectors.

Capacity 2.5mm<sup>2</sup> stranded or single core

(When using crimp ferrules for the IS connectors the metal tube length should be 12mm and the wire trim length 14mm.)

### ISOLATION

Isolation - input to output

U<sub>m</sub> = 253V rms

### SAFETY

#### Location of module

Safe area, Zone 2

#### Location of field wiring

##### [Ex ia] output

Zone 0, IIB hazardous area

##### [Ex ib] output

Zone 1, IIB hazardous area



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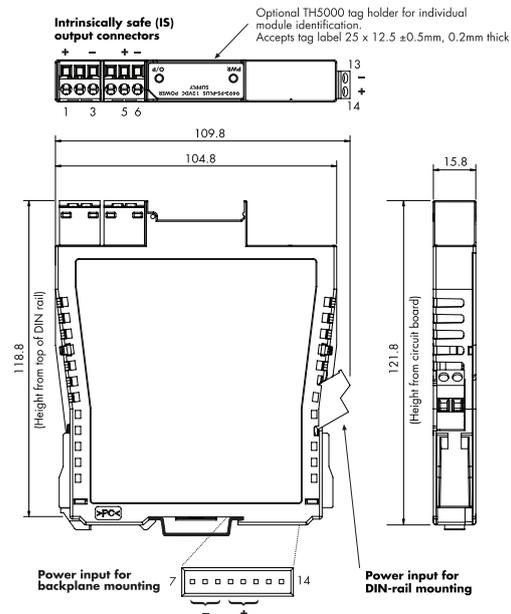
### Certification Code

See approvals

### Safety description

See certificate

## DIMENSIONS (mm)



### MECHANICAL

#### Mounting

DIN rail

Please contact Eaton MTL product line for 'backplane' option

#### Dimensions

See diagram

#### Weight

130 g

### ENVIRONMENTAL

#### Ambient temp

Operating –40°C to +70°C

Storage –40°C to +70°C

#### Relative Humidity

5 to 95% RH (non-condensing)

#### Ingress Protection

Select enclosure to suit application, see certificate for information

### LED INDICATORS

|                    | OFF            | Flash                                    | ON           |
|--------------------|----------------|--|--------------|
| <b>Pwr (green)</b> | 24V power fail | N/A                                      | 24V power OK |
| <b>IS (green)</b>  | IS power fail  | output overload or short circuit present | IS power OK  |

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