



# 9491-PS

**12V DC  
Intrinsically Safe  
Power Supply**



- ◆ Isolated power supply
- ◆ Zone 2 mountable
- ◆ DIN-rail or backplane mounting
- ◆ ATEX / IECEx certified
- ◆ FM / CSA approvals (pending)
- ◆ 200mA @10.9V DC - Ex ia IIB output
- ◆ 400mA @11.8V DC - Ex ib IIB output
- ◆ Power over Ethernet option
- ◆ Multiple outputs achieved by ganging 9491-PS modules using 24V DC power distribution backplane

The 9491-PS 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.

Each 9491-PS can power a single Ethernet module. In order to provide multiple outputs required for several Ethernet modules, the 9491-PS 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 9491-PS 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 providing a higher useable output power where the Gas Group and Zone allows.



**EUROPE (EMEA)**  
**AMERICAS**  
**ASIA PACIFIC**  
E-mail: [enquiry@mti-inst.com](mailto:enquiry@mti-inst.com) Web site: [www.mti-inst.com](http://www.mti-inst.com)

Tel: +44 (0)1582 723633  
Tel: +1 603 926 0090  
Tel: +65 487 7887

Fax: +44 (0)1582 422283  
Fax: +1 603 926 1899  
Fax: +65 487 7997

## SPECIFICATION

See also System Specification

### POWER INPUT

#### Separately powered

#### Input voltage

24V DC (20–30V)

#### Input current

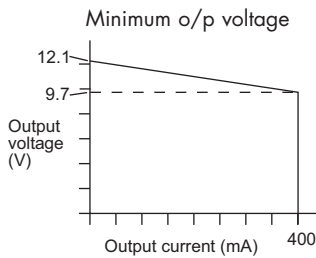
350mA

#### Input protection

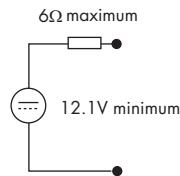
Fuse + supply reversal diode

### POWER OUTPUT

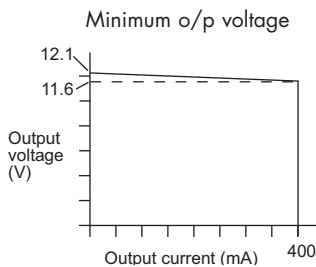
#### Ex ia IIB output



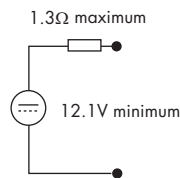
#### Equivalent circuit



#### Ex ib IIB output



#### Equivalent circuit



### Connectors

9491-PS is supplied with two IS output connectors.  
(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

$U_m = 253V$  rms

### SAFETY

#### Location of module

Safe area, Zone 2\*, Division 2\*

#### Location of field wiring

##### Ex ia output

Zone 0, IIB hazardous area  
or Class 1, Div 1, Groups C, D hazardous location\*

##### Ex ib output

Zone 1, IIB hazardous area  
or Class 1, Div 1, Groups C, D hazardous location\*

#### Certification Code

See approvals

#### Safety description

See certificate

### MECHANICAL

#### Mounting

DIN rail or power distribution backplane

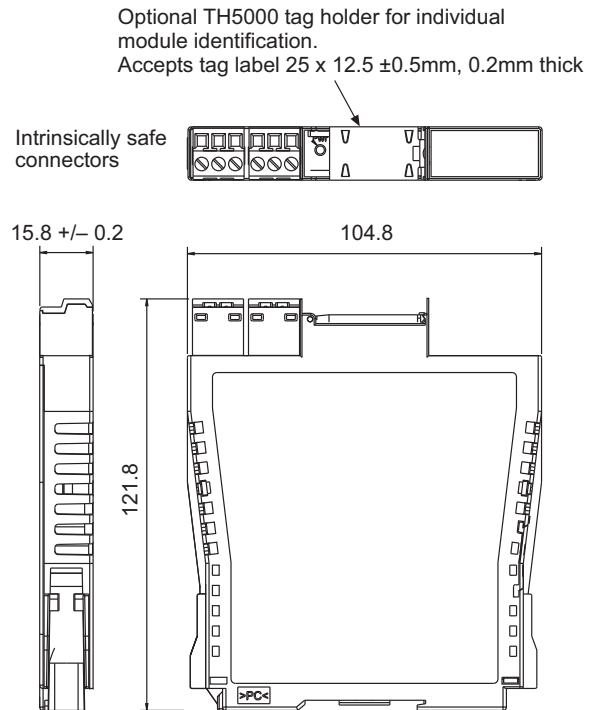
#### Dimensions

See diagram

#### Weight

130 g

## DIMENSIONS (mm)



### ENVIRONMENTAL

#### Ambient temp

**Operating** 0°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)

### LED INDICATORS

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

\* certification pending



EUROPE (EMEA)  
AMERICAS  
ASIA PACIFIC  
E-mail: enquiry@mtl-inst.com

Tel: +44 (0)1582 723633  
Tel: +1 603 926 0090  
Tel: +65 6 487 7887

Fax: +44 (0)1582 422283  
Fax: +1 603 926 1899  
Fax: +65 6 487 7997

Web site: www.mtl-inst.com

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