



9491-PS

12V DC Intrinsically Safe Power Supply

- Isolated power supply
- Zone 2 & Division 2 mountable
- DIN-rail or backplane mounting
- ATEX / IECEx certified
- FM / FMC approved
- 200mA @ 10.9V DC - Ex ia IIB Groups C, D 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 / Division 2 supply and produces an intrinsically safe, 12V DC nominal output capable of powering the Ethernet modules mounted in a Zone 1/ Division 1 hazardous area. The 9491-PS may be mounted in a safe area, Zone 2 or Division 2 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 Group C, D 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.

SPECIFICATION

See also System Specification

POWER INPUT

Separately powered

Input voltage

24V DC (20–30V)

Input current

350mA

Input protection

Fuse + supply reversal diode

Connectors (see dimension drawing)

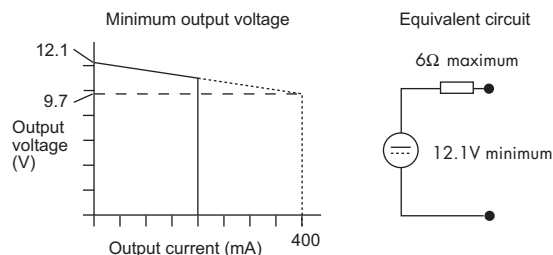
DIN rail mounting: screw terminals – capacity 2.5mm²
stranded or single core

Backplane mounting: multipin connector

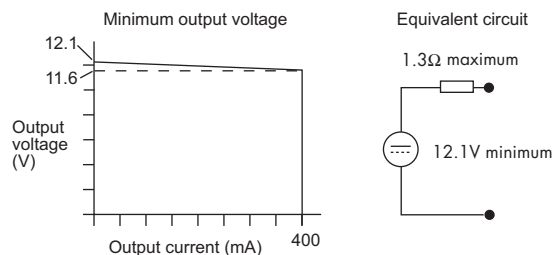
POWER OUTPUT

[Ex ia] output (pins 1 & 3)

Graph shows normal working range & total available range



[Ex ib] output (pins 5 & 6)



Connectors

9491-PS is supplied with two IS output connectors.

Capacity 2.5mm² 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

Um = 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

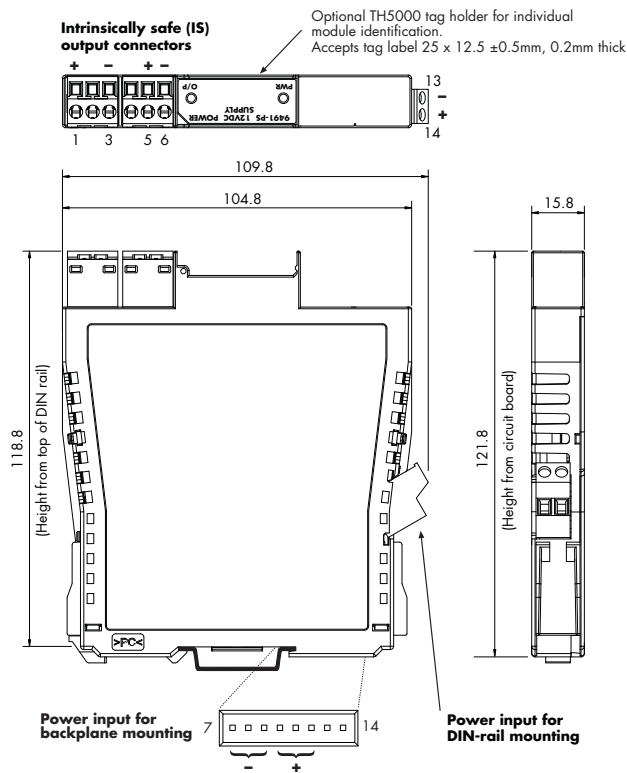
Certification Code

See approvals

Safety description

See certificate

DIMENSIONS (mm)



MECHANICAL

Mounting

DIN rail or power distribution backplane

Dimensions

See diagram

Weight

130 g

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

Select enclosure to suit application, see certificate for information

LED INDICATORS

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

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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