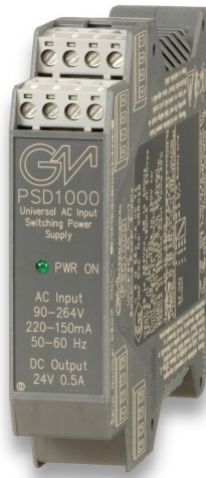




Procon Engineering

(A Division of National Oilwell Varco UK Limited)



Model PSD1000 & PSD1000F

Universal AC Input Switching Power Supply 24VDC Output

Stabilised 24Vdc 500 Ma output capacity

Three port isolation supply/output/fault

High reliability components

Output short circuit proof and current limited

EMC compatibility to EN61000-6-2, EN81000-6-4

Installation in Zone 2, Division 2 (not for PSD1000F)

The PSD1000 is a DIN Rail mounting universal AC input switching power supply with 24Vdc 500 mA current output capability, to supply D1000 Series units or other 24Vdc devices. It provides isolation between input and output and for model PSD1000F a relay for detection of supply fault (input lines, output overload or thermal overload).

The output is protected from overload (current or thermal) and short circuit (the unit switches the output off for a second and then tries to re-activate it until the fault condition is removed).

The output is diode protected to connect multiple power supplies (redundant output) or to increase the output power.

Function

Universal input power supply to drive D1000 Series units or other field equipment, provides 3 port isolation (supply/output/fault).

Signalling LED

Power supply indication (green)

EMC

Fully compliant with CE marking applicable requirements

Model PSD1000 & PSD1000F

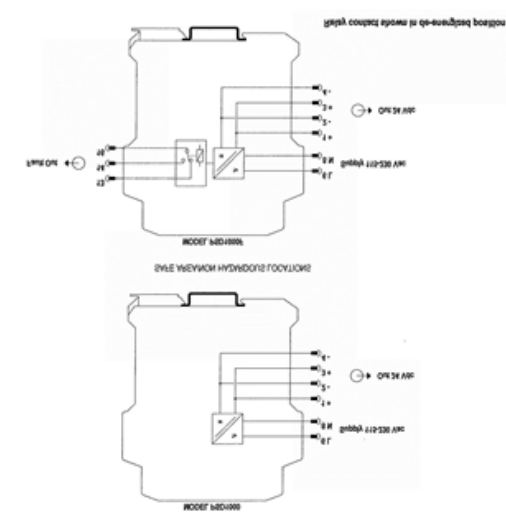
Technical Specification Sheet

Supply:		115-230 VAC, 50-60 Hz nom (95 to 264 Vac, 48 to 400 Hz) or 115 to 350 Vdc, ripple within voltage limits ≤ 10 Vpp. Limit supply voltage to 250 Vms for Intrinsic Safety applications.
	Current consumption @ 115 Vac:	220 mA with 500 mA output current.
	Current consumption @ 230 Vac:	150 mA with 500 mA output current.
	Efficiency:	80% AT 115 Vac input, 82% at 230 Vac input.
	Inrush current:	10A with ≤ 10 ms duration
	Max power consumption:	15W with full output, 1W with no load, max. internal power dissipation 3W.
Isolation (Test Voltage):		AC Input/DC Output 2.5kV; AC Input/Fault Output 2.5 KV; DC Output/Fault Output 500V (PSD 1000F only)
Output:		24 Vdc nom (22.8 to 25.2 Vdc) with 500 mA current capability parallel connection possible for redundant output.
	Current output:	400 mA with 95 Vac. Input, 60°C ambient temperature. 700 mA with 230 Vac input and 40°C ambient temperature.
	Short circuit current:	750 mA
	Ripple content:	≤ 400 mVms
Fault Output: (PSD1000F only)		Voltage free SPDT relay contact, normally energised. De-energise in fault conditions (output overload or input line fault).
	Contact rating:	1A 50V (resistive load)
	Response time:	20 ms
Compatibility:		CE mark compliant, confirms to 94/9/EC ATEX Directive and to 2004/106/CE EMC Directive and EN60950 for electrical safety.
Environmental Conditions:	Operating:	Temperature limits -20°C to +60°C, relative humidity max 90% non condensing , up to 35°C.
	Storage:	Temperature limits -45 to +80°C
Mounting:		T35 DIN Rail according to EN50022
Weight:		150g PS 1000, 160g PSD100F.
Connection:		By polarised plug-in disconnect screw terminal blocks to accommodate terminations up to 2.5mm ² .
PSD1000 Location:		Safe area/non hazardous locations or Zone 2, Group IIC T4, Class 1, Division 2 Groups A, B, C, D Temperature Code T4 and Class 1, Zone 2, Group IIC, IIB, IIA T4 installation.
PSD1000F Location		Safe area installation
Protection Class:		IP20
Dimensions:		Width 22.5mm, depth 99mm, Height 114.5mm

Function Diagram:

Safe area, Zone 2 Group IIC non-hazardous locations,
Class I, Division 2, Groups A, B, C, D T4, Class 1,
Zone 2,
Group IIC T

Safe area/ non-hazardous locations



Procon Engineering's policy is one of continuous product enhancement.

We therefore reserve the right to incorporate technical modifications without prior notification. E&OE.

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