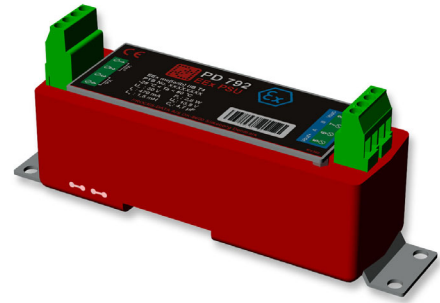


User manual for PD 791 EX Power Supply

FEATURES

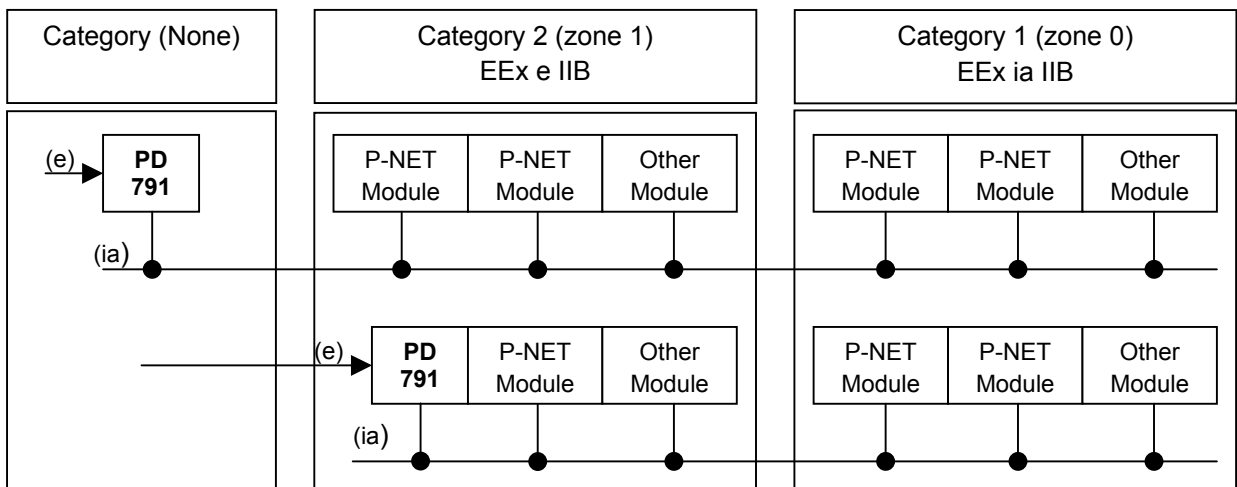
PD 791 is a power supply for intrinsically safe P-NET modules. It has a galvanically separated, increased safety input and an intrinsically safe output.



APPLICATION

The power supply module is designed for EX environments. It has a limited voltage, current and power output to supply intrinsically safe P-NET modules.

Installation guide showing allowed power supply line:

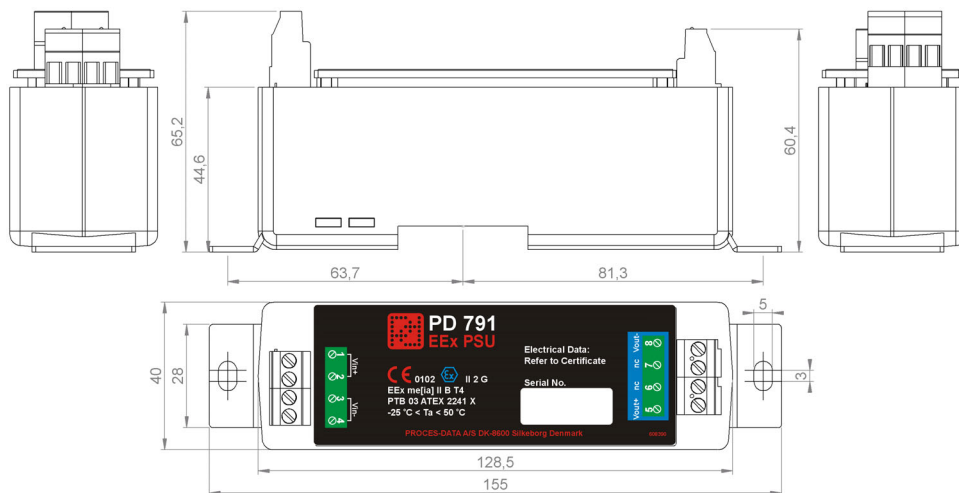


INSTALLATION

The module must be placed within an IP 54 enclosure. It dissipates heat through the aluminium chassis and should be bolted through the chassis holes onto a heat-conducting surface.

Choose a set of maximum C_0 and L_0 in the specifications that fits your equipment and cables.

SCALE DRAWING (in mm):



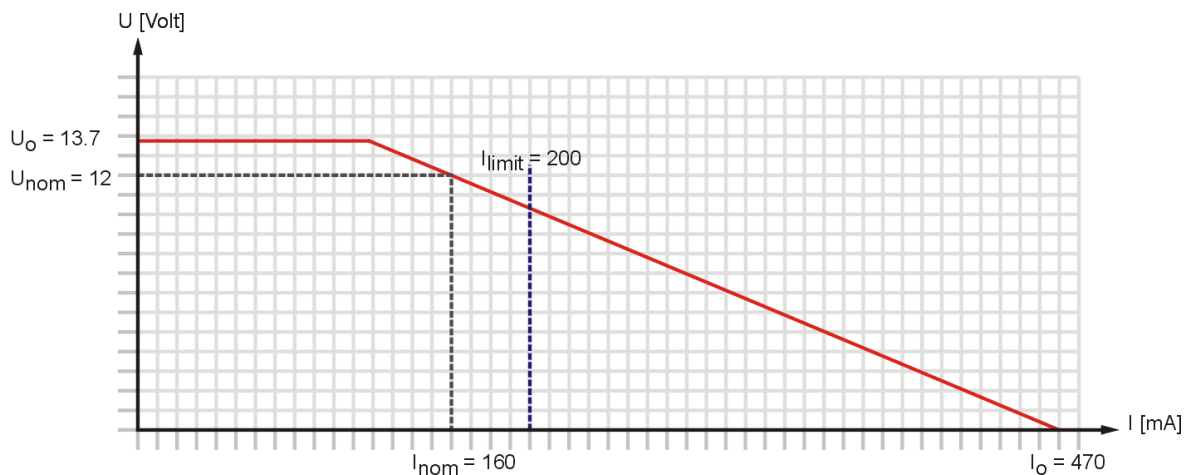
SPECIFICATIONS:



Increased safety (EEx(e)) Input:		Intrinsically safe output (EEx(ia)):	
Nominal input voltage	$U_{nom} = 24 \text{ V}$	Nominal output current	$I_{nom} = 160 \text{ mA}$
Minimum input voltage	$U_{min} = 22 \text{ V}$	Open circuit voltage	$U_o = 13.7 \text{ V}$
Maximum input voltage	$U_{max} = 30 \text{ V}$	Short circuit current	$I_o = 470 \text{ mA}$
Fuse (not replaceable)	1 A quick acting	Maximum power	$P_o = 2.7 \text{ W}$

Max reactive load:	Set 1	Set 2	Set 3	Set 4
Inductance L_0 [mH]	0.9	0.5	0.2	0.1
Capacitance C_0 [μF]	2.1	3.0	4.6	5.0

Operating temperature: -25 °C to + 50 °C

Storage temperature: -25 °C to + 70 °C

I-U characteristic for intrinsically safe output (EEx(ia)):**APPROVALS:**



0102 II 2 G
EEx me[ia] II B T4
PTB 03 ATEX 2241 X

The power supply module is approved in compliance with: **EN50028** (encapsulated 'm').
 The Increased safety (EEx(e)) input is in compliance with: **EN50019** (increased safety 'e').
 The Intrinsically safe output (EEx(ia)) in compliance with: **EN50020** (intrinsic safety 'i').

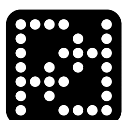
EMC:

The modules are in compliance with the **EMC-directive no 89/336/EEC**.

Test limits are determined by the generic standards **EN 50081-1** for emission and **EN 61000-6-2** for immunity.

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PROCES-DATA A/S
 NAVERVEJ 8 • DK-8600 SILKEBORG
 TEL. +45-87 200 300 info@proces-data.com
 FAX +45-87 200 301 www.proces-data.com