

Application Note APN0007 Universal AC Power Supply for Series D1000 Barrier

Application Note APN0007 for barrier model:

D1000 Series All units with 24 Vdc power supply voltage

PSD1000 Universal AC Input Switching Power Supply 24 Vdc Output DIN Rail

PSD1000F Universal AC Input Switching Power Supply 24 Vdc Output with Fault Signaling DIN Rail

This application note is intended to be read and used in conjunction with the Series D1000 catalog, PSD1000 data sheet and Installation Sheet.

Application

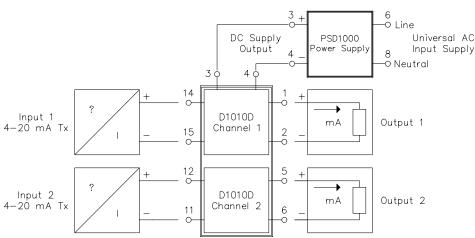
The PSD1000, PSD1000F power supply receive an universal AC input (95 to 264 Vac, 48 to 400 Hz) and drive the Series D1000 units that are powered at 24 Vdc. Limit supply voltage to 250 Vrms for Intrinsic Safety applications.

The PSD1000 have the AC input and the DC output on the same side allowing mounting on DIN rail without loss of space (no need of 50 mm isolating distance between I.S. and non I.S. terminal block).

The PSD1000F have in addition a relay contact output for detection of supply fault (input line, output overload or thermal overload). The PSD1000F power supply must be separated versus the I.S. terminal blocks as indicated by the appropriate reference standard.

The PSD1000, PSD1000F have a 500 mA output current capability that can drive more than single unit (for example can drive 4 D1010D or 6 D1030D or 8 D1031Q).

Typical D1010D Connection



Typical D1030D Connection

