

smar
FIRST IN FIELDBUS

PS302P

DEC / 04

PS302P



INSTALLATION MANUAL

FIELDBUS POWER SUPPLY



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web: www.smar.com

**Specifications and information are subject to change without notice.
For the latest updates, please visit the SMAR website above.**

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POWER SUPPLY FOR FIELDBUS

Description

These modules were specially developed to power the fieldbus networks. The only difference between the modules is the input voltage:

PS302P (90 ~264 Vac)
PS302P DC (20 ~30 Vdc)

The **PS302P** power supply unit is a non-intrinsically safe equipment with a universal AC input (90 to 264 Vac, 47 to 63 Hz or 127 to 135 Vdc), and a 24 Vdc output, isolated, with short-circuit and overcurrent protection, ripple and fault indication, appropriated to power fieldbus elements.

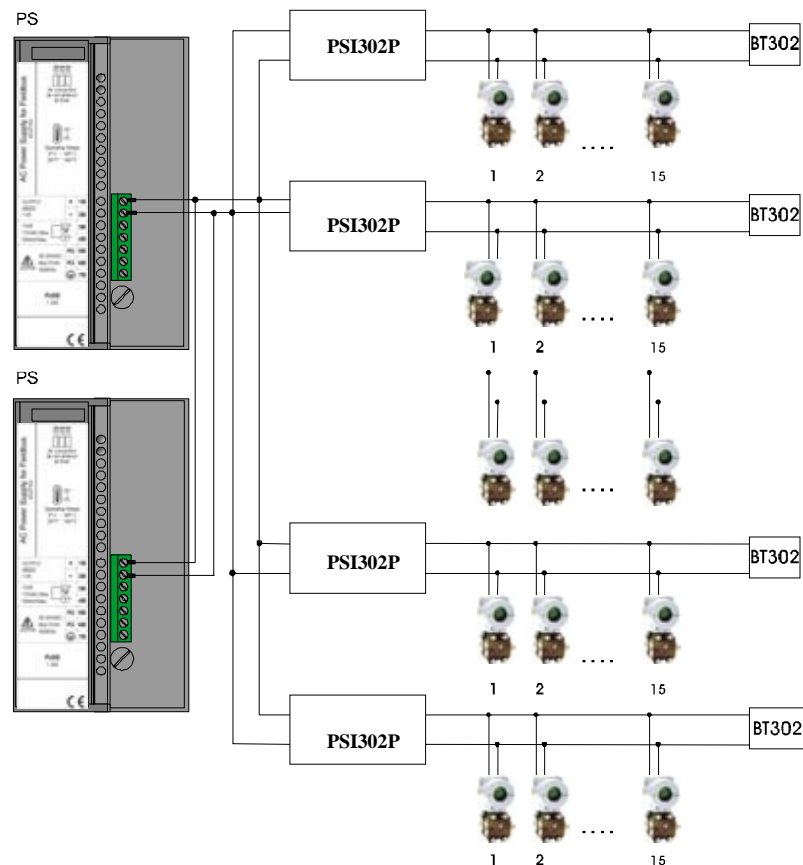
The **PS302P DC** power supply unit is a non-intrinsically safe equipment with a DC input (20 to 30 Vdc) and a 24 Vdc output isolated, with short-circuit and overcurrent protection, ripple and fault indication, appropriated to power fieldbus elements.

The interconnection of Fieldbus elements to the **PS302P/PS302P DC** unit shall be done as shown in figure below. There is no overshoot when it is switched on or off. The **PS302P/PS302P DC** can power on up to 4 fully loaded Fieldbus elements.

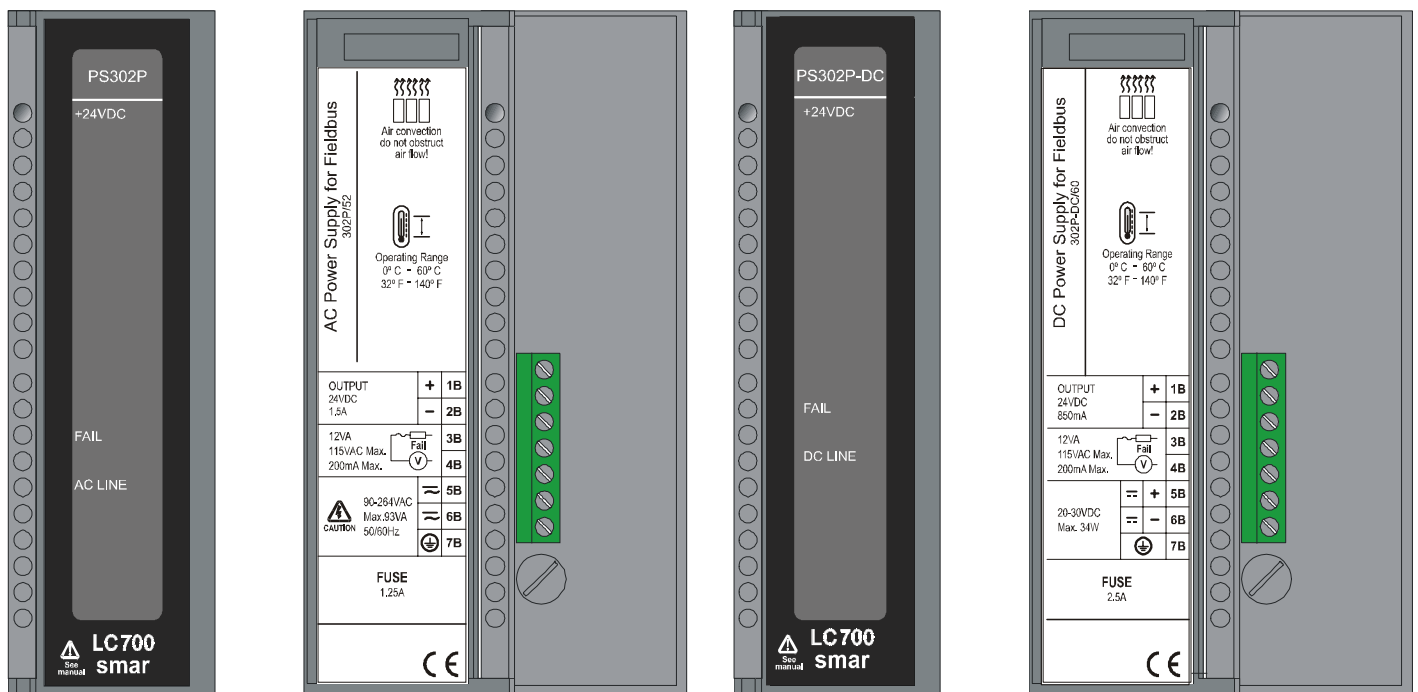
Observation: Cables that interconnect the PS302P/PS302P DC to PS1302P modules should have a maximum of 3 meters.

If any abnormal condition occurs in the output like overloading or short-circuiting, the **PS302P/PS302P DC** internal switching is automatically switched off, thus protecting its circuit. Upon the outputs return to normal conditions of operation, the circuit is automatically switched on.

The **PS302P/PS302P DC** allows redundancy without requiring any component coupled to its output.



Connection Diagram of Fieldbus Elements to PS302P



Power Supply for Fieldbus: PS302P/PS302P DC

TECHNICAL SPECIFICATIONS

PS302P INPUTS	
DC	127 to 135 Vdc.
AC	90 to 264 Vac, 50/60 Hz (nominal), 47 to 63 Hz
Maximum Inrush Current	<30 A @ 220 Vac [$\Delta T < 640 \mu s$]
Maximum Consumption	93 VA
Indicator	AC LINE (Green Led)

PS302P DC INPUTS	
DC	20 to 30 Vdc.
Maximum Inrush Current	<24 A @ 30 Vdc [$\Delta T < 400 \mu s$]
Maximum Consumption	34 W
Indicator	DC LINE (Green Led)

OUTPUTS		
Output	24 Vdc \pm 1%	
Current	PS302P	PS302P DC
	1.5 A maximum	850 mA maximum
Ripple	20 mVpp maximum	
Indicators	+ 24 VDC (Green Led)	
	Fail (Red Led)	

ISOLATION		
Input signal, internal outputs and the external output are isolated between them	PS302P	PS302P DC
Between the outputs and ground	1000 Vrms	500 Vrms
Between input and output	2500 Vrms	1500 Vrms

DIMENSIONS AND WEIGHT	
Dimensions (W x H x D)	39.9 x 137.0 x 141.5 mm; (1.57 x 5.39 x 5.57 in)
Weight	0.450 kg

TEMPERATURE	
Operation	0 °C to 60 °C
Storage	-30 °C to 70 °C

