

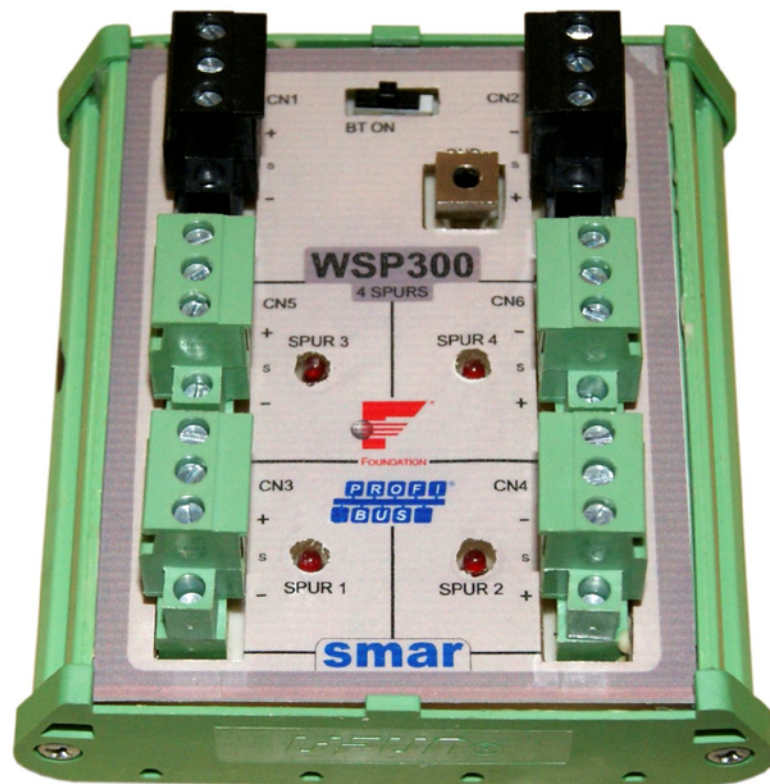
WSP300

smar

APR / 13
WSP300

INSTRUCTION AND INSTALLATION MANUAL

INTELLIGENT SEGMENT PROTECTOR



WSP300ME



**Specifications and information are subject to change without notice.
Up-to-date address information is available on our website.**

web: www.smar.com/contactus.asp

AVOIDING ELECTRICAL DISCHARGES



ATTENTION

Electrostatic discharges may damage semiconductor electronic components in printed circuit boards. They usually occur when touching components or connector pins from devices, without wearing the appropriate equipment to prevent discharges. It is recommended to take the following precautions:

- Before handling the devices, remove the electrostatic charge from your body by wearing a proper wristband or touching grounded devices;
- Avoid touching electronic components or connector pins of the devices.

WSP300 – INTELLIGENT SEGMENT PROTECTOR

Description

The WSP300 offers spur protection against short circuits (between + and – terminals), limiting the short circuit current in each spur at 50 mA. During a short circuit situation there is no effect in the other spur or the main trunk. There is a LED to indicate short circuits and WSP300 has an integrated bus terminator.

In normal operation, each short circuit protector consumes less than 1 mA. After removing the short circuit, the spur goes back to normal operation, the protection circuit is disabled and the LED is dimmed.

Main characteristics

- Intelligent Segment Protector for fieldbus installations in compliance with the IEC61158-2 standard (PROFIBUS-PA and Foundation fieldbus);
- 4, 6 or 8 spurs;
- Intelligent protection against short circuit in each spur, preventing the short circuit propagation. After removing the short circuit, the spur goes back to normal operation;
- For panel mounting or field installation in junction boxes;
- Integral part of JB400 – Intelligent Junction Box;
- Quick and easy installation;
- Maintenance during operation.



Figure 1 – WSP300

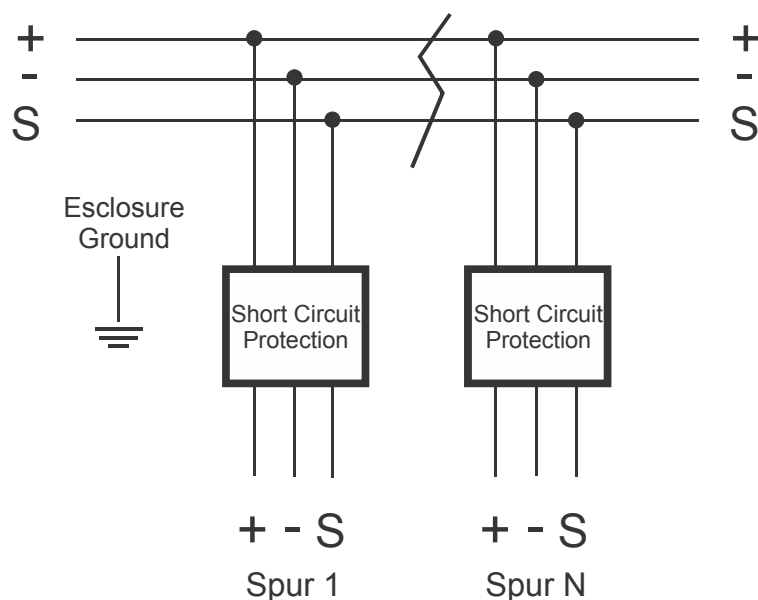
Installation

- Install the WSP300 in easy access place to connections. The WSP300 must be properly located so as to minimize the length of spurs to the devices.
- The WSP300 can be installed directly on panels or proper boxes, ensuring seal and using fixation screws.
- Close and seal unused connections properly to meet the protection class IP66 requirements when using junction boxes.

IMPORTANT

When mounting the WSP300 in boxes, close properly and ensure the correct cable glands mounting. Close unused connections properly, preventing humidity penetration, as it can generate low insulation. In situations with humidity, WSP300 damage is not covered by warranty.

Wiring Diagram



N = 4, for model with 4 spurs.

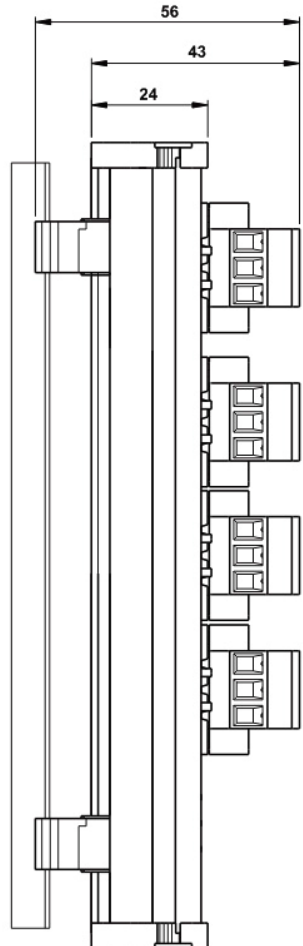
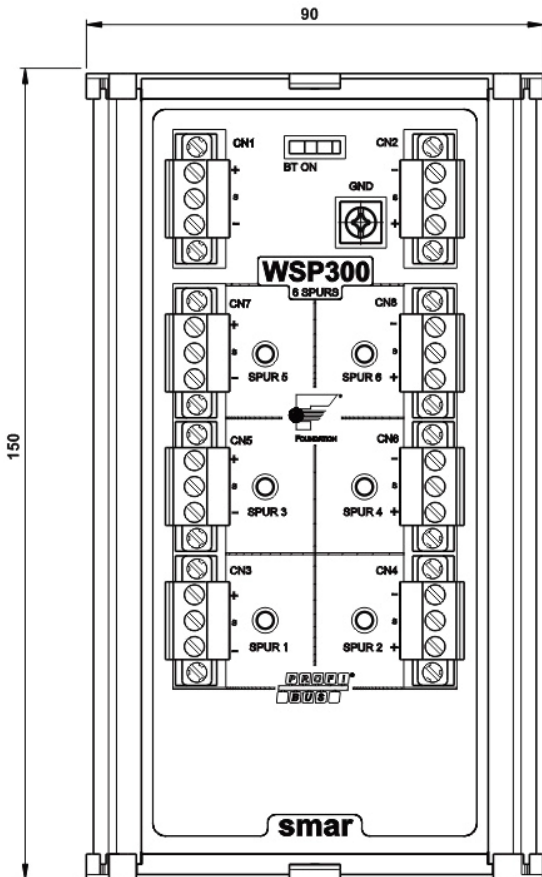
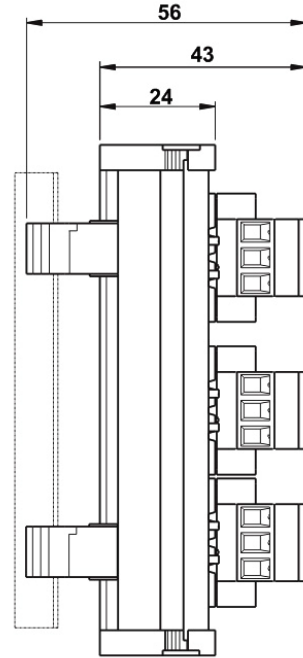
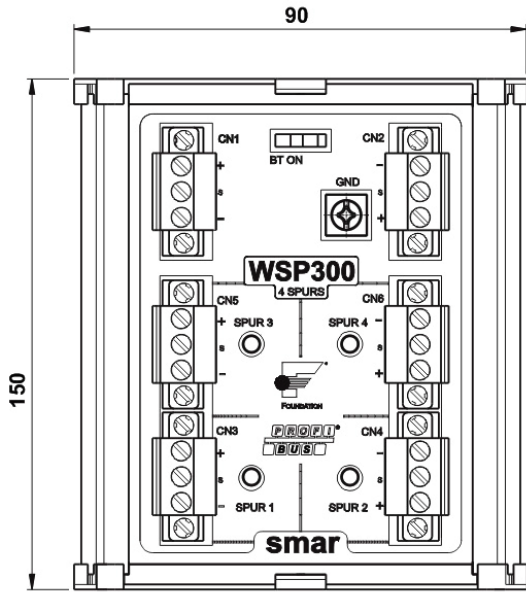
N = 6, for model with 6 spurs.

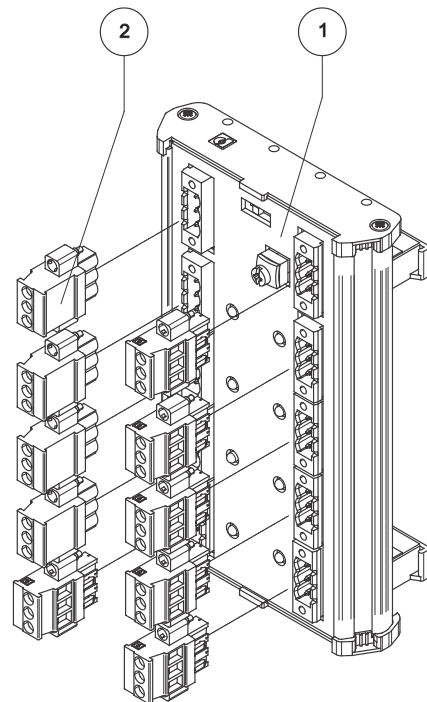
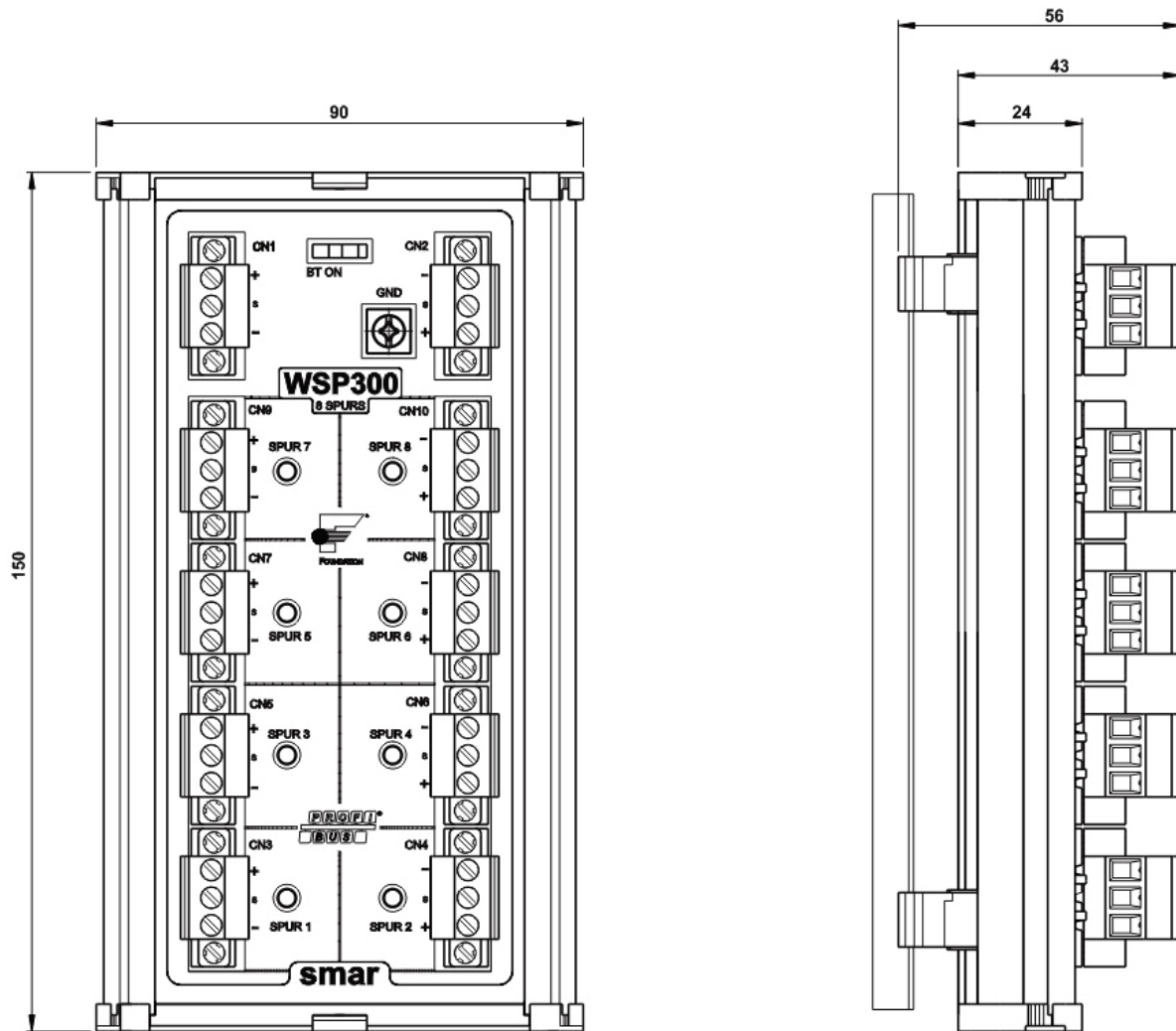
N = 8, for model with 8 spurs.

Technical Specifications

CHARACTERISTICS	
Physical layer	In compliance with IEC 61158-2
Power supply	Bus-powered 9 to 32 Vdc
Communication protocols	Profibus-PA and FOUNDATION fieldbus
Maximum trunk current	2.5 A
Quiescent current per spur in normal operation	< 1 mA
Maximum current per spur during a short circuit	50 mA
Maximum voltage drop per spur	0.3V@20mA
Number of spurs	4, 6 or 8
Spur connections	Removable 3-pin terminal blocks, 2.5 mm ²
Surge protector at input	Cut in 62 V, 1500 W
Cover closing	4 screws with O-ring
Housing Material	Aluminum
Mounting	Via DIN rail
Protection degree	IP 66
Terminator	100 Ω resistor and 1μF capacitor selectable by switch
Status LED	On (red): spur in short circuit condition; Off: spur in normal operation
ENVIRONMENTAL CONDITIONS	
Operation Temperature	-20°C to 70°C
Storage	-40°C to 85°C
Humidity	0-95% non-condensing
DIMENSIONS	
Dimensions (mm)	100x90x56 (WSP300-4) 150x90x56 (WSP300-6 and WSP300-8)

Exploded View and Dimensional Drawing





1 – WSP300-8
2 – Female Connector

Ordering Code

MODEL WSP300	INTELLIGENT SEGMENT PROTECTOR	
	COD.	Number of Spurs
	4	4 Spurs
	6	6 Spurs
	8	8 Spurs
	COD.	Communication Protocol
	F	FOUNDATION fieldbus
	P	PROFIBUS PA
WSP300		

