

SENSOR LINE PROTECTOR 'LP'

INTRODUCTION

The Sensor LP Surge Protector is designed to protect the RS485 communication lines from transient overvoltages (EMI) caused by lightning, heavy machinery, elevator motors, generators, etc. that can cause Sensor controllers to fail.

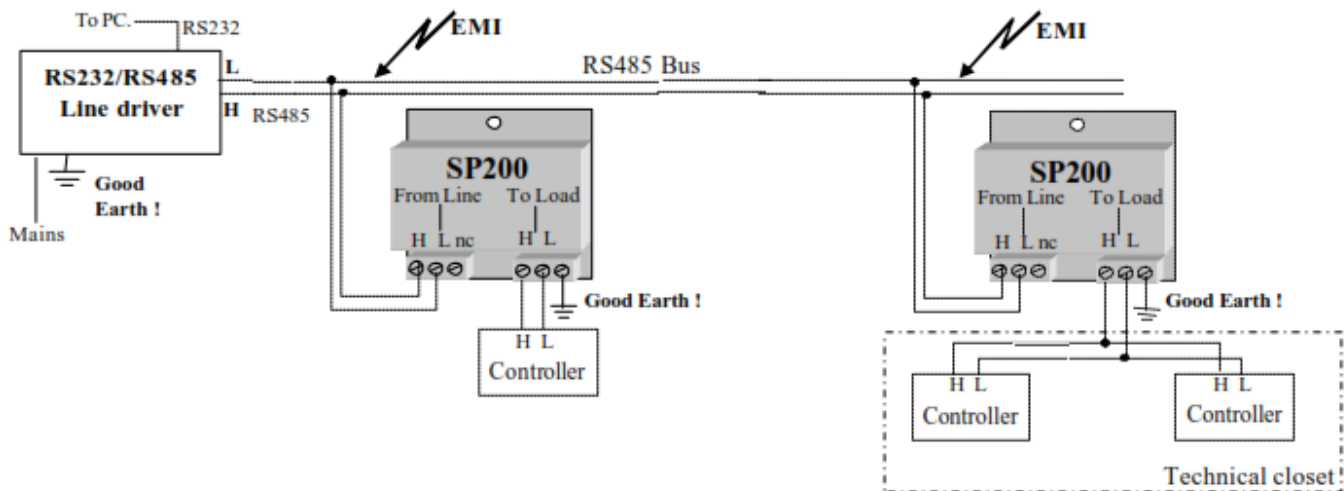
The Sensor LP works by shunting damaging transients from lines/wires to ground. The device recovers automatically in preparation for further protection.

INSTALLATION

The Sensor LP device should be installed, on the RS485 lines, as close as possible to an area where EMI may appear.

Such an area may be :

- The entry point of the RS485 lines if these lines come from outdoor where lightning may fall.
- Proximity of heavy machinery cables.
- Proximity of any cables which are running outdoor and therefore may be touched by lightning.



Notes :

1- All the protection used in the Sensor LP are present in the RS232/RS485 line driver.

Therefore an LP device is not required near this line driver.

2- The importance of a good earth ground cannot be over emphasized to ensure proper operation of the LP device.

Performance of the Sensor LP is directly related to the efficiency of the grounding system.

3- The RS485 segments which connect the RS485 bus to the LP ('From Line') and which connect the LP to the controller ('To load') must be as short as possible.

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SPECIFICATIONS

Clamping Time	Less than 50 nanoseconds
Surge capabilities	200 amperes for 1.0 Millisecond
Operating Temperature	-65° to +100°C
Capacitance	About 1000 pF
Leakage current	100 microamperes
Peak pulse power	1500 Watts
Energy Handling Capacity	50 joules/line
Series resistance	10 ohms +/- 10%
Voltage Clamp	6,8 V
Data rate	To 19,2 Kbps
Circuits	Isolated

