

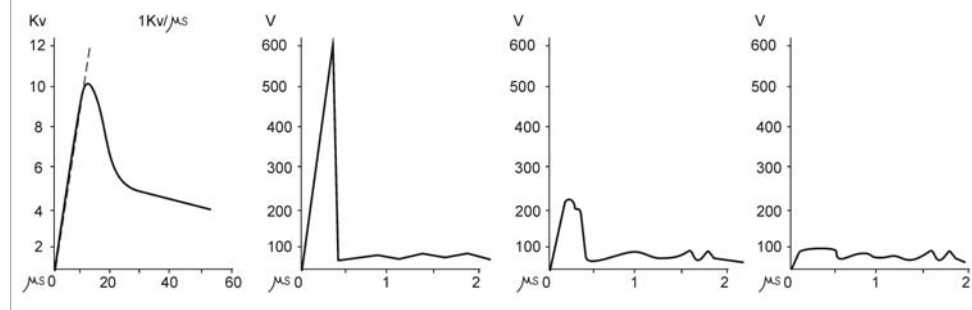
PS-4



PROTECTOR AGAINST ATMOSPHERIC DISCHARGES

Description The protector against atmospheric discharges PS-4 is designed for the protection of the electronic devices powered at a maximum voltage of 35VDC and installed under the effects of atmospheric discharges, overvolatges, etc.

Operating principle The sequence of protection in front of an overvoltage peak is performed in three phases:



Thick protection: It is made by means of dischargers filled with noble gas that, with an overvoltage higher than the resistant power of the system, normally produce an electric discharge. This discharging phenomenon limits the overvoltage and quickly reduce the energy of the disturbance. The electric arc generated, with its high capacity of conductivity, prevents the increasing of the overvoltage and limits to an arc voltage of about 10V.

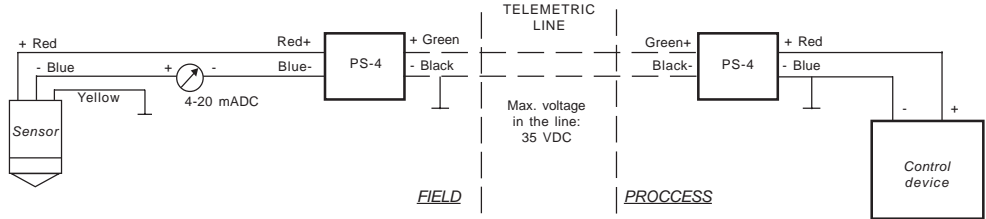
- Firing continous voltage 180..240 V
- Switchin maximum current 100 A
- Firing voltage (1kV/μs) < 650 V
- Shock current (8..20μs) 5 kA
- Isolation resistance 1000 MΩ
- Capacity 2 pF
- Norms CCITT

Medium protection: It is made by means of metallic-oxide varistors with a response time lower than 25 ns. This element has a simetric voltage-current characteristic with a value that decreases in front of an increasing voltage.

- Maximum operating voltage 35 VDC
- Maximum shock voltage (8..20μs) 250 A
- Maximum transitory dissipation (8..20μs) 1,5 Jules
- Maximum permanent load 0,02 Watt

Thin protection: It is made by means of diodes TDZ.

- Nominal voltage 36 VDC
- Maximum peak power 1500 Watt
- Leakage current 5μA
- Pulse of the shooting current 1 mA

Material	Plástico filled with epoxy resin
Colour	Grey
Installation	It is recommended to use two protection devices PS-4 between the ends of the connection cables (field-process), keeping the polarity of the terminals in the input as well as in the output.
Connection diagram	
Dimensions	