

# Monitoring Relays Surge Arresters for communication systems Type DSB S

CARLO GAVAZZI



- Universal surge arrester for 2-wires communication buses
- Perfect choice for RS485 and RS serial lines
- Dual technology with GDT and tranzorb
- DIN-rail mounting
- Replaceable plug in module

## Product Description

DSB51XXS is a surge protecting device that has been specifically designed for 2 and 4 wires communication buses at 5V (eg. RS485, RS422 (with 2 devices) and Modbus RTU), measuring, controlling and regulating devices used in industrial and residential environments. It can also be used for protecting from overvoltages

devices such as inverters, energy meters, interface protections (coupling devices), control and acquisitions systems in photovoltaic installations that are interconnected by means of serial communication lines. The construction is DIN rail mounting and the cartridge is replaceable.

## Ordering Key **DSB 51 X X S**

Mounting din \_\_\_\_\_  
 Surge Arrester \_\_\_\_\_  
 Type \_\_\_\_\_  
 Item number \_\_\_\_\_  
 Output \_\_\_\_\_  
 Network \_\_\_\_\_  
 Serial \_\_\_\_\_

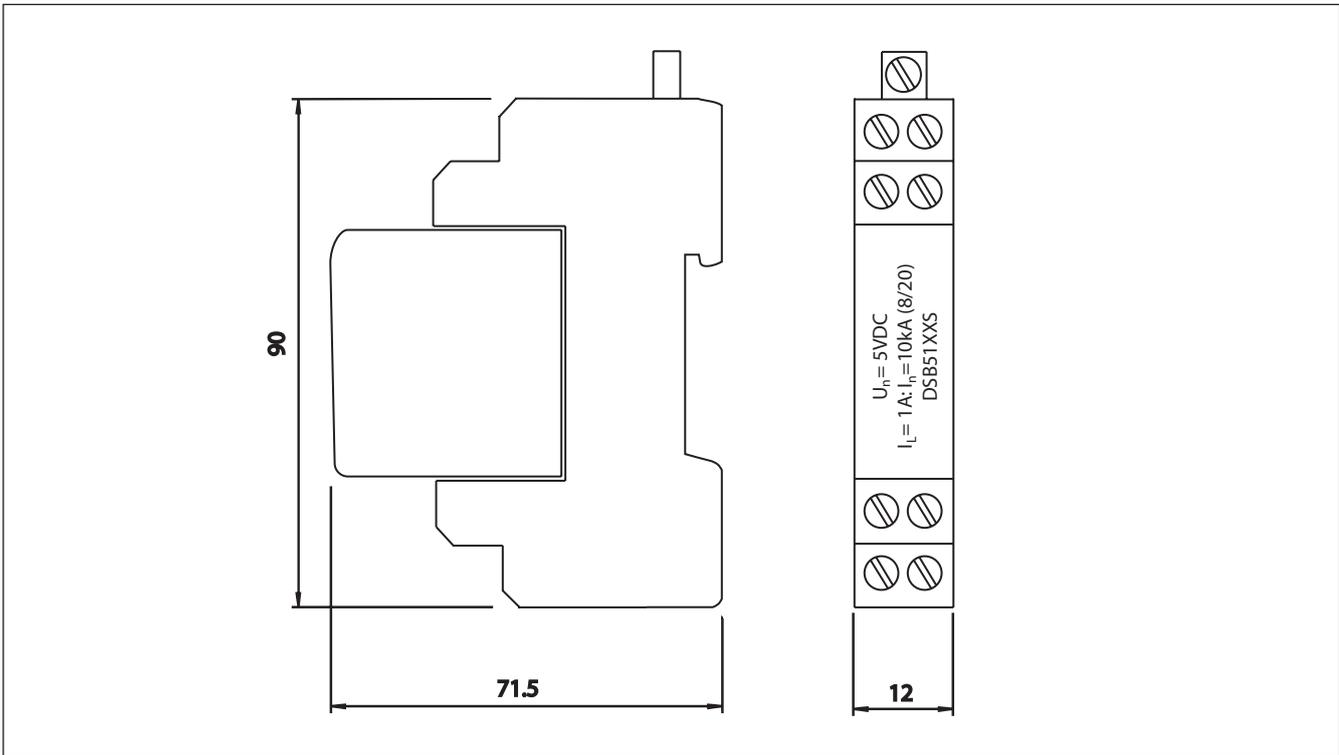
## Type Selection

Code	Description	Nominal voltage of the system	Output relay	Cartridge
DSB51XXS	Surge arrester for 2-wire communication bus	5V	No	Yes

## General Specifications

Nominal operating voltage	$U_n$ 5VDC	Transverse capacitance (a, b-SG) (SG-PG)	$C$ 50pF 5pF
Max. continuous oper. voltage	$U_c$ 7VDC	Insulation resistance of the protection (a-b) (SG-PG)	$\geq 5k\Omega / 5VDC$
Rated spark over voltage (SG-PG) (a-b), (a, b-SG)	184-276V 6-8V	Series resistance	1.6ohm ÷ 2ohm
Nominal discharge current (8/20usec)	$I_n$ 10kA	Protection distance	10 m (suggested value)
Max discharge current (8/20usec)	$I_{max}$ 20kA	Coarse protection	3 terminal GDT
Rate operating current @ 25°C	$I_L$ 1A	Mode of protection	Longitudinal, Transverse
Residual voltage @ 5kA (8/20usec)	<22V (line-line)	Operating temperature	-40 to +80 °C
Response time of overload protection (a, b-SG) (SG-PG)	$t_a$ <1ns 100nsec	Protection degree	IP 20
Limit frequency	30MHz	Housing material	Thermoplastic; gray; extinguishing degree V-O
		Terminal cross section	Multi-strand to 4mm <sup>2</sup>
		Mounting EN 60715	On a 35mm DIN rail
		Design	Replaceable plug-in module
		Dimensions	H90 x L12 x P71.5mm
		CE Marking	Yes

## Dimensions



## Wiring Diagrams

