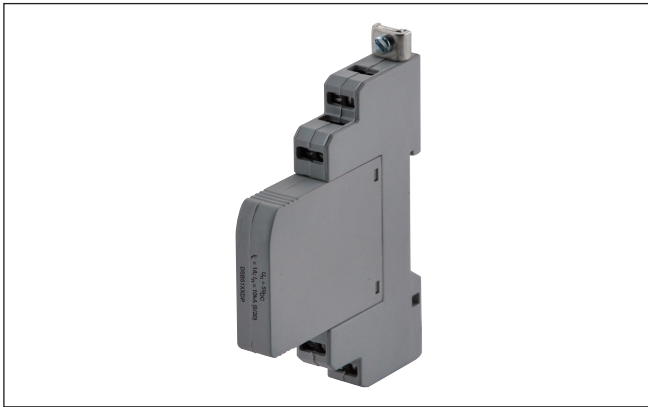# Monitoring Relays
Surge Arresters for Dupline® and Smarthouse® systems
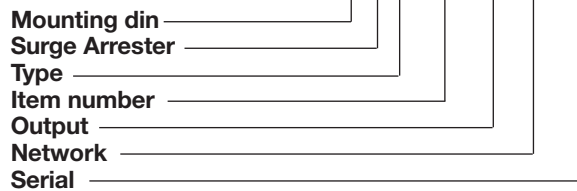# Type DSB51XXDP

CARLO GAVAZZI

- Surge arrester for 2-wires communication buses
- Designed for Dupline® and Smarthouse®
- Dual technology with GDT and tranzorb
- 15V nominal voltage
- 20kA discharge current
- DIN-rail mounting
- Replaceable plug in module

Product Description

DSB51XXS is a surge protecting device that has been designed for 2 wires communication buses at 15V specifically for Dupline® and Smarthouse® systems. Effectively protects all the system devices which are normally installed at long distances in these type of systems. In order to provide sufficient protection it is necessary to install one device at each end of the communication line when the distance is bigger than 15m. The circuit topology consists of multistage protection providing both common and differential mode protection. The construction is DIN rail mounting and the cartridge is replaceable.
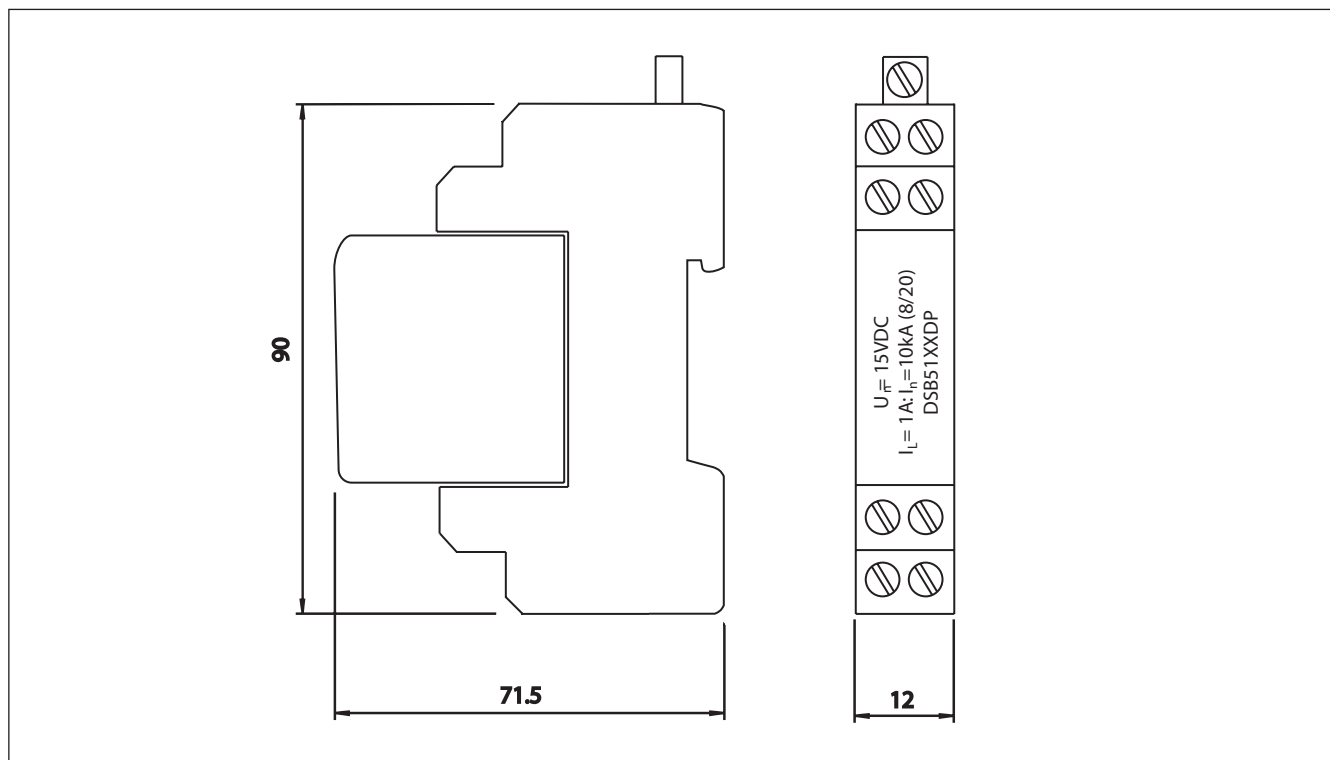
Ordering Key

DSB 51 X X DP

Mounting din
Surge Arrester
Type
Item number
Output
Network
Serial

Type Selection

Code	Description	Nominal voltage of the system	Output relay	Cartridge
DSB51XXDP	Surge arrester for Dupline® and Smarthouse®	15V	No	Yes

General Specifications

Nominal operating voltage	U_n 15VDC	Transverse capacitance (a, b), (a, b-PG) (SH-PG)	**C** 50pF 5pF
Max. continuous oper. voltage	U_c 18VDC	Insulation resistance of the protection (a, b), (a, b-PG) (SH-PG)	≥15Mohm 1Gohm/100V
Rated spark over voltage (SG-PG) (a-b), (a, b-SG)	184-276V 20-24V	Series resistance	1.6ohm ÷ 2ohm
Nominal discharge current (8/20usec)	I_n 10kA	Protection distance	10 m (suggested value)
		Coarse protection	3 terminal GDT
Max discharge current (8/20usec)	I_{max} 20kA	Mode of protection	Longitudinal, Transverse
Rate operating current @ 25℃	I_L 1A	Operating temperature	-40 to +80 °C
		Protection degree	IP 20
Residual voltage @ 5kA (8/20usec)	<48V (line-line)	Housing material	Thermoplastic; gray; extinguishing degree V-O
Response time of overload protection (a, b-SG) (SG-PG)	**ta** <1ns 100nsec	Terminal cross section	Multi-strand to 4mm²
		Mounting EN 60715	On a 35mm DIN rail
		Design	Replaceable plug-in module
Limit frequency	30MHz	Dimensions	H90 x L12 x P71.5mm
		CE Marking	Yes

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Dimensions

90

71.5

$U_{\overline{c}} 15VDC$
$I_L = 1 A: I_n = 10kA (8/20)$
DSB51XXDP

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Wiring Diagrams

Legend:

TC	thermo-clip
GDT	gas discharge tube
R	resistor
DB	diode block
PG	protective grounding

GDT   R

TC

DB

R

GDT

a   a'

b   b'

a|b c d   d' c'b'a'

LINE   EQUIP

(PG)   (PG')

SH   SH'

PG   PG

Specifications are subject to change without notice. Pictures are just an example. For special features and/or customization, please ask to our sales network. REV0 181113