

DSB

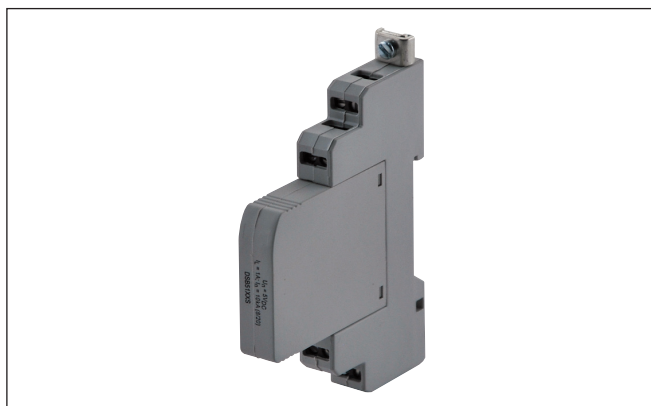
Технические характеристики

По вопросам продаж и поддержки обращайтесь:

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Россия (495)268-04-70	Киргизия (996)312-96-26-47	Казахстан (7172)727-132	

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 _____

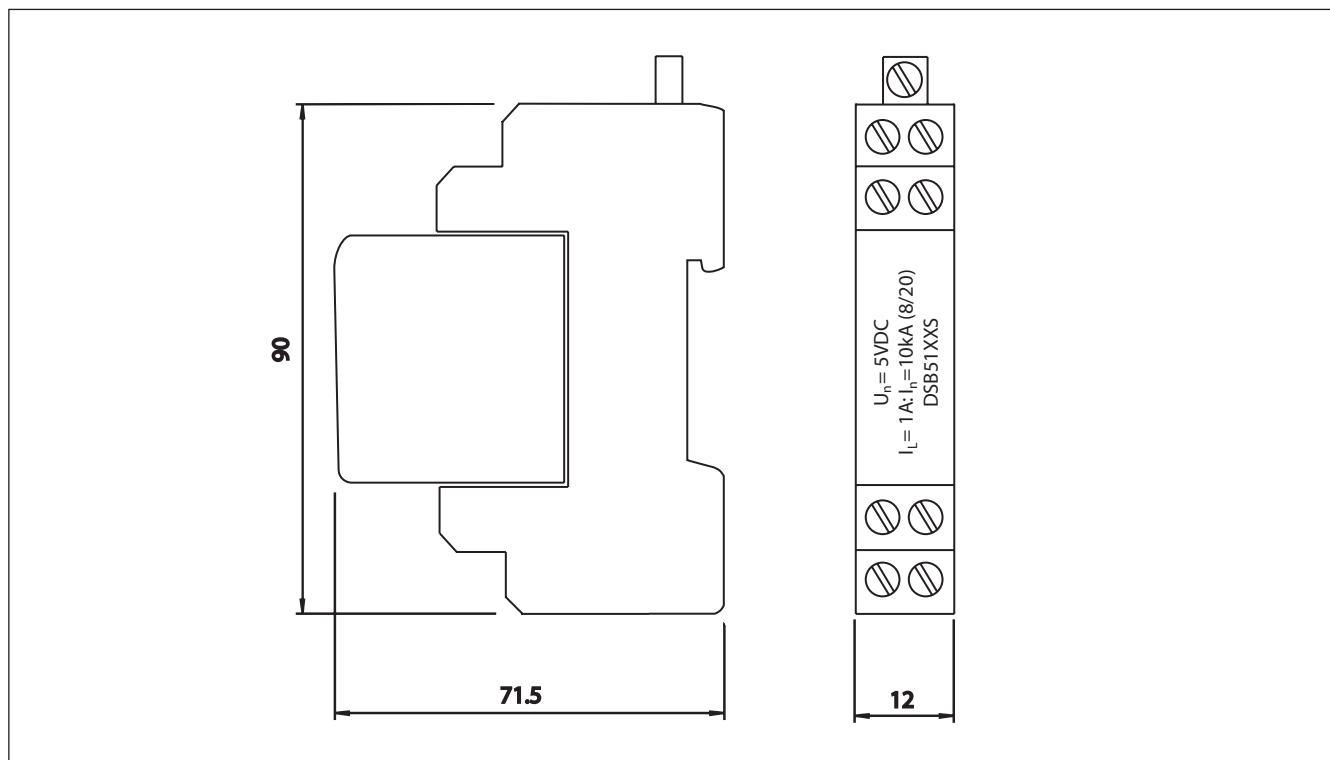
Type Selection

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

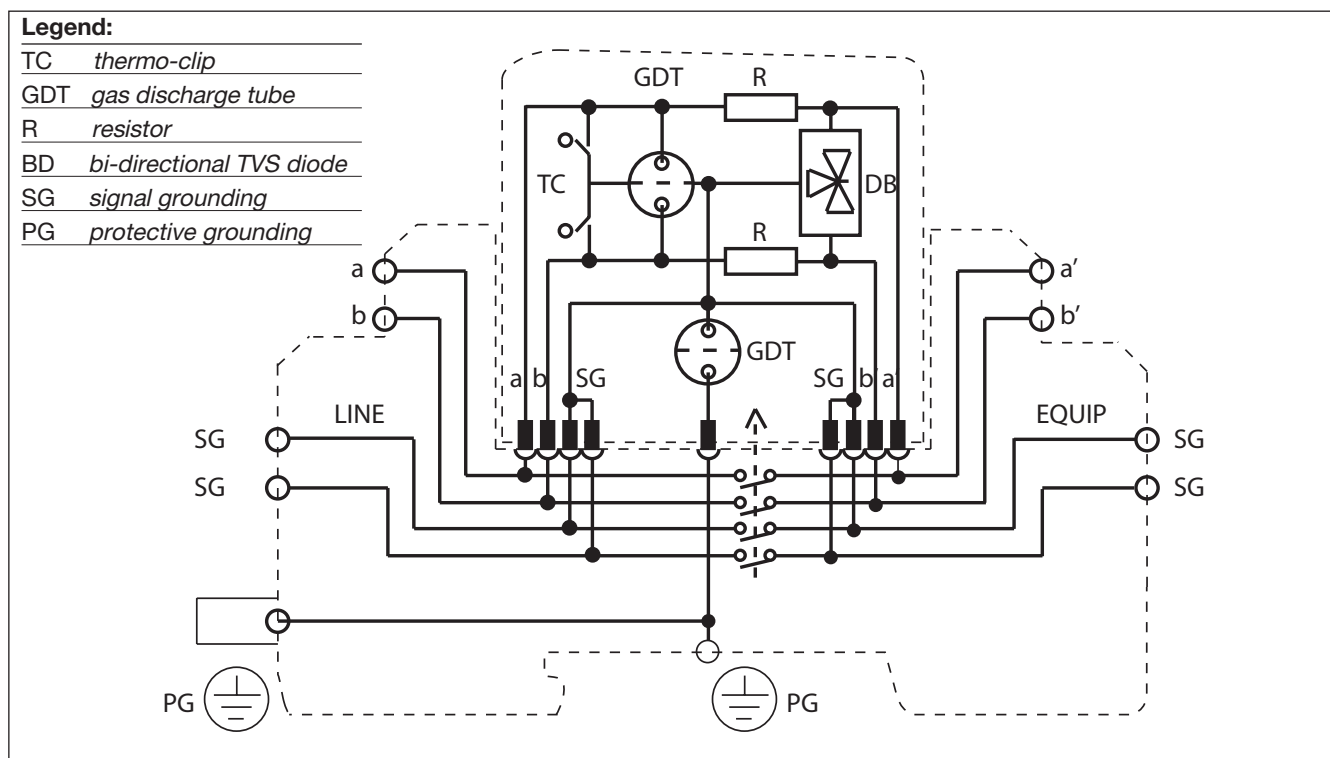
General Specifications

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)	$\geq 5\text{kohm}/$ 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 ²
		Mounting EN 60715	On a 35mm DIN rail
		Design	Replaceable plug-in module
		Dimensions	H90 x L12 x P71.5mm
		CE Marking	Yes

Dimensions

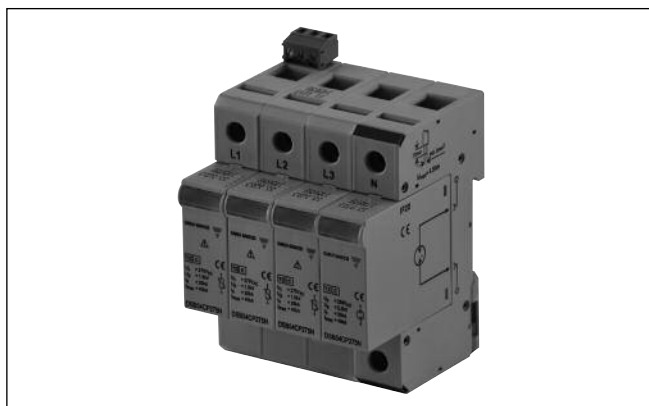


Wiring Diagrams



Monitoring Relays Surge Arresters for AC systems Type DSB54

CARLO GAVAZZI



- Category IEC / EN / VDE: Class II/Type 2/C
- Connection to TN-S, IT and TT networks
- MOV or MOV & GDT protection
- Modular design housing
- Replaceable cartridges
- DIN rail Mounting
- IEC 61643-1 compliant

Ordering Key **DSB5 4 X P 275 N**

Type _____
 Poles _____
 Contact _____
 Three Phase _____
 MCOV _____
 GDT _____

Product Description

DSB54 series of overvoltage surge protection devices is suitable for the protection of three phase AC mains connected devices from the effects of indirect lightning discharges and

induced voltages and is intended to provide protection in zones 1 - 2 per IEC 62305.

The modules consist in either an high performance Varistor (MOV) block with thermal dis-

connection device or an encapsulated air gap device (GDT) which is used as a galvanic separation between N and PE conductors.

Plug in modules facilitate

replacement of failed modules on site without the need of replacing and rewiring the whole block.

Type Selection

Contact		
None	X	
1 (relay)	C	
Max. Continuous Oper. Voltage		
MCOV 275Vac/350Vdc	275	
320Vac/420Vdc	320	
385Vac/500Vdc	385	
440Vac/580Vdc	440	
GDT No (4+0)	- (nil)	
Yes (3+1)	N	

Ordering Codes

MOV	
for MCOV 275 arresters	DS0275B
for MCOV 320 arresters	DS0320B
for MCOV 385 arresters	DS0385B
for MCOV 440 arresters	DS0440B
GDT (only for DSB54xxxxN types)	
GDT cartridge	DS0255BN

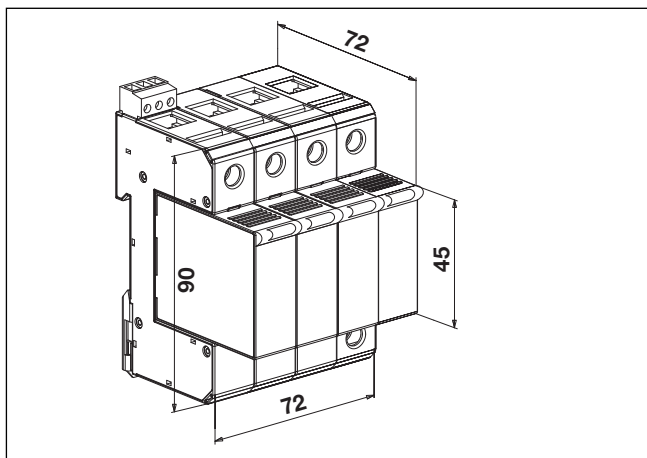
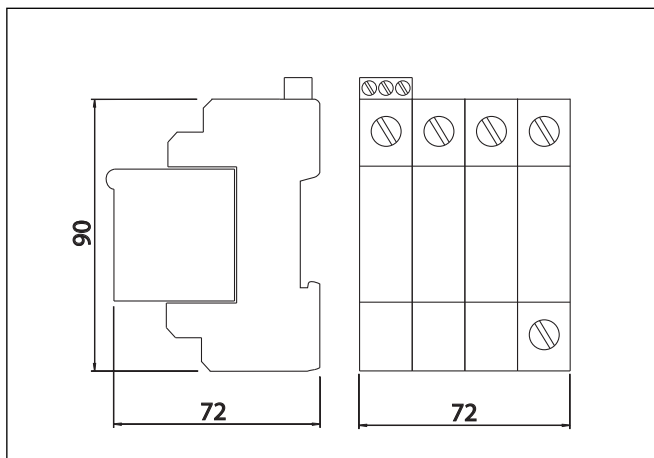
Electrical characteristics without GDT (4+0) DSB54xPxxx versions

Max. Continuous Oper. Voltage	U_c	Protection level	U_p
MCOV	275Vac / 350Vdc 320Vac / 420Vdc 385Vac / 500Vdc 440Vac/580Vdc	275 320 385 440	<1.5kV <1.5kV <1.9kV <2.2kV
Nominal discharge current	I_n	Response time t_A	<25ms
(8/20)	20kA per pole (40kA)	Thermal protection	YES
Max discharge current	I_{max}	Back-up fuse (if mains >125A)	125A gL
(8/20)	40kA per pole (80kA)	Short-circuit withstand current	25kA/50Hz
Follow current I_f	NO		

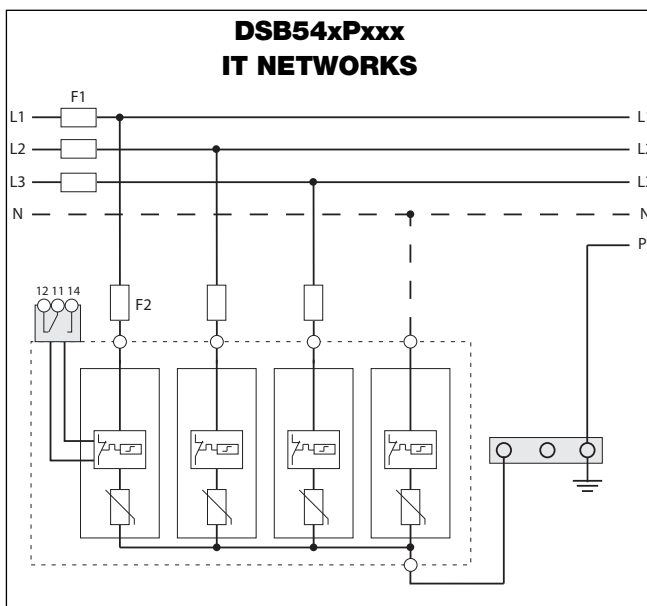
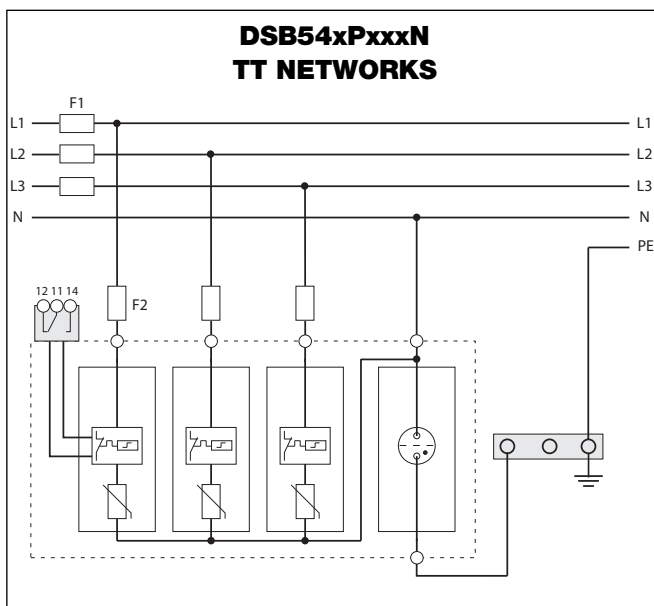
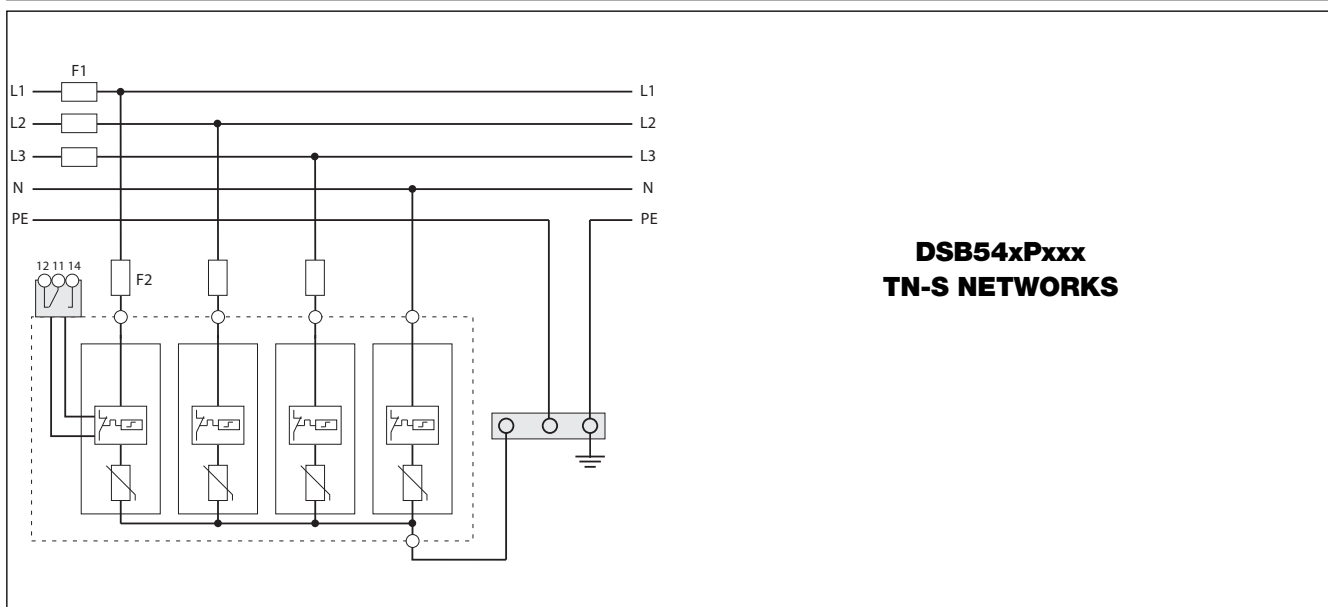
Electrical characteristics with GDT (3+1) DSB54xPxxxN versions

Max. Continuous Oper. Voltage	U_c	Protection level	U_p
MCOV	275Vac / 350Vdc 320Vac / 420Vdc 385Vac / 500Vdc 440Vac / 580Vdc	275 L-N 320 L-N 385 L-N 440 L-N N-PE	<1.5kV <1.5kV <1.9kV <2.2kV <2.0kV
Nom. discharge current	I_n	Response time	t_A
(8/20)		L-N	25ms
L-N	20kA	N-PE	100ms
N-PE	20kA	Thermal protection	YES
Max discharge current	I_{max}	Back-up fuse	
(8/20)		L-N	125A gL
L-N	40kA	Short-circuit withstand current	
N-PE		L-N	25kA/50Hz
Follow current	I_f		
N-PE	>100A _{RMS}		

Dimensions and mechanical drawings



Connection diagrams



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