

## 4-pole universal data signal surge protective device



### Catalog number:

- BSPD5DINLHF
- BSPD24DING

### Description:

The Bussmann™ series universal four-pole, DIN-Rail mounted surge arresters provide effective protection with minimum space requirements and are designed for stringent requirements on the availability of measuring and control circuits, and bus systems.

To ensure safe operation, the arresters provide protection against vibration and shock up to a 30-fold acceleration of gravity. The devices' function-optimized design allows quick and easy protection module removal via "make-before-break" terminals that assure continuity of data signals in the protected and unprotected state.

### Agency information

- UL 497B Listed
- CSAus
- ATEX
- CE

### For IEC applications

Instruction for Surge Protective Device Use In Zone 2 Explosive Atmospheres per ATEX.

1. When installed in potentially explosive atmospheres, the Data Signal DIN Series shall be installed into an enclosure which meets the requirements of a recognized type of protection, in accordance with EN 60079-0.
2. The data signal as transient suppressor applies to BSPD5DINLHF.

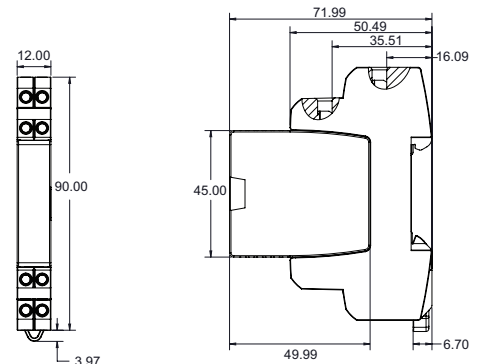
### Ambient and temperature class

- -40°C to +80°C, T4: DEKRA 12ATEX0254 X: II 3 G Ex nA IIC T4 Gc
- Standards used for: ATEX: EN60079-0: 2009, EN 60079-15: 2005

### Features:

- Function-optimized design for safe use and easy installation
- Four-pole and base mounts on grounded 35mm DIN-Rail
- Module removal without signal interruption via "make-before-break" circuitry

### Dimensions – mm



**Catalog numbers and specifications**

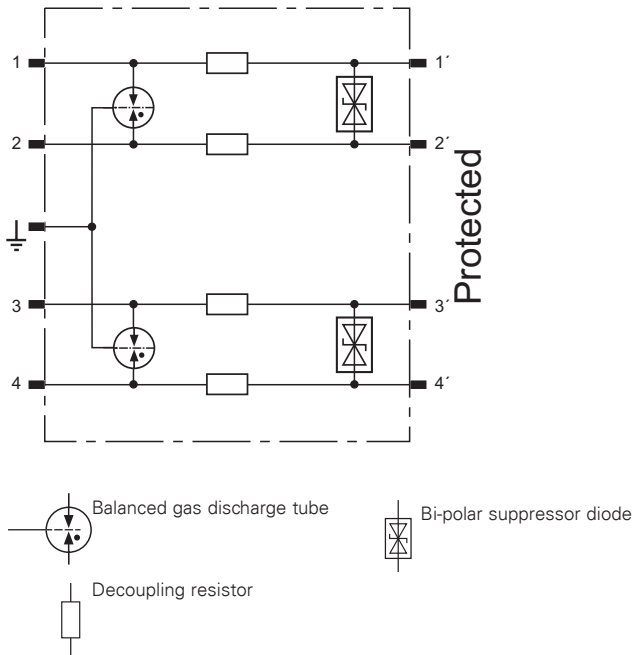
Catalog number -	BSPD24DING	BSPD5DINLHF
Nominal voltage ( $U_N$ )	24 V	5 V
Nominal current at 45°C ( $I_N$ )	0.75 A	1.0 A
VPL line-line for limp D1 ( $U_p$ )	≤102 V	≤25 V
VPL line-PG for limp D1 ( $U_p$ )	≤66 V	≤550 V
VPL line-line at 1 kV/μs C3 ( $U_p$ )	≤90 V	≤11 V
VPL line-PG at 1 kV/μs C3 ( $U_p$ )	≤45 V	≤550 V
D1 Total lightning impulse current (10/350 μs) ( $I_{imp}$ )	10 kA	10 kA
D1 Lightning impulse current (10/350 μs) per line ( $I_{imp}$ )	2.5 kA	2.5 kA
C2 Total nominal discharge current (8/20μs) ( $I_n$ )	20 kA	20 kA
C2 Nominal discharge current (8/20μs) per line ( $I_n$ )	10 kA	10 kA
Series impedance per line	1.8 Ω	1.0 Ω
Max. continuous operating DC voltage ( $U_C$ )	33 V	6 V
Max. continuous operating AC voltage ( $U_C$ )	23.3 V	4.2 V
Cut-off frequency line-PG ( $f_C$ )	6.8 MHz	100 MHz
Cut-off frequency line-line ( $U_{signal}$ , balanced 100 Ω) ( $f_C$ )	—	—
Capacitance line-line (C)	≤0.5 nF	≤25 pF
Capacitance line-PG (C)	≤1.0 nF	≤16 pF
ATEX Approvals	†	†
Agency information	††	††
IEC 61643-21 test category	D1, C2, C3	
Operating temperature range	-40°C to +80°C	
Degree of protection	IP20	
For mounting on	35mm DIN-Rails per EN 60715	
Grounding	Via base part	
Color / enclosure material	Grey / Polyamide PA 6.6	
Test standards	IEC 61643-21 / EN 61643-21, UL 497B	
Connection (input / output)	Screw terminal	
Conductors	Solid: 12-28 AWG (4-0.08 mm <sup>2</sup> ) Flexible: 14-28A WG (2.5-0.08 mm <sup>2</sup> )	
Terminal torque	3.5 Lb-In (0.4 N•m)	
Warranty	5 Years*	

\* See Bussmann series SPD Limited Warranty Statement (3A1502) for details at Eaton.com/bussmannseries.

† DEKRA 12ATEX0254 X: II 3 G Ex nA IIC T4 Gc

††ATEX, UL, CSA

**Circuit diagram**



**DIN-Rail universal 4 wire data signal SPD applications**

Universal 4 wire data signal SPD is specified by communication technology.

The table below contains the specific technology to which the BSPD5DINLHF is suited to be used.

System type
Bus systems and measuring, and control technology
CAN-Bus (data line only)
C-Bus (Honeywell)
Device Net (data line only)
FSK
IEC-Bus (RS485)
Interbus INLINE,
LON - TP/XF 78
MODBUS
MPI Bus
Procontic T200 (RS422)
PROFIBUS DP/FMS
PROFIBUS SIMATIC NET
PSM EG RS422 & RS485
Rackbus (RS485)
R Bus
RS 485
RS422, V11
SafetyBUS p
Securilan LON Bus
SUCONET

The table below contains the specific technology to which the BSPD24DING is suited to be used.

System type
Bus systems and measuring, and control technology
0-20mA, 4-20mA signals
Binary signals
TTYy 4-20mA

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