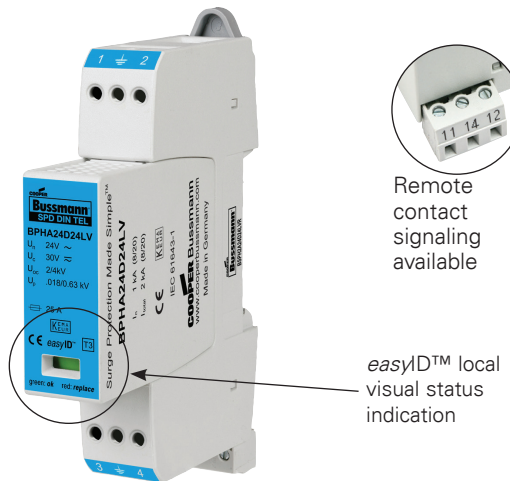


Two-pole UL Type 4 surge arresters for control voltage applications

RoHS



Remote
contact
signaling
available

easyID™ local
visual status
indication

Catalog symbols:

- BSPH2A_D_LV
- BSPH2A_D_LVR

Description:

Eaton's Bussmann™ series two-pole UL Type 4 surge component acceptance surge arresters are for Type 3 applications. These modular surge arresters feature local *easyID*™ visual status indication and optional remote contact signaling. The unique module locking system fixes the protection module to the base. Modules can be easily replaced without tools by simply depressing the release buttons. Integrated mechanical coding between the base and protection module ensures against installing an incorrect replacement module.

Control voltage system arresters

The features of these two-pole devices are for use in coordination with other upstream SPDs in UL 508A Applications*.

- Surge arrester according to UL 1449 4th Edition, Type 4 Component Assembly for Type 3 applications helps meet UL 508A requirements
- Proven MOV and GDT hybrid technology for reliable surge protection
- Module locking system with module release button make module replacement easy without tools
- Optional remote signaling of all protection modules make status monitoring easy and accurate in any monitoring scheme
- No upstream overcurrent protection necessary to make installation easier and more economical
- Vibration and shock tested according to EN 60068-2 to withstand harsh environments

Optional remote contact signaling

The three-pole terminal remote contact signaling option has a floating changeover contact for use as a break or make contact, according to circuit concept.

Specifications:

System volts

- 24Vac/dc to 230Vac/dc (See ordering information table)

System types

- AC and DC control voltage systems up to 230Vac/dc

Agency information

- CE
- CSA
- KEMA
- UL/cUL
- RoHS compliant

Mounting

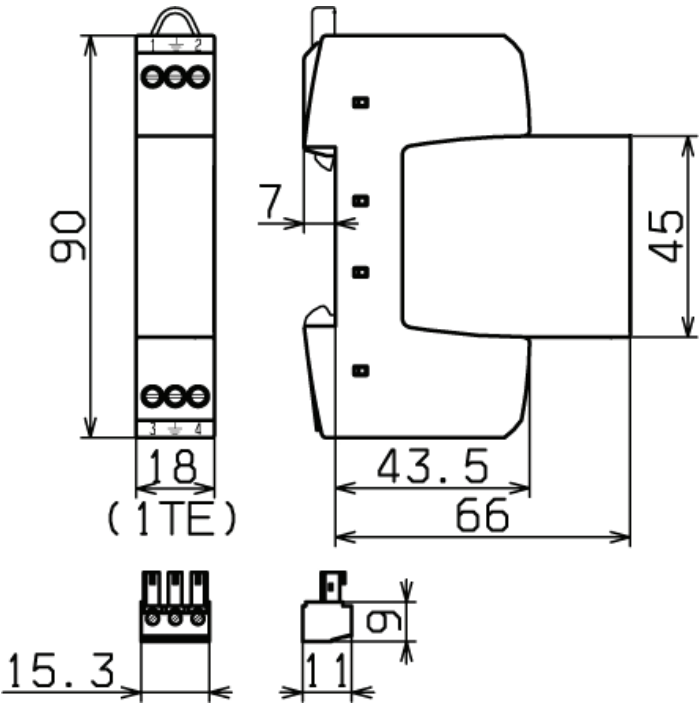
- 35mm DIN-Rail

Warranty

- Five years

* UL 1449 4th Edition not applicable to DC voltages.

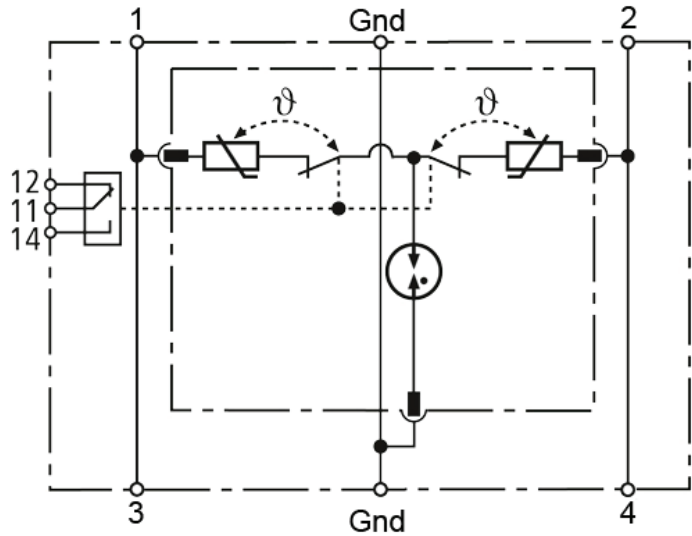
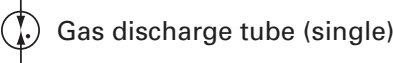
Dimensions - mm:



Shown with optional remote contact signaling.

Module circuit diagram:

Shown with optional remote contact signaling.



- BSPHA24D24LV
- BSPHA48D48LV
- BSPHA60D60LV
- BSPHA150D150LV
- BSPHA230D230LV

Ordering information:

System voltage (50-60Hz)		24Vac/dc	48Vac/dc	60Vac/dc	120Vac/dc	230Vac/dc
Max. Continuous Operating Voltage (MCOV) [V _C] 50-60Hz		30Vac/dc	60Vac/dc	75Vac/dc	150Vac/dc	255Vac/dc
Catalog numbers (base + modules)	W/O remote signaling	BSPH2A24D24LV	BSPH2A48D48LV	BSPH2A60D60LV	BSPH2A150D150LV	BSPH2A230D230LV
	W/ remote signaling	BSPH2A24D24LVR	BSPH2A48D48LVR	BSPH2A60D60LVR	BSPH2A150D150LVR	BSPH2A230D230LVR
Replacement modules		BPHA24D24LV	BPHA48D48LV	BPHA60D60LV	BPHA150D150LV	BPHA230D230LV
Specifications						
Nominal AC voltage [V _N] (50-60Hz)		24V	48V	60V	120V	230V
Max. continuous operating voltage [V _C]	AC (50-60Hz)	30V	60V	75V	150V	255V
	DC	30V	60V	75V	150V	255V
Nominal load current AC [I _L]		25A	25A	25A	25A	25A
Nominal discharge current (8/20μs) [I _n]		1kA	1kA	2kA	2kA	3kA
Total discharge current (8/20μs) L+N-Gnd [I _{total}]		2kA	2kA	4kA	4kA	5kA
Combined impulse	U _{OC}	2kV	2kV	4kV	4kV	6kV
	L+N-Gnd [U _{OC} total]	4kV	4kV	8kV	8kV	10kV
Voltage protection level [VPR]	L-N	≤ 180V	≤ 350V	≤ 400V	≤ 640V	≤ 1250V
	L/N-Gnd	≤ 630V	≤ 730V	≤ 730V	≤ 800V	≤ 1500V
Temporary overvoltage (TOV) (U _T)	L-N withstand	—	—	—	—	335V / 5 sec.
	L-N safe failure	—	—	—	—	440V / 120 min.
	L/N-PE withstand	—	—	—	—	335V / 120 min
	L/N-PE withstand	—	—	—	—	440V / 5 sec.
	L+N-PE safe failure	—	—	—	—	1200V+U _{REF} / 200ms
Max lineside overcurrent protection	gG or B fuse	25A	25A	25A	25A	25A
	I _{SCCR}	6kA _{RMS}	6kA _{RMS}	6kA _{RMS}	6kA _{RMS}	6kA _{RMS}
SPD according to		EN 61643-11 Type 3, IEC 61643-11 Class III				
Response time	L-N [t _A]	≤ 25 ns				
	[L/N-Gnd] [t _A]	≤100 ns				
Operating environment [T _U]		-40°C to +80°C, 5% to 95% RH				
Operating state/fault indication		Green (good) / Red (replace)				
Number of ports		1				
Conductor cross-sectional area	Min.	0.5mm² / 18AWG solid / flexible				
	Max.	4mm² / 10AWG solid, 2.5mm² / 12AWG flexible				
For mounting on		35mm DIN-Rail per EN 60715				
Enclosure material		Thermoplastic, UL 94V0				
Location category		Indoor				
Degree of protection		IP20 (built-in)				
Capacity (DIN 43880)		1 Mod.				
Agency information*		UL / cUL, CSA, KEMA				
Product warranty		Five years**				
Remote contact signaling						
Remote contact signaling type		Changeover contact				
Switching capacity (volts/amps)	AC	250V / 0.5A				
	DC	250V / 0.1A, 125V / 0.2A, 75V / 0.5A				
Conductor ratings and cross-section area		60/75°C Max. 1.5mm² / 14AWG solid / flexible				
Ordering information		Order from catalog numbers above				

* Agency information not applicable to DC ratings.

**See Eaton's Bussmann series SPD limited warranty statement (3A1502) for details at www.cooperbussmann.com/surge.

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