

# Surge protection device - D-LAN-CAT.5E - 2858991


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Fine surge protection in accordance with Class D (CAT.5e), for token ring and Ethernet. RJ45 attachment plug with separate grounding cable, incl. RJ45 cable



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 920463
GTIN	4017918920463

## Technical data

### Dimensions

Height	94 mm
Width	25.4 mm
Depth	25.4 mm

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C
Degree of protection	IP20

### General

Housing material	Aluminum, anodized
Color	black
Standards for clearances and creepage distances	DIN VDE 0110-1
	IEC 60664-1
Overvoltage category	II
Degree of pollution	2
Mounting type	Connection-specific intermediate plugging
Type	Attachment plug
Direction of action	Line-Line & Line-Shield & Shield-Earth Ground

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## Technical data

### Protective circuit

IEC test classification	C1
	C2
	C3
	B2
	B3
VDE requirement class	C1
	C2
	C3
	B2
	B3
Maximum continuous voltage $U_c$	$\pm 7$ V DC
Rated current	1.5 A (25 °C)
Operating effective current $I_c$ at $U_c$	$\leq 100$ $\mu$ A
Residual current $I_{PE}$	$\leq 100$ $\mu$ A
Nominal discharge current $I_n$ (8/20) $\mu$ s (line-line)	350 A
Nominal discharge current $I_n$ (8/20) $\mu$ s (line-earth)	2.5 kA
Max. discharge current $I_{max}$ (8/20) $\mu$ s maximum (line-earth)	2.5 kA (in total)
Nominal pulse current $I_{an}$ (10/700) $\mu$ s (line-line)	160 A
Nominal pulse current $I_{an}$ (10/700) $\mu$ s (line-earth)	160 A
Output voltage limitation at 1 kV/ $\mu$ s (line-line) spike	$\leq 22$ V
Output voltage limitation at 1 kV/ $\mu$ s (line-earth) spike	$\leq 80$ V (equipotential bonding lead: 1 m)
Output voltage limitation at 1 kV/ $\mu$ s (shield-earth) spike	$\leq 700$ V (equipotential bonding lead: 1 m)
Residual voltage at $I_n$ (line-line)	$\leq 45$ V
Residual voltage at $I_n$ (line-earth)	$\leq 45$ V
Residual voltage at $I_n$ (shield-earth)	$\leq 700$ V
Voltage protection level $U_p$ (line-line)	$\leq 50$ V (C1 - 500 V / 250 A)
	$\leq 20$ V (B3 - 2 kV / 25 A)
Voltage protection level $U_p$ (line-earth)	$\leq 65$ V (C1, 500 V/250 A - PA-Ltg: 1 m)
	$\leq 25$ V (B3 - 2 kV / 25 A - PA-Ltg: 1 m)
	$\leq 60$ V (C3, 7 kV/90 A - PA-Ltg: 1 m)
Voltage protection level $U_p$ (shield-earth)	$\leq 850$ V (C2 - 4 kV/2 kA - PA-Ltg: 1 m)
Response time $t_A$ (line-line)	$\leq 500$ ns
Response time $t_A$ (line-earth)	$\leq 100$ ns
Input attenuation aE, sym.	1 dB (up to 100 MHz, 100 $\Omega$ system)
Near-end crosstalk attenuation	36 dB (pair 3-6 against pair 4-5 in 100 $\Omega$ system / 100 MHz)
	40 dB (all other pair combinations in 100 $\Omega$ system/100 MHz)
Cut-off frequency $f_g$ (3 dB), sym. in 100 Ohm system	$\leq 100$ MHz
Capacity (line-line)	20 pF (typical)
Capacity (line-earth)	1 pF (typical)
Surge protection fault message	none

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### Protective circuit

Impulse durability (line-line)	B2 - 4 kV / 100 A
	B3 - 2 kV / 25 A
	C1 - 500 V / 250 A
Impulse durability (line-earth)	B2 - 4 kV / 100 A
	C1 - 500 V / 250 A
	C2 - 4 kV / 2 kA
	B3 - 2 kV / 25 A

### Connection data

Connection method	RJ45
Connection method IN	RJ45 socket
Connection method OUT	RJ45 socket
Connection technology	Network interfaces (e.g. Ethernet, Token Ring and CDDI/FDDI)

### Connection, equipotential bonding

Connection method	Cable connection
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### Standards and Regulations

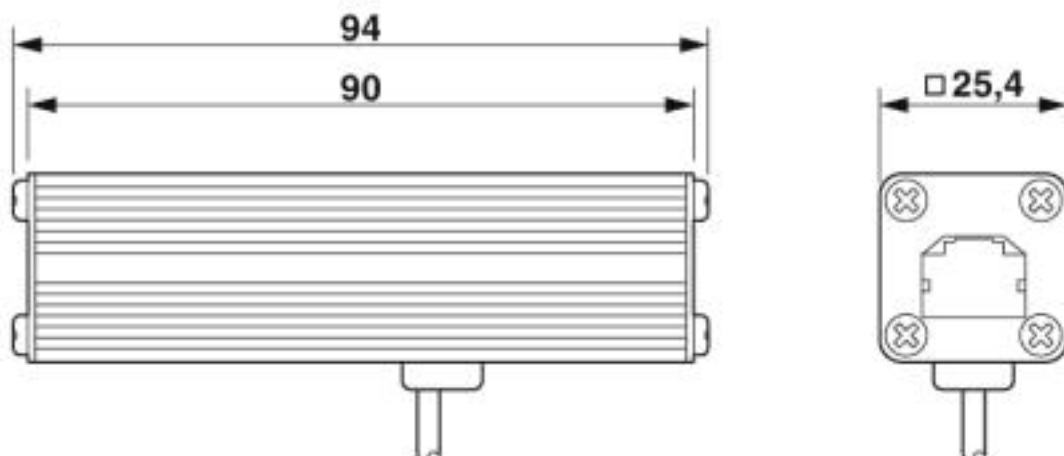
Standards/regulations	IEC 61643-21
	E VDE 0845-3-1
	DIN EN 50173-1

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally friendly use period: unlimited = EFUP-e
	No hazardous substances above threshold values

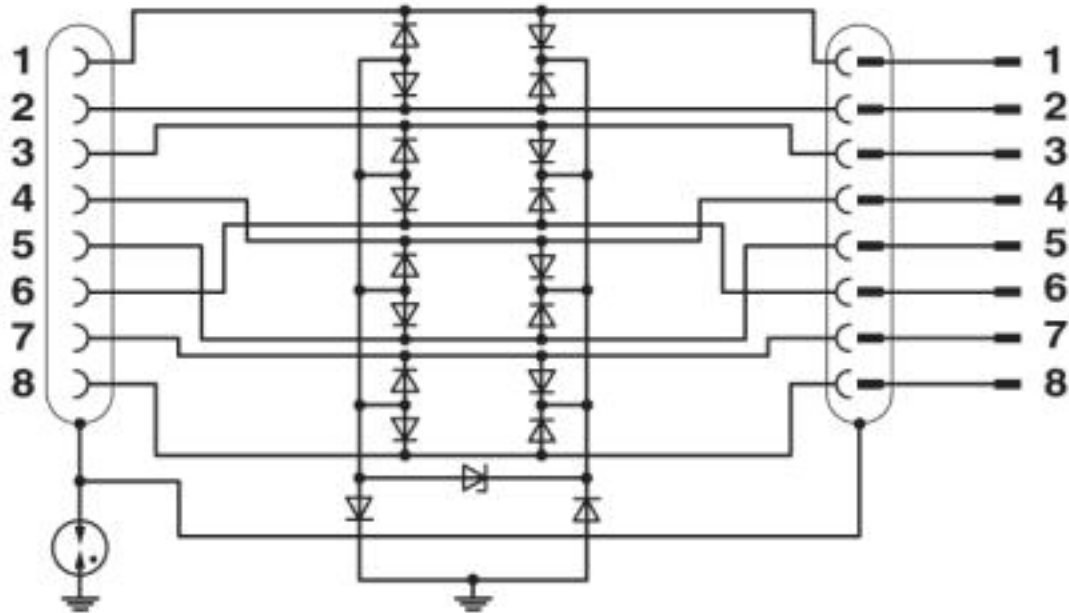
## Drawings

Dimensional drawing



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Circuit diagram



## Approvals

Approvals

Approvals

UL Listed / EAC / EAC

Ex Approvals

## Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 138168
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EAC		EAC-Zulassung
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