

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



2858991

<https://www.phoenixcontact.com/us/products/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

## Commercial data

Item number	2858991
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL24
Product key	CL3111
Catalog page	Page 97 (TT-2005)
GTIN	4017918920463
Weight per piece (including packing)	135.8 g
Weight per piece (excluding packing)	135 g
Customs tariff number	85363010
Country of origin	DE

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## Technical data

### Product properties

IEC test classification	C1
	C2
	C3
	B2
	B3
VDE requirement class	C1
	C2
	C3
	B2
	B3
Type	Attachment plug
Product type	Surge protection for information technology
Product family	DATATRAB
Surge protection fault message	none

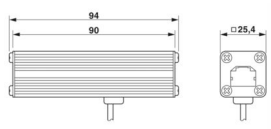
### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### Connection data

Connection method	RJ45
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### Dimensions

Dimensional drawing	
Width	25.4 mm
Height	94 mm
Depth	25.4 mm

### Material specifications

Color	black (RAL 9005)
Housing material	Aluminum, anodized

### Mechanical properties

#### Mechanical data

Open side panel	No
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### Protective circuit

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Direction of action	Line-Line & Line-Shield & Shield-Earth Ground
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-ground)	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-ground) spike	$\leq 700$ V (equipotential bonding lead: 1 m)
Residual voltage at $I_n$ (conductor-conductor)	$\leq 45$ V
Residual voltage at $I_n$ (conductor-ground)	$\leq 45$ V
Residual voltage at $I_n$ (shield-ground)	$\leq 700$ 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-ground)	$\leq 850$ 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 $\Omega$ system	$\leq 100$ MHz
Capacity (Core-Core)	20 pF (typical)
Capacity (Core-Earth)	1 pF (typical)
Surge protection fault message	none
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

## Environmental and real-life conditions

### Ambient conditions

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

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## Standards and regulations

VDE requirement class	C1
	C2
	C3
	B2
	B3

### Air clearances and creepage distances

Standards/regulations	DIN VDE 0110-1 / IEC 60664-1
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### Standards Information technology specification

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

## Mounting

Mounting type	Connection-specific intermediate plugging
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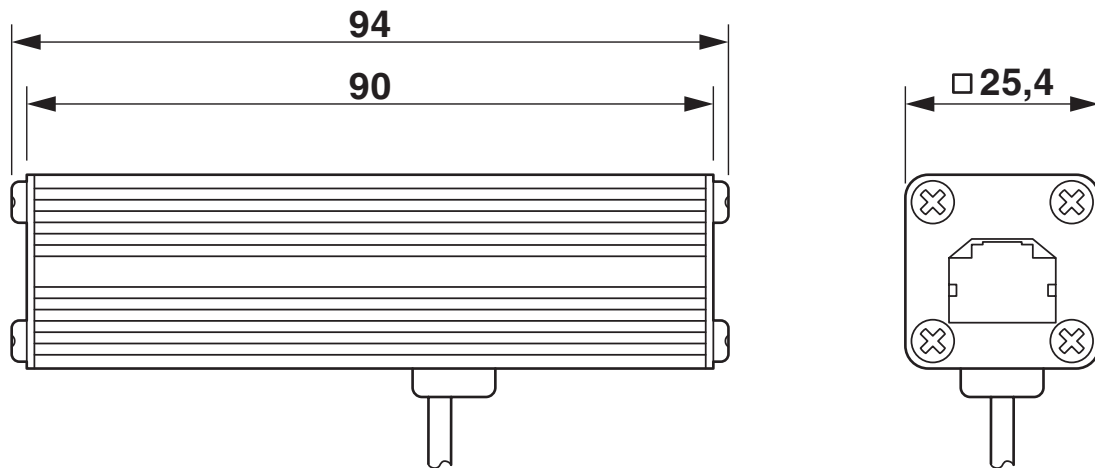
# D-LAN-CAT.5E - Surge protection device

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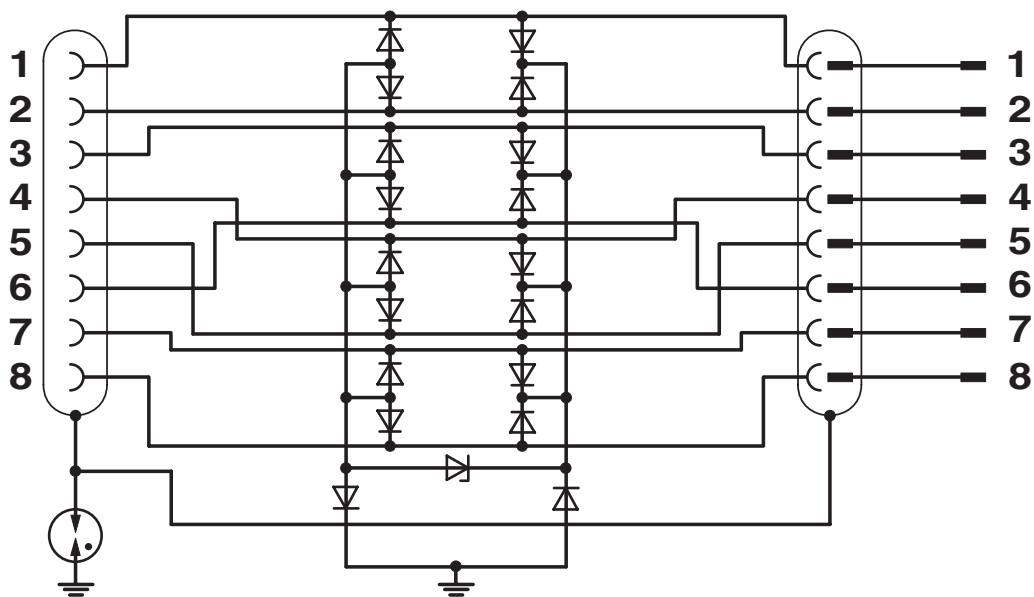
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## Drawings

Dimensional drawing



Circuit diagram



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## Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2858991>



**EAC**

Approval ID: EAC-Zulassung



**EAC**

Approval ID: RU C-DE.\*09.B.00169



**UL Listed**

Approval ID: FILE E 138168

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## Classifications

### ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171503

### ETIM

ETIM 9.0	EC001466
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### UNSPSC

UNSPSC 21.0	39121600
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## Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"



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## Accessories

### FL CAT6 PATCH 0,5 - Patch cable

2891288

<https://www.phoenixcontact.com/us/products/2891288>

Patch cable, CAT6, preassembled, 0.5 m



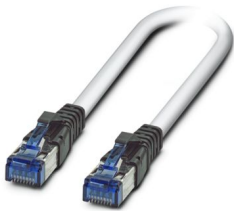
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### FL CAT6 PATCH 1,5 - Patch cable

2891482

<https://www.phoenixcontact.com/us/products/2891482>

Patch cable, CAT6, preassembled, 1.5 m



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