

# CN-UB-70DC-6-BB - Surge protection device

2803166

<https://www.phoenixcontact.com/us/products/2803166>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



Attachment plug with surge protection for coaxial signal interfaces. Connection: N connector, female/female

## Your advantages

- Mounting plate enables mounting, e.g., in a control cabinet

## Commercial data

Item number	2803166
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL25
Product key	CL3311
GTIN	4046356293211
Weight per piece (including packing)	75.7 g
Weight per piece (excluding packing)	75 g
Customs tariff number	85363010
Country of origin	US

# CN-UB-70DC-6-BB - Surge protection device



2803166

<https://www.phoenixcontact.com/us/products/2803166>

## Technical data

### Notes

#### General

Note	To meet the discharge conditions for DC voltages, please note the following information: "The surge protective device should be used together with a transmitter unit, which shuts down in the event of a short-circuit."
------	---

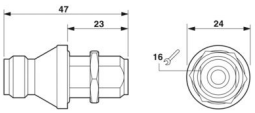
### Product properties

Product type	Surge protection for transceiver systems
IEC test classification	C2
	C3
	D1
VDE requirement class	C2
	C3
	D1
Type	Intermediate plug
Surge protection fault message	none

### Connection data

Connection method	N connector 50 Ω
Tightening torque	1.4 Nm ... 1.7 Nm (N coupling nut)

### Dimensions

Dimensional drawing	
Width	24 mm
Height	24 mm
Depth	47 mm

### Material specifications

Color	nickel color
Seal material	Silicon
Housing material	Brass (CuZn)
Housing surface material	Ni
Inner conductor material	BeCu
Inner conductor surface material	Gold
Insulation body material	PTFE

### Mechanical properties

# CN-UB-70DC-6-BB - Surge protection device



2803166

<https://www.phoenixcontact.com/us/products/2803166>

## Mechanical data

Open side panel	No
-----------------	----

## Protective circuit

Direction of action	Line-Shield/Earth Ground
Maximum continuous operating voltage $U_C$	70 V DC
	50 V AC
Maximum continuous voltage $U_C$ (line-earth)	70 V DC
	50 V AC
Rated current	10 A
Operating effective current $I_C$ at $U_C$	$\leq 1 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$	5 kA
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-ground)	5 kA
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-shield)	5 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$	1 kA
Pulse discharge current $I_{imp}$ (10/350) $\mu\text{s}$ (line-earth)	1 kA
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (line-earth)	10 kA
Max. discharge current $I_{max}$ (8/20) $\mu\text{s}$ maximum (line-shield)	10 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu\text{s}$ (line-shield)	100 A
Impulse discharge current (10/350) $\mu\text{s}$ , peak value $I_{imp}$	1 kA
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) spike	$\leq 650 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-shield) spike	$\leq 650 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) static	$\leq 650 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-shield) static	$\leq 650 \text{ V}$
Voltage protection level $U_p$ (line-earth)	$\leq 800 \text{ V}$ (C2 - 4 kV / 2 kA)
	$\leq 1 \text{ kV}$ (C2 - 10 kV / 5 kA)
Voltage protection level $U_p$ (line-shield)	$\leq 800 \text{ V}$ (C2 - 4 kV / 2 kA)
	$\leq 1 \text{ kV}$ (C2 - 10 kV / 5 kA)
Response time $t_A$ (line-earth)	$\leq 100 \text{ ns}$
Response time $t_A$ (line-shield)	$\leq 100 \text{ ns}$
Input attenuation aE, asym.	0.1 dB ( $\leq 6 \text{ GHz}$ )
Cut-off frequency $f_g$ (3 dB), asym. (shield) in 50 $\Omega$ system	$> 6 \text{ GHz}$
Frequency range	0 Hz ... 6 GHz
Voltage standing wave ratio VSWR in a 50 $\Omega$ system	typ. 1.15 ( $\leq 6 \text{ GHz}$ )
Permissible HF power $P_{max}$ at VSWR = xx (50 ohm system)	30 W (VSWR = 1.15)
Capacity (Core-Earth)	typ. 1.5 pF
Capacity asymmetrical (shield)	typ. 1.5 pF
Surge protection fault message	none
Impulse durability (line-earth)	C2 - 10 kV / 5 kA
	C3 - 100 A
	D1 - 1 kA
Impulse durability (line-shield)	C2 - 10 kV/5 kA
	C3 - 100 A

# CN-UB-70DC-6-BB - Surge protection device



2803166

<https://www.phoenixcontact.com/us/products/2803166>

	D1 - 1 kA
Alternating current carrying capacity (line-shield)	5 A - 1 s

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP68
Ambient temperature (operation)	-40 °C ... 90 °C

## Standards and regulations

VDE requirement class	C2
	C3
	D1

### Standards Information technology specification

Standards/regulations	IEC 61643-21
	IEC 61643-21

### Air clearances and creepage distances

Standards/regulations	DIN VDE 0110-1 / IEC 60664-1
Standards/specifications	IEC 61643-21
Note	2000

## Mounting

Mounting type	Connection-specific intermediate plugging
Assembly note	Outdoors and indoors

# CN-UB-70DC-6-BB - Surge protection device

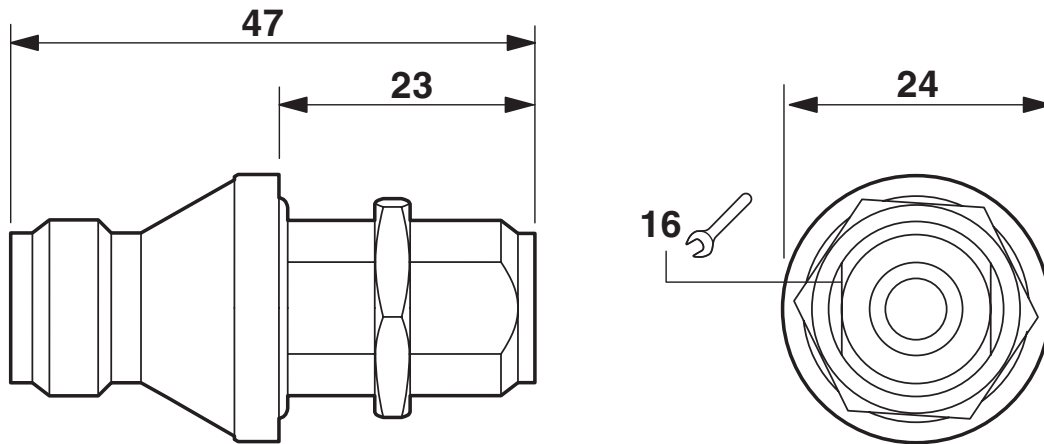


2803166

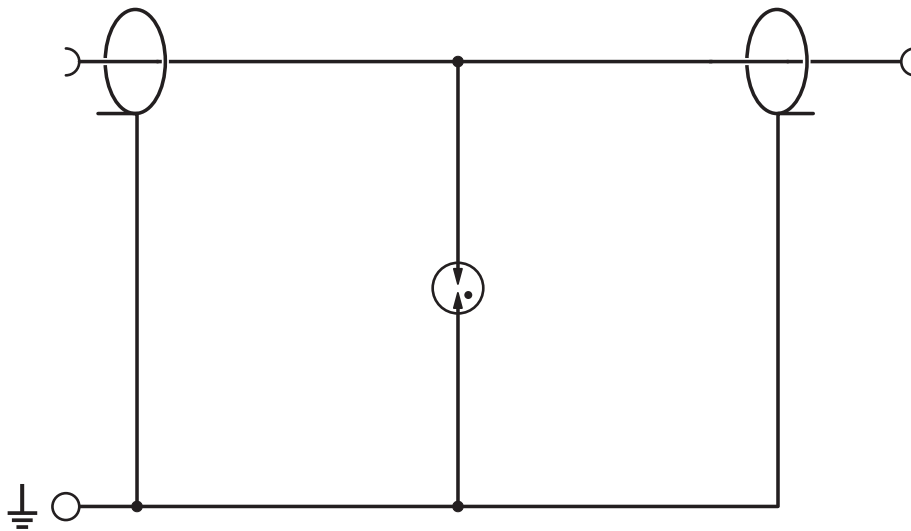
<https://www.phoenixcontact.com/us/products/2803166>

## Drawings

Dimensional drawing



Circuit diagram



# CN-UB-70DC-6-BB - Surge protection device



2803166

<https://www.phoenixcontact.com/us/products/2803166>

## Classifications

### ECLASS

ECLASS-13.0	27171504
ECLASS-15.0	27171504

### ETIM

ETIM 10.0	EC001466
-----------	----------

### UNSPSC

UNSPSC 21.0	39121600
-------------	----------

# CN-UB-70DC-6-BB - Surge protection device



2803166

<https://www.phoenixcontact.com/us/products/2803166>

## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
---	--------------------

### China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

### EF3.1 Climate Change

CO2e kg	8.725 kg CO2e
---------	---------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)