

# CN-UB-280DC-3-BB - Surge protection device



2801050

<https://www.phoenixcontact.com/us/products/2801050>

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Attachment plug with replaceable surge protection for coaxial signal interfaces. Connection: N connector socket/socket

## Your advantages

- For outdoor installations
- Mounting plate enables mounting, e.g., in a control cabinet
- Replaceable, gas-filled arrester
- Installed as surge protection between antenna and wireless module

## Commercial data

Item number	2801050
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL25
Product key	CL3311
GTIN	4046356675727
Weight per piece (including packing)	172 g
Weight per piece (excluding packing)	145 g
Customs tariff number	85363010
Country of origin	CN

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## Technical data

### Product properties

Product type	Surge protection for transceiver systems
IEC test classification	C2
	C3
	D1
Type	Intermediate plug
Number of positions	1
Surge protection fault message	none

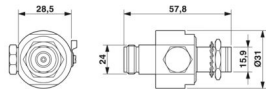
### Insulation characteristics

Overvoltage category	III
Pollution degree	2

### Connection data

Connection method	N connector 50 Ω
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### Dimensions

Dimensional drawing	
Width	31 mm
Height	33.5 mm
Length	57.8 mm

### Material specifications

Color	nickel color
	black (RAL 9005)
Housing material	HPb59-1
Housing surface material	Cu-Sn-Zn
Contact surface material	Au
Inner conductor material	QSn6.5-0.1
Inner conductor surface material	Gold
Insulation body material	PTFE
Spring contact material	QSn6.5-0.1

### Mechanical properties

#### Mechanical data

Open side panel	No
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### Protective circuit

Direction of action	Line-Shield/Earth Ground
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Maximum continuous operating voltage $U_C$	280 V DC
Maximum continuous voltage $U_C$ (line-earth)	280 V DC
Rated current	5 A (25 °C)
Operating effective current $I_C$ at $U_C$	$\leq 1 \mu\text{A}$
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-ground)	20 kA
Nominal discharge current $I_n$ (8/20) $\mu\text{s}$ (line-shield)	20 kA
Pulse discharge current $I_{\text{imp}}$ (10/350) $\mu\text{s}$	2.5 kA
Total surge current (10/350) $\mu\text{s}$	2.5 kA
Total discharge current $I_{\text{Total}}$ (8/20) $\mu\text{s}$	20 kA
Max. discharge current $I_{\text{max}}$ (8/20) $\mu\text{s}$ maximum (line-earth)	20 kA
Max. discharge current $I_{\text{max}}$ (8/20) $\mu\text{s}$ maximum (line-shield)	20 kA
Nominal pulse current $I_{\text{an}}$ (10/1000) $\mu\text{s}$ (line-shield)	100 A
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-earth) spike	$\leq 900 \text{ V}$
Output voltage limitation at 1 kV/ $\mu\text{s}$ (line-shield) spike	$\leq 900 \text{ V}$
Voltage protection level $U_p$ (line-earth)	$\leq 900 \text{ V}$ (C1 - 1 kV / 500 A)
	$\leq 1.1 \text{ kV}$ (C2 - 10 kV / 5 kA)
Voltage protection level $U_p$ (line-shield)	$\leq 900 \text{ V}$ (C1 - 1 kV / 500 A)
	$\leq 1.1 \text{ kV}$ (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.	typ. 0.1 dB ( $\leq 3 \text{ GHz}$ )
Cut-off frequency $f_g$ (3 dB), asym. (shield) in 50 $\Omega$ system	$> 3 \text{ GHz}$
Frequency range	0 Hz ... 3 GHz
Voltage standing wave ratio VSWR in a 50 $\Omega$ system	typ. 1.15 ( $\leq 3 \text{ GHz}$ )
	max. 1.20
Permissible HF power $P_{\text{max}}$ at VSWR = xx (50 ohm system)	700 W (VSWR = 1.1)
	200 W (VSWR = $\infty$ )
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 - 2.5 kA

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP55
	IP55
Ambient temperature (operation)	-40 °C ... 80 °C
Altitude	2000 m

## Standards and regulations

### Air clearances and creepage distances

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Standards/regulations	IEC 60664-1
Standards/specifications	IEC 61643-21/A1
Note	2008
Standards/specifications	EN 61643-21/A1
Note	2009

## Mounting

Mounting type	Connection-specific intermediate plugging
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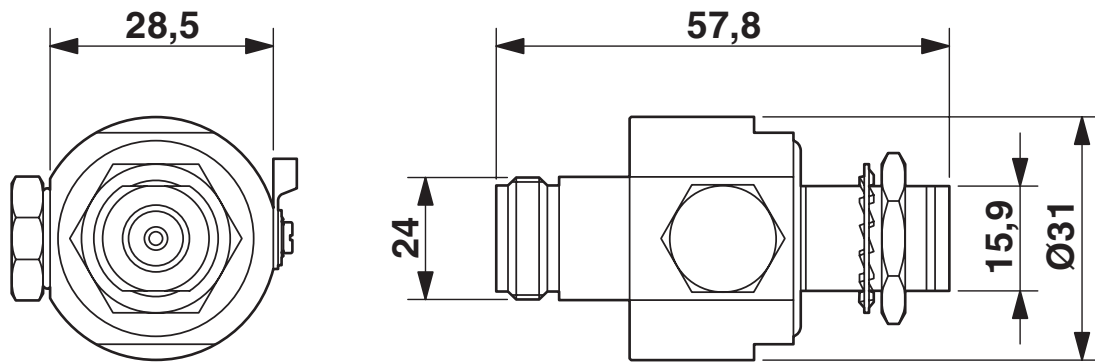


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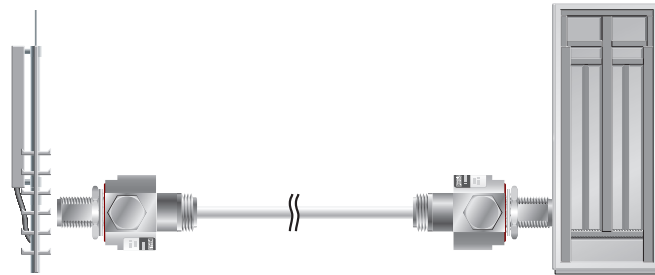
## Drawings

Dimensional drawing

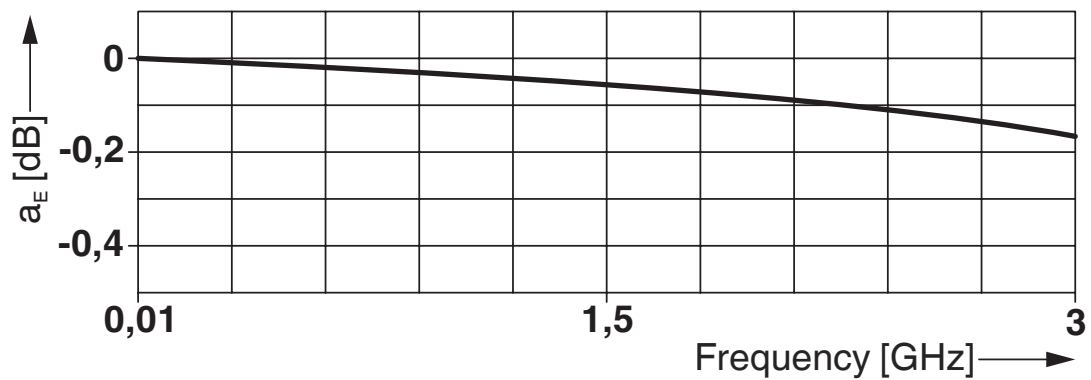


Dimensional drawing  
CN-UB-280DC-3-BB

Application drawing



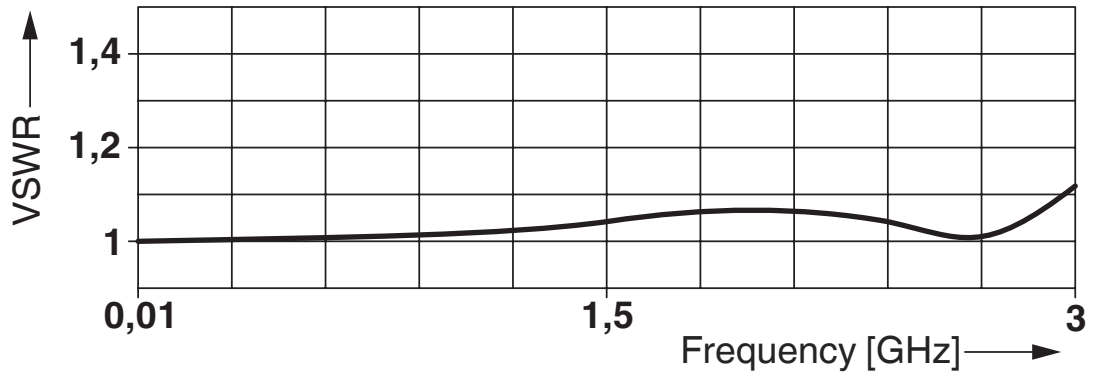
Diagram



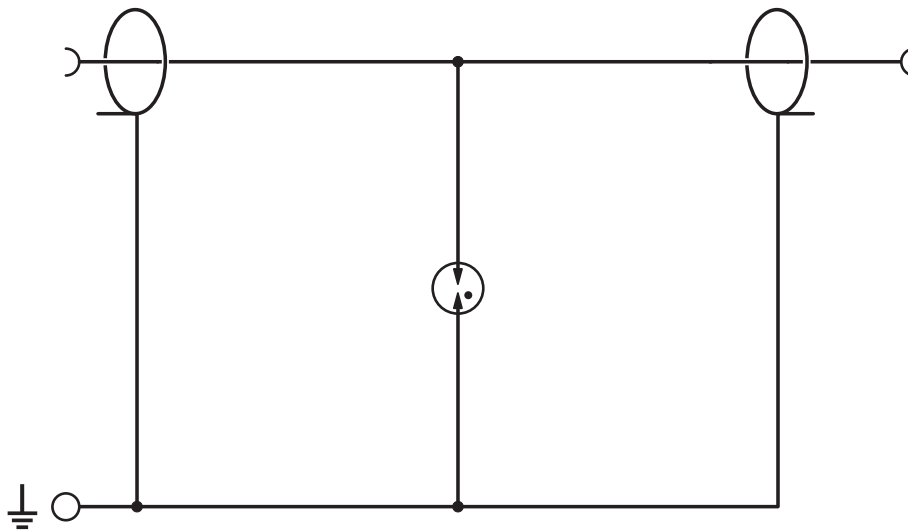
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Diagram



Circuit diagram



Circuit diagram

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## Classifications

### ECLASS

ECLASS-13.0	27171504
ECLASS-15.0	27171504

### ETIM

ETIM 10.0	EC001466
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### UNSPSC

UNSPSC 21.0	39121600
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c)

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	9e1186ee-bfb3-4a02-b69a-0715150a9b35

### EF3.1 Climate Change

CO2e kg	4.808 kg CO2e
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