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

2818850

https://www.phoenixcontact.com/us/products/2818850

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

Your advantages

- Easy installation with system-compliant connection
- Use under extreme ambient conditions with robust design
- Service-friendly with replaceable protective components

Commercial data

Item number	2818850
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CL25
Product key	CL3311
GTIN	4017918164027
Weight per piece (including packing)	141.4 g
Weight per piece (excluding packing)	131.45 g
Customs tariff number	85363010
Country of origin	TW

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	C1
	C2
	C3
	D1
Type	Intermediate plug
Surge protection fault message	none

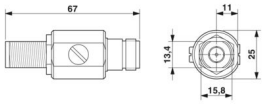
Insulation characteristics

Overvoltage category	III
Pollution degree	2

Connection data

Connection method	N connector 50 Ω

Dimensions

Dimensional drawing	
Width	25 mm
Height	25 mm
Depth	67 mm

Material specifications

Color	nickel color
	copper color
Seal material	Silicon
Housing material	Nickel-plated brass
Housing surface material	Ni
Contact surface material	Au
Inner conductor material	CuZn
Inner conductor surface material	Gold
Insulation body material	PTFE

Spring contact material	CuSn

Mechanical properties

Mechanical data

Open side panel	No

Protective circuit

Direction of action	Line-Shield/Earth Ground
Maximum continuous operating voltage U_C	280 V DC
	195 V AC
Rated current	5 A (25 °C)
Operating effective current I_C at U_C	≤ 1 µA
Nominal discharge current I_n (8/20) µs (line-ground)	20 kA
Nominal discharge current I_n (8/20) µs (line-shield)	20 kA
Pulse discharge current I_{imp} (10/350) µs (line-earth)	2.5 kA
Pulse discharge current I_{imp} (10/350) µs (line-shield)	2.5 kA
Total discharge current I_{Total} (8/20) µs	20 kA
Max. discharge current I_{max} (8/20) µs maximum (line-earth)	20 kA
Max. discharge current I_{max} (8/20) µs maximum (line-shield)	20 kA
Nominal pulse current Ian (10/1000) µs (line-earth)	100 A
Nominal pulse current Ian (10/1000) µs (line-shield)	100 A
Output voltage limitation at 1 kV/µs (line-earth) spike	≤ 900 V
Output voltage limitation at 1 kV/µs (line-shield) spike	≤ 900 V
Voltage protection level U_p (line-earth)	≤ 900 V (C1 - 1 kV / 500 A)
	≤ 1.1 kV (C2 - 10 kV / 5 kA)
	≤ 1 kV (C3 - 25 A)
Voltage protection level U_p (line-shield)	≤ 900 V (C1 - 1 kV / 500 A)
	≤ 1.1 kV (C2 - 10 kV / 5 kA)
	≤ 1 kV (C3 - 25 A)
Response time t_A	≤ 100 ns
Input attenuation aE, asym.	typ. 0.1 dB (≤ 1.2 GHz / 50 Ω)
	typ. 0.2 dB (≤ 2.2 GHz / 50 Ω)
Cut-off frequency fg (3 dB), asym. (shield) in 50 Ω system	> 3 GHz
Voltage standing wave ratio VSWR in a 50 Ω system	typ. 1.10 (≤ 2 GHz)
Permissible HF power P_{max} at VSWR = xx (50 ohm system)	700 W (VSWR = 1.1)
	200 W (VSWR = ∞)
Capacity	typ. 1.5 pF
Surge protection fault message	none
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 100 A
	D1 - 2.5 kA
Impulse durability (line-shield)	C1 - 1 kV / 500 A
	C2 - 10 kV/5 kA

	C3 - 100 A
	D1 - 2.5 kA

Environmental and real-life conditions

Ambient conditions

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

Standards and regulations

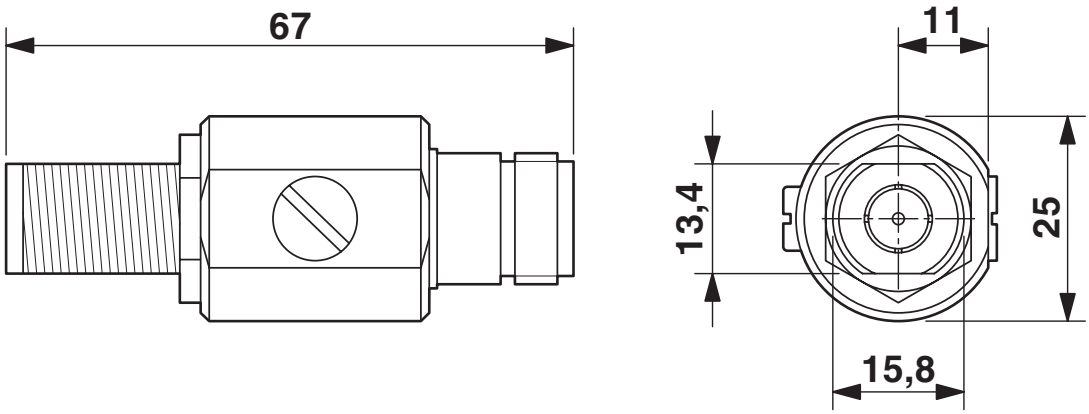
Standards/specifications	IEC 61643-21
Note	2000 + A1:2008
Standards/specifications	EN 61643-21
Note	2001 + A1:2009

Mounting

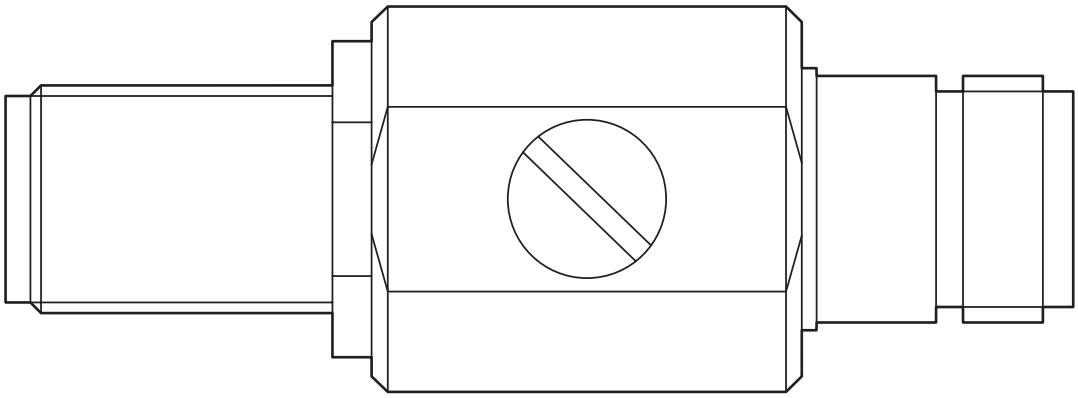
Mounting type	Connection-specific intermediate plugging

Drawings

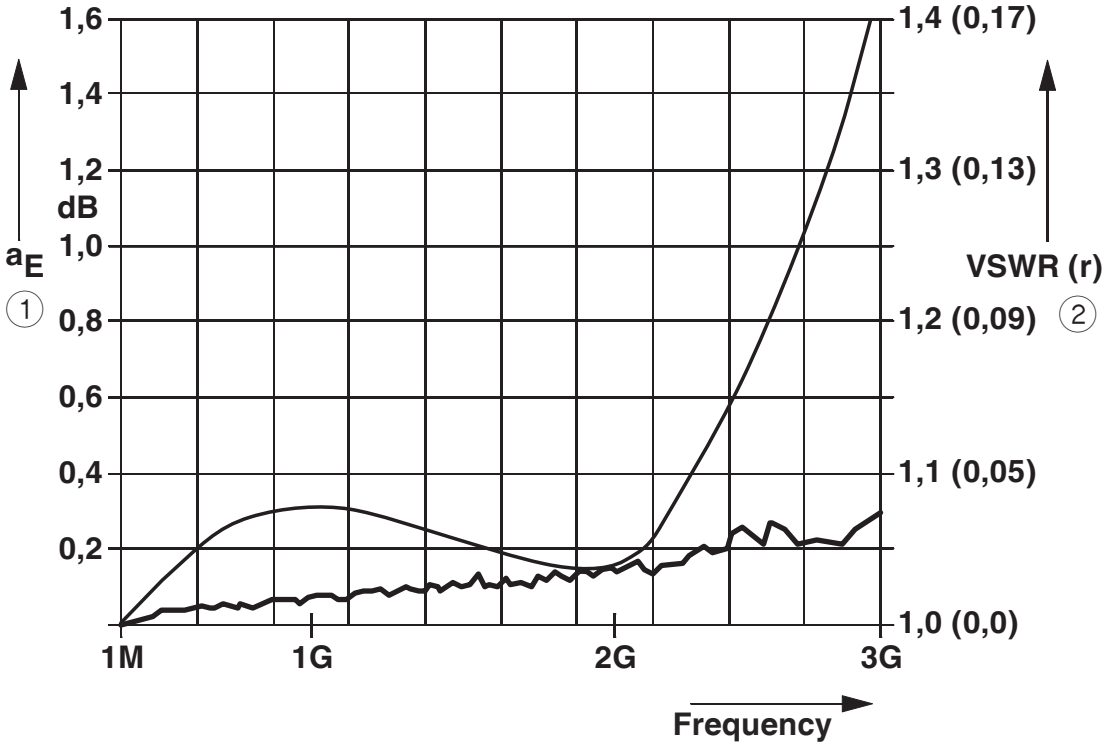
Dimensional drawing



Product drawing



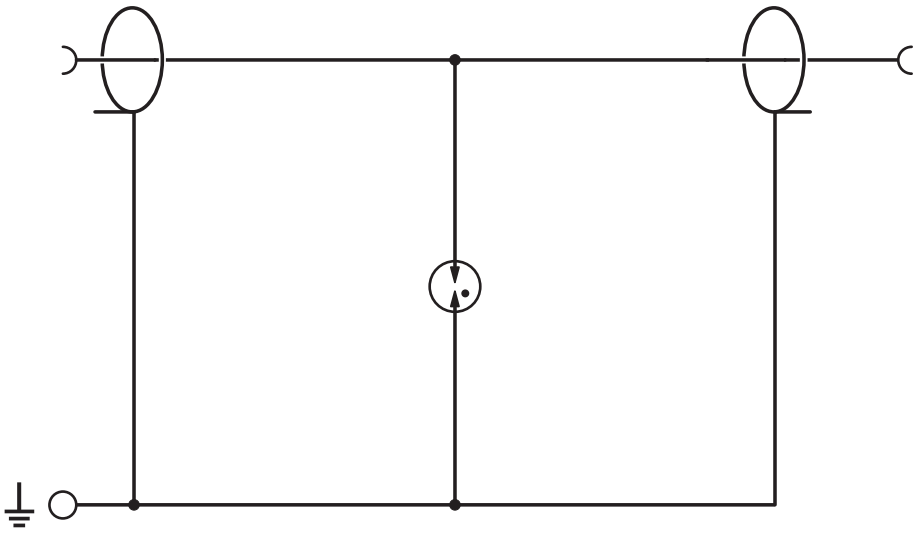
Diagram



① **Typical attenuation curve for CN-UB-280DC...**

② **Typical VSWR at CN-UB-280DC...**

Circuit diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2818850

UL Listed
Approval ID: FILE E 138168

UL Listed
Approval ID: FILE E 362540

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	280 V	5 A	-	-

cUL Listed
Approval ID: FILE E 333250

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	280 V	5 A	-	-

UL Listed
Approval ID: FILE E 333250

	Nominal voltage U_N	Nominal current I_N	Cross section AWG	Cross section mm^2
keine				
	280 V	5 A	-	-

Classifications

ECLASS

ECLASS-13.0	27171504
ECLASS-15.0	27171504

ETIM

ETIM 10.0	EC001466

UNSPSC

UNSPSC 21.0	39121600

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	36788d66-5c2c-4988-8600-4979d754f5be

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