

Surge protection device - S-PT-EX-48DC - 2800053

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Surge protection for one floating signal circuits in screw-on module with IP67 protection for sensor heads, connection M20 x 1.5. Tested in acc. with the protection types in Ex areas Ex d / Ex tD / Ex ia IIC / Ex iaD. Can be used inside of a fieldbus-system according to the FISCO concept.

Your advantages

- Arresters in hexagonal pipe with various outer threads



Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356445696

Technical data

Dimensions

Height	28 mm
Width	28 mm
Depth	79 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 80 °C (non-Ex)
Altitude	≤ 2000 m (amsl (above mean sea level))
Degree of protection	IP67

General

Housing material	Stainless steel
Color	silver
Standards for clearances and creepage distances	IEC 60664-1
	IEC 60079-11
Mounting type	M20
Type	Screw-in module

Surge protection device - S-PT-EX-48DC - 2800053

Technical data

General

Number of positions	2
Direction of action	Line-Line & Line-Earth Ground

Protective circuit

IEC test classification	C1
	C2
	C3
	D1
Nominal voltage U_N	48 V DC
Maximum continuous voltage U_C	53 V DC
	37 V AC
Operating effective current I_C at U_C	$\leq 5 \mu A$
Residual current I_{PE}	$\leq 2 \mu A$
Nominal discharge current I_n (8/20) μs (line-line)	170 A
Nominal discharge current I_n (8/20) μs (line-earth)	10 kA
Pulse discharge current I_{imp} (10/350) μs	1 kA
Total discharge current I_{total} (8/20) μs	20 kA
Total discharge current I_{total} (10/350) μs	2 kA
Nominal pulse current I_{an} (10/1000) μs (line-line)	34 A
Output voltage limitation at 1 kV/ μs (line-line) spike	$\leq 160 V$
Output voltage limitation at 1 kV/ μs (line-earth) spike	$\leq 1.1 kV$
Output voltage limitation at 1 kV/ μs (line-line) static	$\leq 80 V$
Voltage protection level U_p (line-line)	$\leq 90 V$ (C3 - 10 A)
Voltage protection level U_p (line-earth)	$\leq 1.1 kV$ (C3 - 100 A)
	$\leq 1.1 kV$ (C1 - 1 kV/500 A)
	$\leq 1.2 kV$ (C2 - 10 kV / 5 kA)
Response time t_A (line-line)	$\leq 1 ns$
Response time t_A (line-earth)	$\leq 100 ns$
Input attenuation aE, sym.	typ. 0.1 dB (30 MHz / 50 Ω)
	typ. 0.1 dB (6 MHz / 150 Ω)
Cut-off frequency f_g (3 dB), sym. in 50 Ohm system	typ. 70 MHz
Cut-off frequency f_g (3 dB), sym. in 150 Ohm system	typ. 40 MHz
Capacity (line-line)	typ. 20 pF
Capacity (line-earth)	typ. 5 pF
Surge protection fault message	none
Impulse durability (line-line)	C3 - 10 A
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 100 A
	D1 - 1 kA

Surge protection device - S-PT-EX-48DC - 2800053

Technical data

Protective circuit

Alternating current carrying capacity (line-earth)	10 A - 1 s
--	------------

Connection data

Connection method	Individual wires
-------------------	------------------

Standards and Regulations

Standards/specifications	EN 61643-21 A2:2013
	EN 60079-0 2012
	EN 60079-1 2007
	EN 60079-11 2012
	EN 60079-31 2009
	IEC 60079-0 2011
	IEC 60079-1 2007
	IEC 60079-11 2011
	IEC 60079-31 2008

General

Maximum inner capacitance C_i	1.14 nF
Max. internal inductance L_i	1 μ H
Max. input current I_i	500 mA (T4 / \leq 75 °C)
	500 mA (T5 / \leq 75 °C)
	500 mA (T6 / \leq 60 °C)
Max. input voltage U_i	53 V DC
max. input power P_i	3 W
Insulation voltage to ground	500 V AC
Ambient temperature (operation)	-40 °C ... 75 °C (T4)
	-40 °C ... 75 °C (T5)
	-40 °C ... 60 °C (T6)

Conformity / approvals

ATEX	# II 1 G Ex ia IIC T4...T6
	# II 2 G Ex d IIC T4...T6
	# II 1 D Ex iaD 20 IP6x T85 °C...135 °C
	# II 2 D Ex tD A21 IP6x T85 °C...135 °C
IECEX	Ga Ex ia IIC T4...T6
	Ex d IIC T4...T6
	Ex iaD IP6x T85 °C...135 °C
	Ex tD A21 IP6x T85 °C...135 °C

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years

Surge protection device - S-PT-EX-48DC - 2800053

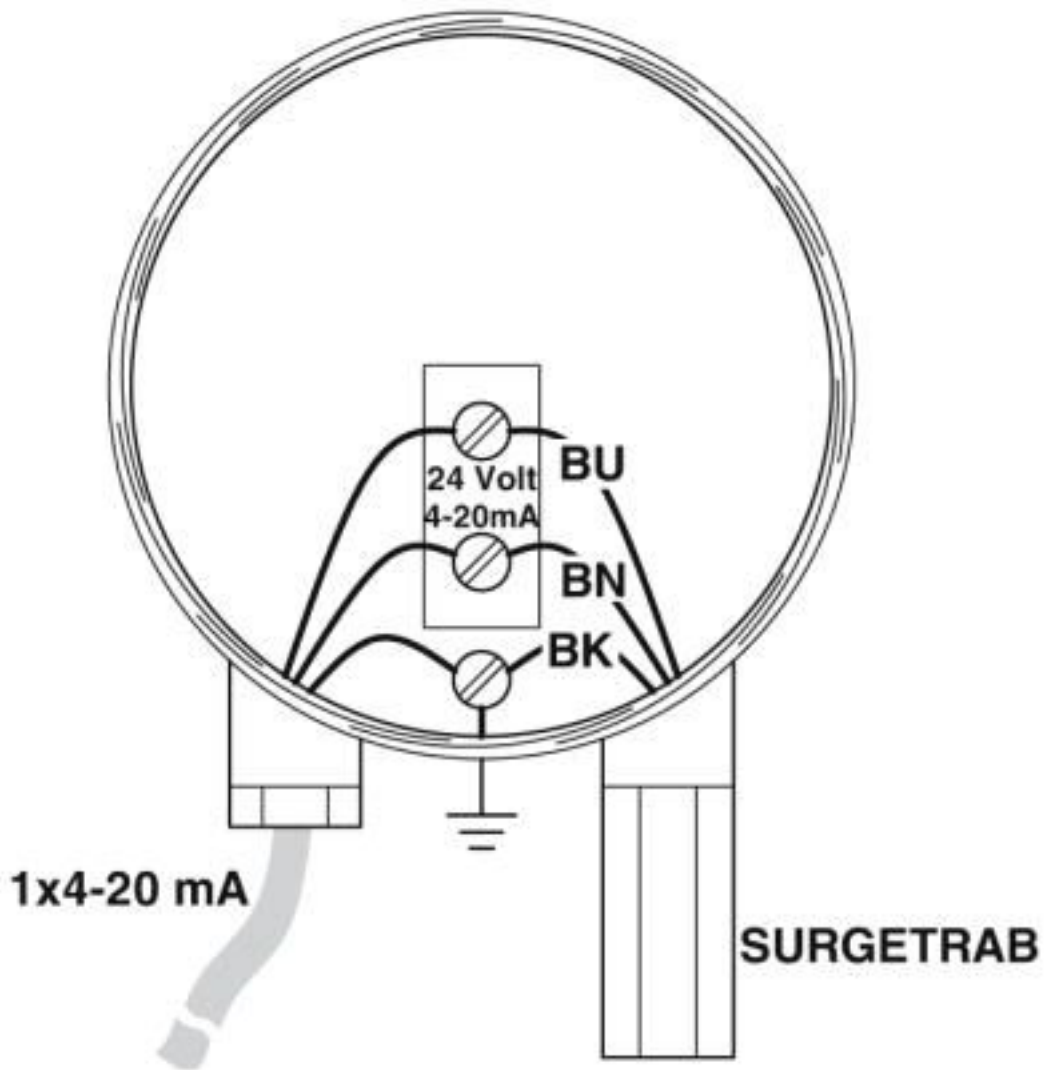
Technical data

Environmental Product Compliance

	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"
--	---

Drawings

Application drawing

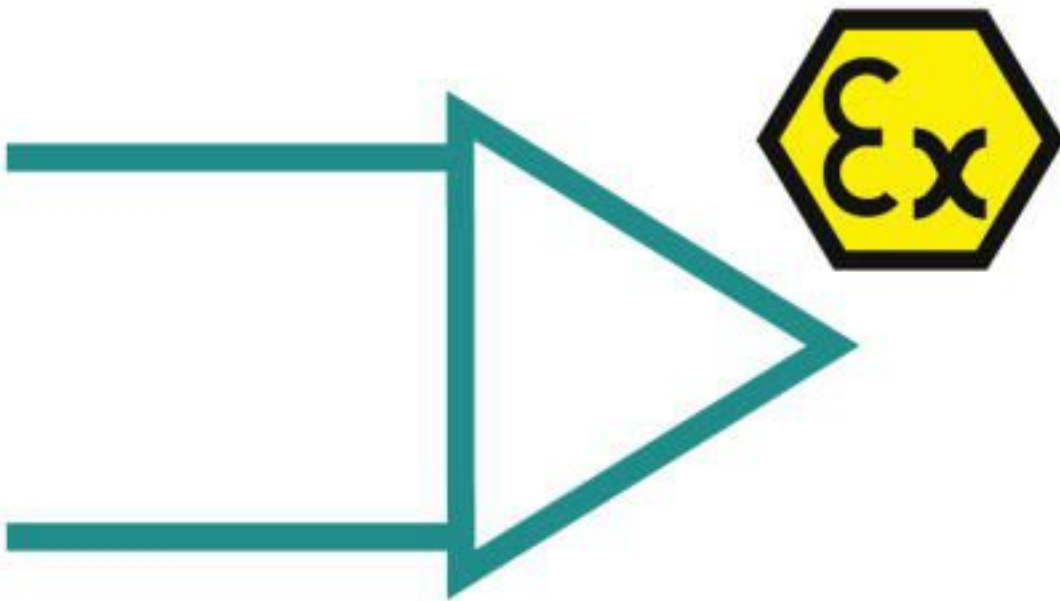


Surge protection device - S-PT-EX-48DC - 2800053

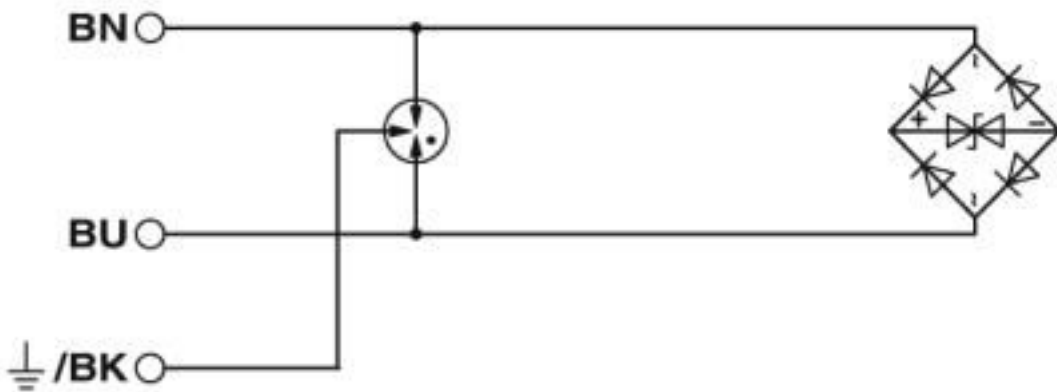
Dimensional drawing



Pictogram



Circuit diagram



Surge protection device - S-PT-EX-48DC - 2800053

Classifications

eCl@ss

eCl@ss 10.0.1	27130807
eCl@ss 4.0	27130800
eCl@ss 4.1	27130800
eCl@ss 5.0	27130800
eCl@ss 5.1	27130800
eCl@ss 6.0	27130800
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807
eCl@ss 9.0	27130807

ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943
ETIM 6.0	EC000943
ETIM 7.0	EC000943

UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620
UNSPSC 18.0	39121620
UNSPSC 19.0	39121620
UNSPSC 20.0	39121620
UNSPSC 21.0	39121620

Approvals

Approvals

Approvals

EAC

Ex Approvals

IECEX / ATEX / EAC Ex

Approval details

Surge protection device - S-PT-EX-48DC - 2800053

Approvals

EAC



RU C-
DE.*09.B.00169

Phoenix Contact 2020 © - all rights reserved
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstr. 8
32825 Blomberg
Germany
Tel. +49 5235 300
Fax +49 5235 3 41200
<http://www.phoenixcontact.com>

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Surge Suppressors](#) category:

Click to view products by [Phoenix Contact](#) manufacturer:

Other Similar products are found below :

[GUS1](#) [GUS12](#) [BSPM1A600D600LVR](#) [2800521](#) [29-2053](#) [GUS11](#) [GUS2](#) [GUS3](#) [GUS4](#) [30460](#) [SRA64C060X](#) [PC642C015](#) [1810-15-A3](#)
[2713175](#) [4B06B-EC1-150LF](#) [SRA6LC](#) [BPMA75D100LV](#) [CX06M](#) [CCTV1](#) [GUS13](#) [GUS14](#) [GUS5](#) [GUS6](#) [VAL-MS 320/3+0-FM](#) [VAL-US-](#)
[120/40/1+1-FM](#) [VAL-US-120/65/1+1-FM](#) [VAL-US-480D/30/3+0-FM](#) [VAL-US-120/40/1+0-FM](#) [STCHSP121BT1RU](#) [LP-BFDN-CW](#) [LP-](#)
[STRL-NFF](#) [LP-STRL-DFE](#) [GUS22](#) [0804111](#) [5053609](#) [5053201](#) [SPD2-150-1P0](#) [SPD2-550-1P0](#) [6720005416](#) [6720005417](#) [1-2191595-2](#)
[STC-CAT6-P0E-I](#) [SPD2-350-1P0](#) [FLT-CP-350-ST](#) [TTC-6P-3-HF-F-M-12DC-UT-I](#) [SMTPA200](#) [2800989](#) [2906776](#) [2906810](#) [2906847](#)