

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

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.



Surge protection, consisting of protective plug and base element, with integrated multi-stage status indicator on the module for three signal wires with common reference potential. For HF applications and telecommunications interfaces without supply voltage (up to 90 Mbps).

Your advantages

- Predictive monitoring with 3-stage LED display
- Integration of the status message into the system controller via group remote signaling
- Install quickly and error-free with DIN rail connectors
- Maximum ease of maintenance, thanks to the 2-piece design
- Maximum protection for MCR applications with high discharge capacity

Commercial data

Item number	2800785
Packing unit	1 pc
Minimum order quantity	1 pc
Product key	CL2151
Catalog page	Page 176 (C-4-2019)
GTIN	4046356645232
Weight per piece (including packing)	110 g
Weight per piece (excluding packing)	110.2 g
Customs tariff number	85363010
Country of origin	DE

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

Technical data

Notes

General

Note	Remote signaling as well as the power supply of the DIN rail connector are established by snapping the module into place on the DIN rail connector.
------	---

Product properties

Product type	Surge protection for information technology
Product family	PLUGTRAB IQ
IEC test classification	C1
	C2
	C3
	D1
Type	DIN rail module, two-section, divisible
Surge protection fault message	Optical, multi-stage

Insulation characteristics

Overvoltage category	III
Pollution degree	2

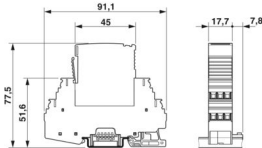
Electrical properties

Nominal voltage U_N	5 V DC
-----------------------	--------

Connection data

Connection method	Screw connection
Screw thread	M3
Tightening torque	0.5 Nm
Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section rigid	0.2 mm² ... 4 mm²
Conductor cross section AWG	24 ... 12

Dimensions

Dimensional drawing	
Width	17.7 mm
Height	91.1 mm
Depth	77.5 mm (incl. DIN rail 7.5 mm)
Horizontal pitch	1 Div.

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

Material specifications

Color	black (RAL 9005)
	black (RAL 9005)
Flammability rating according to UL 94	V-0
Housing material	PA 6.6

Mechanical properties

Mechanical data

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

Protective circuit

Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground
Maximum continuous voltage U_C	6 V DC
	4 V AC
Rated current	600 mA (40 °C)
Operating effective current I_C at U_C	$\leq 800 \mu A$ (per path)
Residual current I_{PE}	$\leq 800 \mu A$ (per path)
Nominal discharge current I_n (8/20) μs (line-line)	10 kA
Nominal discharge current I_n (8/20) μs (line-ground)	10 kA
Pulse discharge current I_{imp} (10/350) μs (line-earth)	2.5 kA
Pulse discharge current I_{imp} (10/350) μs (line-signalground)	2.5 kA
Total discharge current I_{total} (8/20) μs	20 kA
Voltage protection level U_p (line-line)	$\leq 90 V$ (C1 - 1 kV / 500 A)
	$\leq 140 V$ (C2 - 10 kV / 5 kA)
	$\leq 30 V$ (C3 - 25 A)
	$\leq 30 V$ (C3 - 50 A)
Voltage protection level U_p (line-earth)	$\leq 90 V$ (C1 - 1 kV / 500 A)
	$\leq 140 V$ (C2 - 10 kV / 5 kA)
	$\leq 30 V$ (C3 - 25 A)
	$\leq 30 V$ (C3 - 50 A)
Voltage protection level U_p static (line-line)	$\leq 45 V$ (C1 - 1 kV / 500 A)
Voltage protection level U_p static (line-earth)	$\leq 45 V$ (C1 - 1 kV / 500 A)
Response time t_A (line-line)	$\leq 1 ns$
Response time t_A (line-earth)	$\leq 1 ns$
Input attenuation aE, sym.	typ. 0.3 dB ($\leq 10 MHz/150 \Omega$)
Input attenuation aE, asym.	typ. 0.3 dB ($\leq 10 MHz/150 \Omega$)
Cut-off frequency f_g (3 dB), sym. in 150 Ω system	typ. 60 MHz
Cut-off frequency f_g (3 dB), asym. (signal ground) in 150 Ω system	typ. 60 MHz
Capacity (Core-Core)	typ. 30 pF
Capacity (line-signalground)	typ. 30 pF
Resistance per path	1.2 $\Omega \pm 5 \%$

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

Surge protection fault message	Optical, multi-stage
Max. required back-up fuse	600 mA (FF)
Impulse durability (line-line)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 50 A
Impulse durability (line-earth)	C1 - 1 kV / 500 A
	C2 - 10 kV / 5 kA
	C3 - 50 A
	D1 - 2.5 kA
Pulse reset time (line-line)	≤ 10 ms
Pulse reset time (line-earth)	≤ 10 ms

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 4000 m (amsl)
Permissible humidity (operation)	5 % ... 95 %

Standards and regulations

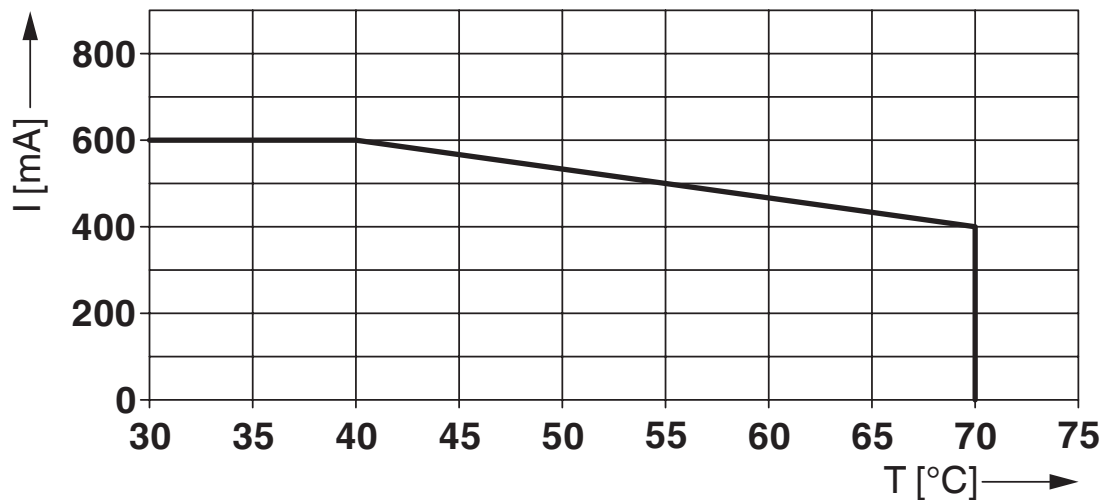
Standards/specifications	IEC 61643-21
Note	2000 + A1:2008 + A2:2012
Standards/specifications	EN 61643-21
Note	2001 + A1:2009
Standards/specifications	EN 61000-6-2
Note	2007 + A1:2011
Standards/specifications	EN 61000-6-3
Note	2005

Mounting

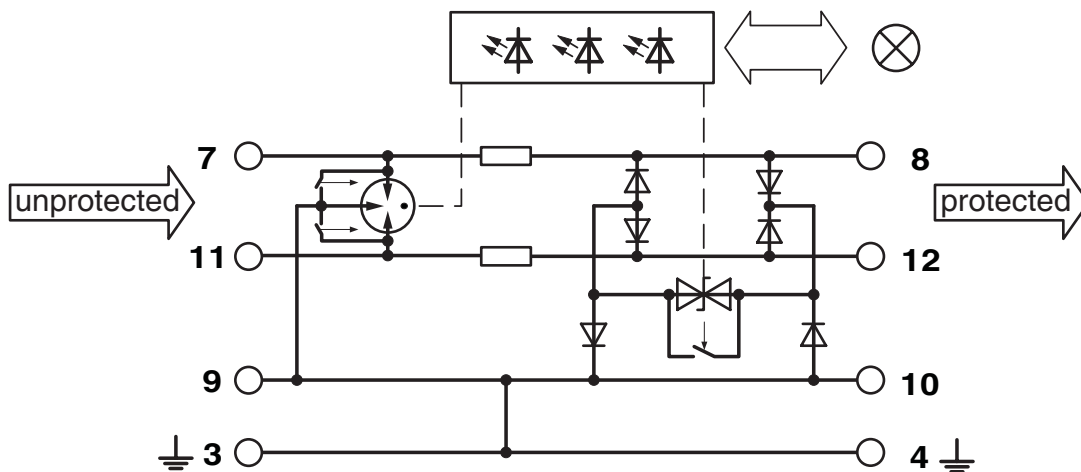
Mounting type	DIN rail: 35 mm
---------------	-----------------

Drawings

Diagram



Circuit diagram



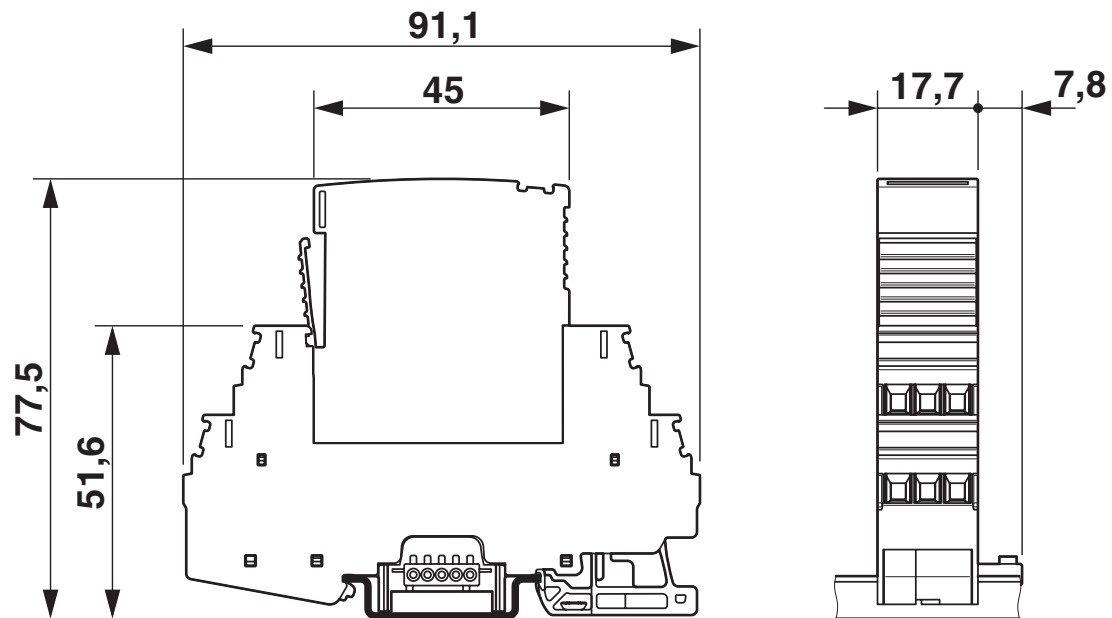
PT-IQ-3-PB-UT - Surge protection device

2800785

<https://www.phoenixcontact.com/pc/products/2800785>



Dimensional drawing



PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

Approvals

🔗 To download certificates, visit the product detail page: <https://www.phoenixcontact.com/pc/products/2800785>



UL Listed

Approval ID: FILE E 138168

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

Classifications

ECLASS

ECLASS-11.0	27130807
ECLASS-13.0	27171503

ETIM

ETIM 9.0	EC001466
----------	----------

UNSPSC

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

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I
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	9ce09b60-19d2-426f-9a3a-acb0ba73b1ec

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

Mandatory accessories

PT-IQ-PTB-UT - Supply and remote module

2800768

<https://www.phoenixcontact.com/pc/products/2800768>



Module for power supply and multi-stage, floating remote signaling of connected surge protection modules.

Accessories

X-PEN 0,35 - Marker pen

0811228

<https://www.phoenixcontact.com/pc/products/0811228>



Marker pen without ink cartridge, for manual labeling of markers, labeling extremely wipe-proof, line thickness 0.35 mm

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

ZBF 5:UNBEDRUCKT - Zack Marker strip, flat

0808642

<https://www.phoenixcontact.com/pc/products/0808642>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.1 x 5.2 mm, Number of individual labels: 10

ZBF 5/WH-100:UNBEDRUCKT - Zack Marker strip, flat

0808668

<https://www.phoenixcontact.com/pc/products/0808668>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 1000

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

ZBF 5,LGS:FORTL.ZAHLEN - Zack Marker strip, flat

0808671

<https://www.phoenixcontact.com/pc/products/0808671>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

ZBF 5,LGS:GERADE ZAHLEN - Zack Marker strip, flat

0810821

<https://www.phoenixcontact.com/pc/products/0810821>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: consecutive even numbers 2 ... 20, 22 ... 40, etc. up to 82 ... 100, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

ZBF 5,LGS:UNGERADE ZAHLEN - Zack Marker strip, flat

0810863

<https://www.phoenixcontact.com/pc/products/0810863>



Zack Marker strip, flat, Strip, white, labeled, printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

ZBF 5,QR:FORTL.ZAHLEN - Zack Marker strip, flat

0808697

<https://www.phoenixcontact.com/pc/products/0808697>



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 100, mounting type: snapped, for terminal block width: 5 mm, lettering field size: 5.15 x 5.15 mm, Number of individual labels: 10

PT-IQ-3-PB-UT - Surge protection device

2800785

<https://www.phoenixcontact.com/pc/products/2800785>



ZBN 18:UNBEDRUCKT - Zack marker strip

2809128

<https://www.phoenixcontact.com/pc/products/2809128>



Zack marker strip, Strip, white, unlabeled, can be labeled with: CMS-P1-PLOTTER, PLOTMARK, mounting type: snapped, for terminal block width: 18 mm, lettering field size: 18 x 5 mm, Number of individual labels: 5

E/ME TBUS NS35 GY - End bracket

2713780

<https://www.phoenixcontact.com/pc/products/2713780>



End clamp, stable construction for DIN rail bus connector

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

FK-MC 0,5/ 5-ST-2,5 - PCB connector

1881354

<https://www.phoenixcontact.com/pc/products/1881354>



PCB connector, nominal cross section: 0.5 mm², color: green, nominal current: 4 A, rated voltage (III/2): 160 V, contact surface: Tin, contact connection type: Socket, number of potentials: 5, number of rows: 1, number of positions: 5, number of connections: 5, product range: FK-MC 0,5/...-ST, pitch: 2.5 mm, connection method: Push-in spring connection, conductor/PCB connection direction: 0 °, plug-in system: COMBICON FK-MC 0,5, locking: without, mounting: without, type of packaging: packed in cardboard

SSA 3-6 - Shield connection

2839295

<https://www.phoenixcontact.com/pc/products/2839295>



Shield fast connection for 3 ... 6 mm cable diameter. Potential connecting cable: 200 mm, 1 mm², color: black

PT-IQ-3-PB-UT - Surge protection device



2800785

<https://www.phoenixcontact.com/pc/products/2800785>

SSA 5-10 - Shield connection

2839512

<https://www.phoenixcontact.com/pc/products/2839512>



Shield fast connection for 5 ... 10 mm cable diameter. Potential connecting cable:
200 mm, 1 mm², color: black

PT-IQ-3-PB-P - Surge protection plug

2800783

<https://www.phoenixcontact.com/pc/products/2800783>



Surge protection plug with integrated multi-stage status indicator on the module
for three signal wires. For HF applications. Nominal voltage: 5 V DC

Phoenix Contact 2024 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstraße 8
D-32825 Blomberg
+49 (0) 5235-3 00
info@phoenixcontact.com