

## Surge protection plug - PT 2X1-5DC/FM-ST - 2920104

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 plug with integrated diagnostic and status indicator on the module and remote indication contact for two signal wires with common reference potential. Nominal voltage: 5 V DC

### Product Features

- ✓ Plugs can be checked with CHECKMASTER
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Base element remains an integral part of the installation
- ✓ Permanent and independent monitoring by a diagnostics unit
- ✓ With floating remote indication contact
- ✓ Consistent plug-in signal circuit protection
- ✓ Optical status indication for the individual arresters
- ✓ Impedance-neutral disconnection of plug for test and maintenance purposes



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	30.0 GRM
Custom tariff number	85369010
Country of origin	Germany

### Technical data

#### Dimensions

Height	45 mm
Width	17.7 mm
Depth	52 mm
Horizontal pitch	1 Div.
Complete module height	90 mm

## Surge protection plug - PT 2X1-5DC/FM-ST - 2920104

### Technical data

#### Dimensions

Complete module width	17.7 mm
Complete module depth	65.5 mm

#### Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Degree of protection	IP20

#### General

Housing material	PA 6.6
Inflammability class according to UL 94	V0
Color	black
Standards for air and creepage distances	VDE 0110-1
	IEC 60664-1
Mounting type	On base element
Type	DIN rail module, two-section, divisible
Direction of action	Line-Line & Line-Signal Ground/Shield & optional Signal Ground/Shield-Earth Ground

#### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage $U_N$	5 V DC
Maximum continuous operating voltage $U_C$	6 V DC
	4 V AC
Maximum continuous voltage $U_C$ (wire-ground)	6 V DC
	4 V AC
Nominal current $I_N$	300 mA (45°C)
Operating effective current $I_C$ at $U_C$	$\leq 1$ mA
Residual current $I_{PE}$	$\leq 1$ $\mu$ A (BE: 2x1+F)
	$\leq 2$ mA (Directly grounded)
Nominal discharge current $I_n$ (8/20) $\mu$ s (Core-Earth)	10 kA
Total surge current (8/20) $\mu$ s	20 kA
Max. discharge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Earth)	10 kA

## Surge protection plug - PT 2X1-5DC/FM-ST - 2920104

### Technical data

#### Protective circuit

Nominal pulse current $I_{an}$ (10/1000) $\mu$ s (Core-Earth)	145 A (25°C / 1x)
	50 A (25 °C)
Impulse discharge current (10/350) $\mu$ s, peak value $I_{imp}$	2.5 kA (per path)
Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) spike	$\leq 14$ V
	$\leq 600$ V (BE: 2x1+F)
Output voltage limitation at 1 kV/ $\mu$ s (Core-GND) spike	$\leq 14$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) static	$\leq 11$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-GND) static	$\leq 11$ V
Residual voltage at $I_n$ , (conductor-ground)	$\leq 10$ V
Residual voltage with $I_{an}$ (10/1000) $\mu$ s (conductor-ground)	$\leq 12$ V
Voltage protection level $U_p$ (Core-Earth)	$\leq 11$ V (C1 (500 V/250 A))
	$\leq 10$ V (C3 - 25 A)
Voltage protection level $U_p$ (Core-GND)	$\leq 11$ V (C1 (500 V/250 A))
	$\leq 10$ V (C3 - 25 A)
Response time $t_A$ (Core-Earth)	$\leq 1$ ns
Input attenuation $a_E$ , asym.	typ. 0.5 dB ( $\leq 200$ kHz / 50 $\Omega$ )
	typ. 0.2 dB ( $\leq 100$ kHz / 150 $\Omega$ )
Cut-off frequency $f_g$ (3 dB), asym. (GND) in 50 Ohm system	typ. 1 MHz
Cut-off frequency $f_g$ (3 dB), asym. (GND) in 150 Ohm system	typ. 0.4 MHz
Resistance in series	4.7 $\Omega$ (7-8/11-12)
Max. required back-up fuse	315 mA (e.g. T ( IEC 127-2/III))
Surge current resistance (conductor-ground)	C2 - 10 kV/5 kA
	D1 - 2,5 kA
	C3 (25 A)
Alternating current carrying capacity (conductor-ground)	5 A - 1 s

#### Connection data

Connection method	Screw connection (in connection with the base element)
Connection type IN	PLUGTRAB plug-in system
Connection type OUT	PLUGTRAB plug-in system
Screw thread	M3
Tightening torque	0.8 Nm
Stripping length	8 mm
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	4 mm <sup>2</sup>

# Surge protection plug - PT 2X1-5DC/FM-ST - 2920104

## Technical data

### Connection data

Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	12

### Standards and Regulations

Standards/regulations	IEC 61643-21
	DIN EN 61643-21

## Classifications

### eCl@ss

eCl@ss 4.0	27140201
eCl@ss 4.1	27130801
eCl@ss 5.0	27130801
eCl@ss 5.1	27130801
eCl@ss 6.0	27130807
eCl@ss 7.0	27130807
eCl@ss 8.0	27130807

### ETIM

ETIM 2.0	EC000943
ETIM 3.0	EC000943
ETIM 4.0	EC000943
ETIM 5.0	EC000943

### UNSPSC

UNSPSC 6.01	30212010
UNSPSC 7.0901	39121610
UNSPSC 11	39121610
UNSPSC 12.01	39121610
UNSPSC 13.2	39121620

## Approvals

### Approvals

---

Approvals

UL Listed / GOST

---

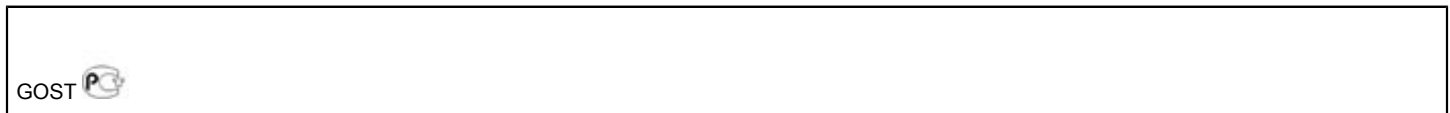
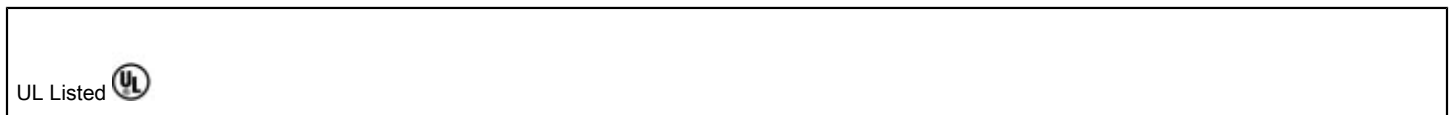
# Surge protection plug - PT 2X1-5DC/FM-ST - 2920104

## Approvals

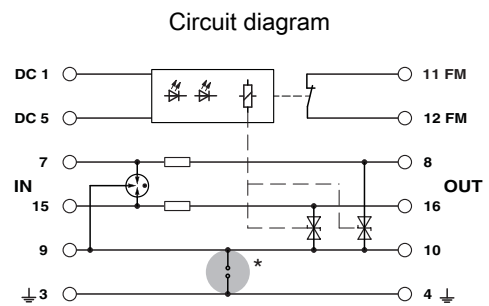
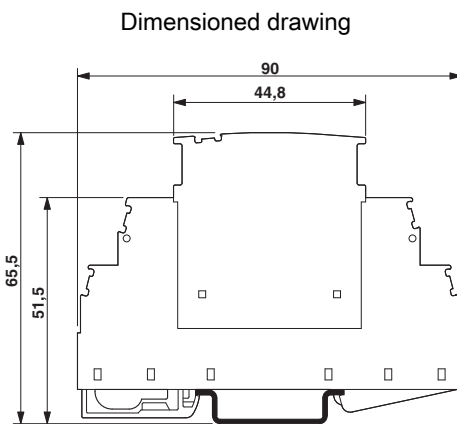
Ex Approvals

Approvals submitted

## Approval details



## Drawings



The figure shows the complete module consisting of a base element and connector

## Surge protection plug - PT 2X1-5DC/FM-ST - 2920104

Catalog photo

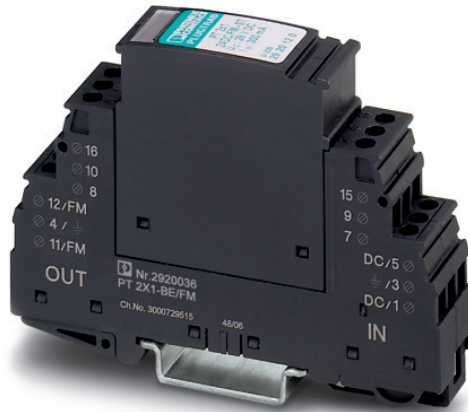


Figure may contain other products.

---

Phoenix Contact 2014 © - all rights reserved  
<http://www.phoenixcontact.com>



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.