

## Surge protection plug - PT 4X1-24AC-ST - 2838351

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>)



Protective plug PT with protective circuit for 4 conductors of signal circuits grounded on one side. Nominal voltage: 24 V AC

### Product Features

- ✓ Plugs can be checked with CHECKMASTER
- ✓ Installed in conjunction with the PT 4x1...-BE base element
- ✓ Maximum ease of maintenance thanks to the two-piece design
- ✓ Base element remains an integral part of the installation
- ✓ Consistent plug-in signal circuit protection
- ✓ Protection for four conductors with common reference potential
- ✓ Impedance-neutral disconnection of plug for test and maintenance purposes



### Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	25.96 GRM
Custom tariff number	85363010
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 4X1-24AC-ST - 2838351

## 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
Arrester can be tested with CHECKMASTER from software version:	From SW rev. 1.00

### Protective circuit

IEC test classification	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
	D1
Nominal voltage $U_N$	24 V AC
Maximum continuous operating voltage $U_C$	40 V DC
	28 V AC
Maximum continuous voltage $U_C$ (wire-ground)	40 V DC
	28 V AC
Nominal current $I_N$	300 mA (45°C)
Operating effective current $I_C$ at $U_C$	$\leq 5 \mu A$
Residual current $I_{PE}$	$\leq 1 \mu A$ (BE: 4x1+F)
	$\leq 20 \mu A$ (Directly grounded)
Nominal discharge current $I_n$ (8/20) $\mu s$ (Core-Earth)	10 kA
Total surge current (8/20) $\mu s$	20 kA

# Surge protection plug - PT 4X1-24AC-ST - 2838351

## Technical data

### Protective circuit

Max. discharge current $I_{max}$ (8/20) $\mu$ s maximum (Core-Earth)	10 kA
Nominal pulse current $I_{an}$ (10/1000) $\mu$ s (Core-Earth)	23 A
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	$\leq 60$ V
Output voltage limitation at 1 kV/ $\mu$ s (Core-Earth) static	$\leq 55$ V
Residual voltage at $I_n$ , (conductor-ground)	$\leq 55$ V
Voltage protection level $U_p$ (Core-Earth)	$\leq 100$ V (C2 (10 kV/5 kA))
Response time $t_A$ (Core-Earth)	$\leq 1$ ns
Input attenuation $a_E$ , asym.	0.5 dB ( $\leq 1.5$ MHz)
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 50 Ohm system	typ. 8 MHz
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 150 Ohm system	typ. 3 MHz
Cut-off frequency $f_g$ (3 dB), asym. (PE) in 600 Ohm system	typ. 800 kHz
Capacity (Core-Earth)	1.1 nF
Resistance in series	4.7 $\Omega$ 10 % (Path 1-2/5-6)
	4.7 $\Omega$ 10 % (Path 7-8, 11-12)
Surge protection fault message	None
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

### 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

### Standards and Regulations

Standards/regulations	IEC 61643-21
	DIN EN 61643-21
	UL 497B

## 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

# Surge protection plug - PT 4X1-24AC-ST - 2838351

## Classifications

### eCl@ss

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

---

#### Ex Approvals


UL Listed / cUL Listed / cULus Listed

---

#### Approvals submitted

---

## Approval details

UL Listed 	
Nominal current IN	0.3 A
Nominal voltage UN	34 V

## Surge protection plug - PT 4X1-24AC-ST - 2838351

### Approvals



### Accessories

#### Accessories

#### Device marking

Zack marker strip - ZBN 18:UNBEDRUCKT - 2809128



Zack marker strip, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into tall marker groove, for terminal block width: 18 mm, Lettering field: 18 x 5 mm

#### Labeled terminal marker

Zack Marker strip, flat - ZBF 5,LGS:FORTL.ZAHLEN - 0808671



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 1 - 10, 11 - 20, etc. up to 491 - 500, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:GERADE ZAHLEN - 0810821



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Consecutive numbers 2 - 20, 22 - 40, etc. up to 82 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

Zack Marker strip, flat - ZBF 5,LGS:UNGERADE ZAHLEN - 0810863



Zack Marker strip, flat, Strip, white, labeled, Printed horizontally: Odd numbers 1 - 19, 21 - 39, etc. up to 81 - 99, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

## Surge protection plug - PT 4X1-24AC-ST - 2838351

### Accessories

Zack Marker strip, flat - ZBF 5,QR:FORTL.ZAHLEN - 0808697



Zack Marker strip, flat, Strip, white, labeled, Printed vertically: Consecutive numbers 1 - 10, 11 - 20, etc. up to 91 - 100, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

---

### Marker pen

Marker pen - X-PEN 0,35 - 0811228



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

---

### Terminal marking

Zack Marker strip, flat - ZBF 5:UNBEDRUCKT - 0808642



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.1 x 5.2 mm

Zack Marker strip, flat - ZBF 5/WH-100:UNBEDRUCKT - 0808668



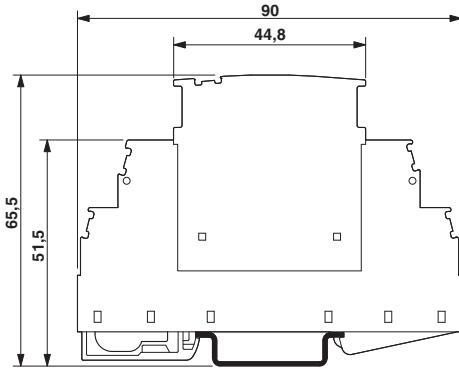
Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: Plotter, Mounting type: Snap into flat marker groove, for terminal block width: 5 mm, Lettering field: 5.15 x 5.15 mm

---

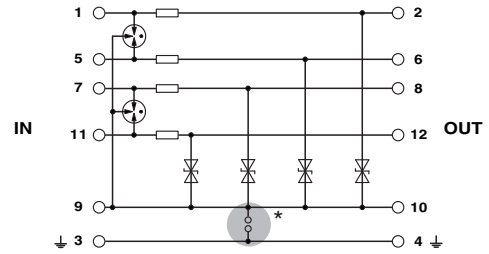
### Drawings

# Surge protection plug - PT 4X1-24AC-ST - 2838351

Dimensioned drawing



Circuit diagram



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

Application photo



Figure may contain other products.

Application photo



Figure may contain other products.

## Surge protection plug - PT 4X1-24AC-ST - 2838351

Catalog photo



Figure may contain other products.

---

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