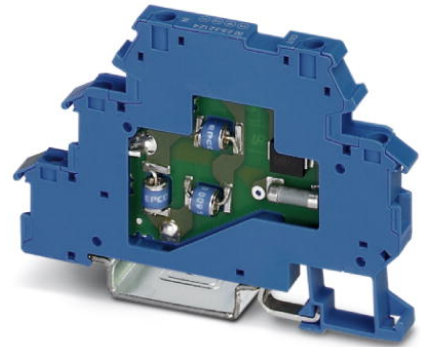


# TT-EX(I)- 24DC

Order No.: 2832124

<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2832124>

Modular terminal block with three-stage surge protection for a floating Ex-i signal circuit, separate PE connection, nominal voltage: 24 V DC, for mounting on NS 35/7.5, terminal block width: 6.2 mm, terminal block height: 54.6 mm



Commercial data	
GTIN (EAN)	4017918172831
sales group	J305
Pack	10 pcs.
Customs tariff	85363010
Weight/Piece	0.02567 KG
Catalog page information	Page 101 (TT-2009)

**Product notes**

WEEE/RoHS-compliant since:  
06/28/2006



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

**Technical data****General**

Housing material	PA 6.6
Inflammability class acc. to UL 94	V2
Color	blue

Standards for air and creepage distances	EN 50020
	VDE 0110-1
	DIN EN 60079-11
Ambient temperature (operation)	-40 °C ... 85 °C
Mounting type	DIN rail: 35 mm
Design	Double-level terminal block with PE foot – separate PE connection
Degree of protection	IP20
Direction of action	Line-Line & Line-Earth Ground
Width	6.20 mm
Height	54.60 mm
Length	79.60 mm
<b>Protective circuit</b>	
IEC category	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
Nominal voltage $U_N$	24 V DC
	17 V AC
Max. operating voltage $U_{max}$	30 V DC
	21 V AC
Arrester rated voltage $U_C$	30 V DC
	21 V AC
Arrester rated voltage $U_C$ (Core-Core)	30 V DC
	21 V AC
Nominal current $I_N$	250 mA (40°C)
Operating effective current $I_C$ at $U_C$	$\leq 5 \mu A$
Ground conductor current $I_{PE}$	$\leq 1 \mu A$
Nominal discharge surge current $I_n$ (8/20) $\mu s$ (Core-Core)	5 kA
Nominal discharge surge current $I_n$ (8/20) $\mu s$ (Core-Earth)	5 kA

Max. discharge surge current $I_{max}$ (8/20) $\mu s$ maximum (Core-Core)	5 kA
Max. discharge surge current $I_{max}$ (8/20) $\mu s$ maximum (Core-Earth)	5 kA (per path)
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Core)	100 A
Nominal pulse current $I_{an}$ (10/1000) $\mu s$ (Core-Earth)	100 A (per path)
Lightning test current (10/350) $\mu s$ , peak value $I_{imp}$	500 A (per path)
Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) spike	$\leq 44$ V
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) spike	$\leq 1.5$ kV
Output voltage limitation at 1 kV/ $\mu s$ (Core-Core) static	$\leq 44$ V
Output voltage limitation at 1 kV/ $\mu s$ (Core-Earth) static	$\leq 1.5$ kV
Residual voltage at $I_n$ , (conductor-conductor)	$\leq 40$ V
Protection level $U_p$ (Core-Core)	$\leq 70$ V (C2 (10 kV/5 kA))
Protection level $U_p$ (Core-Earth)	$\leq 1.5$ kV (C2 (10 kV/5 kA))
Response time $t_A$ (Core-Core)	$\leq 1$ ns
Response time $t_A$ (Core-Earth)	$\leq 100$ ns
Input attenuation aE, sym.	1 dB ( $\leq 1$ MHz)
Cut-off frequency $f_g$ (3 dB), sym. in 50 Ohm system	Typ. 6 MHz
Cut-off frequency $f_g$ (3 dB), sym. in 150 Ohm system	Typ. 2 MHz
Capacity (Core-Core)	2.5 nF
Resistance in series	4.7 $\Omega$ $\pm 10$ %
	4.7 $\Omega$
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA)
	D1 (500 A)

**Connection data**

Type of connection	Screw terminal blocks
Connection type IN	Screw terminal blocks
Connection type OUT	Screw terminal blocks

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.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14

#### Connection, protective circuit

Standards/regulations	IEC 61643-21
	EN 50020

#### General

Maximum inner capacitance C <sub>i</sub>	2 nF
Maximum inner inductance L <sub>i</sub>	1 µH
Maximum inner time factor (R <sub>i</sub> /L <sub>i</sub> )	0.1 µs
Insulation voltage to ground	500 V 10 %

#### Conformity / approvals

ATEX	Ex II 1G, Ex ia IIC T4...T6
	Ex II 1 D, Ex iaD 20 T95...135 °C

#### Certificates / Approvals



Certification	GOST, UCIEE, UL
Certification Ex:	CUL-EX LIS, KEMA-EX, UL-EX LIS

#### Accessories

Item	Designation	Description
2838982	D-DEK 1,5 BU	Cover for setting the end of a TERMITRAB TT-EX(I)... row of terminal blocks, color: blue

#### Assembly

**Additional products**

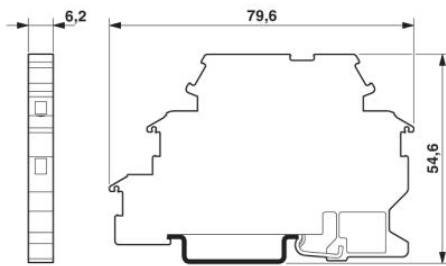
Item	Designation	Description
------	-------------	-------------

**Assembly**

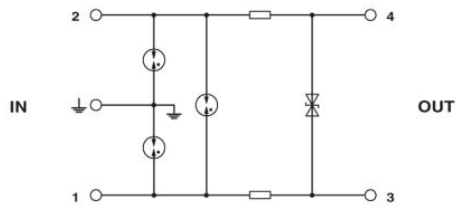
2838982	D-DEK 1,5 BU	Cover for setting the end of a TERMITRAB TT-EX(I)... row of terminal blocks, color: blue
---------	--------------	--

**Diagrams/Drawings**

Dimensioned drawing



Circuit diagram



**Address**

PHOENIX CONTACT Inc., USA  
586 Fulling Mill Road  
Middletown, PA 17057, USA  
Phone (800) 888-7388  
Fax (717) 944-1625  
<http://www.phoenixcon.com>



© 2010 Phoenix Contact  
Technical modifications reserved;