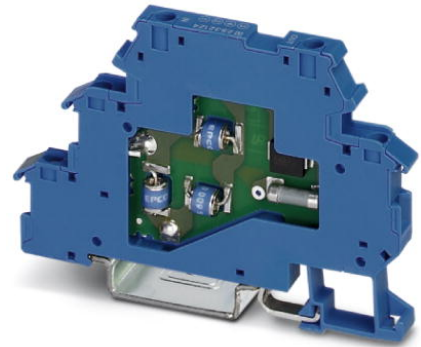



TT-EX(I)- 24DC

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)	 4 017918 172831
sales group	J305
Pack	10 pcs.
Customs tariff	85363010
Catalog page information	Page 101 (TT-2009)

Product notesWEEE/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	V0
Color	blue

Standards for air and creepage distances	EN 50020
	VDE 0110-1
	DIN EN 60079-11
Total surge current (8/20) μ s	10 kA
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

Protective circuit

IEC category	C1
	C2
	C3
	D1
VDE requirement class	C1
	C2
	C3
Nominal voltage U_N	24 V DC
	17 V AC
Maximum continuous operating voltage U_C	30 V DC
	21 V AC
Maximum continuous voltage U_C (wire-wire)	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) μ s (Core-Core)	5 kA
Nominal discharge surge current I_n (8/20) μ s (Core-Earth)	5 kA
Total surge current (8/20) μ s	10 kA

Max. discharge surge current I_{max} (8/20) μs maximum (Core-Core)	5 kA
Max. discharge surge current I_{max} (8/20) μs maximum (Core-Earth)	5 kA (per path)
Nominal pulse current I_{an} (10/1000) μs (Core-Core)	100 A
Nominal pulse current I_{an} (10/1000) μs (Core-Earth)	100 A (per path)
Lightning test current (10/350) μs , peak value I_{imp}	500 A (per path)
Output voltage limitation at 1 kV/ μs (Core-Core) spike	≤ 50 V
Output voltage limitation at 1 kV/ μs (Core-Earth) spike	≤ 1.7 kV
Output voltage limitation at 1 kV/ μs (Core-Core) static	≤ 50 V
Output voltage limitation at 1 kV/ μs (Core-Earth) static	≤ 1.7 kV
Residual voltage at I_n , (conductor-conductor)	≤ 40 V
Protection level U_p (Core-Core)	≤ 75 V (C2 (10 kV/5 kA)) ≤ 50 V (C3 - 25 A)
Protection level U_p (Core-Earth)	≤ 2 kV (C2 - 10 kV / 5 kA)
Response time t_A (Core-Core)	≤ 1 ns
Response time t_A (Core-Earth)	≤ 100 ns
Input attenuation aE, sym.	1 dB (≤ 1 MHz) 0.3 dB (≤ 200 kHz / 150 Ω)
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 Ω
Surge carrying capacity in acc. with IEC 61643-21 (Core-Core)	C2 (10 kV/5 kA) C1 (1 kV / 500 A) C3 (25 A)
Surge carrying capacity in acc. with IEC 61643-21 (Core-Earth)	C2 (10 kV/5 kA) C3 (25 A) 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 ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	4 mm ²
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 _i	2 nF
Maximum inner inductance L _i	1 µH
Maximum inner time factor (R _i /L _i)	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

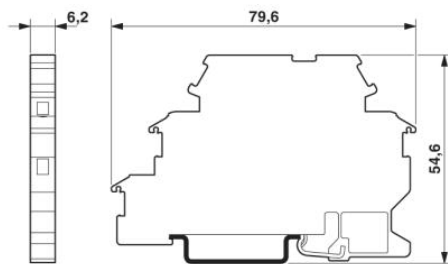
Item	Designation	Description
Assembly		
2838982	D-DEK 1,5 BU	Cover for setting the end of a TERMITRAB TT-EX(I)... row of terminal blocks, color: blue

Additional products

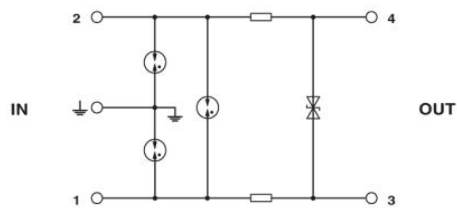
Item	Designation	Description
Assembly		
2838982	D-DEK 1,5 BU	Cover for setting the end of a TERMITRAB TT-EX(I)... row of terminal blocks, color: blue

Diagrams/Drawings

Dimensioned drawing



Circuit diagram



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