

Surge Protective Device (SPD)



【Factory video @Youtube】

CZYB-E09.02/2022.07

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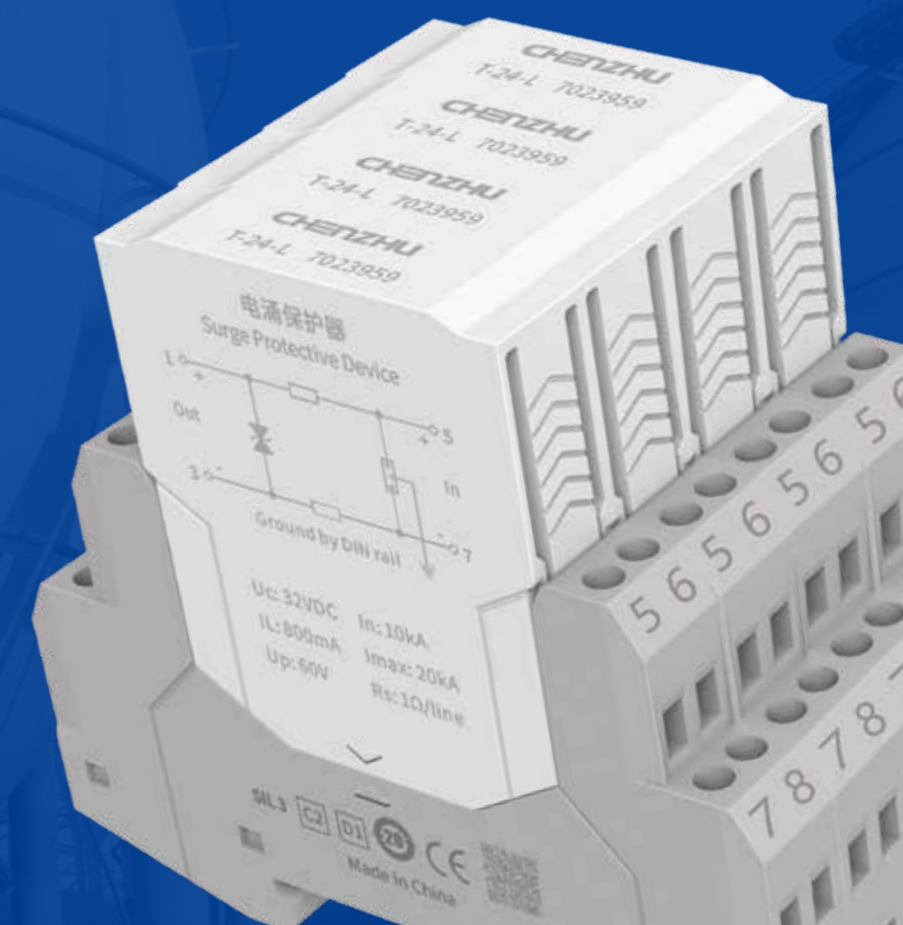
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<https://en.chenzhu-inst.com/>



CHENZHU COMPANY OVERVIEW



CHENZHU's headquarter is located at Shanghai, China, with an area of 8500m².

Shanghai Chenzhu Instrument Co., Ltd. was founded in April, 2002, who was originated from Shanghai Institute of Process Automation Instrumentation. CHENZHU is a professional company with core expertise of R&D, manufacturing and sale service of high quality safety products, such as isolated barriers, signal conditioners, surge protective devices, safety relays etc.

MANAGEMENT SYSTEMS



ISO9001



ISO14001



ISO45001



IECEx QUALITY ASSESSMENT

R&D Strength

Based on ISO/IEC/GB standards, CHENZHU has established the professional laboratory which is applied up to 70 test capabilities and verification items in CHENZHU's safety electrical products' development process.



R&D Team

28%
Work Force



R&D Investment

11%
of Sale Revenue



Innovation

110+
Patents



Testing Facility

80+
Capabilities

Smart Factory

CHENZHU factory is continually driven by lean management and flexible production. By our strict quality examination, CHENZHU ensures the production meets the design specification and satisfies our customers.



Factory

3500m²
In total



Max Cap.

2,000,000 pcs
Year



Sales Volume

1,080,000 pcs
In 2021



Lean Production

10+
Years' experience



■ CE Certification



■ SIL Certification



■ IECEx Certification



■ ATEX Certification



■ NEPSI Certification



■ Type Test Report



■ Patent



■ Product Liability Insurance

T Series Functional SPD



SPD for signal

- 12.5mm width
- 2-wire,3-wire,4-wire is optional
- Hot pluggable



SPD for power

- 18mm/P width
- T2: 40~80kA (8/20 μ s)
- Short circuit withstand-
ing:1000A

CZLB Series Classical SPD



SPD for signal

- 7.6mm width
- Ground via terminal or DIN
35mm rail



SPD for power

- 18mm/P width
- T2: 40kA (8/20 μ s)
- T1: 15kA (10/350 μ s)

CZLBX Series Screw Mounting SPD



- Intrinsic safety certification;explosion proof electrical product certification
- Various of thread specification is optional
- 304 or 316 stainless steel housing is optional

iFL Series Network SPD



- Fully aluminium alloy housing, good electromagnetic shielding
- FE、GE、PoE、wireless is optional
- Grounded by DIN rail or screw terminals

Catalogue

T series



SPD for signal

For 5V signal (Intrinsic safety)	9
For 24V signal (Intrinsic safety)	10
For 5V signal	11
For 5V signal	12



SPD for power

DC power	13-15
AC power (40kA)	16-17
AC power (80kA)	18-19
AC power (40kA) (400/690VAC)	20-21

CZLB series



SPD for signal

For 5V signal (Intrinsic safety)	22
For 24V signal (Intrinsic safety)	23



SPD for power

DC power	24
AC power (40kA)	25-26
AC power (160kA)(220/380VAC)	27-28

CZLBX series



Screw Mounting SPD

29

iFL series



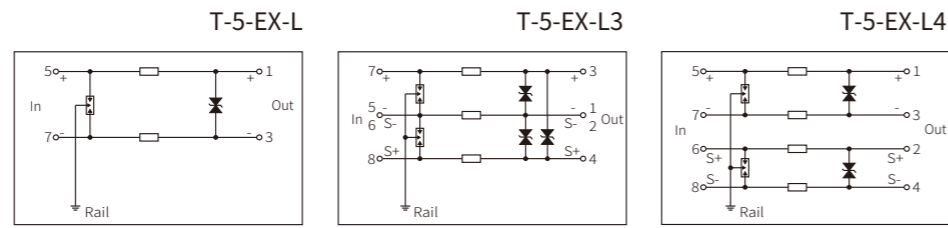
SDP for network and video

Network	30
Network、 power 2 in1	30
GigE	31
PoE	31
Wireless	32

For 5V signal(IS system)

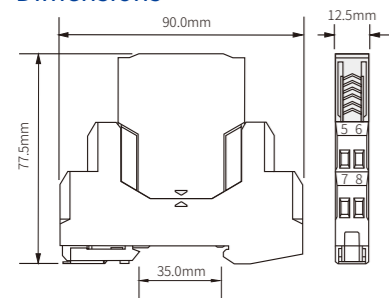
Features

- 12.5mm width
- Pluggable protection module
- Ground via DIN 35mm rail

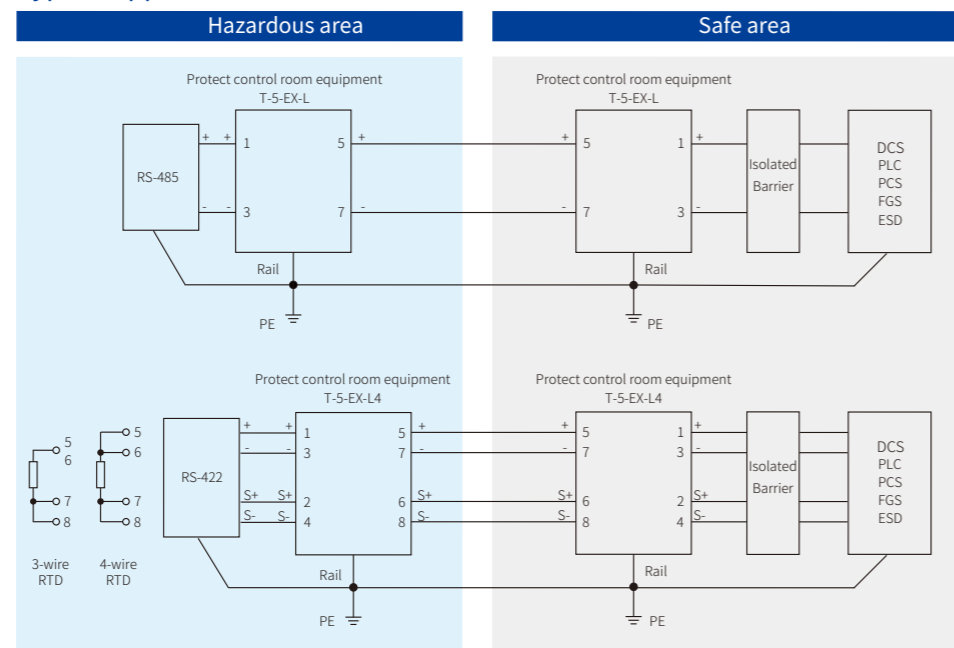


Technical data	2-wire	3-wire	4-wire
Max. continuous operating voltage U_c	6V DC	6V DC	6V DC
Nominal operating current I_L	500mA	500mA	500mA
Resistance(per line)	1Ω	1Ω	1Ω
Nominal discharge current $I_n(8/20\mu s)$	10kA	10kA	10kA
Max. discharge current $I_{max}(8/20\mu s)$	20kA	20kA	20kA
Impulse current $I_{imp}(10/350\mu s)$	2.5kA	2.5kA	2.5kA
Voltage protection level $U_p(8/20\mu s)$ L-L/L-G	40V/600V	40V/600V	40V/600V
Voltage protection level $U_p(1kV/\mu s)$ L-L/L-G	20V/600V	20V/600V	20V/600V
Bandwidth(-0.5dB)	40MHz	40MHz	40MHz
Response time	1ns	1ns	1ns
Residual current I_{PE}	<10μA	<10μA	<10μA
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21
Certification			
Ex marking	II 1G Ex ia IIC T6...T4 Ga	II 1G Ex ia IIC T6...T4 Ga	II 1G Ex ia IIC T6...T4 Ga
Certificate Number	Sira 20ATEX2010X IECEX SIR 20.0018X	Sira 20ATEX2010X IECEX SIR 20.0018X	Sira 20ATEX2010X IECEX SIR 20.0018X
Entity Parameters	$U_i=6V; I_i=500mA; P_i=5.32W;$ $C_i \approx 0\mu F; L_i \approx 0mH$	$U_i=6V; I_i=500mA; P_i=5.32W;$ $C_i \approx 0\mu F; L_i \approx 0mH$	$U_i=6V; I_i=500mA; P_i=5.32W;$ $C_i \approx 0\mu F; L_i \approx 0mH$
Functional safety certification	SIL3	SIL3	SIL3
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	7086993	7025543	7019501

Dimensions



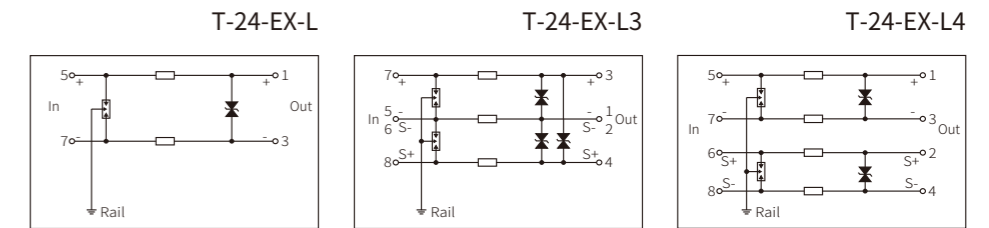
Typical applications



For 24V signal(IS system)

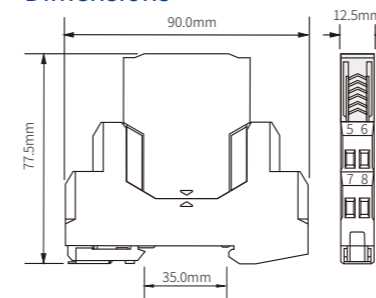
Features

- 12.5mm width
- Pluggable protection module
- Ground via DIN 35mm rail

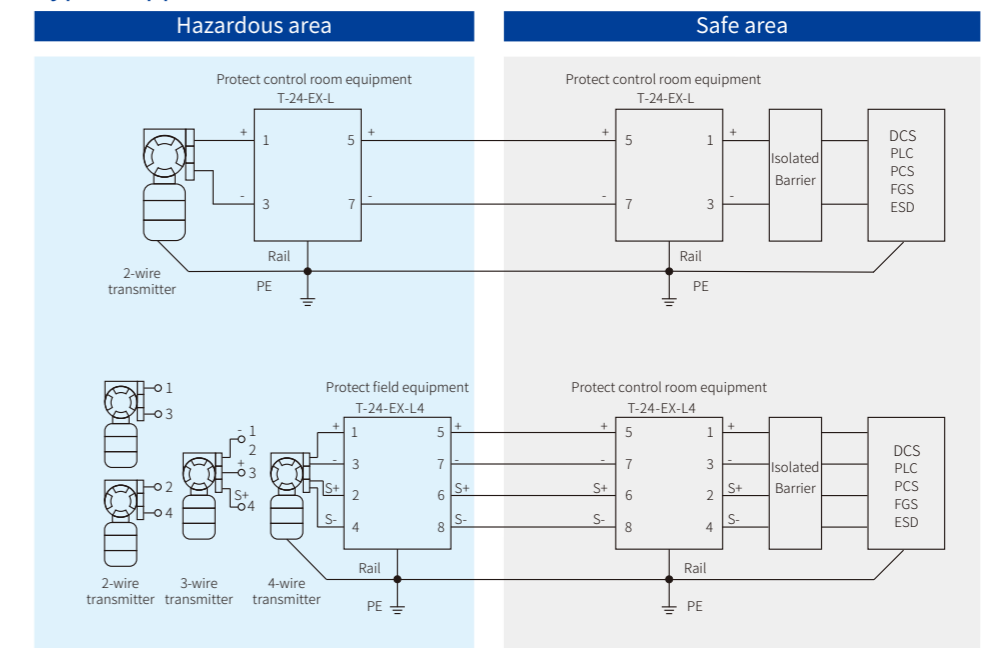


Technical data	2-wire	3-wire	4-wire
Max. continuous operating voltage U_c	32V DC	32V DC	32V DC
Nominal operating current I_L	500mA	500mA	500mA
Resistance(per line)	1Ω	1Ω	1Ω
Nominal discharge current $I_n(8/20\mu s)$	10kA	10kA	10kA
Max. discharge current $I_{max}(8/20\mu s)$	20kA	20kA	20kA
Impulse current $I_{imp}(10/350\mu s)$	2.5kA	2.5kA	2.5kA
Voltage protection level $U_p(8/20\mu s)$ L-L/L-G	60V/600V	60V/600V	60V/600V
Voltage protection level $U_p(1kV/\mu s)$ L-L/L-G	40V/600V	40V/600V	40V/600V
Bandwidth(-0.5dB)	40MHz	40MHz	40MHz
Response time	1ns	1ns	1ns
Residual current I_{PE}	<1μA	<1μA	<1μA
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21
Certification			
Ex marking	II 1G Ex ia IIC T6...T4 Ga	II 1G Ex ia IIC T6...T4 Ga	II 1G Ex ia IIC T6...T4 Ga
Certificate Number	Sira 20ATEX2010X IECEX SIR 20.0018X	Sira 20ATEX2010X IECEX SIR 20.0018X	Sira 20ATEX2010X IECEX SIR 20.0018X
Entity Parameters	$U_i=30V; I_i=500mA; P_i=5.32W;$ $C_i \approx 0\mu F; L_i \approx 0mH$	$U_i=30V; I_i=500mA; P_i=5.32W;$ $C_i \approx 0\mu F; L_i \approx 0mH$	$U_i=32V; I_i=500mA; P_i=5.32W;$ $C_i \approx 0\mu F; L_i \approx 0mH$
Functional safety certification	SIL3	SIL3	SIL3
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	7096962	7097610	7040569

Dimensions



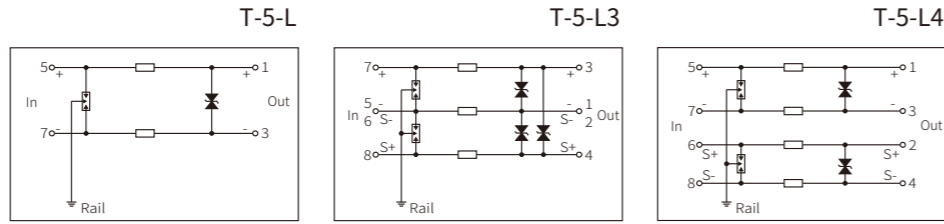
Typical applications



For 5V signal

Features

- 12.5mm width
- Pluggable protection module
- Ground via DIN 35mm rail

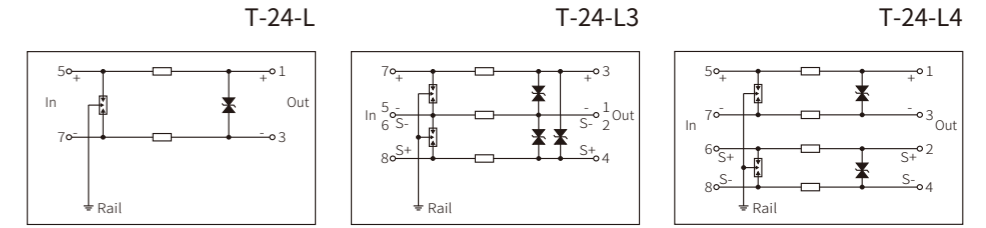


Technical data	2-wire	3-wire	4-wire
Max. continuous operating voltage U_c	6V DC	6V DC	6V DC
Nominal operating current I_L	800mA	800mA	800mA
Resistance(per line)	1Ω	1Ω	1Ω
Nominal discharge current $I_n(8/20\mu s)$	10kA	10kA	10kA
Max. discharge current $I_{max}(8/20\mu s)$	20kA	20kA	20kA
Impulse current $I_{imp}(10/350\mu s)$	2.5kA	2.5kA	2.5kA
Voltage protection level $U_p(8/20\mu s)$ L-L/L-G	40V/600V	40V/600V	40V/600V
Voltage protection level $U_p(1kV/\mu s)$ L-L/L-G	20V/600V	20V/600V	20V/600V
Bandwidth(-0.5dB)	40MHz	40MHz	40MHz
Response time	1ns	1ns	1ns
Residual current I_{pe}	<10μA	<10μA	<10μA
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21
Certification			
Functional safety certification	SIL3	SIL3	SIL3
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	7099647	7050235	7029162

For 24V signal

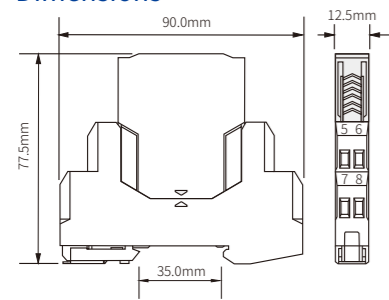
Features

- 12.5mm width
- Pluggable protection module
- Ground via DIN 35mm rail

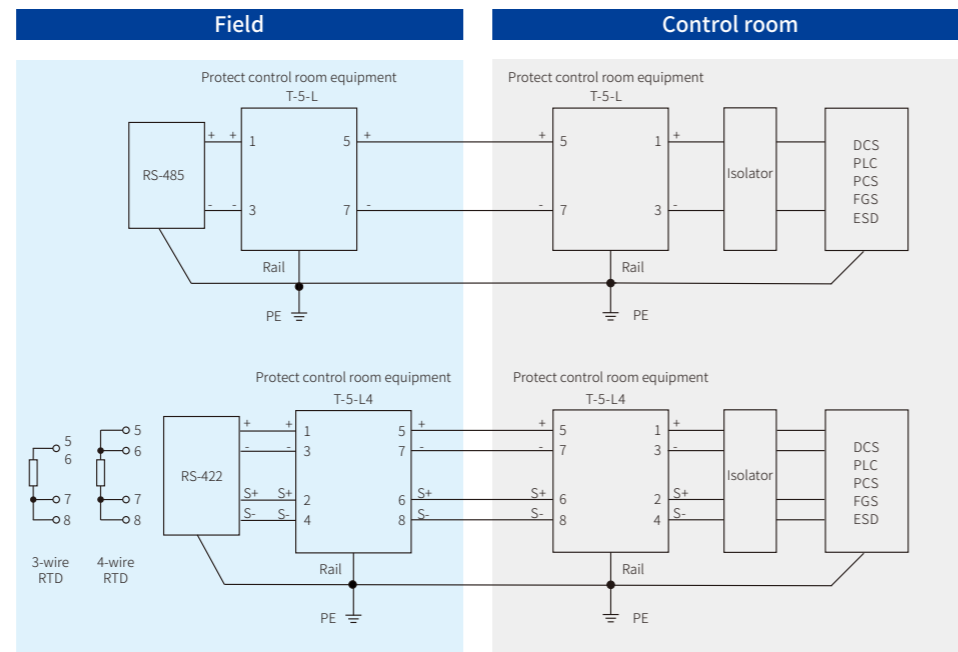


Technical data	2-wire	3-wire	4-wire
Nominal operating voltage U_n	24V DC	24V DC	24V DC
Max. continuous operating voltage U_c	32V DC	32V DC	32V DC
Nominal operating current I_L	800mA	800mA	800mA
Nominal discharge current $I_n(8/20\mu s)$	10kA	10kA	10kA
Impulse current $I_{imp}(10/350\mu s)$	2.5kA	2.5kA	2.5kA
Total impulse current $I_{imp}(10/350\mu s)$	5kA	7.5kA	10kA
Voltage protection level $U_p(I_n)$ L-G:1.3kV	L-G:1.3kV	L-G:1.3kV	L-G:1.3kV
Voltage protection level $U_p(I_{imp})$ L-G:70V	L-G:70V	L-G:70V	L-G:70V
Voltage protection level $U_p(1kV/\mu s)$ L-L:40V,L-G:90V	L-L:40V,L-G:90V	L-L:40V,L-G:90V	L-L:40V,L-G:90V
Bandwidth(-0.5dB)	40MHz	40MHz	40MHz
Response time	L-L:1ns,L-G:200ns	L-L:1ns,L-G:200ns	L-L:1ns,L-G:200ns
Resistance(per line)	1Ω	1Ω	1Ω
Residual current I_{pe}	<1μA	<1μA	<1μA
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21
Certification			
Functional safety certification	SIL3	SIL3	SIL3
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	7023959	7091758	7074245

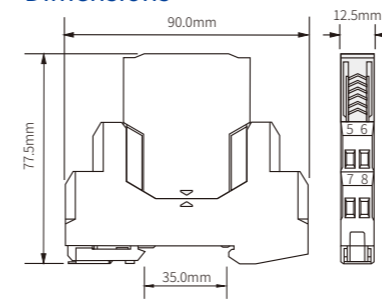
Dimensions



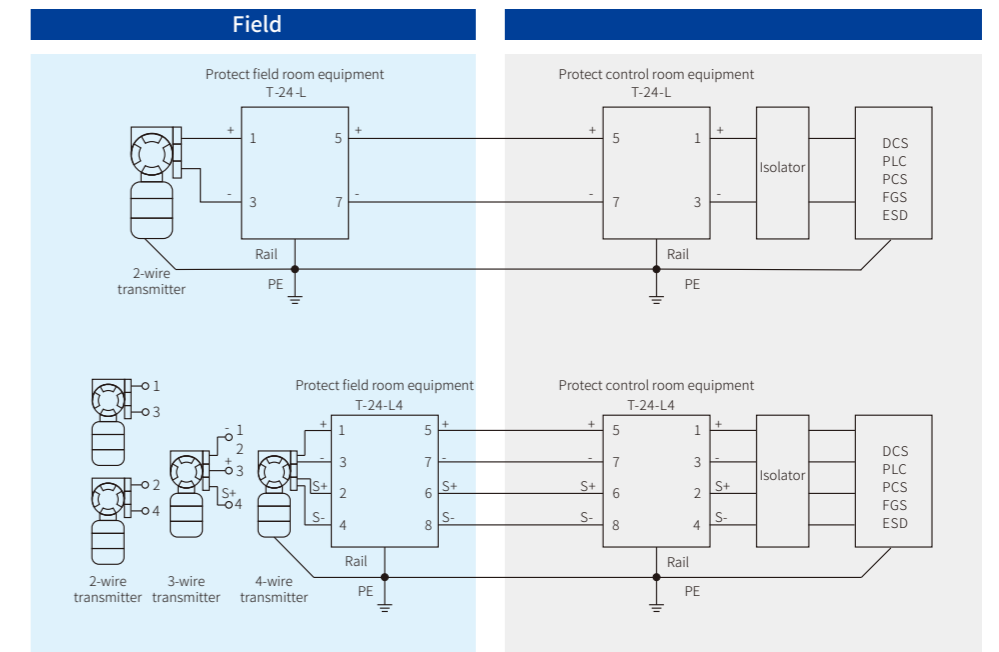
Typical applications



Dimensions



Typical applications

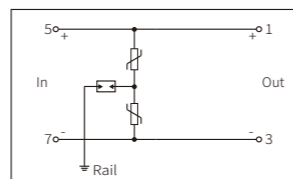


For DC power

Features

- 12.5mm width
- Pluggable protection module
- Ground via DIN 35mm rail

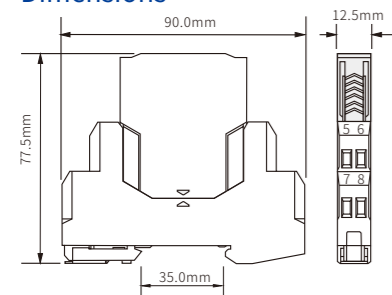
T-24



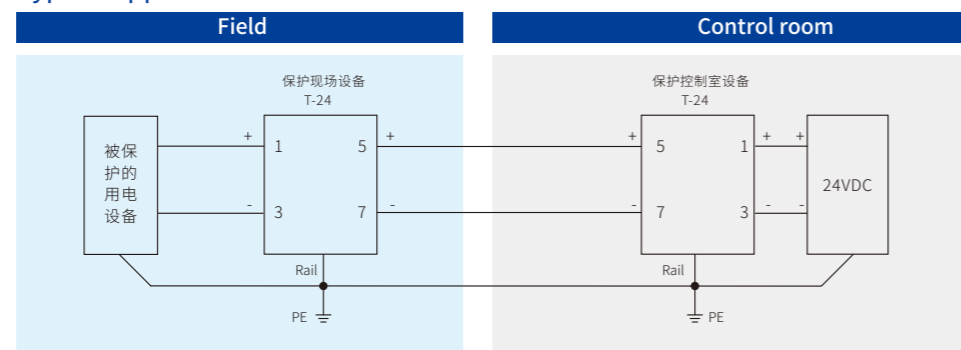
Technical data

Max. continuous operating voltage U_c	58VDC/40VAC
Nominal operating current I_n	10A
Nominal discharge current $I_n(8/20\mu s)$	10kA
Max. discharge current $I_{max}(8/20\mu s)$	20kA
Impulse current $I_{imp}(10/350\mu s)$	2.5kA
Voltage protection level U_p	800V
Recommended grounding cable	2.5mm ²
Residual current I_{pe}	<20μA
Response time	25ns
Housing protection grade(IEC60529)	IP 20
Housing material/Flammability rating(UL94)	PA66/V0
Testing standard	GB/T 18802.21/IEC 61643-21
Certification	
Type test	Shanghai Lightning Protection Center
Order number	7062371

Dimensions



Typical applications

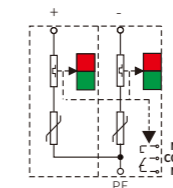


For DC power

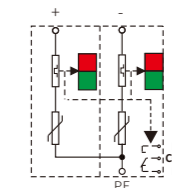
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

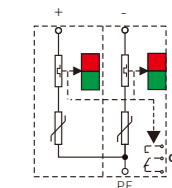
T2-24
T2-24F



T2-110
T2-110F



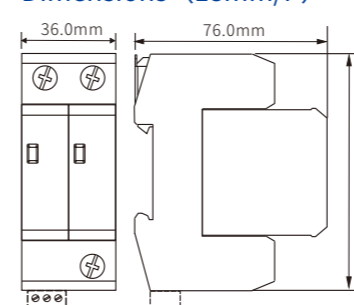
T2-220
T2-220F



Technical data

Max. continuous operating voltage U_c	90VDC/60VAC	180VDC/120VAC	320VDC/220VAC
Nominal discharge current $I_n(8/20\mu s)$	20kA	20kA	20kA
Max. discharge current $I_{max}(8/20\mu s)$	40kA	40kA	40kA
Voltage protection level U_p	600V	800V	1.2kV
Recommended backup fuse	80A gG	80A gG	80A gG
Short-circuit current rating I_{SCCR}	1000A	1000A	1000A
Recommended grounding cable	4~35mm ²	4~35mm ²	4~35mm ²
Response time	25ns	25ns	25ns
Residual current	<10μA	<10μA	<10μA
Remote alarm output (model F)	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11
Certification			
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	T2-24: 7073945 T2-24F: 7093094	T2-110: 7089524 T2-110F: 7062355	T2-220: 7065567 T2-220F: 7011000

Dimensions (18mm/P)



76.0mm × 90.0mm × 36.0mm

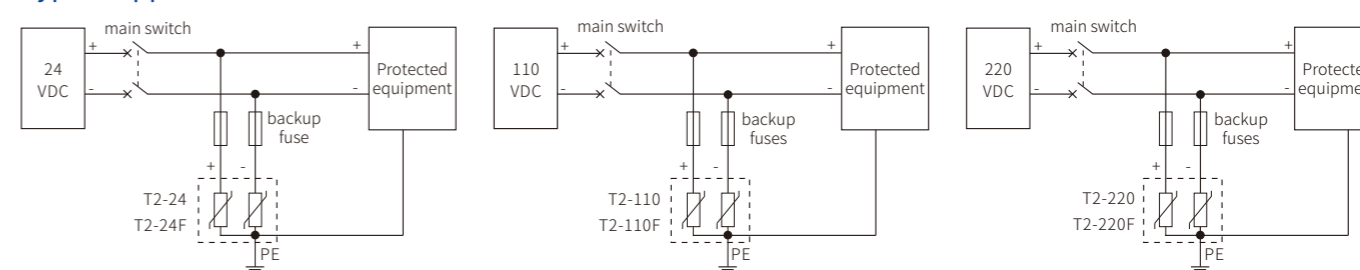


76.0mm × 90.0mm × 36.0mm



76.0mm × 90.0mm × 36.0mm

Typical applications

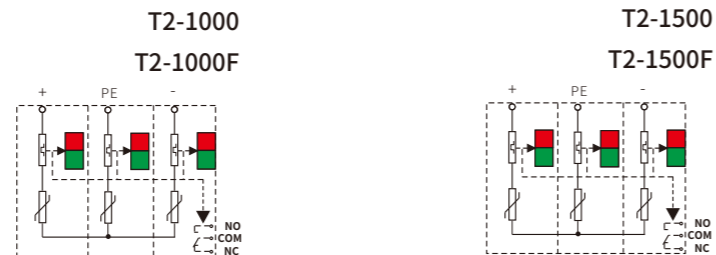


Cautions:
Backup fuses are recommended to be installed in case SPD get short-circuited.
For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

For DC power

Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

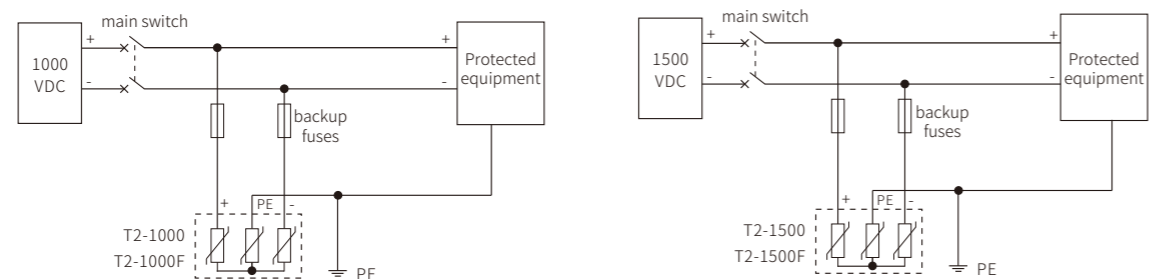


Technical data	T2-1000	T2-1500
Max. continuous operating voltage U_c	1000VDC	1500VDC
Nominal discharge current $I_n(8/20\mu s)$	20kA	20kA
Max. discharge current $I_{max}(8/20\mu s)$	40kA	40kA
Voltage protection level U_p	4kV	6kV
Short-circuit current rating I_{scpv}	1000A	1000A
Recommended backup fuse	80A gG	80A gG
Recommended grounding cable	4~35mm ²	4~35mm ²
Response time	25ns	25ns
Residual current	<10μA	<10μA
Remote alarm output (model F)	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0
Testing standard	GB/T 18802.31/IEC 61643-31	GB/T 18802.31/IEC 61643-31
Certification		
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	T2-1000: 7053964 T2-1000F: 7065508	T2-1500: 7094994 T2-1500F: 7067731

Dimensions (18mm/P)



Typical applications

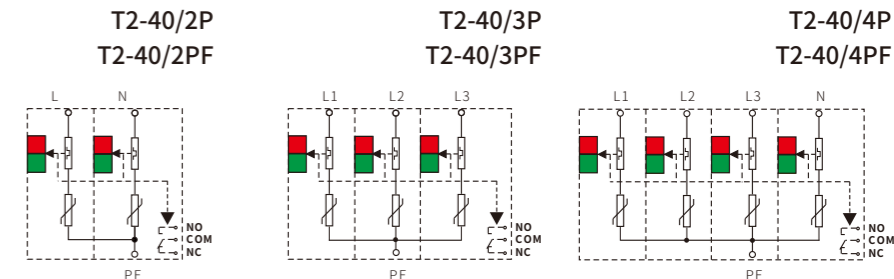


Cautions:
Backup fuses are recommended to be installed in case SPD get short-circuited.
For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

For AC power(40kA)

Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

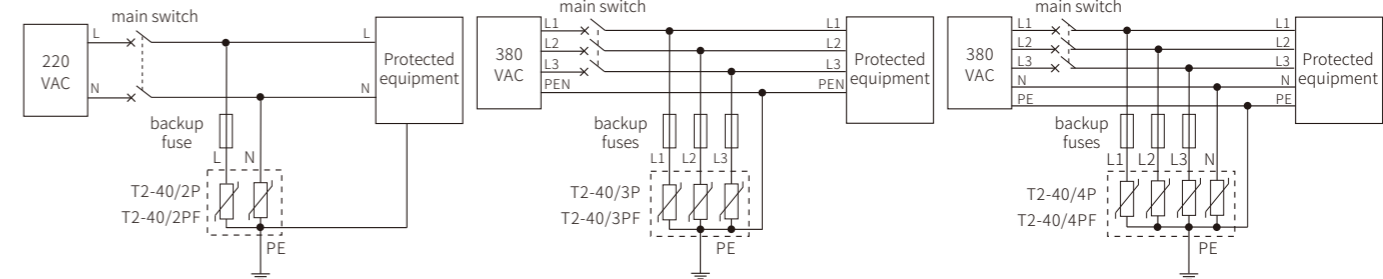


Technical data	T2-40/2P	T2-40/3P	T2-40/4P
Max. continuous operating voltage U_c	385VAC	385VAC	385VAC
Nominal discharge current $I_n(8/20\mu s)$	20kA	20kA	20kA
Max. discharge current $I_{max}(8/20\mu s)$	40kA	40kA	40kA
Voltage protection level U_p	1.7kV	1.7kV	1.7kV
Recommended backup fuse	80A gG	80A gG	80A gG
Short-circuit current rating I_{scpr}	1000A	1000A	1000A
Recommended grounding cable	4~35mm ²	4~35mm ²	4~35mm ²
Response time	25ns	25ns	25ns
Residual current	<20μA	<20μA	<20μA
Remote alarm output (model F)	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11
Power supply system	Single phase (TN)	Three-phase four line (TN-C) Three-phase three line (IT)	Three-phase five line (TN-S)
Certification			
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	T2-40/2P: 7067699 T2-40/2PF: 7062709	T2-40/3P: 7079704 T2-40/3PF: 7046181	T2-40/4P: 7085466 T2-40/4PF: 7018432

Dimensions (18mm/P)



Typical applications



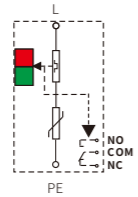
Cautions:
Backup fuses are recommended to be installed in case SPD get short-circuited.
For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

For AC power(40kA)

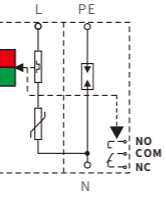
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

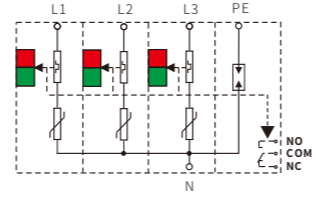
T2-40/1P
T2-40/1PF



T2-40/1P+1
T2-40/1P+1F



T2-40/3P+1
T2-40/3P+1F

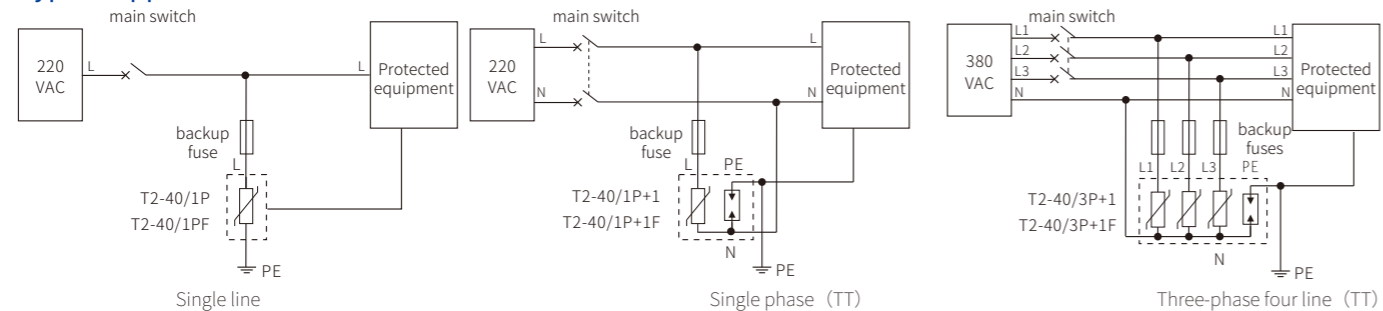


Technical data	T2-80G module		T2-40 module	
	T2-80G module	T2-40 module	T2-80G module	T2-40 module
Max. continuous operating voltage U_c	255VAC	385VAC	255VAC	385VAC
Nominal discharge current $I_n(8/20\mu s)$	40kA	20kA	40kA	20kA
Max. discharge current $I_{max}(8/20\mu s)$	80kA	40kA	80kA	40kA
Voltage protection level U_p	1.2kV	1.7kV	1.2kV	1.7kV
Recommended backup fuse	80A gG	80A gG	80A gG	80A gG
Short-circuit current rating I_{SCCR}	1000A	1000A	1000A	1000A
Recommended grounding cable	4~35mm ²	4~35mm ²	4~35mm ²	4~35mm ²
Response time	25ns	25ns	25ns	25ns
Residual current	<20μA	<20μA	<20μA	<20μA
Remote alarm output (model F)	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11
Power supply system	Single line	Single phase (TT)	Three-phase four line (TT)	
Certification	Shanghai Lightning Protection Center			
Type test	T2-40/1P: 7056020	T2-40/1P+1: 7032273	T2-40/3P+1: 7085025	
Order number	T2-40/1PF: 7031533	T2-40/1P+1F: 7070280	T2-40/3P+1F: 7081984	

Dimensions (18mm/P)



Typical applications



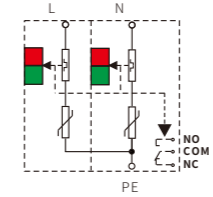
Cautions:
 Backup fuses are recommended to be installed in case SPD get short-circuited.
 For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
 For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

For AC power(80kA)

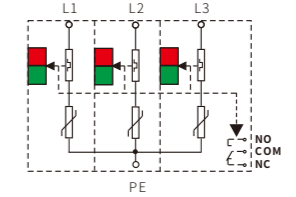
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

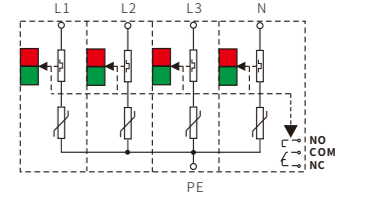
T2-80/2P
T2-80/2PF



T2-80/3P
T2-80/3PF



T2-80/4P
T2-80/4PF

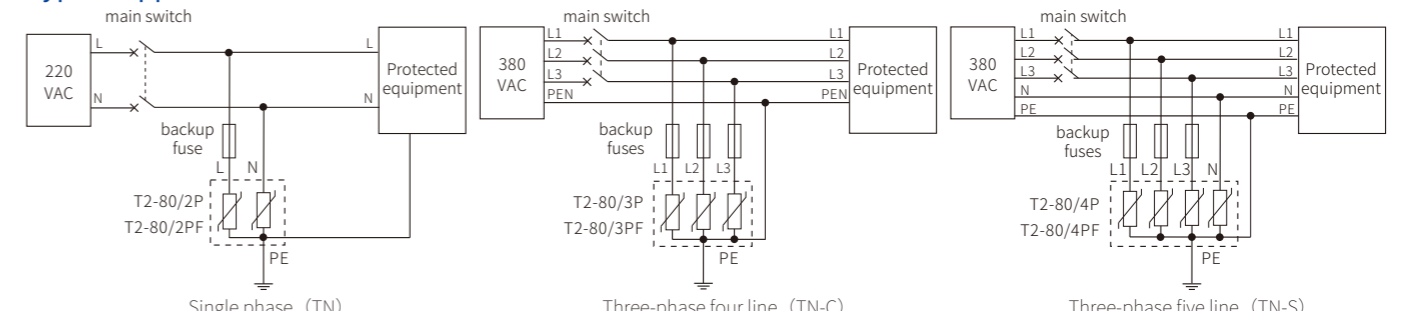


Technical data	T2-80G module		T2-40 module	
	T2-80G module	T2-40 module	T2-80G module	T2-40 module
Max. continuous operating voltage U_c	255VAC	385VAC	255VAC	385VAC
Nominal discharge current $I_n(8/20\mu s)$	40kA	20kA	40kA	20kA
Max. discharge current $I_{max}(8/20\mu s)$	80kA	40kA	80kA	40kA
Voltage protection level U_p	2.0kV	2.0kV	2.0kV	2.0kV
Recommended backup fuse	125A gG	125A gG	125A gG	125A gG
Short-circuit current rating I_{SCCR}	1000A	1000A	1000A	1000A
Recommended grounding cable	4~35mm ²	4~35mm ²	4~35mm ²	4~35mm ²
Response time	25ns	25ns	25ns	25ns
Residual current	<20μA	<20μA	<20μA	<20μA
Remote alarm output (model F)	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11
Power supply system	Single phase (TN)	Three-phase four line (TN-C) Three-phase three line (IT)	Three-phase four line (TN-C) Three-phase three line (IT)	Three-phase five line (TN-S)
Certification	Shanghai Lightning Protection Center			
Type test	T2-80/2P: 7030066	T2-80/3P: 7025082	T2-80/4P: 7018734	
Order number	T2-80/2PF: 7066780	T2-80/3PF: 7038693	T2-80/4PF: 7088870	

Dimensions (18mm/P)



Typical applications



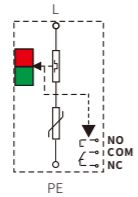
Cautions:
 Backup fuses are recommended to be installed in case SPD get short-circuited.
 For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
 For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

For AC power(80kA)

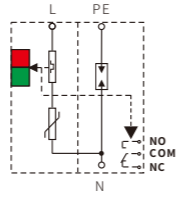
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

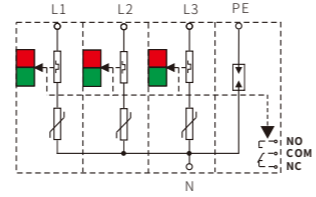
T2-80/1P
T2-80/1PF



T2-80/1P+1
T2-80/1P+1F



T2-80/3P+1
T2-80/3P+1F

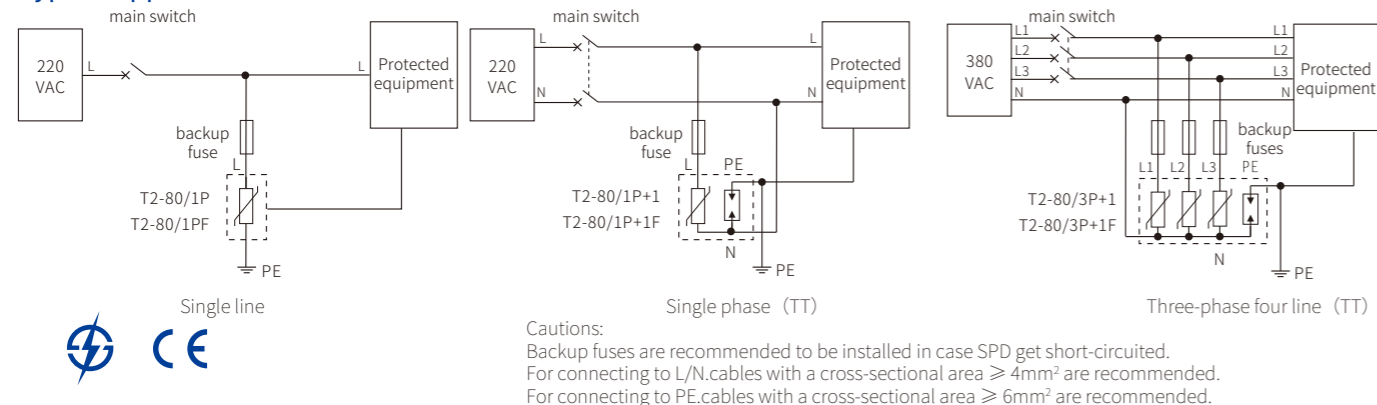


Technical data	T2-80G module		T2-80 module	
	T2-80G module	T2-80 module	T2-80G module	T2-80 module
Max. continuous operating voltage U_c	255VAC	385VAC	255VAC	385VAC
Nominal discharge current $I_n(8/20\mu s)$	40kA	40kA	40kA	40kA
Max. discharge current $I_{max}(8/20\mu s)$	80kA	80kA	80kA	80kA
Voltage protection level U_p	1.2kV	2.0kV	1.2kV	2.0kV
Recommended backup fuse	125A gG	125A gG	125A gG	125A gG
Short-circuit current rating I_{SCCR}	1000A	1000A	1000A	1000A
Recommended grounding cable	4~35mm ²	4~35mm ²	4~35mm ²	4~35mm ²
Response time	25ns	25ns	25ns	25ns
Residual current	<20μA	<20μA	<20μA	<20μA
Remote alarm output (model F)	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11
Power supply system	Single line	Single phase (TT)	Three-phase four line (TT)	
Certification	Shanghai Lightning Protection Center			
Type test	Shanghai Lightning Protection Center		Shanghai Lightning Protection Center	
Order number	T2-80/1P: 7077138	T2-80/1P+1: 7015677	T2-80/3P+1: 7055729	
	T2-80/1PF: 7012410	T2-80/1P+1F: 7042357	T2-80/3P+1F: 7058261	

Dimensions (18mm/P)



Typical applications

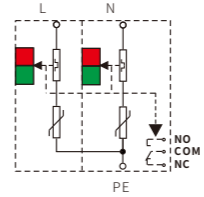


For AC power(40kA)(400/690VAC)

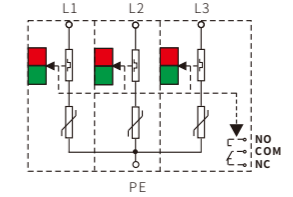
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

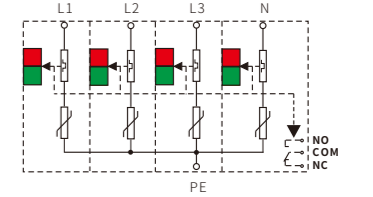
T2-40/700/2P
T2-40/700/2PF



T2-40/700/3P
T2-40/700/3PF



T2-40/700/4P
T2-40/700/4PF

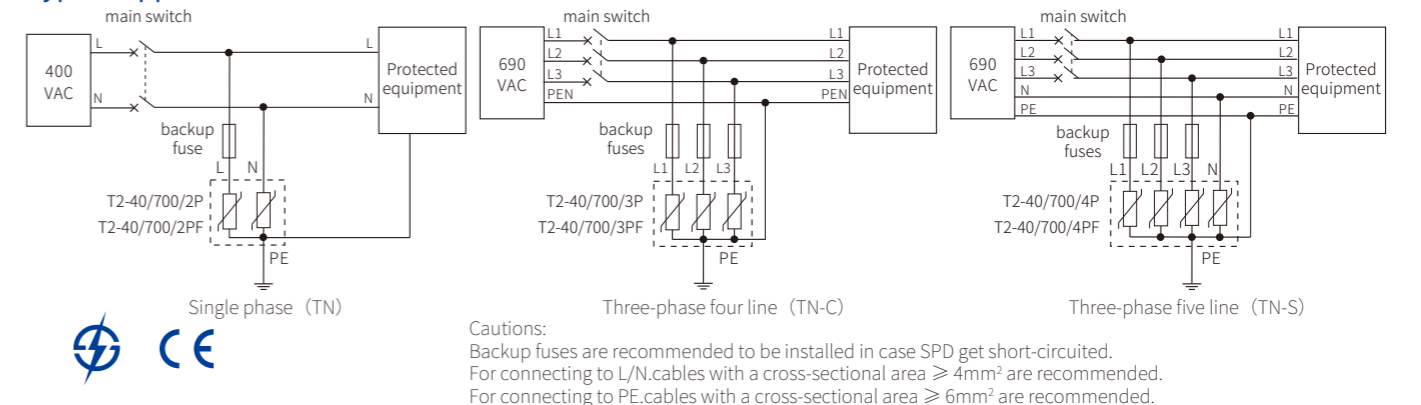


Technical data	T2-40/700/2P		T2-40/700/3P		T2-40/700/4P	
	T2-40/700/2P	T2-40/700/2PF	T2-40/700/3P	T2-40/700/3PF	T2-40/700/4P	T2-40/700/4PF
Max. continuous operating voltage U_c	700VAC	700VAC	700VAC	700VAC	700VAC	700VAC
Nominal discharge current $I_n(8/20\mu s)$	20kA	20kA	20kA	20kA	20kA	20kA
Max. discharge current $I_{max}(8/20\mu s)$	40kA	40kA	40kA	40kA	40kA	40kA
Voltage protection level U_p	2.8kV	2.8kV	2.8kV	2.8kV	2.8kV	2.8kV
Recommended backup fuse	80A gG	80A gG	80A gG	80A gG	80A gG	80A gG
Short-circuit current rating I_{SCCR}	1000A	1000A	1000A	1000A	1000A	1000A
Recommended grounding cable	4~35mm ²	4~35mm ²	4~35mm ²	4~35mm ²	4~35mm ²	4~35mm ²
Response time	25ns	25ns	25ns	25ns	25ns	25ns
Residual current	<20μA	<20μA	<20μA	<20μA	<20μA	<20μA
Remote alarm output (model F)	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11
Power supply system	Single phase (TN)	Single phase (TN)	Three-phase four line (TN-C)	Three-phase four line (TN-C)	Three-phase five line (TN-S)	Three-phase five line (TN-S)
Certification	Shanghai Lightning Protection Center					
Type test	Shanghai Lightning Protection Center		Shanghai Lightning Protection Center		Shanghai Lightning Protection Center	
Order number	T2-40/700/2P: 7031662	T2-40/700/2PF: 7087013	T2-40/700/3P: 7066877	T2-40/700/3PF: 7028674	T2-40/700/4P: 7087771	T2-40/700/4PF: 7020165

Dimensions (18mm/P)



Typical applications

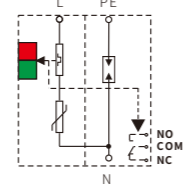


For AC power(40kA)(400/690VAC)

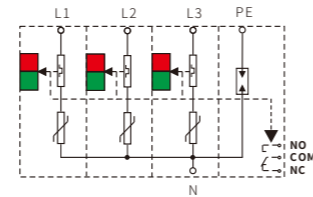
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

T2-40/700/1P+1
T2-40/700/1P+1F



T2-40/700/3P+1
T2-40/700/3P+1F

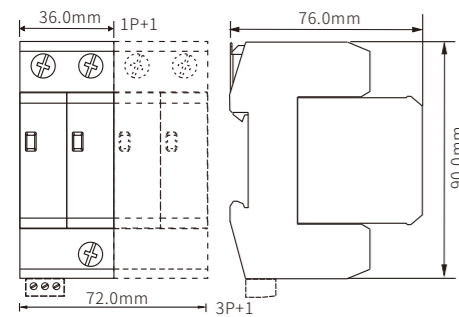


Technical data	
Max. continuous operating voltage U_c	2000VDC
Nominal discharge current $I_n(8/20\mu s)$	40kA
Max. discharge current $I_{max}(8/20\mu s)$	80kA
Voltage protection level U_p	3.5kV
Recommended backup fuse	80A gG
Short-circuit current rating I_{SCCR}	1000A
Recommended grounding cable	4~35mm ²
Response time	25ns
Residual current	<20μA
Remote alarm output (model F)	250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)	IP 20
Housing material/Flammability rating(UL94)	PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11
Power supply system	Single phase (TT)
Certification	
Type test	Shanghai Lightning Protection Center
Order number	
	T2-40/700/1P+1: 7062817
	T2-40/700/1P+1F: 7033598

T2-80GH module	T2-40/700 module
2000VDC	700VAC
40kA	20kA
80kA	40kA
3.5kV	2.8kV
	80A gG
	1000A
	4~35mm ²
	25ns
	<20μA
	250VAC/0.5A; 24VDC/0.5A
	IP 20
	PA66/V0
	GB/T 18802.11/IEC 61643-11
	Single phase (TT)
	Shanghai Lightning Protection Center
	T2-40/700/1P+1: 7062817
	T2-40/700/1P+1F: 7033598

T2-80GH module	T2-40/700 module
2000VDC	700VAC
40kA	20kA
80kA	40kA
3.5kV	2.8kV
	80A gG
	1000A
	4~35mm ²
	25ns
	<20μA
	250VAC/0.5A; 24VDC/0.5A
	IP 20
	PA66/V0
	GB/T 18802.11/IEC 61643-11
	Three-phase four line (TT)
	Shanghai Lightning Protection Center
	T2-40/700/3P+1: 7013762
	T2-40/700/3P+1F: 7097406

Dimensions (18mm/P)

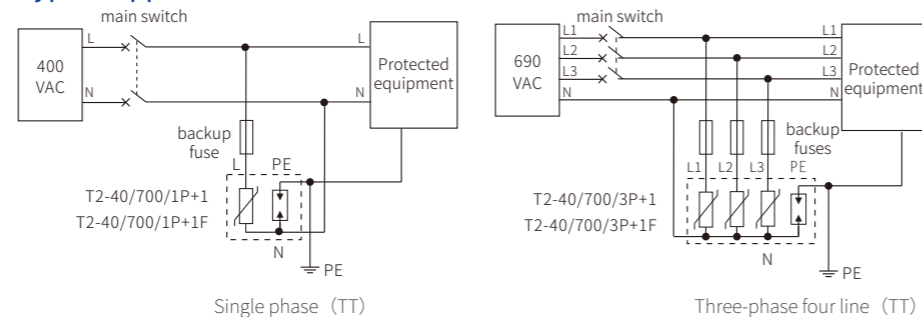


76.0mm × 90.0mm × 36.0mm



76.0mm × 90.0mm × 72.0mm

Typical applications



Cautions:
 Backup fuses are recommended to be installed in case SPD get short-circuited.
 For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
 For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

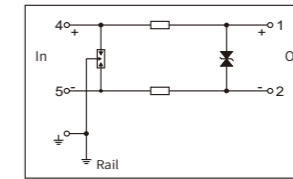


For 5V signal(IS system)

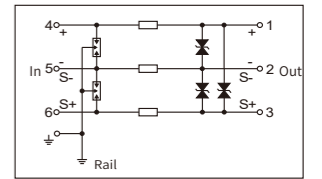
Features

- 7.6mm width
- Resistance per line:1Ω
- Ground viaterminal or DIN 35mm rail

CZLB-5(T2)



CZLB-5(R3)

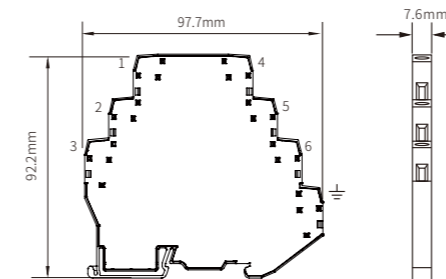


Technical data

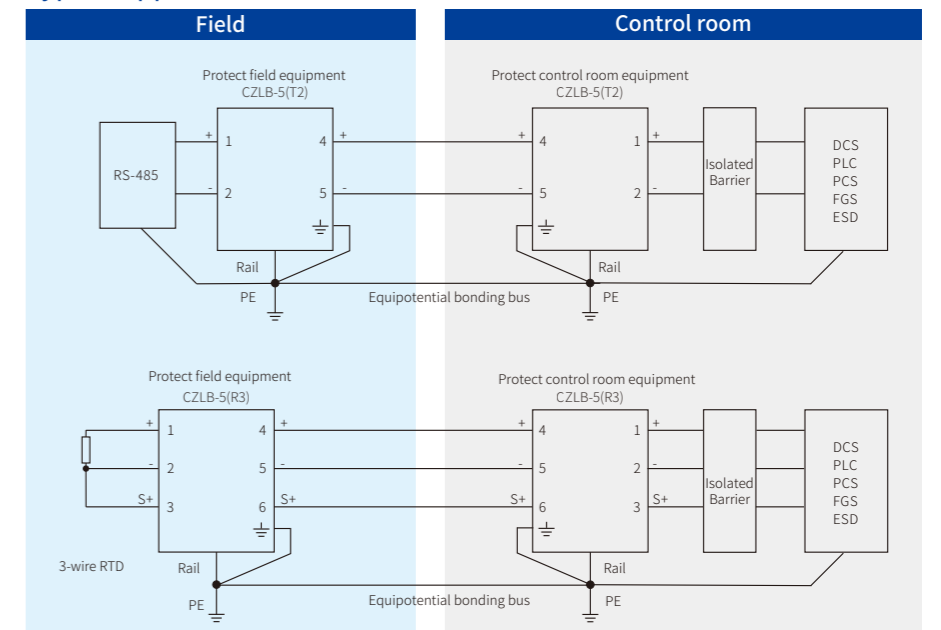
Max. continuous operating voltage U_c	6V DC
Nominal operating current I_n	500mA
Resistance(per line)	1Ω
Nominal discharge current $I_n(8/20\mu s)$	10kA
Max. discharge current $I_{max}(8/20\mu s)$	20kA
Impulse current $I_{imp}(10/350\mu s)$	2.5kA
Voltage protection level U_p	L-L/G
Bandwidth (-0.5dB)	40MHz
Response time	1ns
Residual current	<10μA
Housing protection grade(IEC60529)	IP 20
Housing material/Flammability rating(UL94)	PA66/V0
Testing standard	GB/T 18802.21/IEC 61643-21
Certification	
Ex marking	Ex ia IIC T4...T6 Ga
Certificate Number	See Certification for details
Entity Parameters	$U_i=6\text{V}; I_i=500\text{mA}; P_i=0.75\text{W}; C_i \approx 0\mu\text{F}; L_i \approx 0\text{mH}$
Functional safety certification	SIL3
Type test	Shanghai Lightning Protection Center
Order number	
	7051773

	2-wire	3-wire
Max. continuous operating voltage U_c	6V DC	6V DC
Nominal operating current I_n	500mA	500mA
Resistance(per line)	1Ω	1Ω
Nominal discharge current $I_n(8/20\mu s)$	10kA	10kA
Max. discharge current $I_{max}(8/20\mu s)$	20kA	20kA
Impulse current $I_{imp}(10/350\mu s)$	2.5kA	2.5kA
Voltage protection level U_p	40V/600V	40V/600V
Bandwidth (-0.5dB)	40MHz	40MHz
Response time	1ns	1ns
Residual current	<10μA	<10μA
Housing protection grade(IEC60529)	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0
Testing standard	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21
Certification		
Ex marking	Ex ia IIC T4...T6 Ga	Ex ia IIC T4...T6 Ga
Certificate Number	See Certification for details	See Certification for details
Entity Parameters	$U_i=6\text{V}; I_i=500\text{mA}; P_i=0.75\text{W}; C_i \approx 0\mu\text{F}; L_i \approx 0\text{mH}$	$U_i=6\text{V}; I_i=500\text{mA}; P_i=0.75\text{W}; C_i \approx 0\mu\text{F}; L_i \approx 0\text{mH}$
Functional safety certification	SIL3	SIL3
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number		
	7051773	7014195

Dimensions



Typical applications

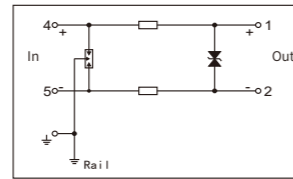


For 24V signal(IS system)

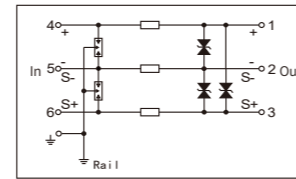
Features

- 7.6mm width
- Resistance per line:1Ω
- Ground viaterminal or DIN 35mm rail

CZLB-24(B2)

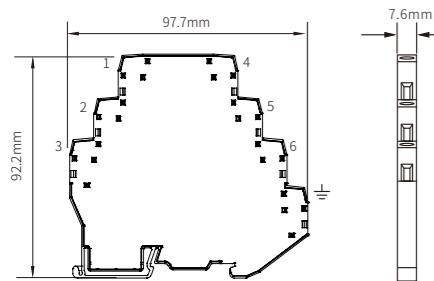


CZLB-24(B3)

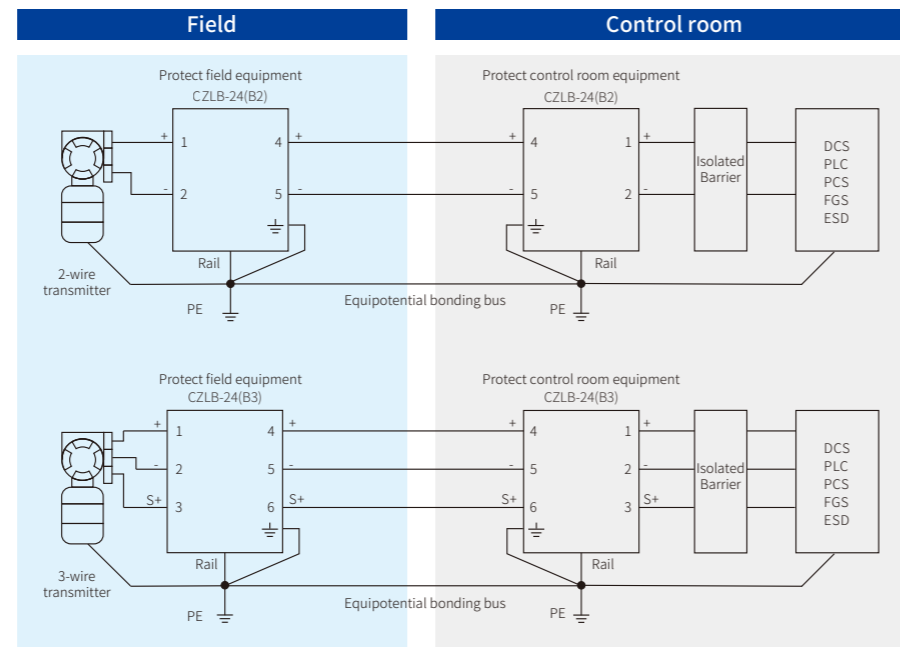


Technical data	2-wire	3-wire
Max. continuous operating voltage U_c	32V DC	32V DC
Nominal operating current I_n	500mA	500mA
Resistance(per line)	1Ω	1Ω
Nominal discharge current $I_n(8/20\mu s)$	10kA	10kA
Max. discharge current $I_{max}(8/20\mu s)$	20kA	20kA
Impulse current $I_{imp}(10/350\mu s)$	2.5kA	2.5kA
Voltage protection level U_p	60V/600V	60V/600V
Bandwidth (-0.5dB)	40MHz	40MHz
Response time	1ns	1ns
Residual current	<1μA	<1μA
Housing protection grade(IEC60529)	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0
Testing standard	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21
Certification		
Ex marking	Ex ia IIC T4 ...T6 Ga	Ex ia IIC T4 ...T6 Ga
Certificate Number	See Certification for details	See Certification for details
Entity Parameters	$U_i=30V; I_i=500mA; P_i=0.75W; C_i \approx 0\mu F; L_i \approx 0mH$	$U_i=30V; I_i=500mA; P_i=0.75W; C_i \approx 0\mu F; L_i \approx 0mH$
Functional safety certification	SIL3	SIL3
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	7090592	7013226

Dimensions



Typical applications

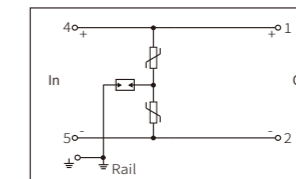


For low-voltage power ($\leq 10A$)

Features

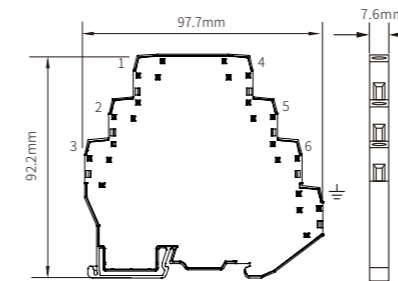
- 7.6mm width
- Ground via terminal or DIN 35mm rail

CZLB-24P

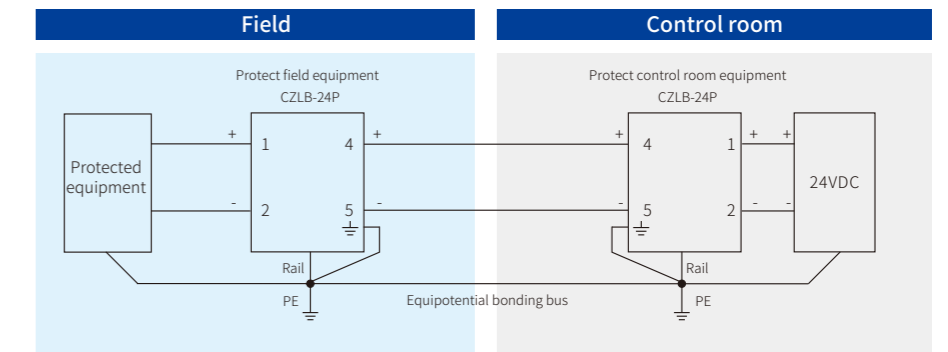


Technical data	
Max. continuous operating voltage U_c	58VDC/40VAC
Nominal operating current I_n	10A
Nominal discharge current $I_n(8/20\mu s)$	10kA
Max. discharge current $I_{max}(8/20\mu s)$	20kA
Impulse current $I_{imp}(10/350\mu s)$	2.5kA
Voltage protection level U_p	800V
Recommended grounding cable	2.5mm ²
Response time	25ns
Residual current	<20μA
Housing protection grade(IEC60529)	IP 20
Housing material/Flammability rating(UL94)	PA66/V0
Testing standard	GB/T 18802.21/IEC 61643-21
Certification	
Type test	Shanghai Lightning Protection Center
Order number	7059650

Dimensions



Typical applications

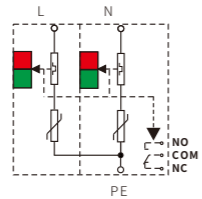


For AC Power(40kA)

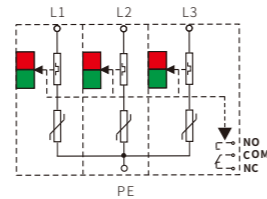
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

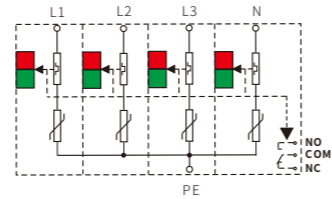
CZLB-40/2P
CZLB-40/2PF



CZLB-40/3P
CZLB-40/3PF



CZLB-40/4P
CZLB-40/4PF

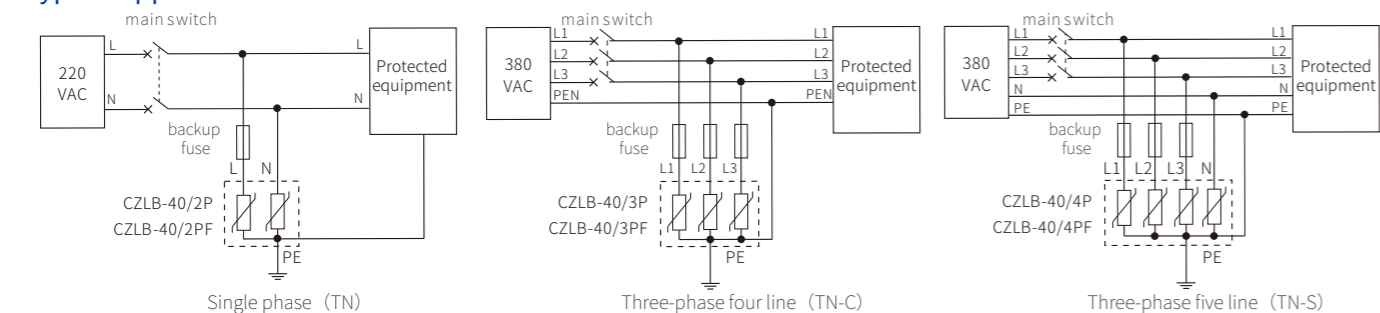


Technical data	CZLB-40/2P CZLB-40/2PF	CZLB-40/3P CZLB-40/3PF	CZLB-40/4P CZLB-40/4PF
Max. continuous operating voltage U_c	385VAC	385VAC	385VAC
Nominal discharge current $I_n(8/20\mu s)$	20kA	20kA	20kA
Max. discharge current $I_{max}(8/20\mu s)$	40kA	40kA	40kA
Voltage protection level U_p	1.7kV	1.7kV	1.7kV
Recommended backup fuse	80A gG	80A gG	80A gG
Short-circuit current rating I_{SCCR}	1000A	1000A	1000A
Recommended grounding cable	4~25mm ²	4~25mm ²	4~25mm ²
Response time	25ns	25ns	25ns
Residual current	<20μA	<20μA	<20μA
Remote alarm output (model F)	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A	250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11
Power supply system	Single phase (TN)	three-phase four line (TN-C) Three-phase three line (IT)	Three-phase five line (TN-S)
Certification	Shanghai Lightning Protection Center		
Type test	Shanghai Lightning Protection Center		
Order number	CZLB-40/2P: 7051402 CZLB-40/2PF: 7028111	CZLB-40/3P: 7061543 CZLB-40/3PF: 7023751	CZLB-40/4P: 7045781 CZLB-40/4PF: 7094265

Dimensions (18mm/P)



Typical applications



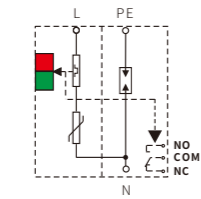
Cautions:
Backup fuses are recommended to be installed in case SPD get short-circuited.
For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

For AC Power(40kA)

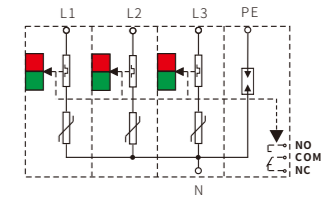
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

CZLB-40/1P+1
CZLB-40/1P+1F



CZLB-40/3P+1
CZLB-40/3P+1F

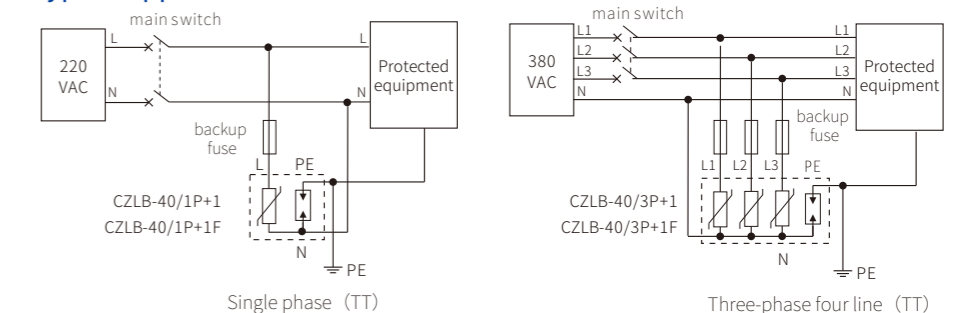


Technical data	CZLB-40G Module	C2-40 Module	CZLB-40G Module	CZLB-40 Module
Max. continuous operating voltage U_c	255VAC	385VAC	255VAC	385VAC
Nominal discharge current $I_n(8/20\mu s)$	20KA	20kA	20KA	20kA
Max. discharge current $I_{max}(8/20\mu s)$	40kA	40kA	40kA	40kA
Voltage protection level U_p	1.2kV	1.7kV	1.2kV	1.7kV
Recommended backup fuse		80A gG		80A gG
Short-circuit current rating I_{SCCR}		1000A		1000A
Recommended grounding cable		4~25mm ²		4~25mm ²
Response time		25ns		25ns
Residual current		<20μA		<20μA
Remote alarm output (model F)		250VAC/0.5A; 24VDC/0.5A		250VAC/0.5A; 24VDC/0.5A
Housing protection grade(IEC60529)		IP 20		IP 20
Housing material/Flammability rating(UL94)		PA66/V0		PA66/V0
Testing standard		GB/T 18802.11/IEC 61643-11		GB/T 18802.11/IEC 61643-11
Power supply system		Single phase (TT)		Three-phase four line (TT)
Certification	Shanghai Lightning Protection Center			
Type test	Shanghai Lightning Protection Center			
Order number	CZLB-40/1P+1: 7047317 CZLB-40/1P+1F: 7054943		CZLB-40/3P+1: 7078829 CZLB-40/3P+1F: 7091611	

Dimensions (18mm/P)



Typical applications



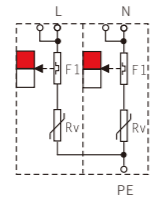
Cautions:
Backup fuses are recommended to be installed in case SPD get short-circuited.
For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

For AC Power(160kA)

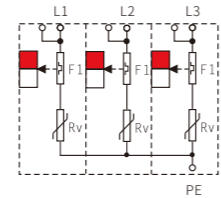
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

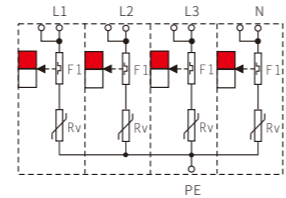
CZLB-160/440/2P



CZLB-160/440/3P

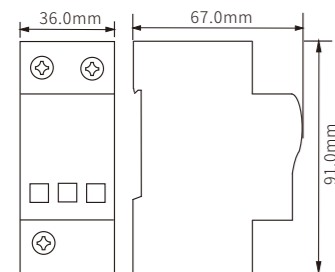


CZLB-160/440/4P



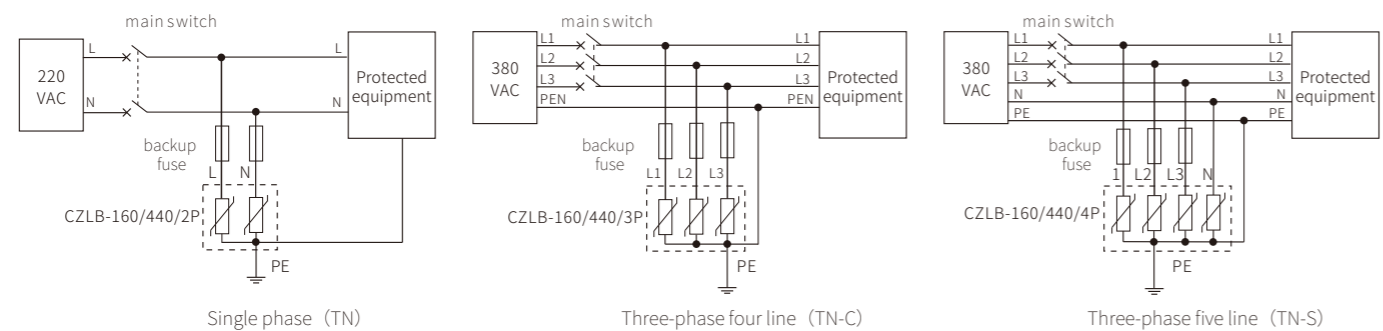
Technical data	CZLB-160/440/2P	CZLB-160/440/3P	CZLB-160/440/4P
Max. continuous operating voltage U_c	440VAC	440VAC	440VAC
Nominal discharge current $I_n(8/20\mu s)$	80kA	80kA	80kA
Max. discharge current $I_{max}(8/20\mu s)$	160kA	160kA	160kA
Impulse current $I_{imp}(10/350\mu s)$	15kA	15kA	15kA
Voltage protection level $U_p(In)$	2.8kV	2.8kV	2.8kV
Recommended backup fuse	200A gG	200A gG	200A gG
Recommended grounding cable	4~35mm ²	4~35mm ²	4~35mm ²
Response time	25ns	25ns	25ns
Housing protection grade(IEC60529)	IP 20	IP 20	IP 20
Housing material/Flammability rating(UL94)	PA66/V0	PA66/V0	PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11	GB/T 18802.11/IEC 61643-11
Power supply system	Single phase (TN)	three-phase four line (TN-C) Three-phase three line (IT)	Three-phase five line (TN-S)
Certification			
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	7024977	7069757	7086079

Dimensions (36mm/P)



67.0mm × 91.0mm × 72.0mm 67.0mm × 91.0mm × 108.0mm 67.0mm × 91.0mm × 144.0mm

Dimensions



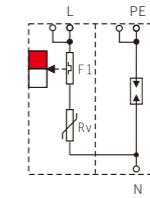
Cautions:
 Backup fuses are recommended to be installed in case SPD get short-circuited.
 For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
 For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

For AC Power(160kA)

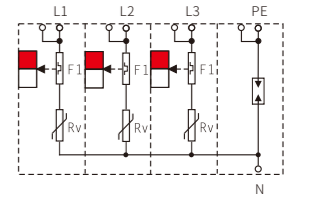
Features

- Status indication:
 - Green: OK
 - Red: Failed
- Pluggable
- Remote alarm output is optional, named with "F"

CZLB-160/440/1P+1

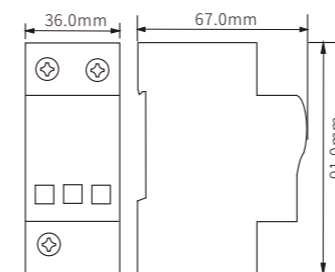


CZLB-160/440/3P+1



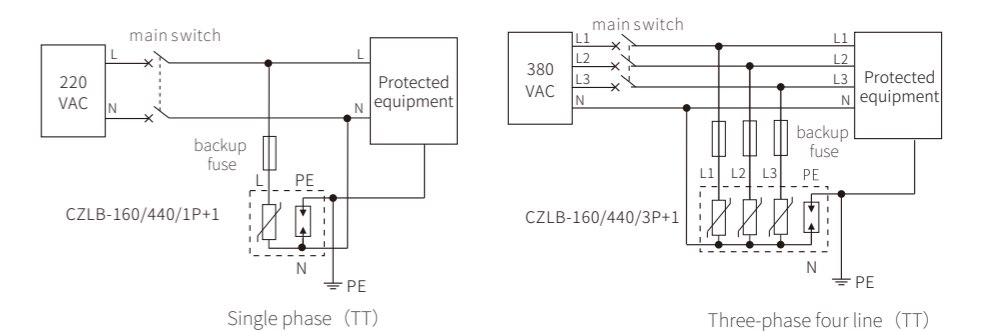
Technical data	CZLB-160/255	CZLB-160/440	CZLB-160/255	CZLB-160/440
Max. continuous operating voltage U_c	255VAC	440VAC	255VAC	440VAC
Nominal discharge current $I_n(8/20\mu s)$	80kA	80kA	80kA	80kA
Max. discharge current $I_{max}(8/20\mu s)$	160kA	160kA	160kA	160kA
Impulse current $I_{imp}(10/350\mu s)$	50kA	15kA	50kA	15kA
Voltage protection level $U_p(In)$	2.5kV	2.8kV	2.5kV	2.8kV
Recommended backup fuse		200A gG		200A gG
Recommended grounding cable		4~35mm ²		4~35mm ²
Response time		25ns		25ns
Housing protection grade(IEC60529)		IP 20		IP 20
Housing material/Flammability rating(UL94)		PA66/V0		PA66/V0
Testing standard	GB/T 18802.11/IEC 61643-11		GB/T 18802.11/IEC 61643-11	
Power supply system	Single phase (TT)		Three-phase four line (TT)	
Certification				
Type test	Shanghai Lightning Protection Center		Shanghai Lightning Protection Center	
Order number		7053172		7083196

Dimensions (36mm/P)



67.0mm × 91.0mm × 72.0mm 67.0mm × 91.0mm × 144.0mm

Dimensions



Cautions:
 Backup fuses are recommended to be installed in case SPD get short-circuited.
 For connecting to L/N.cables with a cross-sectional area $\geq 4\text{mm}^2$ are recommended.
 For connecting to PE.cables with a cross-sectional area $\geq 6\text{mm}^2$ are recommended.

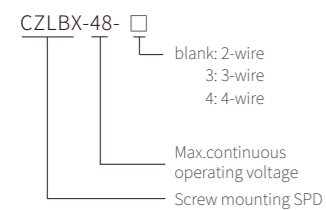
Screw mounting SPD

Features

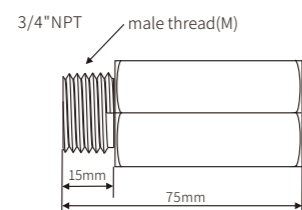
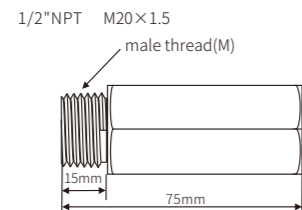
- Intrinsic safety certification; explosion proof electrical product certification
- Available in various of thread specification
- Available in various of housing material

Technical data	2-wire	3-wire	4-wire
Nominal operating voltage U_n	24V DC	24V DC	24V DC
Max. continuous operating voltage U_c	48V DC	48V DC	48V DC
Nominal discharge current I_n (8/20 μ s)	10kA	10kA	10kA
Impulse current I_{imp} (10/350 μ s)	2.5kA	2.5kA	2.5kA
Voltage protection level U_p (8/20 μ s) L-L	60V	60V	60V
Voltage protection level U_p (1kV/ μ s) L-G	600V	600V	600V
Bandwidth(-0.5dB)	10MHz	10MHz	10MHz
Response time	L-L:1ns,L-G:200ns	L-L:1ns,L-G:200ns	L-L:1ns,L-G:200ns
Housing protection grade(IEC60529)	IP 67	IP 67	IP 67
Housing material	304 or 316	304 or 316	304 or 316
Testing standard	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21
Certification			
Ex marking	Exia II C T6...T4 Ga	Exia II C T6...T4 Ga	Exia II C T6...T4 Ga
Certificate Number	CSANe 21ATEX2011X	CSANe 21ATEX2011X	CSANe 21ATEX2011X
Entity Parameters	$U_i=48V; I_i=500mA; P_i=5.32W;$ $C_i=0nF; L_i=0mH$	$U_i=48V; I_i=500mA; P_i=5.32W;$ $C_i=0nF; L_i=0mH$	$U_i=48V; I_i=500mA; P_i=5.32W;$ $C_i=0nF; L_i=0mH$
Functional safety certification	SIL3	SIL3	SIL3
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	1/2" NPT(304): 7033621 3/4" NPT(304): 7018843 M20×1.5(304): 7058541	1/2" NPT(304): 7062052 3/4" NPT(304): 7093235 M20×1.5(304): 7066381	1/2" NPT(304): 7085246 3/4" NPT(304): 7019671 M20×1.5(304): 7053866

Naming

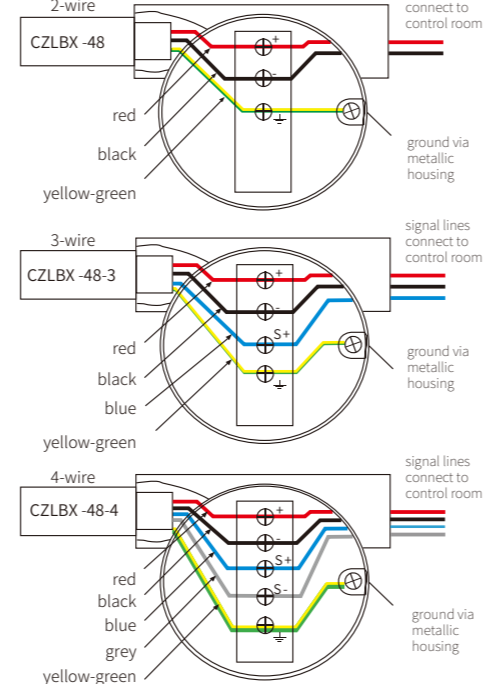


Dimensions



Wire specification: 26/0.254
Signal wire is with 18AWG, 1mm²
Ground wire is with 16AWG, 1.32mm²
Wire length: 240mm

Typical applications



iFL Network SPD

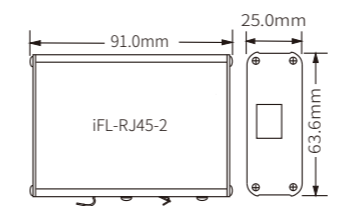
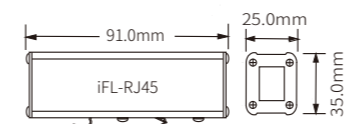
Features

- Fully aluminium alloy housing, good electromagnetic shielding.
- Suitable for various of network cameras.
- Grounded by DIN rail or screw terminals

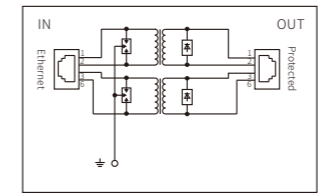
Technical data

	RJ45	24VDC	220VAC
Max. continuous operating voltage U_c	8VDC	58VDC/40VAC	270VAC
Nominal discharge current I_n	2kA	10kA	3kA
Voltage protection level U_p (L-L/L-G)	100V/300V	850V/1kV	1kV/1.2kV
Bandwidth	100MHz	-	-
Insertion loss (0.1~50MHz)	0.5dB	-	-
Wires protected	1/2,3/6	+/-	L/N
Interface	RJ45	plug-inwiring	plug-inwiring
Housing protection grade(IEC60529)	IP20	IP20	IP20
Housing material(housing/end face)	Aluminium alloy/304 stainless steel	Aluminium alloy/304 stainless steel	Aluminium alloy/304 stainless steel
Testing standard	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21
Certification			
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	7079893	7978591	7054623

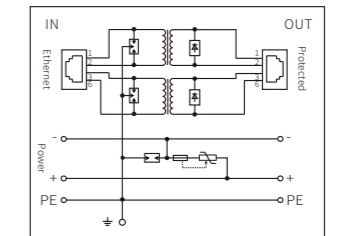
Dimensions



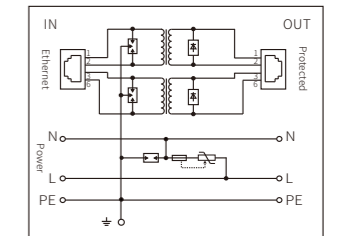
iFL-RJ45 Network



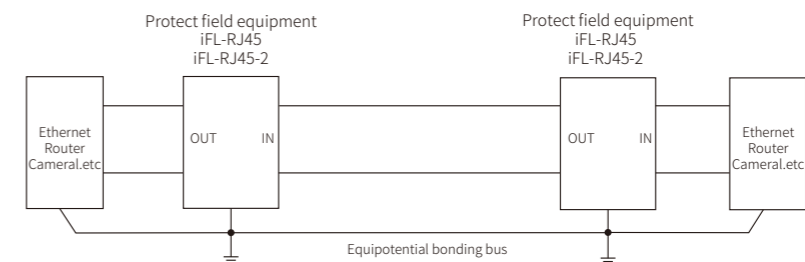
iFL-RJ45-2 Network, 24V power 2 in 1



iFL-RJ45-2 Network, 220V power 2 in 1



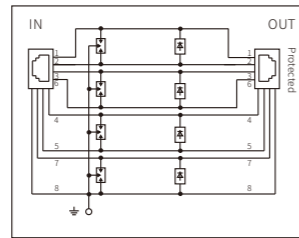
Typical applications



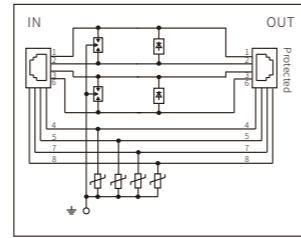
Features

- Fully aluminium alloy housing, good electromagnetic shielding.
- Suitable for various of network cameras.
- Grounded by DIN rail or screw terminals

iFL-RJ45/GigE
GigE

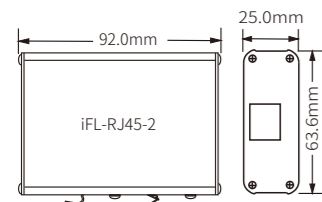


iFL-RJ45/PoE
PoE



Technical data	GigE	PoE power
Max. continuous operating voltage U_c	60VDC	60VDC
Nominal discharge current I_n	2kA	2kA
Voltage protection level U_p (L-L/L-G)	600V/1kV	600V/1kV
Bandwidth	500MHz	-
Insertion loss (0.1~50MHz)	≤ 0.5 dB	-
Wires protected	1/2,3/6,4/5,7/8	+/-
Interface	RJ45	RJ45
Housing protection grade(IEC60529)	IP20	IP20
Housing material (housing/end face)	Aluminium alloy/304 stainless steel	Aluminium alloy/304 stainless steel
Testing standard	GB/T 18802.21/IEC 61643-21	GB/T 18802.21/IEC 61643-21
Certification		
Type test	Shanghai Lightning Protection Center	Shanghai Lightning Protection Center
Order number	7058560	7069852

Dimensions

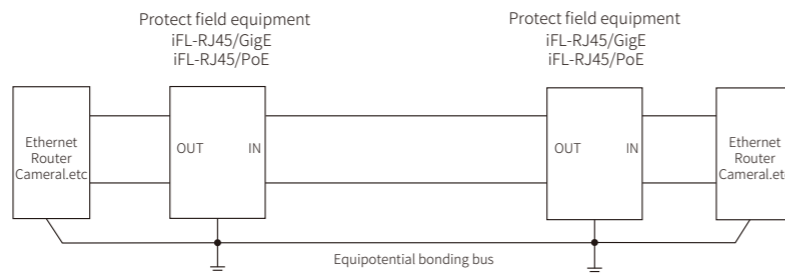


92.0mm × 63.6mm × 25.0mm



92.0mm × 63.6mm × 25.0mm

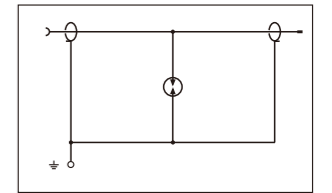
Typical applications



Features

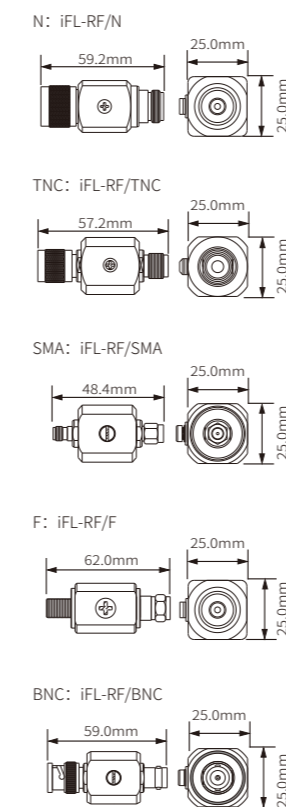
- Fully aluminium alloy housing, good electromagnetic shielding.
- Available in various of thread specification.
- Low insertion loss and standing wave ratio

iFL-RF



Technical data	
Max. continuous operating voltage U_c	24V
Nominal discharge current I_n (8/20 μ s)	10kA
Max. discharge current I_{max} (8/20 μ s)	20kA
Voltage protection level U_p	450V
Frequency range	0~4GHz
Response time	100ns
Interface	SMA、N、F、TNC、BNC
Insertion loss	≤ 1.5 GHz(0.1dB)/ ≤ 4 GHz(2dB)
Characteristic impedance	50 Ω (N、TNC、SMA);75 Ω (F、BNC)
Housing protection grade(IEC60529)	IP 55
Housing material	aluminium alloy
Testing standard	GB/T 18802.21/IEC 61643-21

Dimensions



Typical applications

