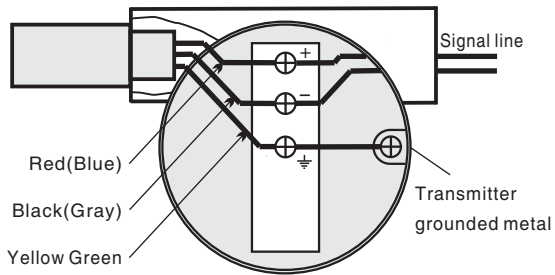
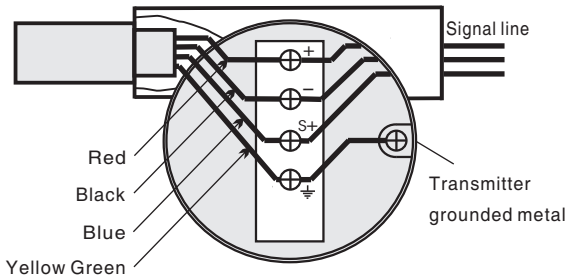


## ■ Connections

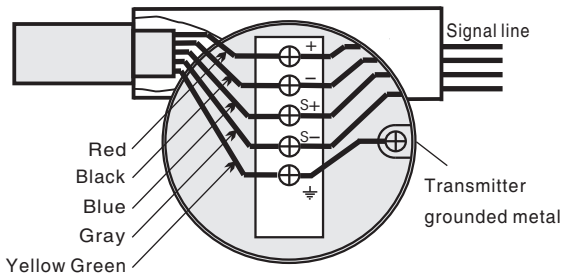
2-wire:



3-wire



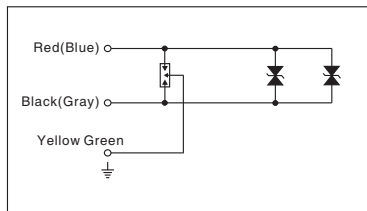
4-wire



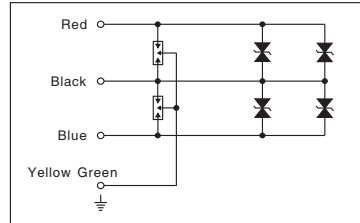
Note: The wires between surge protective device and protected devices (including ground lines) should be as short as possible.

## ■ Function principle diagram

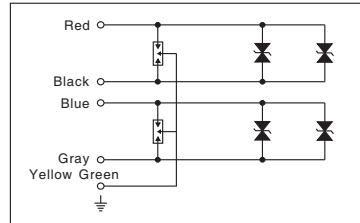
CZLBX-48



CZLBX-48-3



CZLBX-48-4



## ■ Maintenance

- (1). Before using, SPD must have a reliable grounding.
- (2). Before using, please check again whether the module's EX-proof rating accords with the operating ambient, and wiring and polarity are correct. If working with flameproof transmitter, live action is not allowed.
- (3). The products were test strictly before leaving factory. If users find any abnormalities in the module, please contact the nearest agent or our company.
- (4). In 5 years from the delivery date, if the product works improperly during normal operation, we will repair or replace it without payment.

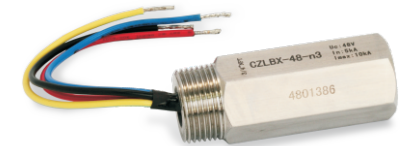
SHANGHAI CHENZHU INSTRUMENT CO.,LTD.

Add: Building 6, 201 Minyi Road, Caohejing Hi-Tech Park  
Songjiang New Industrial Park, Shanghai 201612, P.R. China  
Tel : +86-21-64513350 Fax : +86-21-64846984  
Email : chenzhu@chenzhu-inst.com  
<http://www.chenzhu-inst.com>



## Surge Protective Device

CZLBX-48 series



## ⚠ Caution

- Please check whether the product type on the package accords to the ordering contract;
- Read this manual carefully before installation or use. If there is something unclear, you can dial our technic support hotline;
- Prevent friction, avoid electrostatic;
- Users are not allowed to dismantle or repair the SPD otherwise it will induce malfunction.

## ■ Summarize

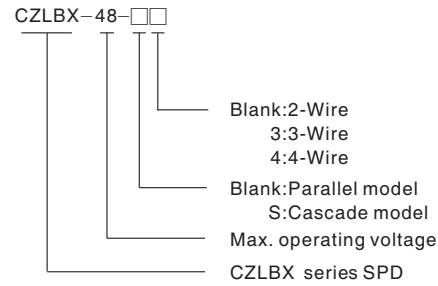
CZLBX-48 series surge protective device is designed for protecting devices in the field from damaging by surges and field instruments which is usually caused by lightning strikes. The product has passed the test of shanghai lightning protection center. Explosion protect performance has passed the certification of National Supervision and Inspection Centre for Explosion Protection and Safety of Instrumentation.

- (1). Conveniently installed on spare screwed holes of protected devices.
- (2). Paralleled with signal cables of protected devices.
- (3). Total discharge current is 20kA.
- (4). Protecting 2-wire, 3-wire, 4-wire field instruments.

## ■ Specification

Rated operating voltage $U_n$ (DC):	24V
Max. operating voltage $U_c$ (DC) :	48V
Rated discharge current $I_n(8/20\mu s)$ :	5KA
Max. discharge current $I_{max}(8/20\mu s)$ :	10KA
Total discharge current $I_{total}(8/20\mu s)$ :	20KA
Protection level $U_p$ (8/20 $\mu s$ , line to line):	85V
Protection level $U_p$ (8/20 $\mu s$ , line to ground):	600V
Response time (line to line):	1ns
Response time (line to ground):	100ns
Bandwidth(-0.5dB):	2MHz
Leakage current:	<2 $\mu A$
Temperature range:	-40 $^{\circ}C$ ~ +85 $^{\circ}C$
Relative humidity:	5%~95%
Material:	304 stainless steel
Degree of protection:	IP65
Test standards:	GB 18802.21 IEC 61643-21
Lightning protection performance test:	Shanghai lightning protection centre

## ■ Model designations



Customer can specify the thread standards:

- M20×1.5(International)
- 1/2" NPT(American)
- 3/4" NPT(American)
- Pg13.5(German)
- G1/2"(British)
- G3/4"(British)

## ■ Safety certification

National Quality Supervision and Inspection Center for Products of Process Automation Instrumentation  
Certification standards:  
GB/T 20438.1(IEC 61508-1)  
GB/T 20438.2(IEC 61508-2)  
GB/T 18802.21(IEC 61643-21)  
Functional safety level:SIL3

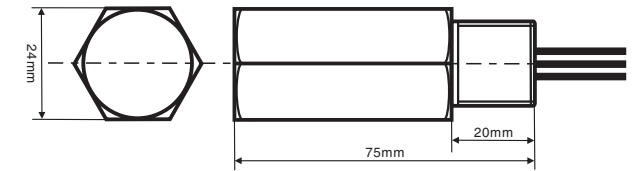
## ■ Explosion-proof parameters

China National Quality Supervision and Testcentre for Explosion Protected Electrical Products(CQST).  
EX-standards:  
Ex ia IIC T4~T6 Ga  
Ex d IIC T4~T6 Gb  
Certification standards:  
GB3836.1-2010(IEC 60079-0)  
GB3836.2-2010(IEC 60079-1)  
GB3836.4 -2010(IEC 60079-11)  
Explosion-proof parameters:

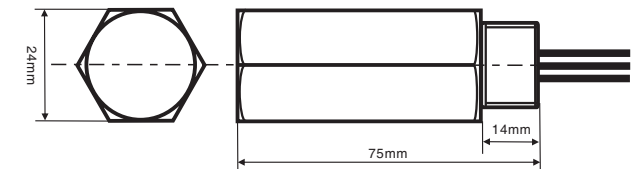
Type	$U_i$	$I_i$	$P_i$	$C_i$	$L_i$
CZLBX-48	50V	32mA	0.4W	0 $\mu F$	0mH
CZLBX-48-3	50V	16mA	0.2W	0 $\mu F$	0mH
CZLBX-48-4	50V	32mA	0.4W	0 $\mu F$	0mH

## ■ Dimensions

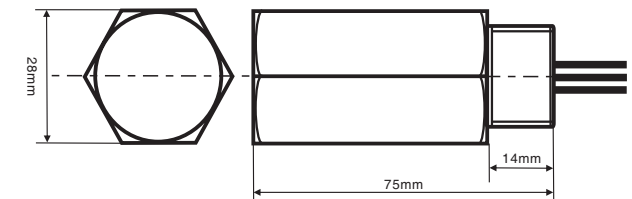
I: M20×1.5  
P: Pg13.5



N: 1/2" NPT  
g: G1/2"



n: 3/4" NPT  
G: G3/4"



Note: Wire size 32/0.2 (1.0mm<sup>2</sup>, 18AWG), length 150mm.