

SPD Specification



Product name	LVED SPD
Product model	P-10、S-10 (Class I) P-10/II、S-10/II (Class II)
Pieces per box	200

Insulation Class	Application field					
	TN	TNC	TNS	TNCS	TT	IT
Class I	✓	✓	✓	✓		
Class II	✓	✓	✓	✓	✓	✓

Electrical specifications

Specifications	Parameter	Value	Unit	Condition
Classification		Class III (T3) Class II (T2)		IEC/EN 61643-11 GB/T18802.11-2020
Protection mode		Diff. mode & Comm. Mode Diff. Mode: P-10/II S-10P/II		
(L-N) Max. continuous operating voltage	Uc (L-N)	320	VAC	50 ... 60 Hz
(L-GND) Max. continuous operating voltage	Uc (L-GND)	320 P-10 S-10	VAC	50 ... 60 Hz
(N-GND) Max. continuous operating voltage	Uc (N-GND)	15 P-10 S-10	VAC	50 ... 60 Hz The L N input line must be connected correctly and cannot be reversed.L N
Temporary overvoltage TOV	UT	336.6	V	LV system fault: 255 V x 1.32 at tt =5S, TN
Temporary overvoltage TOV	UT	441.6	V	LV system fault: 255 V x $\sqrt{3}$ at tt = 120m, TN
Power grids		TN: P-10 S-10 TT、IT P-10/II S-10/II		Incl. all TN varieties TN-C, TN-C-S, TN-S
(L-N) Nominal discharge current	In (L-N)	5	kA	8/20uS
(L-GND) Nominal discharge current	In (L-GND)	5 P-10 S-10	kA	8/20uS

标称放电电流Nominal discharge current	I_n (N-GND)	5 P-10 S-10	kA	8/20uS
Max discharge current	$I_{max}(L-N)$ (L-GND) (N-GND)	12 P-10 S-10	kA	1 strike
Max discharge current	$I_{max}(L-N)$	12 P-10/II S-10/II	kA	1 strike
(L-N) Max. voltage protection level at I_n	U_p (L-N)	1.5	kV	5kA 8/20uS
(L-GND) Max. voltage protection level at I_n	U_p (L-GND)	2 P-10 S-10	kV	5kA 8/20uS
(N-GND) Max. voltage protection level at I_n	U_p (N-GND)	2 P-10 S-10	kV	5kA 8/20uS
Open-circuit voltage	U_{oc}	10	kV	
Backup fuse		16	A	Max., gG fuse
End of life indication		Yes		Light ON: SPD is functional. Light OFF: SPD has reached end-of-life
Max earth leakage current at U_c		50 P-10 S-10	μ A	Max. rms, to GND
IP IP protection level		IP67		

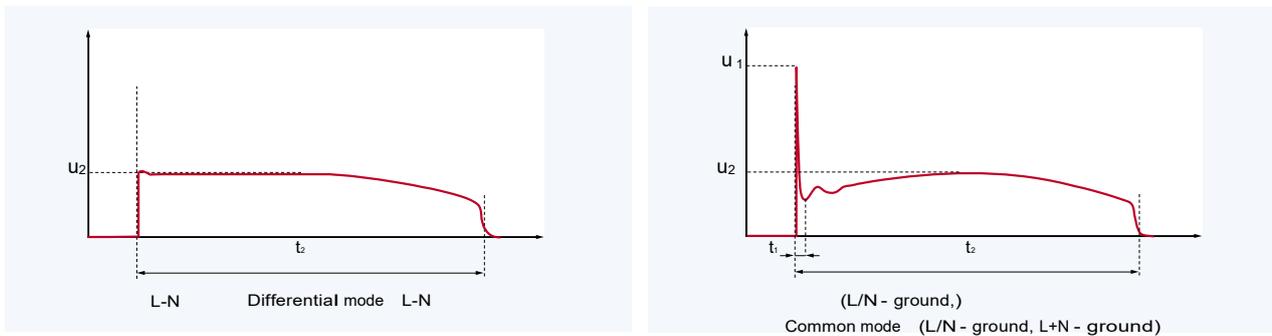
Other specifications

Specifications	Parameter	Value	Unit	Condition
Surge withstand capability		1	strike	Max. at 12KA
		20	strikes	Min. at 5kA
		50	strikes	Min. at 3kA
Nominal current		5 S-10 S-10/II	A	(50-60Hz) Rated load current at 50 ... 60 Hz
Power consumption		0.5	W	Max. at $U_c = 320VAC$; Load current=5A

Suitable for luminaires		Class I P-10 S-10 Class II P-10/II S-10/II		IEC60598 Insulation Class acc. IEC60598
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Protection levels Up

Model	Ic 8/20 μ s	U2 Differential mode U2	(L-G) U1/U2 Common mode U1/U2	(N-G) U1/U2 Common mode U1/U2
P-10 S-10	5kA	≤ 1500 V	≤ 2000 V / 1400 V	≤ 2000 V / 1000 V
P-10/II S-10/II	5kA	≤ 1500 V	N/A	N/A



Environmental conditions

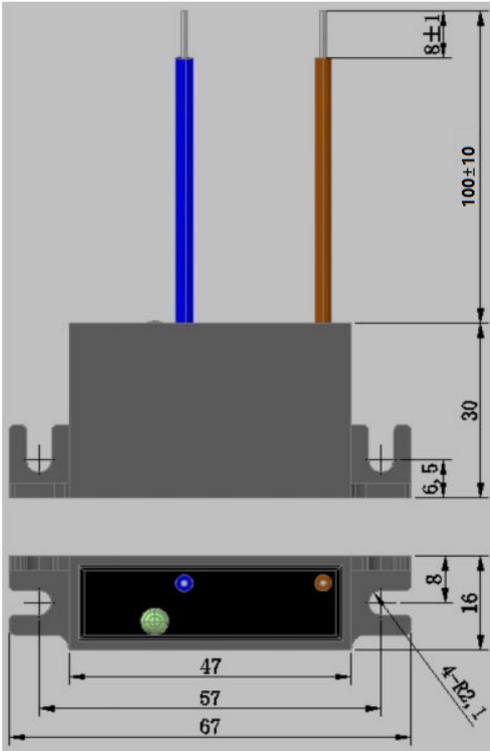
Specification item	Value	Unit	Condition
Ambient temperature	-40...80	°C	
T _{case-max.}	85	°C	Measured at T _c -point
Storage temperature	-40...85	°C	
Relative humidity	5...95	%	Non-condensing
Suitable for outdoor luminaires	Yes		Built-in only

Lifetime

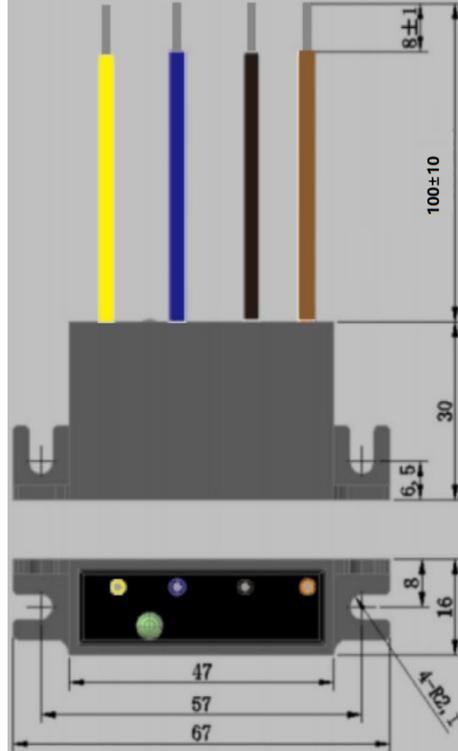
Specification item	Value	Unit	Condition
Lifetime	100,000	hours	Measured @ T _{case-max} with min 90% survival

Product dimensions

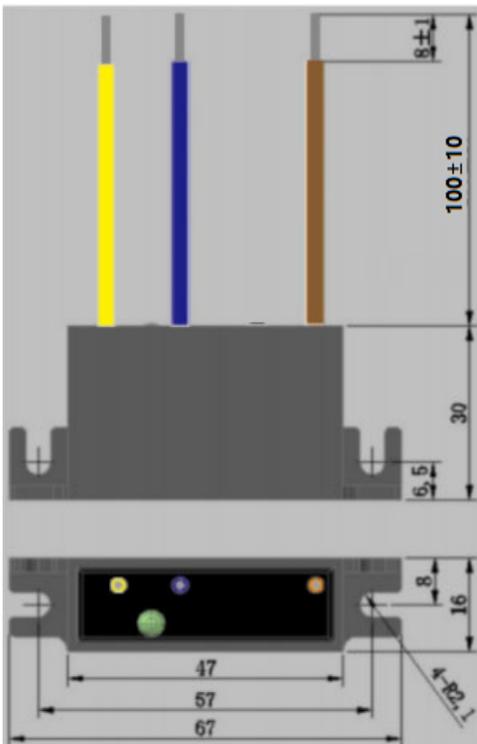
P-10//II



S-10、S-10//II



P-10



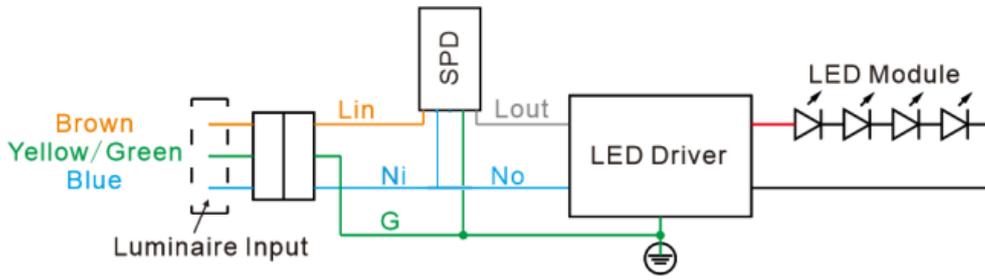
dimensions in mm

Mounting length	47	mm
Overall length	67	mm
Case Width	30	mm
Case Height	16	mm
Fixing hole diameter	M4 (57)	mm

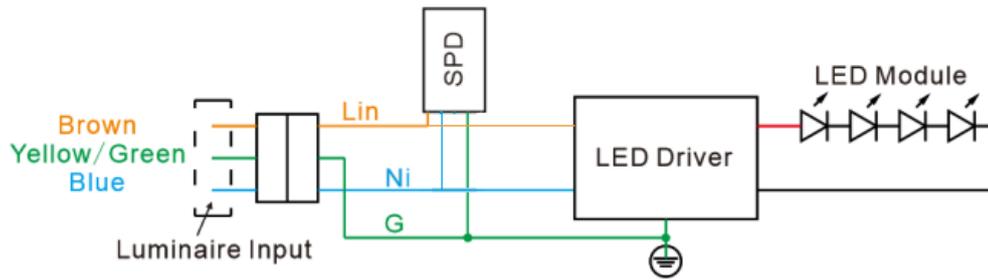
Wiring

Specification item	Value	Unit	Condition
Wire diameter	0.77-0.87 (18#1015) mm ²	mm ²	
Wire strip length	7~9	mm	

Wiring diagram Insulation Class I application



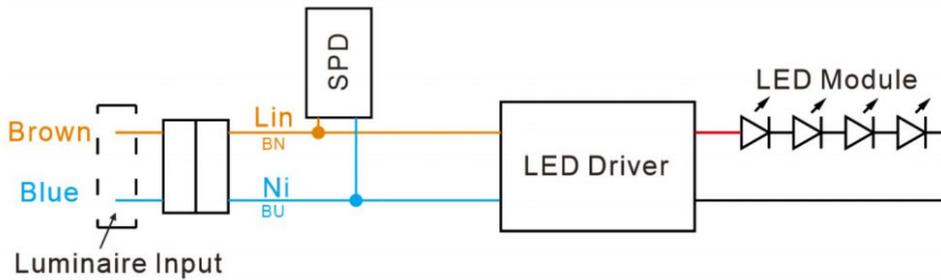
S-10



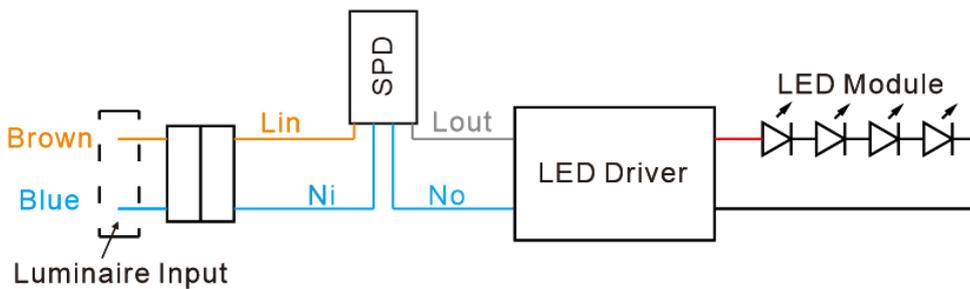
P-10

The L N input line must be connected correctly and cannot be reversed.L N

Wiring diagram Insulation Class II application



P-10/II



S-10/II