SLDN Series Display Lights

Super Bright LED Illumination Increased Visibility for Higher Safety

- The LED units can be removed, so the color arrangements can be easily changed.
- The finger-safe spring-up terminals save wiring time.
- Six illumination colors; amber, green, red, blue, white, and yellow.
- Full, 2-way or 3-way split illumination, and two-color (red/green) alternate illumination are available.
- Legends can be engraved on the supplied marking plate. One or two thin marking sheets (not supplied) can also be installed.

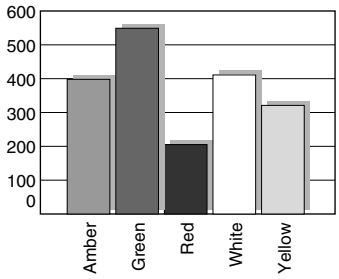
Applicable Standards	Mark	File No. or Organization
UL508 CSA C22.2 No.14	c UL us LISTED	UL/c-UL Listed File No. E68961
EN60947-5-1 (Note)	Ⓓ	DEMKO
	CE	EU Low Voltage Directive

Note: Except for DC-DC converter and resistor types.

Enhanced Safety

The brightness of the super LED units results in vibrant colors and prevents recognition errors.
(IEC 60073 and IEC 60204-1)

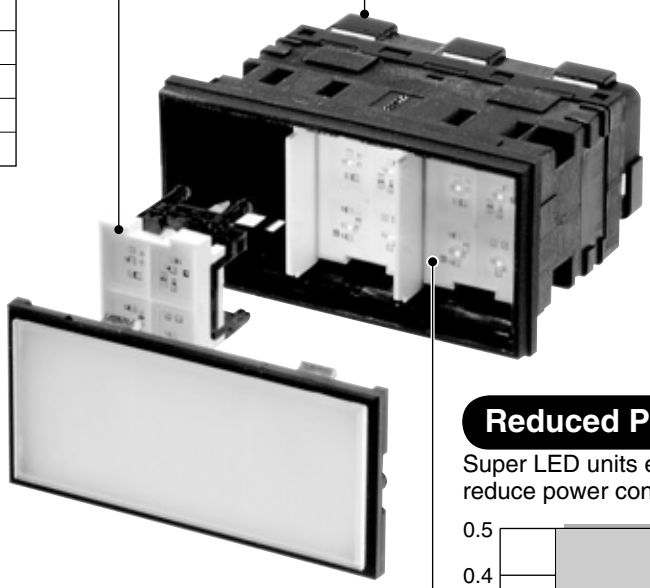
Brightness (Previous SLD = 100)



Special circuitry is used to prevent unintended lighting due to leakage current or induced voltage.
(See page 598 for details.)

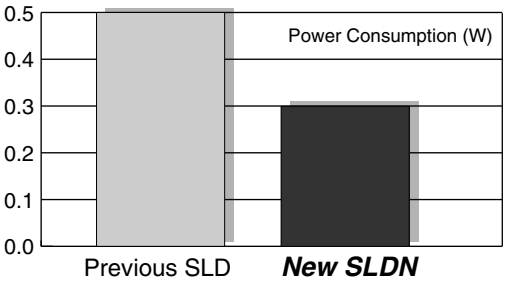
Reduced Wiring Time

The captive spring-up terminals cut wiring time in half compared with conventional units. The integrated terminal cover prevents electrical shocks. For 2-color alternate and check terminal units, separate terminal covers are available.



Reduced Power Consumption

Super LED units ensure high brightness and reduce power consumption by 40%.



Easy Replacement of LED Units

Two or three LED units are installed in the split-illumination display units. Since the LED units are removable, the color arrangement can be changed easily.

SLDN Series Display Lights

SLDN List

Model	Shape	Frame Size (Lens Size)	Input Voltage	Illumination Face	Operating Voltage	Illumination Color
SLD30N		DIN Size 36 × 36 mm (28 × 28 mm)	Full Voltage	1-color Full	6V DC ±5% 12V AC/DC ±10% 24V AC/DC ±10%	Amber, Green, Pure White, Red, Blue, White, Yellow
				1-color Full w/check terminal	24V DC ±10%	
				2-color Alternate	24V DC ±10%	Red/Green
			Transformer	1-color Full	100/110V AC±10% 115/120V AC±10% 200/220V AC±10% 230/240V AC±10%	Amber, Green, Pure White, Red, Blue, White, Yellow
			DC-DC Converter	1-color Full	110V DC (90 to 140V DC)	
SLD44N		40 × 40 mm (32 × 32 mm)	Full Voltage	1-color Full	6V DC ±5% 12V AC/DC ±10% 24V AC/DC ±10%	Amber, Green, Pure White, Red, Blue, White, Yellow
				1-color Full w/check terminal	24V DC ±10%	
				2-color Alternate	24V DC ±10%	Red/Green
			Transformer	1-color Full	100/110V AC±10% 115/120V AC±10% 200/220V AC±10% 230/240V AC±10%	Amber, Green, Pure White, Red, Blue, White, Yellow
			DC-DC Converter	1-color Full	110V DC (90 to 140V DC)	
SLD72N		DIN Size 36 × 72 mm (28 × 64 mm)	Full Voltage	1-color Full	6V DC ±5% 12V AC/DC ±10% 24V AC/DC ±10%	Amber, Green, Pure White, Red, Blue, White, Yellow
				2-way Split		
				3-way Split		
				1-color Full w/check terminal	24V DC ±10%	
				2-color Alternate	24V DC ±10%	Red/Green
			Transformer	1-color Full	100/110V AC±10% 115/120V AC±10% 200/220V AC±10% 230/240V AC±10%	Amber, Green, Pure White, Red, Blue, White, Yellow
				2-way Split		
				3-way Split		
			DC-DC Converter	1-color Full	110V DC (90 to 140V DC)	
SLD48N		40 × 80 mm (32 × 72 mm)	Full Voltage	1-color Full	6V DC ±5% 12V AC/DC ±10% 24V AC/DC ±10%	Amber, Green, Pure White, Red, Blue, White, Yellow
				2-way Split		
				3-way Split		
				1-color Full w/check terminal	24V DC ±10%	
				2-color Alternate	24V DC ±10%	Red/Green
			Transformer	1-color Full	100/110V AC±10% 115/120V AC±10% 200/220V AC±10% 230/240V AC±10%	Amber, Green, Pure White, Red, Blue, White, Yellow
				2-way Split		
				3-way Split		
			DC-DC Converter	1-color Full	110V DC (90 to 140V DC)	

SLDN Part No. Development

SLD 72 N - 1 DH2 B R

Frame Size
30: 36 × 36 mm
44: 40 × 40 mm
72: 36 × 72 mm
48: 40 × 80 mm

Face Division
1: Full
2: 2-way split
3: 3-way split

Illumination Color
A: Amber
G: Green
PW: Pure White (except 6 and 12V AC/DC)
R: Red
S: Blue (except 6 and 12V AC/DC)
W: White
Y: Yellow

Housing Color
B: Black

Power Voltage
[Full Voltage]
DH0: 6V or 12V AC/DC (LED unit not supplied)
DH2: 24V AC/DC
DHM2: 24V DC (with check terminal)
DW2: 24V DC (2-color alternate)

[Transformer]
TH1: 100/110V AC
TH12: 115/120V AC
TH2: 200/220V AC
TH24: 230/240V AC

[DC-DC Converter]
CH1: 110V DC

SLD30N | DIN36mm Square (Illumination face size 28mm square)

Specifications

Input	Full Voltage	Transformer	DC-DC Converter
Rated Voltage (Primary Voltage)	24V AC/DC, 24V DC *1 6V AC/DC, 12V AC/DC	100/110, 115/120, 200/220, 230/240V AC	110V DC
Light Source	1-color LED unit 2-color LED unit *2	1-color LED unit	
LED Life (reference)	Approx. 50,000 hours (when used on complete DC, luminance reduces to 50% of the initial intensity)		
Face Division	Full		
Illumination Color	Amber, Green, Pure White, Red, Blue, White, Yellow Red/Green *2	Amber, Green, Pure White, Red, Blue, White, Yellow	
Marking Plate	Clear (27 × 27 × 1 mm)		
Color Screen	White (27 × 27 × 1 mm)		
Engraving Area	25 × 25 mm		
Insulation Resistance	Between live and dead parts: 100 MΩ minimum (500V DC megger)		
Dielectric Strength	Between live and dead parts: 2000V, 1 minute		2500V, 1 minute
Vibration Resistance	5 to 55 Hz, amplitude 0.5 mm		
Shock Resistance	1000 m/s^2 (100G)		
Operating Temperature	–20 to +40°C (no freezing)		–10 to +40°C (no freezing)
Storage Temperature	–30 to +80°C (no freezing)		
Operating Humidity	45 to 85% RH (no condensation)		
Housing Color	Black		
Weight (approx.)	38g (1-color full) 43g (w/check terminal) 43g (2-color alternate)	85g (1-color full)	53g (1-color full)

*1: 24V DC is for 1-color full w/check terminal and 2-color alternate only.
*2: For 2-color alternate. PW: except 6, 12V AC/DC

SLD30N

Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Built-in LED Unit (see ratings on page 589)
Full Voltage	1-color Full	24V AC/DC ±10%	**SLD30N-1DH2B**∗	A, G, PW, R, S, W, Y	**SLDN-32F-∗T**
	1-color Full w/check terminal	24V DC ±10%	**SLD30N-1DHM2B**∗	A, G, PW, R, S, W, Y	**SLDN-32F-∗T**
	2-color Alternate	24V DC ±10%	**SLD30N-1DW2BRG**	RG (red/green)	**SLDN-32FW-RGT**
Transformer	1-color Full	100/110V AC ±10%	**SLD30N-1TH1B**∗	A, G, PW, R, S, W, Y	**SLDN-32F-∗T**
		115/120V AC ±10%	**SLD30N-1TH12B**∗	A, G, PW, R, S, W, Y	**SLDN-32F-∗T**
		200/220V AC ±10%	**SLD30N-1TH2B**∗	A, G, PW, R, S, W, Y	**SLDN-32F-∗T**
		230/240V AC ±10%	**SLD30N-1TH24B**∗	A, G, PW, R, S, W, Y	**SLDN-32F-∗T**
DC-DC Converter	1-color Full	110V DC (90 to 140V DC)	**SLD30N-1CH1B**∗	A, G, PW, R, S, W, Y	**SLDN-32F-∗T**

Note 1: Specify a color code in place of ∗ in the Part No.: A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow).
Note 2: The above SLD30N units contain an LED unit of the specified color. The LED unit is installed in the SLD30N housing at the factory.
Note 3: Every SLD30N unit contains a clear marking plate and a white color screen. When color display is required during power off, order a color screen separately and replace the clear marking plate with the color screen. For Part No. of color screens, see page 590.
Note 4: See page part no. development on page 574 when ordering transformer type 115/120V AC or 230/240V AC.

Full Voltage for 6V and 12V AC/DC (Order LED Units Separately)

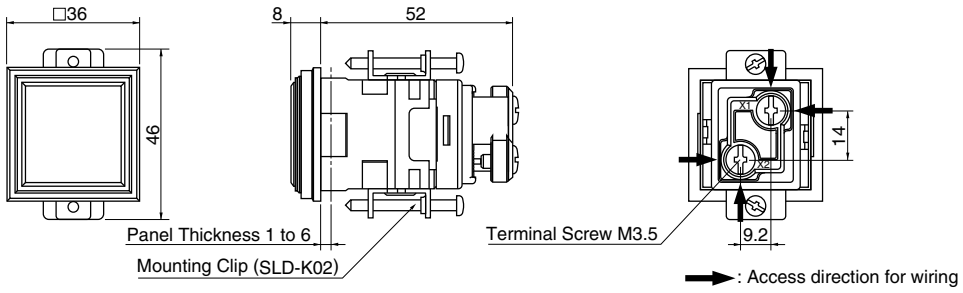
Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Applicable LED Unit (see ratings on page 589)
Full Voltage	1-color Full	6V AC/DC ±5%	**SLD30N-1DH0B-6**	A, G, R, W, Y	**SLDN-36F-∗T**
		12V AC/DC ±10%	**SLD30N-1DH0B-12**	A, G, R, W, Y	**SLDN-31F-∗T**

Note 1: The above SLD30N units are not supplied with LED units. Order applicable LED units by specifying a color code in place of ∗ in the Part No.: A (amber), G (green), R (red), W (white), Y (yellow).
Note 2: Every SLD30N unit contains a clear marking plate and a white color screen. When color display is required during power off, order a color screen separately and replace the clear marking plate with the color screen. For Part No. of color screens, see page 590.

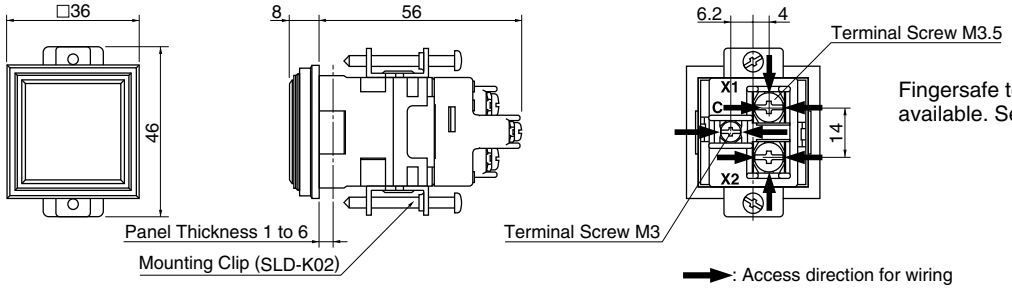
SLD30N	DIN36mm Square (Illumination face size 28mm square)

Dimensions

Full Voltage (1-color full)

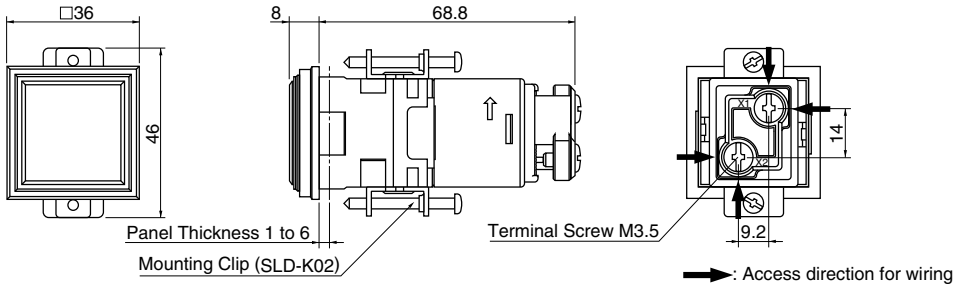


Full Voltage (1-color full w/check terminal and 2-color alternate)

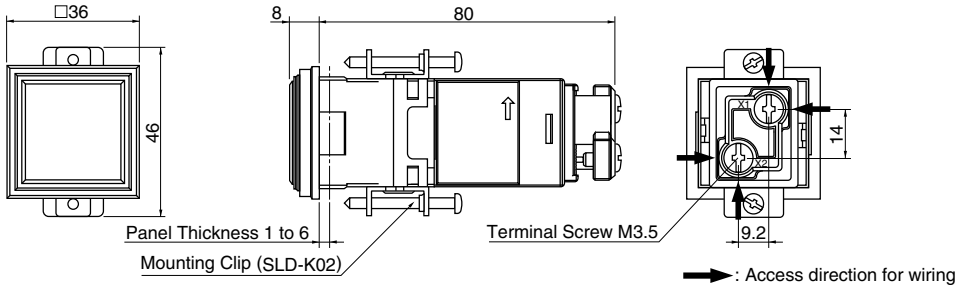


Fingersafe terminal cover is available. See page 590.

Transformer

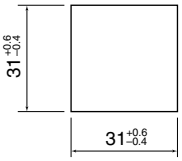


DC-DC Converter

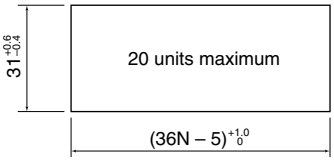


Panel Cut-out

Single Mounting

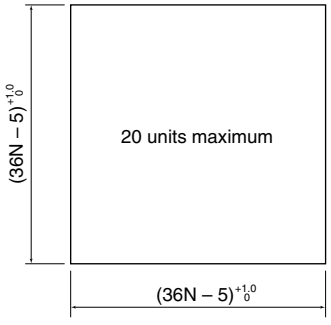


Horizontal Mounting



Vertical Mounting

Integrated Mounting



N: No. of units (rows/columns)

When using leaf springs for temporary fastening, order SLD-30KVP separately. See page 595.

All dimensions in mm.

SLD44N | 40mm Square (Illumination face size 32mm square)

Specifications

Input	Full Voltage	Transformer	DC-DC Converter
Rated Voltage (Primary Voltage)	24V AC/DC, 24V DC *1 6V AC/DC, 12V AC/DC	100/110, 115/120, 200/220, 230/240V AC	110V DC
Light Source	1-color LED unit 2-color LED unit *2	1-color LED unit	
LED Life (reference)	Approx. 50,000 hours (when used on complete DC, luminance reduces to 50% of the initial intensity)		
Face Division	Full		
Illumination Color	Amber, Green, Pure white, Red, Blue, White, Yellow Red/Green *2	Amber, Green, Pure White, Red, Blue, White, Yellow	
Marking Plate	Clear (31 × 31 × 1 mm)		
Color Screen	White (31 × 31 × 1 mm)		
Engraving Area	29 × 29 mm		
Insulation Resistance	Between live and dead parts: 100 MΩ minimum (500V DC megger)		
Dielectric Strength	Between live and dead parts: 2000V, 1 minute		2500V, 1 minute
Vibration Resistance	5 to 55 Hz, amplitude 0.5 mm		
Shock Resistance	1000 m/s^2 (100G)		
Operating Temperature	–20 to +40°C (no freezing)		–10 to +40°C (no freezing)
Storage Temperature	–30 to +80°C (no freezing)		
Operating Humidity	45 to 85% RH (no condensation)		
Housing Color	Black		
Weight (approx.)	46g (1-color full) 49g (w/check terminal) 49g (2-color alternate)	93g (1-color full)	60g (1-color full)

*1: 24V DC is for 1-color full w/check terminal and 2-color alternate only.
*2: For 2-color alternate. PW: except 6, 12V AC/DC

SLD44N

Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Built-in LED Unit (see ratings on page 589)
Full Voltage	1-color Full	24V AC/DC ±10%	**SLD44N-1DH2B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T**
	1-color Full w/check terminal	24V DC ±10%	**SLD44N-1DHM2B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T**
	2-color Alternate	24V DC ±10%	**SLD44N-1DW2BRG**	RG (red/green)	**SLDN-92FW-RGT**
Transformer	1-color Full	100/110V AC ±10%	**SLD44N-1TH1B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T**
		115/120V AC ±10%	**SLD44N-1TH12B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T**
		200/220V AC ±10%	**SLD44N-1TH2B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T**
		230/240V AC ±10%	**SLD44N-1TH24B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T**
DC-DC Converter	1-color Full	110V DC (90 to 140V DC)	**SLD44N-1CH1B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T**

Note 1: Specify a color code in place of ∗ in the Part No.: A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow).
Note 2: The above SLD44N units contain an LED unit of the specified color. The LED unit is installed in the SLD44N housing at the factory.
Note 3: Every SLD44N unit contains a clear marking plate and a white color screen. When color display is required during power off, order a color screen separately and replace the clear marking plate with the color screen. For Part No. of color screens, see page 590.
Note 4: See page part no. development on page 574 when ordering transformer type 115/120V AC or 230/240V AC.

Full Voltage for 6V and 12V AC/DC (Order LED Units Separately)

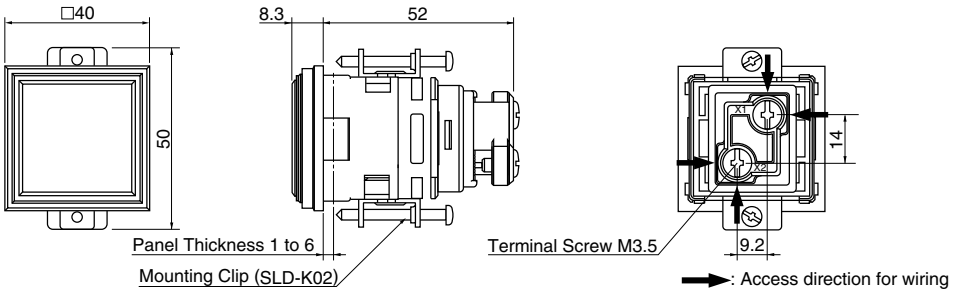
Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Applicable LED Unit (see ratings on page 589)
Full Voltage	1-color Full	6V AC/DC ±5%	**SLD44N-1DH0B-6**	A, G, R, W, Y	**SLDN-96F-∗T**
		12V AC/DC ±10%	**SLD44N-1DH0B-12**	A, G, R, W, Y	**SLDN-91F-∗T**

Note 1: The above SLD44N units are not supplied with LED units. Order applicable LED units by specifying a color code in place of ∗ in the Part No.: A (amber), G (green), R (red), W (white), Y (yellow).
Note 2: Every SLD44N unit contains a clear marking plate and a white color screen. When color display is required during power off, order a color screen separately and replace the clear marking plate with the color screen. For Part No. of color screens, see page 590.

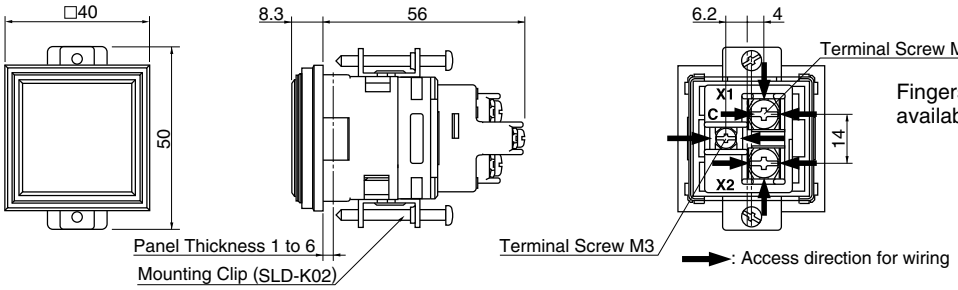
SLD44N	40mm Square (Illumination face size 32mm square)

Dimensions

Full Voltage (1-color full)

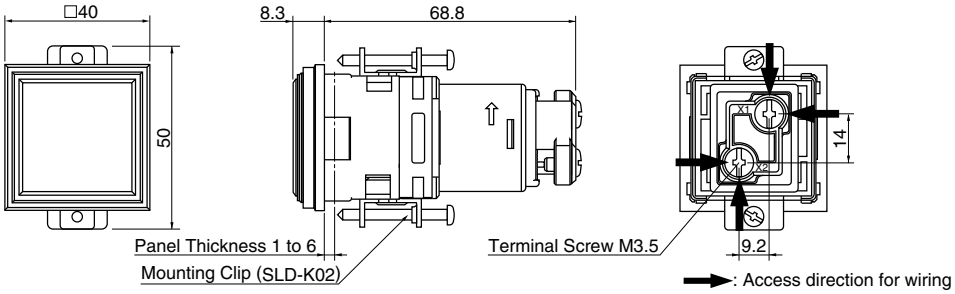


Full Voltage (1-color full w/check terminal and 2-color alternate)

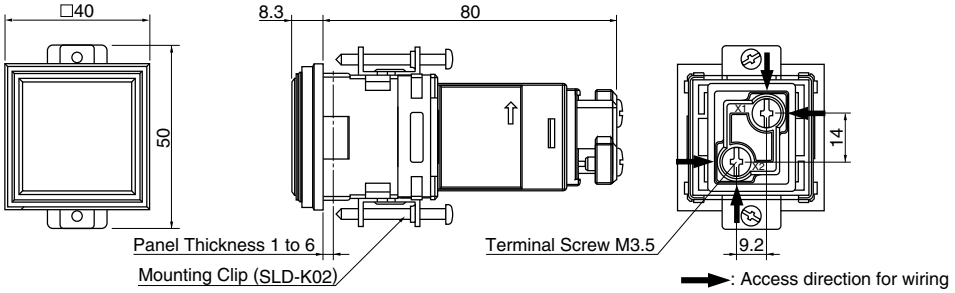


Fingersafe terminal cover is available. See page 590.

Transformer

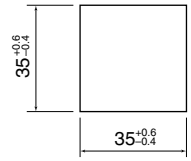


DC-DC Converter

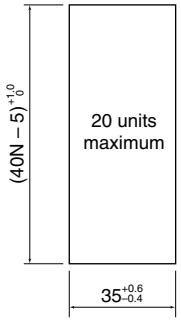


Panel Cut-out

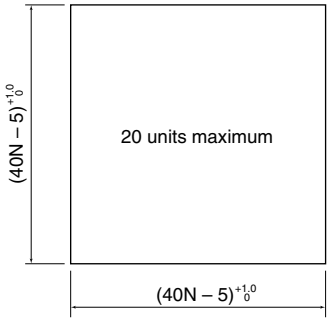
Single Mounting



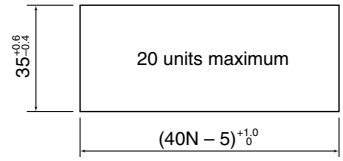
Vertical Mounting



Integrated Mounting



Horizontal Mounting



N: No. of units (rows/columns)

When using leaf springs for temporary fastening, order SLDN-44KVP separately. See page 595.

All dimensions in mm.

SLDN Series Display Lights

SLD72N	DIN36 × 72mm (Illumination face size 28 × 64mm)

Specifications

Input	Full Voltage	Transformer	DC-DC Converter
Rated Voltage (Primary Voltage)	24V AC/DC, 24V DC *1 6V AC/DC, 12V AC/DC	100/110, 115/120, 200/220, 230/240V AC	110V DC
Light Source	1-color LED unit 2-color LED unit *2	1-color LED unit	
LED Life (reference)	Approx. 50,000 hours (when used on complete DC, luminance reduces to 50% of the initial intensity)		
Face Division	Full *3, 2-way split, 3-way split	Full, 2-way split, 3-way split	Full
Illumination Color	Amber, Green, Pure White, Red, Blue, White, Yellow, Red/Green *2	Amber, Green, Pure White, Red, Blue, White, Yellow	
Marking Plate	Clear (27 × 63 × 1 mm)		
Color Screen	White (Full: 27 × 63 × 1 mm, 2-way split: 27 × 31.5 × 1 mm, 3-way split: 27 × 21 × 1 mm)		
Engraving Area	Full: 25 × 61 mm, 2-way split: 25 × 29.5 mm, 3-way split: 25 × 19 mm		
Insulation Resistance	Between live and dead parts: 100 MΩ minimum (500V DC megger)		
Dielectric Strength	Between live and dead parts: 2000V, 1 minute		2500V, 1 minute
Vibration Resistance	5 to 55 Hz, amplitude 0.5 mm		
Shock Resistance	1000 m/s^2 (100G)		
Operating Temperature	–20 to +40°C (no freezing)		–10 to +40°C (no freezing)
Storage Temperature	–30 to +80°C (no freezing)		
Operating Humidity	45 to 85% RH (no condensation)		
Housing Color	Black		
Weight (approx.)	78g (1-color full, 2-way split) 86g (w/check terminal, 2-color alternate) 89g (3-way split)	172g (1-color full, 2-way split) 245g (3-way split)	107g (1-color full)

*1: 24V DC is for 1-color full w/check terminal and 2-color alternate only.
*2: For 2-color alternate. PW: except 6, 12V AC/DC
*3: The 2-color alternate is full face illumination only.

SLD72N

Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Built-in LED Units (see ratings on page 589)
Full Voltage	1-color Full	24V AC/DC ±10%	**SLD72N-1DH2B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-**∗**T** (2 units)
	2-way Split	24V AC/DC ±10%	**SLD72N-2DH2BGR**	GR	**SLDN-92F-**∗**T** (2 units)
			SLD72N-2DH2BRG	RG	
	3-way Split	24V AC/DC ±10%	**SLD72N-3DH2BGAR**	GAR	**SLDN-72F-**∗**T** (3 units)
	1-color Full w/check terminal	24V DC ±10%	**SLD72N-1DHM2B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-**∗**T** (2 units)
	2-color Alternate	24V DC ±10%	**SLD72N-1DW2BRG**	RG (red/green)	**SLDN-92FW-RGT** (2 units)
Transformer	1-color Full	100/110, 115/120, 200/220, 230/240V AC ±10%	**SLD72N-1TH□B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-**∗**T** (2 units)
	2-way Split		**SLD72N-2TH□BGR**	GR	**SLDN-92F-**∗**T** (2 units)
			SLD72N-2TH□BRG	RG	
	3-way Split		**SLD72N-3TH□BGAR**	GAR	**SLDN-72F-**∗**T** (3 units)
DC-DC Converter	1-color Full	110V DC (90 to 140V DC)	**SLD72N-1CH1B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-**∗**T** (2 units)

Note 1: Specify a color code in place of ∗ in the Part No.: A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow).
Note 2: Specify an operating voltage (primary voltage) code of the transformer in place of □ in the Part No.: 1 (100/110V AC), 12 (115/120V AC), 2 (200/220V AC), 24 (230/240V AC).
Note 3: The above SLD72N units contain LED units of the specified color. The LED units are installed in the SLD72N housing at the factory.
Note 4: Every SLD72N unit contains a clear marking plate and white color screen(s) of the specified split face size. When color display is required during power off, see page 590.

SLD72N | DIN36 × 72mm (Illumination face size 28 × 64mm)

Full Voltage and Transformer Split Illumination (LED Units Supplied)

Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Supplied LED Units (see ratings on page 589)
Full Voltage	2-way Split	24V AC/DC ±10%	**SLD72N-2DH2B**∗∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T** (2 units)
	3-way Split		**SLD72N-3DH2B**∗∗∗	A, G, PW, R, S, W, Y	**SLDN-72F-∗T** (3 units)
Transformer	2-way Split	100/110, 115/120, 200/220, 230/240V AC ±10%	**SLD72N-2TH□B**∗∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T** (2 units)
	3-way Split		**SLD72N-3TH□B**∗∗∗	A, G, PW, R, S, W, Y	**SLDN-72F-∗T** (3 units)

Note 1: Color codes come in place of ∗∗ or ∗∗∗ in the Part No.: A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow). When ordering the above split illumination, specify standard color codes found under "Color Code" in the tables below. The LED units can be arranged in any placement found under "Combination" in the table.

Note 2: Specify an operating voltage (primary voltage) code of the transformer in place of □ in the Part No.: 1 (100/110V AC), 12 (115/120V AC), 2 (200/220V AC), 24 (230/240V AC).

Note 3: The above SLD72N units are supplied with LED units of the specified colors. The LED units are packaged in the same box with the SLD72N housing at factory; not installed in the SLD72N housing. Install the LED units in required positions.

Note 4: Every SLD72N unit contains a clear marking plate and white color screen(s) of the specified split face size. When color display is required during power off, see page 590.

Full Voltage for 6V and 12V AC/DC (order LED units separately)

Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Applicable LED Units (see ratings on page 589)
Full Voltage	1-color Full	6V AC/DC ±5%	**SLD72N-1DH0B-6**	A, G, R, W, Y	**SLDN-96F-∗T** (2 units)
		12V AC/DC ±10%	**SLD72N-1DH0B-12**	A, G, R, W, Y	**SLDN-91F-∗T** (2 units)
	2-way Split	6V AC/DC ±5%	**SLD72N-2DH0B-6**	A, G, R, W, Y	**SLDN-96F-∗T** (2 units)
		12V AC/DC ±10%	**SLD72N-2DH0B-12**	A, G, R, W, Y	**SLDN-91F-∗T** (2 units)
	3-way Split	6V AC/DC ±5%	**SLD72N-3DH0B-6**	A, G, R, W, Y	**SLDN-76F-∗T** (3 units)
		12V AC/DC ±10%	**SLD72N-3DH0B-12**	A, G, R, W, Y	**SLDN-71F-∗T** (3 units)

Note 1: The above SLD72N units are not supplied with LED units. Order applicable LED units by specifying a color code in place of ∗ in the Part No.: A (amber), G (green), R (red), W (white), Y (yellow).

Note 2: Every SLD72N unit contains a clear marking plate and white color screen(s) of the specified split face size. When color display is required during power off, see page 590.

SLD72N Color Designation for 2-way and 3-way Split

[2-way Split]

Color Code	Combination	Color Code	Combination
AA	AA	RS	RS SR
AG	AG GA	RW	RW WR
AR	AR RA	RY	RY YR
AS	AS SA	SS	SS
AW	AW WA	SW	SW WS
AY	AY YA	SY	SY YS
APW	APW PWA	WW	WW
GG	GG	WY	WY YW
GS	GS SG	YY	YY
GW	GW WG	PWPW	PWPW
GY	GY YG	PWR	PWR RPW
GPW	GPW PWG	PWS	PWS SPW
RR	RR	PWY	PWY YWP

[3-way Split]

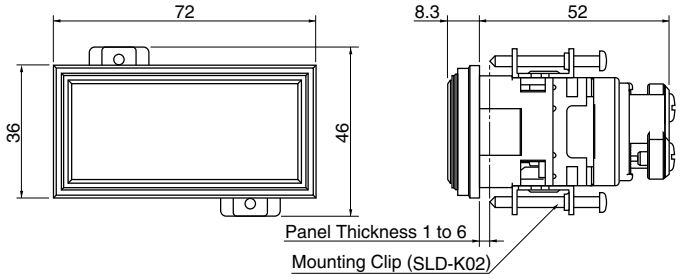
Color Code	Combination	Color Code	Combination	Color Code	Combination	Color Code	Combination	Color Code	Combination	Color Code	Combination	Color Code	Combination
AAA	AAA	AGY	AGY AYG GAY GYA YAG YGA	ASS	ASS SAS SSA	GPWY	GPWY GYPW PWGY PWYG YGPW YPWG	GSY	GSY GYS SGY SYG YGS YSG	RWY	RWY RYW WRY WYR YRW YWR	PWPWS	PWPWS PWSPW SPWPW
AAG	AAG AGA GAA			ASW	ASW AWS SAW SWA WAS WSA							PWPWY	PWPWY YPWPW PWYPW
AAPW	AAPW APWA PWAA	APWPW	APWPW PWAPW PWPWA			GGR	GGR GRG RGG	GWW	GWW WGW WWG	RYY	RYY YRY YYR	PWRR	PWRR RPWR RRPW
AAR	AAR ARA RAA	APWR	APWR ARPW PWAR PWRA RAPW RPWA	ASY	ASY AYS SAY SYA YAS YSA	GGS	GGS GSG SGG	GWY	GWY GYW WGY WYG YGW YWG	SSS	SSS	PWRS	PWRS PWSR RPWS RSPW SPWR SRPW
AAS	AAS ASA SAA					GGW	GGW GWG WGG			SSW	SSW SWS WSS		
AAW	AAW AWA WAA	APWS	APWS ASPW PWAS PWSA SAPW SPWA	AWW	AWW WAW WWA	GGY	GGY GYG YGG	GYY	GYY YGY YYG	SSY	SSY SYS YSS	PWRY	PWRY PWYR RPWY RYPW YPWR YRPW
AAY	AAY AYA YAA			AWY	AWY AYW WAY WYA YAW YWA	GRR	GRR RGR RRG	RRR	RRR	SWW	SWW WSW WWS		
AGG	AGG GAG GGA	APWY	APWY AYPW PWAY PWYA YAPW YPWA			GRS	GRS GSR RGS RSG SGR SRG	RRS	RRS RSR SRR	SWY	SWY SYW WSY WYS YSW YWS	PWSS	PWSS SPWS SSPW
AGPW	AGPW APWG GAPW GPWA PWAG PWGA			AYY	AYY YAY YYA			RRW	RRW RWR WRR			PWSY	PWSY PWYS SPWY SYPW YPWS YSPW
		ARR	ARR RAR RRA	GGG	GGG	GRW	GRW GWR RGW RWG WGR WRG	RRY	RRY RYR YRR	SYY	SYY YSY YYS		
AGR	AGR ARG GRA RAG RGA	ARS	ARS ASR RAS RSA SAR SRA	GGPW	GGPW GPWG PWGG			RSS	RSS SRS SSR	WWW	WWW	PWYY	PWYY YPWY YYPW
				GPWPW	GPWPW PWGPW PWPWG	GRY	GRY GYR RGY RYG YGR YRG	RSW	RSW RWS SRW SWR WRS WSR	WWY	WWY WYW YWW		
AGS	AGS ASG GAS GSA SAG SGA	ARW	ARW AWR RAW RWA WAR WRA	GPWR	GPWR GRPW PWGR PWRG RGPW RPWG					WYY	WYY YWY YYW		
						GSS	GSS SGS SSG	RSY	RSY RYS SRY SYR YRS YSR	YYY	YYY		
AGW	AGW AWG GAW GWA WAG WGA	ARY	ARY AYR RAY RYA YAR YRA	GPWS	GPWS GSPW PWGS PWSG SGPW SPWG	GSW	GSW GWS SGW SWG WGS WSG			PWPWPW	PWPWPW		
								RWW	RWW WRW WWR	PWPWR	PWPWR RPWPW PWRPW		

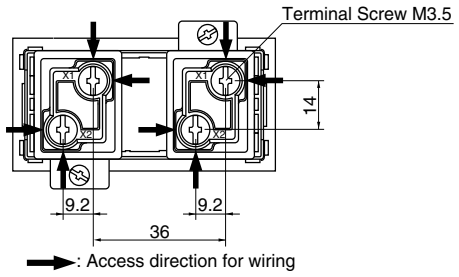
Note: For the full voltage and transformer units, color codes GR and RG for 2-way split and color code GAR for 3-way split are found in the Part No. table on page 579.

SLD72N	DIN36 × 72mm (Illumination face size 28 × 64mm)

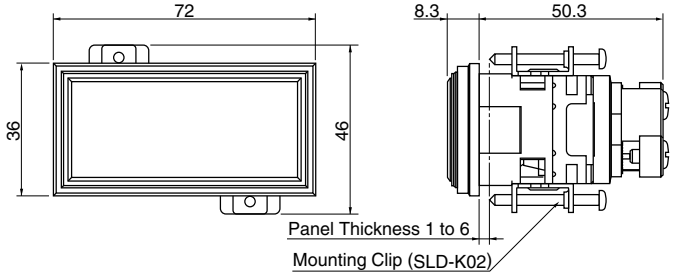
Dimensions

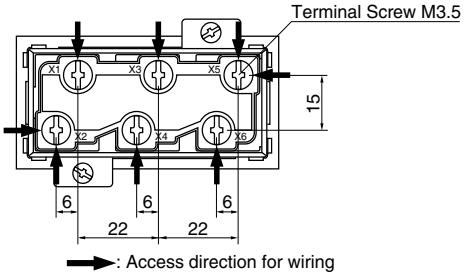
Full Voltage (1-color full and 2-way split)



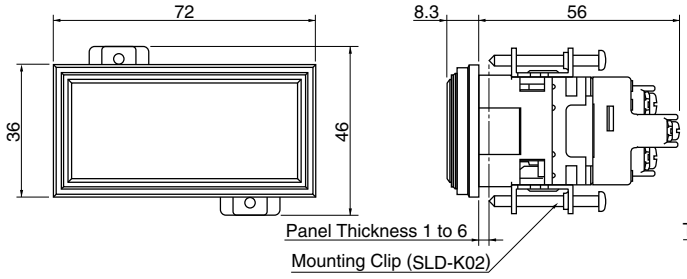


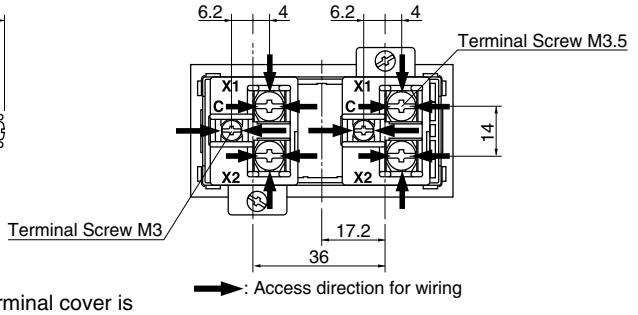
Full Voltage (3-way split)





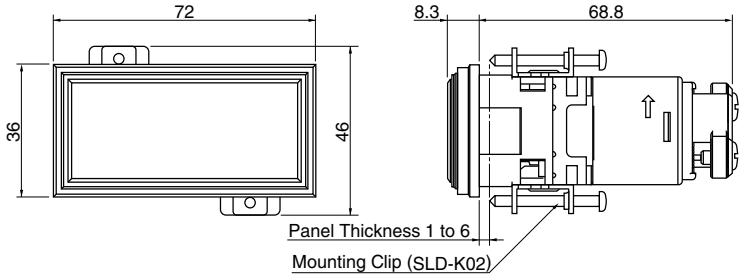
Full Voltage (1-color full w/check terminal and 2-color alternate)

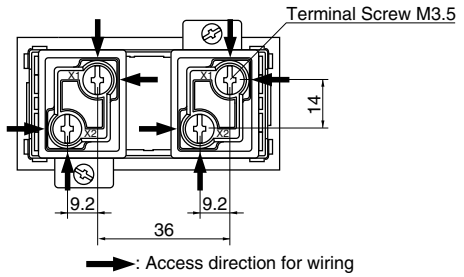




Fingersafe terminal cover is available. See page 590.

Transformer (1-color full and 2-way split)





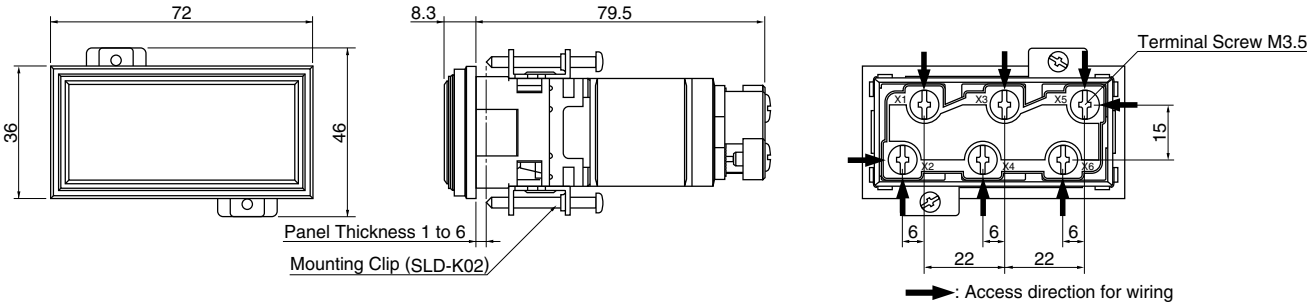
When using leaf springs for temporary fastening, order SLD-30KVP or SLD-7KVP separately. See page 596.

All dimensions in mm.

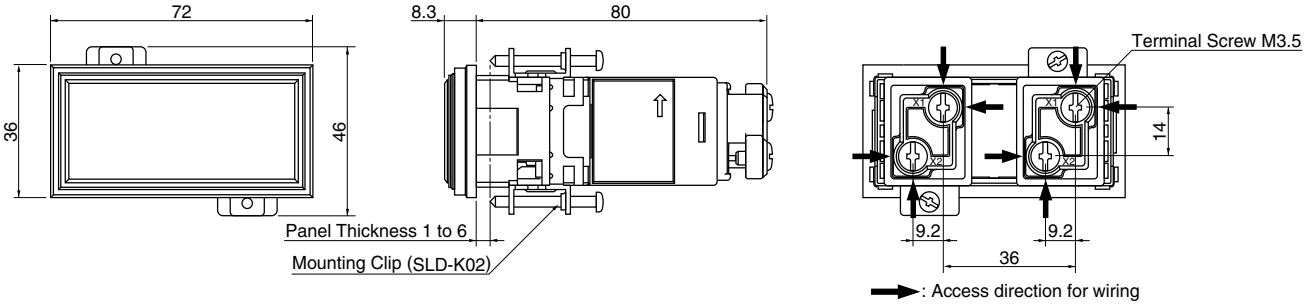
SLD72N	DIN36 × 72mm (Illumination face size 28 × 64mm)

Dimensions

Transformer (3-way split)

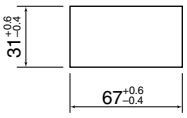


DC-DC Converter



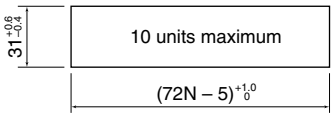
Panel Cut-out

Single Mounting

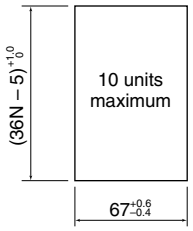


N: No. of units (rows/columns)

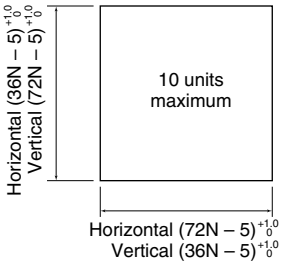
Horizontal Mounting



Vertical Mounting



Integrated Mounting



When using leaf springs for temporary fastening, order SLD-30KVP or SLD-7KVP separately. See page 596.

All dimensions in mm.

SLDN Series Display Lights

SLD48N	40 × 80mm (Illumination face size 32 × 72mm)

Specifications

Input	Full Voltage	Transformer	DC-DC Converter
Rated Voltage (Primary Voltage)	24V AC/DC, 24V DC *1 6V AC/DC, 12V AC/DC	100/110, 115/120, 200/220, 230/240V AC	110V DC
Light Source	1-color LED unit 2-color LED unit *2	1-color LED unit	
LED Life (reference)	Approx. 50,000 hours (when used on complete DC, luminance reduces to 50% of the initial intensity)		
Face Division	Full *3, 2-way split, 3-way split	Full, 2-way split, 3-way split	Full
Illumination Color	Amber, Green, Pure White, Red, Blue, White, Yellow, Red/Green *2	Amber, Green, Pure White, Red, Blue, White, Yellow	
Marking Plate	Clear (31 × 71 × 1 mm)		
Color Screen	White (Full: 31 × 71 × 1 mm, 2-way split: 31 × 35.5 × 1 mm, 3-way split: 31 × 23.5 × 1 mm)		
Engraving Area	Full: 29 × 69 mm, 2-way split: 29 × 33.5 mm, 3-way split: 29 × 21.5 mm		
Insulation Resistance	Between live and dead parts: 100 MΩ minimum (500V DC megger)		
Dielectric Strength	Between live and dead parts: 2000V, 1 minute		2500V, 1 minute
Vibration Resistance	5 to 55 Hz, amplitude 0.5 mm		
Shock Resistance	1000 m/s² (100G)		
Operating Temperature	–20 to +40°C (no freezing)		–10 to +40°C (no freezing)
Storage Temperature	–30 to +80°C (no freezing)		
Operating Humidity	45 to 85% RH (no condensation)		
Housing Color	Black		
Weight (approx.)	92g (1-color full, 2-way split) 100g (w/check terminal, 2-color alternate) 102g (3-way split)	186g (1-color full, 2-way split) 259g (3-way split)	121g (1-color full)

*1: 24V DC is for 1-color full w/check terminal and 2-color alternate only.
*2: For 2-color alternate. PW: except 6, 12V AC/DC
*3: The 2-color alternate is full face illumination only.

SLD48N

Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Built-in LED Units (see ratings on page 589)
Full Voltage	1-color Full	24V AC/DC ±10%	**SLD48N-1DH2B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-**∗**T** (2 units)
	2-way Split	24V AC/DC ±10%	**SLD48N-2DH2BGR**	GR	**SLDN-92F-**∗**T** (2 units)
			SLD48N-2DH2BRG	RG	
	3-way Split	24V AC/DC ±10%	**SLD48N-3DH2BGAR**	GAR	**SLDN-72F-**∗**T** (3 units)
	1-color Full w/check terminal	24V DC ±10%	**SLD48N-1DHM2B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-**∗**T** (2 units)
	2-color Alternate	24V DC ±10%	**SLD48N-1DW2BRG**	RG (red/green)	**SLDN-92FW-RGT** (2 units)
Transformer	1-color Full	100/110, 115/120, 200/220, 230/240V AC ±10%	**SLD48N-1TH□B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-**∗**T** (2 units)
	2-way Split		**SLD48N-2TH□BGR**	GR	**SLDN-92F-**∗**T** (2 units)
			SLD48N-2TH□BRG	RG	
	3-way Split		**SLD48N-3TH□BGAR**	GAR	**SLDN-72F-**∗**T** (3 units)
DC-DC Converter	1-color Full	110V DC (90 to 140V DC)	**SLD48N-1CH1B**∗	A, G, PW, R, S, W, Y	**SLDN-92F-**∗**T** (2 units)

Note 1: Specify a color code in place of ∗ in the Part No.: A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow).
Note 2: Specify an operating voltage (primary voltage) code of the transformer in place of □ in the Part No.:
1 (100/110V AC), 12 (115/120V AC), 2 (200/220V AC), 24 (230/240V AC).
Note 3: The above SLD48N units contain LED units of the specified color. The LED units are installed in the SLD48N housing at the factory.
Note 4: Every SLD48N unit contains a clear marking plate and white color screen(s) of the specified split face size. When color display is required during power off, see page 590.

SLD48N | 40 × 80mm (Illumination face size 32 × 72mm)

Full Voltage and Transformer Split Illumination (LED Units Supplied)

Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Supplied LED Units (see ratings on page 589)
Full Voltage	2-way Split	24V AC/DC ±10%	**SLD48N-2DH2B**∗∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T** (2 units)
	3-way Split		**SLD48N-3DH2B**∗∗∗	A, G, PW, R, S, W, Y	**SLDN-72F-∗T** (3 units)
Transformer	2-way Split	100/110, 115/120, 200/220, 230/240V AC ±10%	**SLD48N-2TH□B**∗∗	A, G, PW, R, S, W, Y	**SLDN-92F-∗T** (2 units)
	3-way Split		**SLD48N-3TH□B**∗∗∗	A, G, PW, R, S, W, Y	**SLDN-72F-∗T** (3 units)

Note 1: Color codes come in place of ∗∗ or ∗∗∗ in the Part No.: A (amber), G (green), PW (pure white), R (red), S (blue), W (white), Y (yellow). When ordering the above split illumination, specify standard color codes found under "Color Code" in the tables below. The LED units can be arranged in any placement found under "Combination" in the table.

Note 2: Specify an operating voltage (primary voltage) code of the transformer in place of □ in the Part No.: 1 (100/110V AC), 12 (115/120V AC), 2 (200/220V AC), 24 (230/240V AC).

Note 3: The above SLD48N units are supplied with LED units of the specified colors. The LED units are packaged in the same box with the SLD48N housing at factory; not installed in the SLD48N housing. Install the LED units in required positions.

Note 4: Every SLD48N unit contains a clear marking plate and white color screen(s) of the specified split face size. When color display is required during power off, see page 590.

Full Voltage for 6V and 12V AC/DC (Order LED Units Separately)

Input	Illumination Face	Operating Voltage	Part No.	Illumination Color Code	Applicable LED Units (see ratings on page 589)
Full Voltage	1-color Full	6V AC/DC ±5%	**SLD48N-1DH0B-6**	A, G, R, W, Y	**SLDN-96F-∗T** (2 units)
		12V AC/DC ±10%	**SLD48N-1DH0B-12**	A, G, R, W, Y	**SLDN-91F-∗T** (2 units)
	2-way Split	6V AC/DC ±5%	**SLD48N-2DH0B-6**	A, G, R, W, Y	**SLDN-96F-∗T** (2 units)
		12V AC/DC ±10%	**SLD48N-2DH0B-12**	A, G, R, W, Y	**SLDN-91F-∗T** (2 units)
	3-way Split	6V AC/DC ±5%	**SLD48N-3DH0B-6**	A, G, R, W, Y	**SLDN-76F-∗T** (3 units)
		12V AC/DC ±10%	**SLD48N-3DH0B-12**	A, G, R, W, Y	**SLDN-71F-∗T** (3 units)

Note 1: The above SLD48N units are not supplied with LED units. Order applicable LED units by specifying a color code in place of ∗ in the Part No.: A (amber), G (green), R (red), W (white), Y (yellow).

Note 2: Every SLD48N unit contains a clear marking plate and white color screen(s) of the specified split face size. When color display is required during power off, see page 590.

SLD48N Color Designation for 2-way and 3-way Split

[2-way Split]

Color Code	Combination	Color Code	Combination
AA	AA	RS	RS SR
AG	AG GA	RW	RW WR
AR	AR RA	RY	RY YR
AS	AS SA	SS	SS
AW	AW WA	SW	SW WS
AY	AY YA	SY	SY YS
APW	APW PWA	WW	WW
GG	GG	WY	WY YW
GS	GS SG	YY	YY
GW	GW WG	PWPW	PWPW
GY	GY YG	PWR	PWR RPW
GPW	GPW PWG	PWS	PWS SPW
RR	RR	PWY	PWY YWP

[3-way Split]

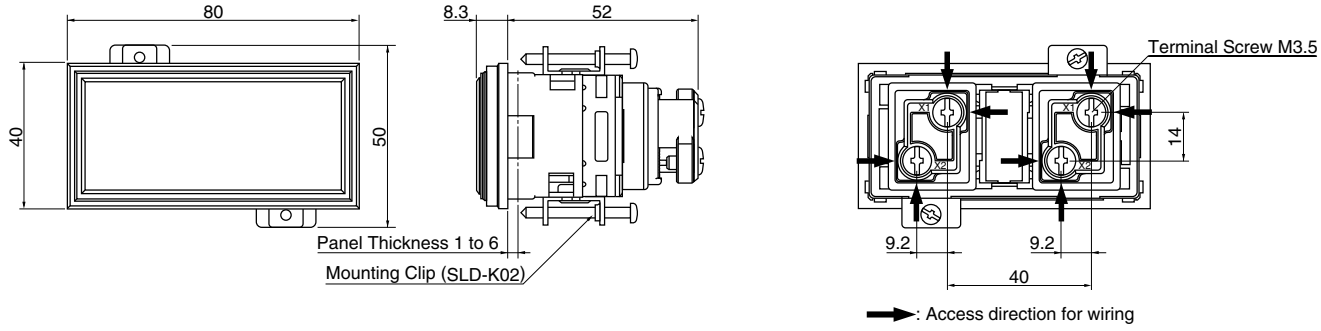
Color Code	Combination	Color Code	Combination	Color Code	Combination	Color Code	Combination	Color Code	Combination	Color Code	Combination	Color Code	Combination
AAA	AAA	AGY	AGY AYG GAY GYA YAG YGA	ASS	ASS SAS SSA	GPWY	GPWY GYPW PWGY PWYG YGPW YPWG	GSY	GSY GYS SGY SYG YGS YSG	RWY	RWY RYW WRY WYR YRW YWR	PWPWS	PWPWS PWSPW SPWPW
AAG	AAG AGA GAA			ASW	ASW AWS SAW SWA WAS WSA							PWPWY	PWPWY YPWPW PWYPW
AAPW	AAPW APWA PWAA	APWPW	APWPW PWAPW PWPWA			GGR	GGR GRG RGG	GWW	GWW WGW WWG	RYY	RYY YRY YYR	PWRR	PWRR RPWR RRPW
AAR	AAR ARA RAA	APWR	APWR ARPW PWAR PWRA RAPW RPWA	ASY	ASY AYS SAY SYA YAS YSA	GGS	GGS GSG SGG	GWY	GWY GYW WGY WYG YGW YWG	SSS	SSS	PWRS	PWRS PWSR RPWS RSPW SPWR SRPW
AAS	AAS ASA SAA					GGW	GGW GWG WGG			SSW	SSW SWS WSS		
AAW	AAW AWA WAA	APWS	APWS ASPW PWAS PWSA SAPW SPWA	AWW	AWW WAW WWA	GGY	GGY GYG YGG	GYY	GYY YGY YYG	SSY	SSY SYS YSS	PWRY	PWRY PWYR RPWY RYPW YPWR YRPW
AAY	AAY AYA YAA			AWY	AWY AYW WAY WYA YAW YWA	GRR	GRR RGR RRG	RRR	RRR	SWW	SWW WSW WWS		
AGG	AGG GAG GGA	APWY	APWY AYPW PWAY PWYA YAPW YPWA			GRS	GRS GSR RGS RSG SGR SRG	RRS	RRS RSR SRR	SWY	SWY SYW WSY WYS YSW YWS	PWSS	PWSS SPWS SSPW
AGPW	AGPW APWG GAPW GPWA PWAG PWGA			AYY	AYY YAY YYA			RRW	RRW RWR WRR			PWSY	PWSY PWYS SPWY SYPW YPWS YSPW
		ARR	ARR RAR RRA	GGG	GGG	GRW	GRW GWR RGW RWG WGR WRG	RRY	RRY RYR YRR	SYY	SYY YSY YYS		
AGR	AGR ARG GRA RAG RGA	ARS	ARS ASR RAS RSA SAR SRA	GGPW	GGPW GPWG PWGG			RSS	RSS SRS SSR	WWW	WWW	PWYY	PWYY YPWY YYPW
				GPWPW	GPWPW PWGPW PWPWG	GRY	GRY GYR RGY RYG YGR YRG	RSW	RSW RWS SRW SWR WRS WSR	WWY	WWY WYW YWW		
AGS	AGS ASG GAS GSA SAG SGA	ARW	ARW AWR RAW RWA WAR WRA	GPWR	GPWR GRPW PWGR PWRG RGPW RPWG					WYY	WYY YWY YYW		
						GSS	GSS SGS SSG	RSY	RSY RYS SRY SYR YRS YSR	YYY	YYY		
AGW	AGW AWG GAW GWA WAG WGA	ARY	ARY AYR RAY RYA YAR YRA	GPWS	GPWS GSPW PWGS PWSG SGPW SPWG	GSW	GSW GWS SGW SWG WGS WSG			PWPWPW	PWPWPW		
								RWW	RWW WRW WWR	PWPWR	PWPWR RPWPW PWRPW		

Note: For the full voltage and transformer units, color codes GR and RG for 2-way split and color code GAR for 3-way split are found in the Part No. table on page 584.

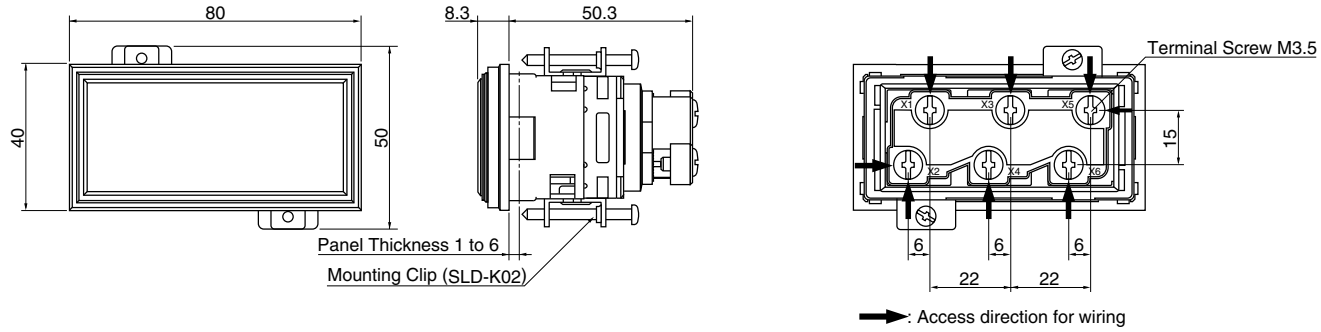
SLD48N	40 × 80mm (Illumination face size 32 × 72mm)

Dimensions

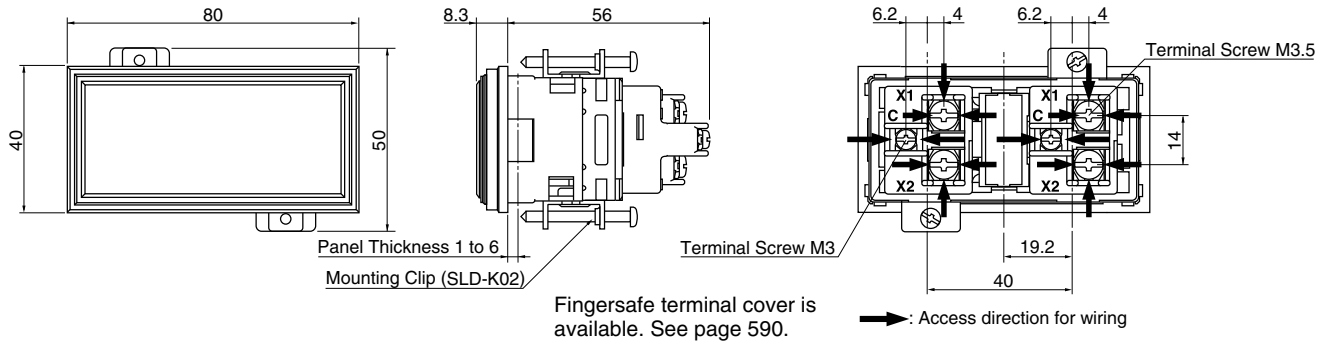
Full Voltage (1-color full and 2-way split)



Full Voltage (3-way split)

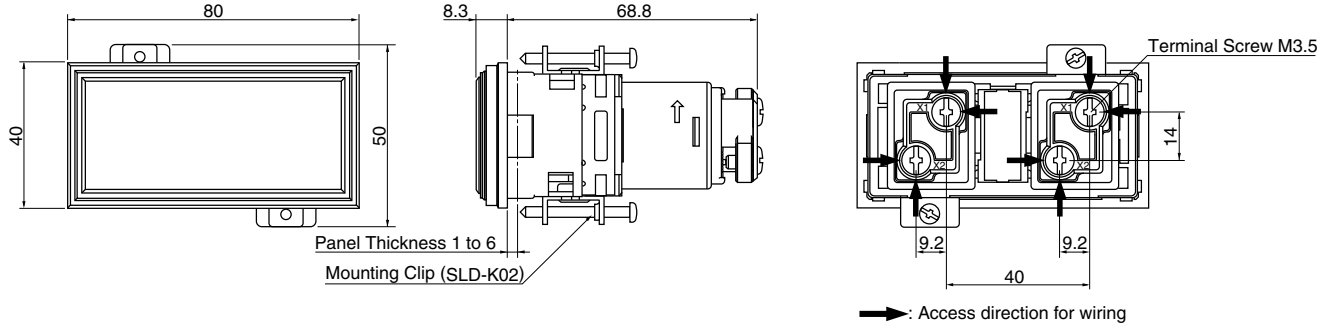


Full Voltage (1-color full w/check terminal and 2-color alternate)



Fingersafe terminal cover is available. See page 590.

Transformer (1-color full and 2-way split)



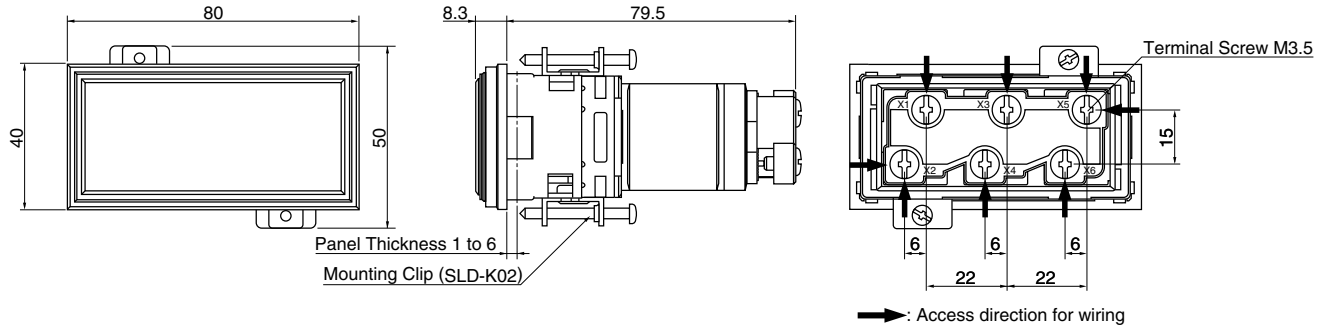
When using leaf springs for temporary fastening, order SLDN-44KVP or SLDN-8KVP separately. See page 596.

All dimensions in mm.

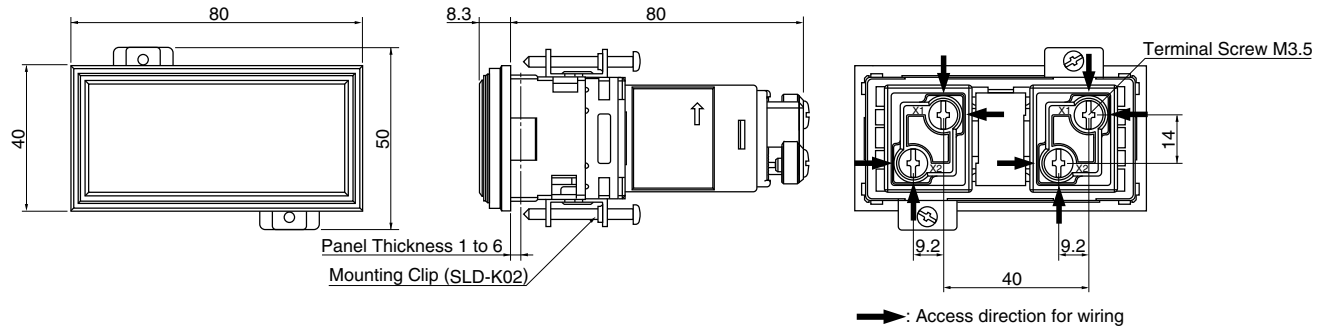
SLD48N	40 × 80mm (Illumination face size 32 × 72mm)

Dimensions

Transformer (3-way split)

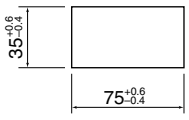


DC-DC Converter



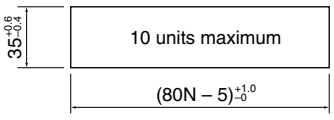
Panel Cut-out

Single Mounting

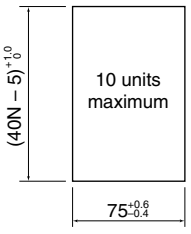


N: No. of units (rows/columns)

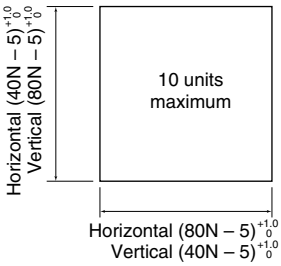
Horizontal Mounting



Vertical Mounting



Integrated Mounting



When using leaf springs for temporary fastening, order SLDN-44KVP or SLDN-8KVP separately. See page 596.

All dimensions in mm.

LED Units

24V AC/DC (1-color) and 24V DC (2-color)

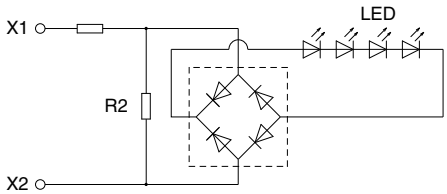
Shape	For use on	Part No.	Illumination Color	Rating	Package Quantity
(supplied)	SLD30N	**SLDN-32F-AT**	Amber	24V AC/DC, 12 mA	1
		SLDN-32F-GT	Green	24V AC/DC, 12 mA	
		SLDN-32F-PWT	Pure White	24V AC/DC, 12 mA	
		SLDN-32F-RT	Red	24V AC/DC, 13 mA	
		SLDN-32F-ST	Blue	24V AC/DC, 12 mA	
		SLDN-32F-WT	White	24V AC/DC, 13 mA	
		SLDN-32F-YT	Yellow	24V AC/DC, 13 mA	
		SLDN-32FW-RGT	Red/Green	24V DC, 13 mA (red)/12 mA (green)	
(supplied)	SLD44N SLD72N (Full/2-way split) SLD48N (Full/2-way split)	**SLDN-92F-AT**	Amber	24V AC/DC, 12 mA	1
		SLDN-92F-GT	Green	24V AC/DC, 12 mA	
		SLDN-92F-PWT	Pure White	24V AC/DC, 12 mA	
		SLDN-92F-RT	Red	24V AC/DC, 13 mA	
		SLDN-92F-ST	Blue	24V AC/DC, 12 mA	
		SLDN-92F-WT	White	24V AC/DC, 13 mA	
		SLDN-92F-YT	Yellow	24V AC/DC, 13 mA	
		SLDN-92FW-RGT	Red/Green	24V DC, 13 mA (red)/12 mA (green)	
(supplied)	SLD72N (3-way split) SLD48N (3-way split)	**SLDN-72F-AT**	Amber	24V AC/DC, 12 mA	1
		SLDN-72F-GT	Green	24V AC/DC, 12 mA	
		SLDN-72F-PWT	Pure White	24V AC/DC, 12 mA	
		SLDN-72F-RT	Red	24V AC/DC, 13 mA	
		SLDN-72F-ST	Blue	24V AC/DC, 12 mA	
		SLDN-72F-WT	White	24V AC/DC, 13 mA	
		SLDN-72F-YT	Yellow	24V AC/DC, 13 mA	

6V and 12V AC/DC (1-color)

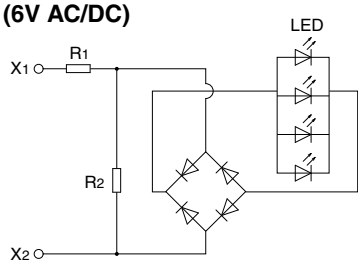
For use on	Illumination Color	6V AC/DC		12V AC/DC		Package Quantity
		Part No.	Rating	Part No.	Rating	
SLD30N	Amber	**SLDN-36F-AT**	6V AC/DC, 39 mA	**SLDN-31F-AT**	12V AC/DC, 21 mA	1
	Green	**SLDN-36F-GT**	6V AC/DC, 39 mA	**SLDN-31F-GT**	12V AC/DC, 21 mA	
	Red	**SLDN-36F-RT**	6V AC/DC, 43 mA	**SLDN-31F-RT**	12V AC/DC, 23 mA	
	White	**SLDN-36F-WT**	6V AC/DC, 43 mA	**SLDN-31F-WT**	12V AC/DC, 23 mA	
	Yellow	**SLDN-36F-YT**	6V AC/DC, 43 mA	**SLDN-31F-YT**	12V AC/DC, 23 mA	
SLD44N SLD72N (Full/2-way split) SLD48N (Full/2-way split)	Amber	**SLDN-96F-AT**	6V AC/DC, 39 mA	**SLDN-91F-AT**	12V AC/DC, 21 mA	1
	Green	**SLDN-96F-GT**	6V AC/DC, 39 mA	**SLDN-91F-GT**	12V AC/DC, 21 mA	
	Red	**SLDN-96F-RT**	6V AC/DC, 43 mA	**SLDN-91F-RT**	12V AC/DC, 23 mA	
	White	**SLDN-96F-WT**	6V AC/DC, 43 mA	**SLDN-91F-WT**	12V AC/DC, 23 mA	
	Yellow	**SLDN-96F-YT**	6V AC/DC, 43 mA	**SLDN-91F-YT**	12V AC/DC, 23 mA	
SLD72N (3-way split) SLD48N (3-way split)	Amber	**SLDN-76F-AT**	6V AC/DC, 39 mA	**SLDN-71F-AT**	12V AC/DC, 21 mA	1
	Green	**SLDN-76F-GT**	6V AC/DC, 39 mA	**SLDN-71F-GT**	12V AC/DC, 21 mA	
	Red	**SLDN-76F-RT**	6V AC/DC, 43 mA	**SLDN-71F-RT**	12V AC/DC, 23 mA	
	White	**SLDN-76F-WT**	6V AC/DC, 43 mA	**SLDN-71F-WT**	12V AC/DC, 23 mA	
	Yellow	**SLDN-76F-YT**	6V AC/DC, 43 mA	**SLDN-71F-YT**	12V AC/DC, 23 mA	

LED Unit Internal Circuits

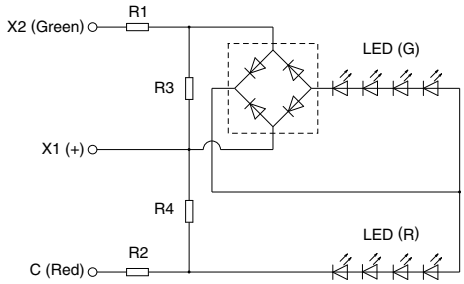
1-color LED Unit (24V AC/DC)



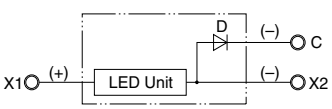
(6V AC/DC)



2-color Alternate LED Unit (24V DC)

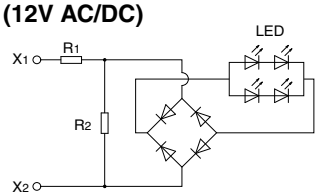


1-color Full w/Check Terminal LED Unit Internal Circuit

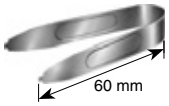


Protection diode D:
Reverse withstand voltage 400V

(12V AC/DC)



Accessories

Name & Shape	For use on	Material	Part No.	Ordering No.	Package Quantity	Remarks
LED Unit Removal Tool 	All SLDN	Metal	**MT-101**	**MT-101**	1	Used for removing the LED unit from the SLDN housing.
Lens Unit Removal Tool	All SLDN	Rubber	**MT-S01**	**MT-S01**	1	Used for removing the lens unit from the SLDN housing.
Cross-shaped Joint	SLD30N SLD72N	Diecast	**SLD-F30**	**SLD-F30PN05**	5	Used for connecting SLDN units for integrated mounting. Weight: 25g
	SLD44N SLD48N		**SLD-F44**	**SLD-F44PN05**	5	
I-shaped Joint	SLD72N	Diecast	**SLD-L72**	**SLD-L72PN05**	5	Used for connecting cross-shaped joint on the longer sides of the SLD72N or SLD48N for integrated mounting. Weight: 10g
	SLD48N		**SLD-L48**	**SLD-L48PN05**	5	
Terminal Cover	w/check terminal, 2-color alternate	PPE	**SLC30-VL6**	**SLC30-VL6**	1	Fingersafe terminal cover for 1-color w/ check terminal and 2-color alternate.

Maintenance Parts

Marking Plate and Color Screen

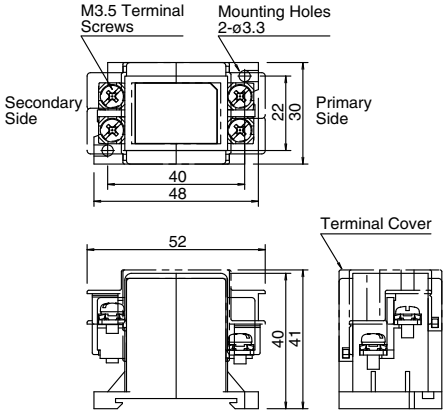
Name & Shape	For use on		Material	Part No.	Ordering No.	Package Quantity	Remarks
Mounting Clip (supplied)	All SLDN		Metal	**SLD-K02**	**SLD-K02PN10**	10	Used for fastening SLDN units to the panel from the rear in single, row, or integrated mounting. Two mounting clips are supplied with every SLDN unit. Weight: 6g
Color Screen (supplied)	SLD30N	Full	Acrylic	**SLDN-3C-∗**	**SLDN-3C-∗PN05**	5	Specify a color code in place of ∗. White display when power off: FW (white) Color display when power off: A (amber) C (clear) G (green) R (red) S (blue) Y (yellow)
	SLD44N	Full		**SLDN-44C-∗**	**SLDN-44C-∗PN05**		
	SLD72N	Full		**SLDN-7C-∗**	**SLDN-7C-∗PN05**		
		2-way split		**SLDN-7C2-∗**	**SLDN-7C2-∗PN05**		
		3-way split		**SLDN-7C3-∗**	**SLDN-7C3-∗PN05**		
	SLD48N	Full		**SLDN-8C-∗**	**SLDN-8C-∗PN05**		
		2-way split		**SLDN-8C2-∗**	**SLDN-8C2-∗PN05**		
		3-way split		**SLDN-8C3-∗**	**SLDN-8C3-∗PN05**		
Lens (supplied)	SLD30N		Polycar-bonate	**SLC-3LF-U**	**SLC-3LF-U**	1	
	SLD44N			**SLD-44L**	**SLD-44L**		
	SLD72N			**SLD-7L**	**SLD-7L**		
	SLD48N			**SLD-8L**	**SLD-8L**		
Lens Frame (supplied)	SLD30N		ABS	**SLD-3W-B**	**SLD-3W-B**	1	
	SLD44N			**SLDN-44W-B**	**SLDN-44W-B**		
	SLD72N			**SLDN-7W-B**	**SLDN-7W-B**		
	SLD48N			**SLDN-8W-B**	**SLDN-8W-B**		
Light Barrier (supplied)	SLD72N	2-way split 3-way split	PBT	**SLDN-7SH**	**SLDN-7SHPN05**	5	
	SLD48N	2-way split		**SLDN-8SH**	**SLDN-8SHPN05**		

Transformer

Shape	Primary Voltage	Secondary Voltage	Part No.	Package Quantity
	100/110V AC	24V AC, 0.5W	**TWR512**	1
	200/220V AC		**TWR522**	1
	400/440V AC		**TWR542**	1

- Terminal covers are supplied.
- Only one LED unit can be connected to each transformer.
- Use plastic end clip BC9Z-E/NS35N when mounting 400/440V AC primary voltage models.

Dimensions



All dimensions in mm.

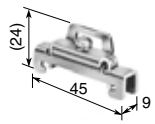
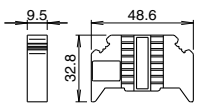
Applicable LED Units

SLDN	LED Unit	For use on
SLD30N	**SLDN-32F-□T**	Full face illumination, 24V AC
SLD44N	**SLDN-92F-□T**	Full face illumination, 24V AC
SLD72N	**SLDN-92F-□T**	Full face and 2-way split illumination, 24V AC, 1 LED unit
	SLDN-72F-□T	3-way split illumination, 24V AC, 1 LED unit
SLD48N	**SLDN-92F-□T**	Full face and 2-way split illumination, 24V AC, 1 LED unit
	SLDN-72F-□T	3-way split illumination, 24V AC, 1 LED unit

Specifications

Operating Voltage	100/110V AC, 200/220V AC, 400/440V AC (50/60 Hz)
Power Consumption	2.4VA
Rated Insulation Voltage	600V
Insulation Resistance	100 MΩ minimum (500V DC megger)
Dielectric Strength	2500V AC, 1 minute
Operating Temperature	–30 to +60°C (no freezing)
Storage Temperature	–40 to +80°C (no freezing)
Relative Humidity	35 to 85% (no condensation)
Vibration Resistance	Operating Extremes: 5 to 55 Hz, amplitude 0.5 mm Damage Limits: 30 Hz, amplitude 1.5 mm
Shock Resistance	Operating Extremes: 100 m/s^2 Damage Limits:1,000 m/s^2
Terminal Screw	M3.5
Applicable Wire	2 mm^2 maximum, 2 wires maximum
Weight	Approx. 87g

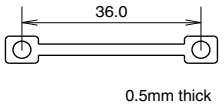
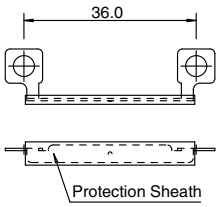
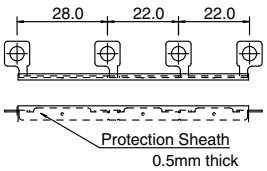
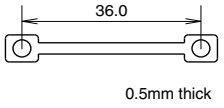
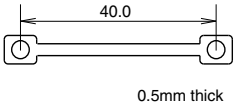
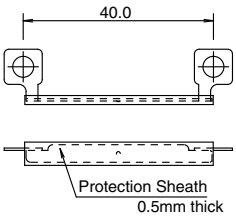
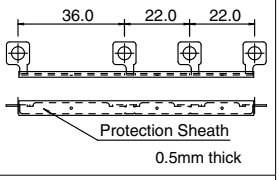
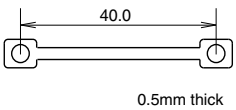
Accessories

Description	Shape	Description	Part No.	Ordering No.	Package Quantity
DIN Rail		Aluminum Weight: Approx. 200g Length: 1m	**BAA1000**	**BAA1000PN10**	10
		Steel Weight: Approx. 320g Length: 1m	**BAP1000**	**BAP1000PN10**	
End Clip		Steel Weight: Approx.15g	**BNL6**	**BNL6PN10**	
		Plastic Weight: Approx.15g	**BC9Z-E/NS35N**	**BC9Z-E/NS35NPN10**	

- Use plastic end clip BC9Z-E/NS35N when using 400/440V AC primary voltage transformers.

Maintenance Parts

Jumpers

For use on		Part No.	Ordering No.	Package Quantity	Dimensions	Application Example
SLD30N	w/Check Terminal 2-color Alternate	**LJ-2**	**LJ-2PN10**	10		• SLD30N/SLD44N 1-color
	Full	**SLDN-JP301**	**SLDN-JP301PN10**	10		
SLD72N	Full 2-way Split					
	3-way Split	**SLDN-JP723**	**SLDN-JP723PN10**	10		• SLD72N/SLD48N 3-way split
	w/Check Terminal 2-color Alternate	**LJ-2**	**LJ-2PN10**	10		
SLD44N	w/Check Terminal 2-color Alternate	**LJ-6**	**LJ-6PN10**	10		
	Full	**SLCN-JP45**	**SLCN-JP45PN10**	10		
SLD48N	Full 2-way Split					
	3-way Split	**SLDN-JP483**	**SLDN-JP483PN10**	10		
	w/Check Terminal 2-color Alternate	**LJ-6**	**LJ-6PN10**	10		• SLD72N/SLD48N w/check terminal, 2-color

SLDN Series Display Lights

Safety Precautions

- Turn off power to the SLDN units before installation, removal, wiring, maintenance, or inspection. Before removing the LED unit, make sure that power is turned off. Failure to turn off the power may cause an electrical shock, create fire hazards.
- When lighting the SLDN units continuously, observe the conditions described below. If these limits are exceeded, the SLDN units may heat up and create a fire hazard or damage the SLDN units.
- Use wires of a proper size to meet the voltage and current requirements. Tighten terminal screws to the recommended torque shown below. Loose screws will cause excessive heating and create fire hazards.

Terminal Screw	Recommended Tightening Torque
M3	0.6 to 1.0 N·m
M3.5	1.0 to 1.3 N·m

- Do not install and operate the SLDN units where the SLDN units are subjected to direct sunlight. Excessive heating may create a fire hazard or damage the SLDN units.

Operating Instructions

Notes for Continuous Lighting
(Integrated Mounting)

- Up to 10 SLD30N or SLD44N units can be lit continuously. Up to six SLD72N or SLD48N units can be lit continuously. When more units are mounted, consider the following restrictions.
- When more SLDN units are mounted, do not light more than 50% of the SLDN units continuously and light the units in a checkerboard pattern.
- When more than 50% of the units are lit continuously, limit the lighting duration to 40 minutes. Before lighting the units again, make sure that all units have cooled down.
- When using the SLDN units in other conditions, consult IDEC.
- When using 2-color alternate units, do not light the two colors simultaneously.

Notes for Panel Mounting

- Tighten the mounting clips to a torque of 0.39 to 0.49 N·m.
- Do not repeat installation and removal of mounting clips many times. The mounting clips will become deformed and fail to ensure proper tightening.
- When mounting the SLDN units on a panel, determine the panel thickness taking the weights of the SLDN units and wires into consideration.

Wiring

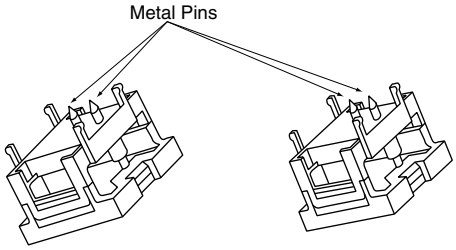
- Recommended tightening torque of terminal screws are shown in the table below:

Terminal Screw	Recommended Tightening Torque
M3	0.6 to 1.0 N·m
M3.5	1.0 to 1.3 N·m

- Use an insulation sheath or marking tube on the crimping part of crimping terminals to prevent electrical shocks.
- M3.5 terminals can be wired using one or two ø1.6 mm solid wires or 2 mm^2 stranded wires. M3 terminals can be wired using one or two 1.25 mm^2 stranded wires.

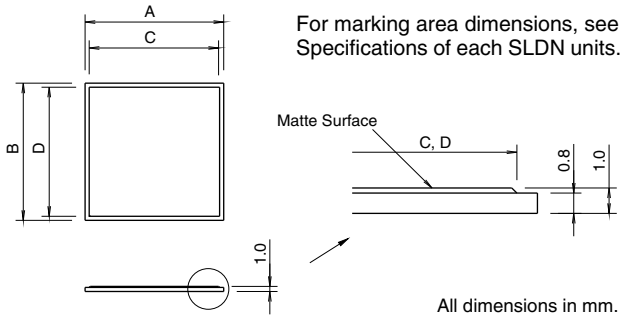
Caution for Electrostatic Discharge (ESD)

- When replacing blue and green LED units, avoid ESD to the LED pins, otherwise the internal LED elements may become damaged.



Marking

- Legends can be engraved on the clear marking plates and color screens, whose dimensions are shown below



For marking area dimensions, see Specifications of each SLDN units.

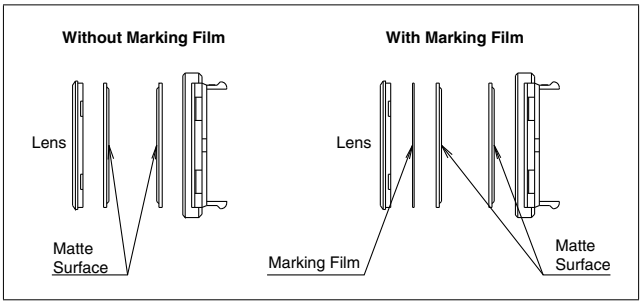
All dimensions in mm.

For use on	Face	Part No.	A	B	C	D
SLD30N	Full	**SLDN-3C-**☐	27.0	27.0	25.4	25.4
SLD44N	Full	**SLDN-44C-**☐	31.0	31.0	29.4	29.4
SLD72N	Full	**SLDN-7C-**☐	63.0	27.0	61.4	25.4
	2-way split	**SLDN-7C2-**☐	31.5	27.0	29.9	25.4
	3-way split	**SLDN-7C3-**☐	21.0	27.0	19.4	25.4
SLD48N	Full	**SLDN-8C-**☐	71.0	31.0	69.4	29.4
	2-way split	**SLDN-8C2-**☐	35.5	31.0	33.9	29.4
	3-way split	**SLDN-8C3-**☐	23.5	31.0	21.9	29.4

- In addition, thin marking films can be inserted as illustrated below. Two sheets of 0.1-mm-thick films or one sheet of 0.2-mm-thick film is applicable. Marking films are not supplied with the SLDN units and must be prepared by the user. Polyester films are recommended.

For use on	Marking Film Dimensions
SLD30N	27 × 27 mm
SLD44N	31 × 31 mm
SLD72N	27 × 63 mm
SLD48N	31 × 71 mm

- Placement of Marking Plate and Marking Film
  When using a marking film, place the matte surfaces of the marking plate and color screen in the same direction to make a room for the marking film. If the matte surfaces face with each other, the marking film cannot be inserted.

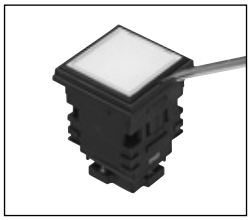


Operating Instructions

Illumination Units

Removing the Display Window

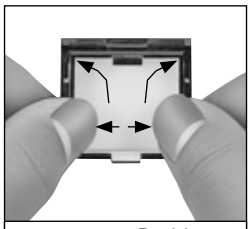
To remove the display window, insert the tip of a flat screwdriver into the slot on top or bottom of the lens frame. Lens unit removal tool MT-S01 can also be used to remove the display window.



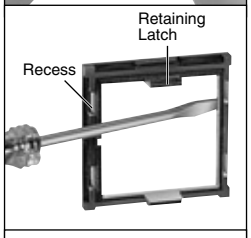
Replacing the Lens, Marking Plate, and Color Screen

[Removal]

The lens has two retaining projections each on right and left sides. To remove the lens, color screen, and marking plate from the lens frame, push open the lens frame with both hands as shown.

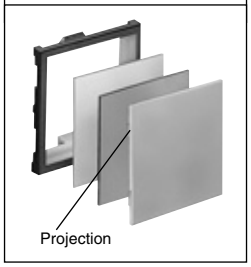


The lens can also be removed by inserting a screwdriver into one of the sides with recesses. Since the lens has an orientation due to projections, be sure to insert the screwdriver in the direction as shown. Take care not to damage or scratch the lens surface.



[Installation]

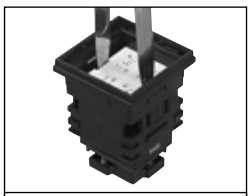
Install the color screen and marking plate into the lens frame. To install the lens, insert its retaining projections into the recesses inside the lens frame, and press the lens on the other side into the lens frame.



Replacing the LED Unit

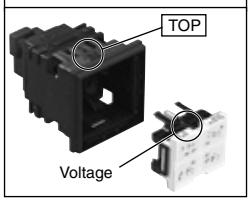
[Removal]

Use the LED unit removal tool (MT-101) to pull out the LED unit.



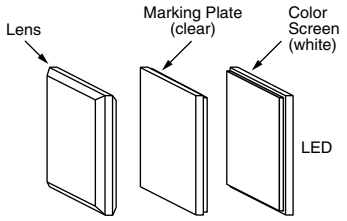
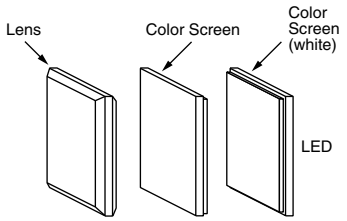
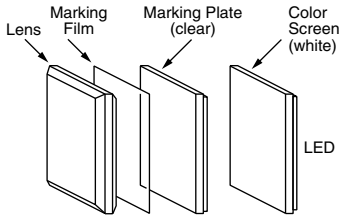
[Installation]

The LED unit has an orientation. To install the LED unit, place the voltage marking on the LED unit in the same direction as the TOP marking on the on the LED unit, and push in the LED unit.



Placement of Marking Plate and Color Screen

Insert marking plate, color screen, and marking film in the proper order as described below.

For use on	Placement
White Display (lamp off)	
Color Display (lamp off) Install a color screen and a white plate.	
Marking Film (prepared by the user)	

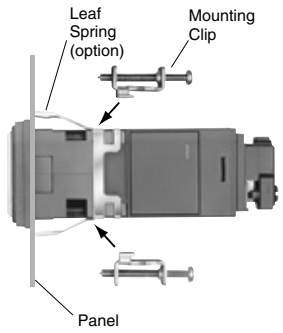
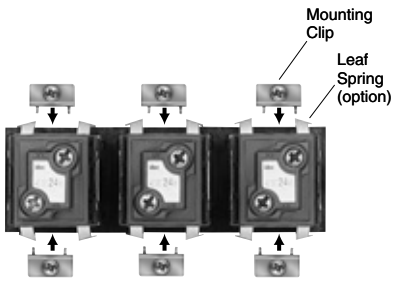
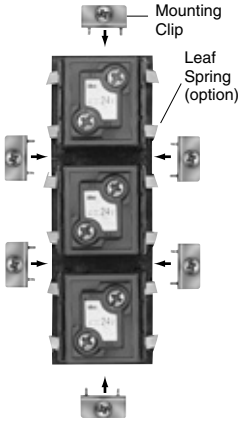
- Clear marking plate, color screen, and white color screen can be interchanged if necessary.

Operating Instructions

Installation on Panel: SLD30N & SLD44N (Square)

Single, Horizontal, or Vertical One-row Mounting

All SLDN units are mounted using the supplied mounting clips. When using leaf springs for temporary fastening, order SLD30KVP (for SLD30N) or SLDN-44KVP (for SLD44N) separately.
A maximum of 20 SLD30N or SLD44N units can be mounted collectively in a row or integrated form.

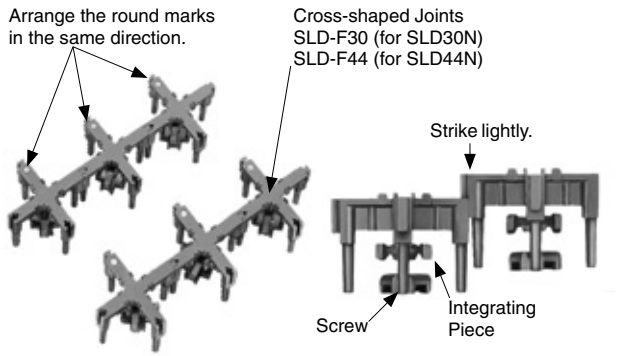
Mounting	Single Mounting	Horizontal Mounting	Vertical Mounting
Outside View			
Mounting Procedure	Push the SLDN unit into the panel cut-out from the front of the panel. When using optional leaf springs for temporary fastening, attach the leaf springs before installing the SLDN unit. Install two mounting clips and tighten the screws.	Push the SLDN units starting from the end of the row into the panel cut-out from the front of the panel. When using optional leaf springs for temporary fastening, attach the leaf springs before installing the SLDN unit. Install two mounting clips to each unit and tighten the screws.	Push the SLDN units starting from the bottom of the column into the panel cut-out from the front of the panel. When using optional leaf springs for temporary fastening, attach the leaf springs before installing the SLDN unit. Install mounting clips to combine adjoining SLDN units and one mounting clip each at the top and bottom of the column, and tighten the screws.

Note: Tighten the mounting clip screws to a torque of approx. 0.4 to 0.5 N·m.

Integrated Mounting

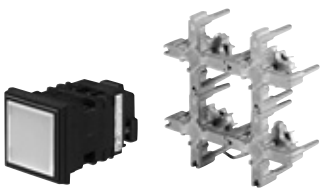
1. Assemble the cross-shaped joints.

First, assemble the cross-shaped joints in a row with round marks in the same direction. Then, combine the rows of assembled cross-shaped joints together.

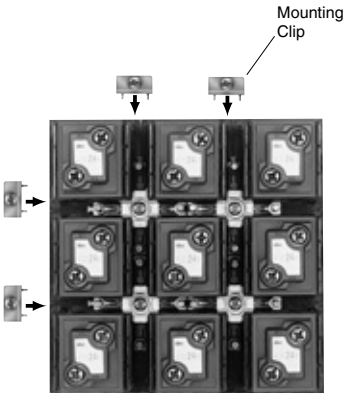


2. Lock the housings with the cross-shaped joints.

Insert the SLDN units into the assembled cross-shaped joints. Tighten the screws to integrate adjoining four SLDN units with the integrating pieces on the cross-shaped joints.



3. Install into panel cut-out.



Insert the cluster of SLDN units into the panel cut-out from the front of the panel. Install the mounting clips as shown and tighten the screws lightly to a torque of approximately 0.4 to 0.5 N·m.

Quantity of mounting clips = $(N - 1) \times 2 + (N' - 1) \times 2$

Quantity of cross-shaped joints = $(N - 1) \times (N' - 1)$

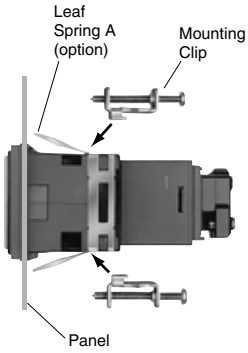
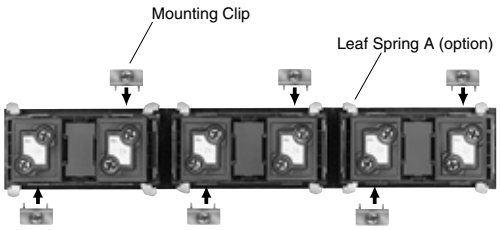
where N and N' are the numbers of rows and columns, respectively.

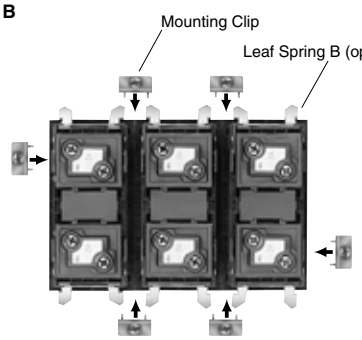
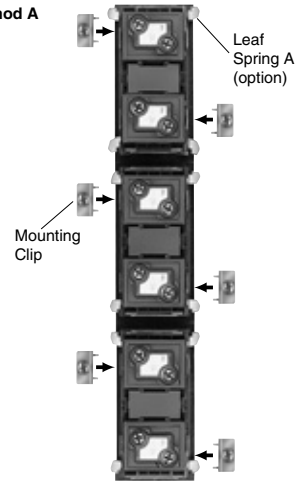
Operating Instructions

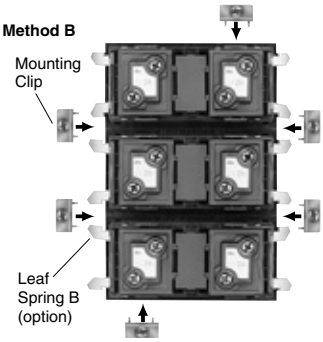
Installation on Panel: SLD72N & SLD48N (Rectangular)

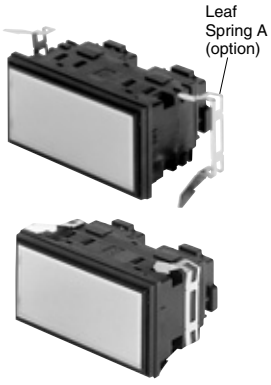
Single, Horizontal, or Vertical One-row Mounting

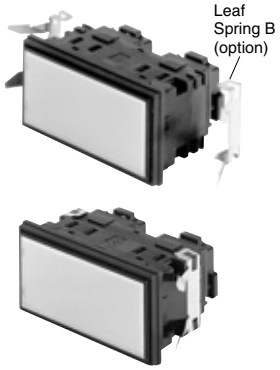
All SLDN units are mounted using the supplied mounting clips. When using leaf springs for temporary fastening, order SLD30KVP or SLD-7KVP (for SLD72N) or SLDN-44KVP or SLDN-8KVP (for SLD48N) separately.
A maximum of 10 SLD72N or SLD48N units can be mounted collectively in a row or integrated form.

<table>
<tr><th>Mounting</th><th>Single Mounting</th><th>Horizontal Mounting</th><th>Vertical Mounting</th></tr>
<tr><td>Outside View</td><td> 
</td><td>Method A
 

Method B
 
</td><td>Method A
 

Method B
 
</td></tr>
<tr><td>Mounting Procedure</td><td>Push the SLDN unit into the panel cut-out from the front of the panel. When using optional leaf springs for temporary fastening, attach the leaf springs before installing the SLDN unit.

Install two mounting clips and tighten the screws.</td><td>Method A
Push the SLDN units starting from the end of the row into the panel cut-out from the front of the panel. When using optional leaf springs for temporary fastening, attach the leaf springs before installing the SLDN unit.
 

Install two mounting clips to each unit and tighten the screws.</td><td>Method B
Push the SLDN units starting from the bottom of the column into the panel cut-out from the front of the panel.
When using optional leaf springs for temporary fastening, attach the leaf springs before installing the SLDN unit.
 

Install mounting clips to combine adjoining SLDN units and one mounting clip each at the top and bottom of the column, and tighten the screws.</td></tr>
</table>

Note 1: Tighten the mounting clip screws to a torque of approx. 0.4 to 0.5 N·m.

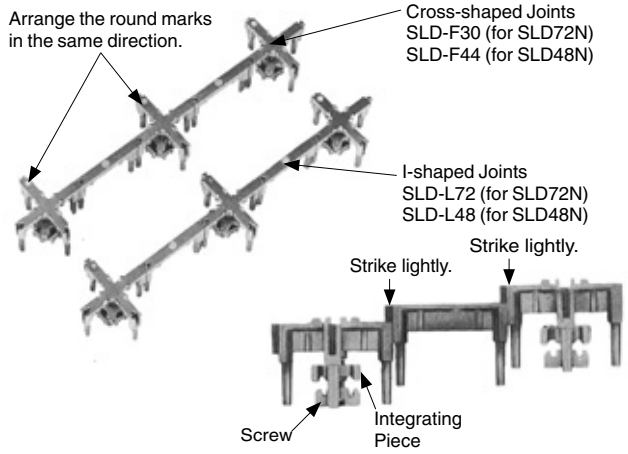
Note 2: Leaf spring A provides wings on the longer side of the SLDN unit. Leaf spring B provides wings on the shorter side of the SLDN unit. Leaf springs are not supplied with the SLDN unit. When leaf springs A are required, specify Part No. SLD-30KVP (for SLD72N) or SLDN-44KVP (for SLD48N) and required quantity in pairs. When leaf springs B are required, specify Part No. SLD-7KVP (for SLD72N) or SLDN-8KVP (for SLD48N) and required quantity in pairs.

Operating Instructions

Integrated Mounting

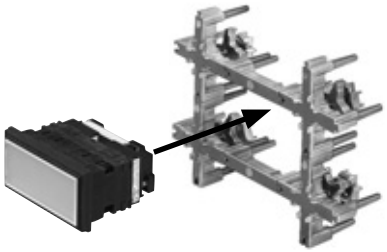
1. Assemble the cross-shaped joints.

First, assemble the cross-shaped joints in a row with round marks in the same direction together with the I-shaped joints. Then, combine the rows of assembled cross-shaped joints together.

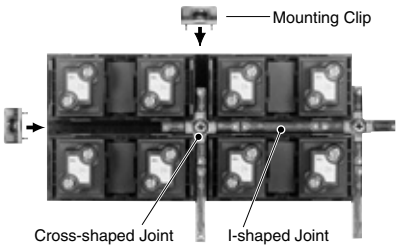


2. Lock the housings with the cross-shaped joints.

Insert the SLDN units into the assembled joints. Tighten the screws to integrate adjoining SLDN units with the integrating pieces on the cross-shaped joints.



3. Install into panel cut-out.



Insert the cluster of SLDN units into the panel cut-out from the front of the panel. Install the mounting clips as shown and tighten the screws lightly to a torque of approximately 0.4 to 0.5 N·m.

Quantity of mounting clips = (N – 1) × 2 + (N' – 1) × 2
Quantity of cross-shaped joints = (N – 1) × (N' – 1)
Quantity of I-shaped joints
For horizontal mounting = (N – 1) × (N' – 2)
For vertical mounting = (N – 2) × (N' – 1)
where N and N' are the numbers of rows and columns, respectively.

Quantities of Mounting Clips, Cross-shaped Joints, and I-shaped Joints Used for Integrated Mounting

Columns (N')	Mounting Clips and Joints	Rows (N)			
		2	3	4	5
2	Mounting Clips	4	6	8	10
	Cross-shaped Joints	1	2	3	4
	I-shaped Joints	0	1	2	3
3	Mounting Clips	6	8	10	12
	Cross-shaped Joints	2	4	6	8
	I-shaped Joints	0	2	4	6
4	Mounting Clips	8	10	12	14
	Cross-shaped Joints	3	6	9	12
	I-shaped Joints	0	3	6	9
5	Mounting Clips	10	12	14	
	Cross-shaped Joints	4	8	12	—
	I-shaped Joints	0	4	8	

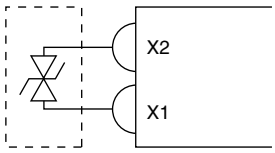
Quantity of SLDN units = N × N'
The maximum quantity of square SLD30N and SLD44N units for integrated mounting is 20.
The maximum quantity of rectangular SLD72N and SLD48N units for integrated mounting is 10 as shown with shading in the table above.

Operating Instructions

Notes for Using LED Units

Precautions for Noise

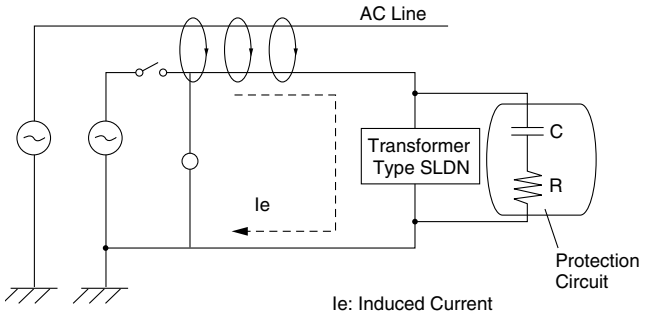
When using the SLDN unit in an environment where the SLDN is subjected to noise, connect a noise suppressor across terminals X1 and X2 as shown below.



Countermeasures against Dim Lighting

The SLDN unit contains a provision against dim lighting due to leakage current. If the LED unit appears to be dimly lit due to induced current from nearby AC lines, take appropriate countermeasures as described below.

[Sample Circuit]



[Countermeasure]

As shown in the diagram above, connect an RC circuit in parallel with the transformer SLDN unit.

For the values of the resistor and capacitor, see the following table.

SLDN Rated Operating Voltage	Resistor R		Capacitor C (μF)
	(Ω)	(W)	
100/110V AC (50/60 Hz)	120	0.25	0.33
200/220V AC (50/60 Hz)	120	0.25	0.10

Installation Location

Amber, white, and yellow LED units generate very weak infrared rays. When the environment is vulnerable to infrared rays, provide appropriate protection.

Ordering Information

Notes for Ordering

1. When ordering SLDN units and accessories, specify the Part No. and quantity.
2. All SLDN units except for 6V and 12V AC/DC are supplied with LED unit(s). For 6V and 12V AC/DC units, order LED units separately.
3. When ordering 2-way or 3-way split illumination SLD72N and SLD48N units (24V AC/DC full voltage and transformer) shown on pages 581 and 586, specify the Part No. including standard color codes.
4. All SLDN units are supplied with two mounting clips.
5. All SLDN units are not supplied with leaf springs. When using leaf springs for temporary fastening, order applicable leaf springs separately. See pages 595 and 596.
6. All SLDN units are supplied with a clear marking plate of the full illumination face size and white color screens of the specified split face size. When color display is required during power off for a full illumination face, order a color screen. When color display is required for a split illumination face, order color screens of the split face size and a white marking plate of the full illumination face size. See page 590.

Ordering Examples

Single Mounting

[Ex. 1] 24V AC/DC Full Voltage Units

SLDN Unit	SLD30N-1DH2BR	10 pcs

[Ex. 2] 6V AC/DC Full Voltage Units

SLDN Unit	SLD30N-1DH0B-6	10 pcs
LED Unit	SLDN-36F-RT	5 pcs
LED Unit	SLDN-36F-GT	5 pcs

[Ex. 3] 24V AC/DC Full Voltage Units (2-way split)

SLDN Unit	SLD72N-2DH2BGR	10 pcs
SLDN Unit	SLD72N-2DH2BRW	10 pcs

[Ex. 4] 6V AC/DC Full Voltage Units (2-way split)

SLDN Unit	SLD72N-2DH0B-6	10 pcs
LED Unit	SLDN-96F-RT	10 pcs
LED Unit	SLDN-96F-GT	10 pcs

[Ex. 5] 24V AC/DC Full Voltage Units (3-way split)

SLDN Unit	SLD48N-3DH2BGAR	10 pcs

[Ex. 6] 115/120V AC Transformer Units (3-way split)

SLDN Unit	SLD48N-3TH12BGRW	10 pcs

[Ex. 7] 6V AC/DC Full Voltage Units (3-way split)

SLDN Unit	SLD48N-3DH0B-6	10 pcs
LED Unit	SLDN-76F-GT	10 pcs
LED Unit	SLDN-76F-AT	10 pcs
LED Unit	SLDN-76F-RT	10 pcs

Integrated Mounting

[Ex. 8] Square Units (4 rows × 5 columns)

SLDN Unit	SLD30N-1DH2BR	20 pcs
Cross-shaped Joint	SLD-F30PN05	3 packs (15 pcs)

[Ex. 9] Rectangular Units (2 rows × 5 columns)

SLDN Unit	SLD48N-1DH2BR	10 pcs
Cross-shaped Joint	SLD-F44PN05	1 pack (5 pcs)
I-shaped Joint	SLD-L48PN05	1 pack (5 pcs)

Color Display When Lamp Off

[Ex. 10] 1-color Full Illumination Units

SLDN Unit	SLD72N-1DH2BR	10 pcs
Color Screen	SLDN-7C-RPN05	2 packs (10 pcs)

[Ex. 11] 3-way Split Illumination Units

SLDN Unit	SLD72N-3DH2BGAR	10 pcs
Marking Plate (white)	SLDN-7C-FWPN05	2 packs (10 pcs)
Color Screen	SLDN-7C3-GPN05	2 packs (10 pcs)
Color Screen	SLDN-7C3-APN05	2 packs (10 pcs)
Color Screen	SLDN-7C3-RPN05	2 packs (10 pcs)