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www.IDEC.com/signalinglights





Selection Guide

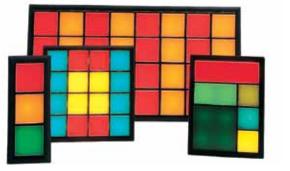
	Selection Guide					
Series		nt Towers		unt Indicators		
	LD6A	LT7	LH1D	Jumbo Dome Pilot Lights		
Appearance						
Page	704	713	716	721		
	LED	LED	LED	Incandescent or LED		
Description	Steady or Flashing Light with Buzzer	Steady or Flashing Light with Buzzer	One-color, Two-color, or Three- color Alternate Illumination			
Features	Unique oval lens shape provides clear distinction between LED colors Color coded wires	 Ultra bright LEDs Fast and easy assembly Optional adjustable alarm Color-coded wiring terminals LED strobe modules 	Flat lens, dome, or jumbo dome lenses	Large dome lens		
Nominal Voltage	24V AC/DC	24V DC, 90-250V AC	24V AC/DC	24V AC/DC		
Lamp Style	Lens LED Modules	Lens LED modules	LED	LED or Incandescent		
Lens Colors	Red, Yellow, Blue, Green, White	Red, Amber, Green, Blue, White, Lemon Yellow	Cool White, Blue, Green, Yellow, Warm White, Amber, Red	Amber, Green, Red, Blue, White Yellow		
Degree of Protection	IP65, IP54, IP23	IP65, Type 4, 4X, 13	IP67, Type 4X	IP65		
Mounting	Frame mount Wall mount Direct mount Pole mount with base Pole mount with L-shaped bracket	Base-mounting with stud L-angle bracket with pole Base-mount with pole Wall mount bracket	Direct mount Surface mount	22mm panel cut-out		
Lens Shape/Size	Oval / 40mm x 60mm	Round / 70mm (2.75")	Dome / ø37mm Flat / 35mm x 34mm Jumbo Dome / ø66mm	Dome / ø66mm		
Ratings/Approvals	c FL ®us (€	c Wus C E	C E c Unus	Certificate N TÜV Rheinland		



SLC Series — Panel Mount Annunciators

Series	SL	.C30 1.18" (30mm)	SLC30-IPS 1.18" (30mm)	SLC40 1.57" (40mm)		
Appearance	Full Voltage Transformer		Available with integrated control unit pushbuttons and key switches	Full Voltage Transformer		
Page		722	730	737		
Features			Custom-built, multiple combination windows Custom illumination color combinations Optional legend engraving			
Illumination Face Size		Style H: 1.181" : Style L: 1.181" : Style V: 2.362" :	x 1.181" (30 x 30mm) x 2.362" (30 x 60mm) x 3.543" (30 x 90mm) x 1.181" (60 x 30mm) x 2.362" (60 x 60mm)	Style F: 1.575" x 1.575" (40 x 40mm) Style H: 1.575" x 3.150" (40 x 80mm) Style L: 1.575" x 4.724" (40 x 120mm) Style V: 3.150" x 1.575" (80 x 40mm) Style G: 3.150" x 3.150" (80 x 80mm)		
Light Source			cluster or incandescent (1W)	LED cluster or screw base incandescent (2W)		
Illumination Colors			ber, Blue, Green, Red, Yellow, White, Red/Green 2-col Incandescent: Amber, Blue, Green, Red, Yellow, Whi	or alternate*		
		Full voltage	6, 12, 24V	DC		
	LED	Transformer	120V, 240V	AC		
Input Type/Voltage		DC-DC converter	110V DC			
	Incandescent	Full voltage	6.3, 18, 24, 30V DC			
		Transformer	120V, 240V AC (50/60Hz)		
Terminations	M3.5 screw with captive sems plate (M3 screw check terminals on applicable units) LED models feature M3.5 spring-up terminals					
Approvals	TU	Cert No. B970213332375	UL Recognized File No. E68961	CSA Certified File No. LR48366 ABS American Bureau of Shipping		
*Red/Green 2-color alter	nate available in 24	V LFD only.				





LD6A LED SignaLight Towers

Unique Striped Design Improves Visibility

Key features of the LD6A LED SignaLight Towers include:

- The striped design with non-illuminated area between the lenses makes the illuminated color very visible.
- Unique oval lens shape provides high-visibility from different directions.
- Five different mounting styles available: frame mount, wall mount, direct mount and pole mount (round or L-shaped bracket).
- Clear lens models available to clearly distinguish between illuminated and non-illuminated lenses.
- Custom configuration is possible.
- Flashing cycle: 1.75Hz (approx. 105 flashes per minute) conforms to international standard IEC 60073.
- Alarm (3.3kHz, 2 different styles) can be heard in 360° degrees.
 Adjustable volume (70 to 90dB).
- Degree of protection: IP65 Steady units and IP54 Flashing units (using frame, wall, direct and pole mount with round base), IP23 Steady and Flashing units using pole mount with L-shaped bracket.





Assembled Products

Mounting Tie		LED Color	Stead	у	Steady/Flashing/Alarm	
Style	Tiers	Code	Part Number	Weight (approx.)	Part Number	Weight (approx.)
	1	R, Y, S, G, W	LD6A-1GQ*-□	220g	LD6A-1GZQ*-□	310g
	2	RY, RG	LD6A-2GQ*-	260g	LD6A-2GZQ*-	350g
G: Frame Mount	3	RYS, RYG	LD6A-3GQ*-	300g	LD6A-3GZQ*-	390g
Widdit	4	RYSG	LD6A-4GQ*-	340g	LD6A-4GZQ*-	430g
	5	RYSGW	LD6A-5GQ*-	380g	LD6A-5GZQ*-	470g
	1	R, Y, S, G, W	LD6A-1WQ*-□	225g	LD6A-1WZQ*-□	315g
	2	RY, RG	LD6A-2WQ*-	265g	LD6A-2WZQ*-	355g
W: Wall Mount	3	RYS, RYG	LD6A-3WQ*-	305g	LD6A-3WZQ*-	395g
Widdit	4	RYSG	LD6A-4WQ*-	345g	LD6A-4WZQ*-	435g
	5	RYSGW	LD6A-5WQ*-	385g	LD6A-5WZQ*-	475g
	1	R, Y, S, G, W	LD6A-1DQ*-□	185g	LD6A-1DZQ*-□	275g
	2	RY, RG	LD6A-2DQ*-	225g	LD6A-2DZQ*-	315g
D: Direct Mount	3	RYS, RYG	LD6A-3DQ*-	265g	LD6A-3DZQ*-	355g
IVIOUIT	4	RYSG	LD6A-4DQ*-	305g	LD6A-4DZQ*-	395g
	5	RYSGW	LD6A-5DQ*-	345g	LD6A-5DZQ*-	435g
	1	R, Y, S, G, W	LD6A-1PQ*-□	645g	LD6A-1PZQ*-□	735g
	2	RY, RG	LD6A-2PQ*-	685g	LD6A-2PZQ*-	775g
P: Pole Mount (with base)	3	RYS, RYG	LD6A-3PQ*-	725g	LD6A-3PZQ*-	815g
(With Eddo)	4	RYSG	LD6A-4PQ*-	765g	LD6A-4PZQ*-	855g
	5	RYSGW	LD6A-5PQ*-	805g	LD6A-5PZQ*-	895g
	1	R, Y, S, G, W	LD6A-1KQ*-□	640g	LD6A-1KZQ*-□	730g
K: Pole Mount	2	RY, RG	LD6A-2KQ*-	680g	LD6A-2KZQ*-	770g
(with	3	RYS, RYG	LD6A-3KQ*-	720g	LD6A-3KZQ*-	810g
L-shaped bracket)	4	RYSG	LD6A-4KQ*-	760g	LD6A-4KZQ*-	850g
S. donot	5	RYSGW	LD6A-5KQ*-	800g	LD6A-5KZQ*-	890g



Specify housing color code in place of *: B (black), W (light gray)

Specify illumination color in place of ☐ starting with the top tier. State the LED color code from the left.

R (red), Y (yellow), S (blue),

G (green), W (pure white)
Example: When the LED color is

BYGSW -> LDGA FCOW

 $\frac{RYGSW}{RYGSW} \Rightarrow LD6A-5GQW \frac{RYGSW}{RYGSW}$

Clear lens type also available.

Specify "C" after the LED color code.

Fxample:

LD6A-5GQW-RYSGW => LD6A-5GQW-RYSGWC



Relays & Sockets

Combination of LED Color and Lens Color

LED Color	Color Lens Type	Clear Lens Type
R: Red	Red lens	Clear lens
Y: Yellow	Yellow lens	Clear lens
S: Blue	Blue lens	Clear lens
G: Green	Green lens	Clear lens
W: White	Clear	lens



For white (W) LED, a clear lens is used in both color and clear lens configurations.

Mounting Parts Included

Signaling Lights

Mounting Style	Supplied Parts
G: Frame mount	M4 screw (4 pcs)*, M4 spring washer (4 pcs)*, M4 plain washer (4 pcs)*, M5 screw (2 pcs), M5 spring washer (2 pcs), M5 plain washer (2 pcs), bracket (1 pc)
W: Wall mount	M4 screw (20 mm) (4 pcs), M4 screw (8 mm) (4 pcs)*, M4 spring washer (8 pcs)* M4 plain washer (8 pcs)*, M4 nut (4 pcs), bracket (1 pc), gasket (1 pc)
D: Direct mount	M5 screw (4 pcs)*, M5 spring washer (4 pcs)*, M5 plain washer (4 pcs)*, M5 nut (4 pcs)*, O-ring (4 pcs), gasket (1 pc)
P: Pole mount (with base)	M5 screw (4 pcs), M5 spring washer (4 pcs), M5 plain washer (4 pcs), M5 nut (4 pcs), O-ring (4 pcs), gasket (1 pc)
K: Pole mount (with L-shaped bracket)	M22 plain washer 2 (pcs), M22 nut (2 pcs), bracket (1 pc)



*For black housing, black screws and washers are supplied. For light gray housing, silver screws and washers are supplied.

Base Module

Ctulo	Mounting Style	Part Number		Notes
Style	Mounting Style	Steady	Steady/Flashing/Alarm	Mores
	Frame Mount	LD6A-0GQ*	LD6A-0GZQ*	
	Wall Mount	LD6A-0WQ*	LD6A-0WZQ*	
	Direct Mount	LD6A-0DQ*	LD6A-0DZQ*	A top cap is supplied.
	Pole Mount (with base)	LD6A-0PQ*	LD6A-0PZQ*	
	Pole Mount (with L-shaped bracket)	LD6A-0KQ*	LD6A-0KZQ*	



Specify a housing color code in place of *: B (black), W (light gray)

Do not supply power to the base module without connecting LED modules.

LED Module

Style		Lens	Part Number	LED Color Code
	Black	Color lens	LD9Z-6ALB-□	R, Y, S, G, W
	DIdUK	Clear lens	LD9Z-6ALB- □ C R, Y, S, G	R, Y, S, G
	Light grove	Color lens	LD9Z-6ALW-□	R, Y, S, G, W
	Light gray	Clear lens	LD9Z-6ALW-□C	R, Y, S, G



Specify an LED color code in place of \square : R (red), Y (yellow), S (blue), G (green), W (white), When using white (W) with a clear lens, order LD9Z-6ALB-W (black housing) or LD9Z-6ALW-W (light gray housing).

Center Set Screw

Item		Part Number	Notes
000	1 tier	LD9Z-6AC1	
	2 tiers	LD9Z-6AC2	
	3 tiers	LD9Z-6AC3	A plain washer and spring washer are supplied.
	4 tiers	LD9Z-6AC4	
	5 tiers	LD9Z-6AC5	

Relays & Sockets

Ordering Examples

When ordering LD6A-3PQW-RYG as sub-component parts, specify the following:

Pole mount (with base), steady, light gray housing, 3 tiers, color lens LED mod	dules with Red, Yellow, ar	ıd Green LED
Base module (pole mount with base, steady, light gray housing)	LD6A-0PQW	1 piece
LED module (red LED with color lens, light gray housing)	LD9Z-6ALW-R	1 piece
LED module (yellow LED with color lens, light gray housing)	LD9Z-6ALW-Y	1 piece
LED module (green LED with color lens, light gray housing)	LD9Z-6ALW-G	1 piece
Center screw set (3 tiers)	LD9Z-6AC3	1 piece

[Ex. 2] When ordering LD6A-5WZQB-RYSGWC as sub-component parts, specify the following:

Wall mount, steady/flashing/alarm, black housing, 5 tiers, clear lens LED modules with Red, Yellow, Blue, Green, and Pure white LED Base module (wall mount, steady/flashing/alarm, black housing) LD6A-0WZQB 1 piece LED module (red LED with clear lens, black housing) LD9Z-6ALB-RC 1 piece LD9Z-6ALB-YC LED module (yellow LED with clear lens, black housing) 1 piece LED module (blue LED with clear lens, black housing) LD9Z-6ALB-SC 1 piece LED module (green LED with clear lens, black housing) LD9Z-6ALB-GC 1 piece LED module (pure white LED with clear lens, black housing) LD9Z-6ALB-W 1 piece

Signaling Lights

LD9Z-6AC5

1 piece

Replacement Parts

Center screw set (5 tiers)

Item	Description		Part Number	Notes
	Ton Con	Black	LD9Z-6ATB	A top cap is supplied with a base module.
	Top Cap	Light gray	LD9Z-6ATW	A top cap is supplied with a base module.
300	L-shaped Bracket	Metal (chrome-plated)	LD9Z-6AK	Two plain washers and two nuts are supplied.



Specifications

Specifications

•				
Safety Standards	IEC60947-5-1, EN60947-5-1, UL508, CSA C22.2 No.14			
Operating Temperature	–25 to +55°C (n	o freezing)		
Operating Humidity	45 to 85% RH (no condensation)		
Storage Temperature	-40 to +75°C (n	o freezing)		
Overvoltage Category	III (IEC60664-1)			
Impulse Withstand Voltage	800V (IEC60947	7-1)		
Insulation Resistance	100 MΩ minim	um (500V DC megger)		
Dielectric Strength	Between live a	nd dead parts: 1000V AC, 1 minute		
Pollution Degree	3			
Corrosion Immunity	Atmosphere fre	ee from corrosive gases		
Vibration Resistance	Operating extre	emes: 10 to 55Hz, amplitude 0.5 mm		
Shock Resistance	Operating extre	emes: 147 m/s², 6 shocks each in 6 axe	S	
	Steady	frame mount, wall mount, direct mount, pole mount with base	IP65	
Degree of Protection	Steady	pole mount with L-shaped bracket	IP23	
(IEC60529)	Flashing/ Alarm	frame mount, wall mount, direct mount, pole mount with base	IP54	
	Flashing/ Alarm	pole mount with L-shaped bracket	IP23	
Housing Color	Black, Light gra	у		
Material	Housing: ABS resin Lens: AS resin Pole: Steel (nickel-chrome plated) Pole base: Diecast aluminum			
Wire	22AWG			

Functional Specifications

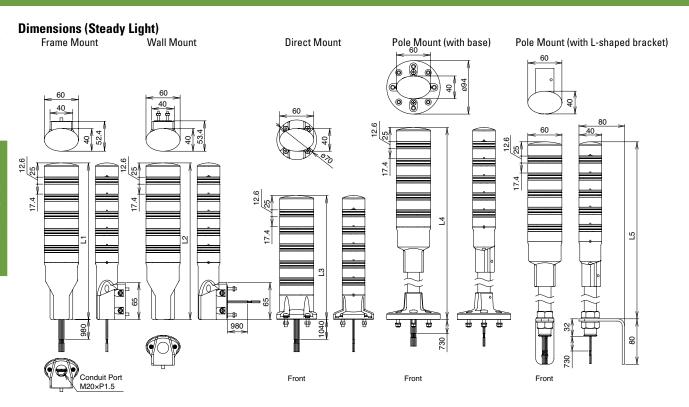
ranottonar opoottoattono								
Rate	ed Insulation Voltage	60V						
Оре	erating Voltage	24V AC/DC ±10%						
Rate	ed Voltage (Ue)	24V AC/DC						
LED	Color Code	R (red), Y (yellow)	, S (blue), G (green)	, W (white)				
	Illumination Color	R, Y	S, G	W				
	Rated Current (per tier)	25mA	30mA	20mA				
=	Power Consumption (per tier)	0.6W	0.75W	0.5W				
LED	Life (Note)	Approx. 30,000 hours (until brightness is reduced to 50% of the initial value in a 25°C operating environment)						
Flas	shing Cycle (IEC60073)	Approx. 105 flashes per minute (1.75 Hz)						
	Alarm Cycle	Alarm 1: approx. 700 times per minute Alarm 2: approx. 35 times per minute						
Æ	Current Draw	110mA max.						
Alarm	Inrush Current	AC: 400mA max. DC: 250mA max.						
	Alarm Volume	70 to 90dB, at 1m (volume adjustable)						
	Acoustic Frequency	Approx. 3.3kHz						

A

Note: Life of the LED varies according to operating conditions and environment.

External Contact Ratings

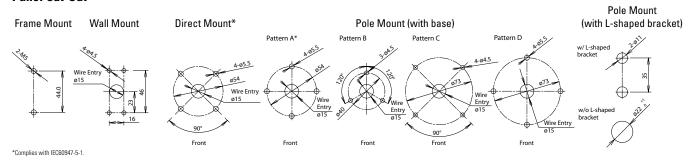
	AC Contact Capacity	Current Capacity	100mA min.	
		(per tier)	Dielectric Strength	35V AC min.
(ED	D0.0 0 t	Current Capacity	100mA min.	
	DC Contact Capacity, Transistor Capacity (per tier)	Dielectric Strength	35V min.	
	manerator dapatery (per tier,	Leakage Current	0.1mA max.	
		AC Contact Capacity	Current Capacity	400mA min.
		(per alarm)	Dielectric Strength	35V AC min.
Alam	DC Contact Capacity,	Current Capacity	300mA min.	
	Transistor Capacity	Dielectric Strength	35V min.	
	(per alarm)	Leakage Current	0.1mA max.	



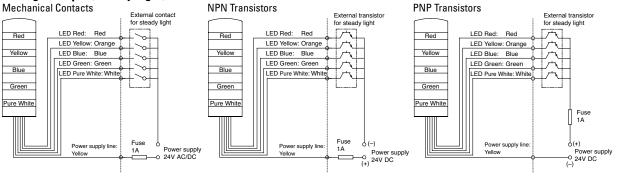
Dimension Table

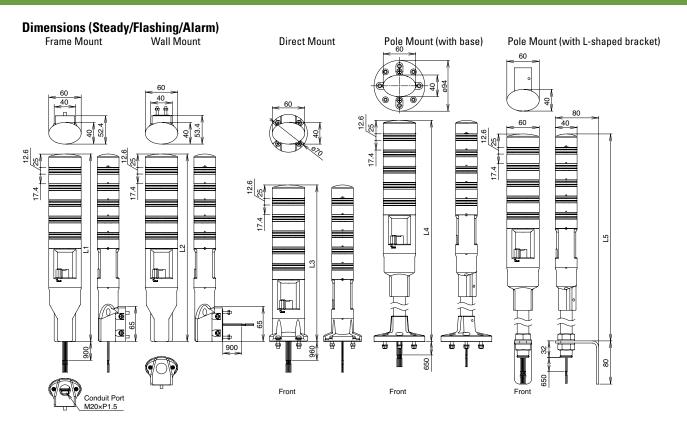
Tions	Frame Mount	Wall Mount	Direct Mount	ı	Pole Mount
Tiers	(L1)	(L2)	(L3)	w/ base (L4)	w/ L-shaped bracket (L5)
1	156	156	98	408	372
2	186	186	128	438	402
3	216	216	158	468	432
4	246	246	188	498	462
5	276	276	218	528	492

Panel Cut-Out







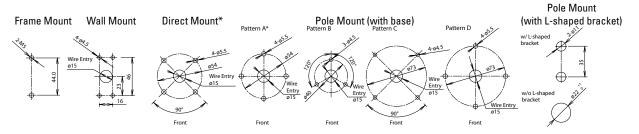


Signaling Lights

Dimension Table

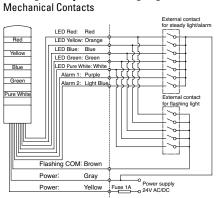
Tiers	Frame Mount	Wall Mount	Direct Mount	Pole Mount				
Hers	(L1)	(L2)	(L3)	(L3) w/ base (L4) w/ L-shaped				
1	228	228	170	480	444			
2	258	258	200	510	474			
3	288	288	230	540	504			
4	318	318	260	570	534			
5	348	348	290	600	564			

Panel Cut-Out

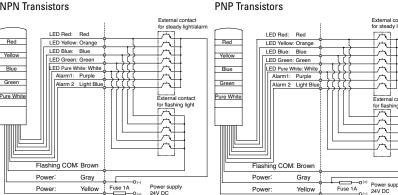


*Complies with IEC60947-5-1.

Wiring Example (Flashing Light and Alarm)



NPN Transistors



Signaling Lights

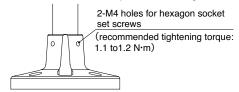
Safety Precautions

- Turn off the power to the LD6A before mounting, removing, wiring or assembling the LED module. Make sure the wiring is done correctly otherwise electrical shock or fire may result.
- Mount the LD6A on a solid surface not subject to vibrations.
- Do not mount the LD6A upside-down or horizontally.
- · Do not leave the LD6A without a cap or unassembled.

See drawing below regarding the mounting of the LD6A.

 Install the supplied gasket, otherwise the waterproof seal will be compromised.

- Do not apply any chemicals that may corrode the plastic materials.
- If the LD6A is subjected to strong vibrations, the hexagon socket screw may become loose. Take measures to prevent loosening. (See the figure below.)



· Do not loosen any screws if the tightening torque is not specified.

Instructions

Examples of recommended frames and frame nuts

Frame Size	Frame	Frame Nut	Manufacturer
□ 30 mm*	SFF-302	SFB-001 SFB-4B5 SFB-101	SUS
☐ 40 mm	SFF-402	SFB-008 SFB-4A5 SFB-108	Corporation (Japan)

^{*}The mounting bracket for the housing is 40 mm.

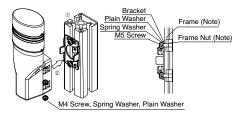
For panel cut-out dimensions, see pages 9 and 10.

· Postion the LD6A to make sure the alarm sound is the loudest. (Steady/flashing/alarm type)

Frame Mounting

Mounting

- 1. Insert two nuts in the frame, and attach the bracket using two M5 screws. Recommended tightening torque: 2.6 to 2.7 N·m
- 2. Mount the LD6A to the bracket using four M4 screws. Recommended tightening torque: 1.6 to 1.7 N·m



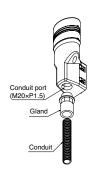
Note: See table below for typical examples of frames and nuts. Consult the manufacturer of the frame for the installation method of the frame nut.

When using a frame mount type, be sure to use flexible conduit, otherwise the waterproof seal will be compromised.

Refer to the "Example of Flexible Conduit" shown on the right.

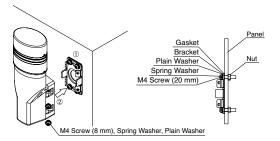
Example of Flexible Conduit

Example of Flexible Collabit								
Conduit Port Size	M20							
Gland	AL16/M20/A/BL							
Conduit	PAFS16BL							
Manufacturer	Adaptaflex							



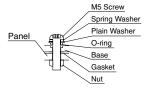
Wall Mounting

- 1. Make four tapped holes in the mounting panel and mount the bracket and gasket using four screws (M4 x 20). Recommended tightening torque: 1.6 to 1.7 N·m
- 2. Mount the LD6A to the bracket using four screws (M4 x 8). Recommended tightening torque: 1.6 to 1.7 N·m



Direct Mounting

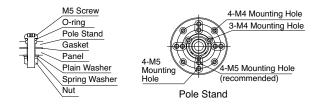
Recommended tightening torque: 2.6 to 2.7 N·m



Pole Mounting (with base)

The pole mount type can be installed in four ways. The recommended mounting method (pattern A from page 9 or 10) is described below.

Recommended tightening torque: 2.6 to 2.7 N·m (M5 screw)



Pole Mounting (with L-shaped bracket)

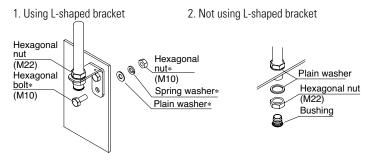
1. Using L-shaped bracket

Recommended tightening torque: 10 to 11 N·m (M10) Recommended tightening torque: 25 to 26 N·m (M22)

2. Not using L-shaped bracket

Remove the bushing, hexagonal nut (M22), plain washer, and L-shaped bracket from the LD6A and install in the following order: plain washer, hexagonal nut (M22), and bushing.

Recommended tightening torque: 25 to 26 N·m (M22)



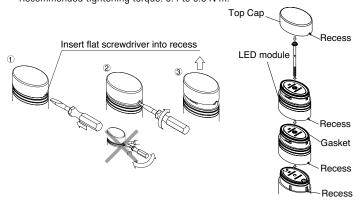
The parts marked with * are not supplied and should be provided by the user.

Replacement and Addition of LED Modules

• Make sure to turn power off.

Signaling Lights

- Insert a flat screwdriver into the cap recess as shown below, lift up the cap, and remove with your hands. Use a flat screwdriver with maximum 1-mm thick and 7-mm wide tip.
- Remove the center screw before reassembling the LED modules.
- When assembling the LED modules, make sure to align the recess of the cap with the recess of the LED module. Otherwise, damage may result. Recommended tightening torque: 0.4 to 0.5 N·m.



- Note the correct orientation when assembling the LED modules.
- Tighten the screws to the recommended tightening torque. The LED module may be damaged if the screw is loose during operation.
- Do not touch the metal plug on the LED module. Otherwise, LED elements maybe damaged due to static electricity.
- Use a maximum of 5 tiers.
- Select the correct screw length depending on the number of tiers.
- Do not remove the gasket from the LED module. Otherwise, the waterproof seal will be compromised.

Wiring

- · For wiring, see the wiring diagrams on pages 708 and 710.
- Incorrect wiring may damage the internal circuit.
- · Be sure to insulate unused wires.
- Connect a 1A fuse to the power line as shown in the Wiring Examples on pages 708 and 710.
- Use a UL listed external fuse holder.
- Use a class 2 power supply only.
- When using LED modules of the same color for two or more tiers, determine contact capacity in referencet to the LED current, because only one wire is used to light all tiers of the same color.
- Do not apply voltage to flashing (brown) lines.
- · Do not connect flashing (brown) line to the power lines. The internal circuit may be damaged.
- Do not turn on steady and flashing circuits simultaneously.
- Do not turn on alarms 1 and 2 simultaneously.



Wire Color

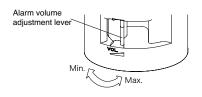
Wire Color	Steady	Steady, Flashing, Alarm
Red	LED Module – Red	LED Module – Red
Orange	LED Module – Yellow	LED Module – Yellow
Blue	LED Module – Blue	LED Module – Blue
Green	LED Module – Green	LED Module – Green
White	LED Module – White	LED Module – White
Purple	_	Alarm 1
Light Blue	_	Alarm 2
Brown	_	Flashing COM
Gray	_	Power Line
Yellow	Power Line	Power Line



For information on external contacts, see "External Contact Ratings" on page 707.

Alarm Volume Adjustment

- Move the volume adjustment to the right or left to change the volume.
- When the adjustment lever is all the way to the right the volume is at its maximum.
- The adjustment lever may be damaged if forced open or closed.



High Temperature Limitations

The external temperature cannot exceed 50°C when all tiers are lit at the same time in the following combinations:

- 1. Three tiers
 - Two or more tiers of blue and green (example: Red-Green-Blue, Green-Green-Red)
- 2. Four or five tiers (example: Red-Yellow-Green-White, Red-Yellow-Blue-Green-White)

LT7 Series Light Towers

Easily build or modify the combination that works for you!

The LT7 light tower combines innovative LED technology with modular style assembly. This enables the towers to meet the extensive requirements seen in most status indicating applications. The simple design uses only 9 modular components to make a five color tower complete with alarm and flashing functions.

Using the latest and brightest LEDs, the LT7 product range provides brilliant illumination for all the lens colors. The unique prism cut design enhances the brightness and ensures outstanding levels of visibility from any direction and distance.

Key features of the LT7 series light towers include:

- 70mm diameter
- Ultra bright LEDs
- · LED strobe modules
- Unique interlocking construction
- · Fast and easy assembly
- Optional adjustable alarm
- · Lead-free design, RoHS compliant
- IP65 environment protection, NEMA 4, 4X, 13
- Color-coded wiring terminals
- Only nine modular components with 5 lens colors & 4 base units
- UL/c-UL Listed, CE marked





Part Numbers

Part Numbers: Base Units

Voltage	Steady	Flashing/Buzzer
24V DC	LT7B-D24	IT7B-D24FB
24V DC	LT7B-D24SB*	LI / D-DZ4FD
90-250V AC	LT7B-A250	LT7B-A250FB



Base unit comes with top cap.

2. *Short body, black base type.

Part Numbers: Lens/LED Units

Color	Part Number
Red	LT7A-R
Amber Yellow	LT7A-Y
Green	LT7A-G
Blue	LT7A-S
White	LT7A-C
Lemon Yellow	LT7A-LY*



*Maximum 5 LED color variations per base. Lemon yellow LED module and amber yellow LED module share same signal and both will light if stacked together.

Part Numbers: LED-Strobe Units

Color	Part Number
Red	LT7A-XE-R
Amber Yellow	LT7A-XE-Y
Green	LT7A-XE-G
Blue	LT7A-XE-S
White	LT7A-XE-C



(for 24V DC base only)





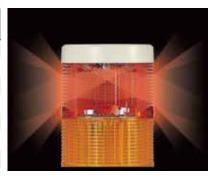


Lemon Yellow LED module

Short body type

LT7 Specifications

Bas	e Units		LT7B-D24 LT7B-D24SB	LT7B-D24FB		LT7B-A250	LT7B-A250FB			
	Operation/Fun	ction	Steady	Flashing/Steady		Steady	Flashing/Steady			
	Rated Voltage			24V DC		90	0~250V AC (50/60I	Hz)		
	Operating Volt	age	24V	±10% (21.6~26	.4V)	90	90~250V AC (50/60Hz)			
	Alarm		-	Alarm 1*	Alarm 2**	-	Alarm 1*	Alarm 2**		
	Current Consumption		-	50mA±10mA	24mA±10mA	-	50mA±10mA	24mA±10mA		
s	Power Consumption		_	1.2W±0.25W	0.58W±0.25W	_	1.8W±0.25W	1.3W±0.25W		
Specifications	Alarm Sound	Max	-	90dB±5 (at 1m	1)	-	90dB±5 (at 1m)			
ifice	Level	Min	_	70dB or less (a	at 1m)	-	70dB or less (at 1m)			
Spec	Flashing Cycle		-	60 flashes per minute		-	 60 flashes per minute 			
	Operating Temperature Range		-30°C~+60°C			-25°C~+55°C				
	Mounting		Upright, indoor only			Upright, indoor only				
	Protection		IP	65, Type 4, 4X, 1	13	IP65, Type 4, 4X, 13				
	Weight		250g	280g		310g 340g				
	Open Collecto	r		PNP/NPN		NPN				
Δ	*Alarm 1: continuo	ous sound								



Ultra-bright LEDs



Color Coded Wiring Terminals

										Color	Coaea wiring i	erminais
	s/LED and -Strobe Units*	LT7A-R	LT7A-Y	LT7A-G	LT7A-S	LT7A-C	LT7A-LY	LT7A-XE-R	LT7A-XE-Y	LT7A-XE-G	LT7A-XE-S	LT7A-XE-C
ions	LED Unit Type	Steady/Flashing						Strobe				
	LED Unit Color	Red	Amber Yellow	Green	Blue	White	Lemon Yellow	Red	Amber Yellow	Green	Blue	White
ifica	Current/Power	52mA	52mA/1.25W 42mA/1.0W					280mA/6.96W 130mA/3.36W 260mA/6.48W 270mA/6.72W				270mA/6.72W
Specifications	Operating Temperature Range	-30°C~+60°C						-10°C~+60°C				
	Weight			60	Da			70a				

- A
- *Operate with all voltage base units listed on previous page.
- 1. Strobe units pulse 77 times per minute
- Strobe units suitable only for BASE unit [LT7B-D24(FB)]. Units do NOT work with BASE unit [LT7B-A250(FB)].
- 3. Strobe units should be operated in 'Continuous light' mode. If it is operated in flashing mode, it will NOT operate correctly.
 - Do not substitute parts of units from other products.
- 5. This product can be used only indoors. Do not use outdoors.
- 6. Do not use without LED unit or top cover installed.

Accessories & Replacement Parts

*Alarm 2: intermittent sound





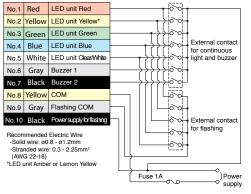


Wiring Examples

LT7B-D24FB

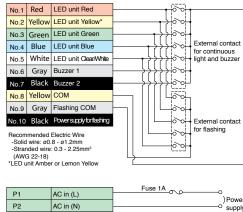
LT9Z-7T

323



LT7B-A250FB

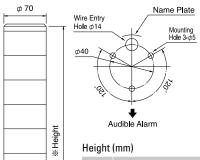
Signaling Lights



		E 44
1	AC in (L)	Fuse 1A
2	AC in (N)) Power outply

LT7 Dimensions

LT7 Base Unit

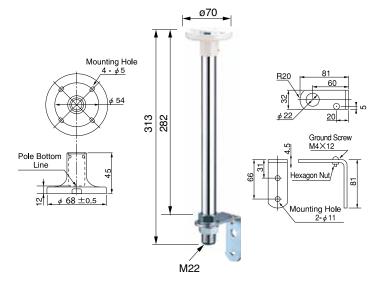


# of	Base Type		
Lights	Standard	Short Body	
1	211	119	
2	252	160	
3	293	201	
4	334	242	
5	375	283	

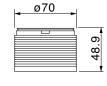
LT7 Dimensions con't

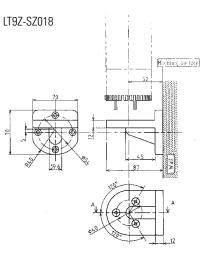
LT7 Mounting Brackets

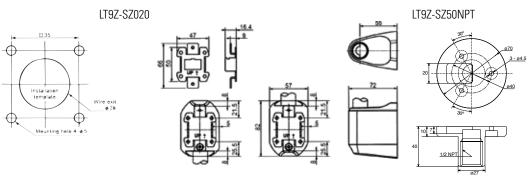
LT9Z-7L

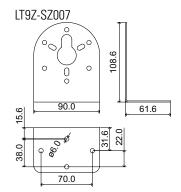


LT7 LED Unit









LH Series Surface Mount Indicators

Innovative indicators in a slim & stylish design. Reduces installation space.

Key features of the LH series include:

- Direct mounting on surfaces such as panels, aluminum frames, and walls.
- Surface mount style does not affect the placement of other components.
 Requires only a small space behind the mounting surface for screws and nuts.
- Slim design well suited for installation in small spaces.
- Direct cable wiring style ensures waterproof characteristics.
 1m, 3m, and 5m cables available.
- IP67, Type 4X
- Excellent visibility from the front and from the side.
- Legends and symbols can be printed on marking film to customize flat type.
- Red/Green two-color alternate illumination available.
- Three-color alternate illumination available with jumbo-dome models.
- Jumbo dome models available with connector.





Part Numbers

Style	Cable	Part No.
	1m	LH1D-D2HQ4C10-①
Dome ø37 One Color	3m	LH1D-D2HQ4C30-®
	5m	LH1D-D2HQ4C50-®
	1m	LH1D-D2HQ4C10-RG
Dome ø37 Red/Green 2-color Alternate	3m	LH1D-D2HQ4C30-RG
2 oddi y ilionidio	5m	LH1D-D2HQ4C50-RG
	1m	LH1D-H2HQ4C10-®
Flat One Color Full	3m	LH1D-H2HQ4C30-®
	5m	LH1D-H2HQ4C50-®
	1m	LH1D-H2HQ4C10-RG
Flat Red/Green 2-color Alternate	3m	LH1D-H2HQ4C30-RG
2 doisi / mornate	5m	LH1D-H2HQ4C50-RG

Style	Connect	tions	Part No.
1	Cable	1m	LH1D-D3HQ4C10-@
Jumbo Dome		3m	LH1D-D3HQ4C30-@
(one color)		5m	LH1D-D3HQ4C50-@
	Connector		LH1D-D3HQ4CN1-@
*	Cable	1m	LH1D-D3HQ4C10-®
Jumbo Dome		3m	LH1D-D3HQ4C30-3
(two color)		5m	LH1D-D3HQ4C50-®
	Connector		LH1D-D3HQ4CN1-3
*	Cable	1m	LH1D-D3HQ4C10-@
Jumbo Dome		3m	LH1D-D3HQ4C30-@
(three color)		5m	LH1D-D3HQ4C50-@
	Connector		LH1D-D3HQ4CN1-⊕



- 1. Specify a color code in place of ① in the Part No.: A: amber, G: green, PW: cool white, R: red, S: blue, W: warm white, Y: yellow
- 2. Specify a color code in place of ② in the Part No.: **A**: amber, **G**: green, **R**: red, **S**: blue, **W**: warm white, **Y**: yellow
- 3. Specify a color code in place of ③ in the Part No.: AG: amber/green, AW: amber/warm white, APW: amber/cool white, RG: red/green, RW: red/warm white, RPW: red/cool white, GW: green/warm white, GPW: green/cool white
- 4. Specify a color code in place of ① in the Part No.: RGW: red/green/warm white, RGPW: red/green/cool white
- 5. **RG**: R (red) / G (green) 2-color alternate illumination

Note: Dual- and tri-color units use a white lens.



Replacement Parts

Style	Material	Part Number	© Lens Color
Lens (flat)	Polyarylate	LH9Z-1DLH2-①	For flat lens. Specify a color code in place of ① in the Part No. A: amber G: green C: clear R: red S: blue Y: yellow Note: Use C (clear) lens for R/G (red/green alternate), W (warm white), or PW (cool white) illumination.
Lens (jumbo dome)	Polycarbonate	HW1A-P5@	For jumbo dome lens. Specify a color code in place of ② in the Part No. A: amber G: green R: red S: blue W: white Y: yellow Note: Dual- and tri-color units use a white lens.

Signaling Lights

LH Specifications

Applicable Standards	IEC 60947-1, IEC 60947-5-1, EN 60598-2-1, EN 60947-5-1 UL508, CSA C22.2 No.14
Operating Temperature	-20 to +55°C (no freezing)
Operating Humidity	45 to 85% RH (no condensation)
Storage Temperature	-30 to +80°C (no freezing)
Impulse Withstand Voltage (illuminating part)	800V
Insulation Resistance	Between live and dead parts: $100\;M\Omega$ minimum
Dielectric Strength	Between live and dead parts: 2000V, 50/60Hz , 1 minute
Pollution Degree	3
Vibration Resistance	60m/s ² , 5 to 55 Hz, amplitude 0.5 mm
Shock Resistance	1000m/s ²
Cable Tensile Strength	90N minimum
Degree of Protection	IP67, Type 4X
Housing Color	Black
Cable	24 AWG 2-core (one-color) 3-core (2-color alternate) 4-core (3-color alternate)
Cable Outside Diameter	ø4.1mm
Allowable Cable Bending Radius	24.6mm minimum
Weight (1m cable)	50g (dome type, flat type) 140g (jumbo dome type)

Standards

Standards	Marks	File No. or Organization
EN 60598-2-1	TUV	TÜV SÜD
EN 60598-2-1 EN 60947-5-1	(€	EC Low Voltage Directive
UL508	c (UL) us	UL, cUL

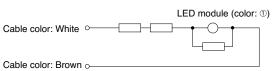


LH series surface mount indicators are approved by TÜV as class III lighting fixtures.

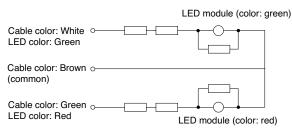
Specifications

оросписатопо		
Rated Insulation Voltage (Ui)	32V	
Rated Voltage	24V AC/DC	
Operating Voltage Range	24V AC/DC ±10%	
Rated Current	17 mA	
Maximum Power/Current	0.6W (25 mA)	
Illumination Color	A (amber), G (green), PW (cool white), R (red), S (blue), W (warm white), Y (yellow) R (red) /G (green) alternate	
LED Lamp Life	Approx. 50,000 hours (When used on complete DC at 25°C, brightness reduces to 50% of the initial intensity.)	

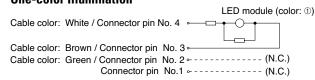
Internal Circuit One-color Illumination (Dome)



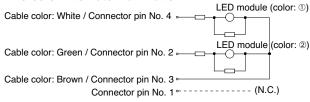
Two-color (Dome)



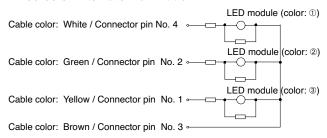
Internal Circuit One-color Illumination



Two-color Alternate Illumination

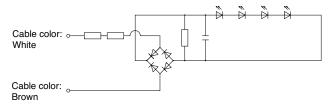


Three-color Alternate Illumination



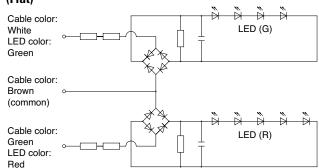
Note: For the schematic of the LED module, see "LED Module Internal Circuit" on the right. N.C. means No connection

One-color Illumination (Flat)



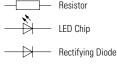
(Flat)

Signaling Lights



Lens Colors

LUII	GIIS CUIUIS				
Illumination Type		Illumination Color	White Lens Color		
		Amber	Amber		
		Blue	Blue		
_		Green	Green		
/Fla	One Color	Cool White	Clear (Note)		
Dome/Flat		Red	Red		
_		Warm White	Clear (Note)		
		Yellow	Yellow		
	Two-color Alternate	Red/Green	Clear (Note)		
		Amber	Amber		
		Green	Green		
	One Color	Red	Red		
	One Color	Blue	Blue		
		White	White		
ЭС		Yellow	Yellow		
	Two-color Alternate	Red/Green	White		
Jumbo Dome		Green/White	White		
mbo		Red/White	White		
₹		Amber/Green	White		
	TWO-color Alternate	Amber/White	White		
		Red/Pure White	White		
		Green/Pure White	White		
		Amber/Pure White	White		
	Three-color	Red/Green/White	White		
	Alternate	Red/Green/Pure White	White		
	Register A Note: Recause lenses have a white				



Zener Diode

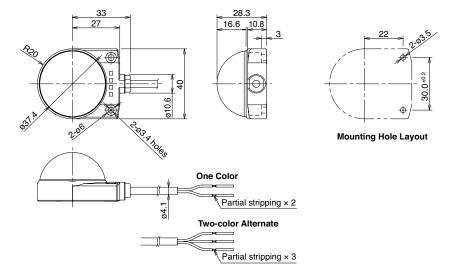


Note: Because lenses have a white diffusion cover inside, cool white, warm white, and red/ green types look white when the light is off.

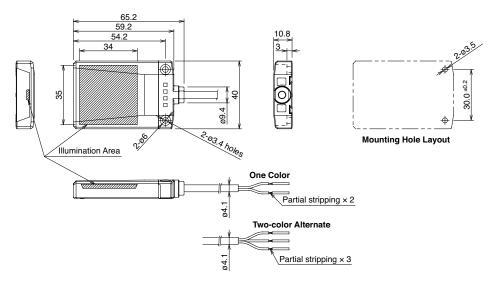


Dimensions (mm)

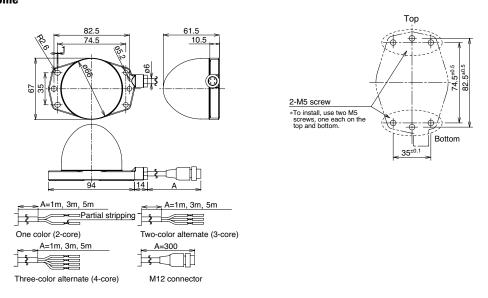
Dome Not to scale.



Flat



Jumbo Dome

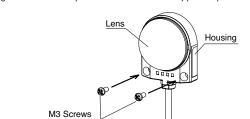


Instructions

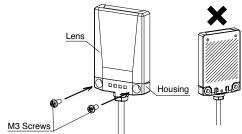
Signaling Lights

Panel Mounting

Using two M3 screws, install the LH indicator to a mounting surface. Tighten the screws to a torque of 0.6 N·m maximum. Mounting screws are not provided and must be supplied by the user.



Note: The standard dome lens is not removable. Do not attempt to remove or damage may occur. However, the jumbo dome lens is removable and replaceable.

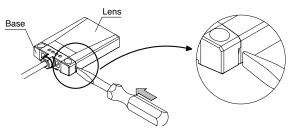


Note 1: Do not install the LH indicator by attaching the lens only, such as by taping down on the lens as the internal components may come loose.

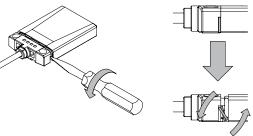
Note 2: Make sure that the back of the indicator is securely attached to the mounting surface so that the lens cannot be easily removed.

Inserting Marking Film into Flat Type Lens

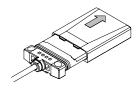
1. Insert a flat screwdriver into the groove between the base and lens.



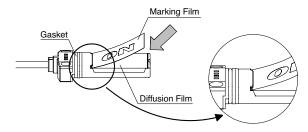
2. Twist the screwdriver and disengage the lens from the base.



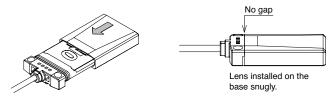
3. Remove the lens from the base.



4. Insert the edge of a marking film into the gap between the base and the diffusion plate, and place the marking film on top of the diffusion plate.



5. Replace the lens. Ensure that the lens is installed snugly.



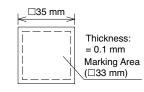
Note 1: Do not touch the gasket, as this may affect its waterproof characteristics. Note 2: Do not touch the diffusion plate.

Markings

Legends and symbols can be printed on marking film that can be used with the flat lens. One 0.1mm-thick film can be inserted.

Marking films are not inlouded and must be supplied by the user.

Recommended marking film: Polyester



Jumbo Dome Pilot Lights



			Plastic Bezel
	150	Operator Only	HW1P-5Ω0
Jumbo Dome		Full Voltage 24V AC/DC	HW1P-5Q4-@
Jumbo	Incandescent	Operator Only	HW1P-5Ω7*
		Full Voltage 24V AC/DC	HW1P-5Q7-@



- 1. In place of ②, specify the Lens/LED Color Code.
- 2. *Incandescent operator comes with bulb.
- Available with spring-up terminals and 24V only.
 For nameplates and accessories, see page 546 and 549.
 For dimensions, see page 551.

② Lens/LED Color Code

Color	Code
Amber	А
Green	G
Red	R
Blue	S
White	W
Yellow	Υ

Jumbo Dome Replacement Parts

Item	Appearance	Description	Part Number
Lens		Polygothopata Lang	HW1A-P5@
LED Diffusing Lens*	3	Polycarbonate Lens	HW9Z-PP5C
LED Lamps	-	LED Lamp	LSTDB-2@



- In place of ②, specify the Lens/LED Color Code.
 *Diffusing lens for LED models only.
 Use white LED for yellow lens.

Lamp Ratings

	Part Number	Operating Voltage	Rated Current	Power Consumption
LED	LSTDB-2	24V AC/DC ±10%	15mA	0.36W
Incandescent	LSB-2	Z4V AU/DU ±10%	150mA	3.6W





SLC30 Series – Panel Mounted Annunciators

SLC Series Panel Mounted Annunciators — an Ideal Alternative to Mounting Multiple Pilot Devices

Cluster mounting simplifies panel cutouts and offers a variety of window combination sizes!

Available with incandescent or Superbright LED illumination.

Key features of the SLC30 series include:

- Custom configurations with up to 200 windows
- Five window sizes based on a 30mm grid
- Non-reflective clear lenses
- Incandescent or Superbright LED illumination
- Wide variety of input voltages
- Two color alternate illumination in Red/Green LED





ABS American Bureau of Shipping







Style F (30mm x 30mm)



Style H (30mm x 60mm)



Style L (30mm x 90mm)



Style V (60mm x 30mm)



Style G (60mm x 60mm)



Staggered Terminals: increased safety and serviceability



Specifications

Signaling Lights

Light Source		LED	Incandescent						
	Full Voltage	6, 12, 24V AC/DC	6, 12, 18, 24, 30V AC/DC						
Nominal Voltages	Transformer	120, 240V AC	120, 240V AC						
Voltagoo	DC-DC Conv.	110V DC	110V DC						
Colors		Amber, Green, Red, Yellow, Blue (24V only), White, dual color Red/ Green (24V only)	Amber, Green, Red, Yellow, Blue, White						
Lamp Type		Surface (Chip type) LED cluster	BA9S/13 (T3-1/4) bayonet base (1W)						
_	6V DC	Red (R), Green (G), Yellow (Y), Amber (A), White (W): 80mA							
Current Consumption	12V DC	Red (R), Green (G), Yellow (Y), Amber (A), White (W): 40mA							
oonsamption	24V DC	Red (R), Green (G), Yellow (Y), Amber (A), White (W), Blue (S): 20mA							
Available Window Sizes		"F" "H" "L"	"V" "G" 60x30mm 60x60mm						
Insulation Res	istance	More than 100 $M\Omega$ by a 500V DC megger							
Degree of Prot	ection	IP20 (for indoor use only)							
Dielectric Stre	ngth	2,000V AC direct (2,500V AC transformer, 1 minute)							
Operating Tem	perature	-20° to +40°C; 15–90% relative humidity (-10° to +40°C DC-DC converter)							
Material of Ma Color Screen	rking Plate and	Polycarbonate							
Termination		M3.5 screw with captive sems plate (Check terminals: M3 screw with captive sems plate on applicable units)							
Maximum Size		Full voltage 10 rows, 20 columns (200 windows) Transformer and DC/DC converter (50 windows)							
Recommended Wire Size		22-14 AWG x2 (2mm² x 2)							
Approvals			- can u of						



Relays & Sockets

Part Numbers (assembled)

Part Number Guide

SLC30N

1 01 Number of

Rows

2 03 Number of

Columns

3 4 (5) DD 2 Type Voltage Style

Color and Number of Windows

6

Description			Code	Remark		
①Number of Row	'S		01, 02, 03, 04, 05, 06, 07, 08, 09, 10	10 row maximum (always expressed in terms of "F" size windows)		
② Number of Columns		01, 02, 03, 04, 05, 06, 07, 08, 09, 10 11, 12, 13, 14, 15, 16, 17, 18, 19, 20	20 column maximum (always expressed in terms of "F" size windows)			
		Full voltage	DD	6V, 12V, 24V		
		Full voltage with check terminal	DHM	24V only		
③ Type	LED	Full voltage 2 color (Red/Green)	DW	24V only		
- '/ -		Transformer	TD	120V, 240V AC		
		DC-DC converter	CD	110V DC only		
		Full voltage	DS	6V, 12V, 18V, 24V, 30V		
	Incandescent	Transformer	TS	120V, 240V		
	6V AC/DC		6	Type DD or DS		
	12V AC/DC		1	With Type DD or DS		
	18V AC/DC		8	Type DS only		
	24V AC/DC		2	Type DD, DW, DS or DHM		
Voltage	30V AC/DC		3	Type DS only		
Ü	120V AC		12	Type TD or TS		
	240V AC		24	Type TD or TS		
	110V DC		1	With Type CD		
	No lamp		99	Type DS only		
	Square		F	30x30mm		
	Horizontal recta	angle	н			
		angle with barrier	H2	30x60mm		
@ Cu .l	Large horizonta	al rectangle	L	30x90mm		
Style	Vertical rectano	gle	V	60x30mm		
	Large square		G	60x60mm		
	Combination		M	Fill out order form on next page		
	Amber		Α			
	Green		G			
© Color	Red		R			
(number of windows)	Blue		S (LED version: 24V only)	After each color, specify the number of windows Example A(3), G(2), R(1)		
	White		W			
	Yellow		Υ			

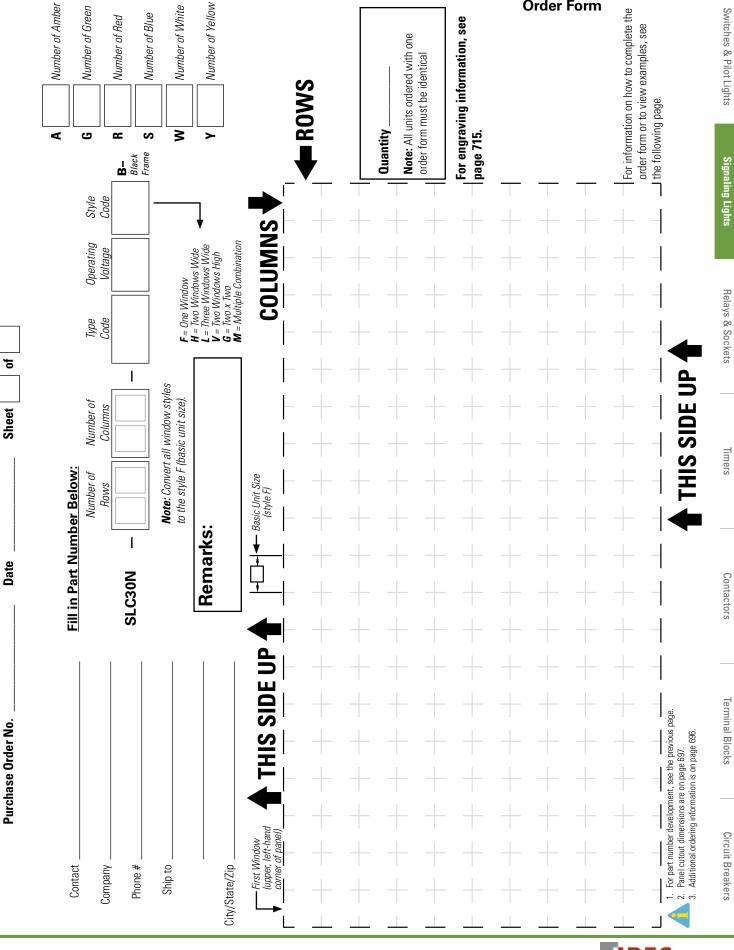




Secondary voltage on transformers and DC-DC converters is 24V.
 To specify arrangement of varying window sizes and colors, use the order form on the next page.
 Incandescent models use color screen and marking plate, LED models use 2 marking plates (no

color screen).

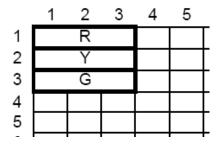
Order Form



How to complete SLC30N Series annunciator order form:

1. Draw the SLC30N layout in the Order Form as per customer requirements. Define the boundaries of each window (F, V, H, L or G Style) and of complete annunciator panel by heavy border lines. Specify each window color with appropriate designation (eg: G for Green, R for Red, etc). See Example 1 below:

Example 1



2. Count number of rows and columns. eg: Example 1, Rows: 03 and Columns: 03

SLC30N-0303

3. Determine the type of illumination required. eg: "DD" for LED full voltage type illumination.

SLC30N-0303-DD

4. Determine the voltage code. eg: "2" for 24V AC/DC.

SLC30N-0303-DD2

5. Determine window style. eg: "L" style windows as shown in Example 1.

SLC30N-0303-DD2LB*

*B denotes black frame

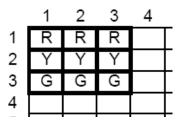
6. Count the number of different colored windows in the annunciator. Example 1 has 1 Red L-style (30x90mm) window, 1 Yellow L-style window and 1 Green L-style window.

SLC30N-0303-DD2LB-R(1)Y(1)G(1)

7. Now your part number is complete, please fill out contact information and fax or email the form to IDEC Customer Service for order processing. If you would like to get annunciator windows engraved, please see the information on page 745 and send us your engraving information. If you have any questions, please contact IDEC Technical Support or for additional information, view examples 2 and 3:

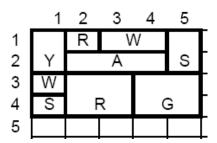
Example 2

Rows=03; Columns= 03; F Style Windows (30x30mm); LED Full Voltage 24V AC/DC Illumination. Part number SLC30N-0303-DD2FB-R(3)Y(3)G(3).



Example 3:

Rows = 04; Columns = 05; M = combination of various window styles(F, H, L V and G Style); LED Full Voltage 24V AC/DC Illumination. Part number **SLC30N-0405-DD2MB-A(1)R(2)Y(1)G(1)W(2)S(2)**.





Dimensions

Signaling Lights

Panel Cut-Out Dimensions

	No. of Co	lumns		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No. of Rows	Overall Pa Dimension		th	1.654" (42mm)	2.853" (72mm)	4.016" (102mm)	5.197" (132mm)	6.378" (162mm)	7.559" (192mm)	8.740" (222mm)	9.921" (252mm)	11.102" (282mm)	12.283" (312mm)	13.465" (342mm)	14.646" (372mm)	15.827" (402mm)	17.008" (432mm)	18.189" (462mm)	19.370" (492mm)	20.551" (522mm)	21.732" (552mm)	22.913" (582mm)	24.094" (612mm)
No. o	Overall Height	Cut- out Ht	Cut- out Wd	1.378" (35mm)	2.559" (65mm)	3.740" (95mm)	4.921" (125mm)	6.102" (155mm)	7.283" (185mm)	8.465" (215mm)	9.646" (245mm)	10.827" (275mm)	12.008" (305mm)	13.189" (335mm)	14.370" (365mm)	15.551" (395mm)	16.732" (425mm)	17.913" (455mm)	19.094" (485mm)	20.276" (515mm)	21.457" (545mm)	22.638" (575mm)	23.819" (605mm)
1	1.654" (42mm)	1.378" (35mm	n)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	2.853" (72mm)	2.559" (65mm	n)	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
3	4.016" (102mm)	3.740" (95mm	1)	3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
4	5.197" (132mm)	4.921" (125m	m)	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
5	6.378" (162mm)	6.102" (155m	m)	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
6	7.559" (192mm)	7.283" (185m	m)	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
7	8.740" (222mm)	8.465" (215m	m)	7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140
8	9.921" (252mm)	9.646" (245m	m)	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
9	11.102" (282mm)	10.827 (275m		9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144	153	162	171	180
10	12.283" (312mm)	12.008 (305m		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200

Total Number of Windows (equivalent to style F—basic unit size)



1. The number of rows and columns refers to styles equivalent to style F (basic unit size).

For styles H, L, V, and G, convert into style F (basic unit size) equivalents.

Style H: 1 window high (1 row) x 2 windows wide (2 columns)

Style V: 2 windows high (2 rows) x 1 window wide (1 column)
Style L: 1 window high (1 row) x 3 windows wide (3 columns)

Style G: 2 windows high (2 rows) x 2 windows wide (2 columns)

Example: 18 windows = 3 windows high (3 rows) x 6 windows wide (6 columns)

Overall dimension (H x W): 4.016" x 7.559" (102 x 192mm) Panel cut-out (H x W): 3.740" x 7.283" (95 x 185mm)

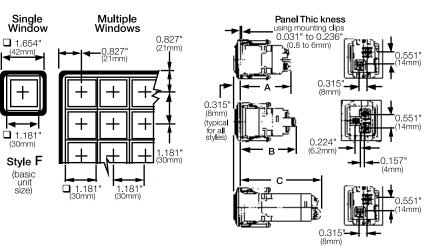
Tolerance: +0.039" (1mm), -0

2. For part numbering information, see page 724.

Window Dimensions

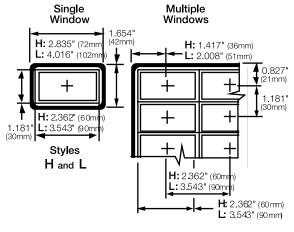
Window Style		Style F	Style H	Style L	Style V	Style G
Appearance						
	Illumination Face (H x W)	1.181" x 1.181" (30 x 30mm)	1.181" x 2.362" (30 x 60mm)	1.181" x 3.543" (30 x 90mm)	2.362" x 1.181" (60 x 30mm)	2.362" x 2.362" (60 x 60mm)
	Lens (H x W)	1.102" x 1.102" (28 x 28mm)	1.102" x 2.283" (28 x 58mm)	1.102" x 3.432" (28 x 88mm)	2.283" x 1.102" (58 x 28mm)	2.283" x 2.283" (58 x 58mm)
Window Size	Marking Plate (H x W x t)	1.062" x 1.062" x 0.04" (27 x 27 x 1.0mm)	1.062" x 2.244" x 0.04" (27 x 57 x 1.0mm)	1.062" x 3.425" x 0.04" (27 x 87 x 1.0mm)	2.244" x 1.062" x 0.04" (57 x 27 x 1.0mm)	2.244" x 2.244" x 0.04" (57 x 57 x 1.0mm)
	Color Screen (H x W x t)	1.062" x 1.062" x 0.04" (27 x 27 x 1.0mm)	1.062" x 2.244" x 0.04" (27 x 57 x 1.0mm)	1.062" x 3.425" x 0.04" (27 x 87 x 1.0mm)	2.244" x 1.062" x 0.04" (57 x 27 x 1.0mm)	2.244" x 2.244" x 0.04" (57 x 57 x 1.0mm)
	Engraving Area	0.984" x 0.984" (25 x 25mm)	0.984" x 2.165" (25 x 55mm)	0.984" x 3.346" (25 x 85mm)	2.165" x 0.984" (55 x 25mm)	2.165" x 2.165" (55 x 55mm)

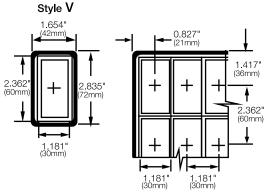
Dimensions, continued

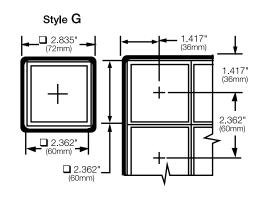


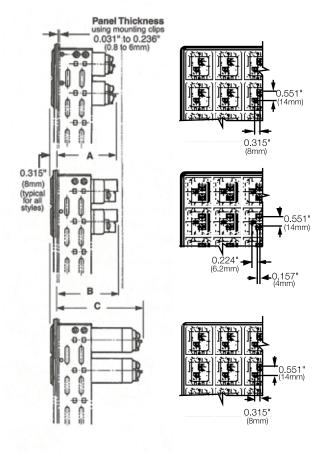
Styles F, H, L, V, G: Single Window (right) Multiple Windows (below)

		(201011)	
	Description	LED	Incandescent
Α	Full voltage	2.146" (54.5mm)	2.264" (57.5mm)
В	Full voltage LED 2-color alternate	2.343" (59.5mm)	_
	Transformer	3.228" (82mm)	_
С	DC-DC converter	3.228" (82mm)	_
	Transformer	_	3.228" (82mm)
Tern	ninals (X1, X2)	M3.5 screw	
Check terminal (C)		M3 screw	
	ne terminals, ocent windows	1.181" (30mm) d	centers



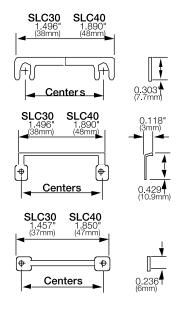






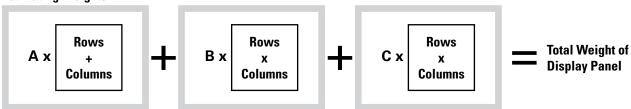
Dimensions, continued

Signaling Lights



Instructions

Estimating Weights





1. Make sure that the panel thickness is sufficient to support the total weight of the display panel(s).

		Full Voltage	Transformer (incandescent/LED)	DC-DC Converter (LED only)		
Α	В		С			
Frame Weight	Housing Weight	Lamp/LED Weight (includes lamp/LED)				
0.68oz (22g)	0.53oz (17g)	0.65oz (21g)	2.36oz (76g)	1.77oz (52g)		



2. Weights are approximate.

Example:

SLC30N-0304-DD2FB

Total weight = A (rows + columns) + B (rows x columns) + C (rows x columns)

Total weight = 0.68 (3+4) + 0.53 (3x4) + 0.65 (3x4) = 19.92 oz

SLC30-IPS Series — Panel Mounted Annunciators

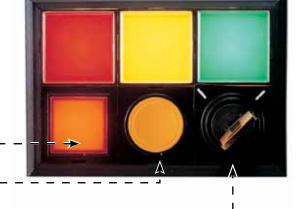
SLC Series Panel Mounted Annunciators — an Ideal Alternative to Mounting Multiple Pilot Devices

SLC30-IPS combination display lights with control units combine display lights with control units such as pushbuttons, illuminated pushbuttons, selector switches and keylock selector switches.

This results in savings of both space and installation time, since mounting separate switches becomes unnecessary. SLC30-IPS combination display lights can be custom built to meet your specifications.

Key features of the SLC30-IPS series include:

- Switches are integrated into an assembled SLC matrix, requiring only one panel cutout
- Illuminated, non-illuminated, selector, and key-switches are available
- Five window sizes based on a 30mm grid
- Non-reflective clear lenses
- Incandescent or Superbright LED illumination
- Momentary pushbuttons only



Momentary Illuminated Pushbuttons Square or Round with Square Bezel-

Momentary Non-Illuminated Pushbuttons Square or Round with Square Bezel

Selector Switches 2-Position or 3-Position







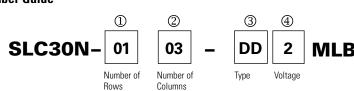


Specifications

Light Source		LED Incandescent						
	Full Voltage	6, 12, 24V AC/DC 6, 12, 18, 24, 30V AC/DC						
Nominal Voltages	Transformer	120, 240V AC 120, 240V AC						
DC-DC Conv.		110V DC 110V DC						
Maximum Volt	age	250V AC/DC						
Contact Therm	nal Current	3A (gold contact), 5A (silver contact)						
Contact Opera	ting Current	Gold contact: 125V AC/0.1A, 30V DC/0.1A (resistive load) Silver contact: 125V AC/3A, 250V AC/2.0A (resistive load), 30V DC/2A, 125V DC/0.4A (resistive load)						
		Pushbuttons: Square or round, illuminated or non-illuminated (momentary only)						
Control Unit Ty	/pes	Selector switches: 2-position or 3-position, maintained						
		Keylock switches: 2-position or 3-position, maintained						
Colors		Amber, Green, Red, Yellow, Blue (24V only), White, dual color Red/Green (24V only) Amber, Green, Red, Yellow, Blue, White						
Lamp Type		Surface (Chip type) LED cluster BA9S/13 (T3-1/4) bayonet base (1W)						
Available Wind	dow Sizes	"F" "H" "L" "V" "G" 60x30mm 60x60mm						
Insulation Res	istance	More than 100 $M\Omega$ by a 500V DC megger						
Degree of Prot	tection	IP20 (for indoor use only), Type 1						
Dielectric Stre	ength	2,000V AC direct (2,500V AC transformer, 1 minute)						
Operating Tem	perature	-20° to +40°C; 15–90% relative humidity (-10° to +40°C DC-DC converter)						
Material of Ma Color Screen	arking Plate and	Polycarbonate						
Termination		M3.5 screw with captive sems plate (Check terminals: M3 screw with captive sems plate on applicable units)						
Maximum Size	9	Full voltage: 10 rows, 20 columns (200 windows) Transformer and DC/DC converter: 50 windows						
Recommended	d Wire Size	22-14 AWG x2 (2mm² x 2)						
Approvals		Cert. No. B970213332375 UL Recognized File No. E68961 CSA Certified File No. LR48366						

Part Numbers (assembled)

Part Number Guide



Description				Code	Remark
①Number of Row	①Number of Rows		01, 02, 03, 04, 05, 06, 07, 08, 09, 10	10 row maximum (number of base unit (F-style) windows)	
		01, 02, 03, 04, 05, 06, 07, 08, 09, 10 11, 12, 13, 14, 15, 16, 17, 18, 19, 20	20 column maximum (number of base unit (F-style) windows)		
			Standard	DD	6V, 12V, 24V
		Full voltage	With check terminal	DHM	24V only
	LED		2 color (Red/Green)	DW	24V only
③ Туре		Transformer		TD	120V, 240V AC
		DC-DC converter		CD	110V DC only
	Incandescent	Full voltage		DS	6V, 12V, 18V, 24V, 30V
	IIIcanuescent	Transformer		TS	120V, 240V
	6V AC/DC			6	Type DD or DS
	12V AC/DC			1	With Type DD, DHM or DS
	18V AC/DC			8	Type DS only
	24V AC/DC			2	Type DD, DHM, DW, or DS
Voltage	30V AC/DC			3	Type DS only
	120V AC			12	Type TD or TS
	240V AC			24	Type TD or TS
	110V DC			1	With Type CD
	No lamp			99	Type DS only



- Secondary voltage on transformers and DC-DC converters is 24V.
- To specify arrangement of varying window sizes and colors, use the order form on the next page.
 Drawing required.

SLC30-IPS Order Form Instructions

How to order a SLC30-IPS display light:

Example 1: Specifying a window color

Enter the lens illumination color code in each square. Use the table below for color codes.



This example would place a Red window in this location

Example 2: Specifying a control unit

Enter the lens illumination color code in each square. Use the table below for color codes.



This example would place a Red, square, illuminated pushbutton with silver contacts in this location

For assistance with developing part numbers or completing the order form on the next page, contact IDEC technical support.

Color Codes

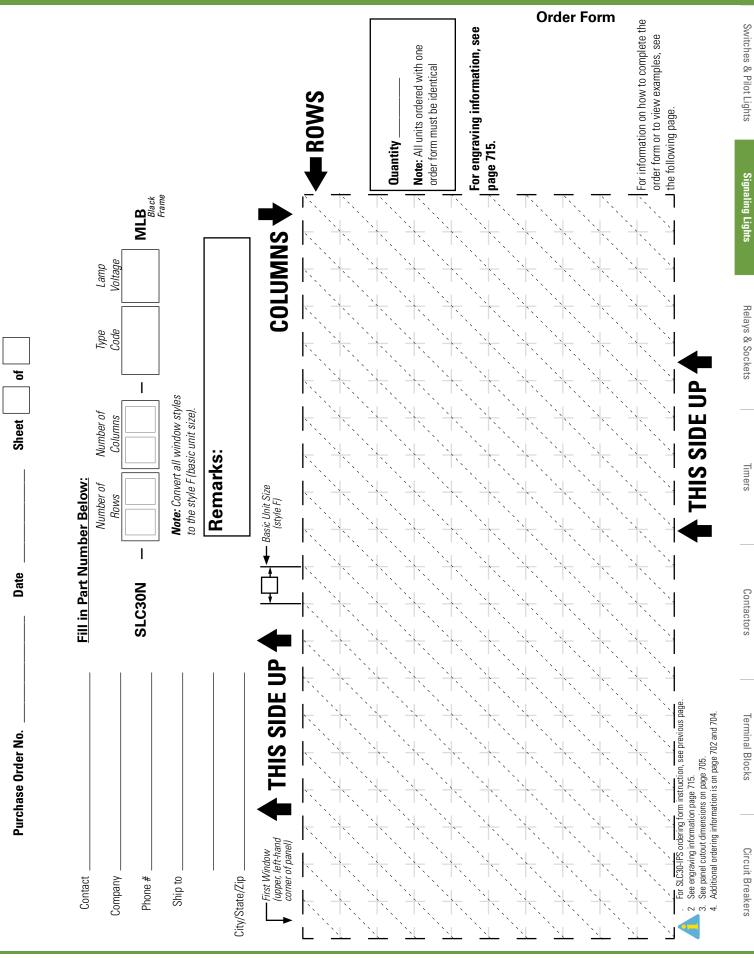
Color	Code
Amber	A
Green	G
Red	R
Blue	S
White	W
Yellow	Υ

Control Unit Codes

	Contac	ct Type
Туре	Gold	Silver
Square illuminated pushbutton (DPDT)	1	2
Round illuminated pushbutton (DPDT)	3	4
Square pushbutton (DPDT)	5	6
Round pushbutton (DPDT)	7	8
Selector switch (2-position)	9	10
Selector switch (3-position)	11	12
Keylock selector switch (2-position)	13	14
Keylock selector switch (3-position)	15	16



Contactors Terminal Blocks Circuit Breakers IDEC 733



Relays & Sockets

Y/8

How to complete SLC30N-IPS Series annunciator order form:

Signaling Lights

- 1. Determine the type of switches you would like to include in the annunciator panel. For this example, we will include the following 3 types of switches:
 - i. Red Square illuminated pushbutton DPDT with silver contacts.
 - i. Yellow round non-illuminated push button DPDT with silver contacts.
 - iii. 2 Position keylock selector switch with silver contacts.
- 2. From chart shown on page 732,

CODE DESCRIPTION

R/2 Red Square Illuminated Push Button DPDT with Silver Contacts.

Yellow Round Non-illuminated Push Button DPDT with Silver contacts

2 Position Keylock Selector Switch with Silver contacts.

Enter the above mentioned CODE designation in the layout window (on the previous page), where you would like the respective switch to be installed.

- 3. Determine the type of 30x30mm illuminated windows you would like to include. For the current example, we will assume 3 F-Style (30x30mm) windows in Yellow, Green and White color. Specify each window color in the Order Form with appropriate designation: "Y" for Yellow, "G" for Green and "W" for White.
- 4. Define the boundaries of each window (F, V, H, L or G Style) and of complete annunciator panel by heavy border lines, as shown below.

	1	2	3	. 4	
1	Υ	G	W		
2	R/2	Y/8	14		
3					
4					

5. Count the number of rows and columns in the SLC30N diagram. eg: For the current example, we have, Rows: 02 and Columns: 03.

SLC30N-0203

6. Determine the type of illumination for SLC30N annunciator. eg: For the current example, we use, "DD" for LED Full Voltage type illumination.

SLC30N-0203-DD

7. Determine the voltage code; for the current example, we will use 24V AC/DC for all illuminated windows and illuminated switches. This is designated by using the number "2".

SLC30N-0203-DD2

8. The complete part number would be:

SLC30N-0203-DD2MLB

9. A drawing must be provided for each of these parts ordered.



Note: Buttons and switches are only available in 'F' (30 x 30mm) window sizes.

Non-Illuminated Pushbuttons

NC1

NO1

C1

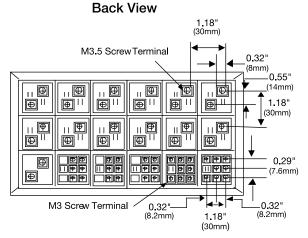
and Selector Switches

NC2-

NO2

C2

Dimensions Front View Side View 0.24" 2.15" L (see chart below) (6mm) (54.5mm) 0.827 1.18" (30mm) $\Box\Box$ _ | | # of Rows þ +1 Ī 0.25" (6.3mm) 2.63 1.18" (30mm)

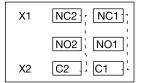


Bottom View

SLC30

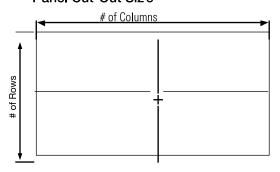


Illuminated Pushbuttons



X1 = Positive Terminal, X2 = Negative Terminal

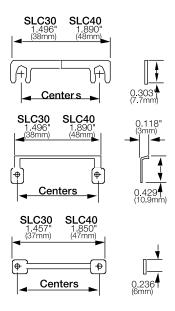
Panel Cut-Out Size



Panel Cut-Out Dimensions

	No. of Co	lumns		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No. of Rows	Overall Panel Width Dimension →			1.654" (42mm)	2.853" (72mm)	4.016" (102mm)	5.197" (132mm)	6.378" (162mm)	7.559" (192mm)	8.740" (222mm)	9.921" (252mm)	11.102" (282mm)	12.283" (312mm)	13.465" (342mm)	14.646" (372mm)	15.827" (402mm)	17.008" (432mm)	18.189" (462mm)	19.370" (492mm)	20.551" (522mm)	21.732" (552mm)	22.913" (582mm)	24.094" (612mm)
	Overall Height ↓	Cut- out Ht	Cut- out Wd →	1.378" (35mm)	2.559" (65mm)	3.740" (95mm)	4.921" (125mm)	6.102" (155mm)	7.283" (185mm)	8.465" (215mm)	9.646" (245mm)	10.827" (275mm)	12.008" (305mm)	13.189" (335mm)	14.370" (365mm)	15.551" (395mm)	16.732" (425mm)	17.913" (455mm)	19.094" (485mm)	20.276" (515mm)	21.457" (545mm)	22.638" (575mm)	23.819" (605mm)
1	1.654" (42mm)	1.378' (35mn		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2	2.853" (72mm)	2.559' (65mn		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40
3	4.016" (102mm)	3.740 ^t (95mn		3	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60
4	5.197" (132mm)	4.921" (125mm)		4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80
5	6.378" (162mm)	6.102 ^t (155m		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
6	7.559" (192mm)	7.283 ¹ (185m		6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
7	8.740" (222mm)	8.465 ¹ (215m		7	14	21	28	35	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140
8	9.921" (252mm)	9.646' (245m		8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160
9	11.102" (282mm)	10.823 (275m		9	18	27	36	45	54	63	72	81	90	99	108	117	126	135	144	153	162	171	180
10	12.283" (312mm)	12.008 (305m		10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
	Total Number of Windows (equivalent to style F—basic unit size)																						

Dimensions, continued



Contact Operations

Selector Switches and Keylock Selector Switches

			Operator Position and Contact Operation (top view)									
	Position	Contacts	Left	Center	Right							
Contact Operation	90° 2-position maintained	DPDT 2-position	Left Right NO NC NO NC	_	Left Right NO NC NO NC							
	45° 3-position maintained C R	DPDT 3-position	Left Right NO NC NC	Left Right O NO NC NO NC	Left Right NO NC NO NC							

SLC40 Series – Panel Mounted Annunciators

Signaling Lights

SLC 40 Series Annunciators

SLC series panel mounted annunciators are an ideal alternative to mounting multiple pilot devices.

Cluster mounting simplifies panel cutouts and offers a variety of window combination sizes. Available with incandescent or Superbright LED illumination.

Key features of the SLC40 series include:

- Custom configurations with up to 105 windows
- Four window sizes based on a 40mm grid
- Non-reflective clear lenses that can be extended (angled) for better visibility when mounted in higher locations
- Incandescent or Superbright LED illumination
- Wide variety of input voltages













Extended Windows



Style F (40mm x 40mm)



Style G (80mm x 80mm)



Style H (40mm x 80mm)



Style L (40mm x 120mm)



Style V (80mm x 40mm)



Staggered Terminals: increased safety and serviceability

Specifications

Signaling Lights

Light Source		LED	Incandescent				
	Full Voltage	6, 12, 24V AC/DC	6, 12, 18, 24, 30V AC/DC				
Nominal Voltages	Transformer	120, 240V AC	120, 240V AC				
voitages	DC-DC Conv.	110V DC	_				
Colors		Full voltage: Amber, Green, Red, Yellow, Blue (24V only), White, dual color Red/Green (24V only)	Amber, Green, Red, Yellow, Blue, White				
Lamp Type		Surface (Chip type) LED cluster	E12/15 Screw terminal base (2W)				
	24V AC/DC	40mA	80mA				
Current	12V AC/DC	80mA	160mA				
Consumption	6V AC/DC	160mA	330mA				
Available Wind	dow Sizes	"F" "H" "L"	"V" "G" 40x120mm				
Insulation Res	istance	100MW minimum (with 500V DC megger), between live and dead part	TS .				
Degree of Prot	tection	IP20 (for indoor use only), Type 1					
Dielectric Stre	ngth	Full voltage: 2,000V AC direct Adaptor/transformer 2,500V AC (1 minute)					
Operating Tem	perature	-20° to +40°C; (45-85% relative humidity)					
Material of Ma Color Screen	arking Plate and	Polycarbonate					
Termination		X1 and X2 terminals: M3.5 screw with a captive wire clamp washer (Check terminal: M3 screw on applicable models)					
Maximum Size		Full voltage: 7 rows, 15 columns (105 windows) Others: 50 windows maximum					
Recommended Wire Size		22-14 AWG x2 (2mm² x 2)					
Approvals			Recognized e No. E68961 fied				





Part Numbers (assembled)

Part Number Guide

SLC40N

1 01 Number of

Rows

2 03 Number of Columns

3 DD Type

4 (5) 2 Voltage Style

6

Color and Number of Windows

r art ivalliber	s: Assembled		0.1	D- 1
	Description		Code	Remark
①Number of Rows		01, 02, 03, 04, 05, 06, 07	7 row maximum (always expressed in terms of "F" size windows)	
② Number of Columns		01, 02, 03, 04, 05, 06, 07, 08, 09, 10 11, 12, 13, 14, 15	15 column maximum (always expressed in terms of "F" size windows)	
③ Type		Full voltage	DD	6V, 12V, 24V
		Full voltage with check terminal	DHM	24V only
	LED	Full voltage 2 color (Red/Green)	DW	24V only
		Transformer	TD	120V, 240V AC
		DC-DC converter	CD	110V DC only
		Full voltage	DE	6V, 12V, 18V, 24V, 30V
	Incandescent	Full voltage with check terminal	DEM	6V, 12V, 18V, 24V, 30V
		Transformer	TE	120V, 240V
	6V AC/DC		6	Type DD, DE, or DEM
	12V AC/DC		1	Type DD, DE or DEM
	18V AC/DC		8	Type DE or DEM
① Voltage	24V AC/DC		2	Type DD, DHM, DW, DE, or DEM
	30V AC/DC		3	Type DE or DEM
	120V AC		12	Type TD or TE
	240V AC		24	Type TD or TE
	110V DC		1	Type CD
	No lamp		99	Type DE or DEM
	Square		F	40x40mm
	Horizontal rect	angle	н	40x80mm
	Large horizonta	al rectangle	L	40x120mm
© Style	Vertical rectan	gle	V	80x40mm
	Large square		G	80x80mm
	Combination		M	Fill out order form on next page
	Amber		А	
	Green		G	
© Color	Red		R	After each color again, the number of windows Frample (A/O) (A/O) (B/O)
(number of windows)	Blue		S (LED version: 24V only)	After each color, specify the number of windows Example A(3), G(2), R(1)
windows)	White		W	
	Yellow		Υ	



^{1.} Secondary voltage on transformers and DC-DC converters is 24V.

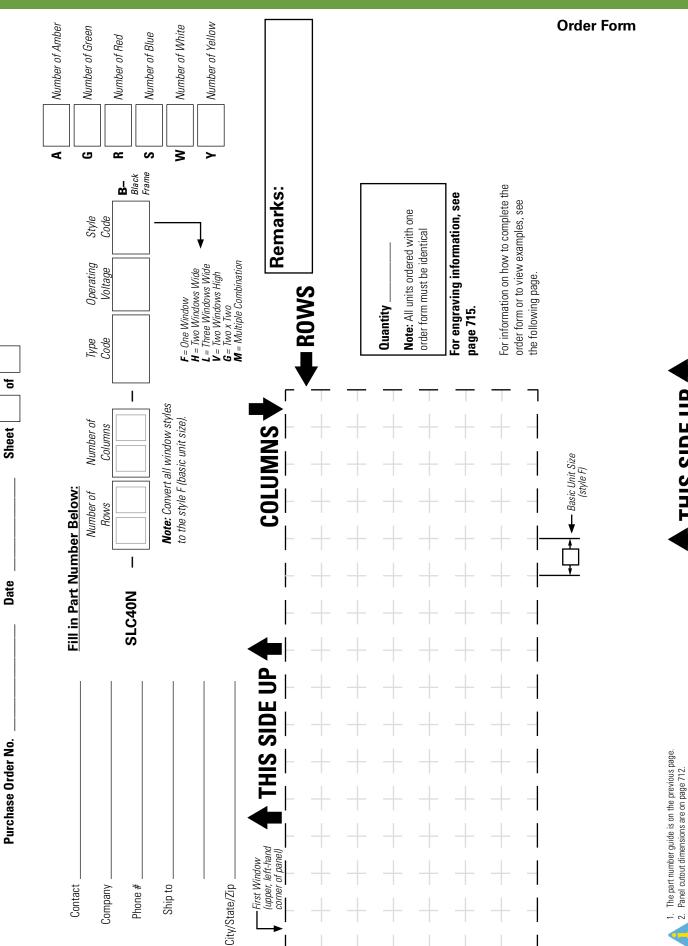
- 2. To specify the arrangement of varying window sizes and colors, use the order form on the next page.
- 3. Drawing required for any units ordered with engraving.
- 4. Incandescent models use color screen and marking plate, LED models use 2 marking plates (no color screen).



Circuit Breakers

Terminal Blocks

IDEC

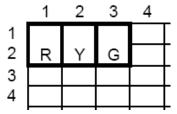


How to complete SLC40N Series annunciator order form:

Signaling Lights

1. Draw the layout of SLC40N annunciator in the Order Form as per customer requirements. Define the boundaries of each window (F, V, H or L Style) and of complete annunciator panel by heavy border lines. Specify each window color with appropriate designation: eg: G for Green, R for Red, etc.

Example 1



2. Count number of rows and columns. Eg: Example 1 has 02 rows and 03 columns.

SLC40N-0203

3. Determine the type of illumination required. Eg: "DD" for LED full voltage type illumination.

SLC40N-0203-DD

4. Determine the voltage code. Eg: "2" for 24V AC/DC, as in Example 1.

SLC40N-0203-DD2

5. Determine window style. Eg: "V" style windows as shown in Example 1.

SLC40N-0203-DD2VB*

*B denotes black frame.

6. Count the number of different colored windows. Eg: Example 1 has 1 Red V-style (80mmx40mm) window, 1 Yellow V-style window and 1 Green V-style window. Therefore to complete the part number for example 1, you would illustrate this by: R(1)Y(1)G(1)

SLC40N-0203-DD2VB-R(1)Y(1)G(1)

7. Now your part number is complete, please fill out contact information and fax or email the form to IDEC Customer Service for order processing. If you would like to get annunciator windows engraved, please see the examples on page 745 and send us your engraving information. If you have any questions please contact IDEC

Here are two more examples of your order form and the subsequent SLC40N layout you will receive.

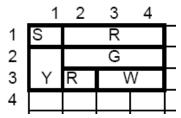
Example 2

Rows=02; Columns= 03; F Style Windows (40x40mm); LED Full Voltage 24V AC/DC Illumination. Part number SLC40N-0203-DD2FB-R(2)Y(2)G(2).

	1	2	3	4	
1	R	Υ	G		
2	R	Υ	G		
3					L
4					

Example 3

Rows=3; Columns= 4; M = combination of various window styles (F, H, L and V Style); LED Full Voltage 24V AC/DC Illumination. Part number SLC40N-0304-DD2MB-R(1)Y(1)G(1)W(1)S(1).



Dimensions

Panel Cut-Out Dimensions

	No. of Co	lumns		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Overall Pa Dimension		lth	2.205" (56mm)	3.780" (96mm)	5.354" (136mm)	6.929" (176mm)	8.504" (216mm)	10.079" (256mm)	11.654" (296mm)	13.228" (336mm)	14.804" (376mm)	16.378" (416mm)	17.953" (456mm)	19.528" (496mm)	21.102" (536mm)	22.677" (576mm)	24.252" (616mm)
No. of Rows	Overall Height ↓	Cut- out Ht ↓	Cut- out Wd →	1.772" (45mm)	3.346" (85mm)	4.921" (125mm)	6.496" (165mm)	8.071" (205mm)	9.646" (245mm)	11.220" (285mm)	12.795" (325mm)	14.370" (365mm)	15.945" (405mm)	17.520" (445mm)	19.094" (485mm)	20.669" (525mm)	22.244" (565mm)	23.819" (605mm)
1	2.205" (56mm)	1.772" (45mm		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	3.780" (96mm)	3.346" (85mm		2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
3	5.354" (136mm)	4.921" (125m		3	6	9	12	15	18	21	24	27	30	33	36	39	42	45
4	6.929" (176mm)	6.496" (165m		4	8	12	16	20	24	28	32	36	40	44	48	52	56	60
5	8.504" (216mm)	8.071" (205m		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
6	10.079" (256mm)	9.646" (245m		6	12	18	24	30	36	42	48	54	60	66	72	78	84	90
7	11.654" (296mm)	11.220 (285m		7	14	21	28	35	42	49	56	63	70	77	84	91	98	105
				Total Nu	ımber of \	Nindows	(equivalen	t to style F	—basic u	nit size)								

The number of rows and columns refers to styles equivalent to style F (basic unit size).
 For styles H, L, V, and G, convert into style F (basic unit size) equivalents.
 Style H: 1 window high (1 row) x 2 windows wide (2 columns)

Style V: 2 windows high (2 rows) x 1 window wide (1 column) Style L: 1 window high (1 row) x 3 windows wide (3 columns)

Style G: 2 windows high (2 rows) x 2 windows wide (2 columns)

Example: 18 windows = 3 windows high (3 rows) x 6 windows wide (6 columns)

Overall dimension (H x W): 5.354" x 10.079" (136 x 256mm)

Panel cut-out (H x W): 4.921" x 9.646" (125 x 245mm)

Tolerance: +0.039" (1mm), -0

2. See page 739 for part numbering information.

Window Dimensions

Window Style		Style F	Style H	Style L	Style V
Appearance			9		80
	Illumination Face (H x W)	1.575" x 1.575" (40 x 40mm)	1.575" x 3.150" (40 x 80mm)	1.575" x 4.724" (40 x 120mm)	3.150" x 1.575" (80 x 40mm)
	Lens (H x W)	1.457" x 1.457" (37 x 37mm)	1.457" x 3.031" (37 x 77mm)	1.457" x 4.606" (37 x 117mm)	3.031" x 1.457" (77 x 37mm)
Window Size	Marking Plate (H x W x t)	1.409" x 1.409" x 0.04" (35.8 x 35.8 x 1.0mm)	1.409" x 2.984" x 0.04" (35.8 x 75.8 x 1.0mm)	1.409" x 4.559" x 0.04" (35.8 x 115.8 x 1.0mm)	2.984" x 1.409" x 0.04" (75.8 x 35.8 x 1.0mm)
	Color Screen (H x W x t)	1.409" x 1.409" x 0.04" (35.8 x 35.8 x 1.0mm)	1.409" x 2.984" x 0.04" (35.8 x 75.8 x 1.0mm)	1.409" x 4.559" x 0.04" (35.8 x 115.8 x 1.0mm)	2.984" x 1.409" x 0.04" (75.8 x 35.8 x 1.0mm)
	Engraving Area	1.339" x 1.339" (34 x 34mm)	1.339" x 2.913" (34 x 55mm)	1.339" x 4.488" (34 x 85mm)	2.913" x 1.339" (55 x 34mm)

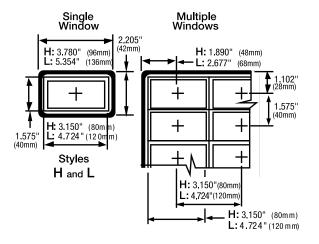
Dimensions, continued

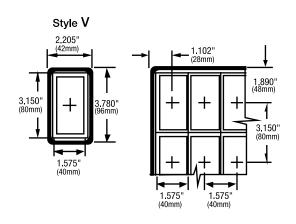
Signaling Lights

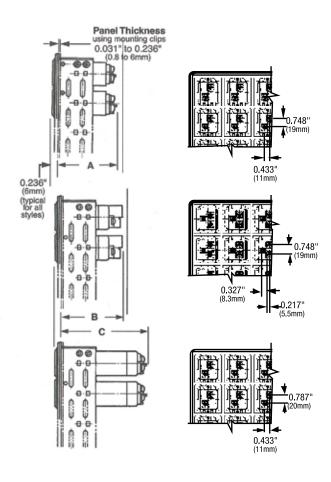
Multiple Windows Single Window Panel Thic kness using mounting clips 0.031" to 0.236" (0.8 to 6mm) 2.205" (56mm) 1.102" (28mm) 1.102" 0.433' (11mm) 0.236" (6mm) (typical for all styles) 0.748" 1.575" (40mm) 0.327'' (8.3mm) Style F (basic unit size) 1.575 (40mm) 1.575" (40mm) 0.433" (11mm)

Styles F, H, L, V, G: Single Window (right) Multiple Windows (below)

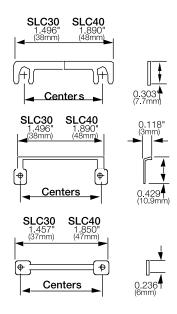
	Description	LED	Incandescent	
Α	Full voltage	2.618" (66.5mm)	2.539" (64.5mm)	
В	Full voltage LED 2-color alternate	2.874" (73mm)	_	
	Transformer	3.327" (84.5mm)	_	
С	DC-DC converter	3.327" (84.5mm)	_	
	Transformer	_	2.854" (72.5mm)	
Terminals (X1, X2)		M3.5 screw		
Check terminal (C)		M3 screw		
	e terminals, cent windows	1.575" (40mm) centers		





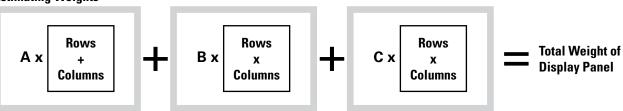


Dimensions, continued



Instructions

Estimating Weights



A

1. Make sure that the panel thickness is sufficient to support the total weight of the display panel(s).

		Full Voltage	Transformer (incandescent) AC Adapter (LED)	DC-DC Converter (LED only)
A Frame Weight	B Housing Weight		C Lamp/LED Weight (includes lamp/l	LED)
0.93oz (30g)	0.93oz (30g)	0.93oz (30g)	2.98oz (96g)	1.92oz (62g)



2. Weights are approximate.

Example:

SLC40N-0304-DD2FB

Total weight = A (rows + columns) + B (rows x columns) + C (rows x columns)

Total weight = 0.93 (3+4) + 0.93 (3x4) + 0.93 (3x4) = 28.83 oz



Engraving Information

Part Numbers: SLC30 Engraving Plates

Window Type	Part No.	Character Size	Maximum Characters per Line	Maximum Lines
		7/32	9	4
F		3/16	10	4
30x30mm	SLC-3PF	5/32	11	5
облосиии		9/64	12	6
		1/8	13	7
Н		5/16	10	3
30x60mm	SLC-3PH	7/32	15	4
coxecinin		5/32	19	6
L		5/16	16	3
30x90mm	SLC-3PL	7/32	22	4
ooxooniin		5/32	28	6
V		5/16	6	7
60x30mm	SLC-3PV	7/32	8	9
OOXSOITIII		5/32	10	13
G		5/16	12	7
60x60mm	SLC-3PG	7/32	15	10
OUXOUIIIII		5/32	18	14

Engraving Size Samples

5/16" size

7/32" size

3/16" size

5/32" size

9/64" size

1/8" size

Part Numbers SLC40 Engraving Plates

F		5/16	8	4
40x40mm	SLC-4PF	7/32	11	6
Tox Torrini		5/32	14	8
Н		5/16	17	4
40x80mm	SLC-4PH	7/32	20	6
roxeemm		5/32	24	8
L		5/16	22	4
40x120mm	SLC-4PL	7/32	30	6
		5/32	34	8
V		5/16	7	8
80x40mm	SLC-4PV	7/32	10	9
OOX40IIIII		5/32	12	14
G		5/16	12	7
80x80mm	SLC-4PG	7/32	15	10
		5/32	18	14

Engraving Size Samples

5/16" size

7/32" size

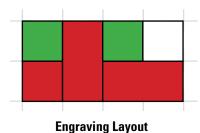
5/32" size

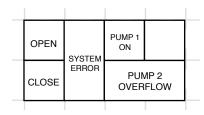
Engraving Example

Engraving information can be provided in two ways:

Method 1

If you have created your own SLC annunciator layout and there is enough space to write engraving information, please print out a copy of the layout and write what you would like to be engraved in respective window. Attach this with the Order Form and send it to IDEC Customer Service for processing.

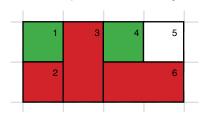




SLC Annunciator Layout

Method 2

If you are using the Order Form from the IDEC Automation Catalog and do not have enough space to list engraving information, you can number the top right corner of the window you would like to be engraved.

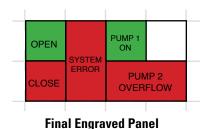


Keeping engraving window type, character size, maximum character per line and maximum number of lines in perspective, create a table (see Engraving Table Example shown below). Please attach the Table along with SLC annunciator layout and send it to IDEC Customer Service for processing.

Engraving Table Example

Window	Font Size	Engrave
1	7/32"	"OPEN"
2	7/32"	"CLOSE"
3	7/32"	"SYSTEM" "ERROR "
4	3/16"	"PUMP 1" "ON"
5		NO ENGRAVING
6	5/32"	"PUMP 2" "OVERFLOW"

Using method 1 or 2, the final engraved panel will look as below:



IDEC

Accessories

	Description	Applicat	ion	Part No.	Remarks		
			F	SLC-3LF-(UL)			
Lenses		SLC30	H and V	SLC-3LH-(UL)			
		incandescent, LED	L	SLC-3LL-(UL)			
			G	SLC-3LG-(UL)	A lens is included with each window on assembled units		
			F	SLC-4LF-(UL)	A lens is included with each window on ass	embled units	
		SLC40	H and V	SLC-42H-(UL)			
		incandescent, LED	L	SLC-4LL-(UL)			
			G	SLC-4LG			
			F	SLC-3PF-*-(UL)			
		SLC30	H and V	SLC-3PH-*-(UL)	Specify color code in place of asterisk (*):		
	$\angle Z$	incandescent	L	SLC-3PL-*-(UL)	A = Amber		
Color			G	SLC-3PG-*	C = Transparent G = Green (incandescent)		
Screens			F	SLC-4PF-*-(UL)	R = Red	A color screen and	
		SLC40	H and V	SLC-4PH-*	S = Blue W = White	marking plate are	
		incandescent	L	SLC-4PL-*-(UL)	Y = Yellow	included with each window of assembled	
			G	SLC-4PG		incandescent units	
		SLC30 incandescent, LED	F	SLC-3PF-□-(UL)		Two marking plates	
			H and V	SLC-3PH-□-(UL)		are included with each	
			L	SLC-3PL-□-(UL)		window of assembled LED units; LED units do	
Marking			G	SLC-3PG-□-(UL)	Specify color code in place of square (□): C = Transparent (LED) W = White (incandescent) WL = White (LED)	not use color screens	
Plates			F	SLC-4PF-□-(UL)			
		SLC40 incandescent, LED	H and V	SLC-4PH-□-(UL)			
			L	SLC-4PL-□-(UL)			
			G	SLC-4PG			
			F	SLC-3WF-B			
			Н	SLC-3WH-B			
		SLC30 incandescent only	V	SLC-3WV-B			
		moundous only	L	SLC-3WL-B			
			G	SLC-3WG-B			
			F	SLC-3WF-BL			
		01.000	Н	SLC-3WH-BL			
		SLC30 LED only	V	SLC-3WV-BL			
Long		,	L	SLC-3WL-BL	A lens frame is included with each window	on	
Lens Frames	1 1		G	SLC-3WG-BL	assembled units Lens frame for LED modules has the inner w	alls painted white,	
			F	SLC-4WF-B	while the incandescent frame is completely		
		SLC40	Н	SLC-4WH-B			
		incandescent only	V	SLC-4WV-B			
			L	SLC-4WL-B			
			G	SLC-4WG-B			
			F	SLC-4WF-BL			
		SLC40	V	SLC-4WV-BL			
		LED only	L	SLC-4WL-BL			
			G	SLC-4WG-BL			

BA9S/13 (1W) SLC30 BA9S/13 IS-12 12V, 1W; operating voltage: 9 to 12V AC/DC Unless "no lamp base IS-24 24V, 1W; operating voltage: 18 to 24V AC/DC IS-30 30V, 1W; operating voltage: 24 to 30V AC /DC lamp is included each style F win equivalent E12/15 EE-6 6.3V, 2W; operating voltage: 12 to 18V AC/DC One part number is specified for or sp								
Companies Comp	D	escription	Applic	ation	Part No.	Remarks		
SLC30 lamp base IS-12 12V, 1W; operating voltage: 9 to 12V AC/DC Unless "no lamp base IS-24 24V, 1W; operating voltage: 18 to 24V AC/DC (99) is specified, lamp is included each style F win equivalent	Incandescent	,			IS-6	6.3V, 1W; operating voltage: 5 to 6V AC/DC		
Incandescent Image: Imag		(,	SLC30	BA9S/13	IS-12	12V, 1W; operating voltage: 9 to 12V AC/DC	Unloss "no lamn"	
Incandescent Inca		(4)	incandescent only	lamp base	IS-24	24V, 1W; operating voltage: 18 to 24V AC/DC	(99) is specified, a	
LE-6 6.3V, 2W; operating voltage: 5 to 6V AC/DC One part number is specified for or replacement bulk		U			IS-30	30V, 1W; operating voltage: 24 to 30V AC /DC	each style F window	
SLC40 incandescent only E12/15 LE-8 18V, 2W; operating voltage: 12 to 18V AC/DC is specified for or eplacement bull	Lamps	'			LE-6	6.3V, 2W; operating voltage: 5 to 6V AC/DC	,	
LE-2 24V, 2W; operating voltage: 18 to 24V AC/DC		(211)	SLC40	E12/15	LE-8	18V, 2W; operating voltage: 12 to 18V AC/DC	One part number is specified for one replacement bulb	
SLC30		(1)	incandescent only	lamp base	LE-2	24V, 2W; operating voltage: 18 to 24V AC/DC		
LED only 12V AC/DC SLDN-31F-*					LE-3	30V, 2W; operating voltage: 24 to 30V AC/DC		
1-color 24V AC/DC SLDN-32F-* Specify color code in place of asterisk (*): A = Amber G = Green			LED only	6V AC/DC	SLDN-36F-*			
SLC30 LED only 2-color: Red/Green SLC40 SLDN-32FW-RG SLDN-32FW-RG SLC40 LED only LE				12V AC/DC	SLDN-31F-*			
LED only 24V AC/DC SLDN-32FW-RG A = Amber G = Green 2-color: Red/Green 6V AC/DC SLC-6EP* R = Red SLC40 LED only 12V AC/DC SLCN-1ET-* W = White 1 color 1 color Y = Yellow				24V AC/DC	SLDN-32F-*			
SLC40 LED only 12V AC/DC SLC-6EP* S = Blue (available in 24V version only) W = White Y = Yellow	LED Lampa	WW	LED only	24V AC/DC	SLDN-32FW-RG	A = Amber G = Green	(*):	
1 color Y = Yellow	LED Lamps	N 0	SLC40	6V AC/DC	SLC-6EP*			
1-color 24V AC/DC SLCN-2ET-* Y = Yellow			LED only	12V AC/DC	SLCN-1ET-*			
			1-color	24V AC/DC	SLCN-2ET-*	Y = Yellow		
SLC40 LED only 24V AC/DC SLCN-2ETW-RG 2-color: Red/Green			LED only	24V AC/DC	SLCN-2ETW-RG			

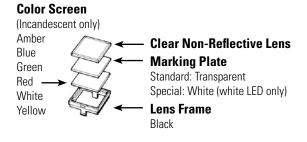
Signaling Lights

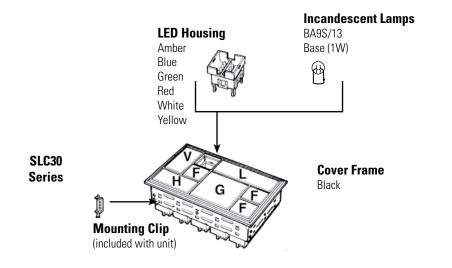
Full Voltage Models		Description	Туре	Part Number
SLC30	Incandescent	Incandescent	DS	SLC-3DS
JUST .		Standard LED	DD	SLDN-3DH
	LED	LED w/ Check Terminal	DHM	SLD-3DHM
Charles and the same of the sa		Dual Color LED	DW	SLD-3DW
SLC 40		Incandescent	DE	SLC-4DE
10 TO	Incandescent	Incandescent w/ Check Terminal	DEM	SLC-4DEM
640		Standard LED	DD	SLDN-4DH
330	LED	LED w/ Check Terminal	DHM	SLD-4DHM
		Dual Color LED	DW	SLD-4DW
Step Down Models		Description	Туре	Part Number
SLC30	Incondessent	Incandescent xfrmr, 120V AC	TS12	SLC-3TS120
	Incandescent	Incandescent xfrmr, 240V AC	TS24	SLC-3TS240
		LED xfrmr, 120V AC	TD12	SLDN-3TH12
	LED	LED xfrmr, 240V AC	TD24	SLDN-3TH24
		LED DC-DC converter, 110V DC	CD1	SLDN-3CH1
SLC40	Incandescent	Incandescent xfrmr, 120V AC	TE12	SLC-4TE12
	incandescent	Incandescent xfrmr, 240V AC	TE24	SLC-4TE240
12		LED xfrmr, 120V AC	TD12	SLDN-4TH120
(0)	LED	LED xfrmr, 240V AC	TD24	SLDN-4TH240
			CD1	SLDN-4CH1



Description	Application		Part No.	Remarks
Lamp Holder Tool	SLC30 and SLC40 incandescent		OR-55	Rubber tool eases the removal of incandescent lamps
Tab Terminal Adaptors	Used for wiring quick-connect terminals		TW-FA1	#250 tab terminal (W x H): 0.250" x 0.031" (6.35 x 0.8mm) single tab
		X1 terminal (spade)	SLC-JP30	
Jumpers	SLC30	X2 terminal (ring)	SLCN-JP34	
		C terminal (ring)	SLC-JP32	Total combandiment and total combandation of the Consideration
		X1 terminal (spade)	SLC-JP40	Total number of jumpers equals total number of style F window equivalents
D	SLC40	X2 terminal (ring)	SLCN-JP44	
		C terminal (ring)	SLC-JP42	
Mounting Clip	All SLCs		SLC-3K1	Mounting clips are included with the panel (see page 752 for details about quantity and placement).
Marking Strip		BNM2	White glossy paper with adhesive back (the dimensions are given below); the marking strip can be stuck to the terminal transformer or directly to the units for identification of the unit or circuit number; Sticker dimension (W x L): 0.197" x 393.701" (5 x 10,000mm)	
Finger-Safe Terminal Covers	Use with SLC30 types DD, TD, CD, DS and TS		SLC30-VL3	
	Use with and DW	all SLC30 types DHM	SLC30-VL6	
	Use with SLC40 types DD, TD, CD, DE and TE		HW-VL3	
	Use with SLC40 types DHM, DW, and DFM		SLC40-VL6	

Signaling Lights





and DEM

SLC Series Installation Instructions

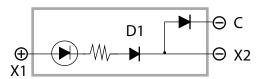
Installation Notes

- Since lamps generate heat, it is recommended that ventilation be provided for cooling when more than ten lamps are lit continuously.
- A lower number of windows is specified for multiple transformer and DC-DC converter units (50 maximum, instead of 200 as for full voltage only). This is done to avoid damage which may result from excessive heat generation when all lamps are lit simultaneously.
- 3. When multiple units are panel mounted, determine panel thickness so that the combined weight of all units and connecting wires can be supported.
- 4. Multiple units are not designed for continuous, simultaneous lighting of all lamps. However, it is possible to conduct a lamp test with all lamps lit simultaneously for a period of up to 40 minutes.
- 5. Before removing the LED unit, turn the power supply off.
- DC-rated voltages for LED units are complete direct current voltages. Make sure to check the measuring instruments and compensate for any error in the measured, full-wave rectified or pulsating voltages.
- To ensure brightness and long life of LED units, keep the DC power voltage within the operating voltage range.

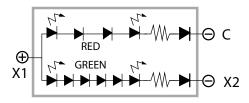
LED Operating Voltage Range: 24V AC/DC ± 10%

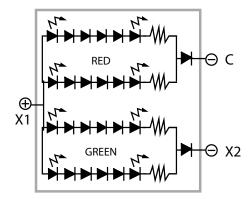
Terminal Arrangements (LED units)

For full voltage (1- and 2-color) and DC-DC converter LED units, terminal X1 is positive and terminal X2 is negative. Make sure to observe polarity when wiring.



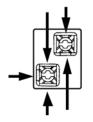
For 2-color alternate units, terminal X1 is positive, and terminals X2 and $\mathbb C$ (check terminal) are negative.



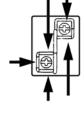








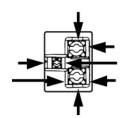
SLC30/SLC40 Full Voltage with Check Terminal

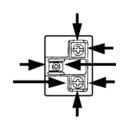


SLC30/SLC40

Transformer

SLC30/40 2-color LED (alternating)











SLC30

Installation Instructions, continued

Signaling Lights

Removing Windows

SLC30: To remove a window, insert the tip of a small screwdriver into the slot under the lens frame and gently press down on the screwdriver.

SLC40: To remove an extended window, pull on the top as if to extend the unit; then continue pulling until the unit comes out of the housing. All units are shipped with windows retracted. When transporting units, make sure windows are pushed in fully. After windows are installed, they can be extended as shown in Figure 1.

Removing Lens, Color Screen, and Marking Plate

The lens has two retaining projections on the right and two on the left. To remove the lens, color screen, and marking plate from the lens frame, push open the lens frame with both hands as shown in Figure 2.

The lens can also be removed by inserting a screwdriver into one of the sides with recesses. Since the lens has an orientation, be sure to insert the screwdriver in the direction shown in Figures 3 and 4.





Figure 3: SLC30

Figure 4: SLC40

Installing Lens, Color Screen, and Marking Plate

First, install the marking plate and color screen into the lens frame. To install the lens, insert its retaining projections into the recesses inside the lens frame, and press the lens into the lens frame as shown in Figure 5.

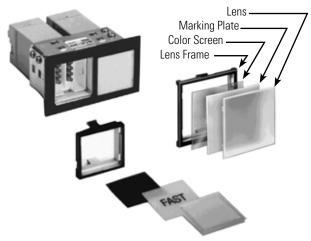


Figure 5: SLC30 and SLC40

Replacing the LED Unit

To remove: Insert the tip of a screwdriver into one of the two slots inside the LED unit. Pull the LED unit straight out without pressing on the LED terminals, as shown in Figure 6.

To install: Make sure that the junction inside the LED unit is aligned in the same direction as the junction of the LED housing. Push the LED unit into the LED housing as shown in Figure 7.





Figure 6: Remove LED

Figure 7: Install LED

Installing Units into a Panel

Single units: With leaf springs installed, push the SLC housing from the front of the panel. Secure the SLC housing with two mounting clips. Tighten the mounting clip screws to a torque of 4 to 5 kgf-cm as shown in Figure 8.



Figure 8: SLC40

Multiple combination units: Insert the units into the panel cut-out from the front. Install the attached mounting clips into the openings on the frame, and tighten the screws as shown in Figure 9. After tightening, use Loctite to prevent loosening. The number of mounting clips included with each multiple unit varies with the number of windows as shown in the table below.

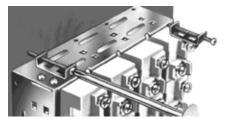


Figure 9: Multiple Combination

SLC Series Installation Instructions, continued

Number of Mounting Clips Included

Columns	1 0	r 2	3 to 8		9 to 15	16 to 20 *
Rows	Full Voltage	Others	Full Voltage	Others	All Types	All Types
1 or 2	2	2	4		6	8
3 to 6	4	6	6	8	8	10
7 to 10 (SLC30 only)	6	8	8		10	12



* SLC30 series only

Recommended Mounting Clip Positions

Columns	1 o	1 or 2 3 to 8		9 to 15	16 to 20*	
Rows	Full Voltage	Others	Full Voltage	Others	All Types	All Types
	2 Clips		4 Clips		6 Clips	8 Clips
1 or 2	ı		Þ	4		
	4 Clips	6 Clips	6 Clips	8 Clips	8 Clips	10 Clips
3 to 6	#	1		\Rightarrow		
	6 Clips	8 Clips	8 Clips		10 Clips	12 Clips
7 to 10 (SLC30 only)	I		1	¢		

Assembly Order for Lamp On/Lamp Off Colors

Lamp On: Amber, Blu	ie Green, Red, Yellow	Lamp On: White	Lamp On: Red/Green	
Lamp Off: Desired Color	Lamp Off: White	Lamp Off: White	Lamp Off: White	
Matte Surface (non-shiny)	Matte Surface (non-shiny)	Matte Surface (non-shiny)	Matte Surface (non-shiny)	
Light Source	Light Source	Light Source	Light Source (LED only)	
Lens Color Marking Screen: Plate: Any Color White	Lens Marking Color Plate: Screen: White Any Color	Lens Marking Color Plate: Screen: White White	Lens Marking Color Plate: Screen: White White	