IDEC

Think Automation and beyond...
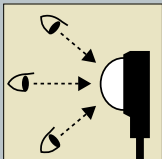

IDEC *Surface Mount LED Spider Lights*
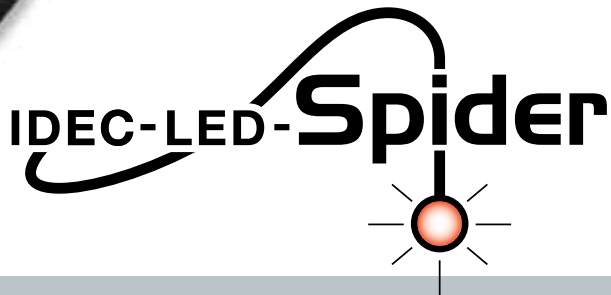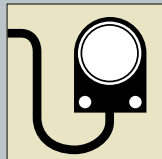
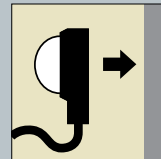800-262-IDEC

www.IDEC.com/usa/SpiderLights

(Actual Size)

DOME LENS

IDEC-LED-**Spider**

Good Visibility
From the front and the side.
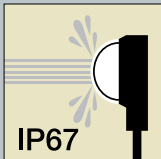
IP67 Protection
Can be used in environments exposed to water.

IP67

Cable Wiring
Direct wiring ensures waterproof characteristics.

Direct Surface Mounting
Requires only a small space behind the mounting surface. Can be installed without concern for other components behind mounting area.
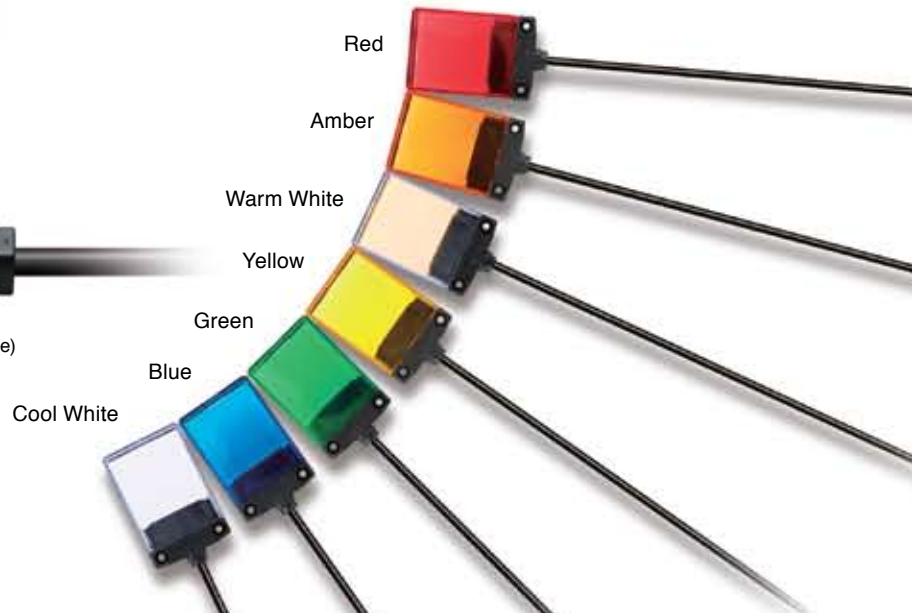
Surface Mount Indicators
LH Series

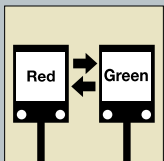New type of indicator for mounting on equipment or panel surfaces

IDEC·LED·Spider

Red

Amber

Warm White

Yellow

Green

Blue

Cool White
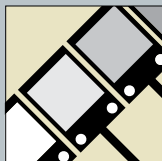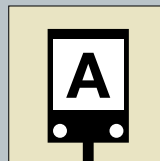
(Actual Size)

FLAT LENS

Red/green two color alternate lights also available.
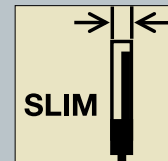
Red/Green
Two-color alternate illumination available.

Red ⇄ Green

Seven Colors
Amber, blue, green, cool white, red, warm white, & yellow.

Legends
Marking film can be inserted into the flat type lens.

A

Slim Profile
Can be installed in small areas easily.

SLIM

LH Series Surface Mount Indicators

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

- Direct mounting on surfaces such as panels, aluminum frames, and walls using screws.
- 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 (IEC60529) rated.
- 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.

Standards

Standards	Marks	File No. or Organization
EN 60598-2-1	TÜV	TÜV SÜD
EN 60598-2-1 EN 60947-5-1	CE	EC Low Voltage Directive
E68961	c UL us	UL, cUL

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

Specifications

Rated Insulation Voltage (Ui)	32V
Rated Voltage	24V AC/DC
Operating Voltage Range	24V AC/DC ±10%
Rated Current	17 mA
Maximum Current Draw	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.)

Specifications

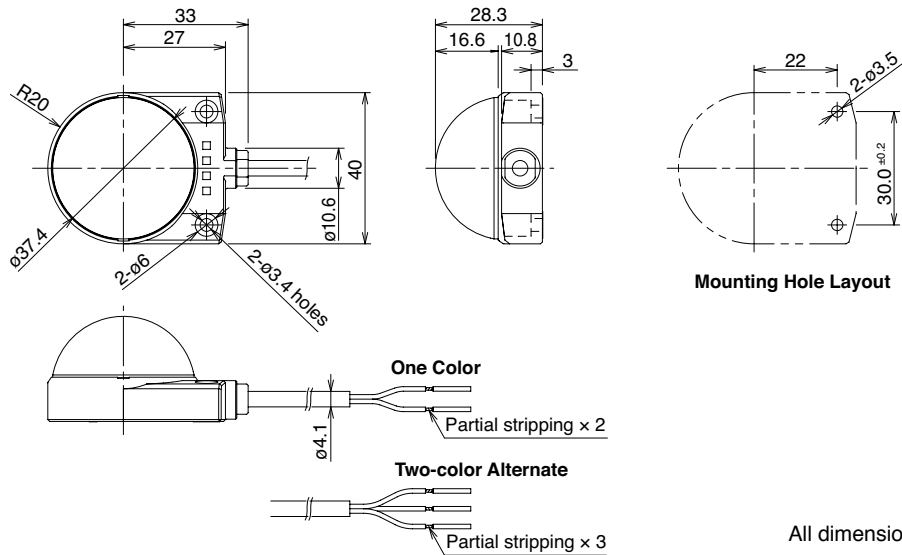|	
Applicable Standards	IEC 60947-1, IEC 60947-5-1, EN 60598-2-1, EN 60947-5-1 UL508, CSA C22.2 No.14
Operating Temperature	–20 to +55°C (no freezing)
Operating Humidity	45 to 85% RH (no condensation)
Storage Temperature	–30 to +80°C (no freezing)
Impulse Withstand Voltage (illuminating part)	800V
Insulation Resistance	Between live and dead parts: 100 MΩ 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 (IEC 60529)
Housing Color	Black
Cable	UL20276, 24 AWG 2-core (one-color) 3-core (2-color alternate)
Cable Outside Diameter	ø4.1mm
Allowable Cable Bending Radius	24.6mm minimum
Weight	50g (1m cable)

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Dome Type

Part Numbers

Shape	Cable	Part No.	② Illumination Color
Dome ø37 One Color	1m	LH1D-D2HQ4C10-②	Specify a color code in place of ② in the Part No. A: amber G: green PW: cool white R: red S: blue W: warm white Y: yellow
	3m	LH1D-D2HQ4C30-②	
	5m	LH1D-D2HQ4C50-②	
Dome ø37 Red/Green 2-color alternate	1m	LH1D-D2HQ4C10-RG	R (red) / G (green) 2-color alternate illumination
	3m	LH1D-D2HQ4C30-RG	
	5m	LH1D-D2HQ4C50-RG	

Dimensions
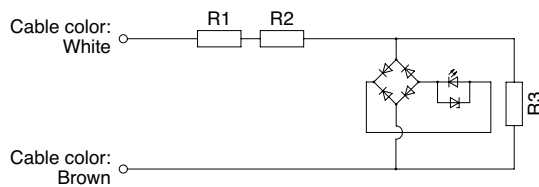
33
27
R20
ø37.4
2-ø6
2-ø3.4 holes
40
ø10.6

28.3
16.6   10.8
3

22
2-ø3.5
30.0 ±0.2

Mounting Hole Layout

One Color
ø4.1
Partial stripping × 2

Two-color Alternate
Partial stripping × 3

All dimensions in mm.

Internal Circuit

• One-color Illumination

Cable color: White
R1   R2
R3
Cable color: Brown

• Two-color Alternate Illumination

Cable color: White
LED color: Green
R1   R2
LED (G)
R3

Cable color: Brown (common)
LED (R)
R6

Cable color: Green
LED color: Red
R4   R5
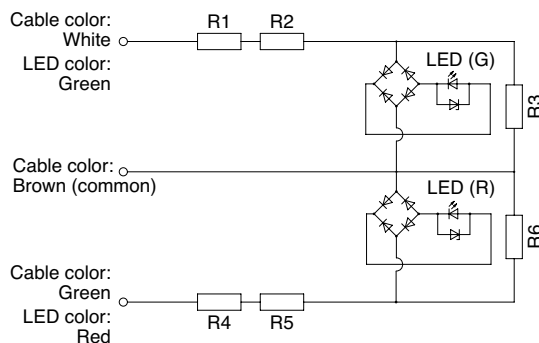
Lens Colors

Illumination Type	Illumination Color	Lens Color
One Color	Amber	Amber
	Blue	Blue
	Green	Green
	Cool White	Clear (Note)
	Red	Red
	Warm White	Clear (Note)
	Yellow	Yellow
Two-color Alternate	Red/Green	Clear (Note)

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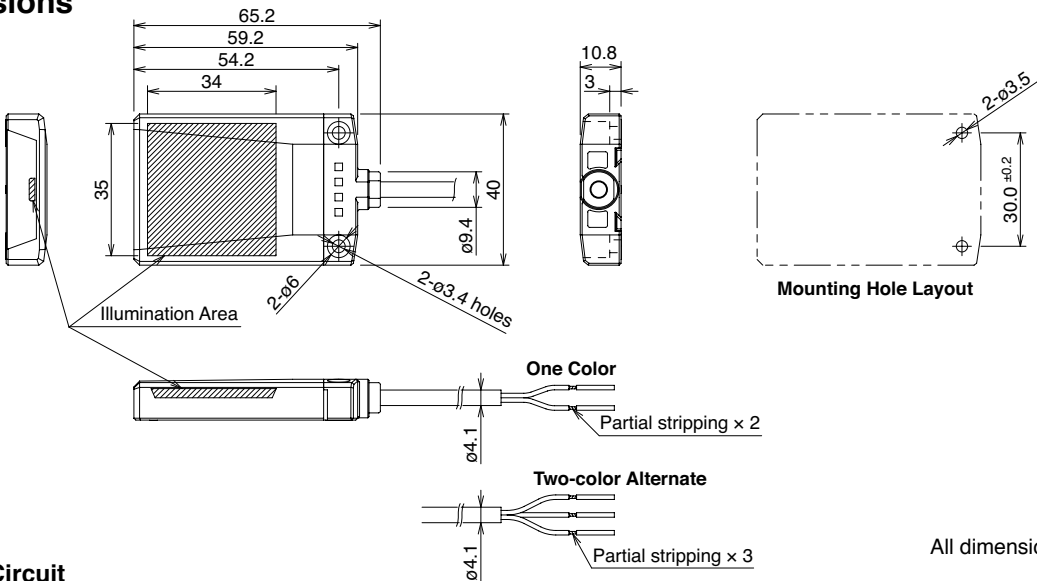Rectifying Diode
Zener Diode
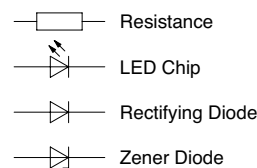
Note: Because lenses have a white diffusion cover inside, cool white, warm white, and red/green types look white when the light is off.

5

Flat Type

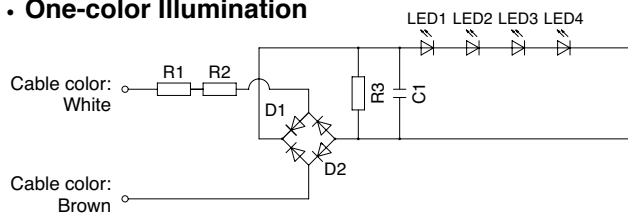| Shape	Cable	Part Number	② Illumination Color
Flat One Color Full	1m	LH1D-H2HQ4C10-②	Specify a color code in place of ② in the Part No. A: amber G: green PW: cool white R: red S: blue W: warm white Y: yellow
	3m	LH1D-H2HQ4C30-②	
	5m	LH1D-H2HQ4C50-②	
Flat Red/Green 2-color Alternate	1m	LH1D-H2HQ4C10-RG	R (red) / G (green) 2-color alternate illumination
	3m	LH1D-H2HQ4C30-RG	
	5m	LH1D-H2HQ4C50-RG	

Dimensions

Mounting Hole Layout

One Color
Partial stripping × 2

Two-color Alternate
Partial stripping × 3

All dimensions in mm.

Internal Circuit

• One-color Illumination

Cable color: White
Cable color: Brown

• Two-color Alternate Illumination

Cable color: White
LED color: Green
Cable color: Brown (common)
Cable color: Green
LED color: Red
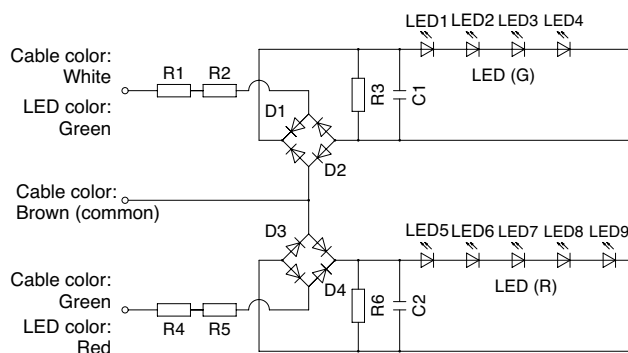
Lens Colors

Illumination Type	Illumination Color	Lens Color
One Color	Amber	Amber
	Blue	Blue
	Green	Green
	Cool White	Clear
	Red	Red
	Warm White	Clear
	Yellow	Yellow
Two-color Alternate	Red/Green	Clear

Resistance
LED Chip
Rectifying Diode
Condenser

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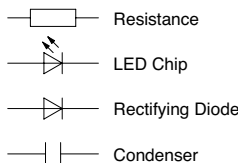
Replacement Parts

| Shape	Material	Part Number	② Lens Color
Lens (flat type)	Polyarylate	LH9Z-1DLH2-②	For flat type. Specify a color code in place of ② 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.

Instructions

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.
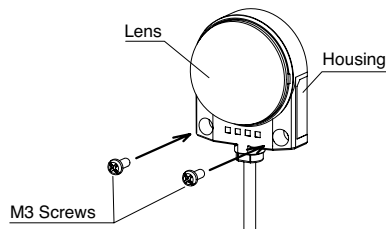
Note: The dome lens is not removable. Do not attempt to remove the lens, otherwise damage will occur.
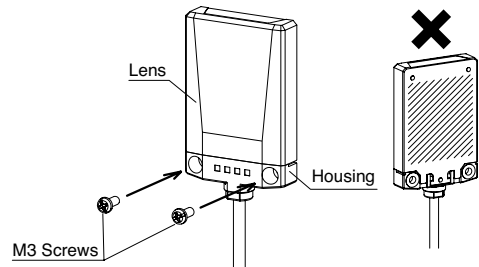
Note 1: Do not install the LH indicator by attaching the lens only, such as by taping down on the lens as the internal components may come loose.
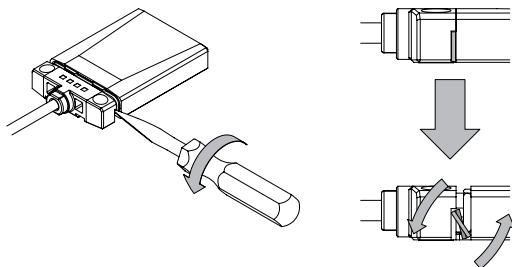
Note 2: Make sure that the back of the indicator is securely attached to the mounting surface so that the lens cannot be easily removed.

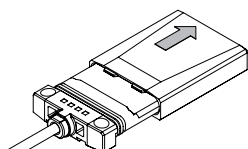## Inserting Marking Film into Flat Type Lens

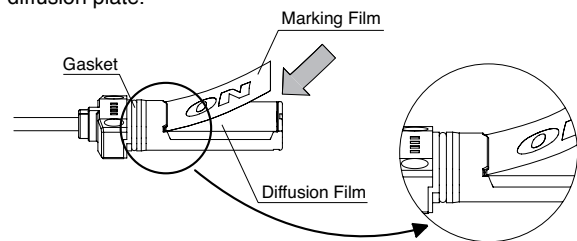1. Insert a flat screwdriver into the groove between the base and lens.
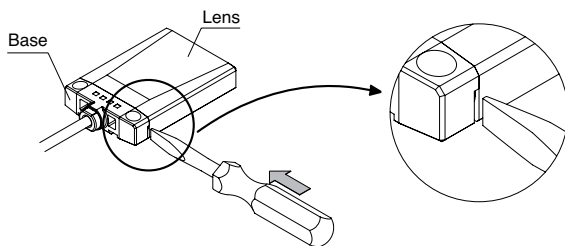
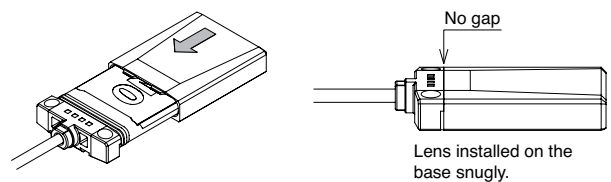2. Twist the screwdriver and disengage the lens from the base.

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.
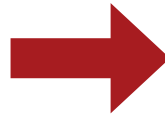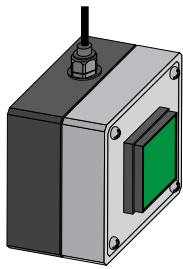
Markings

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 inlcuded and must be supplied by the user.
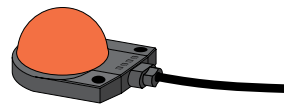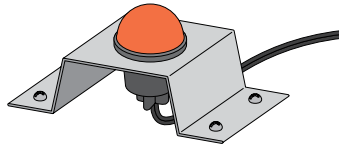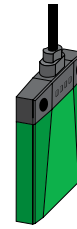
Recommended marking film: Polyester

□35 mm

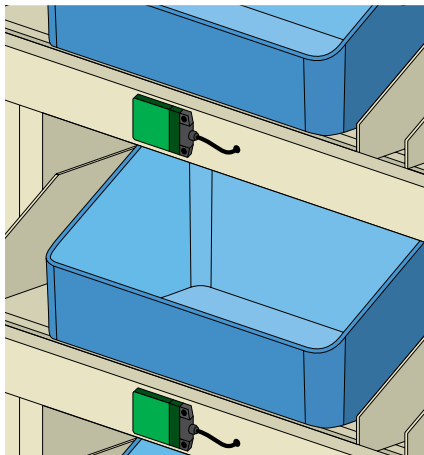Thickness: = 0.1 mm
Marking Area (□33 mm)
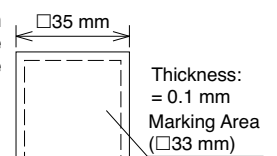
Applications

Conventional Indicators

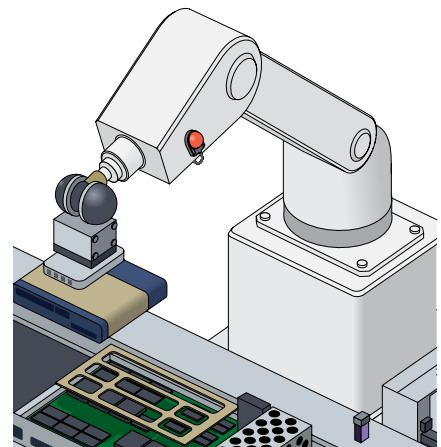**IDEC LED Spider**

Picking Application

Door Monitoring
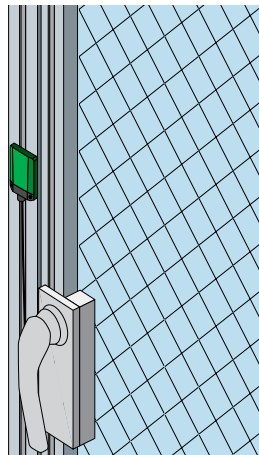
Robotic Arm

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