

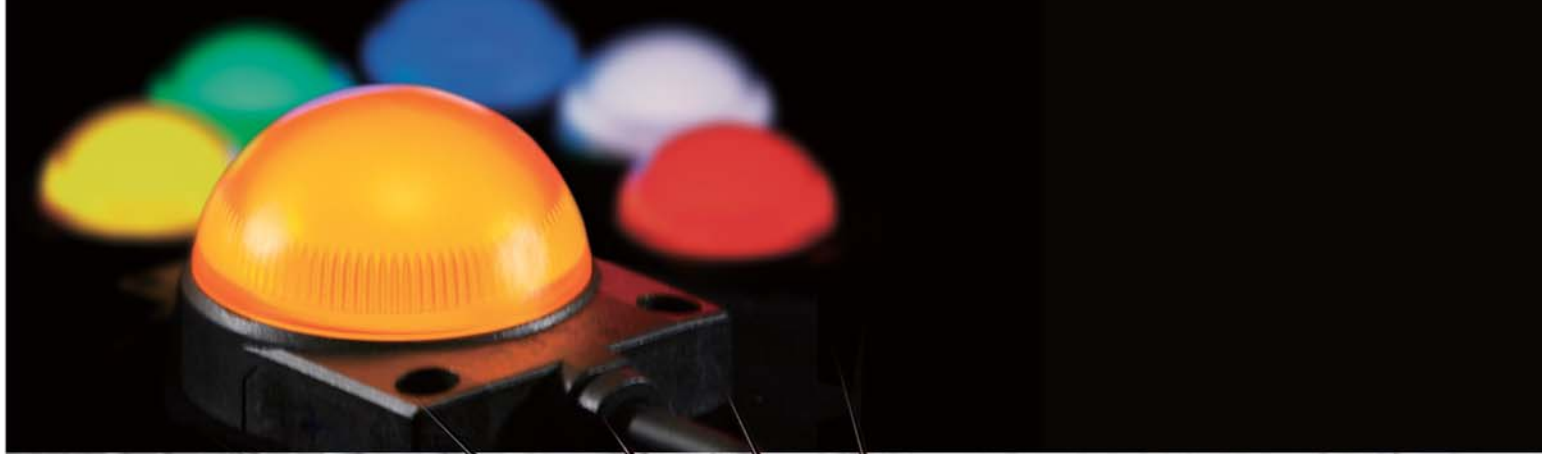
Think Automation and beyond...



LH Series Surface Mount Indicators IDEC LED Spider

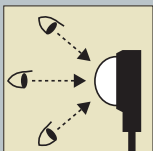
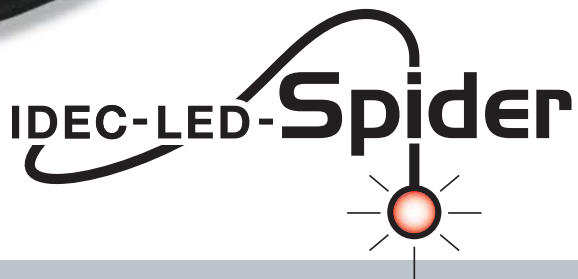


IDEC CORPORATION

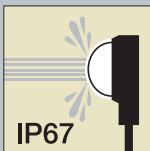


(Actual Size)

DOMELENS

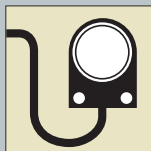


Good Visibility
From the front
and the side.

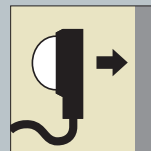


IP67

IP67 Protection
Can be used in
environments
subject to water.



Cable Wiring
Direct wiring en-
sures waterproof
characteristics.



Direct Surface Mounting
Requires only a small space
behind the mounting sur-
face, and can be installed
without concern for other
components behind.

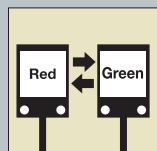
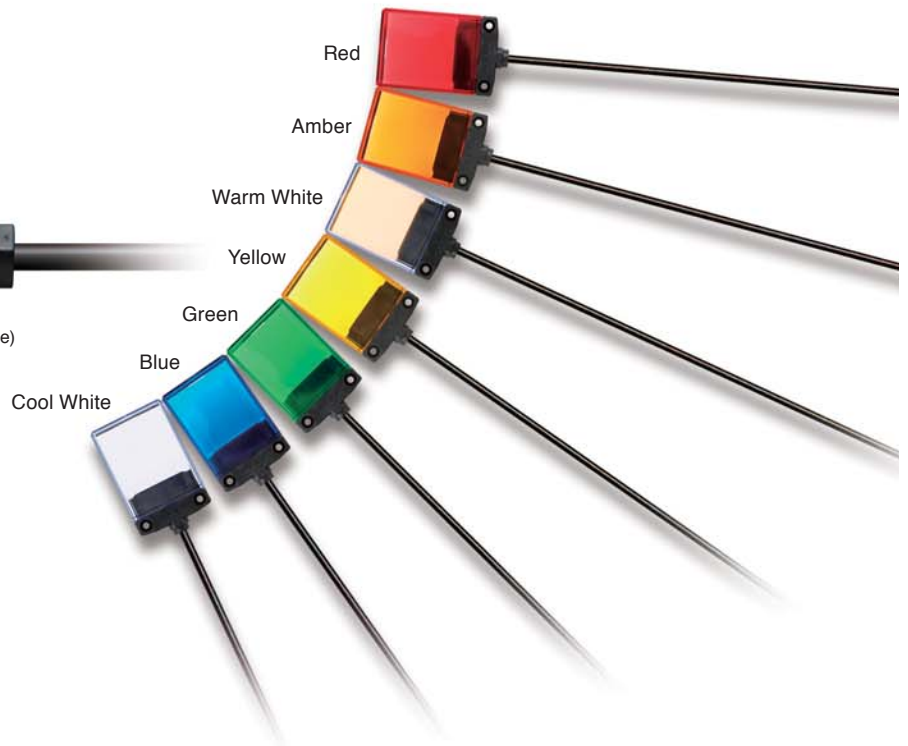
SURFACE MOUNT INDICATORS LH Series

New type of indicator for mounting on the surface of equipment or panels



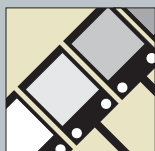
(Actual Size)

FLAT LENS



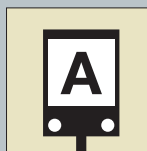
Red/Green

Two-color alternate illumination available.



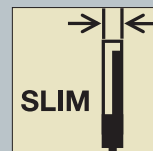
Seven Colors

Amber, blue, green, cool white, red, warm white, and yellow



Legends

Marking film can be inserted into the flat type lens.



Slim Profile

Can be installed in small areas easily.

LH Series Surface Mount Indicators




Innovative indicators in slim and 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 for flat type.
- Red/Green two-color alternate illumination available.



Standards

Standards	Marks	File No. or Organization
EN 60598-2-1		TÜV SÜD
EN 60598-2-1 EN 60947-5-1		EC Low Voltage Directive
E68961		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 $\pm 10\%$
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

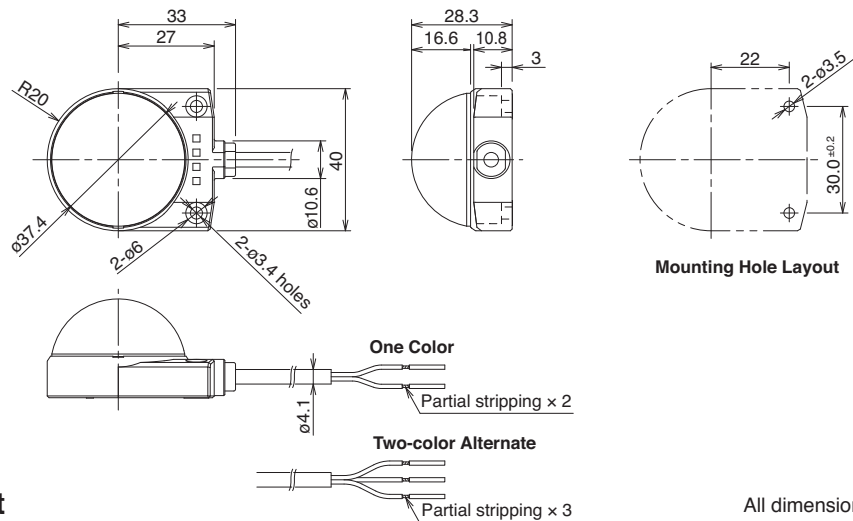
Applicable Standards	IEC 60947-1, IEC 60947-5-1, EN 60598-2-1, EN 60947-5-1, UL508, CSA C22.2 No.14
Operating Temperature	-20 to +55°C (no freezing)
Operating Humidity	45 to 85% RH (no condensation)
Storage Temperature	-30 to +80°C (no freezing)
Impulse Withstand Voltage (illuminating part)	800V
Insulation Resistance	Between live and dead parts: 100 M Ω minimum
Dielectric Strength	Between live and dead parts: 2000V, 50/60 Hz, 1 minute
Pollution Degree	3
Vibration Resistance	60 m/s ² , 5 to 55 Hz, amplitude 0.5 mm
Shock Resistance	1000 m/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	$\phi 4.1$ mm
Allowable Cable Bending Radius	24.6 mm minimum
Weight	50g (1m cable)

Dome Type

Types

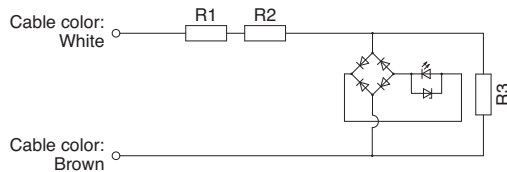
Shape	Cable	Ordering Type No.	② Illumination Color
Dome ø37 One Color 	1m	LH1D-D2HQ4C10②	Specify a color code in place of ② in the Type No. A: amber G: green PW: cool white R: red S: blue W: warm white Y: yellow
	3m	LH1D-D2HQ4C30②	
	5m	LH1D-D2HQ4C50②	
Dome ø37 Red/Green 2-color alternate 	1m	LH1D-D2HQ4C10RG	R (red) / G (green) 2-color alternate illumination
	3m	LH1D-D2HQ4C30RG	
	5m	LH1D-D2HQ4C50RG	

Dimensions

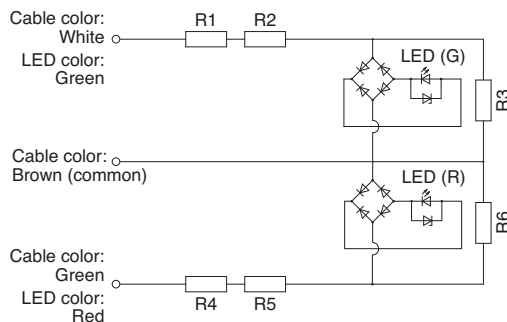


Internal Circuit

• One-color Illumination

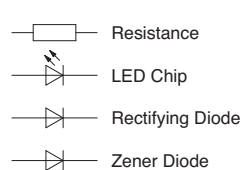


• Two-color Alternate Illumination



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)
Two-color Alternate	Yellow	Yellow
	Red/Green	Clear (Note)



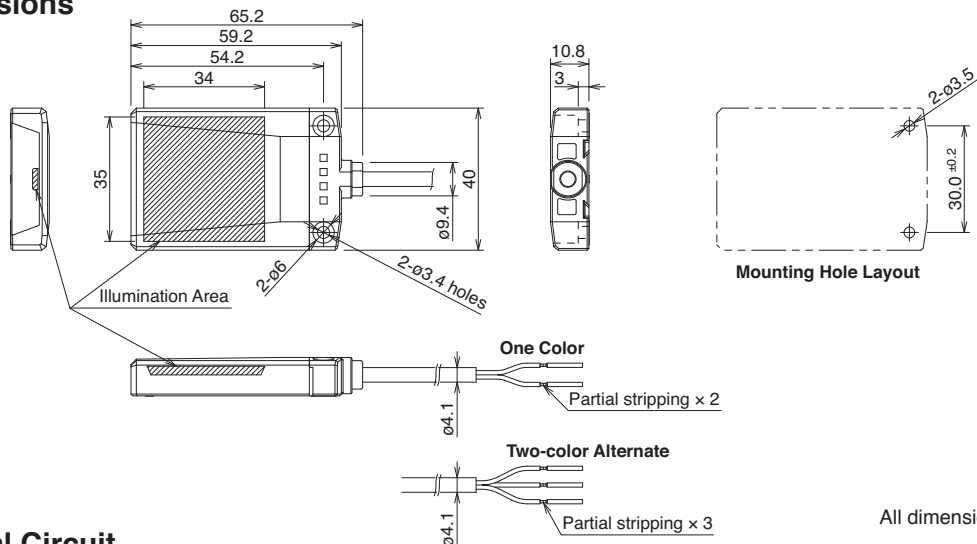
Note: Because lenses have a white diffusion cover inside, cool white, warm white, and red/green types look white when the light is off.

LH Series Surface Mount Indicators

Flat Type

Shape	Cable	Ordering Type No.	② Illumination Color
Flat One Color Full 	1m	LH1D-H2HQ4C10②	Specify a color code in place of ② in the Type No. A: amber G: green PW: cool white R: red S: blue W: warm white Y: yellow
	3m	LH1D-H2HQ4C30②	
	5m	LH1D-H2HQ4C50②	
Flat Red/Green 2-color Alternate 	1m	LH1D-H2HQ4C10RG	R (red) / G (green) 2-color alternate illumination
	3m	LH1D-H2HQ4C30RG	
	5m	LH1D-H2HQ4C50RG	

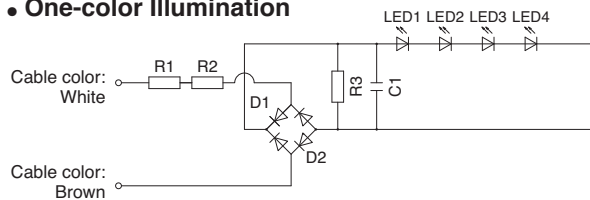
Dimensions



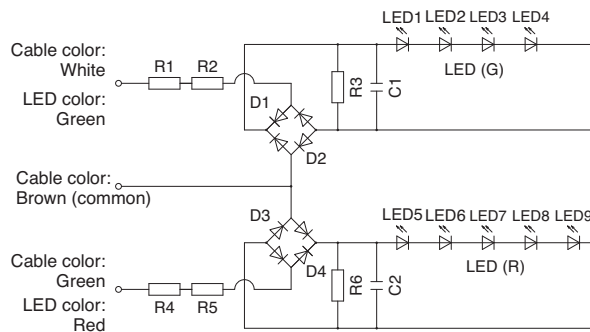
All dimensions in mm.

Internal Circuit

• One-color Illumination

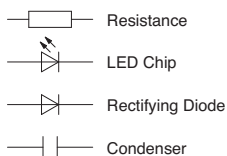


• Two-color Alternate Illumination




Lens Colors

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



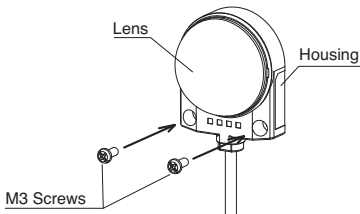
Replacement Parts

Shape	Material	Ordering Type No.	② Lens Color
 Lens (flat type)	Polyarylate	LH9Z-1DLH2②	For flat type. Specify a color code in place of ② in the Type 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.

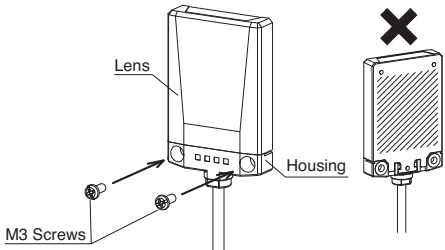
Instructions

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.

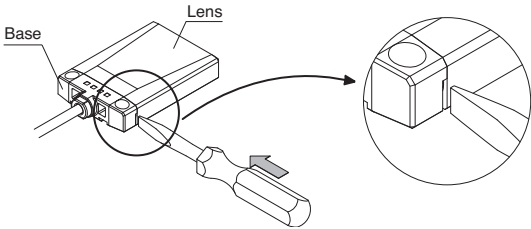


Note 1: Do not install the LH indicator by attaching on the lens only, such as by taping down the lens. Otherwise the internal components may come loose.

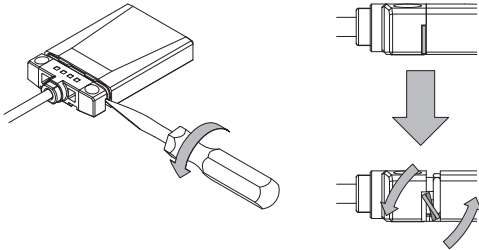
Note 2: Make sure that the back of the indicator is securely attached to the mounting surface, so that the lens cannot be easily removed.

Inserting Marking Film into Flat Type Lens

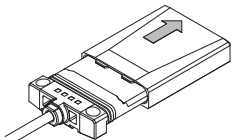
1. Insert a flat screwdriver into the groove between the base and lens.



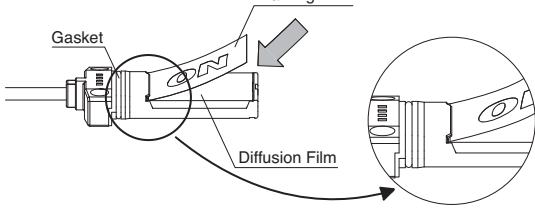
2. Twist the screwdriver and disengage the lens from the base.



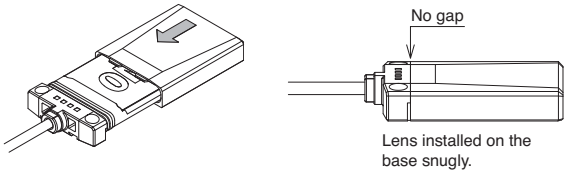
3. Remove the lens from the base.



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. Install the lens. Ensure that the lens is installed snugly.

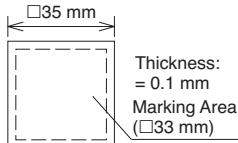


Note 1: Do not touch the gasket, as this may affect its waterproof characteristics.

Note 2: Do not touch the diffusion plate.

Markings

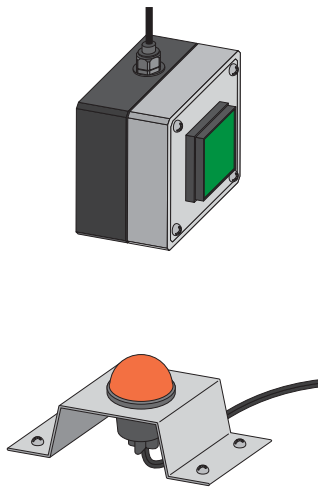
Legends and symbols can be printed on a marking film for the flat lens. One 0.1mm-thick film can be installed. Marking films are not attached and must be supplied by the user. Recommended marking film: Polyester



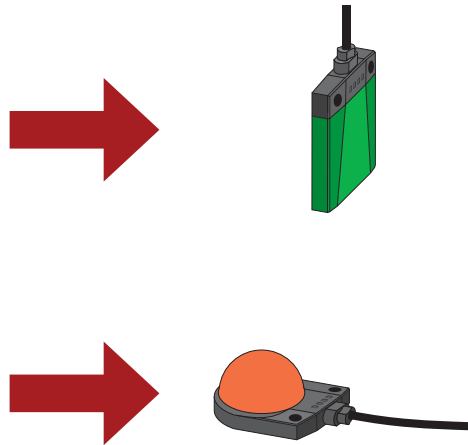
LH Series Surface Mount Indicators

Applications

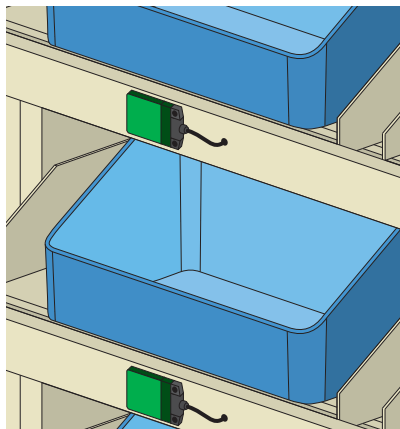
Conventional Indicators



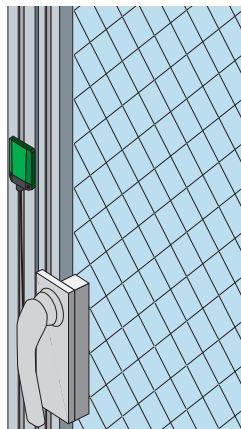
IDEC LED Spider



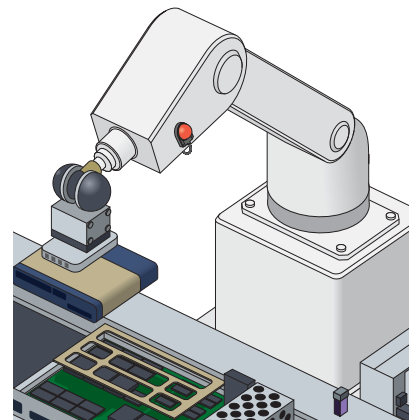
Picking Application



Door Monitoring



Robotic Arm



Specifications and other descriptions in this catalog are subject to change without notice.



IDEC CORPORATION

IDEC CORPORATION (USA)
1175 Elko Drive, Sunnyvale, CA 94089-2209, USA
Tel: +1-408-747-0550 / (800) 262-IDEAC (4332)
Fax: +1-408-744-9055 / (800) 635-6246
E-mail: opencontact@idec.com

IDEC CANADA LIMITED
3155 Pepper Mill Court, Unit 4, Mississauga,
Ontario, L5L 4X7, Canada
Tel: +1-905-890-8561, Toll Free: (888) 317-4332
Fax: +1-905-890-8562
E-mail: sales@ca.idec.com

IDEC AUSTRALIA PTY. LTD.
2/3 Macro Court, Rowville, Victoria 3178, Australia
Tel: +61-3-9763-3244, Toll Free: 1800-68-4332
Fax: +61-3-9763-3255
E-mail: sales@au.idec.com

IDEC ELECTRONICS LIMITED
Unit 2, Beechwood, Chichester Business Park,
Basingstoke, Hampshire RG24 8WA, UK
Tel: +44-1256-321000, Fax: +44-1256-327755
E-mail: sales@uk.idec.com

7-31, Nishi-Miyahara 1-Chome, Yodogawa-ku, Osaka 532-8550, Japan
Tel: +81-6-6398-2571, Fax: +81-6-6392-9731
E-mail: products@idec.co.jp

IDEC ELEKTROTECHNIK GmbH
Wendenstrasse 331, 20537 Hamburg, Germany
Tel: +49-40-25 30 54 - 0, Fax: +49-40-25 30 54 - 24
E-mail: service@idec.de

IDEC (SHANGHAI) CORPORATION
Room 608-609, 6F, Gangtai Plaza, No. 700,
Yan'an East Road, Shanghai 200001, PRC
Tel: +86-21-5353-1000, Fax: +86-21-5353-1263
E-mail: idec@cn.idec.com

IDEC (BEIJING) CORPORATION
Room 211B, Tower B, The Grand Pacific Building,
8A Guanghua Road, Chaoyang District,
Beijing 100026, PRC
Tel: +86-10-6581-6131, Fax: +86-10-6581-5119

IDEC (SHENZHEN) CORPORATION
Unit AB-3B2, Tian Xiang Building, Tian'an Cyber Park,
Fu Tian District, Shenzhen, Guangdong 518040, PRC
Tel: +86-755-8356-2977, Fax: +86-755-8356-2944

IDEC IZUMI (H.K.) CO., LTD.

Units 11-15, Level 27, Tower 1,
Millennium City 1, 388 Kwun Tong Road,
Kwun Tong, Kowloon, Hong Kong
Tel: +852-2803-8989, Fax: +852-2565-0171
E-mail: info@hk.idec.com

IDEC TAIWAN CORPORATION
8F-1, No. 79, Hsin Tai Wu Road, Sec. 1,
Hsi-Chih, Taipei County, Taiwan
Tel: +886-2-2698-3929, Fax: +886-2-2698-3931
E-mail: service@tw.idec.com

IDEC IZUMI ASIA PTE. LTD.
No. 31, Tannery Lane #05-01,
HB Centre 2, Singapore 347788
Tel: +65-6746-1155, Fax: +65-6844-5995
E-mail: info@sg.idec.com

www.idec.com

Cat. No. LH9Y-DS100-0 (Revised in USA 03/09 - PDF only)