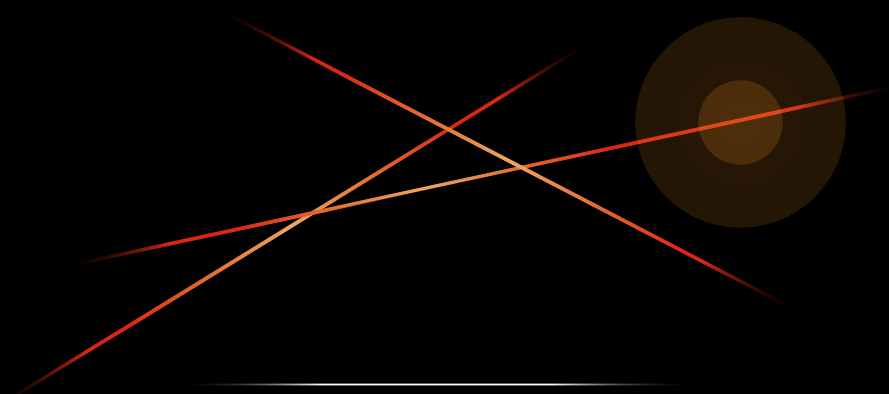


# LUMIFA LED LIGHTING

LIGHTING YOUR WAY



**APEM**  
an IDEC company



**ERMEC, S.L. BARCELONA**  
C/ Francesc Teixidó, 22  
08918 Badalona SPAIN

Tel. +34 902 450 160  
info@ermec.com  
www.ermec.com

**ERMEC, S.L. - MADRID**  
C/ Puerto Rico, 4  
28222 Majadahonda (Madrid) SPAIN

bilbao@ermec.com  
portugal@ermec.com

# LIGHTING YOUR WAY

Our LUMIFA LEDs provide bright, long-lasting illumination for a variety of applications, whether it is a work station, packaging or machine tool or within an automotive manufacturing plant. Thanks to their rugged construction and range of IP ratings, they can withstand even the toughest industrial environments to bring you high-quality lighting in a variety of colours, voltages and light outputs.

## Technical Features

### QUALITY ILLUMINATION

With brightness levels up to 153 lumens/watts, our LEDs cast bright, uniform lighting onto target objects with minimal metal reflection, glare and shadows.

### RUGGED

With their solid housing and IP ratings, our units can withstand exposure to dust, water, oil and metal shavings, making them suitable for harsh industrial environments and hazardous applications such as oil and gas, mining- and more.

### LOW MAINTENANCE

Swapping out a light is quick and easy. Our LEDs offer plug-and-play connection options, including quick-connect and pigtail M12 connections, as well as pre-wired models with removable plug-in or spring-clamp terminals.

### VERSATILE

Models are available in a variety of sizes, brightness levels, colours and connections, while optional adjustable or fixed-angle mounting brackets make installation fast and easy. With widths as narrow as 25 mm, they can be deployed in tight, hard-to-reach spaces.

# LUMIFA LF1B-N



| INDUSTRIAL MACHINES | SEMICONDUCTOR EQUIPMENT | CONTROL PANELS |

## LF1B-N Series

The LF1B-N series is available in six lengths, two covers (transparent or white) and six distinct colours—cool white, warm white, yellow, red, blue and green—making it a flexible lighting solution for control panels, industrial machines, manufacturing lines, work stations and more. These compact, energy-efficient units are low-maintenance and last for years, contributing to overall cost savings.

- Compact size:  
27.5 mm wide x 16 mm high
- Six lengths:  
134, 210, 330, 830 and 1,080 mm
- Vibration - and shock-resistant
- Yellow light ideal for photosensitive materials
- IP65-rated for use in wet environments

# LUMIFA LF2B



| CONTROL PANELS | INDUSTRIAL EQUIPMENT | MANUFACTURING LINES & WORK STATIONS |

## LF2B Series

The LF2B features a rugged, slim design for industrial applications and installations where space is limited. Its high luminence, snap-in mounting brackets, range of input voltages, DC-battery compatibility and IP65 rating make this series ideal for a wide variety of lighting applications, from control panels to industrial equipment in wet environments.

- Slim size: 40 mm wide x 29 mm high
- Five lengths: 210, 330, 580, 830 and 1,080 mm
- Clear or white cover options
- 100-240V AC or 12/24V DC rated voltages
- Mounting brackets enable one-step installation process in tight spaces
- IP65-rated for use in wet environments

### OPTICAL SPECIFICATIONS



ILLUMINATION COLOUR		COOL WHITE		WARM WHITE		YELLOW		RED		GREEN		BLUE	
COVER		Clear	White	Clear	White	Clear	White	Clear	White	Clear	White	Clear	White
Colour Temperature/ Dominant Wavelength (typ.)		6500K		3000K		590nm		620nm		525nm		455nm	
Reference Brightness (typ.) at 0.5m, lx	LF1B-NA	95	85	90	80	20	18	20	18	30	27	10	9
	LF1B-NB	240	215	230	2100	40	36	40	36	60	55	20	18
	LF1B-NC	455	410	440	395	75	65	75	65	110	100	30	27
	LF1B-ND	840	750	815	725	125	110	125	110	190	170	50	45
	LF1B-NE	1100	995	1065	960	160	145	160	145	260	235	60	55
	LF1B-NF	1350	1210	1300	1170	180	160	180	160	300	270	80	70

LED modules and illumination units may vary in colour and brilliance. Luminous flux, colour temperature, and illuminance values shown are typical.

### PART NUMBER STRUCTURE (USE FOR INTERPRETING PART NUMBERS ONLY)

LENGTH		COVER		ILLUMINATION COLOUR		CABLE LENGTH	
A: 134mm (5.28")	C: 330mm (12.99")	3: Clear	4: White	THWW2: Cool White	SHR2: Red	3M: 3m	
B: 210mm (8.27")	D: 580mm (22.83")			TLWW2: Warm White	THS2: Blue	1M: 1m	
	E: 830mm (32.68")			SHY2: Yellow	SHG2: Green		
	F: 1,080mm (42.52")						

### OPTICAL SPECIFICATIONS



\*UL applies for DC units only.

MODEL	LF2B-B (210 mm)		LF2B-C (330 mm)		LF2B-D (580 mm)		LF2B-E (830 mm)		LF2B-F (1,080 mm)	
COVER	Clear	White	Clear	White	Clear	White	Clear	White	Clear	White
Illumination Colour	Cool White									
Colour Temperature, K	6500									
Luminous Flux (typ.), lm	235	215	465	425	935	860	1380	1270	1860	1710
Reference Illuminance (typ.) at 0.5m directly below, lx	290	265	540	500	1065	980	1385	1275	1520	1400

LED modules and illumination units may vary in illumination colours and illuminance.

### PART NUMBER STRUCTURE (USE FOR INTERPRETING PART NUMBERS ONLY)

LENGTH		COVER		RATED VOLTAGE		DC12V/24V LENGTH	
B: 210mm (8.27")	D: 580mm (22.83")	3: Clear	4: White	A: 100-240 VAC		B: (210mm)	
C: 330mm (12.99")	E: 830mm (32.68")			B: 12V/24V DC		C: (330mm)	
	F: 1,080mm (42.52")					D: (580mm) only	



ERMEC, S.L. BARCELONA  
C/ Francesc Teixido, 22  
08918 Badalona SPAIN

Tel. +34 902 450 160  
info@ermec.com  
www.ermec.com

ERMEC, S.L. - MADRID  
C/ Puerto Rico, 4  
28222 Majadahonda (Madrid) SPAIN

bilbao@ermec.com  
portugal@ermec.com



## LF1D & LF2D Series




## DIMENSIONS

Technical drawing of a mechanical assembly. The drawing shows a cross-section of a cylindrical component with a central hole. The outer diameter is 27.5. The inner hole has a diameter of 6.0. The total length of the component is 35.0. The distance from the left end to the center of the hole is 14.0. The distance from the center of the hole to the right end is 14.2. The component is labeled A, B, C, and D. A detail view D shows a cross-section of a small cylindrical part with a diameter of 2.5 and a length of 9.0.

Technical drawing of the LED module showing top, side, and detail views with dimensions and labels.

**Top View Dimensions:**

- Overall width: 100
- Internal width: 84
- Right side margin: 2
- Left side margin: 2
- Left side hole diameter:  $\varnothing 11.2$
- Bottom side hole diameter:  $\varnothing 11.2$
- Bottom side hole offset from left edge: 50

**Side View Dimensions:**

- Overall height: 22
- Internal height: 11
- Bottom flange height: 12
- Bottom flange width: 9

**Labels and Notes:**

- Illumination Surface:** Points to the central LED area.
- Front Cover Cable Length 5 m:** Indicated for the cable connection.
- Housing:** Points to the bottom flange.
- Cable:** Points to the cable connection.
- Legend:**
  - Brown: (+)
  - Blue: (-)
- Wiring:** Semi-stripped (x2) 24AWG

Technical drawing of the SMD-24W-1000 LED module, showing front and side views with dimensions and labels.

**Front View Dimensions:**

- Overall length: 350
- Distance from mounting bracket to illumination surface axis center: 257
- Distance from illumination surface axis center to front cover: 30
- Mounting bracket dimensions: 25, 2, R2.0
- Front cover dimensions: 1.7, 12, 20
- Distance from front cover to side cover: 28
- Side cover dimensions: 15, 39
- Cable length: 5 m

**Side View Dimensions:**

- Overall height: 29.8
- Distance from mounting bracket to side cover: 29.8
- Side cover dimensions: 0.5, 15

**Labels:**

- Mounting Bracket
- Illumination Surface Axis Center
- Front Cover
- Housing
- Side Cover

**Legend:**

- Brown: (+)
- Blue: (-)
- Pink: (GND)
- Semi-stripped (x2 24AWG)

Technical drawing of the LED module showing top, side, and detail views with dimensions and labels.

**Top View Dimensions:**

- Overall length: 310
- Length to mounting bracket: 292
- Length to illumination surface: 270
- Mounting bracket width: 183.6
- Axis center offset: 27
- Front cover offset: 2
- Mounting bracket hole offset: 2
- Mounting bracket hole diameter:  $\varnothing 6.6$
- Mounting bracket hole spacing: 40
- Mounting bracket hole diameter:  $\varnothing 7.47$

**Side View Dimensions:**

- Module height: 25.9
- Mounting bracket height: 1.5

**Detail View Dimensions:**

- Detail view width: 12
- Detail view hole diameter:  $\varnothing 6.6$

**Labels:**

- Mounting Bracket
- Axis Center
- Illumination Surface
- Front Cover
- Housing
- Side Cover
- Cable Length: 5 m
- Semi-stripped (x2) 24AWG

**Legend:**

- Brown: (+)
- Blue: (-)
- Pink:  $\phi$

[illegible]

Technical drawings of the M4-1000 cable assembly, showing two configurations: with a cable gland and with a mounting bracket.

**Top Configuration (Cable Gland):**

- Labels:** Cable Gland, Cable, Cover, End Cover.
- Wire Labels:** Brown: L (DC: +), Blue: N (DC: -).
- Dimensions:**
  - Cable: AWG 18
  - Cable Gland: 40x29mm
  - Cable Length: 1000
  - Cable Diameter:  $\phi 5.5$
  - Cable Length: L

**Bottom Configuration (Mounting Bracket):**

- Labels:** Mounting Bracket (supplied).
- Dimensions:**
  - Mounting Bracket: 45x31mm
  - Mounting Bracket Hole: 22.5mm
  - Recommended mounting centers: B
  - Mounting Bracket Length: A
  - Mounting Bracket Width: 45mm
  - Mounting Bracket Height: 31mm
  - Mounting Bracket Hole: 8.5mm
  - Mounting Bracket Hole: 42.5mm
  - Mounting Bracket Hole:  $\phi 5.5$

**Detail View (Mounting Bracket):**

- Labels:** Anti-projection Hole, M4xP0.7 Screw Hole, or ø4.2 Hole.
- Dimensions:**
  - Mounting Bracket Hole: 22.5mm
  - Mounting Bracket Hole: 8.5mm
  - Mounting Bracket Hole: 42.5mm
  - Mounting Bracket Hole:  $\phi 5.5$

[illegible]

308  
293  
105  
96  
217  
35  
5 mm max  
24.8  
Axis Center  
Cable Gland\*  
6-M5x10 Hexagon Socket Flat Screw + gasket (supplied)  
Brown: (+)  
Blue: (-)  
Pink: (E)  
Cable Length 5 m

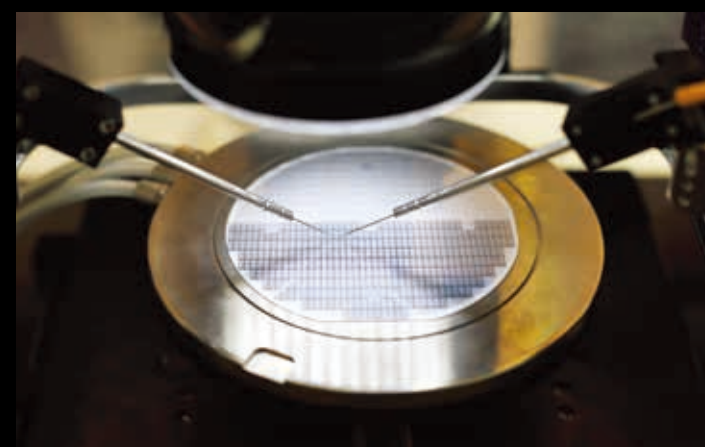
Mounting panel thickness: 5 mm max.

\* When the cable gland is prepared by the user, make sure that the cable diameter is  $\phi 20$  mm at maximum.



# LUMIFA LED APPLICATIONS



- Food & beverage processing machines
- Packaging machines
- Semiconductor manufacturing equipment
- Machine tools
- Automotive manufacturing machines
- Control panels
- Printing machines
- Production systems
- Test equipment
- Solar power equipment
- Cosmetic manufacturing equipment
- Chemical manufacturing equipment
- Display cases
- Foundries
- Photosensitive devices
- Advertising displays
- Assembly & robotics
- Work stations







# SELECTION GUIDE

## SURFACE MOUNT




	 					
	LF1B-N					
Protection Class	IP65					
Cover Options	Clear/White					
Application List	Industrial Machines, Machine Tools, Plant Equipment, Test Equipment, Control Panel, Food Processing Machines, Cosmetic Plant, Chemical Plant, Show Cases, Semiconductor Manufacturing Equipment, Ic Foundry, Photosensitive Material, Darkroom Experiment, Advertising Displays, Light Ornaments					
Illumination Colour <sup>1</sup>	Cool White (6500 K)	Warm White (3000 K)	Blue (455 nm)	Yellow (590 nm)	Red (620 nm)	Green (525 nm)
Operating Voltage	24V DC					
Reference Illumination <sup>2</sup>	LF1B-NA: 95 lx LF1B-NF: 1350 lx	2 LF1B-NA: 90 lx LF1B-NF: 1300 lx	LF1B-NA: 10 lx LF1B-NF: 80 lx	LF1B-NA: 20 lx LF1B-NF: 180 lx		LF1B-NA: 30 lx LF1B-NF: 300 lx
Power Consumption	LF1B-NA: 1.5 W LF1B-NB: 2.9 W LF1B-NC: 4.4 W LF1B-ND: 8.7 W LF1B-NE: 13.0 W LF1B-NF: 17.3 W			LF1B-NA: 1.0 W LF1B-NB: 2.0 W LF1B-NC: 2.9 W LF1B-ND: 5.8 W LF1B-NE: 8.7 W LF1B-NF: 11.6 W		

	 	
	LF2B	
Protection Class	IP65	
Cover Options	Clear/White	
Application List	Various Machines and Systems, Control Panels, Manufacturing Lines, Work Stations	
Illumination Colour <sup>1</sup>	Cool White (6500 K)	
Operating Voltage	12/24V DC	100 to 240V AC
Reference Illumination <sup>2</sup>	LF2B-B: 290 lx LF2B-C: 540 lx LF2B-D: 1065 lx LF2B-E: 1385 lx LF2B-F: 1520 lx	LF2B-B: 265 lx LF2B-C: 500 lx LF2B-D: 980 lx LF2B-E: 1275 lx LF2B-F: 1400 lx
Power Consumption	LF2B-B: 2.6 W LF2B-C: 4.9 W LF2B-D: 10.6 W	LF2B-B: 2.2 W LF2B-C: 4.4 W LF2B-D: 7.8 W LF2B-E: 12.2 W LF2B-F: 15.9 W

## SURFACE MOUNT

						
	LF1D-C	LF1D-EN	LF1D-EH	LF1D-FH	LF1D-H	LF1D-J
Form Factor	Mini	Slim 48 LEDs x 1 Row	Slim 10 LEDs x 1 Row	Wide 7 LEDs x 2 Rows	Long 365 mm	Long 510 mm
Protection Class <sup>3</sup>	IP67 IP67F* IP69K	IP67 IP67F* IP67G IP69K	IP67 IP67F* IP69K			
Application List	Machine Tools, Food and Beverage Processing Machines, Automotive, Chemical/Pharmaceutical, Production Systems, Test Equipment					
Illumination Colour <sup>1</sup>	White (5700 K)			Neutral White (470K)		
Operating Voltage	24V DC					
Reference Illumination <sup>2</sup>	180 lx	1,700 lx (standard) 1,000 lx (diffused)	1,800 lx	1,500 lx	560 lx	840 lx
Power Consumption	4.6 W	10 W	11 W	12.5 W	18.4 W	27.6 W

## RECESSED MOUNT

			
	LF2D-EN	LF2D-EH	LF2D-FH
Form Factor	Slim 48 LEDs x 1 Row	Slim 10 LEDs x 1 Row	Wide
Protection Class	IP67 IP67F* IP67G	IP67 IP67F*	
Application List	Machine Tools, Food and Beverage Processing Machines, Automotive, Chemical/Pharmaceutical, Production Systems, Test Equipment		
Illumination Colour <sup>1</sup>	White (5700 K)		
Operating Voltage	24V DC		
Reference Illumination <sup>2</sup>	1700 lx (standard) 1000 lx (diffused)	1800 lx	1500 lx
Power Consumption	10 W	11 W	12.5 W

1. K: Colour Temperature (typ.), mm: Dominant Wavelength (typ.).  
2. Directly below at 0.5m unless otherwise noted.



1. K: Colour Temperature (typ.), mm: Dominant Wavelength (typ.).  
2. Directly below at 0.5m unless otherwise noted.  
3. Degree of protection: IEC60529 (IP67), JIS C 0920 (IP67F/IP67G), and DIN40050-9 (IP69K).

\*Reinforced glass model

# ABOUT IDEC

## IDEC'S MAIN PRODUCT FAMILIES

SWITCHES | SAFETY | PANEL | AUTOMATION

## IDEC PRODUCTS ARE ESSENTIAL

### Best-in-class

Field-proven and reliable products

### Environment-friendly

Long-lasting and efficient products

### Enhanced safety

Custom solutions

Fully ISO compliant



# 22

FACTORIES



# 3 900

EMPLOYEES



# 70

YEARS  
OF EXPERIENCE



# 100 000 +

REFERENCES

BENELUX B (+32) 27 25 05 00 - sales@apem.be  
BENELUX NL (+31) (70) 799 91 51 - sales@apem.be  
FRANCE (+33) 5 63 93 14 98 - commercial@apem.fr  
GERMANY - MUNICH (+49) 89 45 99 11 0 - info@apem.de  
GERMANY - HAMBURG (+49) 40 253054 0 - info@apem.de  
ITALY (+39) 0172 74 3170 - apem.italia@apem.it  
SWEDEN (+46) 8 626 38 00 - info@apem.se  
UNITED KINGDOM (+44) 1 844 202400 - sales@apem.co.uk

[www.apem-idec.eu](http://www.apem-idec.eu)



ERMEC, S.L. BARCELONA  
C/ Francesc Teixidó, 22  
08918 Badalona SPAIN

Tel. +34 902 450 160  
info@ermec.com  
www.ermec.com

ERMEC, S.L. - MADRID  
C/ Puerto Rico, 4  
28222 Majadahonda (Madrid) SPAIN

bilbao@ermec.com  
portugal@ermec.com



**APEM**  
an IDEC company

