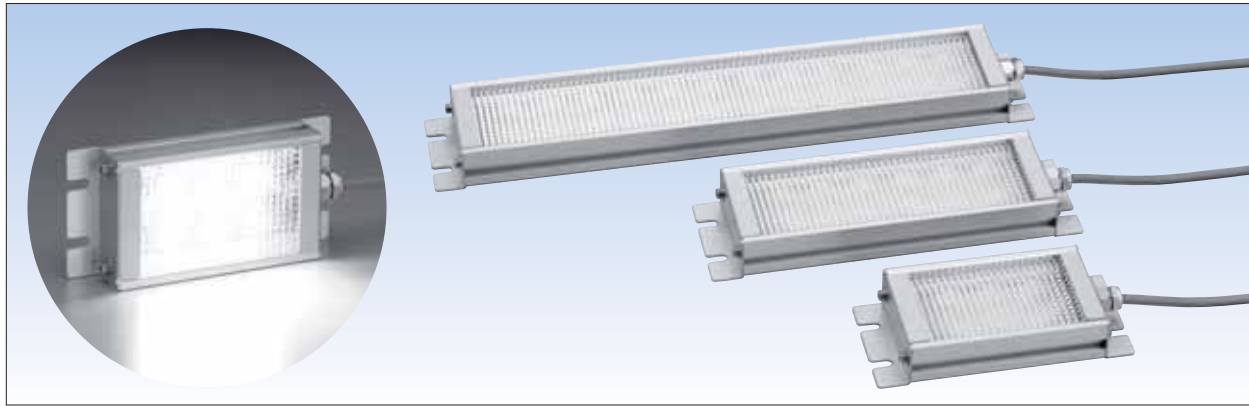


LF1A (IP40) Series LED Illumination Units

LED module and high heat-radiation technology allow for thin LED housing



Features and Applications by Illumination Color

| Illumination Color | Cool White | Warm White | Yellow | Red |
|----------------------|---|--|---|---|
| Type No. | LF1A-*2THWW6 | LF1A-*2TLWW6 | LF1A-*2SHY8 | LF1A-*2SHR8 |
| Appearance | | | | |
| Spectrum | | | | |
| Features | Suppressing glare, the bright, clear white illumination color lights up a target object clearly. | Warm color similar to that of an incandescent light bulb. This illumination color gives off a color temperature of 2800K. | Yellow illumination color gives off an emission spectrum with a dominant wavelength of 590 nm. It does not include 500 nm or shorter wavelengths. | Red illumination color gives off an emission spectrum with a long wavelength (dominant wavelength of 625 nm). |
| Application Examples | <ul style="list-style-type: none"> Machine Tools Control Panel/Plant Equipment Inspection/Test Equipment | <ul style="list-style-type: none"> Food Processing Machines Cosmetic Plants Chemical Plants | <ul style="list-style-type: none"> Semiconductor Manufacturing Equipment IC Plants | <ul style="list-style-type: none"> Application Equipment for Photosensitive Materials Semiconductor Manufacturing Equipment Night-time Experiments |

Types

| LED Arrangement | Illumination Color | | | |
|------------------|--------------------|----------------|---------------|---------------|
| | Cool White | Warm White | Yellow | Red |
| 3 LEDs x 2 rows | LF1A-A1-2THWW6 | LF1A-A1-2TLWW6 | LF1A-A1-2SHY8 | LF1A-A1-2SHR8 |
| 6 LEDs x 2 rows | LF1A-B1-2THWW6 | LF1A-B1-2TLWW6 | LF1A-B1-2SHY8 | LF1A-B1-2SHR8 |
| 12 LEDs x 2 rows | LF1A-D1-2THWW6 | LF1A-D1-2TLWW6 | LF1A-D1-2SHY8 | LF1A-D1-2SHR8 |

* A1: 3 LEDs, B1: 6 LEDs, D1: 12 LEDs

LF1A Series LED Illumination Units

Specifications

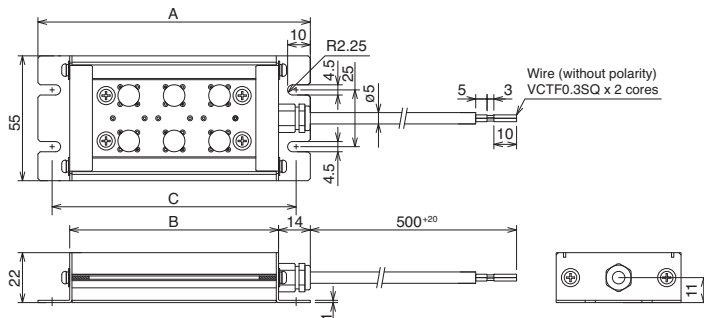
• General Specifications

| Type No. | LF1A-□-2THWW6 | LF1A-□-2TLWW6 | LF1A-□-2SHY8 | LF1A-□-2SHR8 |
|---|--|---------------|--------------|--------------|
| Rated Voltage | 24V DC (without polarity) | | | |
| Input Current (typ.) (at rated voltage) | 3 LEDs x 2 rows | 75 mA | 90 mA | |
| | 6 LEDs x 2 rows | 150 mA | 180 mA | |
| | 12 LEDs x 2 rows | 300 mA | 360 mA | |
| Rated Power (typ.) (at rated voltage) | 3 LEDs x 2 rows | 1.8W | 2.2W | |
| | 6 LEDs x 2 rows | 3.6W | 4.4W | |
| | 12 LEDs x 2 rows | 7.2W | 8.7W | |
| Dielectric Strength | Between live and dead parts: 1000V AC, 1 minute | | | |
| Insulation Resistance | Between live and dead parts: 100 MΩ (500V DC megger) | | | |
| Operating Temperature | -20 to +50°C | | | |
| Storage Temperature | -25 to +70°C | | | |
| Operating/Storage Humidity | 45 to 85% RH (no condensation) | | | |
| Life (half luminance) | 40,000 hours | | | |
| Weight (approx.) | LF1A-A1: 190g, LF1A-B1: 270g, LF1A-D1: 470g | | | |
| Degree of Protection | IP40 | | | |

• LED Optical Specifications

| Type No. | LF1A-□-2THWW6 | LF1A-□-2TLWW6 | LF1A-□-2SHY8 | LF1A-□-2SHR8 |
|---|------------------|--------------------------|--------------|--------------|
| Illumination Color | White | Incandescent Light Color | Yellow | Red |
| Luminous Intensity (typ.) (Single LED module) | 6000 mcd | 4000 mcd | 4000 mcd | 2500 mcd |
| Color Temperature (typ.) / Dominant Wavelength (typ.) | 5500K | 2800K | 590 nm | 625 nm |
| Reference Illuminance (typ.) at 500 mm | 3 LEDs x 2 rows | 190 lx | 130 lx | 85 lx |
| | 6 LEDs x 2 rows | 380 lx | 260 lx | 170 lx |
| | 12 LEDs x 2 rows | 760 lx | 520 lx | 340 lx |

Dimensions

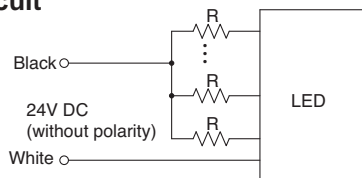


• Dimension List

| Type No. | A | B | C |
|----------|-----|-----|-----|
| LF1A-A1 | 120 | 92 | 108 |
| LF1A-B1 | 180 | 152 | 168 |
| LF1A-D1 | 300 | 272 | 288 |

All dimensions in mm.

Internal Circuit



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



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