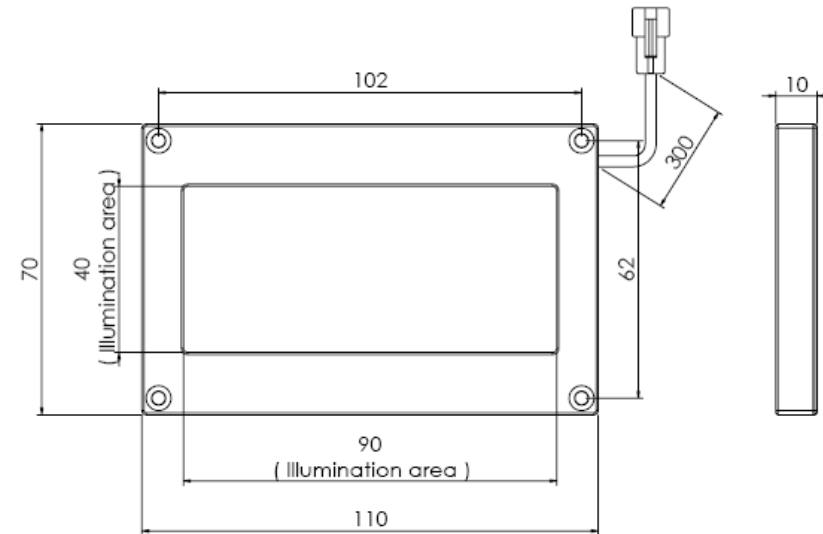


Diffuse Back Light

 **FLFL-Si90X40N**

Lighting Picture

Lighting Dimension



| Mechanical Information | |
|---------------------------|------------------------------|
| Casing Material | Aluminium + Acrylic |
| Storage Temperature Range | Temp 0-35°C, Humidity 20-85% |
| Weight | 130g |
| Lighting Dimension, WxLxH | 110.0 x 70.0 x 10.0 mm |
| IP Rating | N/A |

All unit in mm





| Optical Information | | | | | |
|------------------------------|--------------|--------------------|-----------|----------|----------------|
| Led Color | RED (R/R24) | InfraRed (IR/IR24) | GREEN (G) | BLUE (B) | WHITE (W) |
| Wavelength | 626nm | 850nm | 525nm | 470nm | xy=(0.31,0.32) |
| Illumination (number of LED) | 48/40 | 56 | 42 | 42 | 42 |
| Illumination Area | 90 x 40 mm | | | | |
| Led Package | SMD | | | | |
| Eye Safety (EN 62471:2008) | Exempt Group | | | | |

| Electrical Information | R | IR | R24 | IR24 | G/B/W |
|-------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|
| Lighting Supply Voltage (constant voltage mode) | 12V ± 2% | | 24V ± 2% | | |
| Supply Ripple Voltage | ≤ Vs ± 5% | | | | |
| Reverse Battery Protection | YES | | | | |
| Typical Lighting Forward voltage, Vf (for zero internal resistor value) | 8.8 V | 9.8 V | 22.0 V | 19.6 V | 21.0 V |
| Continuous Current | 0.48A (MAX) | 0.20A (MAX) | 0.16A (MAX) | 0.10A (MAX) | 0.18A (MAX) |
| Power Consumption | 5.76 W | 2.40 W | 3.84 W | 2.40 W | 4.32 W |
| Lighting casing temperature, Operating after 60 minutes | 50°C | 40°C | 42°C | 40°C | 56°C |

| Strobe Mode Specification | R | IR | R24 | IR24 | G/B/W |
|--------------------------------------------------------------|---------------------------------------------------------------------|-------------|---------------------------------------------------------------------|-------------|-------------|
| Max. Lighting Supply Voltage (Constant voltage power supply) | Pulsing at 12VDC to 24VDC, 0-10% Duty Cycle Recommended at 15VDC | | Pulsing at 24VDC to 48VDC, 0-10% Duty Cycle Recommended at 36VDC | | |
| Pulse Current, (Max. 10msec) (Constant current power supply) | 1.20A (MAX) | 0.50A (MAX) | 0.40A (MAX) | 0.25A (MAX) | 0.45A (MAX) |
| Max. Trigger Pulse Duration, msec | 10 msec | | | | |
| Duty Cycle | 0 - 10% | | | | |

| Ordering Option | |
|-------------------------------------|--------------------------------------------------------------------------------------------|
| FLFL-Si90X40N-R/R24/IR/IR24/G/B/W | With resistor to limit the current (Use in both constant voltage/ current power supply) |
| FLFL-Si90X40N-R/R24/IR/IR24/G/B/W-0 | Internal resistor value= zero ohms (only use in constant current power supply) |



| Connection | | R/IR | | | | R24/IR24/G/B/W | | | |
|---------------------------------|-----|-------------|-------------|-------------------------------------------------------------------------------------|-----|----------------|-------------|-------------------------------------------------------------------------------------|--|
| Connector Type (Default): | | JST SMR-02V | | | | JST SMR-03V | | | |
| | Pin | Signal | Cable Color |  | Pin | Signal | Cable Color |  | |
| | 1 | LED + | Black/White | | 1 | LED + | Black/White | | |
| | 2 | LED - | Black | | 2 | N.C. | --- | | |
| | | | | | 3 | LED - | Black | | |
| Cable Length out from lighting: | | 300 mm | | | | | | | |

| Additional Information | R/R24/G/B/W/IR//IR24 |
|--------------------------------------------------------------|------------------------------------------------------|
| Additional Cooling Method | Attached to machine part for better heat dissipation |
| Life span in continuous mode | 20,000 hours |
| Life span in strobe light mode | 50,000 hours |
| Lighting drop to 50% intensity (at 25°C ambient temperature) | |
| Intensity Controller Selection | PSA-Series, PSD-Series, LIC-Series |
| CE Conformity | YES |
| RoHS Compliance | YES |
| ISO 9001:2008 | SG11/03751 |

| Application | |
|--------------------------|-----------|
| Optimal Working Distance | 10-100 mm |



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