



PRODUCT SPECIFICATION

Stack Lights

31

Series

31 Series Stack Lights



| | |
|---|-------|
| Light Color Significance | 1 |
| Specifications | 3 |
| Functional Specification | 4 |
| Model Number Structure - Stack Lights | 5 |
| Model Number Selection | 6 - 7 |
| Accessories..... | 8 |
| Safety Precautions..... | 9 |

31 Series Stack Lights



31 Series Stack Light



WERNER's 31 Series Stack Lights provide the highest quality combined with usability and flexibility in use in the industry. The unique and stylish elliptical body and lens shape guarantees best visibility from any angle. A vast variation of alu die-cast bases ensure to enable you mount them everywhere you need.

Features Overview

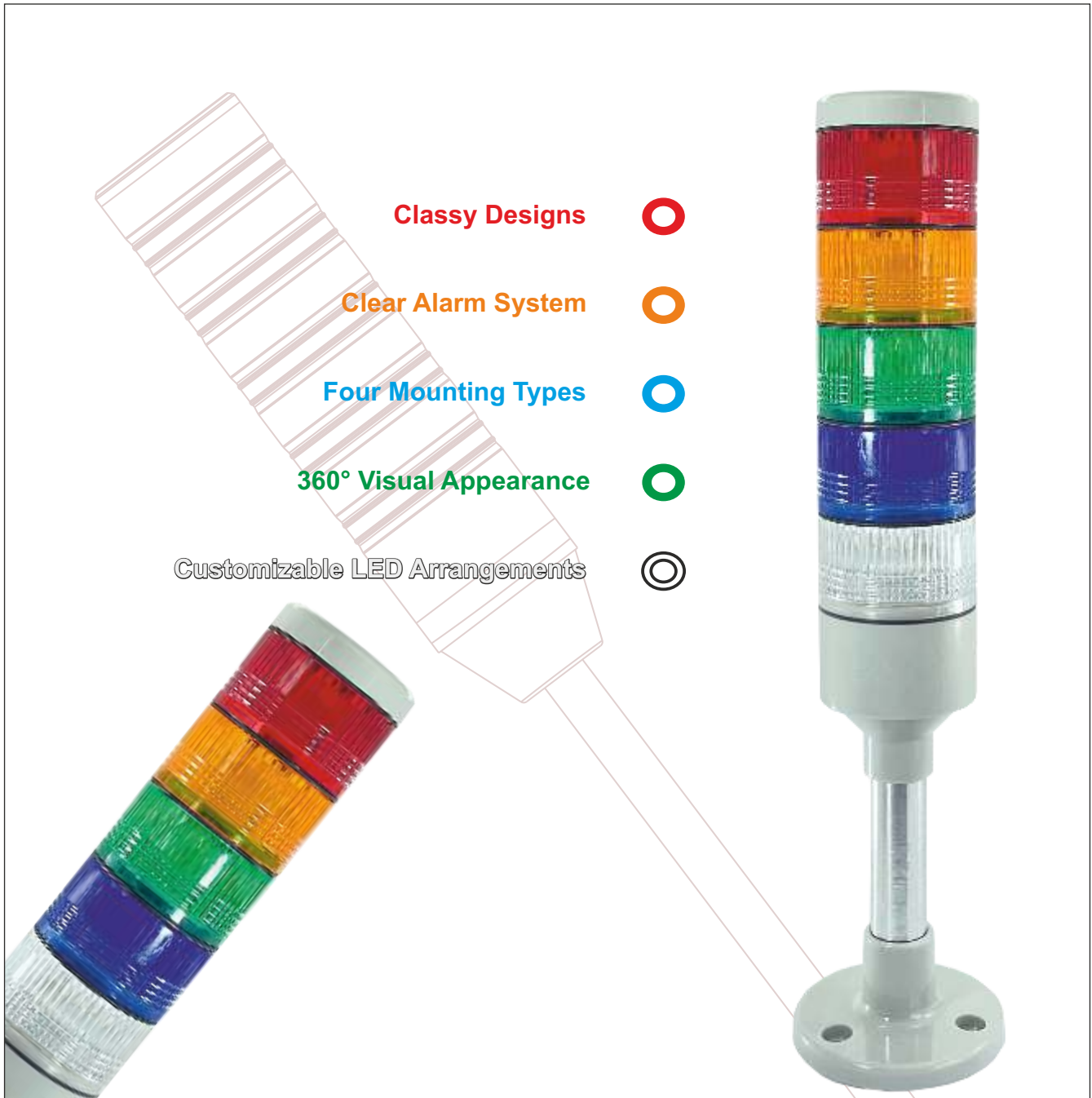
- 5 unique ways of mounting on heavy duty die cast aluminum bases
- Mounting is easy and flexible for maximum visibility
- Available in 12V + 24V(AC&DC), 120V + 240V(AC)
- Standard equipped with integrated buzzer module
- Basic housing available in stylish black and grey
- Completely modular and stackable

Highlights

- Enhanced 360° visibility and attention attraction by industry unique oval lens shape
- Available in six lens colors (red, amber, yellow, green, blue & white)
- Highest visibility by use of High-Bright Multi Chip LED'S only
- New flashing LED modules available for maximum attention
- Custom arrangement of the LED'S is easily possible
- Only top tier materials and design methods used

31 Series Stack Lights by WERNER are the most advanced and stylish designed solution available for all kinds of demanding industrial applications if you need to provide your production team with a clear and conspicuous overview about the operational status of the precious machinery in your production plant.

31 Series Stack Lights



Light Color Significance

| Color | Indication | Description |
|---------------|------------|--|
| RED | Emergency | Hazardous condition (Immediate action to deal with hazardous condition) |
| YELLOW | Abnormal | Abnormal condition, Impending critical condition (Monitoring & Intervention) |
| GREEN | Mandatory | Indication of a condition that requires action by the operator |
| BLUE | Normal | Normal condition |
| WHITE | Neutral | Other conditions may be used whenever doubt exists about the application of Red, Yellow, Green or Blue |

31 Series Stack Lights



Audible & Flashing

31 Series Stack Lights



31 Series Stack Light

Features:

- Completely modular
- Easy To Mount
- Different Mounting Styles
- Built-in buzzer module
- Black & Grey Housing

Over voltage category

III, as per EN IEC 60947-5-1

Approvals

Approbations and Declaration of conformity

CE CE



Specifications

| | | | |
|---------------------------|--|---|-------|
| Safety Standards | IEC60947-5-1, EN60947-5-1, UL508, C22.2 No.14 | | |
| Operating Temperature | -25 to +55°C (no freezing) | | |
| Operating Humidity | 45 to 85% RH (no condensation) | | |
| Storage Temperature | -40 to +75°C (no freezing) | | |
| Over voltage Category | III (IEC60664-1) | | |
| Impulse withstand Voltage | 800V (IEC60947-1) | | |
| Insulation Resistance | 100 MΩ minimum (500V DC) | | |
| Dielectric Strength | Between live and dead parts: 1000V AC, 1 minute | | |
| Pollution Degree | 3 | | |
| Corrosion Immunity | Atmosphere free from corrosive gases | | |
| Vibration Resistance | Operating extremes: 10 to 55Hz, amplitude 0.5 mm | | |
| Shock Resistance | Operating extremes: 147 m/s ² , 6 shocks each in 6 axes | | |
| Housing Color | Black, Gray | | |
| Material | Housing: PC | | |
| | Lens: PC | | |
| | Pole: Aluminum | | |
| | Pole base: PC | | |
| Wire | 22AWG | | |
| Degree of Protection | Steady | Wall mount, Direct mount, Pole mount with base Pole mount with L-Bracket | IP 40 |
| | Flashing/Alarm | Wall mount, Direct mount, Pole mount with base Pole mount with L-Bracket | IP 40 |

Contact Ratings

| | Buzzer | | LED | |
|---------------------|-------------------------------------|--|-------------------------------------|---|
| | AC Contact Capacity (per alarm) | DC Contact Capacity, Transistor Capacity (per alarm) | AC Contact Capacity (per tier) | DC Contact Capacity, Transistor Capacity (per Tier) |
| Current Capacity | 400 mA min | 300 mA min | 100 mA min | 100 mA min |
| Dielectric Strength | 35V AC min | 35V min | 35V AC min | 35V min |
| Leakage Current | - | 0.1mA max. | - | 0.1mA max. |

31 Series Stack Lights



Functional Specification

| | | | | |
|---------------------------|------------------------------|--|-------|------|
| Rated Insulation Voltage | | 60V | | |
| Operating Voltage | | 24V AC/DC $\pm 10\%$ | | |
| Rated Voltage (Ue) | | 24V AC/DC | | |
| LED Color Code | | R (red), Y (yellow), G (green), B (blue), W (white) | | |
| LED Life | | Approx. 30,000 hours (until brightness is reduced to 50% of the initial value in a 25°C operating environment) | | |
| Flashing Cycle (IEC60073) | | Approx. 105 flashes per minute (1.75 Hz) | | |
| LED | Illumination Color | R, Y | B, G | W |
| | Rated Current (per tier) | 25mA | 30mA | 20mA |
| | Power Consumption (per tier) | 0.6W | 0.75W | 0.5W |
| Buzzer | Alarm Cycle | Alarm 1: approx. 700 times per minute Alarm 2: approx. 35 times per minute | | |
| | Current Draw | 110mA max. | | |
| | Inrush Current | AC: 400mA max. DC: 250mA max. | | |
| | Alarm Volume | 70 to 90dB, at 1m (volume adjustable) | | |
| | Acoustic Frequency | Approx. 3.3kHz | | |



Stylish elliptical body and unique lens shape



Six lens color of red, amber, yellow, green, blue & clear



Visual alert modules with New Piezo Buzzer



A special flashing LED is also available



360° Visual Appearance

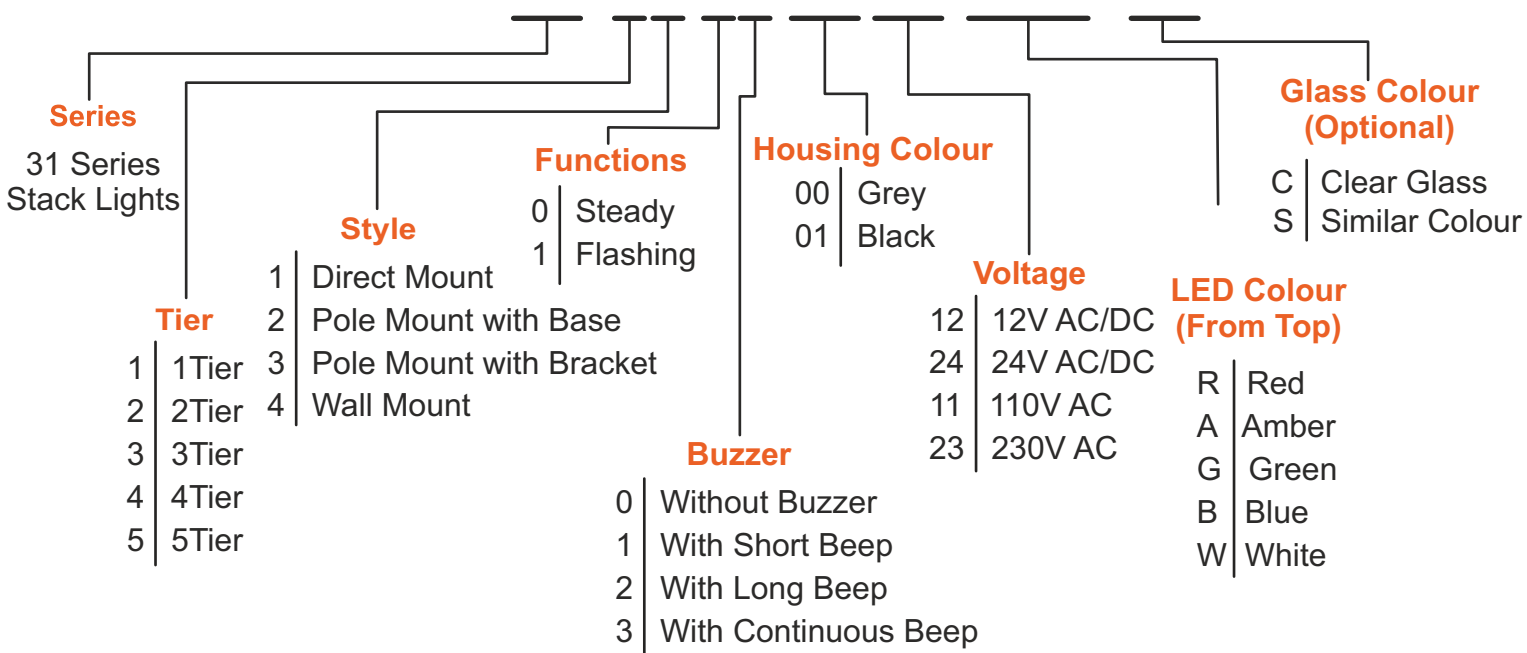
31 Series Stack Lights



Model Number Structure - Stack Lights



31.52.00.00.24-RAG C



31 Series Stack Lights



Model Number Selection

| Housing Color | Mounting Style | Tier | Steady - Model No. | | | | * LED Color Code |
|--------------------|----------------------------|------|--------------------|-----------------|----------------|----------------------|------------------|
| | | | Without Buzzer | With Short Beep | With Long Beep | With Continuous Beep | |
| Black Housing ■ | 1: Wall Mount | 1 | 31.11.00.00-* | 31.11.01.00-* | 31.11.02.00-* | 31.11.03.00-* | R, Y, B, G, W |
| | | 2 | 31.21.00.00-* | 31.21.01.00-* | 31.21.02.00-* | 31.21.03.00-* | RY, RG |
| | | 3 | 31.31.00.00-* | 31.31.01.00-* | 31.31.02.00-* | 31.31.03.00-* | RYB, RYG |
| | | 4 | 31.41.00.00-* | 31.41.01.00-* | 31.41.02.00-* | 31.41.03.00-* | RYBG |
| | | 5 | 31.51.00.00-* | 31.51.01.00-* | 31.51.02.00-* | 31.51.03.00-* | RYBGW |
| | 2: Direct Mount | 1 | 31.12.00.00-* | 31.12.01.00-* | 31.12.02.00-* | 31.12.03.00-* | R, Y, B, G, W |
| | | 2 | 31.22.00.00-* | 31.22.01.00-* | 31.22.02.00-* | 31.22.03.00-* | RY, RG |
| | | 3 | 31.32.00.00-* | 31.32.01.00-* | 31.32.02.00-* | 31.32.03.00-* | RYB, RYG |
| | | 4 | 31.42.00.00-* | 31.42.01.00-* | 31.42.02.00-* | 31.42.03.00-* | RYBG |
| | | 5 | 31.52.00.00-* | 31.52.01.00-* | 31.52.02.00-* | 31.52.03.00-* | RYBGW |
| | 3: Pole Mount With Base | 1 | 31.13.00.00-* | 31.13.01.00-* | 31.13.02.00-* | 31.13.03.00-* | R, Y, B, G, W |
| | | 2 | 31.23.00.00-* | 31.23.01.00-* | 31.23.02.00-* | 31.23.03.00-* | RY, RG |
| | | 3 | 31.33.00.00-* | 31.33.01.00-* | 31.33.02.00-* | 31.33.03.00-* | RYB, RYG |
| | | 4 | 31.43.00.00-* | 31.43.01.00-* | 31.43.02.00-* | 31.43.03.00-* | RYBG |
| | | 5 | 31.53.00.00-* | 31.53.01.00-* | 31.53.02.00-* | 31.53.03.00-* | RYBGW |
| | 4: Pole Mount With Bracket | 1 | 31.14.00.00-* | 31.14.01.00-* | 31.14.02.00-* | 31.14.03.00-* | R, Y, B, G, W |
| | | 2 | 31.24.00.00-* | 31.24.01.00-* | 31.24.02.00-* | 31.24.03.00-* | RY, RG |
| | | 3 | 31.34.00.00-* | 31.34.01.00-* | 31.34.02.00-* | 31.34.03.00-* | RYB, RYG |
| | | 4 | 31.44.00.00-* | 31.44.01.00-* | 31.44.02.00-* | 31.44.03.00-* | RYBG |
| | | 5 | 31.54.00.00-* | 31.54.01.00-* | 31.54.02.00-* | 31.54.03.00-* | RYBGW |

Note: Specify illumination color starting with top tier. * Refer to LED Color Code column (at right corner of the Model No. Selection table)

Model Number Selection

| Housing Color | Mounting Style | Tier | Flashing - Model No. | | | | * LED Color Code |
|--------------------|----------------------------|------|----------------------|-----------------|----------------|----------------------|------------------|
| | | | Without Buzzer | With Short Beep | With Long Beep | With Continuous Beep | |
| Black Housing ■ | 1: Wall Mount | 1 | 31.11.10.00-* | 31.11.11.00-* | 31.11.12.00-* | 31.11.13.00-* | R, Y, B, G, W |
| | | 2 | 31.21.10.00-* | 31.21.11.00-* | 31.21.12.00-* | 31.21.13.00-* | RY, RG |
| | | 3 | 31.31.10.00-* | 31.31.11.00-* | 31.31.12.00-* | 31.31.13.00-* | RYB, RYG |
| | | 4 | 31.41.10.00-* | 31.41.11.00-* | 31.41.12.00-* | 31.41.13.00-* | RYBG |
| | | 5 | 31.51.10.00-* | 31.51.11.00-* | 31.51.12.00-* | 31.51.13.00-* | RYBGW |
| | 2: Direct Mount | 1 | 31.12.10.00-* | 31.12.11.00-* | 31.12.12.00-* | 31.12.13.00-* | R, Y, B, G, W |
| | | 2 | 31.22.10.00-* | 31.22.11.00-* | 31.22.12.00-* | 31.22.13.00-* | RY, RG |
| | | 3 | 31.32.10.00-* | 31.32.11.00-* | 31.32.12.00-* | 31.32.13.00-* | RYB, RYG |
| | | 4 | 31.42.10.00-* | 31.42.11.00-* | 31.42.12.00-* | 31.42.13.00-* | RYBG |
| | | 5 | 31.52.10.00-* | 31.52.11.00-* | 31.52.12.00-* | 31.52.13.00-* | RYBGW |
| | 3: Pole Mount With Base | 1 | 31.13.10.00-* | 31.13.11.00-* | 31.13.12.00-* | 31.13.13.00-* | R, Y, B, G, W |
| | | 2 | 31.23.10.00-* | 31.23.11.00-* | 31.23.12.00-* | 31.23.13.00-* | RY, RG |
| | | 3 | 31.33.10.00-* | 31.33.11.00-* | 31.33.12.00-* | 31.33.13.00-* | RYB, RYG |
| | | 4 | 31.43.10.00-* | 31.43.11.00-* | 31.43.12.00-* | 31.43.13.00-* | RYBG |
| | | 5 | 31.53.10.00-* | 31.53.11.00-* | 31.53.12.00-* | 31.53.13.00-* | RYBGW |
| | 4: Pole Mount With Bracket | 1 | 31.14.10.00-* | 31.14.11.00-* | 31.14.12.00-* | 31.14.13.00-* | R, Y, B, G, W |
| | | 2 | 31.24.10.00-* | 31.24.11.00-* | 31.24.12.00-* | 31.24.13.00-* | RY, RG |
| | | 3 | 31.34.10.00-* | 31.34.11.00-* | 31.34.12.00-* | 31.34.13.00-* | RYB, RYG |
| | | 4 | 31.44.10.00-* | 31.44.11.00-* | 31.44.12.00-* | 31.44.13.00-* | RYBG |
| | | 5 | 31.54.10.00-* | 31.54.11.00-* | 31.54.12.00-* | 31.54.13.00-* | RYBGW |

Note: Specify illumination color starting with top tier. * Refer to LED Color Code column (at right corner of the Model No. Selection table)

Note: Specify "C" after LED color code for clear lens option (refer page no. 5)

31 Series Stack Lights



Model Number Selection

| Housing Color | Mounting Style | Tier | Steady - Model No. | | | | * LED Color Code |
|------------------|----------------------------|------|--------------------|-----------------|----------------|----------------------|------------------|
| | | | Without Buzzer | With Short Beep | With Long Beep | With Continuous Beep | |
| Grey Housing | 1: Wall Mount | 1 | 31.11.00.07-* | 31.11.01.07-* | 31.11.02.07-* | 31.11.03.07-* | R, Y, B, G, W |
| | | 2 | 31.21.00.07-* | 31.21.01.07-* | 31.21.02.07-* | 31.21.03.07-* | RY, RG |
| | | 3 | 31.31.00.07-* | 31.31.01.07-* | 31.31.02.07-* | 31.31.03.07-* | RYB, RYG |
| | | 4 | 31.41.00.07-* | 31.41.01.07-* | 31.41.02.07-* | 31.41.03.07-* | RYBG |
| | | 5 | 31.51.00.07-* | 31.51.01.07-* | 31.51.02.07-* | 31.51.03.07-* | RYBGW |
| | 2: Direct Mount | 1 | 31.12.00.07-* | 31.12.01.07-* | 31.12.02.07-* | 31.12.03.07-* | R, Y, B, G, W |
| | | 2 | 31.22.00.07-* | 31.22.01.07-* | 31.22.02.07-* | 31.22.03.07-* | RY, RG |
| | | 3 | 31.32.00.07-* | 31.32.01.07-* | 31.32.02.07-* | 31.32.03.07-* | RYB, RYG |
| | | 4 | 31.42.00.07-* | 31.42.01.07-* | 31.42.02.07-* | 31.42.03.07-* | RYBG |
| | | 5 | 31.52.00.07-* | 31.52.01.07-* | 31.52.02.07-* | 31.52.03.07-* | RYBGW |
| | 3: Pole Mount With Base | 1 | 31.13.00.07-* | 31.13.01.07-* | 31.13.02.07-* | 31.13.03.07-* | R, Y, B, G, W |
| | | 2 | 31.23.00.07-* | 31.23.01.07-* | 31.23.02.07-* | 31.23.03.07-* | RY, RG |
| | | 3 | 31.33.00.07-* | 31.33.01.07-* | 31.33.02.07-* | 31.33.03.07-* | RYB, RYG |
| | | 4 | 31.43.00.07-* | 31.43.01.07-* | 31.43.02.07-* | 31.43.03.07-* | RYBG |
| | | 5 | 31.53.00.07-* | 31.53.01.07-* | 31.53.02.07-* | 31.53.03.07-* | RYBGW |
| | 4: Pole Mount With Bracket | 1 | 31.14.00.07-* | 31.14.01.07-* | 31.14.02.07-* | 31.14.03.07-* | R, Y, B, G, W |
| | | 2 | 31.24.00.07-* | 31.24.01.07-* | 31.24.02.07-* | 31.24.03.07-* | RY, RG |
| | | 3 | 31.34.00.07-* | 31.34.01.07-* | 31.34.02.07-* | 31.34.03.07-* | RYB, RYG |
| | | 4 | 31.44.00.07-* | 31.44.01.07-* | 31.44.02.07-* | 31.44.03.07-* | RYBG |
| | | 5 | 31.54.00.07-* | 31.54.01.07-* | 31.54.02.07-* | 31.54.03.07-* | RYBGW |

Note: Specify illumination color starting with top tier. * Refer to LED Color Code column (at right corner of the Model No. Selection table)

Model Number Selection

| Housing Color | Mounting Style | Tier | Flashing - Model No. | | | | * LED Color Code |
|------------------|----------------------------|------|----------------------|-----------------|----------------|----------------------|------------------|
| | | | Without Buzzer | With Short Beep | With Long Beep | With Continuous Beep | |
| Grey Housing | 1: Wall Mount | 1 | 31.11.10.07-* | 31.11.11.07-* | 31.11.12.07-* | 31.11.13.07-* | R, Y, B, G, W |
| | | 2 | 31.21.10.07-* | 31.21.11.07-* | 31.21.12.07-* | 31.21.13.07-* | RY, RG |
| | | 3 | 31.31.10.07-* | 31.31.11.07-* | 31.31.12.07-* | 31.31.13.07-* | RYB, RYG |
| | | 4 | 31.41.10.07-* | 31.41.11.07-* | 31.41.12.07-* | 31.41.13.07-* | RYBG |
| | | 5 | 31.51.10.07-* | 31.51.11.07-* | 31.51.12.07-* | 31.51.13.07-* | RYBGW |
| | 2: Direct Mount | 1 | 31.12.10.07-* | 31.12.11.07-* | 31.12.12.07-* | 31.12.13.07-* | R, Y, B, G, W |
| | | 2 | 31.22.10.07-* | 31.22.11.07-* | 31.22.12.07-* | 31.22.13.07-* | RY, RG |
| | | 3 | 31.32.10.07-* | 31.32.11.07-* | 31.32.12.07-* | 31.32.13.07-* | RYB, RYG |
| | | 4 | 31.42.10.07-* | 31.42.11.07-* | 31.42.12.07-* | 31.42.13.07-* | RYBG |
| | | 5 | 31.52.10.07-* | 31.52.11.07-* | 31.52.12.07-* | 31.52.13.07-* | RYBGW |
| | 3: Pole Mount With Base | 1 | 31.13.10.07-* | 31.13.11.07-* | 31.13.12.07-* | 31.13.13.07-* | R, Y, B, G, W |
| | | 2 | 31.23.10.07-* | 31.23.11.07-* | 31.23.12.07-* | 31.23.13.07-* | RY, RG |
| | | 3 | 31.33.10.07-* | 31.33.11.07-* | 31.33.12.07-* | 31.33.13.07-* | RYB, RYG |
| | | 4 | 31.43.10.07-* | 31.43.11.07-* | 31.43.12.07-* | 31.43.13.07-* | RYBG |
| | | 5 | 31.53.10.07-* | 31.53.11.07-* | 31.53.12.07-* | 31.53.13.07-* | RYBGW |
| | 4: Pole Mount With Bracket | 1 | 31.14.10.07-* | 31.14.11.07-* | 31.14.12.07-* | 31.14.13.07-* | R, Y, B, G, W |
| | | 2 | 31.24.10.07-* | 31.24.11.07-* | 31.24.12.07-* | 31.24.13.07-* | RY, RG |
| | | 3 | 31.34.10.07-* | 31.34.11.07-* | 31.34.12.07-* | 31.34.13.07-* | RYB, RYG |
| | | 4 | 31.44.10.07-* | 31.44.11.07-* | 31.44.12.07-* | 31.44.13.07-* | RYBG |
| | | 5 | 31.54.10.07-* | 31.54.11.07-* | 31.54.12.07-* | 31.54.13.07-* | RYBGW |

Note: Specify illumination color starting with top tier. * Refer to LED Color Code column (at right corner of the Model No. Selection table)

Note: Specify "C" after LED color code for clear lens option (refer page no. 5)

31 Series Stack Lights



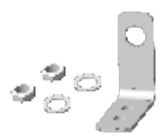
Accessories

Mounting Parts Let in

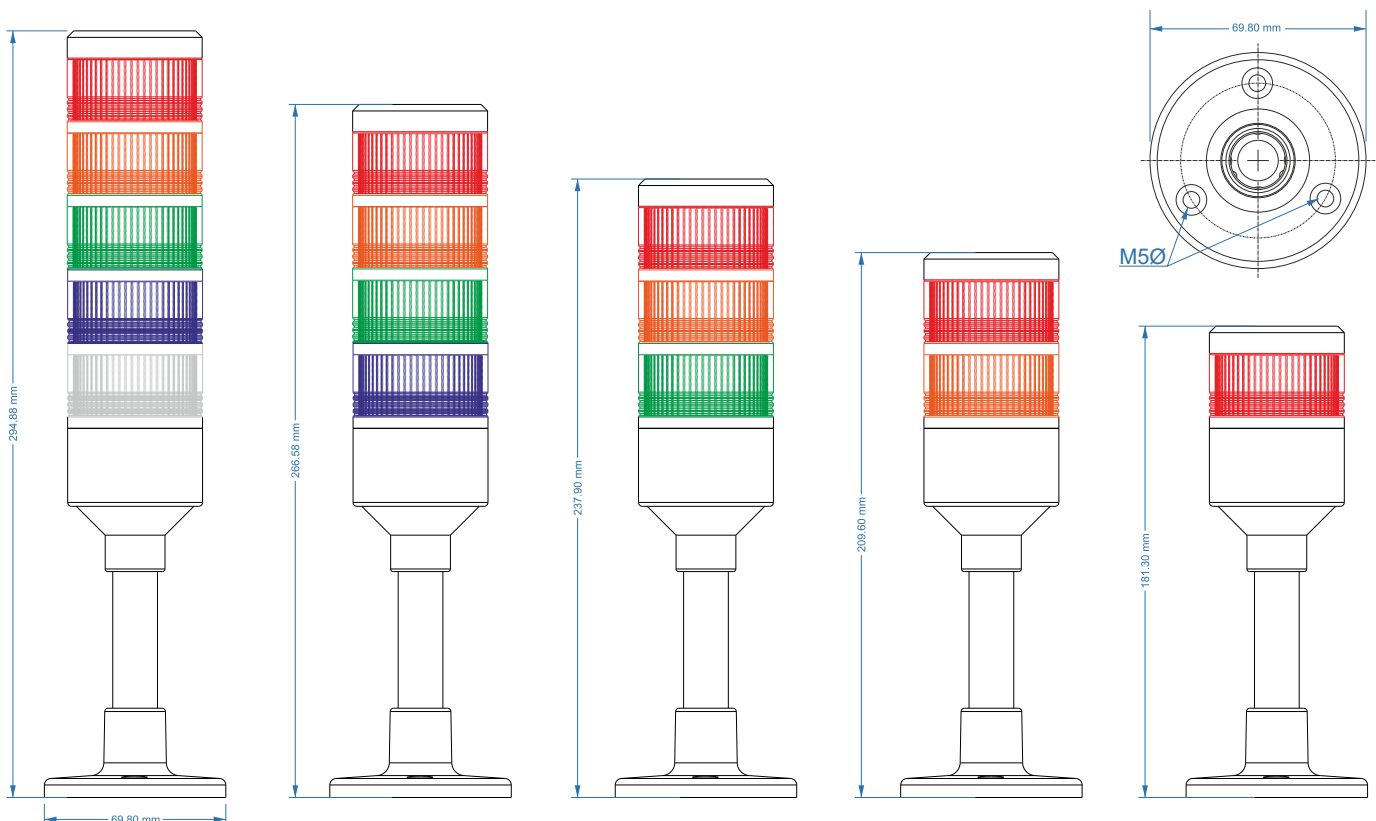
| Mounting Style | Supplied Parts |
|--------------------------|--|
| 1 : Direct Mount | M5 screw (4 pcs), M5 spring washer (4 pcs), M5 plain washer (4pcs), M5 nut (4 pcs), O-ring (4 pcs), gasket (1 pc) |
| 2 : Pole Mount with Base | M5 screw (4 pcs), M5 spring washer (4 pcs), M5 plain washer (4 pcs), M5 nut (4 pcs), O-ring (4 pcs), gasket (1 pc) |

Combination of LED & Lens

| LED Color | Color Lens Type | Clear Lens Type |
|------------|-----------------|-----------------|
| R : Red | Red Lens | Clear Lens |
| Y : Yellow | Yellow Lens | Clear Lens |
| B : Blue | Blue Lens | Clear Lens |
| G : Green | Green Lens | Clear Lens |
| W : White | White Lens | Clear Lens |

| Description | Model No. | | Style |
|-------------|---------------|--------------|---|
| | Black Housing | Grey Housing | |
| L - Bracket | 31.08.00 | |  |

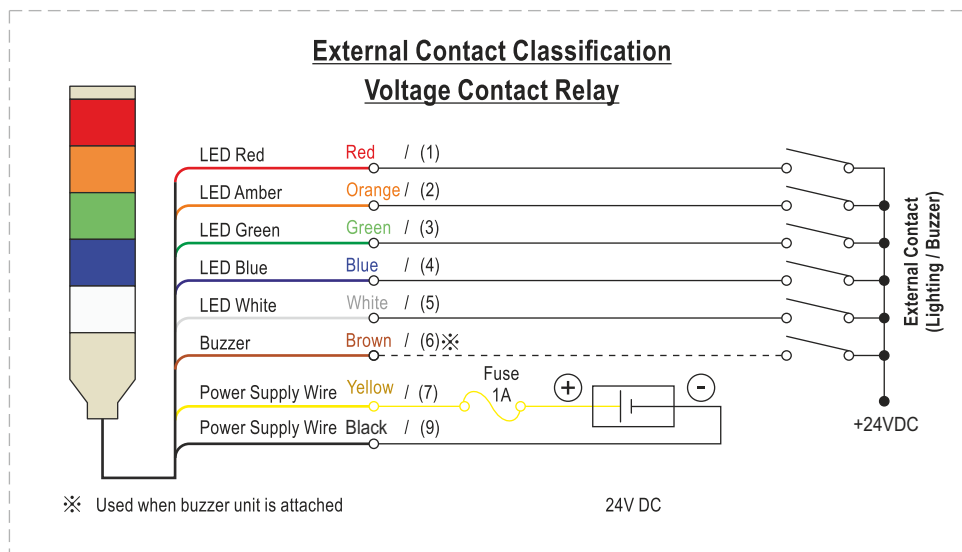
Dimensions



31 Series Stack Lights



Wiring Examples



Safety Precautions

- Do not loosen any screws.
- Turn off the power to the 31 Series Stack Lights for wiring, mounting, assembling or removing.
- Do not leave the 31 Series without a cap or unassembled.
- Make sure the wiring is done correctly else electrical shock or fire hazard may result.
- Do not mount the 31 Series upside-down or horizontally.
- Do not apply any chemicals that may corrode the plastic materials.
- Install the supplied gasket, or else the waterproof seal will be compromised
- The hexagon socket screw may become loose if the 31 Series is subjected to strong vibrations.
- Take measures to prevent loosening.

• DIRECT MOUNTING

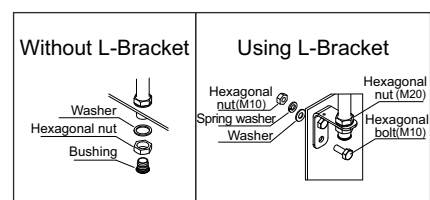
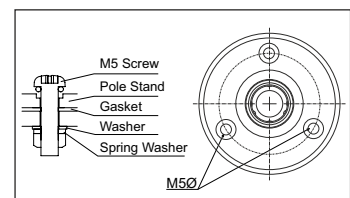
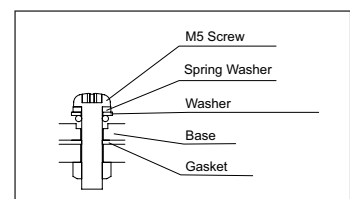
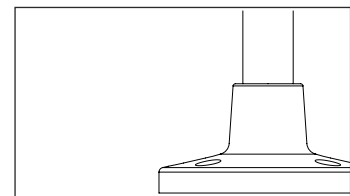
Recommended tightening torque:
2.5 to 2.8 N·m

• POLE MOUNTING WITH BASE

The pole mount type can be installed in four ways that has been mentioned in "Dimensions" section which is described below.
Recommended tightening torque: 2.5 to 2.8 N·m (M5 screw)

• POLE MOUNTING WITH L-BRACKET

Recommended tightening torque: 10 to 12 N·m (M10)
Recommended tightening torque: 24 to 27 N·m (M20)
Not using L- Bracket
Remove the hexagonal nut (M20), bushing, plain washer and L- Bracket from the 31 Series and install in the following order:
plain washer
hexagonal nut (M20)
and bushing.
Recommended tightening torque: 24 to 27 N·m (M20)



31 Series Stack Lights



Terms And Conditions

Please read this catalog before purchasing any products. Please consult your *WERNER* representative for any clarifications or comments.

Application Considerations

WERNER shall not be responsible for conformity with any regulations, codes or standards that apply to use of the products. *WERNER* shall provide applicable third party certification documents identifying ratings and limitations of use that apply to the products in case of the customer's request.

Prevent use the products for an application involving risk to life or property. Be sure that the *WERNER*'s products are properly rated and installed for the overall system or equipment.

WERNER shall not be responsible for the user's programming of a programmable products.

Warranty

WERNER's warranty represents that the products are free from defects in materials and workmanship for a period of one year.

WERNER shall not be responsible for any special loss of profit, commercial loss, indirect or consequential damages relevant to products.

WERNER shall not be responsible for repair, warranty or any claims regarding the products unless *WERNER*'s Analysis confirm that the products were properly stored, installed, handled, maintained and not a result of accident, insufficient, abuse, misuse, natural disaster, improper installation excessive electrical supply, environmental conditions or abnormal mechanical.

Disclaimers

WERNER shall practice to change type/model numbers when published ratings or features are changed, however some specifications of the products may be changed without any notice.

When in doubt, please consult with your *WERNER* representative to confirm actual specifications of products.

WERNER shall change product specifications and accessories at any time based on improvements and other reasons.

The information in this catalog has been carefully checked. However, *WERNER* take no responsibilities for clerical, typographical or proofreading errors.

WERNER
Electric | **Inventing Innovation**

Product specifications are subject to change without notice.

Thank you for choosing *WERNER* products.

Living Industrial Partnerships

WERNER

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