

## Datasheet

### Preassembled Indicators for Signaling Applications



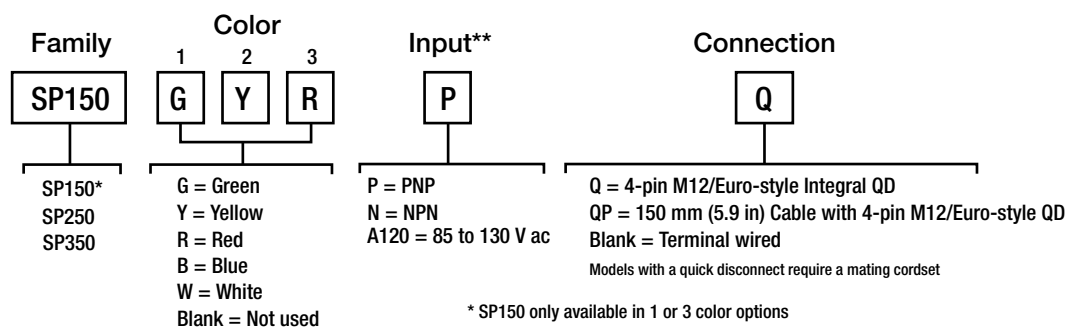
- Intense levels of light output for outdoor applications
- Controlled field of view for signage and narrow lane use
- Rugged, cost-effective and easy-to-install
- Compact devices are completely self-contained — no controller needed
- Immune to EMI and RFI interference
- NPN or PNP input, and 15 V dc to 30 V dc or 85 V ac to 130 V ac operation, depending on model
- One, two, or three indicators
- Sun shield included



#### WARNING: Not To Be Used for Personnel Protection

Never use this device as a sensing device for personnel protection. Doing so could lead to serious injury or death. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

## Models



\* SP150 only available in 1 or 3 color options

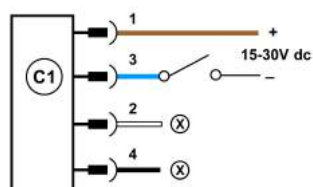
SP150 1 color models available as PNP only

\*\* A120 models are only available with terminal-wired connection

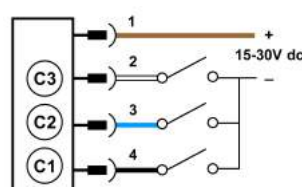
\*\* Input is PNP/NPN selectable depending on wiring

## Wiring Diagrams — NPN QD Models

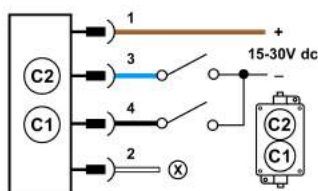
SP150XNQ (1-Color Models)



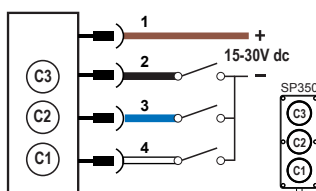
SP150XXXNQ (3-Color Models)



SP250XXNQ (2-Color Models)



SP350XXNQ (3-Color Models)

**Wiring Key:**

- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black

(X) indicates Not Used

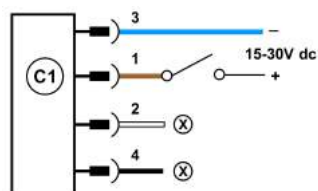
C1 = Color 1

C2 = Color 2

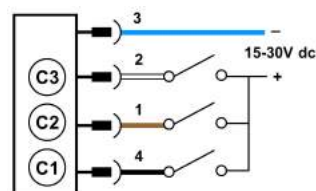
C3 = Color 3

## Wiring Diagrams — PNP QD Models

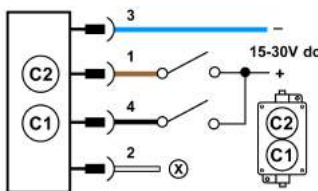
SP150XPQ (1-Color Models)



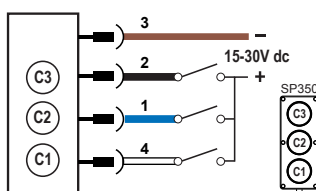
SP150XXXPQ (3-Color Models)



SP250XXPQ (2-Color Models)



SP350XXPQ (3-Color Models)

**Wiring Key:**

- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black

(X) indicates Not Used

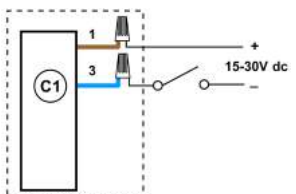
C1 = Color 1

C2 = Color 2

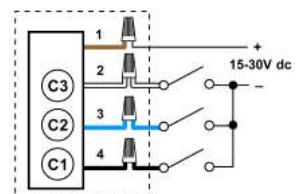
C3 = Color 3

## Wiring Diagrams — NPN Terminal-Wired Models

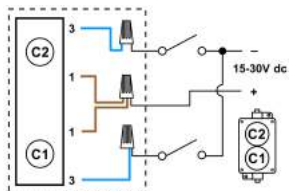
SP150XN (1-Color Models)



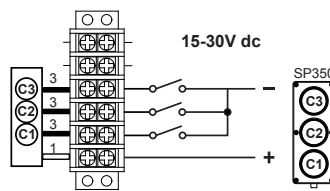
SP150XXXN (3-Color Models)



SP250XN (2-Color Models)



SP350XXXN (3-Color Models)

**Wiring Key:**

- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black

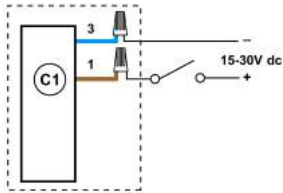
C1 = Color 1

C2 = Color 2

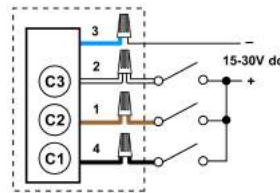
C3 = Color 3

## Wiring Diagrams — PNP Terminal-Wired Models

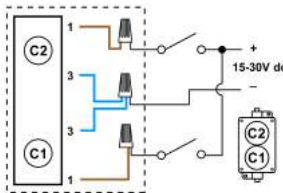
**SP150XP (1-Color Models)**



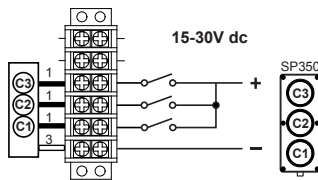
**SP150XXXP (3-Color Models)**



**SP250XXP (2-Color Models)**



**SP350XXXP (3-Color Models)**



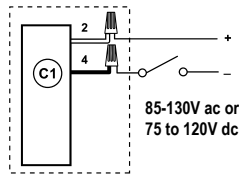
**Wiring Key:**

- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black

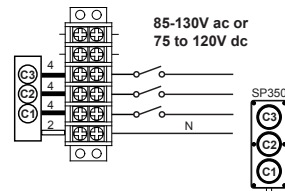
- C1 = Color 1
- C2 = Color 2
- C3 = Color 3

## Wiring Diagrams — AC Models

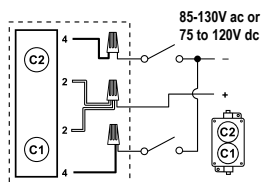
**SP150XA120 (1-Color Models)**



**SP350XXXA120 (3-Color Models)**



**SP250XXA120 (2-Color Models)**



**Wiring Key:**

- 2 = White
- 4 = Black

- C1 = Color 1
- C2 = Color 2
- C3 = Color 3
- N = Neutral

## Specifications

### Supply Voltage and Current

#### SP150 DC Models

- 1-Color: 15 V dc to 30 V dc at 120 mA max. per LED color
- 3-Color: 15 V dc to 30 V dc at 40 mA max. per LED color



**Note:** SP150 3-color available as DC model only

#### SP250/SP350 DC Models

- 15 V to 30 V dc at 120 mA maximum per LED color

#### SP150/SP250/SP350 AC Models

- 85 V ac to 130 V ac or 75 V dc to 120 V dc at 16 mA maximum per LED color

### Indicators

LED colors are independently selected, depending on model

### Indicator Response Time

Indicator ON/OFF: 10 ms maximum

### Indicator Characteristics

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Lumen Output (Typical at 25 °C)	
		SP150 (1-color), SP250 and SP350 Models	SP150 (3-color) Model
Green	520-535 nm	57.0	21.0
Red	618-630 nm	20.0	7.0
Yellow	584-594 nm	14.0	6.0
Blue	465-480 nm	12.0	4.5
White	4600-16000K	20.0	13.0

### Certifications



### Construction

Polycarbonate

### Environmental Rating

Fully encapsulated. Terminal-wired models must have cover screws tightened and use watertight compression fitting to meet environmental ratings.

Electronics: IEC IP67  
 SP150 Enclosure: IEC IP67  
 SP250 Enclosure: IEC IP65  
 SP350 Enclosure: IEC IP65

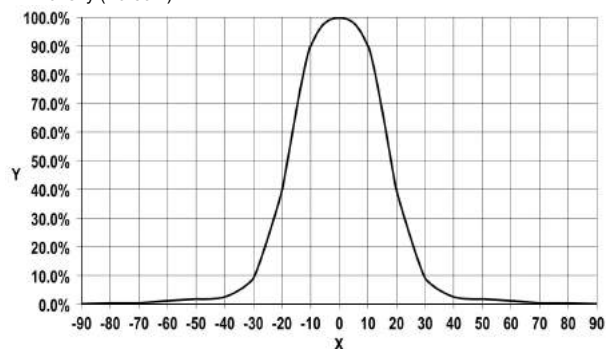
### Operating Conditions

-40 °C to +50 °C (-40 °F to +122 °F)

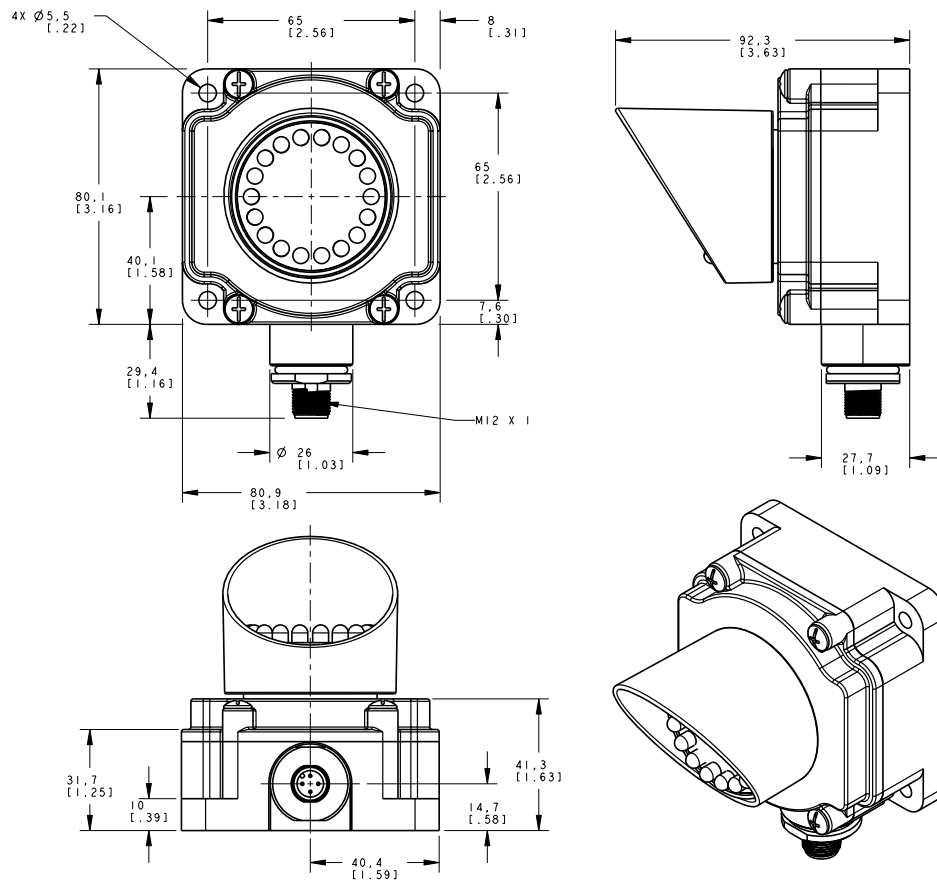
### Percent of Maximum Intensity vs Viewing Angle

X: Viewing Angle (Degree)

Y: Intensity (Percent)



## Dimensions — SP150 Models

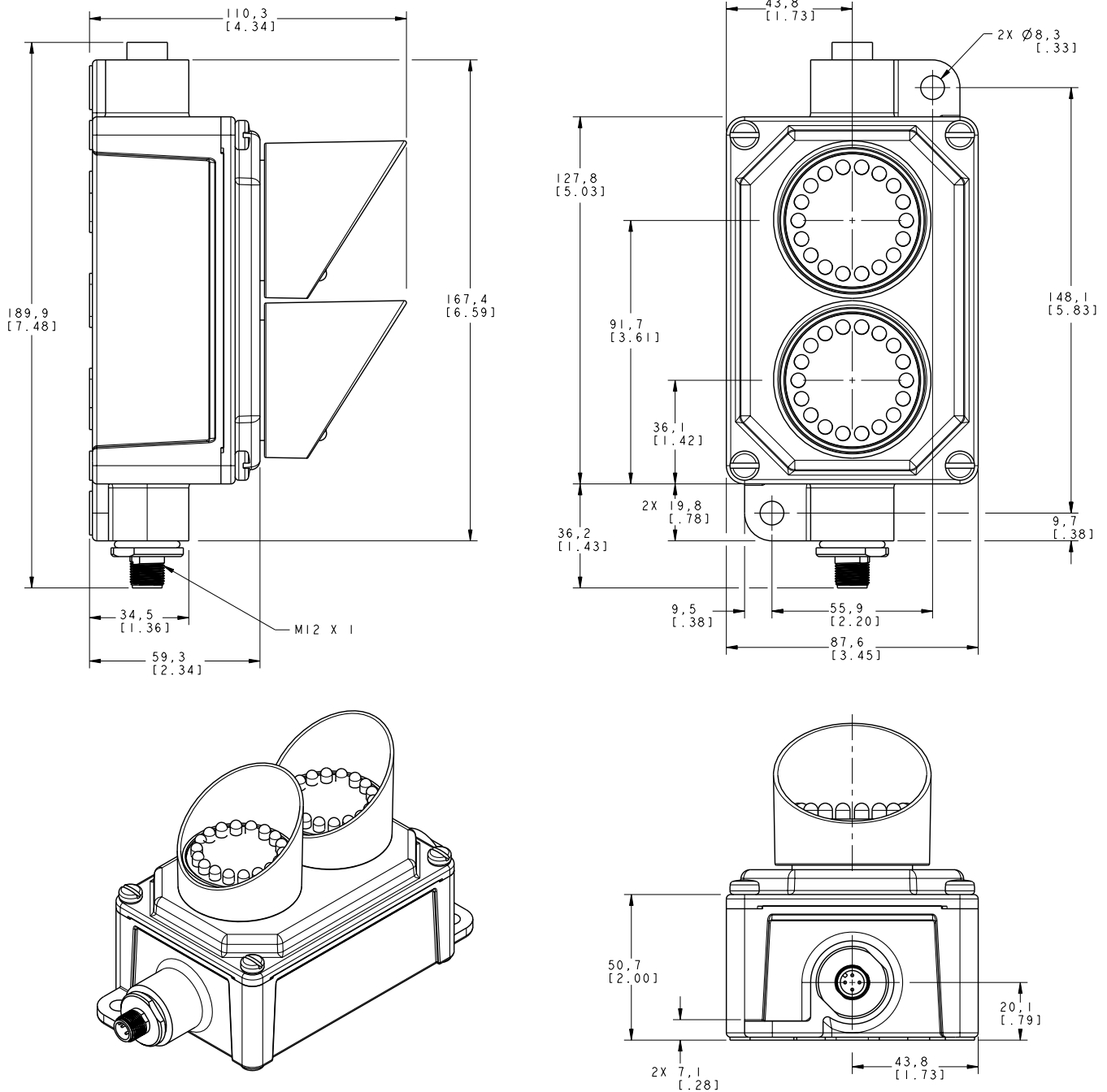


All measurements are listed in millimeters [inches], unless noted otherwise.



**Note:** Terminal-wired models have ½ inch NPT port in place of M12/Euro-style connector.

## Dimensions — SP250 Models



All measurements are listed in millimeters [inches], unless noted otherwise.



**Note:** Terminal-wired models have ½ inch NPT port in place of M12/Euro-style connector.



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