

Datasheet

Preassembled Indicators for Signaling Applications



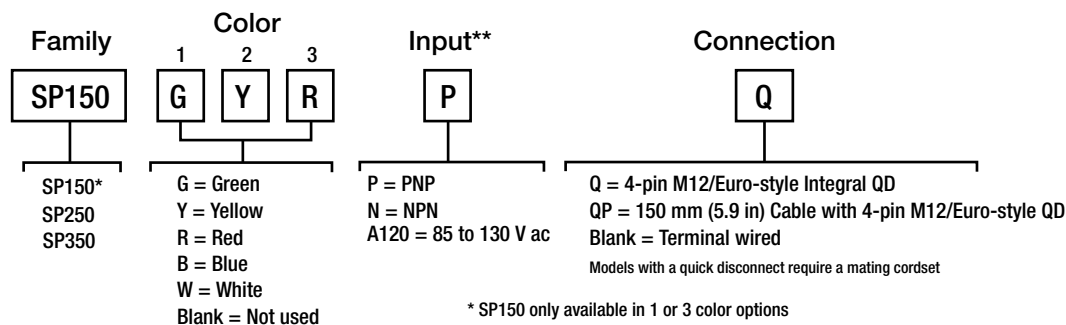
- Intense levels of light output for outdoor applications
- Controlled field of view for signage and narrow lane use
- Rugged, cost-effective and easy-to-install
- Compact devices are completely self-contained — no controller needed
- Immune to EMI and RFI interference
- NPN or PNP input, and 15 V dc 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

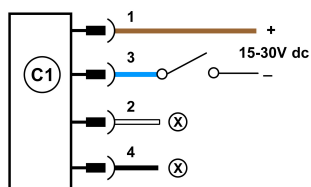
SP150 1 color models available as PNP only

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

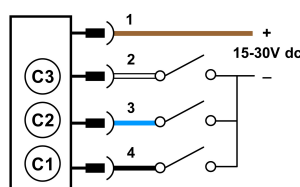
** Input is PNP/NPN selectable depending on wiring

Wiring Diagrams — NPN QD Models

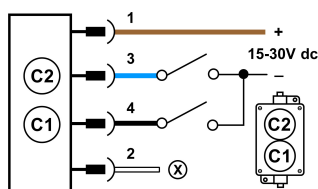
SP150XNQ (1-Color Models)



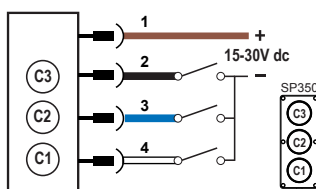
SP150XXXNQ (3-Color Models)



SP250XXNQ (2-Color Models)



SP350XXNQ (3-Color Models)

**Wiring Key:**

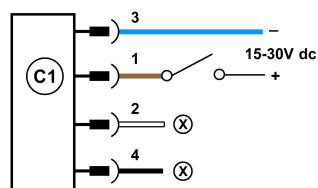
- 1 = Brown
2 = White
3 = Blue
4 = Black

(X) indicates Not Used

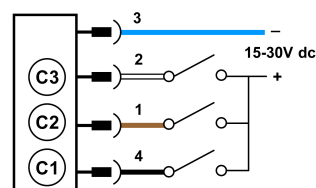
C1 = Color 1
C2 = Color 2
C3 = Color 3

Wiring Diagrams — PNP QD Models

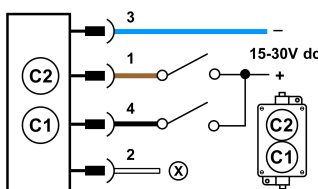
SP150XPQ (1-Color Models)



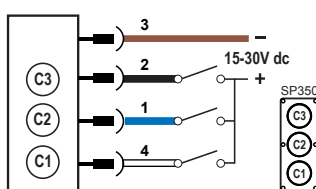
SP150XXXPQ (3-Color Models)



SP250XXPQ (2-Color Models)



SP350XXPQ (3-Color Models)

**Wiring Key:**

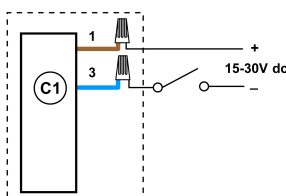
- 1 = Brown
2 = White
3 = Blue
4 = Black

(X) indicates Not Used

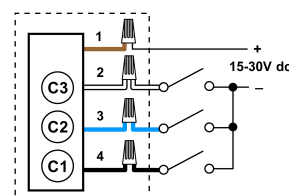
C1 = Color 1
C2 = Color 2
C3 = Color 3

Wiring Diagrams — NPN Terminal-Wired Models

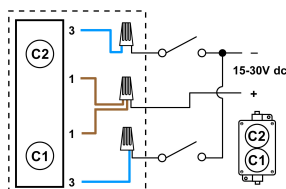
SP150XN (1-Color Models)



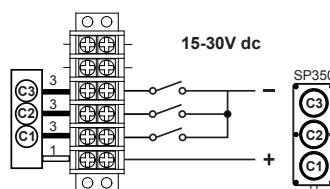
SP150XXXN (3-Color Models)



SP250XN (2-Color Models)



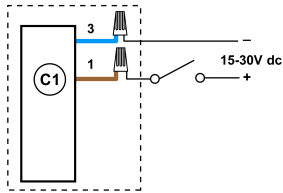
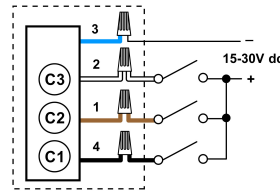
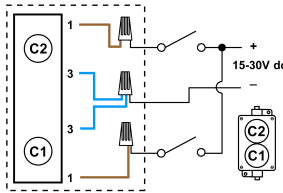
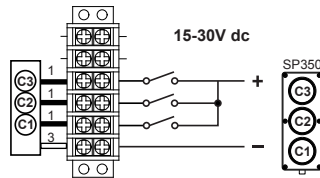
SP350XXXN (3-Color Models)

**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:

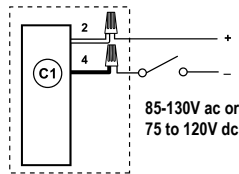
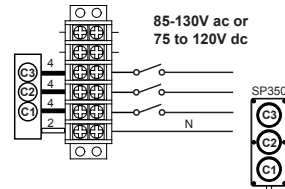
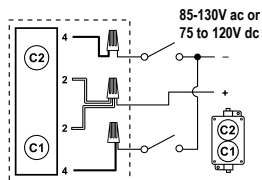
- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black

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

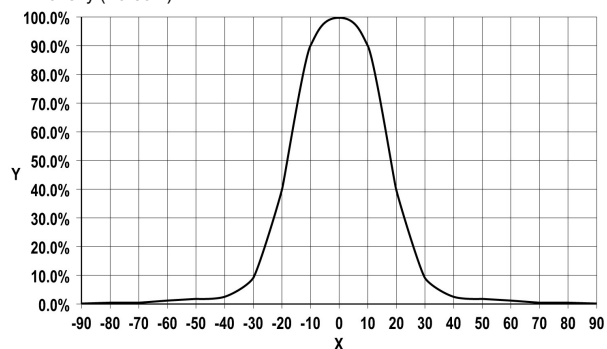
Operating Conditions

-40 °C to +50 °C (-40 °F to +122 °F)

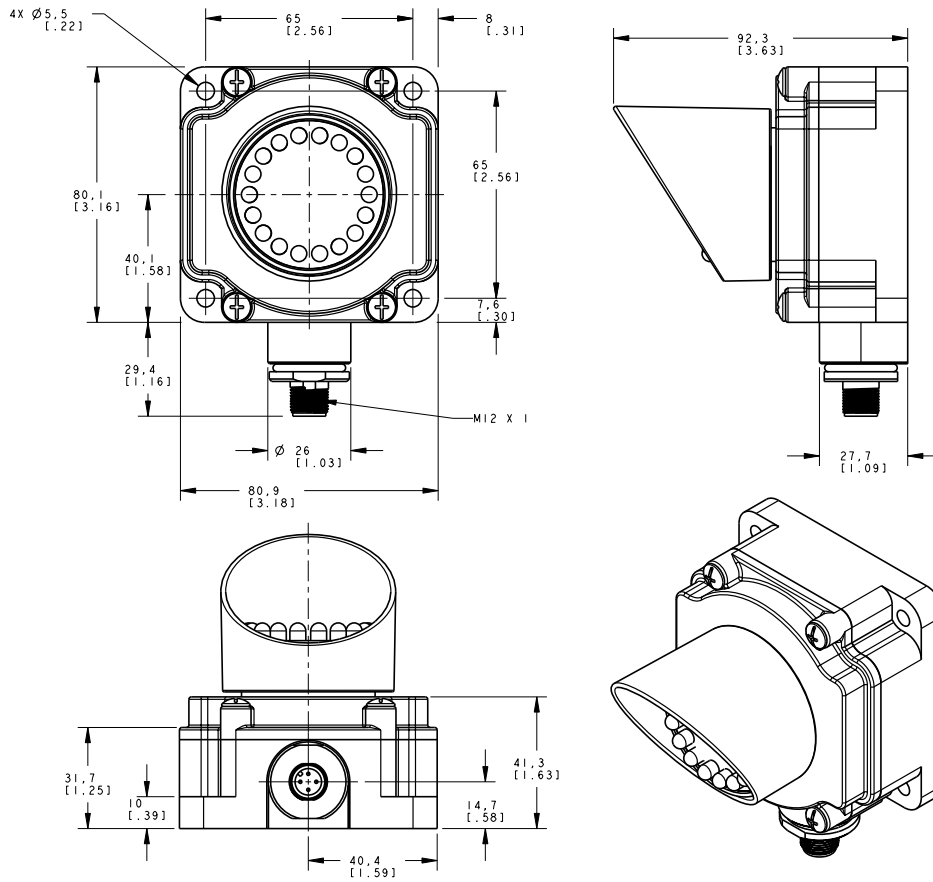
Percent of Maximum Intensity vs Viewing Angle

X: Viewing Angle (Degree)

Y: Intensity (Percent)



Dimensions — SP150 Models

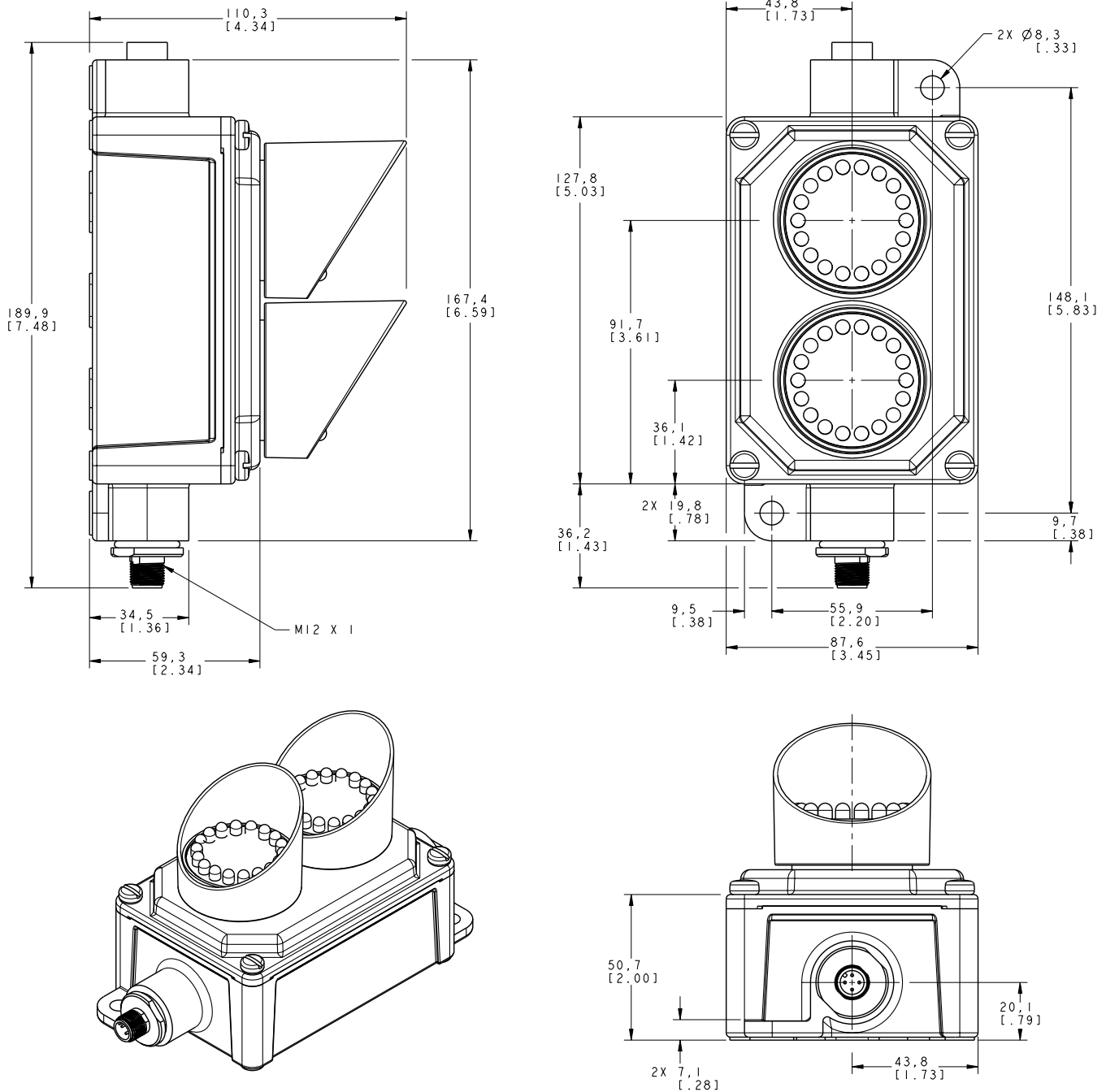


All measurements are listed in millimeters [inches], unless noted otherwise.



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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