

Datasheet

Preassembled Indicators for Signaling Applications



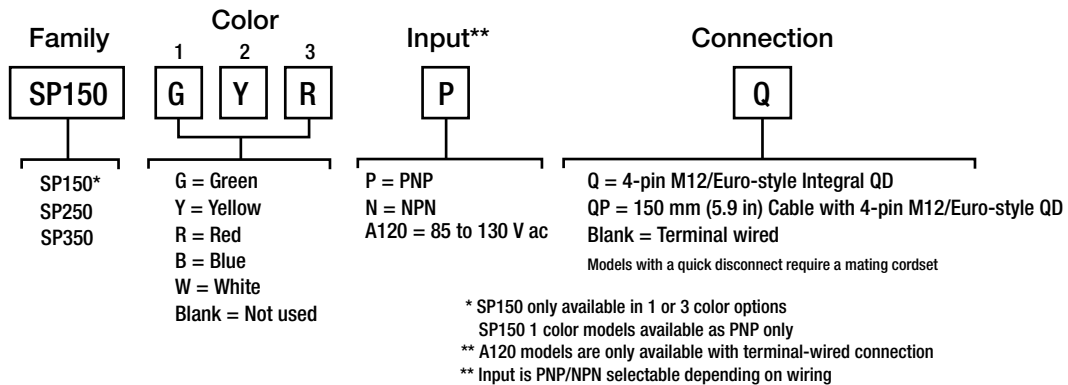
- Intense levels of light output for outdoor applications
- Controlled field of view for signage and narrow lane use
- Rugged, cost-effective and easy-to-install
- Compact devices are completely self-contained — no controller needed
- Immune to EMI and RFI interference
- NPN or PNP input, and 15 V dc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

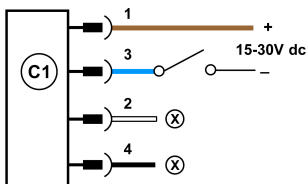
Never use this device as a sensing device for personnel protection. Doing so could lead to serious injury or death. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized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

Models

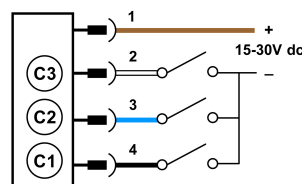


Wiring Diagrams — NPN QD Models

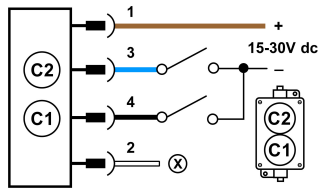
SP150XNQ (1-Color Models)



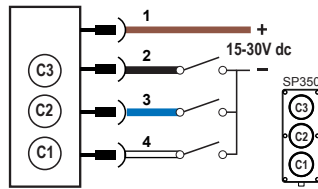
SP150XXXNQ (3-Color Models)



SP250XXNQ (2-Color Models)



SP350XXXNQ (3-Color Models)



Wiring Key:

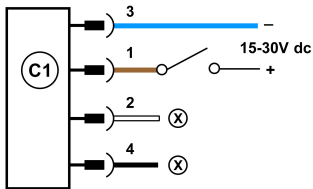
- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black

(X) indicates Not Used

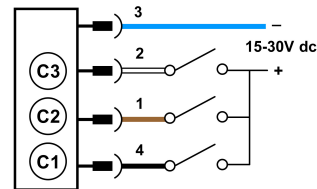
- C1 = Color 1
- C2 = Color 2
- C3 = Color 3

Wiring Diagrams — PNP QD Models

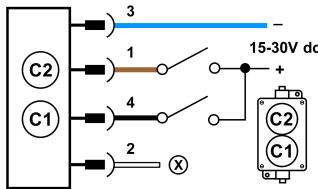
SP150XPQ (1-Color Models)



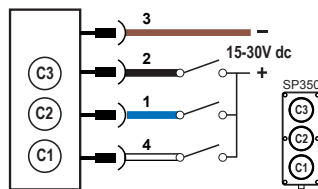
SP150XXXPQ (3-Color Models)



SP250XXPQ (2-Color Models)



SP350XXXPQ (3-Color Models)



Wiring Key:

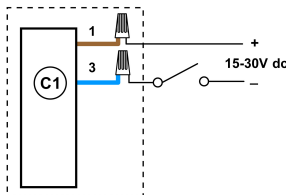
- 1 = Brown
- 2 = White
- 3 = Blue
- 4 = Black

(X) indicates Not Used

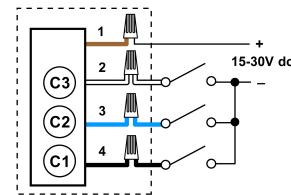
- C1 = Color 1
- C2 = Color 2
- C3 = Color 3

Wiring Diagrams — NPN Terminal-Wired Models

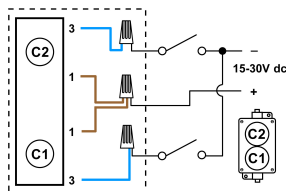
SP150XN (1-Color Models)



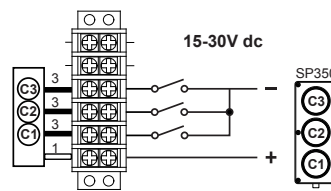
SP150XXXN (3-Color Models)



SP250XN (2-Color Models)



SP350XXXN (3-Color Models)



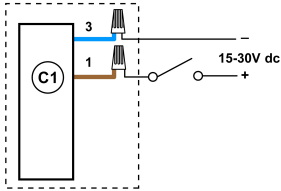
Wiring Key:

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

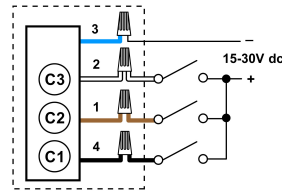
- C1 = Color 1
- C2 = Color 2
- C3 = Color 3

Wiring Diagrams — PNP Terminal-Wired Models

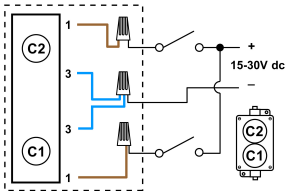
SP150XP (1-Color Models)



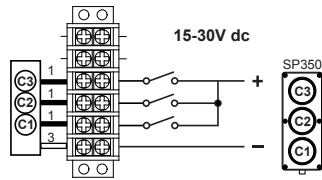
SP150XXP (3-Color Models)



SP250XXP (2-Color Models)



SP350XXP (3-Color Models)



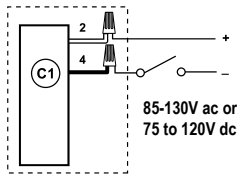
Wiring Key:

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

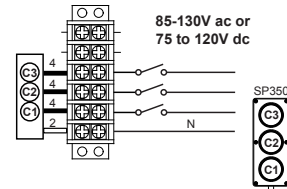
- C1 = Color 1
- C2 = Color 2
- C3 = Color 3

Wiring Diagrams — AC Models

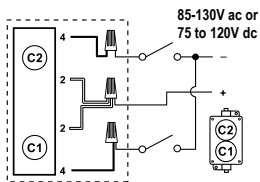
SP150XA120 (1-Color Models)



SP350XXA120 (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

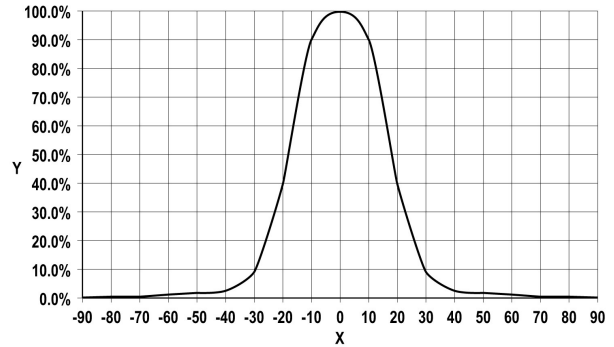
Operating Conditions

-40 °C to +50 °C (-40 °F to +122 °F)

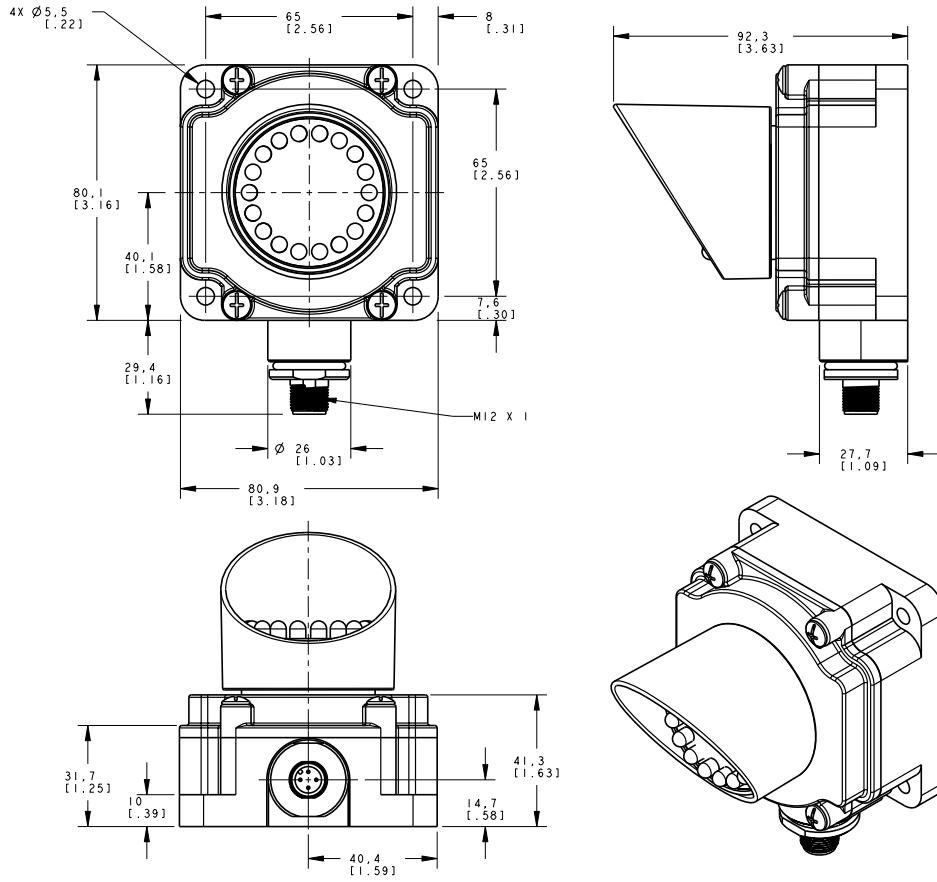
Percent of Maximum Intensity vs Viewing Angle

X: Viewing Angle (Degree)

Y: Intensity (Percent)



Dimensions — SP150 Models

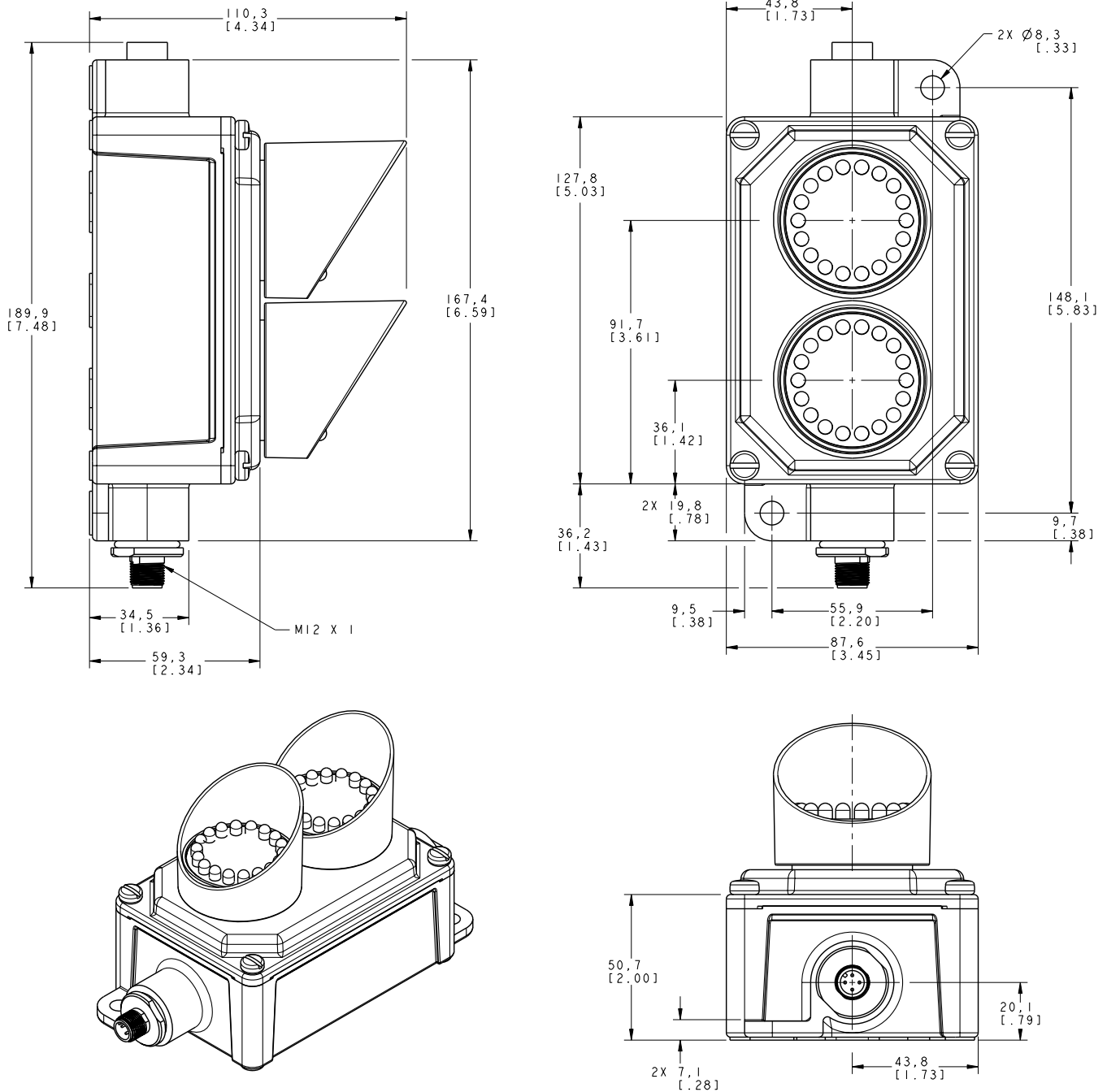


All measurements are listed in millimeters [inches], unless noted otherwise.



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

Dimensions — SP250 Models

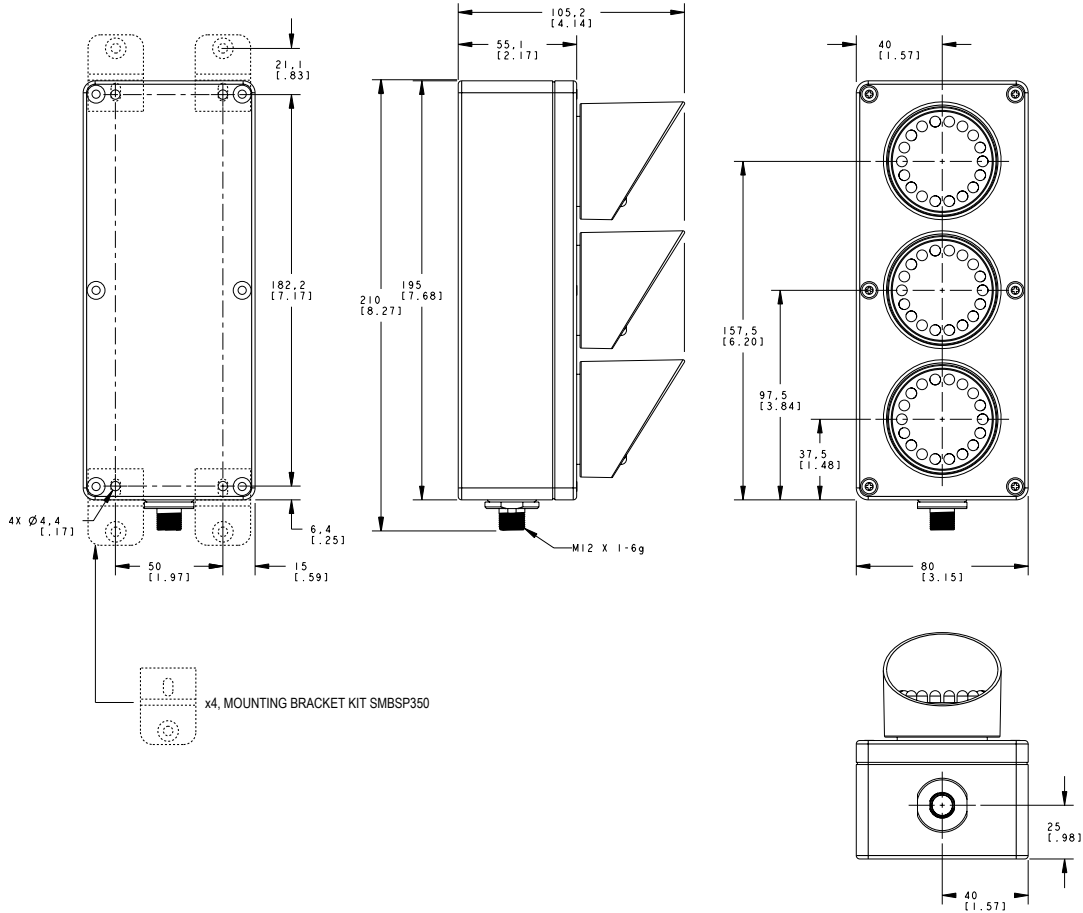


All measurements are listed in millimeters [inches], unless noted otherwise.



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

Dimensions — SP350 Models



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



Note: Terminal-wired models have access hole for ½ inch conduit fitting in place of M12/Euro-style connector. Mounting kit SMBSP350 included.

Accessories

Brackets

Model			Features	Components
Polished 304 Stainless Steel	Black Anodized Aluminum	Clear Anodized Aluminum	<ul style="list-style-type: none"> Elevated-use stand-off pipe (½ in. NPSM/DN15) Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface ½ in. NPT thread at both ends Compatible with most industrial environments 	
SOP-E12-150SS 150 mm (6 in) long	SOP-E12-150A 150 mm (6 in) long	SOP-E12-150AC 150 mm (6 in) long		
SOP-E12-300SS 300 mm (12 in) long	SOP-E12-300A 300 mm (12 in) long	SOP-E12-300AC 300 mm (12 in) long		
SOP-E12-900SS 900 mm (36 in) long	SOP-E12-900A 900 mm (36 in) long	SOP-E12-900AC 900 mm (36 in) long		
SA-E12M30 - Black Acetal			<ul style="list-style-type: none"> Streamlined black acetal or white UHMW mounting base adapter/cover Connects between ½ in. NPSM/DN15 pipe and 30 mm (1-3/16 in) drilled hole Mounting hardware included 	
SA-E12M30C - White UHMW				

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