EZ-LIGHT® SP Series Signal Light

BANNER ®
more sensors, more solutions

Datasheet
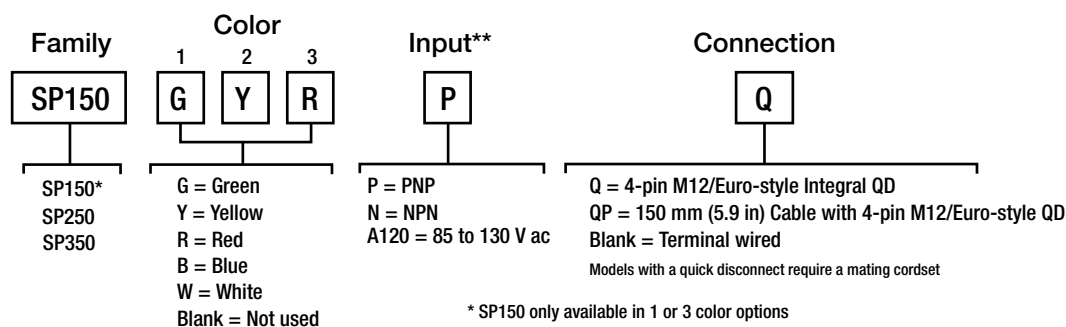
Preassembled Indicators for Signaling Applications

- 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 interface
- 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

Family	Color			Input**	Connection
	1	2	3		
SP150	G	Y	R	P	Q

SP150*
SP250
SP350

G = Green
Y = Yellow
R = Red
B = Blue
W = White
Blank = Not used

P = PNP
N = NPN
A120 = 85 to 130 V ac

Q = 4-pin M12/Euro-style Integral QD
QP = 150 mm (5.9 in) Cable with 4-pin M12/Euro-style QD
Blank = Terminal wired

Models with a quick disconnect require a mating cordset

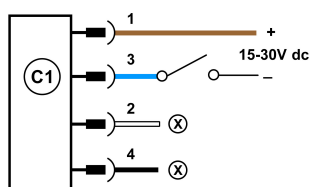* SP150 only available in 1 or 3 color options
SP150 1 color models available as PNP only
** A120 models are only available with terminal-wired connection
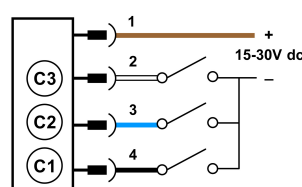** Input is PNP/NPN selectable depending on wiring

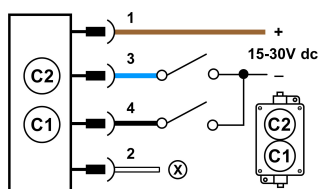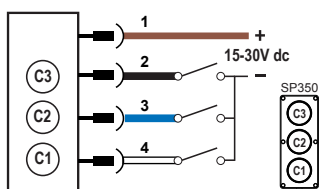## Wiring Diagrams — NPN QD Models

SP150XNQ (1-Color Models)

SP150XXXNQ (3-Color Models)

SP250XXNQ (2-Color Models)

SP350XXXNQ (3-Color Models)
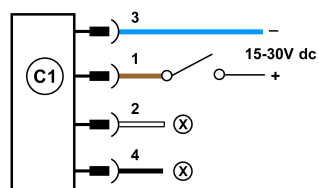
Wiring Key:
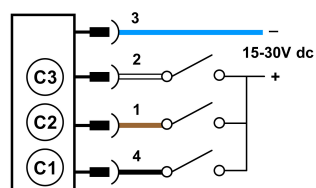
1 = Brown

2 = White

3 = Blue

4 = Black

Ⓧ 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

Ⓧ indicates Not Used

C1 = Color 1
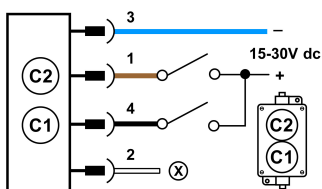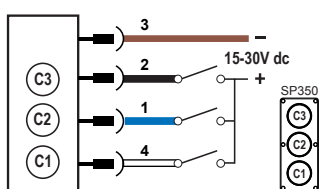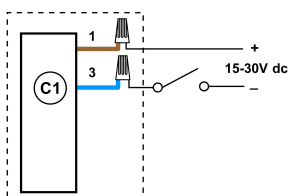
C2 = Color 2

C3 = Color 3

Wiring Diagrams — NPN Terminal-Wired Models

SP150XN (1-Color Models)

SP150XXXN (3-Color Models)

SP250XXN (2-Color Models)

SP350XXXN (3-Color Models)

Wiring Key:
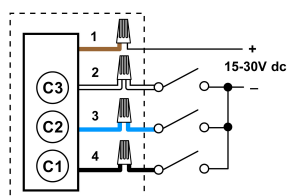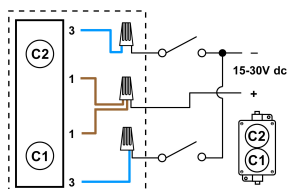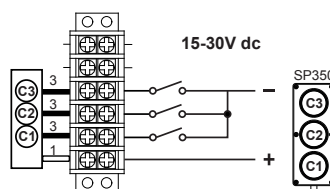
1 = Brown

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)
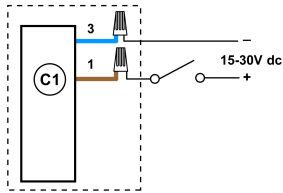

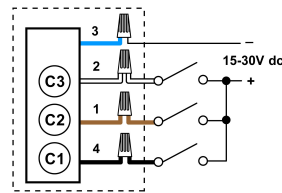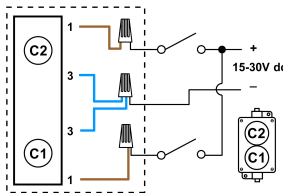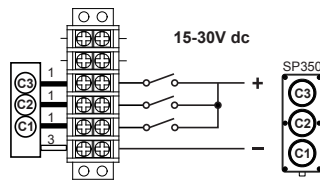### SP250XXP (2-Color Models)

SP350XXXP (3-Color Models)
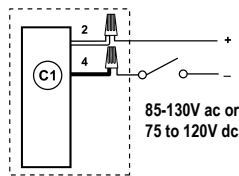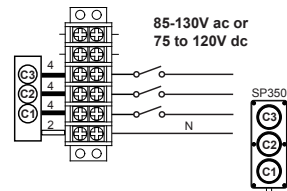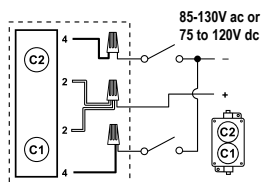

Wiring Key:

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 maxium 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 (1color), 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

CE

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)
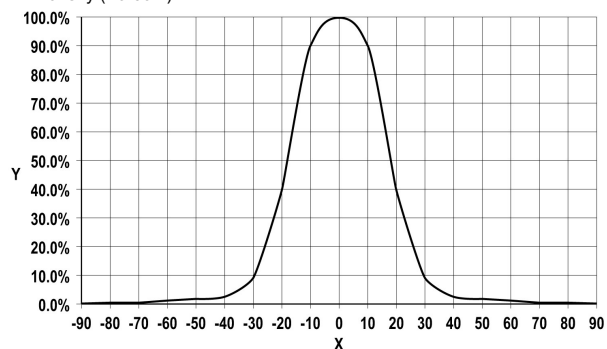
Dimensions — SP150 Models
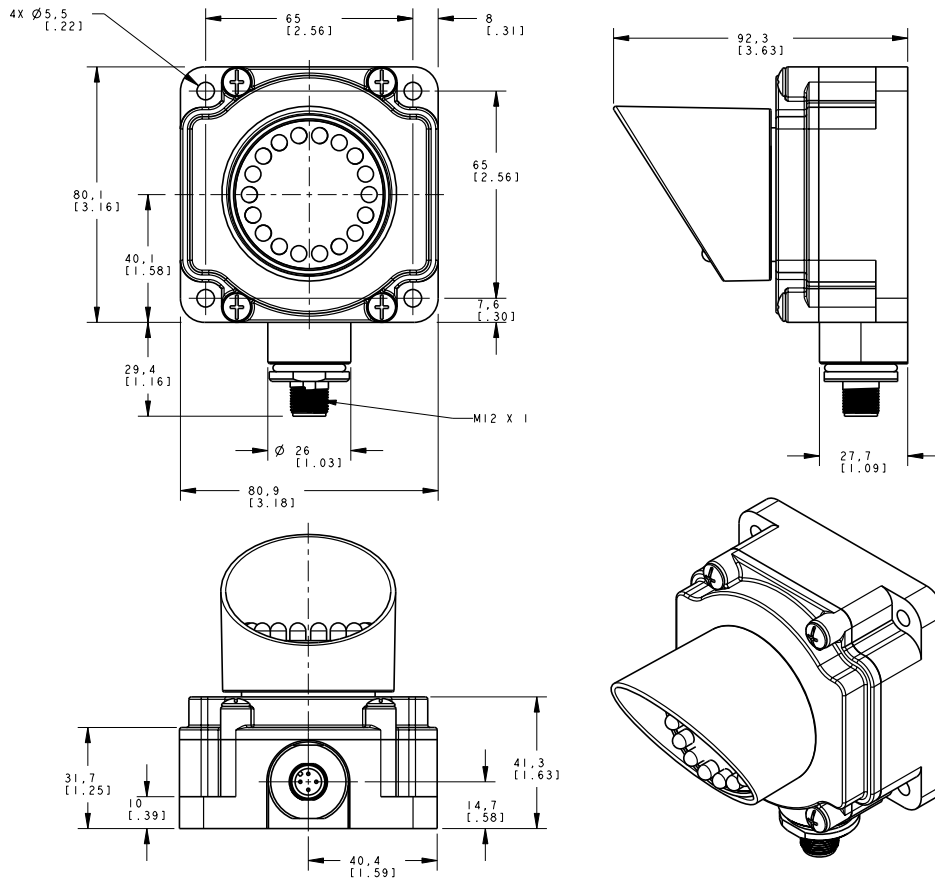
4X Ø5.5
[.22]

65
[2.56]

8
[.31]

92.3
[3.63]

80.1
[3.16]

65
[2.56]

40.1
[1.58]

7.6
[.30]

29.4
[1.16]

M12 X 1

Ø 26
[1.03]

80.9
[3.18]

27.7
[1.09]

31.7
[1.25]

10
[.39]

41.3
[1.63]

14.7
[.58]

40.4
[1.59]

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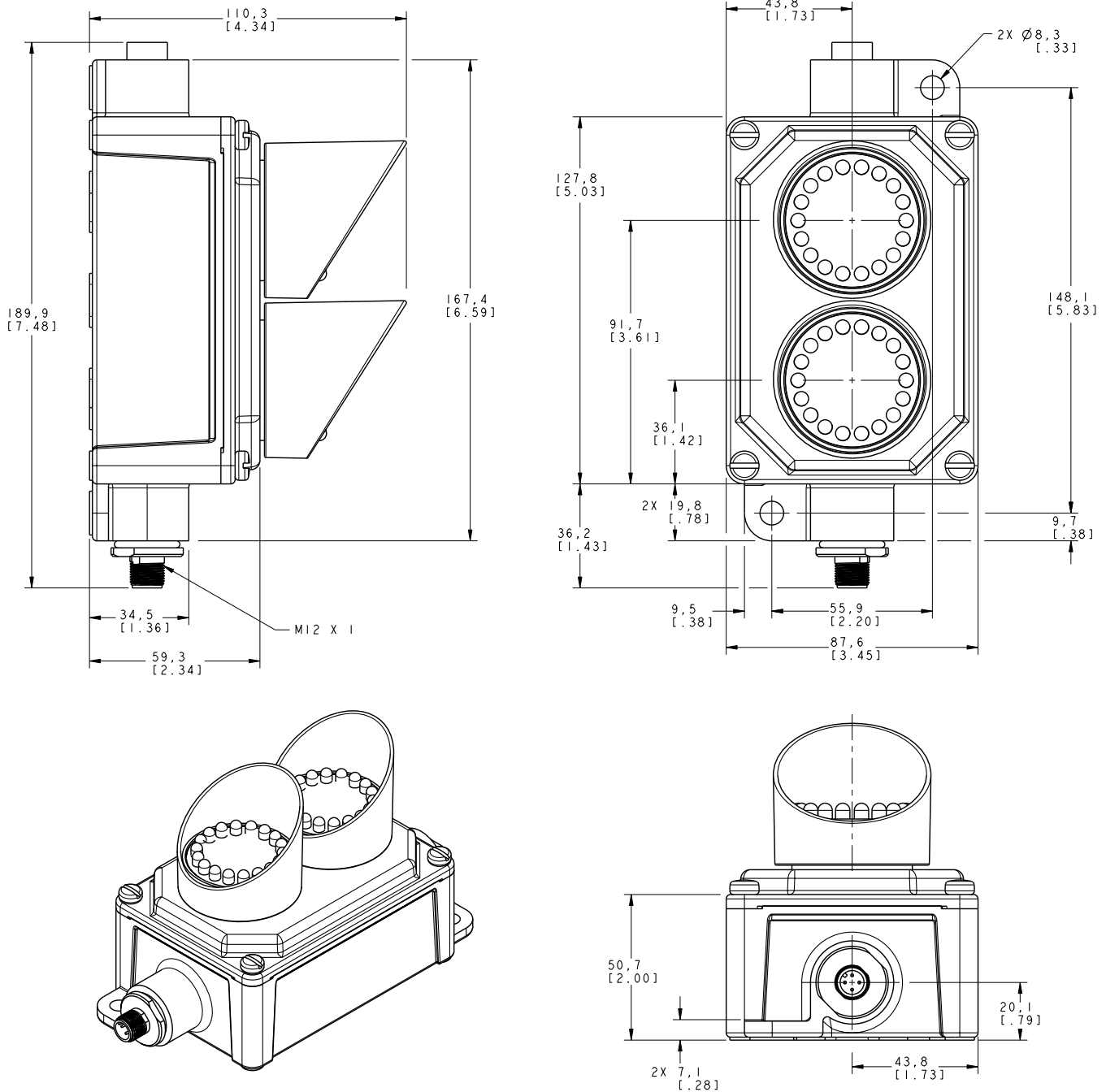
All measurements are listed in millimeters [inches], unless noted otherwise.

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

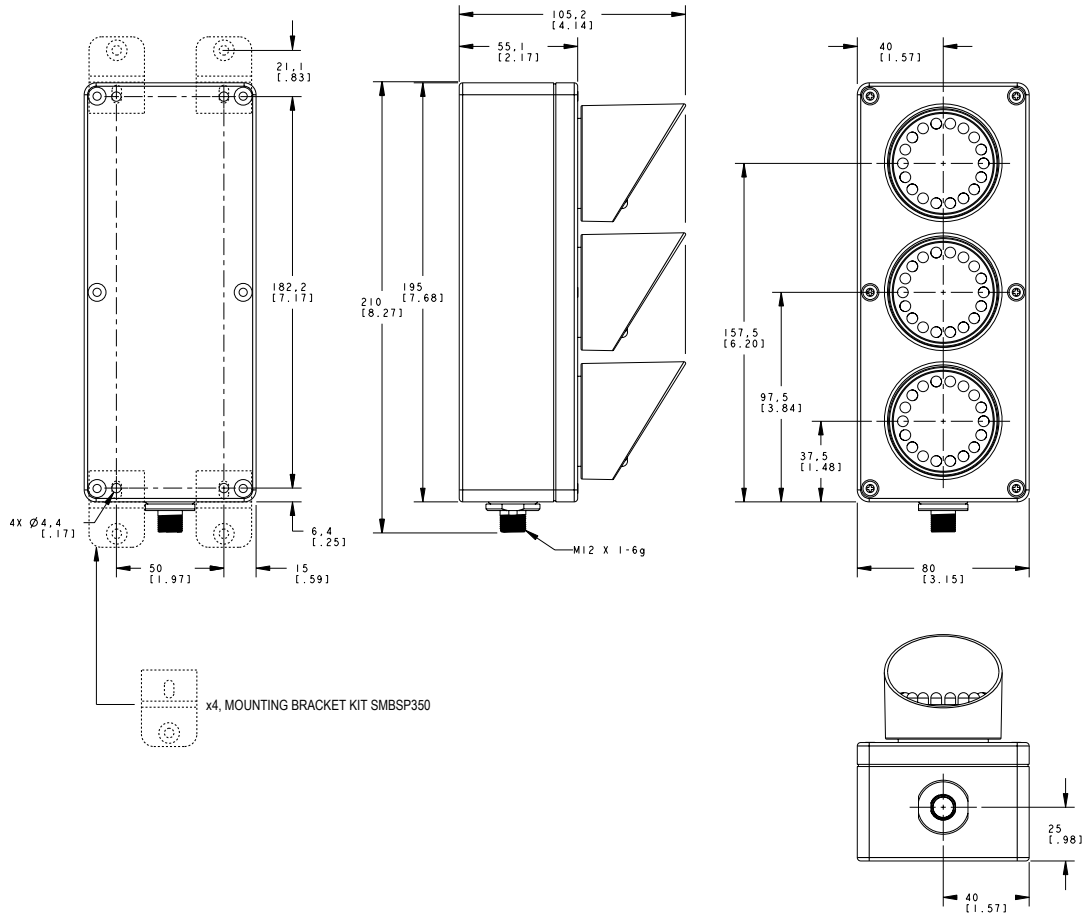| Model			Features	Components
Polished 304 Stainless Steel	**Black Anodized Aluminum**	**Clear Anodized Aluminum**	• Elevated-use stand-off pipe (½ in. NPSM/DN15) • Polished 304 stainless steel, black anodized aluminum, or clear anodized aluminum surface • ½ in. NPT thread at both ends • Compatible with 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 **SA-E12M30C** - White UHMW			• 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	

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