

## EZ-LIGHT™ Traffic Light

Indicators for signaling applications

### Features



- Preassembled indicators for signaling and traffic control
- Intense levels of light output for outdoor applications
- Sun shield included
- 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
- One, two or three indicators
- Immune to EMI and RFI interference
- Choose NPN or PNP input, depending on model
- Choose 15 to 30V dc or 85-130V ac operation

### Models

Models*	Indicators	LED Function**	Inputs	Construction	Connection	
SP150GPQ	1	1 Color: Green	PNP/ NPN selectable	Flat or DIN-mount polycarbonate	4-pin Euro Integral QD	
SP150RPQ		1 Color: Red				
SP150GRYPQ		3 Color: Green, Red, Yellow	PNP			
SP150GRYNQ			NPN			
SP150GA120		1 Color: Green	85 to 130V ac		Field-wired	
SP150RA120		1 Color: Red				
SP250GRPQ	2	Top indicator: Red Bottom indicator: Green	PNP	Flat mount polycarbonate	4-pin Euro Integral QD	
SP250GRNQ			NPN			
SP250GRA120			85 to 130V ac		Field-wired	
SP350GYRPQ	3	Top indicator: Red Middle indicator: Yellow Bottom indicator: Green	PNP		Flat mount polycarbonate	4-pin Euro Integral QD
SP350GYRNQ			NPN			
SP350GYRA120			85 to 130V ac			Field-wired

\* For DC models, standard 4-pin Euro integral QD models are listed. AC models are field-wired only.

- For field-wired model, omit suffix **Q** from model number (example, “**SP150GP**”)
- A model with a QD requires a mating cable (see [Quick-Disconnect \(QD\) Cordsets](#) on page 7)

\*\* **1-color models:** 18 LEDs per color

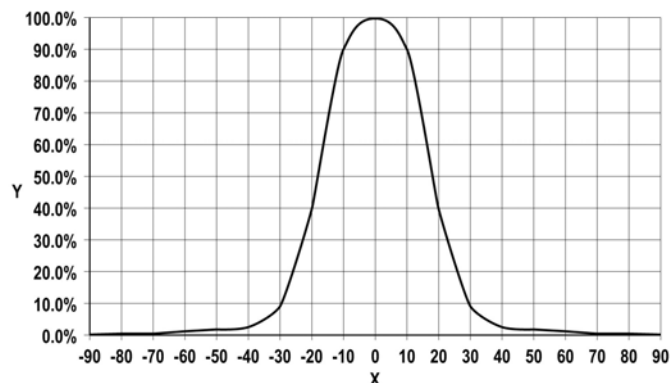
**3-color models:** 6 LEDs per color

Contact factory for other colors and color combinations.

## Specifications

Feature	Description	
<b>Supply Voltage and Current</b>	<b>DC models:</b> 15 to 30V dc <b>1-Color:</b> @ 120 mA max. per LED color <b>3-Color:</b> @ 40 mA max. per LED color	<b>AC models:</b> 85 to 130V ac or 75 to 120V dc @ 16 mA per LED color
<b>Indicators</b>	LED colors are independently selected, depending on model	
<b>Input Response Time</b>	<b>Indicator ON/OFF:</b> 10 ms (max.)	
<b>Environmental Rating</b> (See note 1)	Fully encapsulated; <b>Electronics :</b> IEC IP67 <b>Enclosure :</b> • <b>SP150:</b> IEC IP67 • <b>SP250:</b> IEC IP65 • <b>SP350:</b> IEC IP65	
<b>Connections</b>	Integral 4-pin Euro-style QD or field-wired model available for use with bulk cable (wire nuts included); ½-14 NPSM cord grip is optional for SP150 and SP250 models. Cord grip handles cable diameters from 4.3 to 11.4 mm (see model BWA-CG.5-1).	
<b>Operating Conditions</b>	-40° to +50° C (-40° to +122° F)	
<b>Application Notes</b>	1. Field-wired models must have cover screws tightened and use water tight compression fitting to meet environmental ratings.	

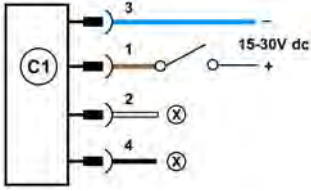
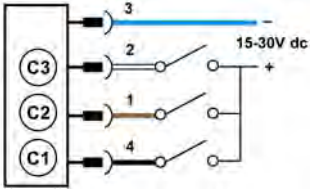
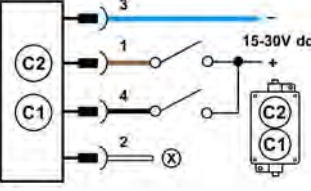
## Percent of Maximum Intensity vs Viewing Angle



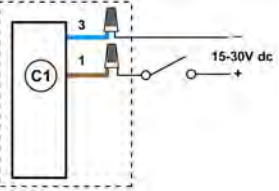
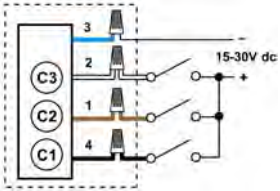
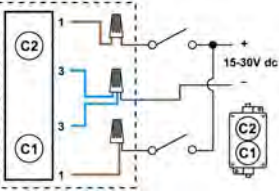
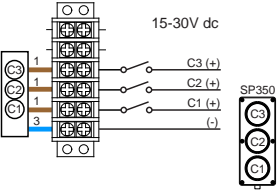
X: Viewing Angle (Deg)

Y: Intensity (Percent)

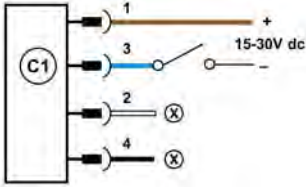
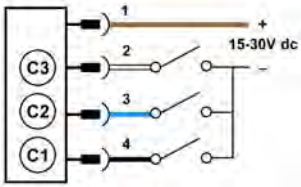
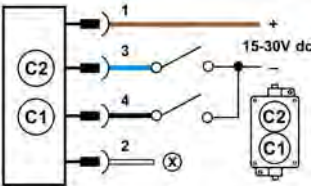
### PNP Hookups - QD Models

<b>SP150XPQ (1-Color Models)</b> 	<b>SP150XXXPQ and SP350XXXPQ (3-Color Models)</b> 
<b>SP250XXPQ (2-Color Models)</b> 	<b>Wiring Key:</b> 1 = Brown 2 = White 3 = Blue 4 = Black  ⊗ indicates Not Used C1 = Color 1 C2 = Color 2 C3 = Color 3

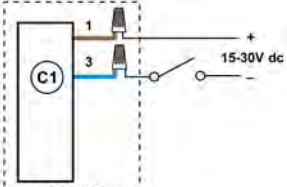
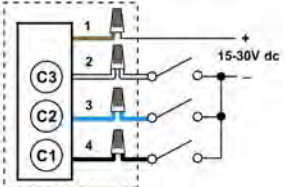
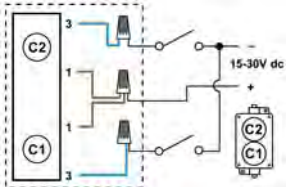
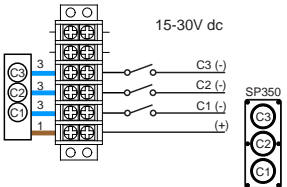
### PNP Hookups - Field-Wired Models

<b>SP150XP (1-Color Models)</b> 	<b>SP150XXXP (3-Color Models)</b> 	<b>Wiring Key:</b> 1 = Brown 2 = White 3 = Blue 4 = Black C1 = Color 1 C2 = Color 2 C3 = Color 3
<b>SP250XXP (2-Color Models)</b> 	<b>SP350XXXP (3-Color Models)</b> 	

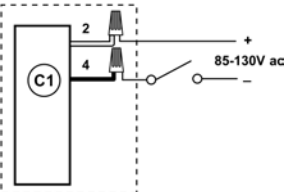
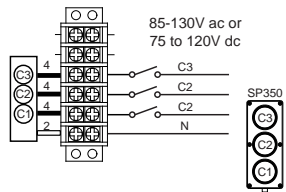
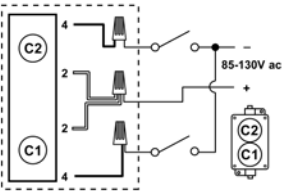
## NPN Hookups - QD Models

<p><b>SP150XPQ (1-Color Models)*</b></p> 	<p><b>SP150XXXNQ and SP350XXXNQ (3-Color Models)</b></p> 								
<p>*NPN functionality using 1-Color PNP model</p>									
<p><b>SP250XXNQ (2-Color Models)</b></p> 	<p><b>Wiring Key:</b></p> <table style="width: 100%;"> <tr> <td style="width: 50%;">1 = Brown</td> <td style="width: 50%;">⊗ indicates Not Used</td> </tr> <tr> <td>2 = White</td> <td>C1 = Color 1</td> </tr> <tr> <td>3 = Blue</td> <td>C2 = Color 2</td> </tr> <tr> <td>4 = Black</td> <td>C3 = Color 3</td> </tr> </table>	1 = Brown	⊗ indicates Not Used	2 = White	C1 = Color 1	3 = Blue	C2 = Color 2	4 = Black	C3 = Color 3
1 = Brown	⊗ indicates Not Used								
2 = White	C1 = Color 1								
3 = Blue	C2 = Color 2								
4 = Black	C3 = Color 3								

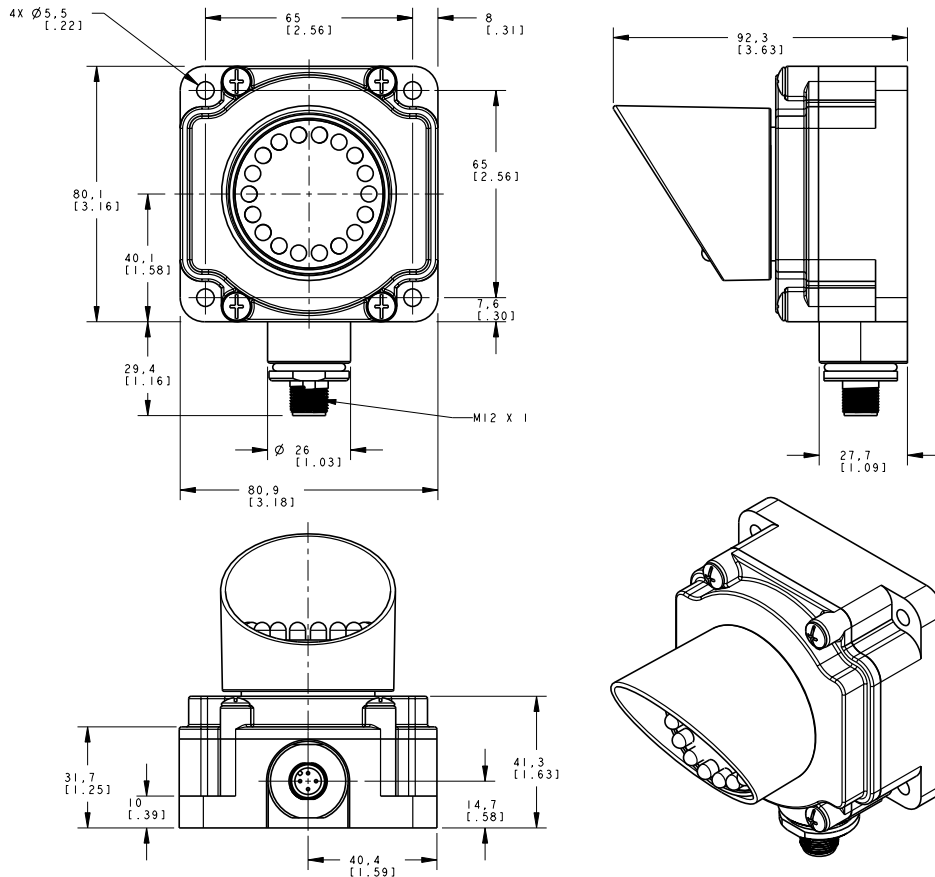
## NPN Hookups - Field-Wired Models

<p><b>SP150XP (1-Color Models)*</b></p> 	<p><b>SP150XXXN (3-Color Models)</b></p> 	<p><b>Wiring Key:</b></p> <table style="width: 100%;"> <tr> <td style="width: 50%;">1 = Brown</td> <td style="width: 50%;">C1 = Color 1</td> </tr> <tr> <td>2 = White</td> <td>C2 = Color 2</td> </tr> <tr> <td>3 = Blue</td> <td>C3 = Color 3</td> </tr> <tr> <td>4 = Black</td> <td></td> </tr> </table>	1 = Brown	C1 = Color 1	2 = White	C2 = Color 2	3 = Blue	C3 = Color 3	4 = Black	
1 = Brown	C1 = Color 1									
2 = White	C2 = Color 2									
3 = Blue	C3 = Color 3									
4 = Black										
<p>*NPN functionality using 1-Color PNP model</p>										
<p><b>SP250XXN (2-Color Models)</b></p> 	<p><b>SP350XXXN (3-Color Models)</b></p> 									

## AC Hookups

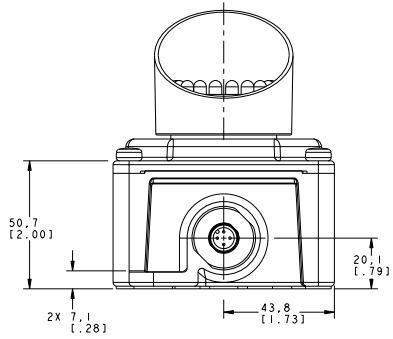
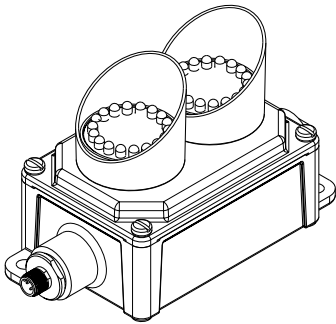
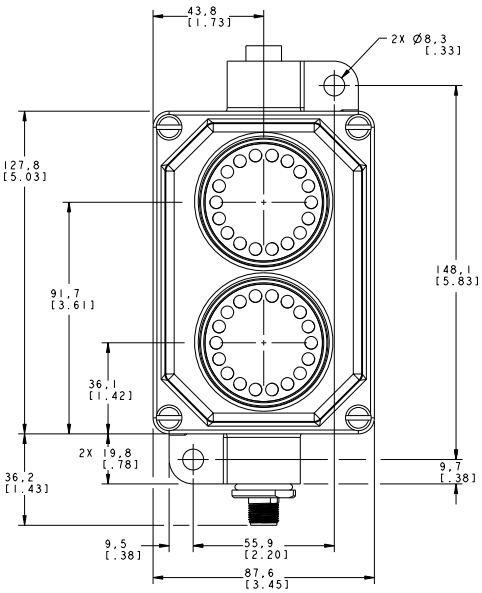
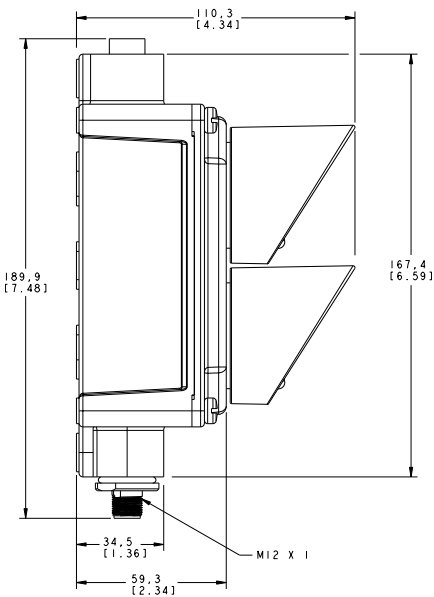
SP150XA120 (1-Color Models)	SP350XXXA120 (3-Color Models)
	
SP250XXA120 (2-Color Models)	Wiring Key:
	<p>2 = White</p> <p>4 = Black</p> <p style="margin-left: 150px;">C1 = Color 1</p> <p style="margin-left: 150px;">C2 = Color 2</p> <p style="margin-left: 150px;">C3 = Color 3</p> <p style="margin-left: 150px;">N = Neutral</p>

## Dimensions - SP150...Models\*



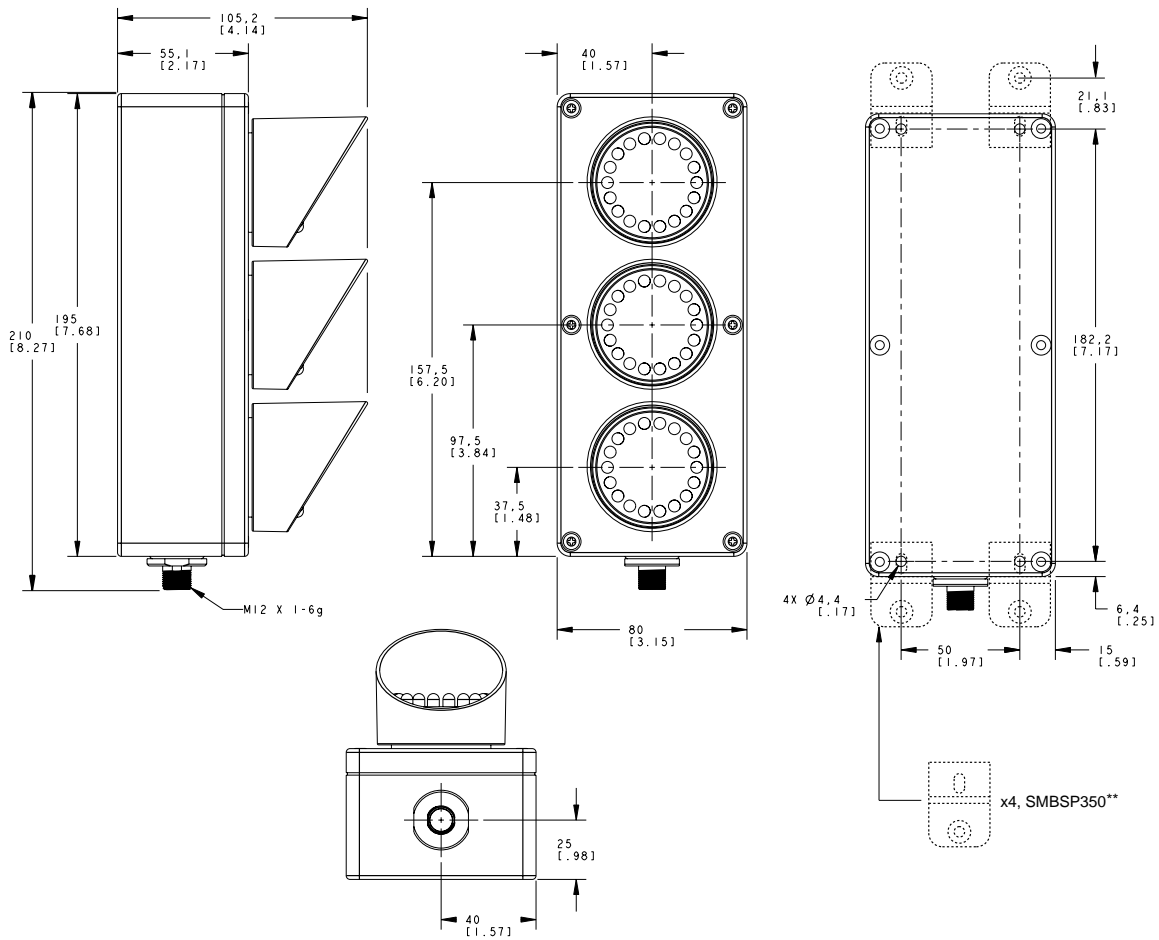
\* Field-wired models have ½" NPT port in place of M12 connector

**Dimensions - SP250...Models\***



\* Field-wired models have 1/2" NPT port in place of M12 connector

## Dimensions - SP350...Models\*

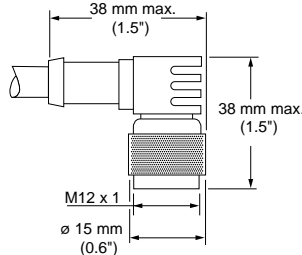


\* Field-wired models have access hole for ½" conduit fitting in place of M12 connector





\*\* Mounting kit SMBSP350 included

## Quick-Disconnect (QD) Cordsets

4-Pin Euro-Style Cables – Single-Ended				
Style	Model	Length	Dimensions	Pinout
4-pin Euro-style straight	<b>MQDC-406</b>	2 m (6.5')		
	<b>MQDC-415</b>	5 m (15')		
	<b>MQDC-430</b>	9 m (30')		

4-Pin Euro-Style Cables – Single-Ended				
Style	Model	Length	Dimensions	Pinout
4-pin Euro-style Right-angle	<b>MQDC-406RA</b>	2 m (6.5')		1 = Brown 2 = White 3 = Blue 4 = Black
	<b>MQDC-415RA</b>	5 m (15')		
	<b>MQDC-430RA</b>	9 m (30')		

## Mounting Brackets

Model		Features	Mounting System	
<b>Stainless Steel</b>	<b>Aluminum</b>	<ul style="list-style-type: none"> <li>Elevated-use stand-off pipe (½" NPSM/DN15)</li> <li>Polished 304 stainless steel or anodized aluminum surface</li> <li>½ NPT thread at both ends</li> <li>Compatible with most industrial environments</li> </ul>		
<b>SOP-E12-150SS</b> Length: 150 mm (6")	<b>SOP-E12-150A</b> Length: 150 mm (6")			
<b>SOP-E12-300SS</b> Length: 300 mm (12")	<b>SOP-E12-300A</b> Length: 300 mm (12")			
<b>SA-E12M30</b>		<ul style="list-style-type: none"> <li>Streamlined acetal mounting base adapter/cover</li> <li>Connects between ½" NPSM/DN15 pipe and 30 mm (1-3/16") drilled hole</li> <li>Mounting hardware included</li> </ul>		



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

**Never use this product as a sensing device for personnel protection. Doing so could lead to serious injury or death**

This product 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. Consult your Banner Safety Products catalog for safety products that meet OSHA, ANSI and IEC standards for personnel protection.



Warranty: Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture found to be defective at the time it is returned to the factory during the warranty period. This warranty does not cover damage or liability for the improper application of Banner products. This warranty is in lieu of any other warranty either expressed or implied.