EZ-STATUS® WLS28-2 Multicolor LED Strip Light

Features

Banner's WLS28-2 Multicolor LED Strip Lights have sturdy aluminum housings, shatterproof windows, and environmental ratings that make it ideal for harsh indoor and outdoor applications.

- EZ-STATUS combines lighting and indication in one device to illuminate an area or machine, and show status change
- Models with 3 or 5 colors available, all with only 3 inputs
- Four available lengths from 285 mm to 1130 mm
- Daisy chain power to multiple lights



Stand-Alone Light or End Light in a Cascade



First or Middle of a Cascade

Available as stand-alone models, or as cascade models that can be daisy-chained together for a continuous length of lighting, with a minimum of wiring.

Stand-alone models have a male quick disconnect at one end for power connection and no connections at the opposite end. A stand-alone model may be used as the last model in the cascade series.

Cascade models have a male quick disconnect at one end for power connection, and a female quick disconnect at the opposite end for connecting to other lights in the cascade. A double-ended accessory cordset must be used between each pair of lights in a cascade.

IMPORTANT: Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde www.bannerengineering.com toda la documentación técnica de los EZ-STATUS® WLS28-2 Multicolor LED Strip Light , disponibles en múltiples idiomas, para detalles del uso adecuado, aplicaciones, advertencias, y las instrucciones de instalación de estos dispositivos.

IMPORTANT: Lisez les instructions suivantes avant d'utiliser le luminaire. Veuillez télécharger la documentation technique complète des EZ-STATUS® WLS28-2 Multicolor LED Strip Light sur notre site www.bannerengineering.com pour les détails sur leur utilisation correcte, les applications, les notes de sécurité et les instructions de montage.

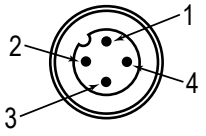
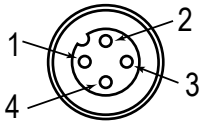
Models

Family	Cascadable	Colors 1-5 and Control	—	Lighted Length (mm)	Window	Construction	Voltage	Connector[1]
WLS28-2	**X**	**WGRXX**	**—**	**0285**	**D**	**X**	**24**	**Q**
	C = Cascadeable X = Non-cascadeable	WGRXX3 = White, Green, and Red with override control GYRXX3 = Green, Yellow, and Red with override control WYRXX3 = White, Yellow, and Red with override control WGRYB5 = White, Green, Red, Yellow, and Blue with binary control WGRXX6 = White, Green, and Red with I/O Block control WYRXX6 = White, Yellow, and Red with I/O Block control GYRXX6 = Green, Yellow, and Red with I/O Block control		0285 0570 0850 1130	Blank = Clear plastic D = Diffused plastic L25 = 25° lensed window	X = Not sealed S = Sealed	24 = 24 V	Blank = 2 m (6.5 ft) integral PVC-jacketed cable Q = Integral 4-pin M12 male quick-disconnect connector

[1] Models with a quick-disconnect connector require a mating cordset.

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204557
p/n: 204557 Rev. C

Wiring

Male	Female	Pin	Wire Color	Description
		1	Brown	Input 1
		2	White	Input 3
		3	Blue	DC common
		4	Black	Input 2

3 Color Override Control (Color 3 overrides Colors 1 and 2, Color 2 overrides Color 1)

Input 1: Pin 1 Brown Wire	Input 2: Pin 4 Black Wire	Input 3: Pin 2 White Wire	LED Color
—	—	—	Light OFF
+24 V DC	—	—	Color 1 ON
—	+24 V DC	—	Color 2 ON
+24 V DC	+24 V DC	—	Color 2 ON
—	—	+24 V DC	Color 3 ON
+24 V DC	—	+24 V DC	Color 3 ON
—	+24 V DC	+24 V DC	Color 3 ON
+24 V DC	+24 V DC	+24 V DC	Color 3 ON

3 Color I/O Block Control (Input 1 is always ON through the block)

Input 1: Pin 1 Brown Wire	Input 2: Pin 4 Black Wire	Input 3: Pin 2 White Wire	LED Color
+24 V DC	—	—	Light OFF
+24 V DC	+24 V DC	—	Color 1 ON
+24 V DC	—	+24 V DC	Color 2 ON
+24 V DC	+24 V DC	+24 V DC	Color 3 ON

5 Color Binary Control (Binary input state controls color)

Input 1: Pin 1 Brown Wire	Input 2: Pin 4 Black Wire	Input 3: Pin 2 White Wire	LED Color
—	—	—	Light OFF
+24 V DC	—	—	Color 1 ON
—	+24 V DC	—	Color 2 ON
—	—	+24 V DC	Color 3 ON
+24 V DC	+24 V DC	—	Color 4 ON
+24 V DC	—	+24 V DC	Color 5 ON
—	+24 V DC	+24 V DC	Light OFF
+24 V DC	+24 V DC	+24 V DC	Light OFF

Specifications

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

Supply Voltage

24 V DC (+ 20% / - 10%)

Use only with suitable Class 2 power supply (UL) or a SELV power supply (CE)

See electrical characteristics on product label

Lighted Length	Typical Current (A) at 25° C[2]	Maximum Current (A)
285 mm	0.315	0.4
570 mm	0.63	0.8
850 mm	0.945	1.2
1130 mm	1.26	1.6

Leakage Current Immunity

400 µA

[2] Values shown at 25 °C - current and lumen values decrease 0.4% per 1 °C from ambient. For example, a 1130 mm unit will have a maximum current of 1.600 A at -40 °C and 1.134 A at +50 °C.

LED Lifetime

Lumen Maintenance - L_{70}

When operating within specifications, output decreases less than 30% after 50,000 hours

Mounting

2 SMBWLS28RA swivel brackets and 4 screws included

Connections

Integral 4-pin M12 male quick-disconnect connector

Construction

Clear anodized aluminum housing; painted zinc end caps; polycarbonate window on clear and diffuse plastic models; acrylic window on L25 models; zinc plated steel brackets

Environmental Rating

Non-sealed models: IP50

Sealed models: IP65, IP67, IP69K per ISO 20653

Vibration and Mechanical Shock

Vibration: 10 Hz to 55 Hz, 1.0 mm peak-to-peak amplitude per IEC 60068-2-6

Shock: 15G 11 ms duration, half sine wave per IEC 60068-2-27

Operating Temperature

–40 °C to +50 °C (–40 °F to +122 °F)

Storage Temperature: –40 °C to +70 °C (–40 °F to +158 °F)

Application Notes

When connecting cascadable lights in series it is important not to exceed maximum current limitations:

Maximum length of light at 24 V dc: 3.0 m (9.8 ft)

Do not spray cable with high-pressure sprayer, or cable damage will result

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Certifications

Banner Engineering BV
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1831 Diegem, BELGIUM

Light Characteristics

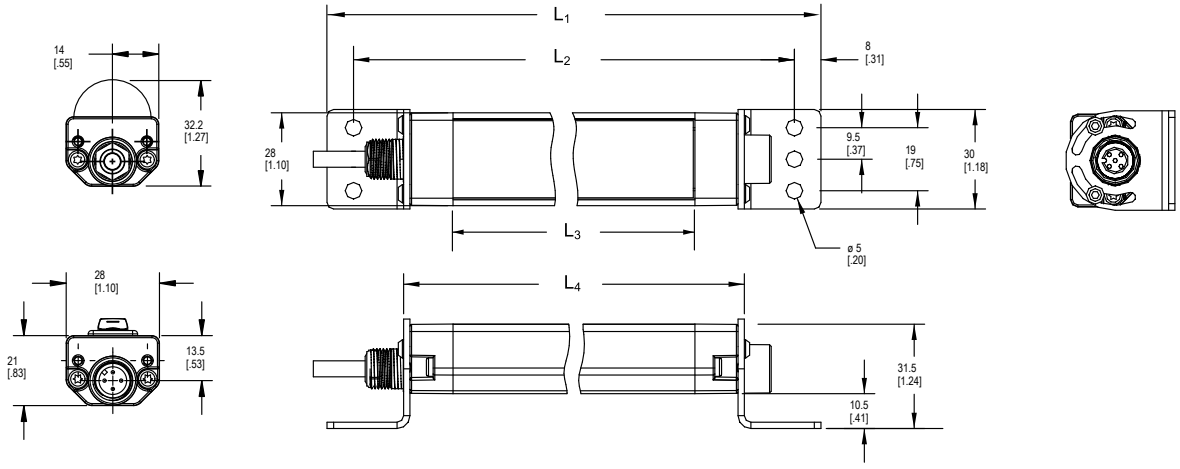
Daylight White Efficacy: 85 lumens/watt typical at 24 V DC at 25 °C (77 °F)

CRI: 80, minimum

Color	Dominant Wavelength (nm) or Color Temperature	Lighted Length Lumens (Typical at 25 °C)[3]			
		285 mm	570 mm	850 mm	1130 mm
Green	525 nm	400	800	1200	1600
Red	625 nm	185	370	555	740
Yellow	580 nm	570	1140	1710	2280
Blue	470 nm	125	250	375	500
Daylight White	5000 K (±300 K)	650	1300	1950	2600

Dimensions

All measurements are listed in millimeters [inches], unless noted otherwise. The measurements provided are subject to change.



Dimensions are shown with the included SMBWLS28RA brackets.

IP50 Models	IP67/IP69K Models	L_1	L_2	L_3	L_4
WLS28-2..0285	WLS28-2..285S	362 mm (14.3 in)	346 mm (13.6 in)	286 mm (11.26 in)	316 mm (12.4 in)
WLS28-2..0570	WLS28-2..570S	644 mm (25.4 in)	628 mm (24.7 in)	568 mm (22.36 in)	598 mm (23.5 in)
WLS28-2..0850	WLS28-2..850S	926 mm (36.5 in)	910 mm (35.8 in)	850 mm (33.46 in)	880 mm (34.6 in)
WLS28-2..1130X	WLS28-2..1130S	1208 mm (47.6 in)	1192 mm (46.9 in)	1132 mm (44.57 in)	1162 mm (45.7 in)

Accessories

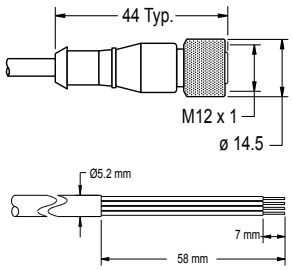
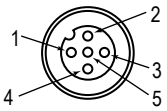
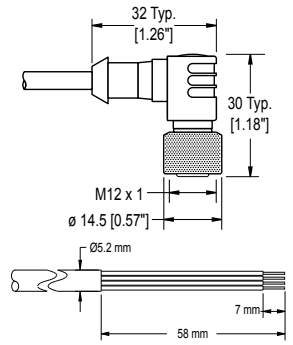
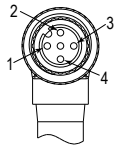
Cordsets

Use single-ended cordsets between the power source and the quick-disconnect connection of a stand-alone light or the first light in a cascade. Use double-ended cordsets between lights in a cascade.

[3] Values shown at 25 °C - current and lumen values decrease 0.4% per 1 °C from ambient. For example, a 1130 mm unit will have a maximum current of 1.600 A at -40 °C and 1.134 A at +50 °C.

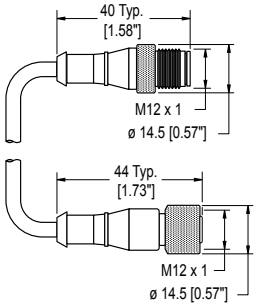
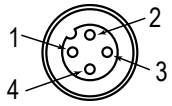
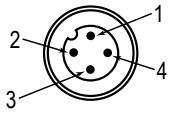
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4-Pin Single-Ended M12 Female Cordsets

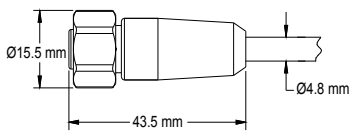
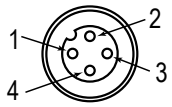
Model	Length	Style	Dimensions	Pinout (Female)
MQDC-406	2 m (6.56 ft)	Straight		
MQDC-415	5 m (16.4 ft)			
MQDC-430	9 m (29.5 ft)			
MQDC-450	15 m (49.2 ft)			
MQDC-406RA	2 m (6.56 ft)	Right-Angle		
MQDC-415RA	5 m (16.4 ft)			
MQDC-430RA	9 m (29.5 ft)			
MQDC-450RA	15 m (49.2 ft)			

1 = Brown
2 = White
3 = Blue
4 = Black
5 = Not used

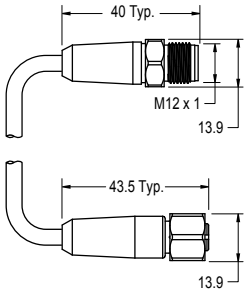
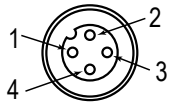
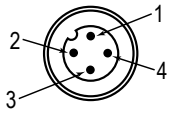
4-Pin Double-Ended M12 Female to M12 Male Cordsets

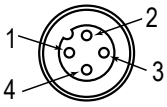
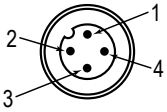
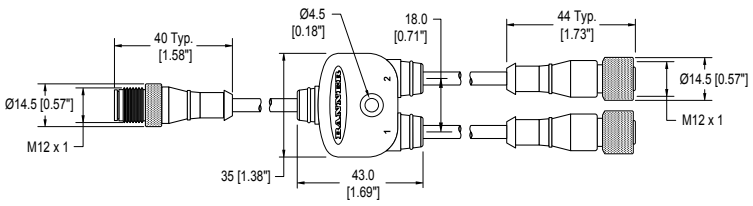
Model	Length	Style	Dimensions	Pinout
MQDEC-401SS	0.31 m (1 ft)	Male Straight/Female Straight		Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
MQDEC-403SS	0.91 m (2.99 ft)			
MQDEC-406SS	1.83 m (6 ft)			
MQDEC-412SS	3.66 m (12 ft)			
MQDEC-415SS	4.58 m (15 ft)			
MQDEC-420SS	6.10 m (20 ft)			
MQDEC-430SS	9.14 m (30.2 ft)			
MQDEC-450SS	15.2 m (49.9 ft)			

4-Pin Single-Ended M12 Female Washdown, Stainless Steel Cordsets

Model	Length	Style	Dimensions	Pinout (Female)
MQDC-WDSS-0406	2 m (6.56 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black
MQDC-WDSS-0415	5 m (16.4 ft)			
MQDC-WDSS-0430	9 m (29.5 ft)			

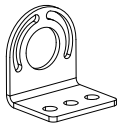
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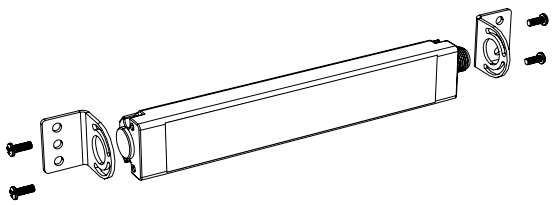
4-Pin Double-Ended M12 Female to M12 Male Washdown Stainless Steel Cordsets				
Model	**Length**	**Style**	**Dimensions**	**Pinout**
MQDEC-WDSS-401SS	0.31 m (1 ft)	Male Straight/Female Straight		Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
MQDEC-WDSS-403SS	0.91 m (2.99 ft)			
MQDEC-WDSS-406SS	1.83 m (6 ft)			
MQDEC-WDSS-412SS	3.66 m (12 ft)			

4-Pin Flat Junction M12 Female Branch to M12 MaleTrunk Splitter Cordsets			
Model	**Branches (Female)**	**Trunk (Male)**	**Pinout**
CSB-M1240M1240	No branch	No trunk	Female  Male  1 = Brown 2 = White 3 = Blue 4 = Black
CSB-M1240M1241	2 × 0.3 m (1 ft)	No trunk	
CSB-M1241M1241		0.31 m (1 ft)	
CSB-M1248M1241		2.44 m (8 ft)	
CSB-M12415M1241		4.57 m (15 ft)	
CSB-M12425M1241		7.60 m (25 ft)	
CSB-UNT425M1241		7.60 m (25 ft) Unterminated	
CSB-M1243M1243	2 × 1 m (3.28 ft)	1 m (3.28 ft)	
			

Brackets

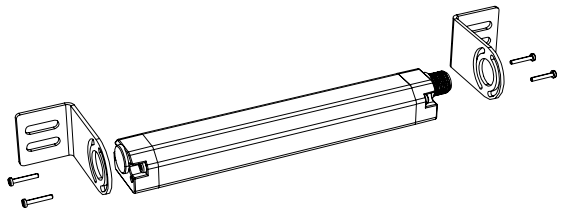
SMBWLS28RA
The bracket kit is available as a replacement for the one that comes with the light or switch. The kit contains two end brackets and four screws.





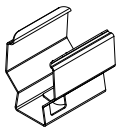
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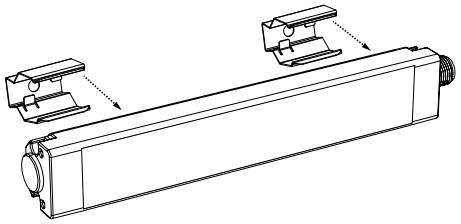
SMBWLS28SM
This kit allows the light or switch to be mounted at a right angle to the mounting surface. The kit contains two end brackets and four screws.



SMBWLS28SP

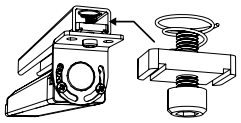
- Stainless steel snap bracket kit
- Includes two brackets





SMH1316
This kit allows the light or switch to be mounted to a 13/16-inch Unistrut channel. Light is shown. The kit includes:

- #10-32 spring nuts (qty 2)
- #10-32 socket head cap screws (qty 2)
- #10 lock washers (qty 2)

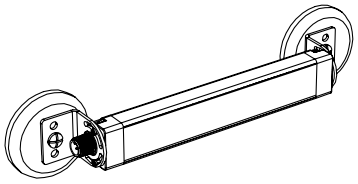


SMBWLSMAG

- Magnetic mounting bracket for easy attachment to steel surfaces

SMBWLSMAGR

- Protective cover also available to prevent scratches to painted surfaces



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