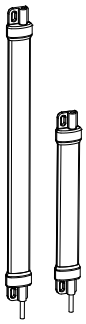
WLS15 Pro LED Strip Light with PICK-IQ™

Instruction Manual

Banner's WLS15 Pro LED Strip Lights with PICK-IQ™ have sturdy aluminum inner frames, encased in shatter resistant, UV-stabilized, polycarbonate shells, making them ideal for indoor and outdoor applications.



- Bright, programmable strip light with RGB LEDs
- 19 color options for varied indication and inspection uses
- PICK-IQ gives full access to individual LED control, color, flashing, intensity, and animation settings, as well as advanced level, gauge, and segment operating modes
- Available in six lengths from 220 mm to 1200 mm
- Low-profile, space-saving design
- Rugged, water-resistant design

Important: Read the following instructions before operating the light. Please download the complete WLS15 Pro LED Strip Light with PICK-IQ technical documentation, available in multiple languages, from www.bannerengineering.com for details on the proper use, applications, Warnings, and installation instructions of this device.

Important: Lea el siguiente instructivo antes de operar el luminario. Por favor descargue desde www.bannerengineering.com toda la documentación técnica de los WLS15 Pro LED Strip Light with PICK-IQ, 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 WLS15 Pro LED Strip Light with PICK-IQ 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	Style	Cascadable	Color	Lighted Length (mm)	Window	Construction	Control	Connection
WLS15	P	X	RGB	0360	D	S	S	QP
	P = Pro	X = Non-cascadable	RGB = RGB Multicolor	0220 0360 0500 0640 0920 1200	D = Diffused	S = Sealed	S = PICK-IQ	QP = 150 mm (5.9 in) PVC cable with M12 quick disconnect

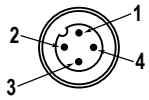
Communication

PICK-IQ™ is a purpose-built, Modbus RTU compatible, serial bus protocol that uses a common ID to reduce the typical latency that results from polling multiple devices. The WLS15 Pro with PICK-IQ does not have a common ID, however it is compatible with and can be used alongside other PICK-IQ devices. It can also be used as a standalone device controlled with Modbus RTU serial bus protocol. A Modbus master controller is required to make changes to the device.

For more information about the WLS15 Pro with PICK-IQ device registers, refer to document PN 219137.

For more information about PICK-IQ devices and the common ID, refer to document PN 206185.

Wiring Diagrams

Male	Pin	Wire Color	Description
	1	Brown	12 V DC to 30 V DC
	2	White	RS-485 (+)
	3	Blue	DC common
	4	Black	RS-485 (-)

PICK-IQ (Modbus RTU Serial Bus Protocol) Configuration for the WLS15 Pro

For more information about the WLS15 Pro with PICK-IQ device registers, refer to document PN 219137.

Segment Mode

Configure the light to have up to 10 segments which scale in size automatically with the length of the light or select Manual Segment Configuration which allows each segment to have a custom LED width and LED offset from the beginning of each segment to the beginning of the light.

Use device registers to set each segment to off, solid on, flash, or animation mode and change segment number and configuration, color, intensity, flash speed, direction, background, threshold markers, and select animation type.

Animation	Description
Off	Segment is off
Steady	Color 1 is solid on at defined intensity
Flash	Color 1 flashes at defined speed, color intensity, and pattern (normal, strobe, three pulse, SOS, or random)
Two Color Flash	Color 1 and Color 2 flash alternately at defined speed, color intensities, and pattern (normal, strobe, three pulse, SOS, or random)
Two Color Shift	Color 1 and Color 2 flash alternately on adjacent LEDs at defined speed and color intensities
Ends Steady	Color 1 is solid on in the center of the segment as defined by Percent Width of Color 1 at defined color intensity while Color 2 is solid on for half of the remaining percentage on each end of the segment at defined color intensity
Ends Flash	Color 1 is solid on in the center of the segment as defined by Percent Width of Color 1 at defined color intensity while Color 2 flashes on for half of the remaining percentage on each end of the segment at defined speed, color intensity, and pattern (normal, strobe, three pulse, SOS, or random)
Scroll	Color 1 fills the segment as defined by Percent Width of Color 1 and moves in one direction up or down against the background of Color 2 at the defined speed, color intensities, style, and direction
Center Scroll	Color 1 fills the segment as defined by Percent Width of Color 1 and moves in or out from the center of the segment against the background of Color 2 at the defined speed, color intensities, style, and direction
Bounce	Color 1 fills the segment as defined by Percent Width of Color 1 and moves up and down against the background of Color 2 at the defined speed, color intensities, and style
Center Bounce	Color 1 fills the segment as defined by Percent Width of Color 1 and moves in and out from the center of the segment against the background of Color 2 at the defined speed, color intensities, and style
Intensity Sweep	Color 1 repeatedly increases and decreases intensity between 0% to 100% at defined speed and color intensity
Two Color Sweep	Color 1 and Color 2 define the end values of a line across the color gamut. The segment continuously displays a color by moving along the line at the defined speed and color intensities
Spectrum	The segment scrolls through 13 predefined colors with a different color on each LED at the defined speed, Color 1 intensity, and direction
Single End Steady	Color 1 is solid ON at the defined intensity on one end of the device
Single End Flash	Color 1 flashes at the defined speed, color intensity, and pattern (normal, strobe, three pulse, SOS, or random) on one end of the device

Run Mode

Use device registers to control the entire light and select color, intensity, flash, direction, and animations. Create custom colors, intensity, and flash speeds.

Animation	Description
Off	Light is off
Steady	Color 1 is solid on at defined intensity
Flash	Color 1 flashes at defined speed, color intensity, and pattern (normal, strobe, three pulse, SOS, or random)
Two Color Flash	Color 1 and Color 2 flash alternately at defined speed, color intensities, and pattern (normal, strobe, three pulse, SOS, or random)
Two Color Shift	Color 1 and Color 2 flash alternately on adjacent LEDs at defined speed and color intensities

Animation	Description
Ends Steady	Color 1 is solid on in the center of the light as defined by Percent Width of Color 1 at defined color intensity while Color 2 is solid on for half of the remaining percentage on each end of the light at defined color intensity
Ends Flash	Color 1 is solid on in the center of the light as defined by Percent Width of Color 1 at defined color intensity while Color 2 flashes on for half of the remaining percentage on each end of the light at defined speed, color intensity, and pattern (normal, strobe, three pulse, SOS, or random)
Scroll	Color 1 fills the light as defined by Percent Width of Color 1 and moves in one direction up or down against the background of Color 2 at the defined speed, color intensities, style, and direction
Center Scroll	Color 1 fills the light as defined by Percent Width of Color 1 and moves in or out from the center of the light against the background of Color 2 at the defined speed, color intensities, style, and direction
Bounce	Color 1 fills the light as defined by Percent Width of Color 1 and moves up and down against the background of Color 2 at the defined speed, color intensities, and style
Center Bounce	Color 1 fills the light as defined by Percent Width of Color 1 and moves in and out from the center of the light against the background of Color 2 at the defined speed, color intensities, and style
Intensity Sweep	Color 1 repeatedly increases and decreases intensity between 0% to 100% at defined speed and color intensity
Two Color Sweep	Color 1 and Color 2 define the end values of a line across the color gamut. The light continuously displays a color by moving along the line at the defined speed and color intensities
Spectrum	The light scrolls through 13 predefined colors with a different color on each LED at the defined speed, Color 1 intensity, and direction
Single End Steady	Color 1 is solid ON at the defined intensity on one end of the device
Single End Flash	Color 1 flashes at the defined speed, color intensity, and pattern (normal, strobe, three pulse, SOS, or random) on one end of the device

Level Mode

Use device registers to set the level value and to set range, thresholds, colors, intensities, flash speeds, background, threshold markers, and animation types.

General Settings	Description
Level Mode Value	Value of the level of the light (between 0 to 65,535)
Full Scale Value	Set the upper limit of the Level Mode Value (between 0 to 65,535)
Background Color and Intensity	A defined color and intensity is displayed on LEDs that are not active
Dominance	Dominant: The entire light displays the active threshold color Non-Dominant: LEDs displays their defined threshold colors
Sub-Segment Style	If Level Mode Value is a partial percentage of an LED, select if segment will be on steady or analog dimmed to the partial percentage
Filtering	Smooths the input signal by varying the sample size None: There is no filtering Low: The sample size is short and changes to the input signal are more noticeable High: The sample size is long and changes to the input signal are less noticeable
Hysteresis	Determines the signal value change needed to transition between thresholds and to prevent chatter None: The value follows the input signal High: A large value change is needed to transition between thresholds
Level Mode Threshold Markers	Threshold markers display LED(s) at the defined thresholds and can be configured as either dominant or non-dominant. Threshold marker location and width are defined by the offset and width parameter, respectively, in segment mode.

Base and Threshold 1-4 Settings	Description
Threshold Type: Base	A defined animation state is displayed on LEDs that are not defined within a threshold
Threshold Type: 1-4	Level Mode Values that conform to Threshold Comparison Type ≤ or ≥ and the Threshold Value Percent are displayed on LEDs as defined by the threshold color, intensity, flash speeds, and run mode animation types

Dim and Blend Mode

Dim and blend mode uses the light to finely adjust the intensity of one color, or blend between two or three colors.
Use device registers to set the dim and blend mode value and to set number of colors, range, colors, and intensities.

General Settings	Description
Dim and Blend Mode Value	Value of the intensity of the light in 1 Color mode or value of the blend between colors in 2 and 3 Color mode (between 0 to 65,535)
Full Scale Value	Set the upper limit of the Dim and Blend Mode Value (between 0 to 65,535)

General Settings	Description
Number of Colors	1: Color 1 is solid on at intensity defined by the percentage of Dim and Blend Mode Value to the Full Scale Value when Color 1 Intensity is set to high 2: Color 1 and Color 2 define the end values of a line across the color gamut. The light displays a blended color and moves along the line as defined by the Dim and Blend Mode Value and color intensities 3: Color 1 and Color 2 define the beginning and end value of one line across the color gamut. Color 2 and Color 3 define the beginning and end value of a second line across the color gamut. The light displays a blended color and moves along the two lines as defined by the Dim and Blend Mode Value and color intensities
Filtering	Smooths the input signal by varying the sample size None: There is no filtering Low: The sample size is short and changes to the input signal are more noticeable High: The sample size is long and changes to the input signal are less noticeable

Gauge Mode

Gauge mode uses the light to display a colored band of LEDs in a position proportional to the gauge mode value. Use device registers to set the gauge mode value and to set range, thresholds, colors, intensities, flash speeds, background, threshold markers, and animation types.

General Settings	Description
Gauge Mode Value	Value of the band position within the light (between 0 to 65,535)
Full Scale Value	Set the upper limit of the Gauge Mode Value (between 0 to 65,535)
Filtering	Smooths the input signal by varying the sample size None: There is no filtering Low: The sample size is short and changes to the input signal are more noticeable High: The sample size is long and changes to the input signal are less noticeable
Hysteresis	Determines the signal value change needed to transition between thresholds and to prevent chatter None: The value follows the input signal High: A large value change is needed to transition between thresholds
Gauge Mode Threshold Markers	Threshold markers display LED(s) at the defined thresholds and can be configured as either dominant or non-dominant. Threshold marker location and width are defined by the offset and width parameter, respectively, in segment mode.

Center, Threshold 1, and Threshold 2 Settings	Description
Threshold Type: Center	Gauge Mode Values not in Threshold 1 or Threshold 2 are positioned on a band of LEDs as defined by the center threshold color, intensity, flash speeds, backgrounds, band size percent width, and run mode animation types
Threshold Type: 1 & 2	Gauge Mode Values that conform to Threshold Comparison Type ≤ or ≥ and the Threshold Value Percent are positioned on a band of LEDs as defined by the threshold color, intensity, flash speeds, backgrounds, band size percent width, and run mode animation types

LED Mode

Use device registers to turn on and select a color for each individual LED. Use additional device registers to set global intensity.

General Settings	Description
LED 1-64 Color	Set chosen LED to off or to defined color
LED Mode Intensity	Defines intensity of all LEDs turned on

Demo Mode

Demo sequence cycles through 12 different configurations to highlight example applications.

Specifications

Supply Voltage

12 V DC to 30 V DC
Use only with suitable Class 2 power supply (UL) or a SELV power supply (CE)
See electrical characteristics on product label

Light Length	Typical Current			Maximum Current
	12 V DC	24 V DC	30 V DC	A
0220 mm	0.120	0.060	0.050	0.125
0360 mm	0.240	0.120	0.100	0.250
0500 mm	0.360	0.180	0.150	0.375
0640 mm	0.480	0.240	0.200	0.500
0920 mm	0.720	0.360	0.300	0.750
1200 mm	0.960	0.480	0.400	1.000

Supply Protection Circuitry

Protected against reverse polarity and transient voltages

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

Construction

Clear anodized aluminum housing
Polycarbonate outer housing
Polyamide end caps

Connections

150 mm (6 in) PVC cable with a 4-pin M12 male quick disconnect
Models with a quick disconnect require a mating cordset

Input Response Time

45 ms maximum

Mounting

Integral mounting slots for M4 (#8) screws, tighten to 0.56 N·m (5 in·lbf) max torque
Multiple bracket options available
Secure cables within 150 mm (5.9 in) of the light

Note: It is recommended to use the provided mounting bushings when mounting using the endcaps. Center the mounting bushings in each slot to allow for expansion and contraction. Install using a M4 (#8) screw in each bushing torqued to a maximum of 0.45 N-m (4 in-lbf). For 920 mm and 1200 mm models in environments that vary more than 10 °C (18 °F), it is recommended to use one of the mounting bracket options instead of the end cap slots. If using the LMBWLS15 clip bracket and additional attachment is desired, only one end may be fastened using one of the spacers provided in the LMBWLS15 hardware packet to allow the opposite end to expand and contract. See mounting options in the instruction manual for bracket and tape options that allow expansion and contraction over temperature variations.

Environmental Rating

Rated IEC IP66 and IEC IP67
Suitable for wet locations per UL 2108

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)

Certifications

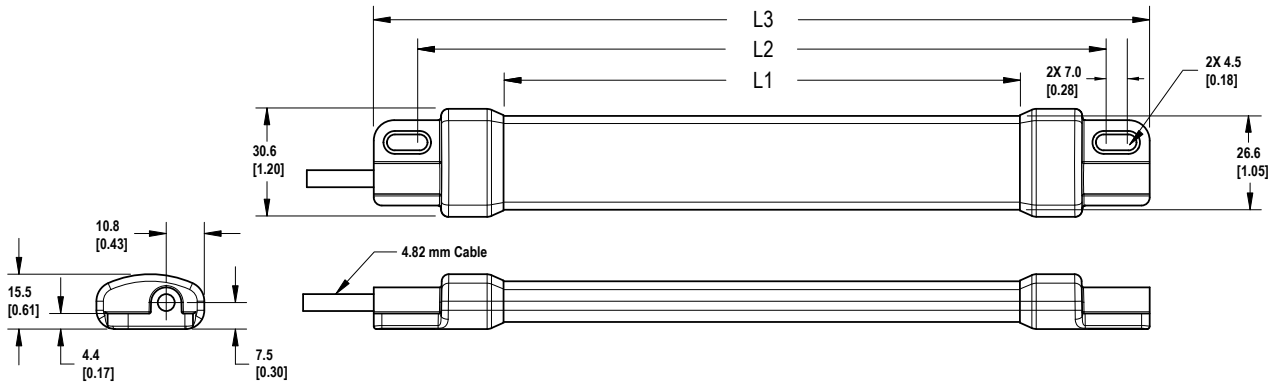
Light Characteristics

RGB LED PWM Frequency: 1kHz

Color	Dominant Wavelength (nm) or Color Temperature (CCT)	Color Coordinates [1]		Lumens at Specified Length (Typical at 25 °C)					
		X	Y	220 mm	360 mm	500 mm	640 mm	920 mm	1200 mm
Daylight White	5000K	0.345	0.352	30	60	90	120	180	240
Incandescent White	2700K	0.460	0.411	30	60	90	120	180	240
Warm White	3000K	0.440	0.404	30	60	90	120	180	240
Fluorescent White	4100K	0.376	0.374	30	60	90	120	180	240
Neutral White	5700K	0.328	0.337	30	60	90	120	180	240
Cool White	6500K	0.314	0.324	30	60	90	120	180	240
Green	532	0.181	0.735	45	90	135	180	270	360
Red	621	0.691	0.308	25	50	75	100	150	200
Yellow	578	0.473	0.474	35	70	105	140	210	280
Blue	467	0.137	0.056	10	20	30	40	60	80
Magenta	-	0.379	0.177	20	40	60	80	120	160
Cyan	492	0.150	0.334	30	60	90	120	180	240
Amber	590	0.552	0.414	30	60	90	120	180	240
Rose	-	0.508	0.230	25	50	75	100	150	200
Lime Green	565	0.393	0.535	40	80	120	160	240	320
Orange	600	0.611	0.370	30	60	90	120	180	240
Sky Blue	485	0.146	0.241	25	50	75	100	150	200
Violet	-	0.212	0.091	15	30	45	60	90	120
Spring Green	509	0.157	0.553	40	80	120	160	240	320

[1] Refer to the CIE 1931 (x,y) Chromaticity Diagram to show equivalent color with indicated color coordinates. Actual coordinates may differ ± 5%.

Dimensions



Models	L1	L2	L3
WLS15..0220..	146.4 mm (5.76 inches)	194 mm (7.64 inches)	220 mm (8.66 inches)
WLS15..0360..	286.4 mm (11.28 inches)	334 mm (13.15 inches)	360 mm (14.17 inches)
WLS15..0500..	426.4 mm (16.79 inches)	474 mm (18.66 inches)	500 mm (19.69 inches)
WLS15..0640..	566.4 mm (22.3 inches)	614 mm (24.17 inches)	640 mm (25.2 inches)
WLS15..0920..	846.4 mm (33.32 inches)	894 mm (35.2 inches)	920 mm (36.22 inches)
WLS15..1200..	1126.4 mm (44.35 inches)	1174 mm (46.22 inches)	1200 mm (47.24 inches)

Accessories

Cordsets

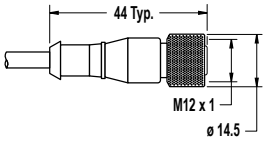
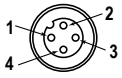
Use single-ended cordsets between the power source and the quick disconnect connection of the first device in a chain. Use double-ended cordsets between devices in a chain.

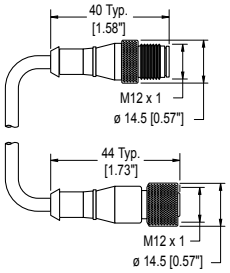
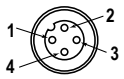
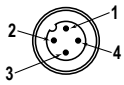
PSD-24-4

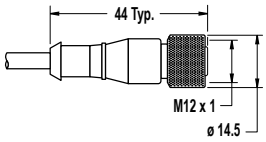
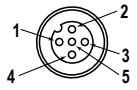
- 90 to 264 V AC 50/60 Hz input
- Includes a 1.8 m (6 ft) US style 5-15P input plug
- 24 V DC UL Listed Class 2 M12 connector output
- 4 A total current

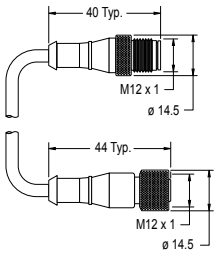
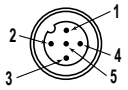
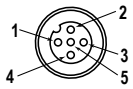
PSW-24-1

- 24 V DC, 1 A Class 2 UL Listed power supply
- 100 V AC to 240 V AC 50/60 Hz input
- 2 m (6.5 ft) PVC cable with M12 quick disconnect
- Includes Type A (US, Canada, Japan, Puerto Rico, Taiwan), Type C (Germany, France, South Korea, Netherlands, Poland, Spain, Turkey), Type G (United Kingdom, Ireland, Singapore, Vietnam), and Type I (China, Australia, New Zealand) AC detachable input plugs

4-Pin Threaded M12 Cordsets—Single Ended				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQDC-406	1.83 m (6 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black
MQDC-415	4.57 m (15 ft)			
MQDC-430	9.14 m (30 ft)			
MQDC-450	15.2 m (50 ft)			

4-Pin Threaded M12 Cordsets—Double Ended				
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-420SS	6.10 m (20 ft)			
MQDEC-430SS	9.14 m (30.2 ft)			
MQDEC-450SS	15.2 m (49.9 ft)			

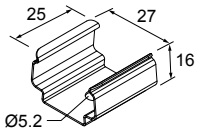
5-Pin M12 Shielded Twisted Pair Cordsets—Single Ended				
Model	**Length**	**Style**	**Dimensions**	**Pinout (Female)**
MQDC-STP-501	0.31 m (1 ft)	Straight		 1 = Brown 2 = White 3 = Blue 4 = Black 5 = Shield
MQDC-STP-503	0.92 m (3 ft)			
MQDC-STP-506	1.83 m (6 ft)			
MQDC-STP-515	4.57 m (15 ft)			
MQDC-STP-530	9.15 m (30 ft)			

5-Pin Threaded M12 Shielded Twisted Pair Cordsets—Double Ended					
Model	**Length**	**Style**	**Dimensions**	**Pinout (Male)**	**Pinout (Female)**
MQDEC-STP-501SS	0.31 m (1 ft)	Male Straight/ Female Straight		 1 = Brown 2 = White 3 = Blue	 4 = Black 5 = Shield
MQDEC-STP-503SS	0.91 m (2.99 ft)				
MQDEC-STP-506SS	1.83 m (6 ft)				
MQDEC-STP-515SS	4.58 m (15 ft)				
MQDEC-STP-530SS	10 m (32.8 ft)				
MQDEC-STP-550SS	15 m (49.2 ft)				

Mounting Accessories

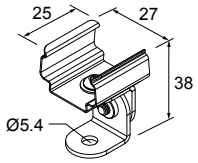
LMBWLS15

- Stainless steel clip bracket
- Includes 3 clip brackets and 2 plastic spacers
- Clearance hole for M5 hardware



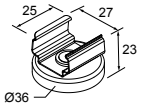
LMBWLS15-150S

- Set of 2 stainless steel swivel bracket, allows for 150° of movement
- Clearance hole for M5 button head screw



LMBWLS15MAG

- Set of 2 brackets
- Magnetic mounting bracket for attachment to steel and iron surfaces



LMBWLS15TD

- Includes 4 100 mm (4 in) strips of 3M™ Dual Lock™ reclosable fasteners
- Recommended for mounting to metal and plastic surfaces
- Strong, pressure-sensitive adhesive bonds on contact

LMBWLS15TF

- Includes 2 100 mm (4 in) strips of double-sided foam urethane strips
- Acrylic adhesive provides high bond strength to most surfaces
- Bonds to low surface energy plastics such as polypropylene and powder coated paints

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

Banner Engineering Corp. Limited Warranty

Banner Engineering Corp. warrants its products to be free from defects in material and workmanship for one year following the date of shipment. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture which, at the time it is returned to the factory, is found to have been defective during the warranty period. This warranty does not cover damage or liability for misuse, abuse, or the improper application or installation of the Banner product.

THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES WHETHER EXPRESS OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), AND WHETHER ARISING UNDER COURSE OF PERFORMANCE, COURSE OF DEALING OR TRADE USAGE.

This Warranty is exclusive and limited to repair or, at the discretion of Banner Engineering Corp., replacement. **IN NO EVENT SHALL BANNER ENGINEERING CORP. BE LIABLE TO BUYER OR ANY OTHER PERSON OR ENTITY FOR ANY EXTRA COSTS, EXPENSES, LOSSES, LOSS OF PROFITS, OR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES RESULTING FROM ANY PRODUCT DEFECT OR FROM THE USE OR INABILITY TO USE THE PRODUCT, WHETHER ARISING IN CONTRACT OR WARRANTY, STATUTE, TORT, STRICT LIABILITY, NEGLIGENCE, OR OTHERWISE.**

Banner Engineering Corp. reserves the right to change, modify or improve the design of the product without assuming any obligations or liabilities relating to any product previously manufactured by Banner Engineering Corp. Any misuse, abuse, or improper application or installation of this product or use of the product for personal protection applications when the product is identified as not intended for such purposes will void the product warranty. Any modifications to this product without prior express approval by Banner Engineering Corp will void the product warranties. All specifications published in this document are subject to change; Banner reserves the right to modify product specifications or update documentation at any time. Specifications and product information in English supersede that which is provided in any other language. For the most recent version of any documentation, refer to: www.bannerengineering.com.

For patent information, see www.bannerengineering.com/patents.

FCC Part 15 and CAN ICES-3 (B)/NMB-3(B)

This device complies with part 15 of the FCC Rules and CAN ICES-3 (B)/NMB-3(B). Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules and CAN ICES-3 (B)/NMB-3(B). These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the manufacturer.

Mexican Importer

Banner Engineering de Mèxico, S. de R.L. de C.V.
David Alfaro Siqueiros 103 Piso 2 Valle oriente
San Pedro Garza Garcia Nuevo Leòn, C. P. 66269

81 8363.2714

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Banner Engineering:

WLS15PXRGB0220DSSQP WLS15PXRGB0360DSSQP WLS15PXRGB0500DSSQP WLS15PXRGB0640DSSQP WLS15PXRGB0920DSSQP WLS15PXRGB1200DSSQP