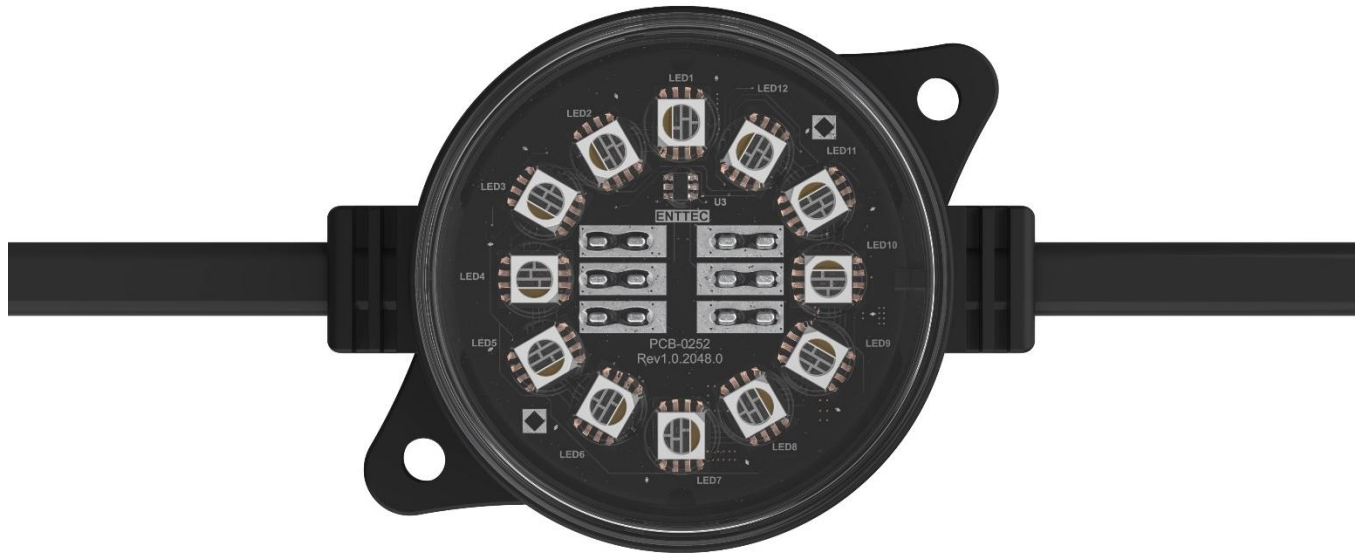


# SMART PXL60 DOT (48V) - Datasheet

60mm diameter RGB/RGBW LED pixel dot in 48V with high resolution dimming.



Robust and reliable, ENTTEC’s high-resolution, individually addressable SMART PXL60 Dots are designed and made in Australia to withstand the harshest of environments.



Easy to install and configure into any conceivable shape, Smart PXL Dots create spectacular, crisp lighting effects while adding a stylish design element to your venue or installation chose between custom options for pitch and a selection of voltages & lens.

Engineered to take any architectural, commercial or entertainment project to the next level, the SMART PXL range has been created by lighting professionals for lighting professionals.

## FEATURES

- Available in 48V RGB and RGBW.
- Auto-addressing LED pixels for fast commissioning.
- Customisable cable length.
- Premium IP-rated connectors at each end.
- Flat or dome shape lens options made from Clear or Diffuse optical grade polycarbonate.
- 16-bit control for ultra-smooth dimming.
- Control protocol SPXL 16-bit. Explore ENTTEC's full range of pixel controllers at enttec.com.
- Reverse polarity protection
- Voltage transient protection
- IK10 & 3G vibration resistant (IEC68-2-6)
- UV resistant & IP67
- This product requires an external DC power supply and data source for operation. (not included).

### Electrical

Body Material	Injection moulded PVC - UV resistant			
Lens Material	Optical Grade Polycarbonate			
Weight	Approx. 70g/dot (excl lead in & out)			
IK & IP rating	IK10 & IP67			
Max Operating Ambient Temperature	50°C			
Input Voltage	48V			
Maximum Power per Dot	RGB: 2.2W			
	RGBW: 2.7W			
Maximum Current Draw per Dot	RGB: 45mA			
	RGBW: 55mA			
Max Current Throughput Capacity	10A			
Cable Resistance	0.0132 Ohm/m			
Cable Thickness	16AWG			
48V Connector Pinout	Pin 1	Pin 2	Pin 3	Pin 4
	0V	Data	+48V	N/C
Warranty	3 Year return to base manufacturer warranty.			

### LED Control

LED source	RGB	12 pcs RGB SMD3535		
	RGBW	12 pcs RGBW 3000K SMD5050		
Control protocol	ENTTEC SPXL-16			
SPXL-16 channel footprint (16-bit - RGB)	6 DMX slots/dot			
	Coarse   Fine   Coarse   Fine   Coarse   Fine			
SPXL-16 channel footprint (16-bit - RGBW)	8 DMX slots/dot			
	Coarse   Fine   Coarse   Fine   Coarse   Fine   Coarse   Fine			
Colour resolution (16-bit RGB)	$65536^3 = 281.4$ quadrillion			
Colour resolution (16-bit RGBW)	$65536^4 = 18.4$ Quintillion			
Dots controllable per DMX universe	SPXL-16 RGB:	85 dots		
	SPXL-16 RGBW:	64 dots		
LED lifetime	50,000 hrs (L70)			
Compatible protocol	RGB	UCS8903B (Only 16-bit)		
	RGBW	UCS8904B (Only 16-bit)		

### Lumen Output

RGB			
Lumen (lm)	Voltage	48V	
	Lens Type	Dome Diffuse	Flat Clear
	Red	12.3	17.1
	Green	27.4	38.3
	Blue	5.9	8.2
	White (RGB)	45.7	63.5
Efficacy (lm/watt)	White (RGB)	20.8	28.9

RGBW			
Lumen (lm)	Voltage	48V	
	Lens Type	Dome Diffuse	Flat Clear
	Red	11.6	15.0
	Green	25.5	33.5
	Blue	6.2	8.2
	White (RGB)	43.3	56.7
Max White (RGBW)	76.7	101.4	
Efficacy (lm/watt)	Max White (RGBW)	28.4	37.6

### Installation

Before handling or specifying this product, always refer to its installation guide and familiarize yourself with the safety notes. If ever unsure consult ENTTEC.

### Data Direction

The pixel data in the SMART PXL60 Dot must travel in a specific direction for it to function. This direction can be identified through the direction of the arrow printed on the centre of PCB.



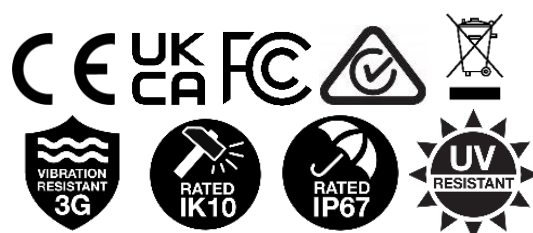
In the event surface of PCB is inaccessible, data direction always flows as illustrated with respect to ENTTEC logo on the bottom of housing.



### Connecting Smart PXL Dots

Use any ENTTEC pixel controller compatible with the Smart PXL60 Dot. For the latest information visit: [LED pixel control technology | ENTTEC : ENTTEC.](#)

### Certification

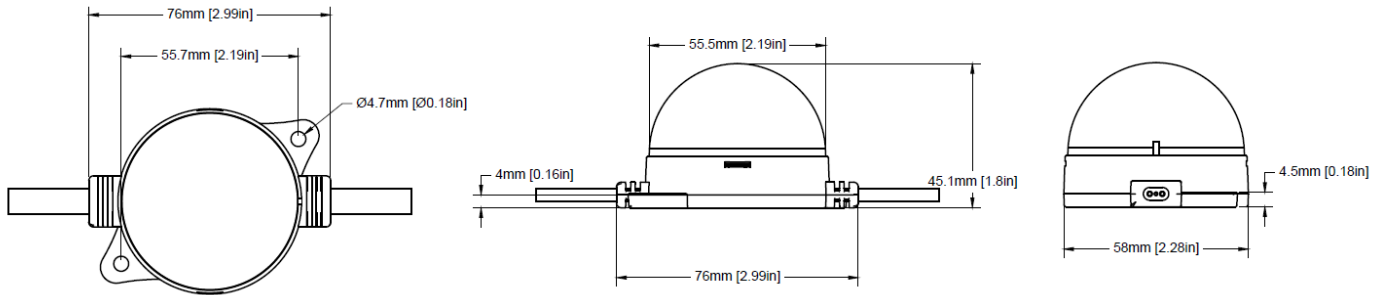


Salt corrosion test (e.g. ASTM B117) not applicable due to non-metallic, inherently salt resistant body and lens material.

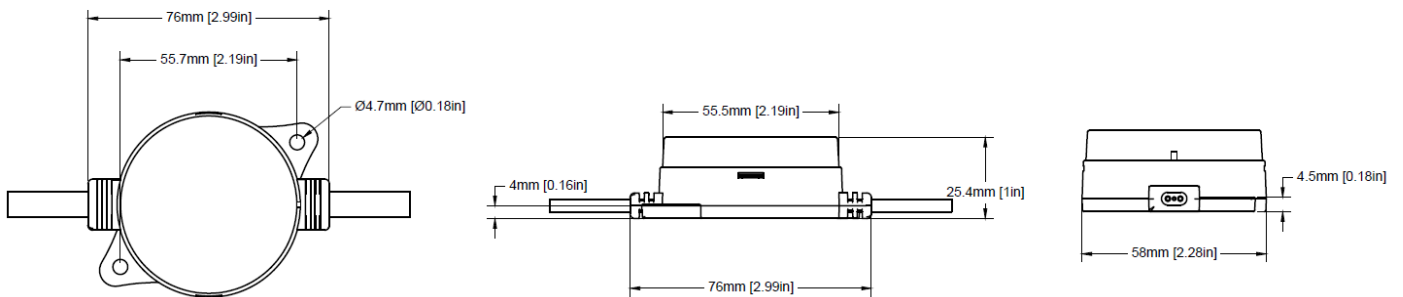
## PHYSICAL DIMENSIONS

Note: Lenses are non-removable & recommended in the absence of protective measure against external impact in installation. One small slit on the bottom edge of Diffuser for pressure relief.

### Smart PXL60 Dot - Dome Lens

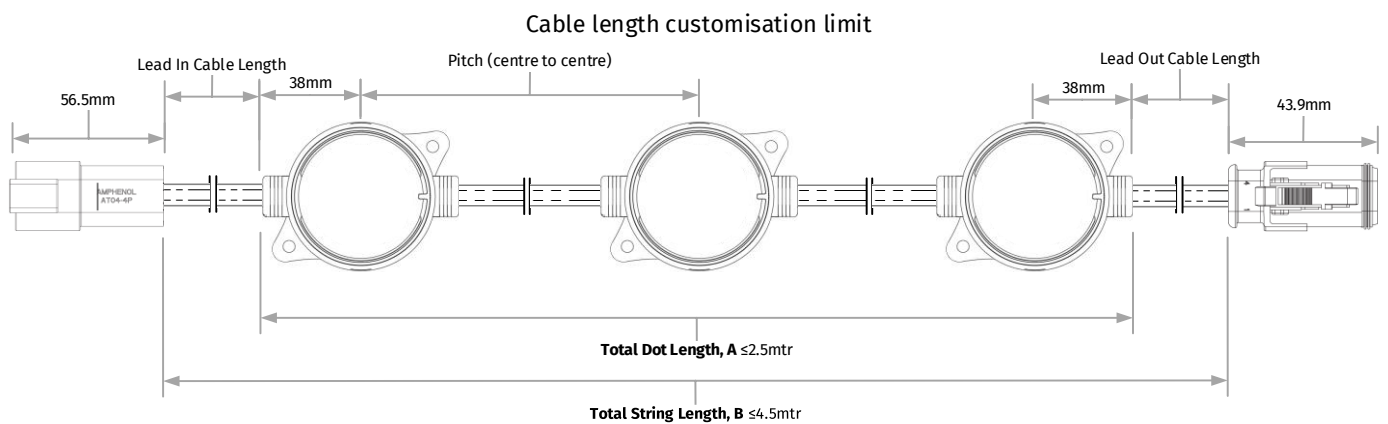


### Smart PXL60 Dot - Flat Lens



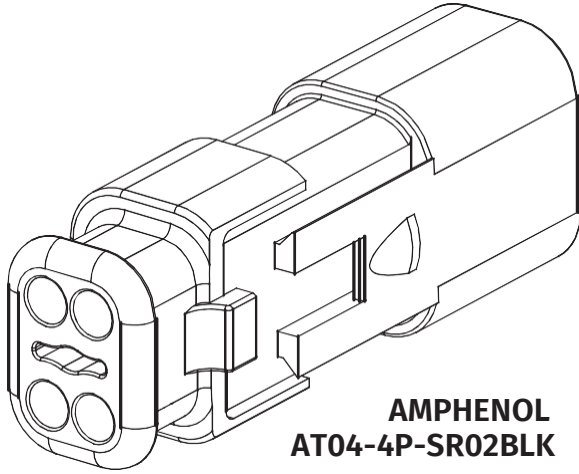
## Cable Customisation

ENTTEC support cable length customisation. Please see below illustration for length limit. Refer to order code section and reach out to ENTTEC or your ENTTEC dealer to discuss your project needs.



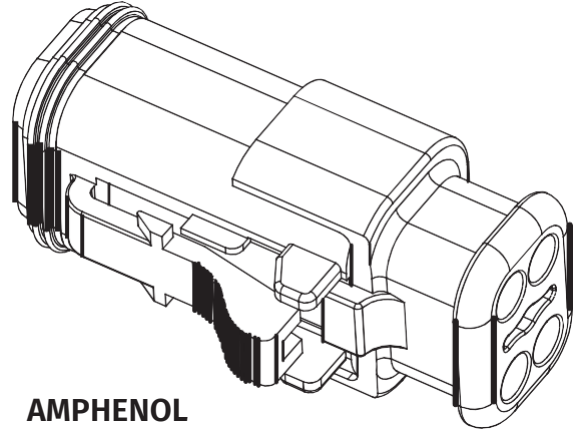
## PREMIUM CONNECTORS

For ultimate reliability, ENTTEC offers Amphenol AT series connectors (compatible with DEUTSCH DT systems).



**AMPHENOL  
AT04-4P-SR02BLK**

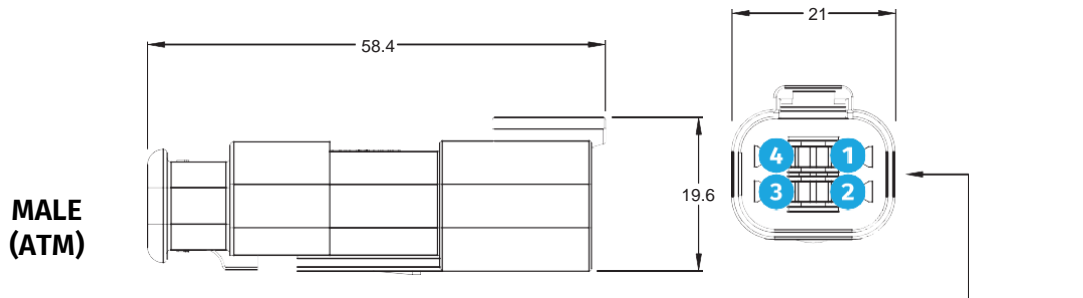
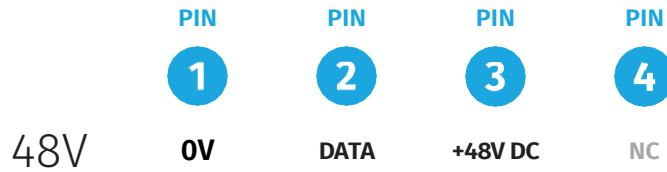
4-way receptacle, **MALE** connector with strain relief, reduced diameter seal, black.



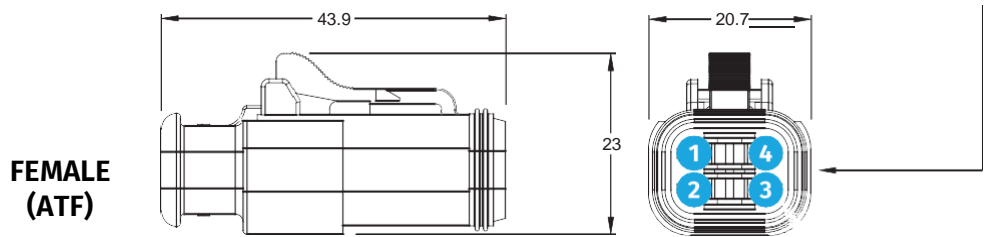
**AMPHENOL  
AT06-4S-SR02BLK**

4-way plug, **FEMALE** connector with reduced diameter seal (E-Seal), endcap, and strain relief, black.

### Pin output configurations



**CONNECT**



## ORDERING INFORMATION

### Smart PXL60 Dots

Visit ENTTEC's [website](#) to shop for SMART PXL60 Dots.

To discuss customisation options, pricing and lead times contact our sales team at [sales@enttec.com](mailto:sales@enttec.com).

Refer to Order Codes section for customisation and limitation.

### Order Codes

Order codes are created using the table below:

Product Code	Lens Type	Dots Per String	Pixel Pitch* (mm)	Lead In Length* (mm)	Lead Out Length* (mm)	LED Type	Lead In Connector Type	Lead Out Connector Type <sup>1</sup>	Voltage
73050 (Smart PXL60 Dot)	FC (Flat Clear)	Min: 1 Max: 17	Min: 150	Min: 150	Min: 150	RGB	ATM (Amphenol AT Series <b>Male</b> - Wired per diagram)	ATF (Amphenol AT Series <b>Female</b> - wired per diagram)	48V
	DD (Dome Diffuse)		Max: 2000	Max: 2000	Max: 2000	RGBW	BET (Custom - Bare End Tinned)	BET (Custom - Bare End Tinned)	

\* Length tolerance: ±5%

### Example Order Codes

The codes below reflect options shown within the table above.

Product Specification	Order code
Smart PXL60 DOT / Dome Diffuse Lens / 10 dots per string / 150mm pitch / 500mm lead in cable / 500mm lead out cable / RGB / Amphenol AT Series male input / Amphenol AT Series female output / 48 volts	73050-DD-10-150-500-500-RGB-ATM-ATF-48

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*Due to constant innovation, information within this document is subject to change.*

<sup>1</sup> ENTTEC Termination End Cap [73015] only compatible with Female Amphenol AT series connector.