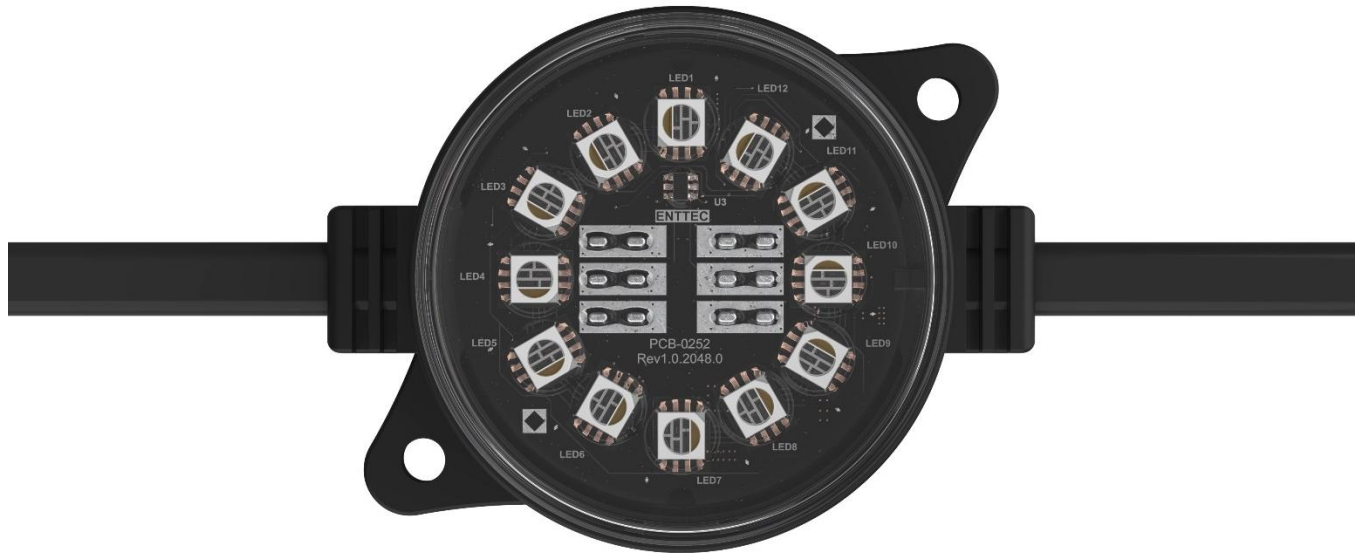


SMART PXL60 DOT (24V) - Datasheet

60mm diameter RGB/RGBW LED pixel dot in 24V 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 24V 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 | 24V | | | |
| Maximum Power per Dot | RGB: 1.6W | | | |
| | RGBW: 2.1W | | | |
| Maximum Current Draw per Dot | RGB: 65mA | | | |
| | RGBW: 88mA | | | |
| Rated Current Throughput Capacity | 4.17A (Class 2 or LPS power unit only) | | | |
| Cable Resistance | 0.0132 Ohm/m | | | |
| Cable Thickness | 16AWG | | | |
| 24V Connector Pinout | Pin 1 | Pin 2 | Pin 3 | Pin 4 |
| | 0V | Data | N/C | +24V |
| 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 | 24V | |
| | Lens Type | Dome Diffuse | Flat Clear |
| | Red | 12.4 | 16.6 |
| | Green | 28.4 | 38.7 |
| | Blue | 7.1 | 9.6 |
| | White (RGB) | 47.9 | 65 |
| Efficacy (lm/watt) | White (RGB) | 29.9 | 40.6 |

| RGBW | | | |
|--------------------|------------------|--------------|------------|
| Lumen (lm) | Voltage | 24V | |
| | Lens Type | Dome Diffuse | Flat Clear |
| | Red | 12.5 | 16 |
| | Green | 29.5 | 37.4 |
| | Blue | 7.2 | 9.0 |
| | White (RGB) | 49.3 | 62.4 |
| Max White (RGBW) | 87.3 | 110.4 | |
| Efficacy (lm/watt) | Max White (RGBW) | 41.6 | 52.6 |

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.



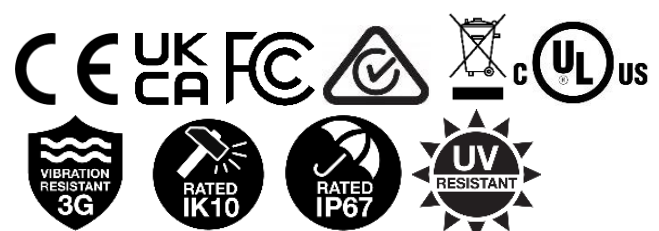
In the event surface of PCB is inaccessible, data direction always flows as illustrated with respect to ENTTEC logo on the bottom of housing.



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

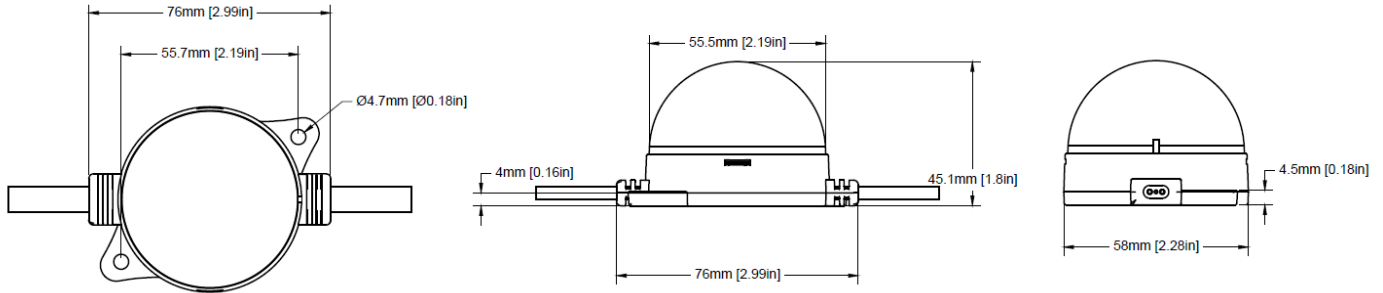


Salt corrosion test (e.g. ASTM B117) not applicable due to non-metallic, inherently salt resistant body and lens material.

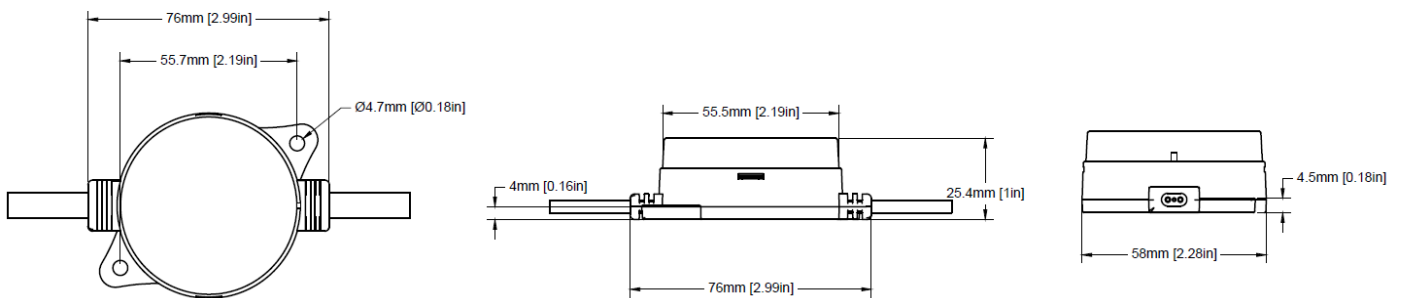
PHYSICAL DIMENSIONS

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

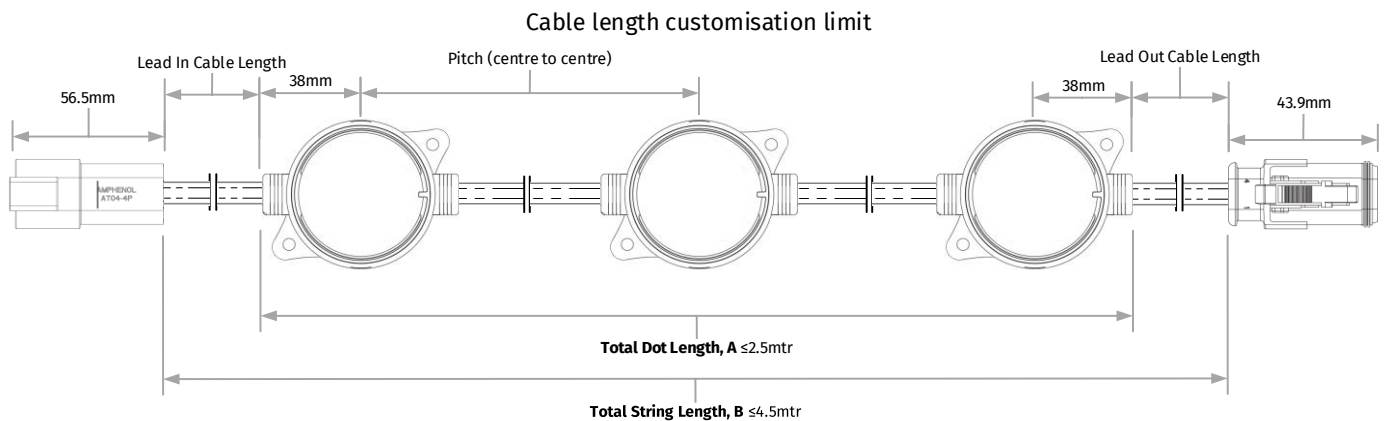


Smart PXL60 Dot - Flat Lens



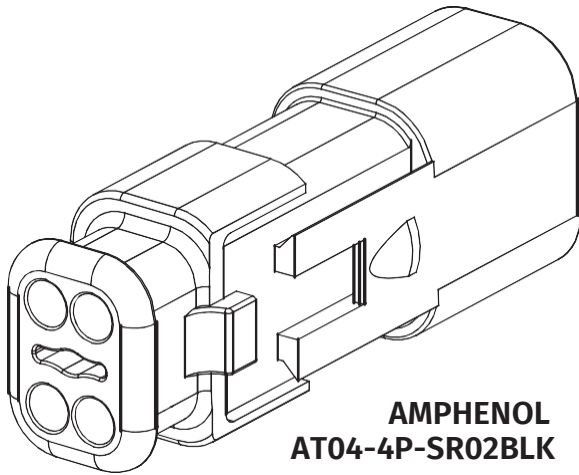
Cable Customisation

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.



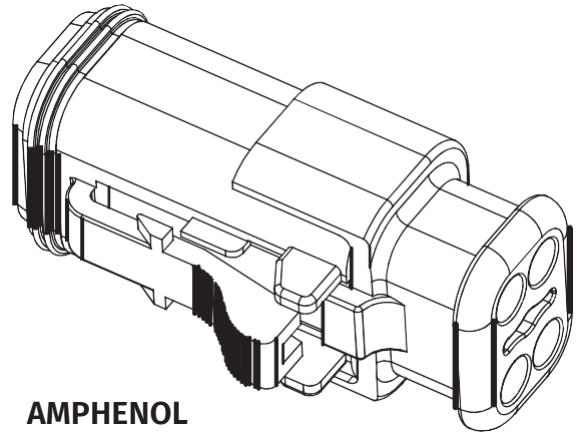
PREMIUM CONNECTORS

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



**AMPHENOL
AT04-4P-SR02BLK**

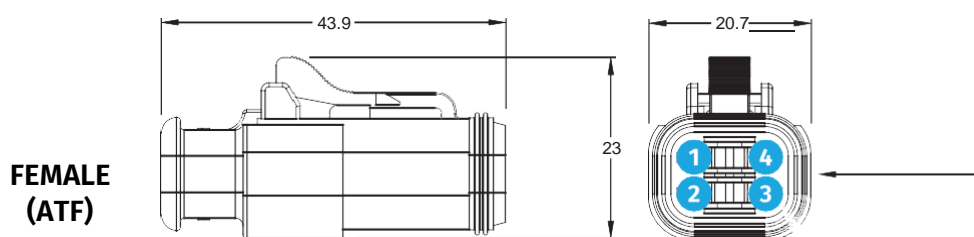
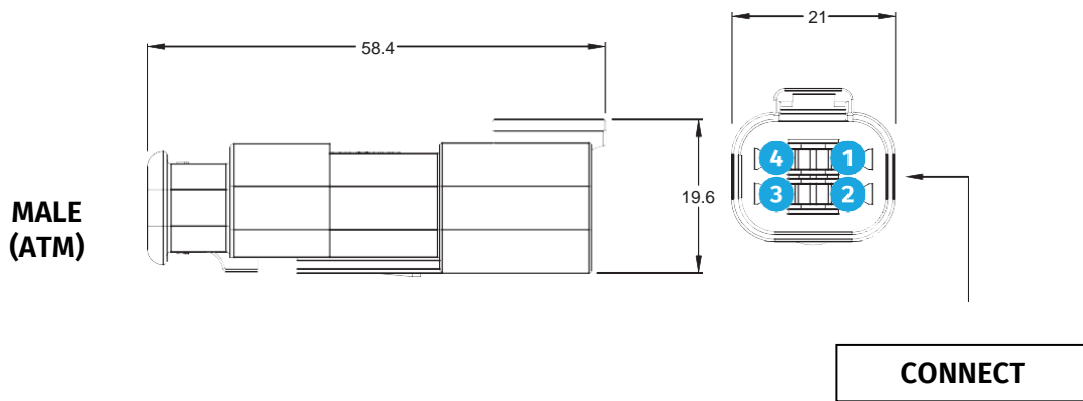
4-way receptacle, **MALE** connector with strain relief, reduced diameter seal, black.



**AMPHENOL
AT06-4S-SR02BLK**

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

Pin output configurations



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.

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 ¹ | Voltage |
|----------------------------|----------------------|-------------------|-----------------------|-----------------------|-----------------------|----------|---|---|---------|
| 73050 (Smart PXL60 Dot) | FC (Flat Clear) | Min: 1 Max: 17 | Min: 150 Max: 2000 | Min: 150 Max: 2000 | Min: 150 Max: 2000 | RGB | ATM (Amphenol AT Series Male - Wired per diagram) | ATF (Amphenol AT Series Female - wired per diagram) | 24V |
| | DD (Dome Diffuse) | | Increment: 25 | Increment: 25 | Increment: 25 | 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 / 24 volts | 73050-DD-10-150-500-500-RGB-ATM-ATF-24 |

enttec.com

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

¹ ENTTEC Termination End Cap [73015] only compatible with Female Amphenol AT series connector