

PLASTIC SMART PXL40 DOT

High Resolution Smart 40mm RGB pixel dot (24V)



Light weight and reliable, ENTTEC's high-resolution, individually addressable Plastic SMART PXL 40 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.

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 option
- Auto-addressing LED pixels for fast commissioning.
- Customizable cable length.
- Premium IP-rated connectors at each end.
- Flat lens made from Clear or Diffuse optical grade polycarbonate.
- 16-bit control for ultra-smooth dimming or option for simulated 8-bit control (ONLY with ENTTEC pixel controllers) for reduced channel quantity.
- Control protocol SPXL 16-bit. Refer to www.enttec.com/support/supported-led-pixel-protocols/ for list of compatible ENTTEC controllers.
- Reverse polarity protection
- Voltage transient protection
- IK10 & vibration resistant (IEC68-2-6)
- This product requires an external DC power supply and data source for operation. (not included).

SPECIFICATION

Electrical

Body material	Injection molded PVC - UV resistant			
Lens material	Optical Grade polycarbonate			
Dot pitch	Customization options available			
Weight	Approx. 48g/dot (excl lead in & out)			
IK & IP rating	IK10 & IP67			
Operating temperature	-20°C to +50°C			
Input voltage	24V			
Heat dissipation (maximum per Dot)	1.5Watts			
Maximum power	1.6W/dot			
Maximum current draw	60mA/dot			
Rated current throughput capacity	10A			
Lumen (lm)	Diffuser	Flat Clear	Dome Diffuse	
	Red	7.5	6.2	
	Green	17.3	14.3	
	Blue	4.3	3.6	
	White (R+G+B)	29.1	24.1	
Efficacy (lm/watt)	White (R+G+B)	18.2	15.1	
Cable resistance	0.0132 Ohm/m			
Cable thickness	16AWG			
Incoming cable length (connector to first dot)	Customization options available			
Outgoing cable length (last dot to connector)	Customization options available			
Connector type	Customization options available			
24V Connector pinout	Pin 1	Pin 2	Pin 3	Pin 4
	0V	Data	N/C	+24V
Warranty	3 Year return to base manufacturer warranty.			

Control

LED source	6 pcs RGB SMD3535	
Control protocol	ENTTEC SPXL-8 / SPXL-16	
SPXL-8 channel footprint (8-bit - RGB)	3 DMX channels/dot Red Green Blue	
SPXL-16 channel footprint (16-bit - RGB)	6 DMX slots/dot Coarse Fine Coarse Fine Coarse Fine	
Colour resolution (8-bit - RGB)	256 ³ = 16.7 million	
Colour resolution (16-bit RGB)	65536 ³ = 281.4 Quadrillion	
Dots controllable per DMX universe:	SPXL-8	170 dots
	SPXL-16	85 dots
LED lifetime	50,000 hrs (L70)	
Compatible protocol	UCS8903 (Only 16-bit)	

Installation

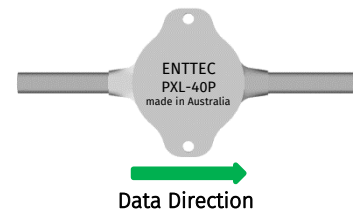
Before handling or specifying this product, always refer to its installation guide and familiarize yourself with the safety notes. If ever unsure consult ENTTEC.

Data direction

The pixel data in the Plastic SMART PXL40 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 center 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.

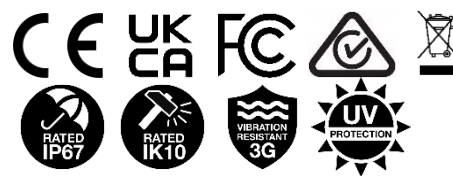


Connecting Smart PXL Dots

Use any ENTTEC pixel controller compatible with the voltage range of the Plastic Smart PXL40 dot. For the latest information visit:

www.enttec.com/range/controls/addressable-led-pixel-control/.

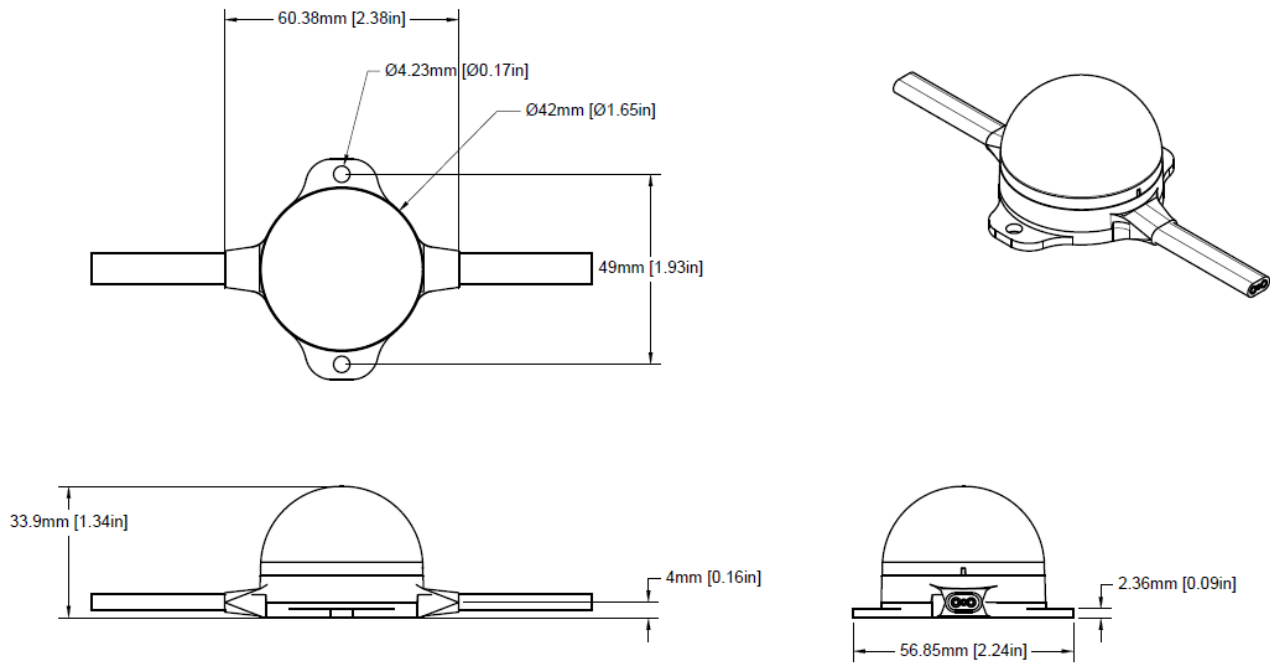
Certification



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

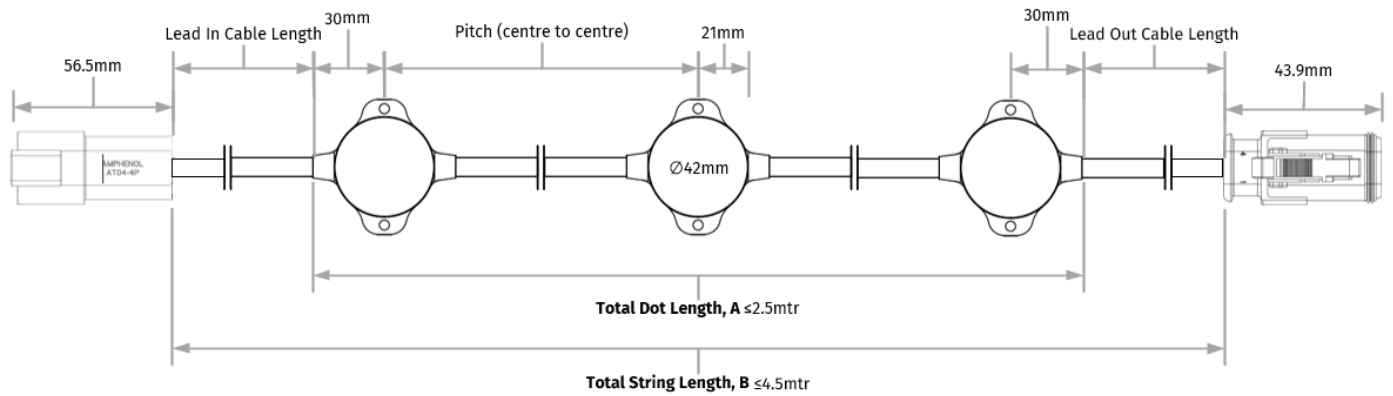
PHYSICAL DIMENSIONS

Plastic Smart PXL40 Dot



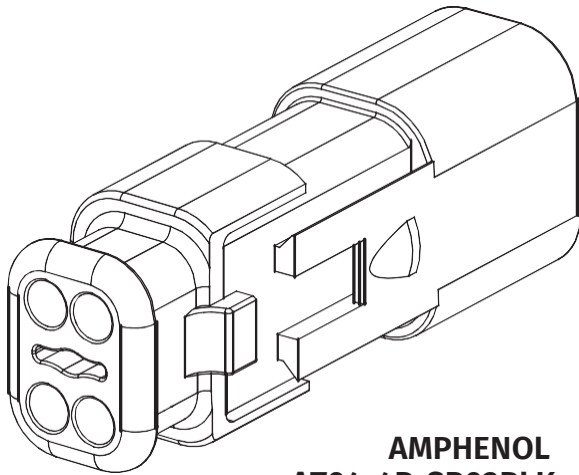
Enttec support cable length customization. Please see below illustration for length limit. Refer to order code section and reach out to ENTTEC or your ENTTEC dealer to discuss your project needs.

Cable length customisation limit



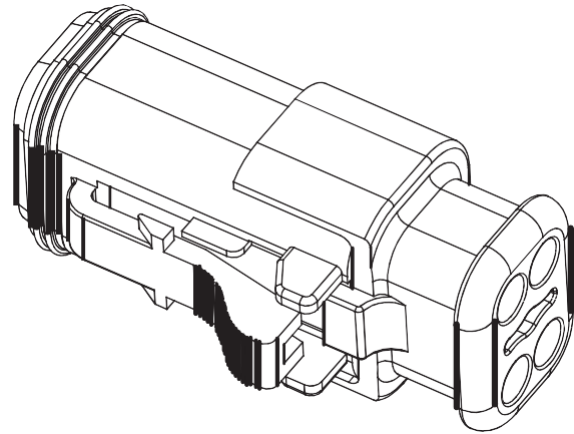
PREMIUM CONNECTORS

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



AMPHENOL AT04-4P-SR02BLK

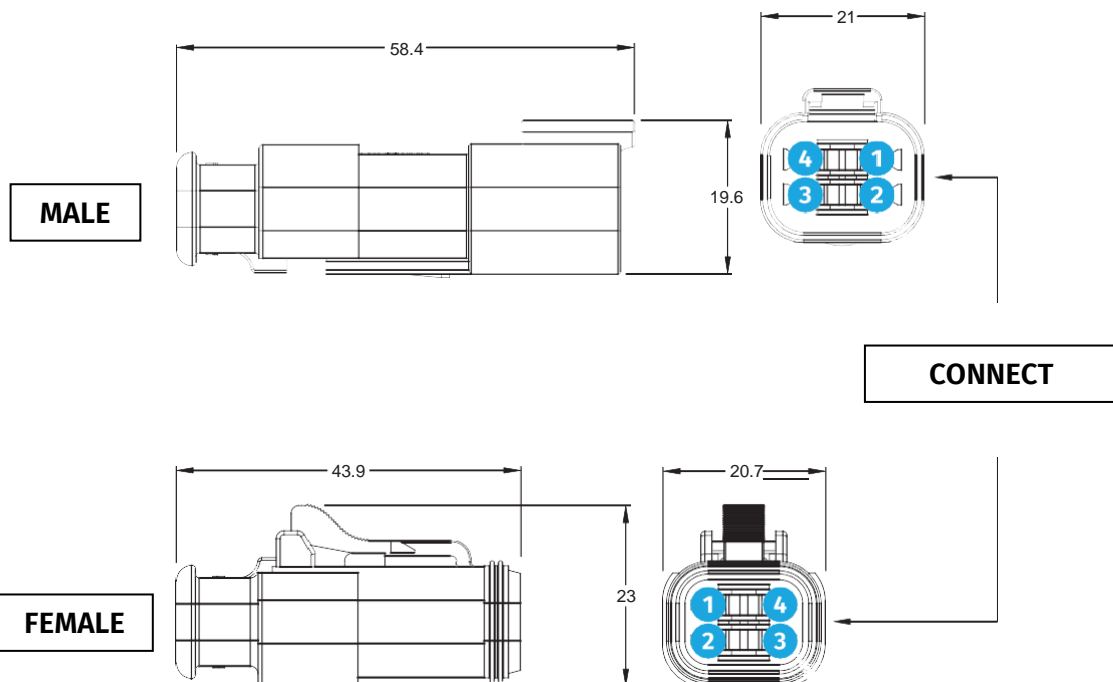
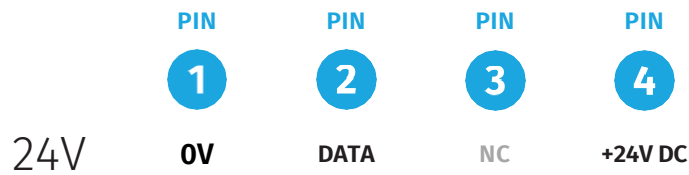
4-way receptacle, **MALE** connector with strain relief, reduced diameter seal, black.



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

Plastic Smart PXL40 Dots

Visit ENTTEC's [website](#) to shop for Plastic SMART PXL40 Dots.

To discuss customization options, pricing and lead times contact our sales team at sales@enttec.com.

Order codes

Order codes are created using the table below:

Product code	Diffuser 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
73040 (Plastic Smart PXL40 Dot)	DC (Dome Clear)	Min: 1 Max: 20	Min: 125	Min: 125	Min: 125	RGB	ATM (Amphenol AT Series Male - Connectors will be wired as per the diagrams above based on voltage)	ATF (Amphenol AT Series Female - Connectors will be wired as per the diagrams above based on voltage)	24V
	DD (Dome Diffuse)		Max: 2000	Max: 2025	Max: 2025		BET (Custom - Bare end tinned)	BET (Custom - Bare end tinned)	
			Increment: 25	Increment: 100	Increment: 100				

Please refer to cable customizable section for length limit.
Refer to order code section and reach out to ENTTEC or your ENTTEC dealer to discuss your project needs.

Example order codes

The codes below reflect options shown within the table above.

Item	Order code
Plastic Smart PXL40 DOT / Dome Clear 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	73040-DC-10-150-500-500-RGB-ATM-ATF-24

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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.