



Smart PXL 40 DOT

HIGH-RESOLUTION SMART 40mm RGB PIXEL DOTS 125MM PITCH



General Information

- Auto addressing
- This device will require an external DC power supply (not included) for normal operation

Features

- 16bit control for ultra-smooth dimming or 8bit control (ONLY with ENTTEC pixel controller) for lower channel count installation
- 125mm Pitch (customisable; min/max length: 50mm/3000mm)
- Supplied in a string of 50 dots with IP rated connectors at each end (length: 6.61m)
- SPXL-8/16 protocol. Refer to www.enttec.com/support/supported-led-pixel-protocols/ for list of compatible ENTTEC controllers
- Anodized 6082 aluminium body
- Replaceable diffuser (Dome and Flat)
- Built-in data signal reshaping circuit
- 24V DC input supply voltage
- Suitable for indoor and outdoor use
- IP67 Rated
- 16 AWG copper cabling to reduce voltage drop
- 3-year warranty

Specifications

Item	Value		
Input Voltage	24V DC		
Max. power	1.5 W per dot		
Max. Current	60 mA per dot		
LED Source	6pcs SMD3535		
LED operational life	50.000 hours within the working temperature range		
Lumens lm	No diffuser	DOME	FLAT
	33	24	29
Efficacy lm/watt	22	16	19.3
Housing	Anodized 6082 aluminium body		
IP Grade	IP67		
Protocol	SPXL-8 ¹ SPXL-16 ²		
SPXL-8 Footprint per Dot (8-bit)	3 DMX slots per dot		
	Red	Green	Blue
SPXL-16 Footprint per DOT (16-bit)	6 DMX slots per dot		
	Red Coarse	Red Fine	Green Coarse
		Green Fine	Blue Coarse
			Blue Fine

¹ Only available on ENTTEC pixel controller
 M-Files ID: 5920463

² Compatible with UCS8903 protocol



Pixel ordering	SPXL-8: R-G-B SPXL-16: R-R-G-G-B-B	
Colour Resolution (8-bit)	$2^8 \times 2^8 \times 2^8 = 16.7$ million (Note 1)	
Colour Resolution (16-bit)	$2^{16} \times 2^{16} \times 2^{16} = 68$ billion (Note 2)	
DMX channel quantity	No. of dots controllable per universe	
	SPXL-8 170 dots	SPXL-16 85 dots
Beam Angle	120° (clear lens)	
DOT Pitch	125mm (8 dots /m)	
Base Dot Size L x W x H	47 x 57 x 13 mm	
Weight	2.52 kg (string of 50 dots)	
Working Temp	-20°C to +50°C	
Connector gender	In: Male	Out: Female

DATA DIRECTION

The pixel data in the Smart PXL DOT 40 has to travel in a specific direction. The direction is shown on the following:

- PCB
- Notch in the body



- Arrow in the bottom of the case



Connecting SMART PXL DOT

Use any of ENTTEC Pixel drivers to control the Smart PXL DOT 40. For the latest information visit

<https://www.enttec.com.au/product/led-pixel-drivers/ethernet-pixel-controller/>

Ensure your selected pixel controller is of a voltage rating that matches your selected Smart PXL DOTs.

Ensure that your pixel controller has been connected in such a way to ensure the data is flowing from the controller down the string of Dots.

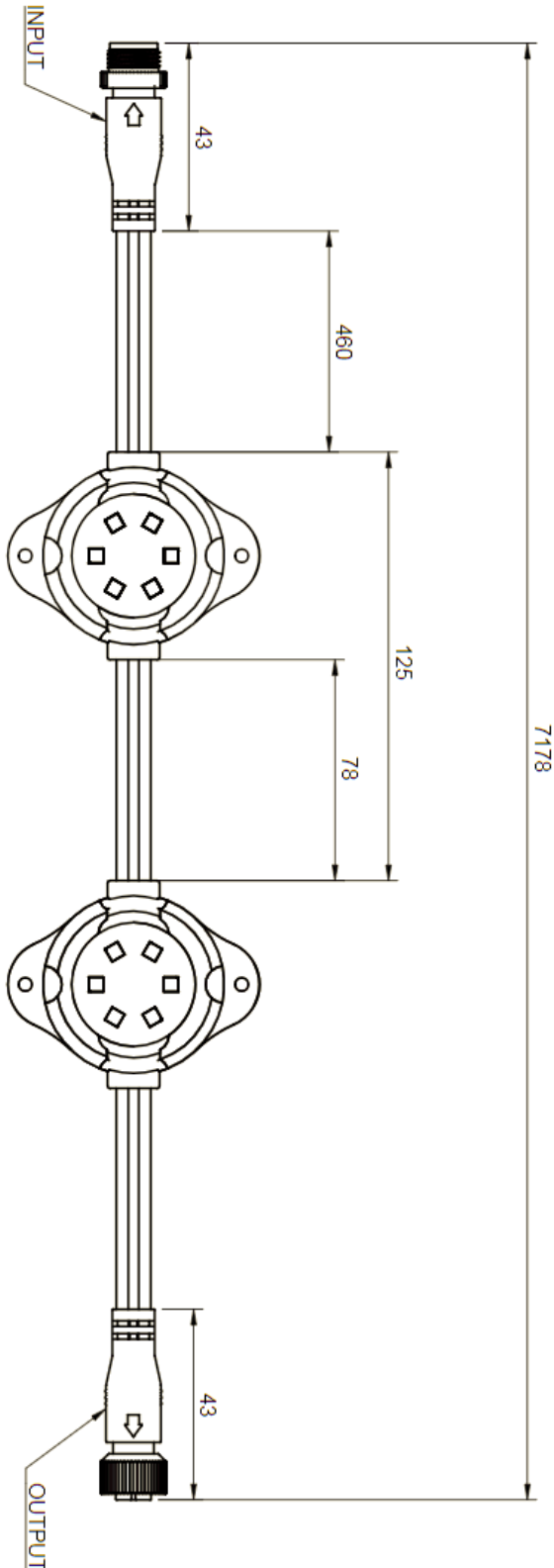
Voltage Drop

Based on 125mm spacing, the advisable maximum length that can be run without incurring in significant voltage drop is 150 dots.

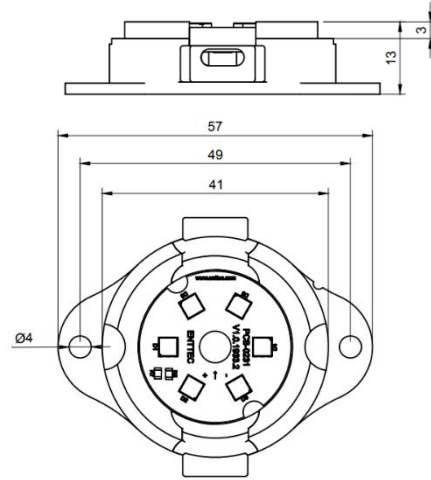
Strings longer than 150 dots will require power to be re injected (refer to Pixel installation sheet for more details).

Physical Dimension

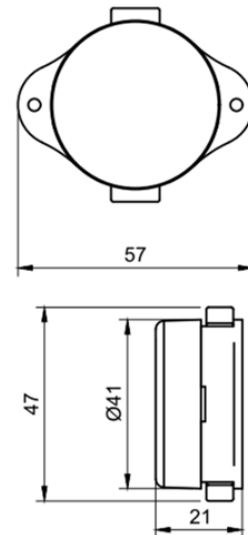
Dimensions in mm
String of 50 DOTs



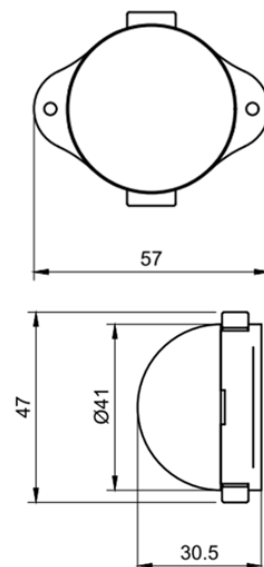
DOT



DOT WITH DIFFUSER FLAT



DOME

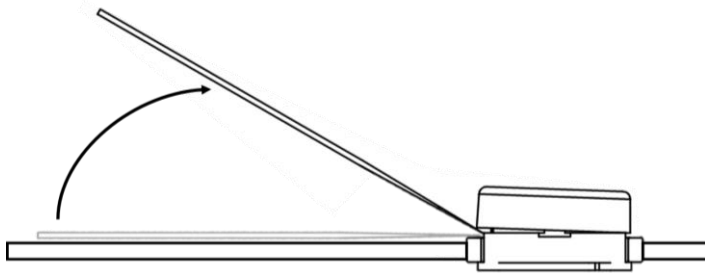




Diffuser Installation

Recommended tool: Pry Tool (PN: 73016)

- Insert the pry tool or appropriate flat head screwdriver between the cable over mould and the diffuser
- Use the over mould as a lever point to lift the diffuser from one side as shown in the diagram below



- Repeat the same process on the remaining cable mount
- Remove diffuser

Ordering Information

Visit <https://www.enttec.com/product/lights/smart-pxl-dots/> to shop for DOTs. For any customisation contact the sales team sales@enttec.com.

Description	PN
String of 50 DOTs with Dome diffuser	73011
String of 50 DOTs with Flat diffuser	73012

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