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Metal Smart PXL-M58 DMX Dot - Datasheet

Weatherproof DMX-controlled metal LED dot 24V input with 8-bit RGBW dimming.

ENTTEC Smart Metal DMX Dots are precision-engineered from marine-grade aluminium to deliver consistent performance in demanding environments.

A fully enclosed resin-potted construction protects internal electronics, while the optional mounting bracket and four diffuser choices provide enhanced mechanical protection and installation flexibility. These weatherproof, DMX-controlled LED dots are built for long-term durability without limiting creative freedom.

The modular design allows each dot to be individually positioned and addressed, enabling virtually any layout—from linear runs to complex 3D forms. This makes the system ideal for architectural façades, commercial installations, and entertainment environments requiring dynamic, high-impact visual effects.

Developed by lighting professionals for professional applications, the Smart PXL range supports extensive customisation to meet specific creative or architectural requirements.

Contact ENTTEC to discuss available options tailored to your project.

FEATURES

- 58mm diameter dot in black anodised aluminium housing.
- Input Voltage: 24VDC
- RGBW 8-bit
- Control protocol DMX512
- Auto-addressing capable using addressing tools.
- Reverse polarity protection.
- Voltage transient protection.
- IK10 & 3G vibration resistant
- UV resistant & IP67.
- Featuring premium IP67-rated screw-type male connector.
- Matching connector accessories available.
- This product requires an external DC power supply and data source for operation. (not included).

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SPECIFICATION

Electrical

Input Voltage	24V
Dot Connector	M8 (6-Pin, Code A) screw-lock male connector
Body Material	Aluminium anodised
Weight	111.4g/dot only
IK Rating	IK10
IP Rating	IP67
UV Resistance	Yes
Max Operating/Ambient Temperature	40°C
Maximum Power per Dot	12W
Maximum Current Draw per Dot	500mA
Warranty	3-year return to the base manufacturer warranty

LED Control

LED source		3 pcs RGBW High-power SMD3535
Control protocol		USITT DMX512-A (ANSI E1.11)
8-bit RGBW	Channel footprint	4 DMX slots/dot
		Red | Green | Blue | White
	Colour Resolution	256^4 = 4.29 million
	Dots controllable per DMX universe	128 dots (DMX512)
	PWM Frequency	4KHz
LED lifetime		>50,000 hrs (L70)

Lumen Output

Dot		PXL-M58
Voltage		24V
Lumen (lm)	Red	232.5
	Green	274.5
	Blue	99
	White	343.5
	White (RGB)	606
	Max White (RGBW)	949.5
Efficacy (lm/watt)	Max White (RGBW)	79.1

CERTIFICATION

CONTROL OPTIONS

To find the right DMX controller for your project, contact our friendly sales team for the complete system solution.
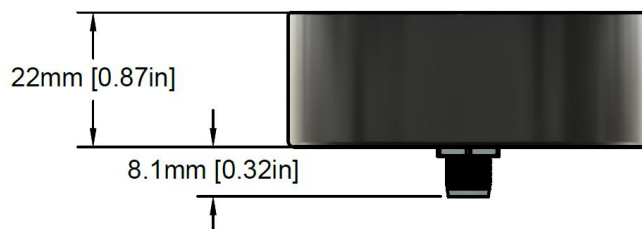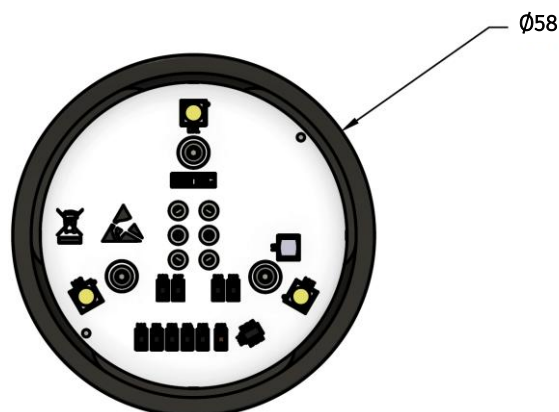
INSTALLATION

- Before installing or specifying this product, always refer to the installation guide and familiarise yourself with the safety notes. If in doubt, consult ENTTEC for guidance.

- This product requires a cable harness for installation. ENTTEC provides custom cable harnesses with customisable pitch between connection points. Branch cables are fixed at 130mm to ensure signal integrity. Contact our friendly sales team to discuss cable requirements and lead times for your project.

- Note: DMX terminator is essential to prevent signal reflections and data errors. All ENTTEC cable harnesses include this pre-fitted.
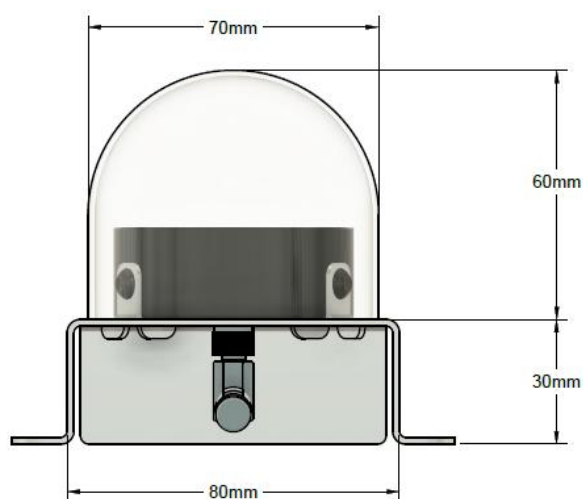
APPLICATION DIAGRAM

ID: 5959728 · Document Updated: Dec 2025 · *DATASHEET*

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PHYSICAL DIMENSIONS

PXL-M58 Dot
SKU: 74300

Ø58

22mm [0.87in]

8.1mm [0.32in]

PXL-M58 Dome Diffuser
Dome Clear - SKU: 74505-DC
Dome Diffuse - SKU: 74505-DD

70mm

60mm

30mm

80mm

PXL-M58 Flat Diffuser
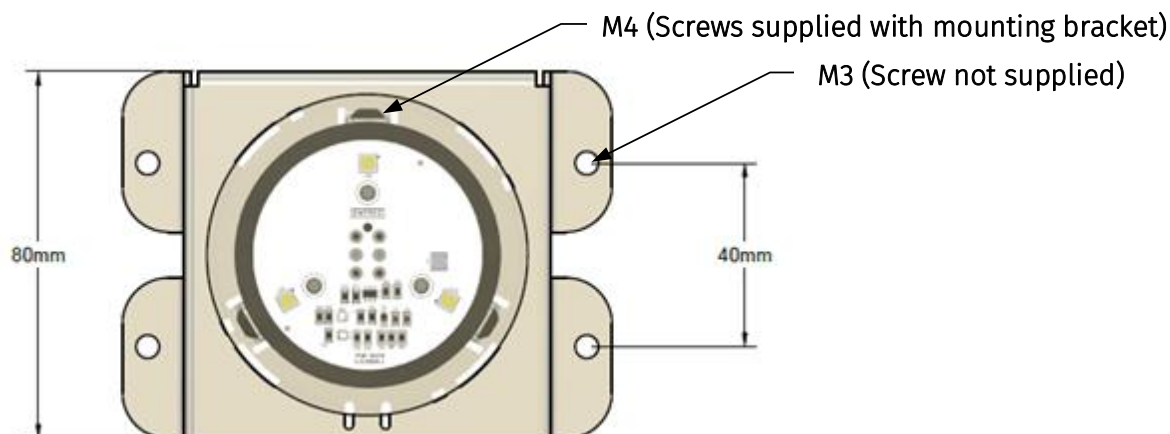Flat Clear - SKU: 74505-FC
Flat Diffuse - SKU: 74505-FD

70mm

45mm

30mm

80mm

Note: Bottom angled connector shown is for demonstration purpose only and is sold separately.

Aluminium Mounting Bracket
SKU: 74504

M4 (Screws supplied with mounting bracket)

M3 (Screw not supplied)

80mm

40mm
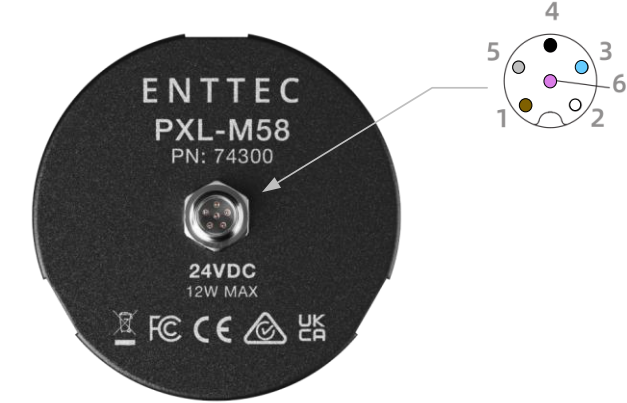
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CONNECTOR PIN OUT

The Smart Metal DMX Dot is equipped with a M8 (6-pin, Code A) male connector for secure, weatherproof connections.

Pin	Cable Colour		Configuration
1	Brown		DMX+
2	White		DMX-
3	Blue		PI (Address)
4	Black		PO (Pass Through)
5	Grey		0V
6	Pink		V+

CABLE ACCESSORIES

ENTTEC support custom cable harness solution using IP67-rated screw-lock connectors.

DMX Dot Cable Harness

SKU 74500

Each ENTTEC cable harness features integrated **M8 female connector (6-pin, Code A)** for the dot connection, while the lead-in cable utilises an **M12 connector (5-pin, Code K)** for the DMX controller connection.
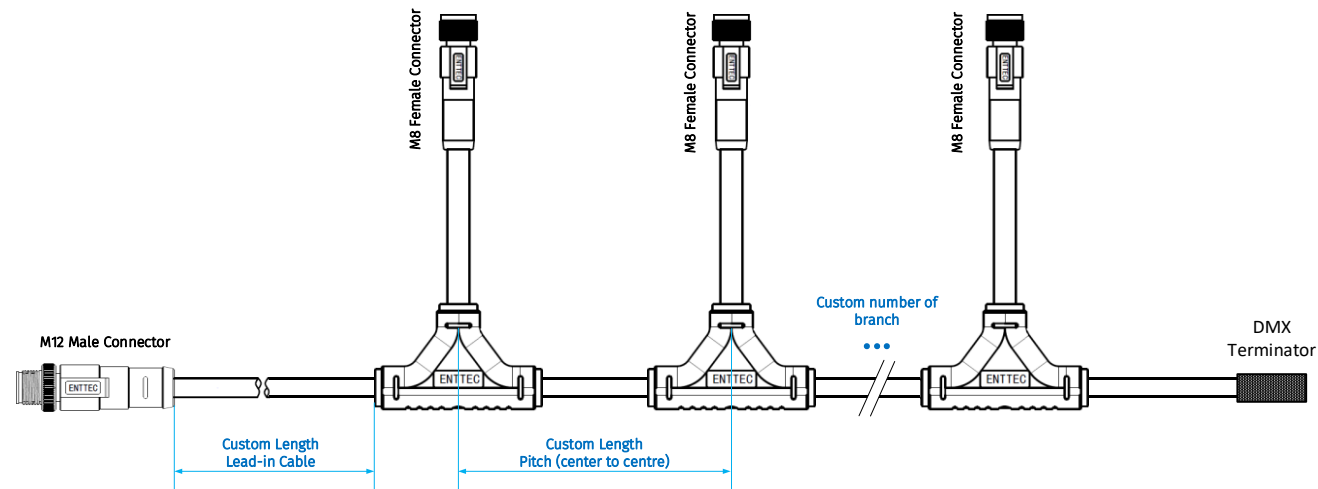
All ENTTEC cable harnesses are supplied with a pre-fitted DMX terminator to ensure the signal integrity.

Our DMX Dot Cable Harness (SKU 74500) offers flexible customisation options including:

- M8 connector type
- Branch quantity and spacing
- Lead-in cable length
- Pitch (distance between dots)

Refer to the drawing below and reach out to ENTTEC or your ENTTEC dealer to discuss your project needs.

You may also choose to source your own harnesses using the specifications outlined above.
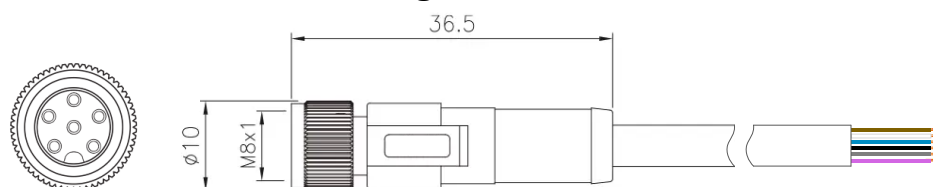

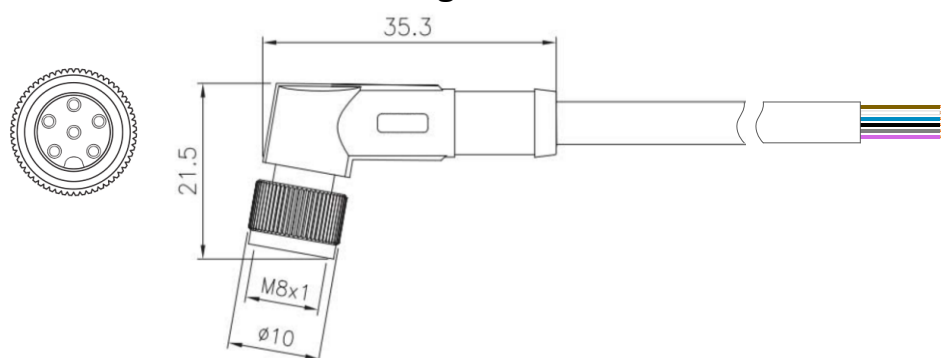| SKU	Dot Connector Type	Branch Number	Branch Length (mm)	Lead-in Cable Length (mm)	Pitch Length
74500 DMX Dot Cable Harness	**ST** (Straight)	Custom	130 (Default)	Custom	Custom
	AN (95° Angled)				

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M8 Connector

ENTTEC provides matching IP67-rated female connectors on the branch of the cable harnesses, available in straight and 95° angled configurations for flexible cable routing.

M8 Female Connector – Straight (ST)

M8 Female Connector – 95° Angled (AN)

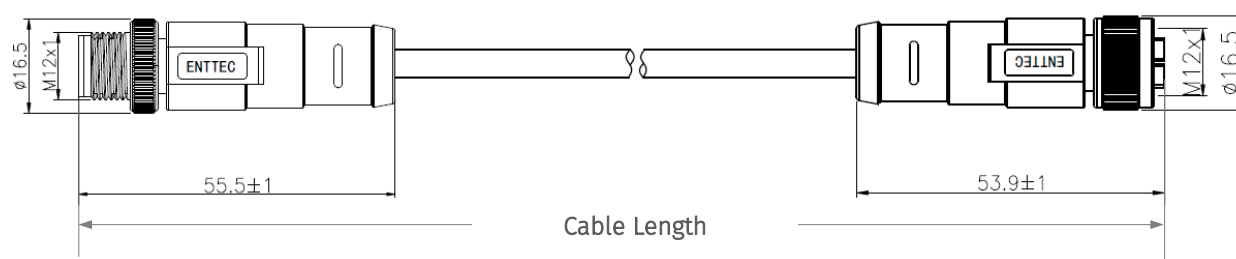## Cable Harness Connector Accessories

ENTTEC offers IP67-rated M12 (5-pin, Code K) male connectors on the lead-in side of the cable harnesses, along with a range of cable accessories to meet your installation requirements.
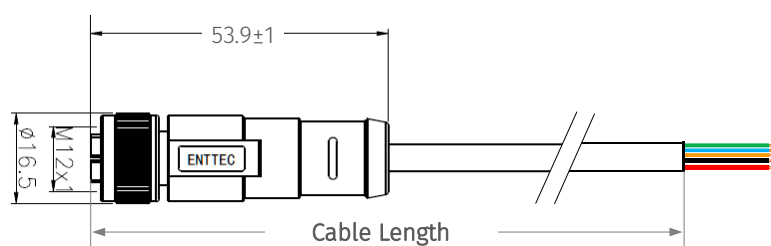
Extension Cable
SKU: 74501

M12 Male Connector   M12 Female Connector

M12 Female Cable
SKU:74502

M12 Female Connector

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ORDERING INFORMATION

Metal Smart PXL-M58 DMX Dot and Accessories

Visit ENTTEC's website to shop for the product.
To discuss customisation options, pricing and lead times contact our sales team at sales@enttec.com.

| PXL-M58 Dot | Dome Clear | Dome Diffuse | Flat Diffuse | Flat Clear |

Product Specification	Order Code
Metal Smart PXL-M58 DMX Dot / RGBW / 24 volts/ Anodised black	74300-RGBW-24V
Metal DMX Dot Accessory - Cable Harness (custom)	(custom)
Metal DMX Dot Accessory - M12 Extension Cable	74501
Metal DMX Dot Accessory - M12 Female Cable	74502
Metal DMX Dot Accessory – M12 Power Injector	74503
Aluminium Mounting Bracket with screws for PXL-M58, anodised black	74504
Diffuser for PXL-M58 - Dome Diffuse/Dome Clear/Flat Diffuse/Flat Clear	74505-DD/DC/FD/FC

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