Unity S1™

Acclaim™

PROJECT	FIRM	ORDER #	TYPE	QTY

The compact **Unity S1™** expands the highly successful Unity series to bring further flexibility and refinement to exterior illumination. The impressively compact Unity S1 uses an advanced **Spectrum Five** light engine to provide saturated RGBAL color mixing plus a specially calibrated control channel with which you can instantly call up any temperature of white - from 1800K to 8000K.

External control using DMX-512A is supported through cable connection or via the built-in Aria™ wireless receiver. A clear daylight-readable OLED touch-screen user display provides access to a comprehensive configuration menu system. In wired installations, RDM (Remote Device Management) can be used to configure numerous key settings without need to visit each fixture.

Quick Ship

At a glance

Optics

10° x 10°, 10° x 60°
20° x 20°, 30° x 30°, 30° x 60°
40° x 40°, 50° x 50°
80° x 80°
100° x 100°

10° x 10° is the native beam.

Emitters

1800K — 8000K

RGBAL *plus* **CCT Select**

Size

11.81" (300 mm)

10.04" (255mm)   10.31" (262mm)

Power
100 to 277VAC 50/60Hz

Temperature
-40° F to 125° F
-40° C to 51° C

Protection
Ingress: **IP66**
Impact: **IK07**
Vibration: **3G**

Output
Up to **5,127 lumens**
> **90** CRI

Core technologies
SpectrumFive technology
ColorSync digital calibration technology
OutdoorLink system
AcclaimModular systems
aria wireless

Configure your product

UNB-2   -A   RN

Example final code: **UNB-211-AHRN**

Finish color:
1 = Black (RAL 9005)
2 = White (RAL 9003)
4 = Gray (RAL 7047)
7 = Custom* (RAL #)

Finish type:
1 = Standard finish
2 = Marine coat finish

Optics:
D = 10° x 10° *(native)*
P = 10° x 60°
C = 20° x 20°
E = 30° x 30°
Q = 30° x 60°
F = 40° x 40°
K = 50° x 50°
L = 80° x 80°
O = 100° x 100°

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* indicates special order items, which may require longer lead times

	PROJECT		FIRM	ORDER #	TYPE	QTY

Specifications

Emitters	**Spectrum Five** light engine: Red, Green, Blue, Amber, Lime plus CCT select: 1800K to 8000K
Optics	10° native. 10° x 60°, 20° x 20°, 30° x 30°, 30° x 60°, 40° x 40°, 50° x 50°, 80° x 80°, 100° x 100°
Output	Up to 5,127 lumens, > 90 CRI
Lumen maintenance	L_{70} 100,000 hours (@ 25° C)
Control	0-100% dimming via wired DMX (with RDM configuration) plus built-in Aria™ Wireless System
Maximum fixtures in series	32 via wired DMX. Power local to each fixture or use Acclaim's Outdoor Link System - see page 10
Operating voltage	100-277VAC, 50/60 Hz
Power consumption	160W
Connection	Removable power and control cord (9 feet, 2.7m with bare wire tails) or use Outdoor Link System
Mounting	Surface mount yoke included. Tenon, pipe clamp, pendant and cable mount options available
Effective projected area	1.16 ft²
Material	Die cast aluminum with a glass lens. Optional marine environment coating available
Finish colors	Gray (RAL 7047), black (RAL 9005), white (RAL 9003) or custom colors (provide RAL #)
Ambient temperature range	-40° F to 125° F (-40° C to 51° C)
Ingress protection	IP66, wet location
Impact protection	IK07, protection against 2 joule impact (40cm distance)
Vibration protection	ANSI C136.31, 3G-rated for high vibration and bridge applications
Warranty	5 years, limited
Weight	19.4 lbs (8.8 kg)
Dimensions	**W**x**H**x**D**: 10.04" x 11.81" x 10.31" (255 x 300 x 262mm) - see page 7
Certifications	ETL Intertek CE FC UK CA 3G LUMINAIRE VIBRATION

Photometrics

For all available IES files, please visit acclaimlighting.com/unity-s1

Optics	Output	Lumens	Efficacy (lm/w)	Center Candela
10° (native)	Full on	5,127	35	76,248
30°	Full on	4,207	28	8,425
50°	Full on	3,881	28	3,881
10° x 60°	Full on	4,221	28	9,589
30° x 60°	Full on	4,583	31	9,682
80°	Full on	4,119	28	2,014
100°	Full on	4,084	27	1,674

To estimate emitter outputs

To estimate the output for any particular emitter color, take the **lumen** value for the required optic and multiply it by one of the following:

- Red   0.257
- Green   0.556
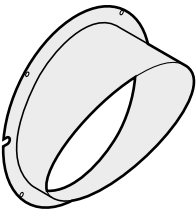- Blue   0.090
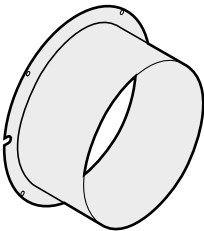- Amber   0.520
- Lime   0.846

Related components

Beam accessories

Half snoots

Gray	**UNBHSG**
Black	**UNBHSB**
White	**UNBHSW**
Custom*	**UNBHSC**

Full snoots

Gray	**UNBFSG**
Black	**UNBFSB**
White	**UNBFSW**
Custom*	**UNBFSC**

Mounting accessories

Tenon mounts
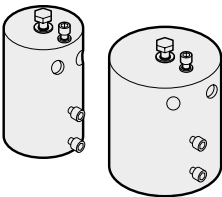
For use with Schedule 40 pipe: 2.51" (56mm) and 4.13" (105mm) inner diameters respectively

	2" pole	4" pole
Gray	**TM2G**	**TM4G**
Black	**TM2B**	**TM4B**
White	**TM2W**	**TM4W**
Custom*	**TM2C**	**TM4C**

Pipe clamps
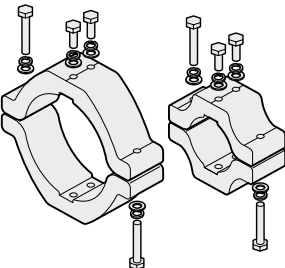
For use with Schedule 40 pipe: to mount 1 or 2 fixtures

	2" pipe	4" pipe
Polished aluminum	**PC2**	**PC4**

Extender arms
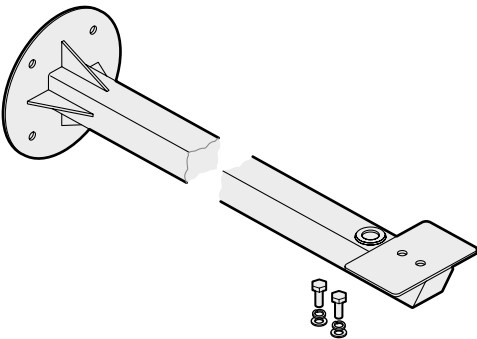
Fixture bolts and washers plus cable access seal included

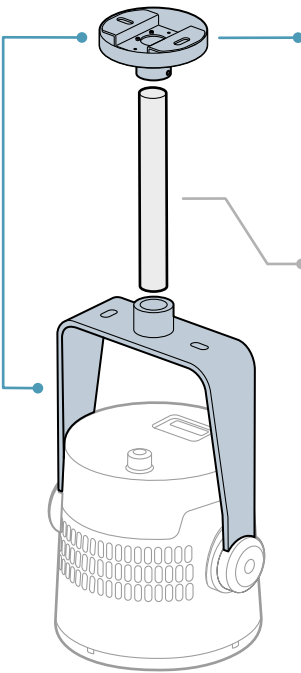|	1'	2'	3'
Gray	**OFLEB1G**	**OFLEB2G**	**OFLEB3G**
Black	**OFLEB1B**	**OFLEB2B**	**OFLEB3B**
White	**OFLEB1W**	**OFLEB2W**	**OFLEB3W**
Custom*	**OFLEB1C**	**OFLEB2C**	**OFLEB3C**

* RAL # also required

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Related components

Mounting accessories (continued)
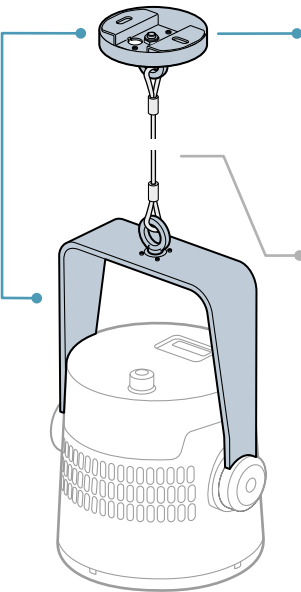
Pendant mount set

Includes ceiling mount and replacement fixture yoke. NPS pipe required (see below).

Gray	**UNBPMSG**
Black	**UNBPMSB**
White	**UNBPMSW**
Custom*	**UNBPMSC**

NPS pipe

One length required to accompany a pendant mount set (1" NPS, OD=1.315").

	12"	24"	36"
Gray	**UNANPS1-12G**	**UNANPS1-24G**	**UNANPS1-36G**
Black	**UNANPS1-12B**	**UNANPS1-24B**	**UNANPS1-36B**
White	**UNANPS1-12W**	**UNANPS1-24W**	**UNANPS1-36W**
Custom*	**UNANPS1-12C**	**UNANPS1-24C**	**UNANPS1-36C**

* RAL # also required

Aircraft cable mount set

Includes ceiling mount and replacement fixture yoke. Steel cable required (see below).

Gray	**UNBAMSG**
Black	**UNBAMSB**
White	**UNBAMSW**
Custom*	**UNBAMSC**

Steel cable

One length required to accompany an aircraft cable mount set.

	2'	5'	10'
Gray	**UNAAC2G**	**UNAAC5G**	**UNAAC10G**
Black	**UNAAC2B**	**UNAAC5B**	**UNAAC10B**
White	**UNAAC2W**	**UNAAC5W**	**UNAAC10W**
Custom*	**UNAAC2C**	**UNAAC5C**	**UNAAC10C**

Related components

Outdoor Linking System - See also pages 9 and 10

Feed cables
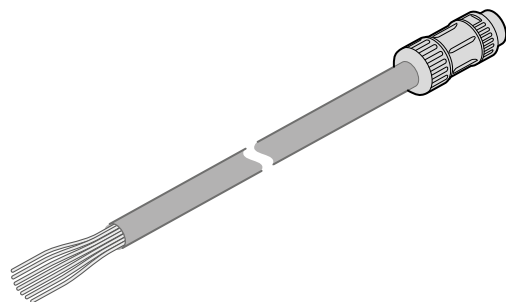
1' (30cm)	**OLSF1#-V2**
5' (1.5m)	**OLSF5#-V2**
10' (3m)	**OLSF10#-V2**
25' (7.6m)	**OLSF25#-V2**
50' (15.2m)	**OLSF50#-V2**

 # = color: G-Gray, B-Black, W-White, C-Custom (RAL# required)

Link cables
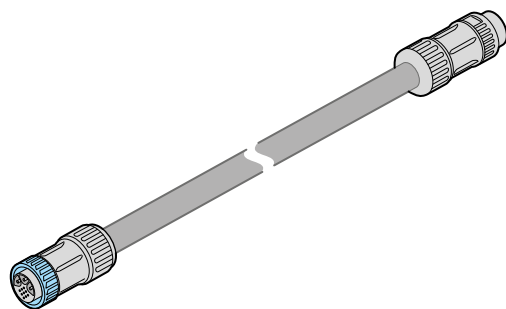
1' (30cm)	**OLSL1#-V2**
5' (1.5m)	**OLSL5#-V2**
10' (3m)	**OLSL10#-V2**
25' (7.6m)	**OLSL25#-V2**
50' (15.2m)	**OLSL50#-V2**

 # = color: G-Gray, B-Black, W-White, C-Custom (RAL# required)

End cap with DMX termination
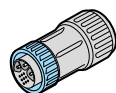
| Part# | **OLSEC-B** | Black |
| | **OLSEC-W** | White |

T-junction
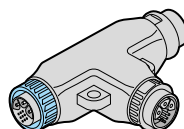
| Part# | **OLST2-B** | Black |
| | **OLST2-W** | White |

Y-junction
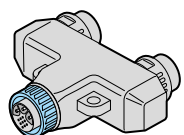
| Part# | **OLSY2-B** | Black |
| | **OLSY2-W** | White |

IP66 junction box (plus outlet cable gland)
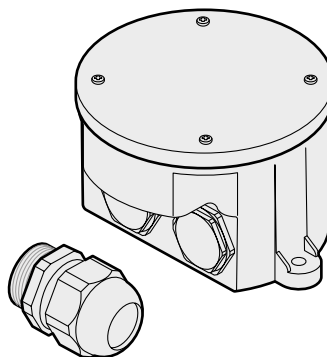
| Part # | **AJBOX1** |

IP66 NEC compliant high+low voltage junction box
1/2" conduit inputs for AC + DMX, 3/4" conduit for OLSF#
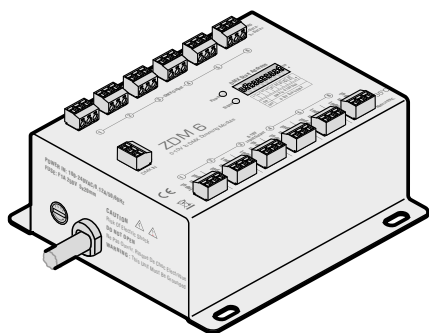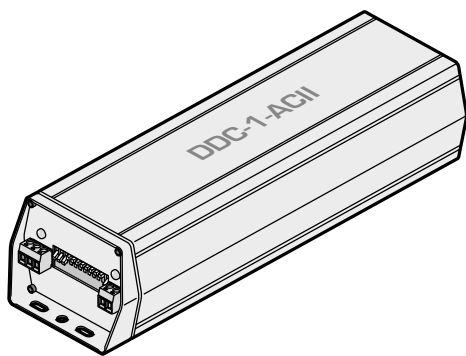*Built-in AC surge protection up to 10kV & 10kA*

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Related components

Signal converters (see page 11)
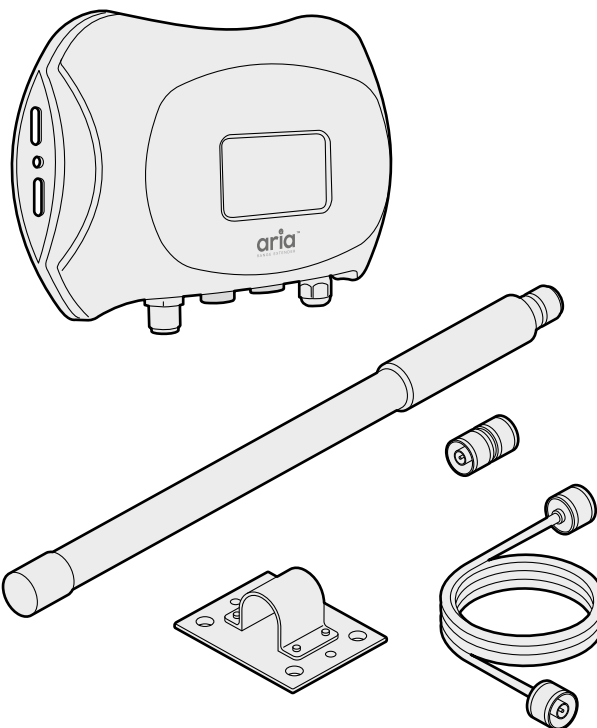

Multi–channel (0-10V) converter   **ZDM6**

DALI multiple channel converter   **DDC 1 AC**

Wireless DMX transceiver

Wireless transceiver with antenna, cable, adapter and antenna bracket   **ARIA WDS**

Test and configuration tool kit
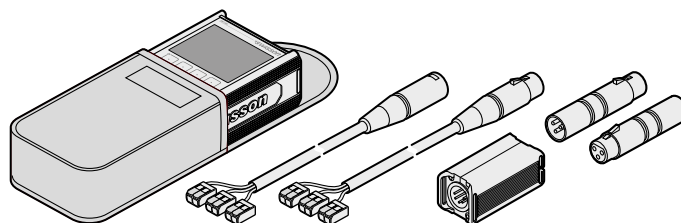
XMT-500
DMX/RDM, ArtNet and sACN test/configuration tool with cable dongle, 3/5-pin converters, bare cable connectors and pouch

PROJECT | FIRM | ORDER # | TYPE | QTY

Dimensions

Ø5.87" (149mm)

10.04" (255mm)

7.87" (200mm)

11.81" (300mm)

4.53" (115mm)

8.86" (225mm)

10.31" (262mm)

0.35" (9mm)

1.1" (28mm)

1.1" (28mm)

2x 0.49 x 0.81" (12.5 x 20.5mm)

2x Ø0.49" (12.5mm)

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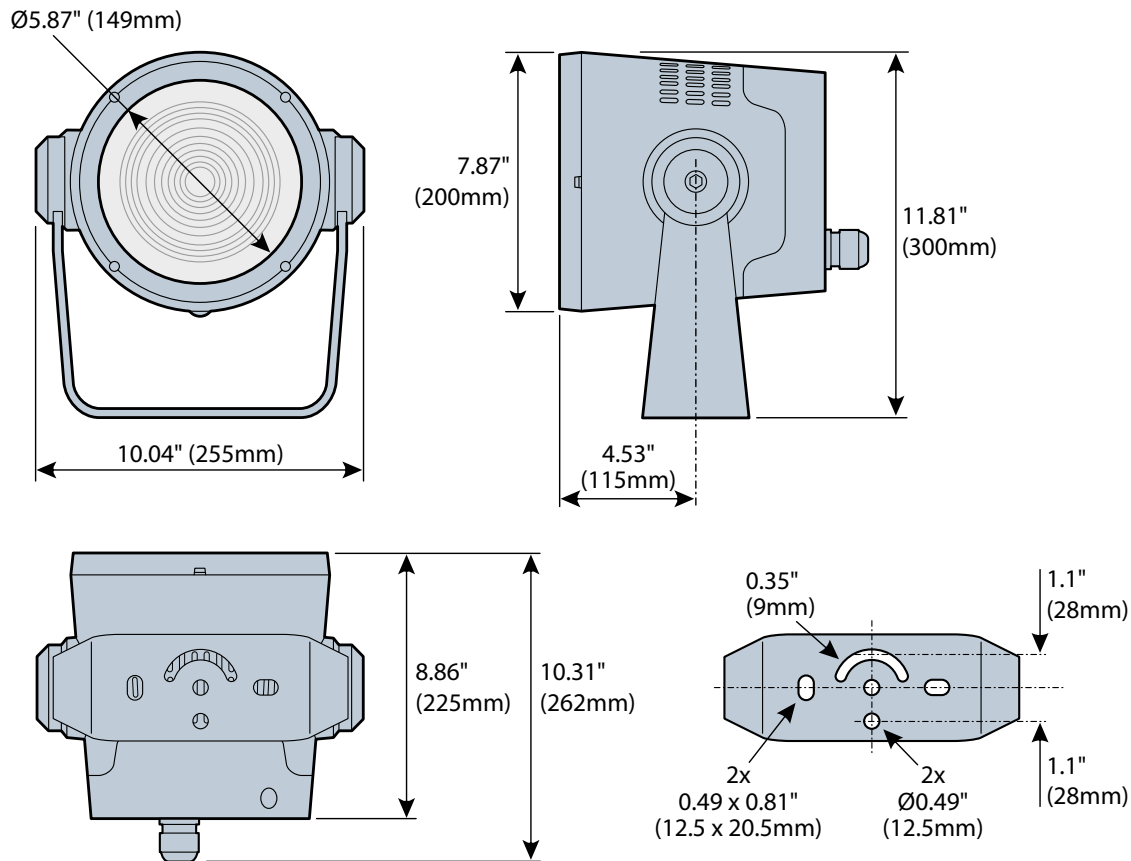|	PROJECT		FIRM		ORDER #		TYPE		QTY

Dimensions

Feed cable

1' / 5' / 10' / 25' / 50'
(30cm / 1.5m / 3m / 7.6m / 15.2m)

Ø2.64" (67mm)

Ø0.6" (Ø15.2mm)

Ø1.26" (Ø32mm)

Link cable

2.54" (64.5mm)

1' / 5' / 10' / 25' / 50'
(30cm / 1.5m / 3m / 7.6m / 15.2m)

2.64" (67mm)

Ø1.26" (Ø32mm)

Ø0.6" (Ø15.2mm)

Ø1.26" (Ø32mm)

T-junction

5.24" (133mm)

3.27" (83mm)

Ø0.31" (Ø8mm)

1.89" (48mm)

1.18" (30mm)

Y-junction

4.72" (120mm)

2.36" (60mm)

4.04" (102.5mm)

1.89" (48mm)

1.16" (29.5mm)

End cap with DMX termination

2.54" (64.5mm)

Ø1.26" (Ø32mm)
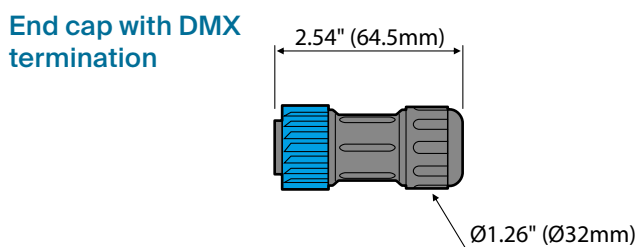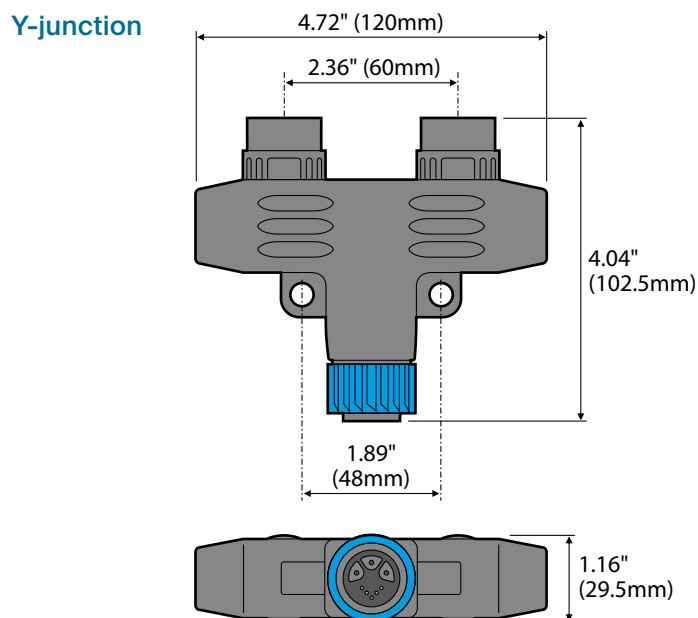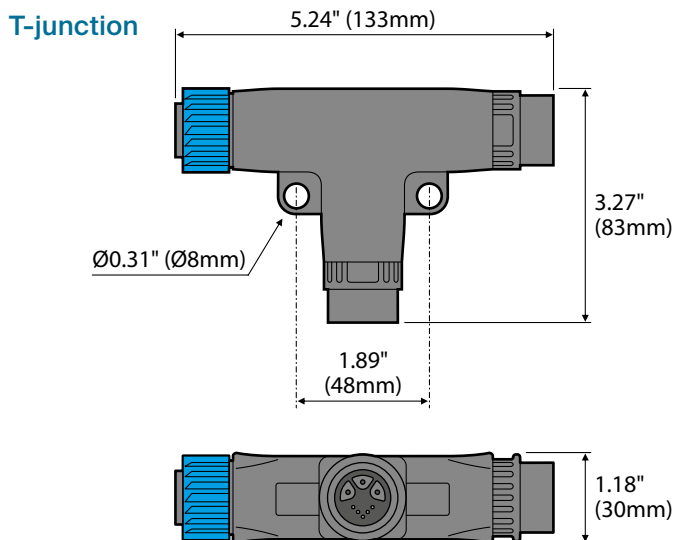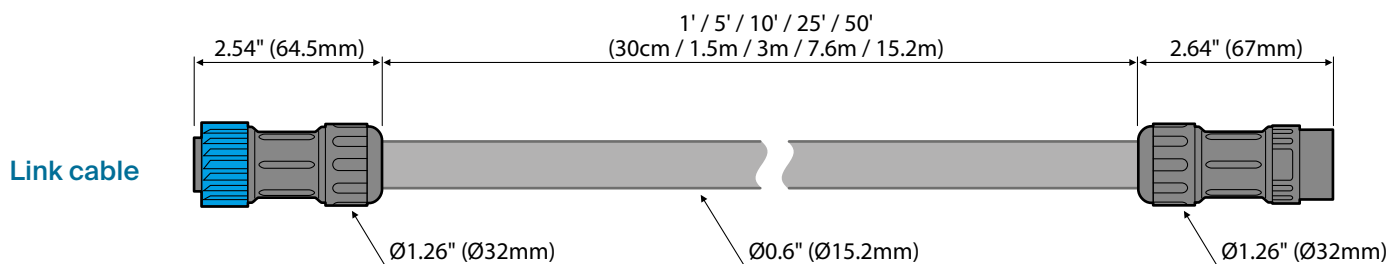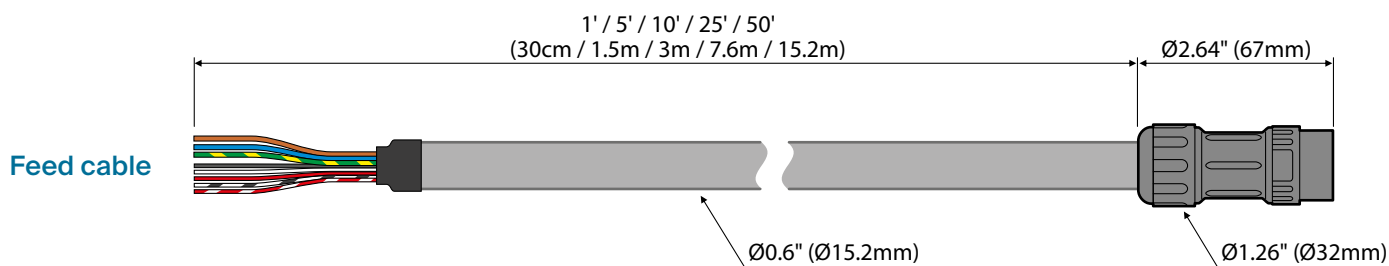
OLS connectors

The Outdoor Link System uses matching IP67-rated connectors throughout, each of which combines AC power and DMX control. A simple color code is used:

- Connectors with blue collars are inputs,
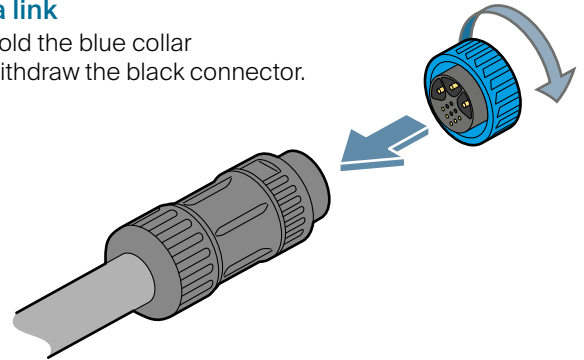- Connectors with black collars (white option available) are outputs.

The blue collars form the locking and release mechanism ↻

To make a link
Simply align a black and a blue connector and push them together with a click.

To break a link
Twist and hold the blue collar while you withdraw the black connector.

OLS Junctions

Two types of OLS junctions are available: T-junctions and Y-junctions. Electrically they are identical, they both split one input into two power/control outputs.

Y-junction
Most useful when the next fixtures are located in the same direction from the junction.

To fixture, either directly or via a link cable

To next junction, link cable, final fixture or end cap

Power and control input
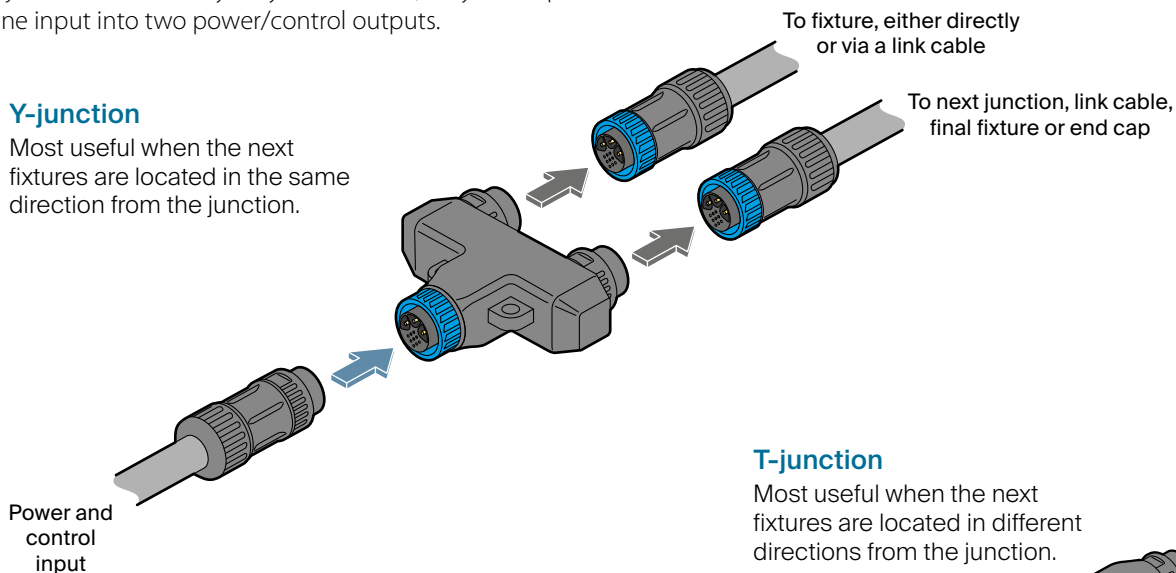
T-junction
Most useful when the next fixtures are located in different directions from the junction.

To next junction, link cable, final fixture or end cap

Power and control input

To fixture, either directly or via a link cable

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Unity S1™
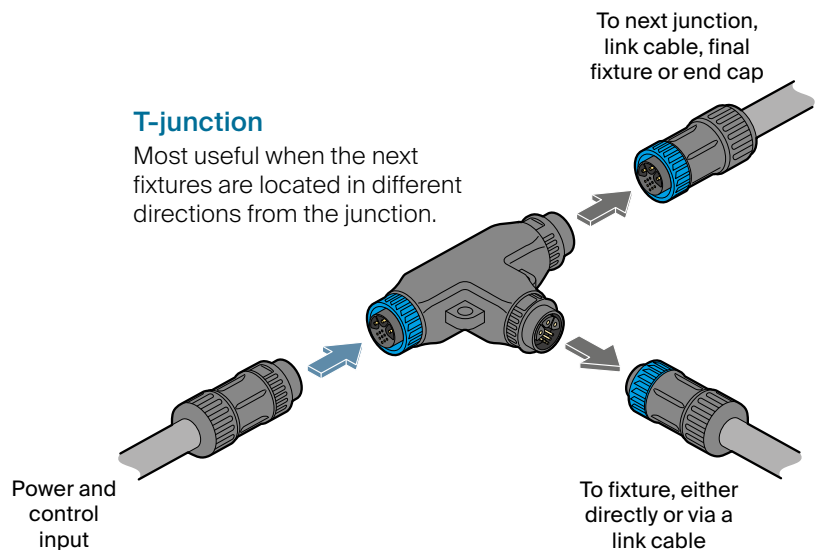
Power and control wiring

The supplied combined power and control cord (roughly 9 feet, 2.7m in length and with bare wire tails) attaches to the rear of the fixture via an IP66-rated composite connector. If you 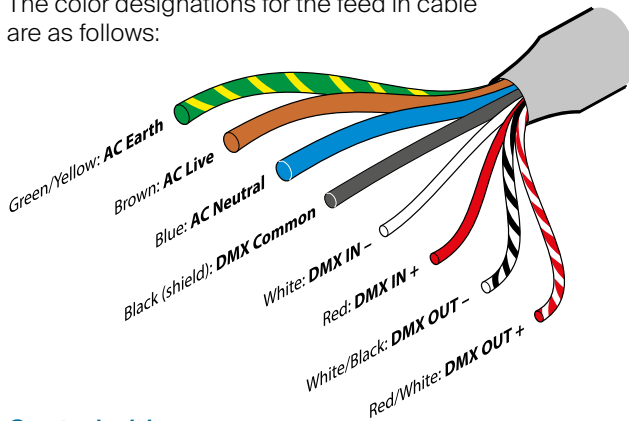need to connect Unity S1 to an Outdoor Link System configuration, use an optional OLS Link Cable (see right) in place of the included bare wire feed cable.

The color designations for the feed in cable are as follows:

Green/Yellow: **AC Earth**
Brown: **AC Live**
Blue: **AC Neutral**
Black (shield): **DMX Common**
White: **DMX IN –**
Red: **DMX IN +**
White/Black: **DMX OUT –**
Red/White: **DMX OUT +**

Control wiring

DMX cable recommendations:

- Indoor exposed or in conduit above grade: *Belden 9842*
- Indoor plenum: *Belden 82842*
- Outdoor exposed, direct burial, or inside conduit below grade: *Belden 3107DB*

Alternatives must meet **all** of the following requirements:

- **Construction** Shielded, twisted pair (or multi-pair).
- **Impedance** Between 90 and 120Ω.
- **Capacitance** 15pF or less.

Power

The fixture power requirements are as follows:

- Voltage: 100-277VAC 50/60Hz
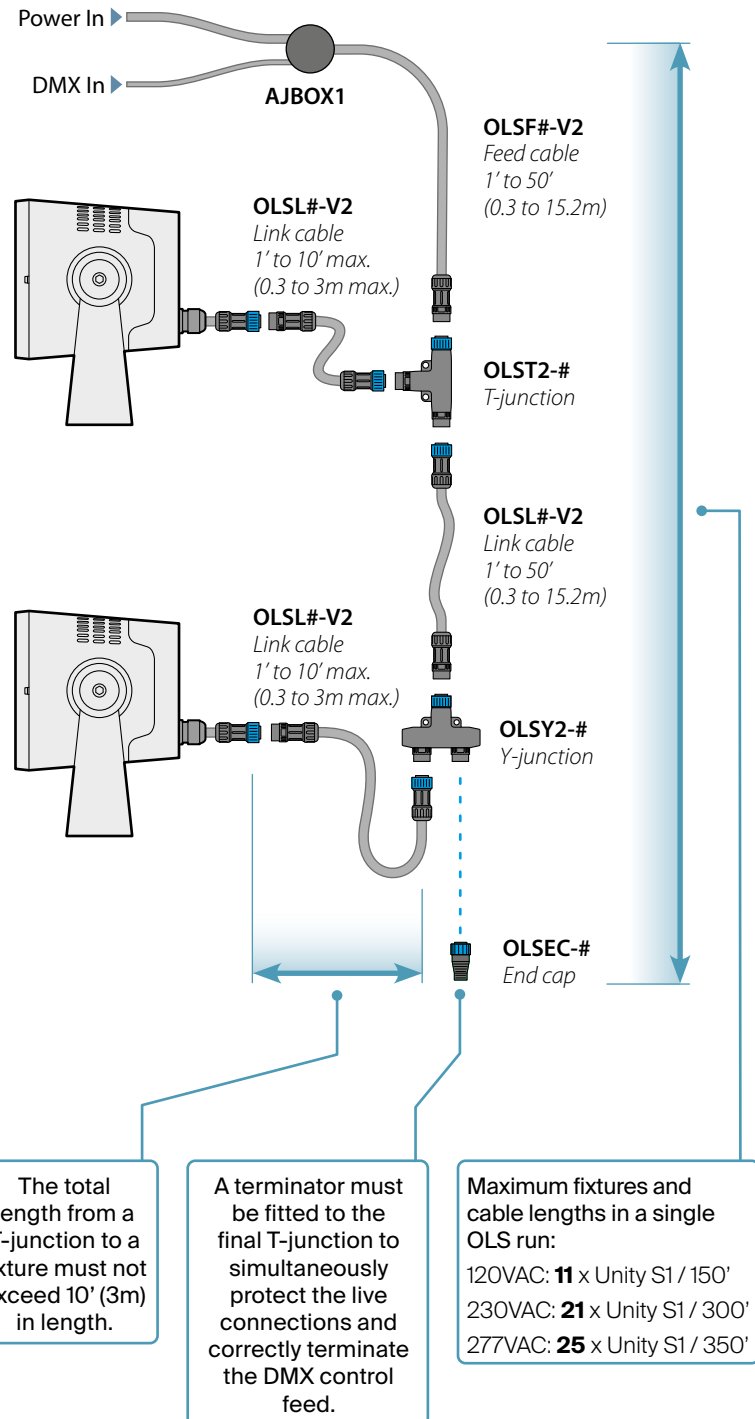- Power: 160W

Note: Acclaim recommends taking proper precautions for external surge protection, as control and power electronics can be damaged by major events. Ensure that the mains power is supplied from a suitably protected source and initial connections are made within IP rated enclosures. Acclaim recommends Belden 9842 or approved equivalent for all DMX wiring applications.

Note: The Acclaim AJBOX1 includes internal surge protection circuitry.

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Typical OLS configuration

OutdoorLink system

Unity fixtures are directly compatible with the Outdoor Link System. OLS greatly simplifies the task of distributing power and control to multiple fixtures:

Power In ▶
DMX In ▶
AJBOX1

OLSF#-V2
Feed cable 1' to 50' (0.3 to 15.2m)

OLSL#-V2
Link cable 1' to 10' max. (0.3 to 3m max.)

OLST2-#
T-junction

OLSL#-V2
Link cable 1' to 50' (0.3 to 15.2m)

OLSL#-V2
Link cable 1' to 10' max. (0.3 to 3m max.)

OLSY2-#
Y-junction

OLSEC-#
End cap

The total length from a T-junction to a fixture must not exceed 10' (3m) in length.

A terminator must be fitted to the final T-junction to simultaneously protect the live connections and correctly terminate the DMX control feed.

Maximum fixtures and cable lengths in a single OLS run:
120VAC: **11** x Unity S1 / 150'
230VAC: **21** x Unity S1 / 300'
277VAC: **25** x Unity S1 / 350'

Alternative control inputs

Unity S1 fixtures use DMX as their native control method, however, it is possible to use other common control protocols when required, such as 0-10V (source or sink) or DALI.

Control inputs via converters

- DMX - connect a DMX input directly to the feed cable.
- 0-10V - use an Acclaim Lighting ZDM 6 to convert one or more analog control feeds into a combined DMX feed.
- DALI - use an Acclaim Lighting DDC-1-AC to convert one or more DALI channels into a combined DMX feed.

0-10V IN

ZDM 6 DMX

DMX IN **DMX**

DALI IN

DDC-1-AC DMX

Mains power
(100-277VAC)
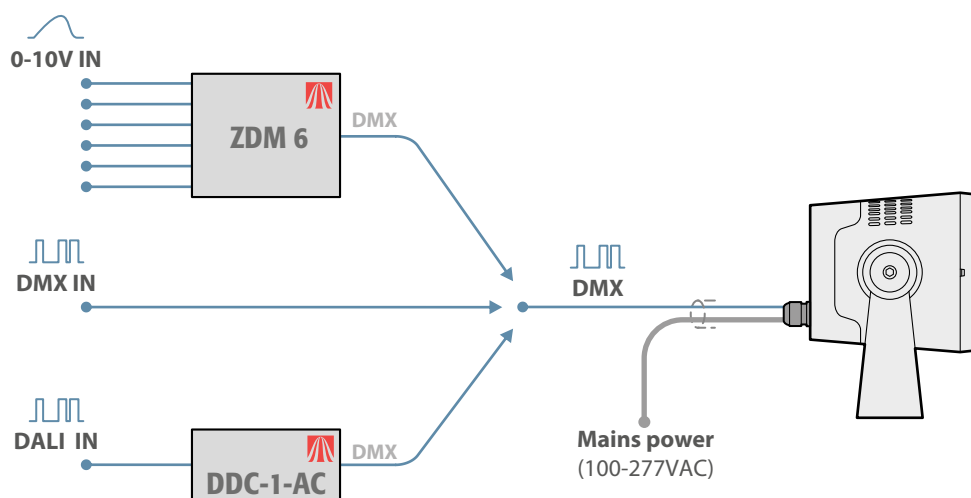
When using Acclaim Lighting ZDM 6 or DDC-1-AC modules it is possible to convert multiple inputs into separate DMX channels within a consolidated feed. The ZDM 6 can convert up to six 0-10V inputs into DMX channels, whereas the DDC-1-AC can convert a maximum of 64 DALI channels (although large numbers of channels are not recommended due to the timing limitations of the DALI standard).

Wireless DMX control

Each Unity S1 fixture contains an Aria wireless DMX receiver as standard, which can greatly simplify the deployment of multiple fixtures in spaces that contain no control wiring infrastructure. A single Aria transmitter can control many Unity S1 fixtures, at distances up to 2600 feet (792m).

Tx

DMX IN

Mains power
(100-277VAC)
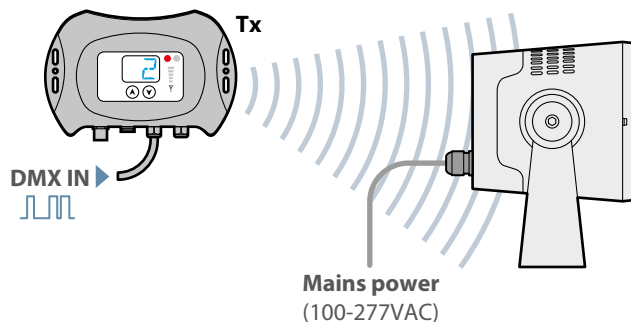
For full installation details, please refer to the **user guide**, available for free download here:

Behavior if the control signal is lost or not applied

If the DMX control signal is lost, each fixture will hold the last received values until the control signal is restored. If power is cycled while the control signal is absent, each fixture will retain the last received values until the signal is restored.