Terra Linear™

Acclaim™

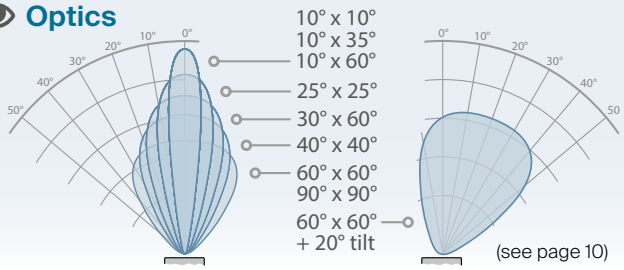
PROJECT	FIRM	ORDER #	TYPE	QTY

Terra Linear™ are rugged, drive-over ready fixtures designed for all-weather in-ground applications. Available in 1 foot and 4 foot lengths, these aluminum-bodied IP68 fixtures are particularly suited to recessed façade lighting applications. Using unified power and DMX control links, Terra Linear fixtures can be rapidly daisy-chained in long runs. All standard mains voltages are directly supported or, to achieve impressive single runs up to 700 linear feet (213m), Terra Linear can be driven by Acclaim Lighting's XTR Driver.

Anti-slip top coatings, anti-theft security screws and an IK10 drive-over rating of up to 6,000 lbs (2,721kg) make Terra Linear a natural choice for use in all public areas.

At a glance

Optics



(see page 10)

Emitters

Fixed White (2400K, 2700K, 3000K, 3500K or 4000K) *or* **Dynamic White (DW)** (2700K to 6000K) *or* **RGBW** (W=3000K, 4000K or 6000K) *or* **RGBA**

Power

100 to **277**VAC **50/60**Hz | **380**VDC via XTR Driver

Temperature

-40° F to **131° F**
-40° C to **55° C**

Drive over

6,000 lbs
2,721 kg
maximum

Protection

Ingress: **IP68**
Impact: **IK10**
Vibration: **3G**

Core technologies

SpectrumFour technology

XTRLink technology

Configure your product

TL -2 - N

Example final code: ***TLR-218-DHQN***

Power (/ ft):
A = *HO 20W*
B = *SO 12W*
R = *CO 7W*
C = *EO 5W*
D = *LO 2.5W*

Finish:
1 = Black
4 = Aluminum

Louver option:
7 = Internal blade louver*
8 = No louver
9 = Internal honeycomb louver*

Length:
A = 1' (305mm)
D = 4' (1220mm)

Optics:
C = 10° x 10°
E = 25° x 25°
H = 40° x 40°
K = 60° x 60°
L = 90° x 90°
P = 10° x 35°
Q = 30° x 60°
R = 10° x 60°
T = Asym. Wall Wash Left 60° x 60°, 20° tilt
U = Asym. Wall Wash Right 60° x 60°, 20° tilt
V = Direct view frosted*

Emitters:
C = 2400K
D = 2700K
E = 3000K
F = 3500K
G = 4000K
X = DW (2700K - 6000K)
Q = QS (RGBW, W=3000K)
R = QW4 (RGBW, W=4000K)
S = QW6 (RGBW, W=6000K)
T = RGBA

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Notes:

An in-ground sleeve is required for each Terra Linear and are ordered separately.

Optic options T and U: Tilt directions as viewed from the input end of the fixture.

** The internal louver options can reduce the output by up to 40%. The internal louver option is not compatible with the direct view frosted optic.*

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Specifications

Emitters	2400, 2700K, 3000K, 3500K, 4000K, DW (2700K-6000K), QS (W=3000K), QW4 (W=4000K), QW6 (W=6000K) or RGBA
Optics	10° x 10°, 25° x 25°, 40° x 40°, 60° x 60°, 10° x 35°, 10° x 60°, 30° x 60° or Asymmetric wall wash (60° x 60°, 20° tilt - see page 10)
Output	Up to 1,322 lumens (white versions), up to 700 lumens (color versions)
Lumen maintenance	L_{70} 150,000 hours (@ 25° C)
Control	0-100% dimming via wired DMX (with RDM configuration). 0-10V and DALI via XTR Driver *Single color models will default to 100% (on/off) output if the control input is absent (see page 11).*
Maximum fixtures in series	See page 13
Housing lengths	1' (305mm) or 4' (1220mm). In-ground sleeve with pour cover required (ordered separately)
Operating voltage	100-277VAC, 50/60Hz direct or 380VDC via XTR Driver 4000/8000 (200-300VAC input to XTR Driver)
Power consumption	**HO**: 1': 20W 4': 80W, **SO**: 1': 12W 4': 48W, **CO**: 1': 7W 4': 28W, **EO**: 1': 5W 4': 20W, **LO**: 1': 2.5W 4': 10W
Connection	Composite integral input and output cables [18" (46 cm) lengths] with IP68 multi-pin connectors
Mounting	In-ground sleeve required (ordered separately). Includes pour cover and knock-outs for 2" conduit
Material	Type III hard coat anodized aluminum, marine and natatorium environment ready
Finish	Finished aluminum. Anti-slip lens coatings
Ambient temperature range	-40° F to 131° F (-40° C to 55° C)
Ingress protection	IP68, wet location and temporary submersion for up to 1 hour at 3.28' (1m)
Impact protection	IK10, protection against 20 joule impact (40cm distance)
Vibration protection	ANSI C136.31, 3G-rated for high vibration and bridge applications
Drive over rating	Walk- and drive-over rated up to 6,000 lbs (2,721kg)
Warranty	5 years, limited
Weight	**1'**: 4 lbs (1.81 kg) **4'**: 16 lbs (7.25 kg)
Dimensions	**L**x**W**x**H**: 12 or 48" x 4.52" x 3.07" (305 or 1220 x 115 x 78mm) - *see page 6*
Certifications	Intertek CE 3G LUMINAIRE VIBRATION UKCA *(ETL Listing conforms to UL 1598 : 2021 Ed. 5 standards)*

Photometrics

For all available IES files, please visit acclaimlighting.com/terra-linear

Color temperature	Lumens (per ft)	Max Candela	Efficacy (l/W)	CRI (Ra)	TM30
3000K (HO, 1ft, 10°)	1,021	13,786	53	81.3	82.7
3500K (HO, 1ft, 10°)	857	11,920	43	81.4	83.3
3500K (CO, 4' Asym + louver)	360	1,711	72	85	84
4000K (HO, 1ft, 10°)	1,322	14,522	65	80.6	82.4

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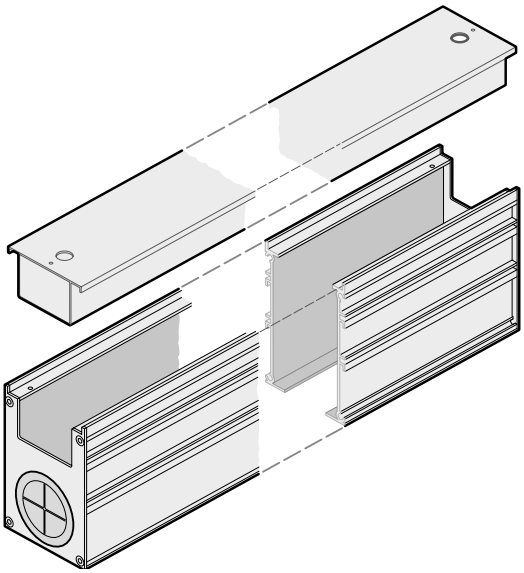
Related components

Mounting accessories *(one required per fixture)*

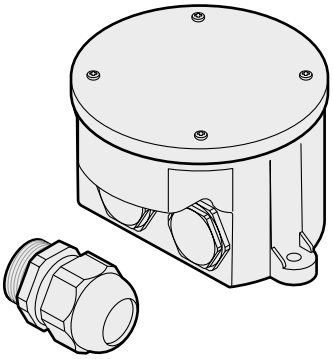
In-ground sleeve plus removable pour cover



1' **TLAIGS1**
4' **TLAIGS4**

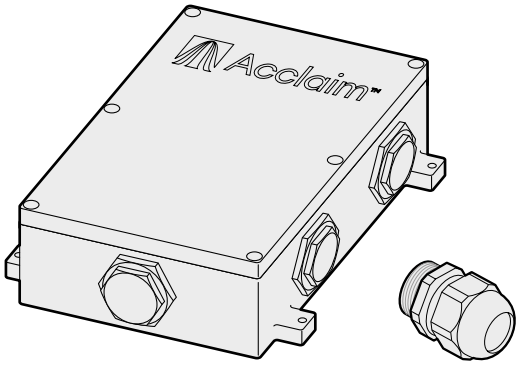
Junction boxes

AJBOX1 (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 TLAFC#
Built-in AC surge protection up to 10kV & 10kA
Suitable for 120-277VAC runs. Not certified for use with XTR Drivers

AJBOX1 Extended (IP66) junction box (plus outlet cable gland)



Part # **AJBOX1E#** *(# = color)*
IP66 NEC-compliant high and low voltage junction box with six sealed NPT ¾" access ports for conduit fixtures or cable glands for for AC + 0-10V, 3/4" conduit for TLAFC#. Built-in AC surge protection up to 10kV and 10kA. Suitable for 120-277VAC runs. Not certified for use with XTR Drivers

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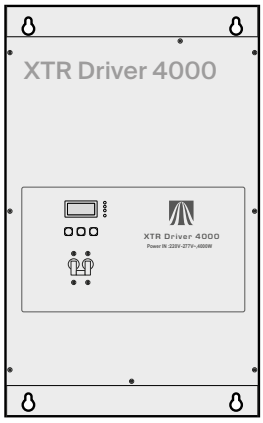
Related components

XTR Drivers *(optional for extended run lengths)*

- Power input: 200 to 300VAC
- Control input: DMX/RDM, 0-10V sink or DALI
- Use optional XTR Driver adapter cable(s)

XTR Driver 4000

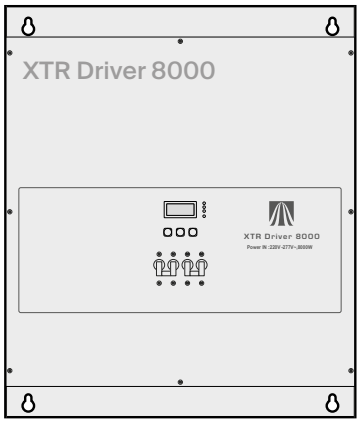
- Up to 4000W power consumption
- Maximum of 1x 700' Terra Linear run*
- Requires TLAXTRC1 adapter cable per output



Part # **XTR Driver 4000**

XTR Driver 8000

- Up to 8000W power consumption
- Maximum of 2x 700' Terra Linear runs*
- Requires TLAXTRC1 adapter cable per output



Part # **XTR Driver 8000**

***** *All fixtures controlled within a single DMX universe*

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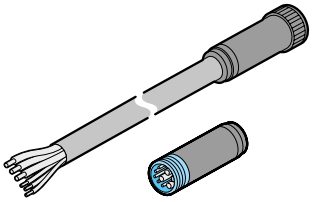
Related components

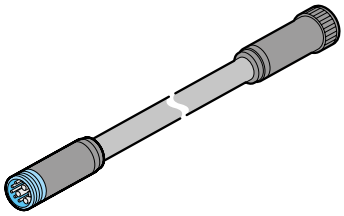
Cables

Feed cables (inc terminator)



10' (3m)	**TLAFC10**
50' (15.2m)	**TLAFC50**

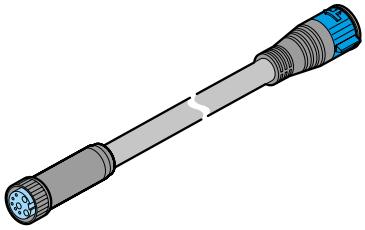
Link cables



1' (30cm)	**TLALC1**
5' (1.5m)	**TLALC5**
10' (3m)	**TLALC10**

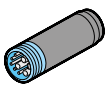
XTR Driver adapter cable

Allows a Terra Linear link cable to be connected to an XTR Driver output. See page 13.



XTR Driver adapter **TLAXTRC1**

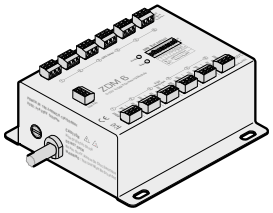
Terminator (end cap)



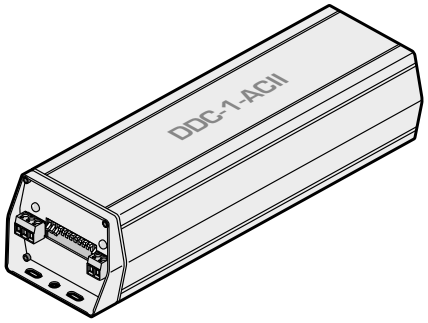
Terminator **TLATEC**

Controls

Signal protocol converters *(see page 11)*

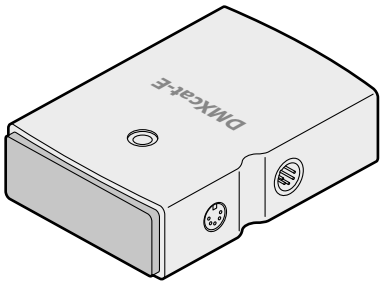


0-10V multiple channel converter **ZDM 6**



DALI multiple channel converter **DDC 1 AC**

Test and configuration tool kit



DMXcat-E
DMX/RDM, ArtNet, sACN, SMPTE LTC and Midi test/configuration tool **DMXCAT-E**

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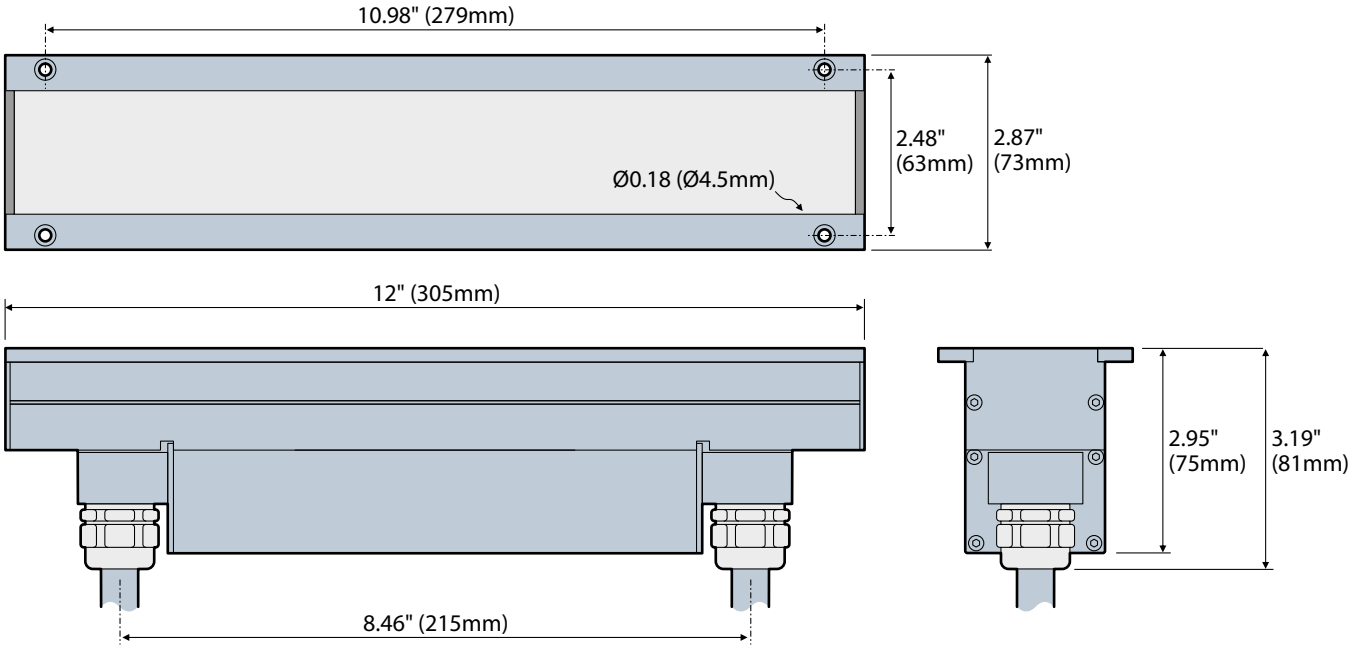
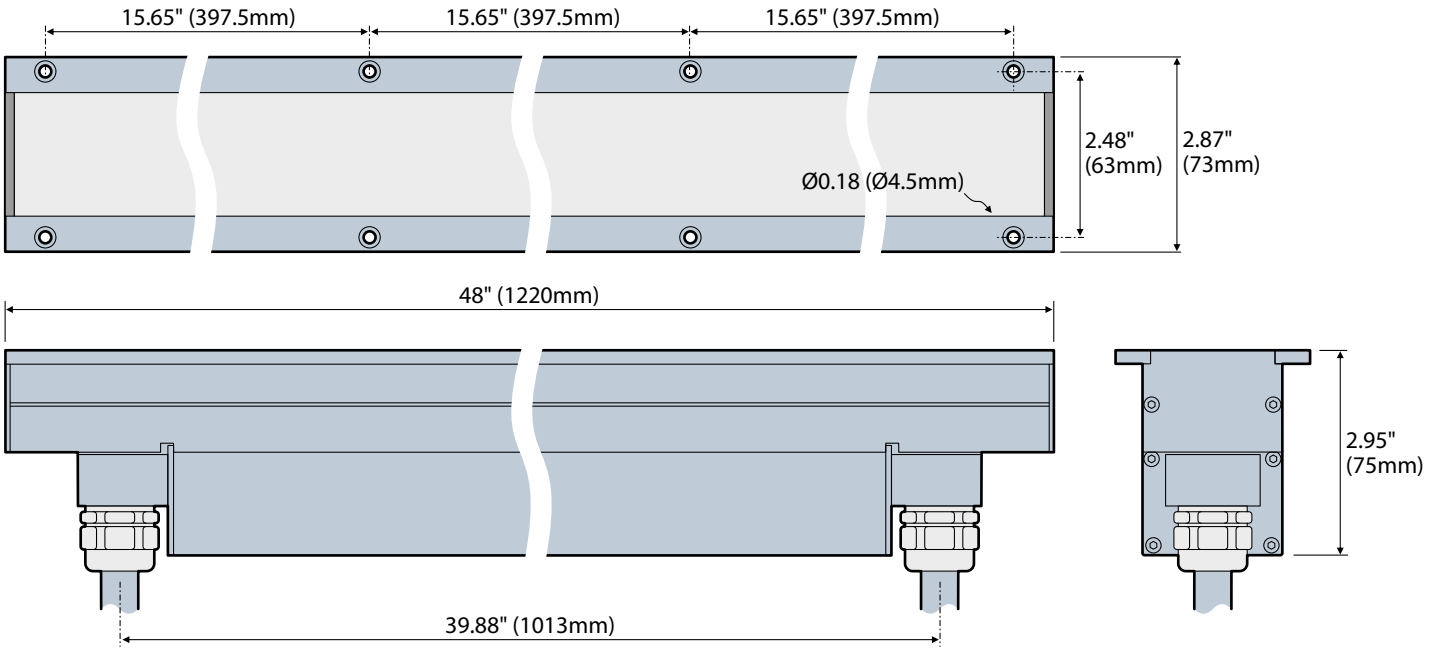
Dimensions

Terra Linear 1ft (305mm)



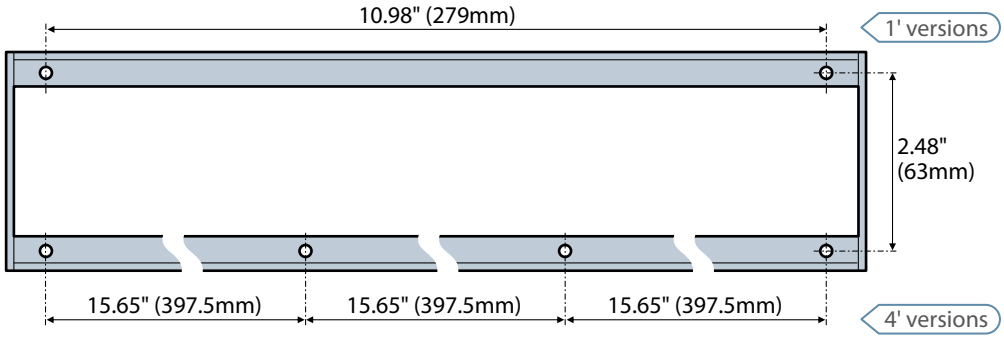
Terra Linear 4ft (1220mm)

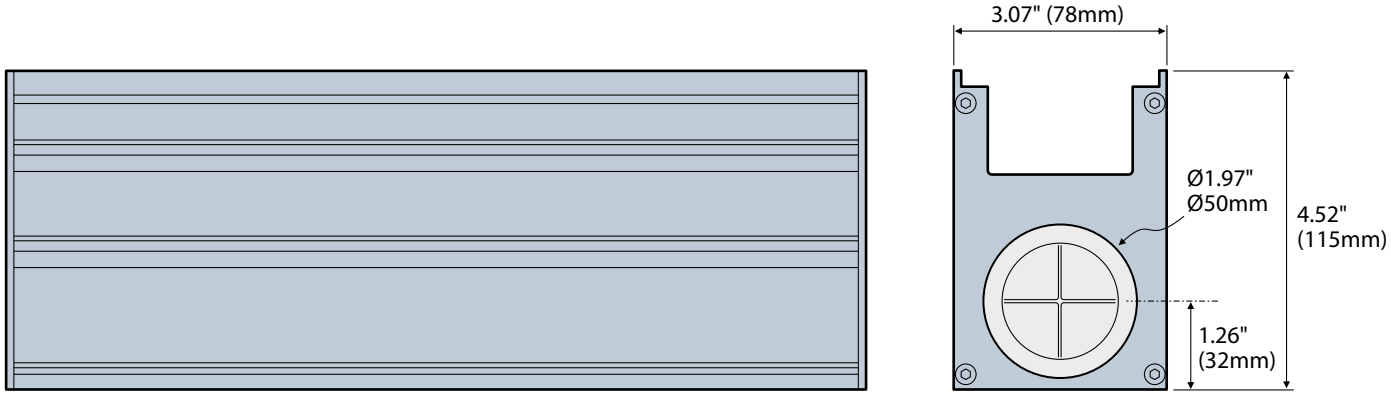


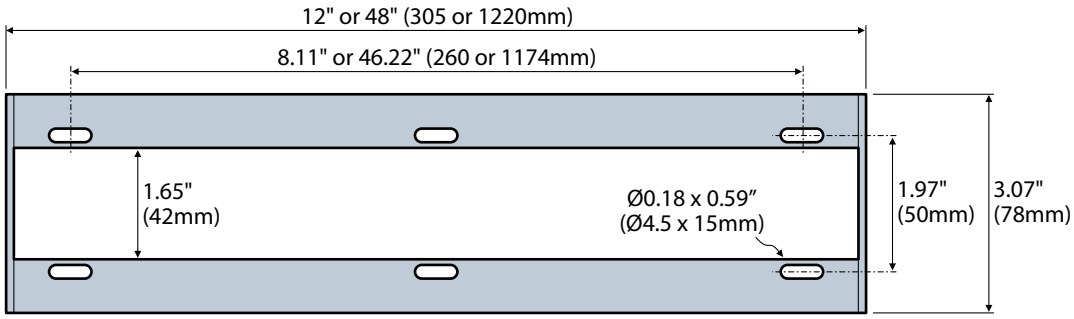
PROJECT	FIRM	ORDER #	TYPE	QTY

Dimensions

In-ground sleeve 1ft and 4ft (305 and 1220mm)







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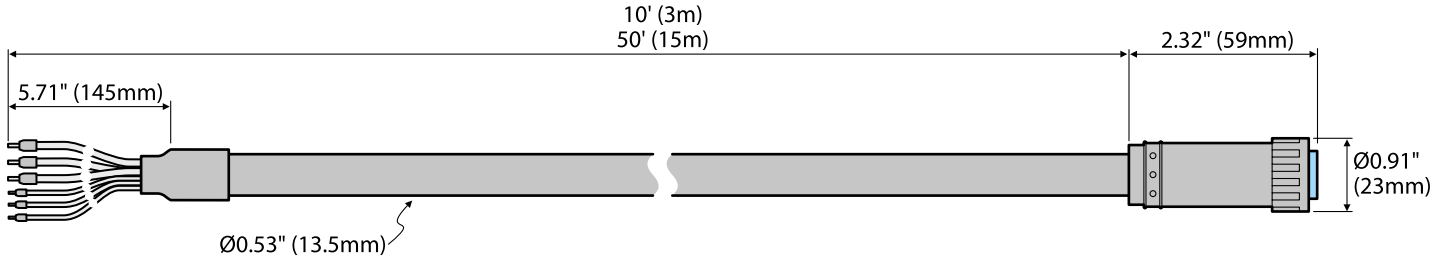
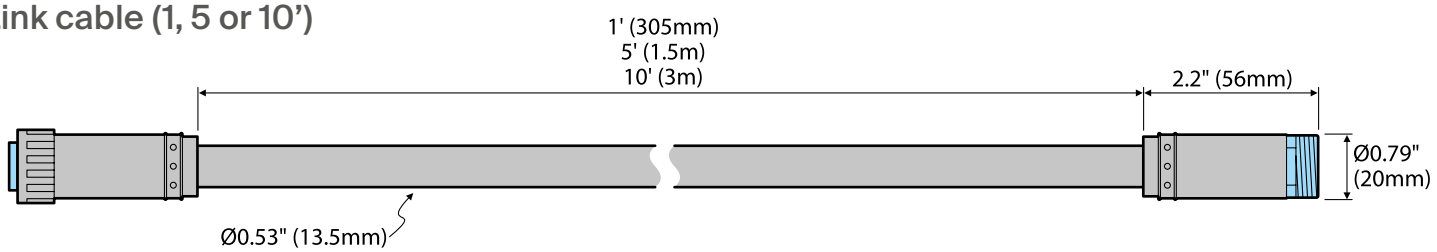
Dimensions

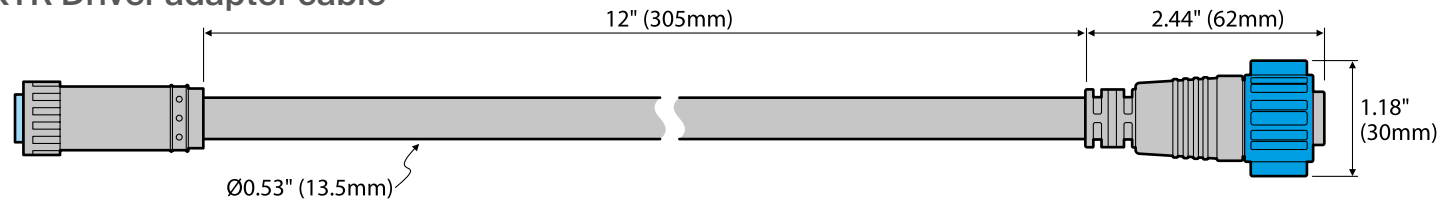
Feed cable (10 or 50')



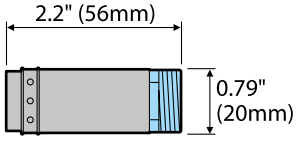
Link cable (1, 5 or 10')



XTR Driver adapter cable



Terminator (end cap)



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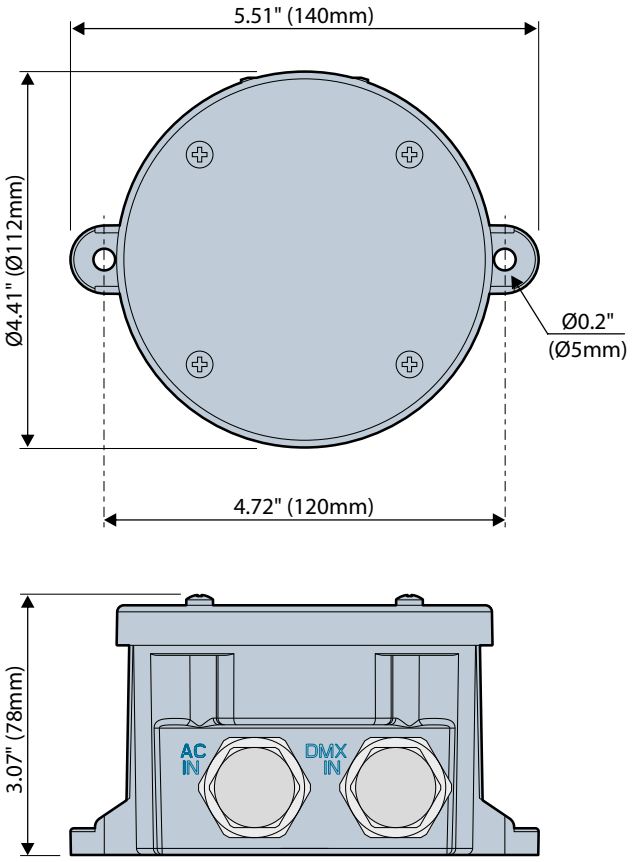
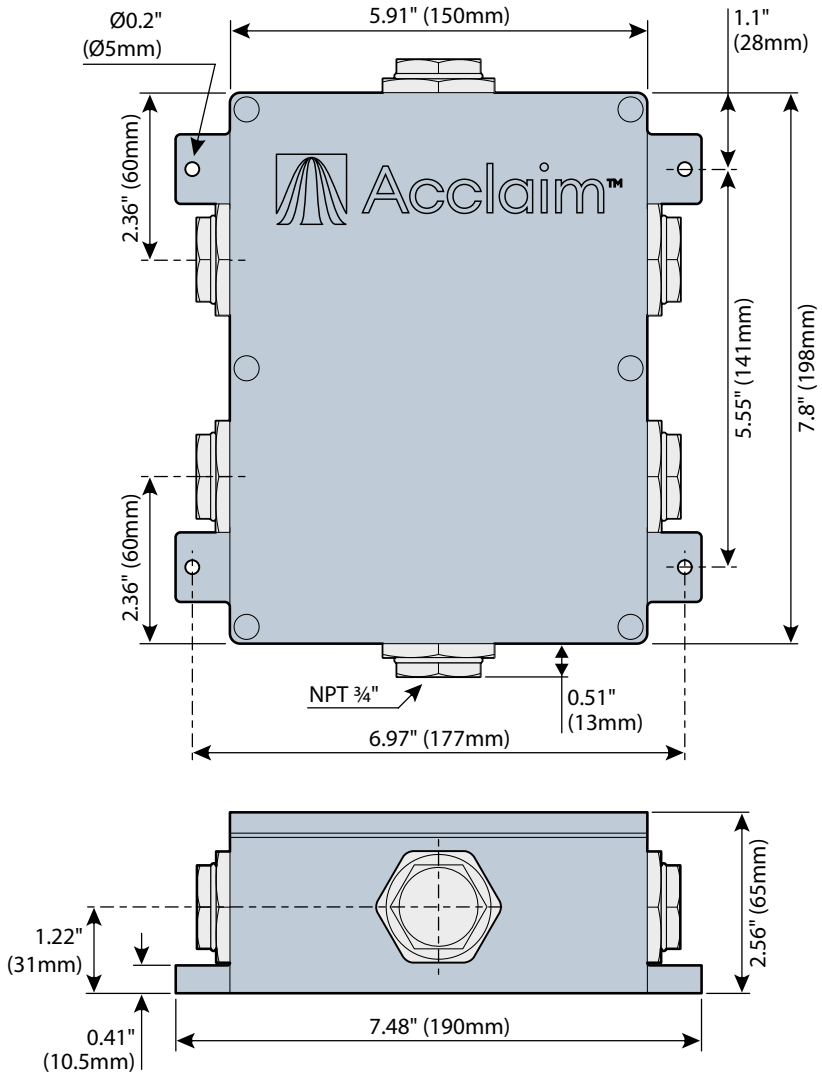
Dimensions

AJBOX1



AJBOX1 Extended



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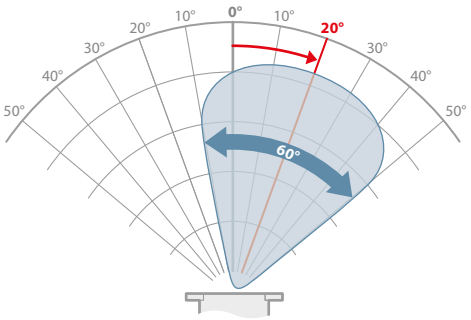
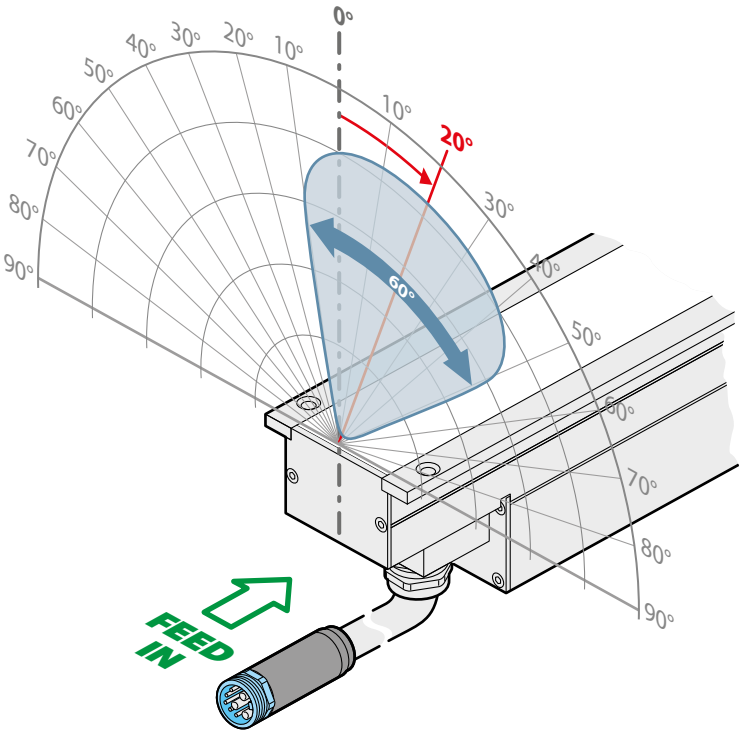
Asymmetric wall wash lens options

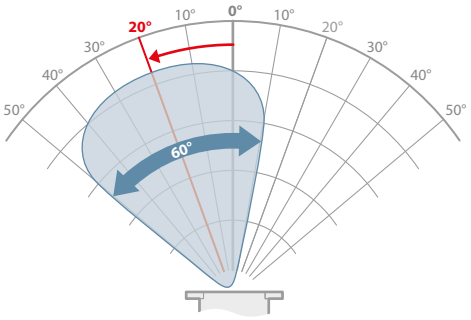
Two special lens options are available, both of which provide a 20 degree side-bias to the direction of the emitted output. Both lens options produce a 60 x 60 degree main beam angle; the difference is whether those beams are biased to the left or to the right of the fixture, in relation to the feed in connection.

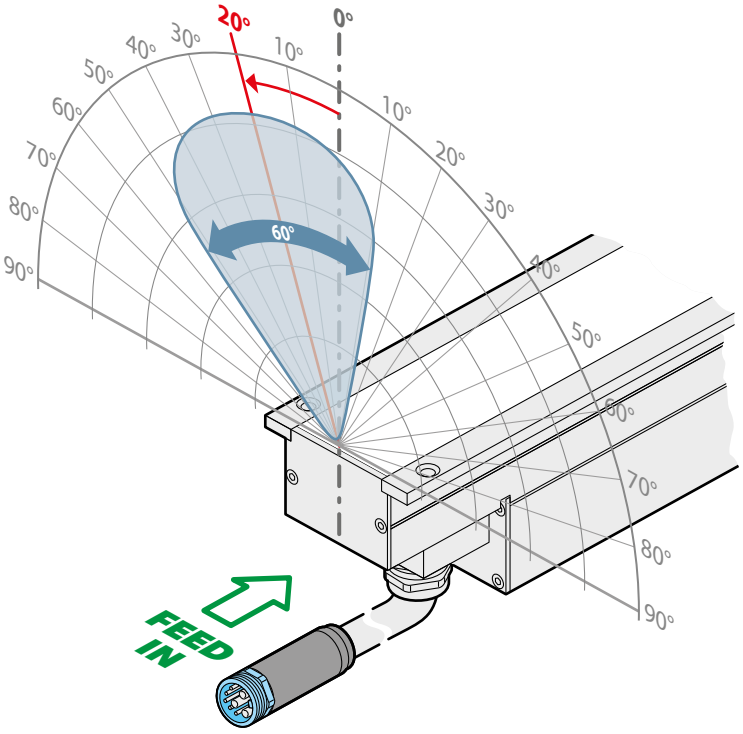
Asymmetric Wall Wash Right (60° x 60° with 20° tilt)





Asymmetric Wall Wash Left (60° x 60° with 20° tilt)



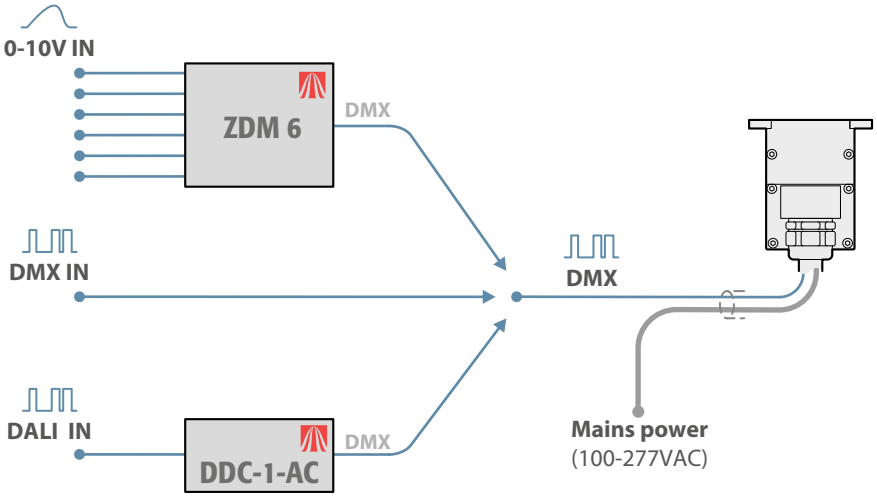


Using other control inputs

Terra Linear 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

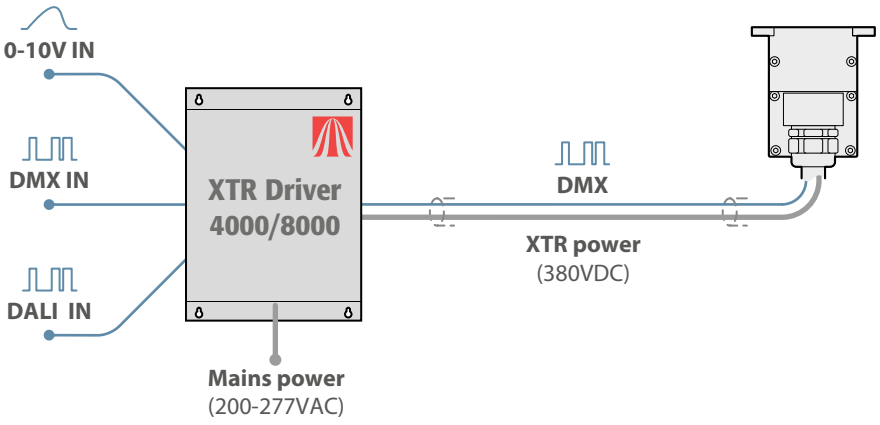
- DMX - connect a DMX input directly to the feed cable.
- 0-10V - use an Acclaim Lighting ZDM 6 to convert one or more analog control feeds into a combined DMX feed.
- DALI - use an Acclaim Lighting DDC-1-AC to convert one or more DALI channels into a combined DMX feed.



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 - thus allowing multiple Terra Linear fixtures to be uniquely addressed. 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).

Control inputs via an XTR Driver

The XTR Driver 4000 and 8000 units can accept DMX, 0-10V or DALI control inputs directly. The latter two methods are converted within the driver before being transmitted as DMX within the consolidated output, together with the high voltage XTR power.



When using an XTR Driver, the internal conversion supports either a single 0-10V feed or a single 'broadcast' DALI channel - meaning that all Terra Linear fixtures will use the same single control address. To benefit from multiple channels, use a ZDM 6 or DDC-1-AC to externally convert signals (see above).

Behaviors if the control signal is lost or not applied

If the DMX control signal is not present while power is applied, Terra Linear fixtures will respond in the following ways:

- Single color versions - when DMX is lost (or not used), each fixture will go to full output until the control signal is restored. If power is cycled while the control signal is absent, each fixture will remain at full until the signal is restored. If 100% output is required at all times during normal operation, this feature allows the fixtures to be fed with power only, without need for a control input.
- Dynamic white, RGBW and RGBA versions - when DMX 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.

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Unique addressing under DMX control

1’ (305mm) Terra Linear

Emitter options	DMX channels used: Cell 1	Total channels per fixture	Maximum unique fixtures
W	1	**1**	**512**
DW	2	**2**	**256**
RGBW	4	**4**	**128**

4’ (1220mm) Terra Linear (operating in ‘1 Group’ mode)

Emitter options	DMX channels used: All cells combined	Total channels per fixture	Maximum unique fixtures
W	1	**1**	**512**
DW	2	**2**	**256**
RGBW	4	**4**	**128**

4’ (1220mm) Terra Linear (operating in ‘4 Group’ mode)

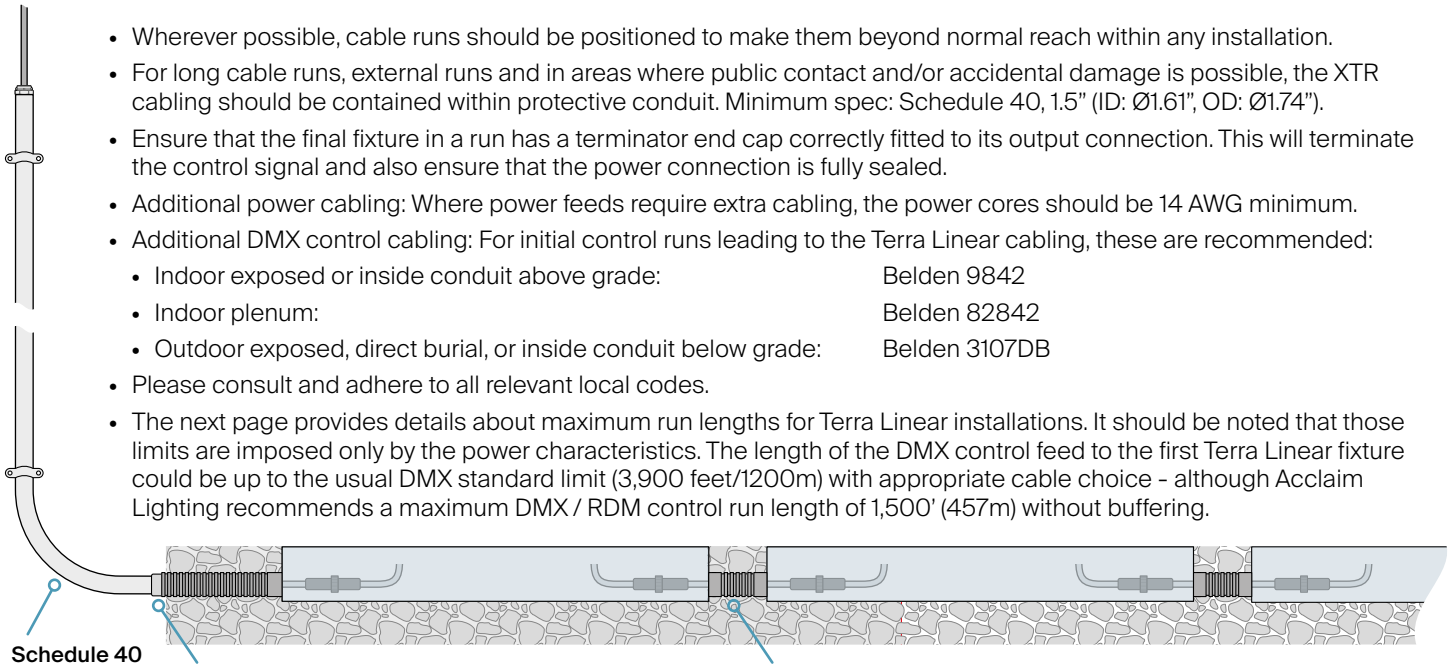
Emitter options	DMX channels used: Cell 1	Cell 2	Cell 3	Cell 4	Total channels per fixture	Maximum unique fixtures
W	1	1	1	1	**4**	**128**
DW	2	2	2	2	**8**	**64**
RGBW	4	4	4	4	**16**	**32**

The maximum number of fixtures that can be uniquely addressed in a run is determined by the length, emitter type and operation mode of each linear fixture, as summarized in the tables shown here.

Additionally, any number of fixtures in a run can be configured to use duplicate control addresses, as required.

Important cabling considerations

- Wherever possible, cable runs should be positioned to make them beyond normal reach within any installation.
- For long cable runs, external runs and in areas where public contact and/or accidental damage is possible, the XTR cabling should be contained within protective conduit. Minimum spec: Schedule 40, 1.5” (ID: Ø1.61”, OD: Ø1.74”).
- Ensure that the final fixture in a run has a terminator end cap correctly fitted to its output connection. This will terminate the control signal and also ensure that the power connection is fully sealed.
- Additional power cabling: Where power feeds require extra cabling, the power cores should be 14 AWG minimum.
- Additional DMX control cabling: For initial control runs leading to the Terra Linear cabling, these are recommended:
  - Indoor exposed or inside conduit above grade: Belden 9842
  - Indoor plenum: Belden 82842
  - Outdoor exposed, direct burial, or inside conduit below grade: Belden 3107DB
- Please consult and adhere to all relevant local codes.
- The next page provides details about maximum run lengths for Terra Linear installations. It should be noted that those limits are imposed only by the power characteristics. The length of the DMX control feed to the first Terra Linear fixture could be up to the usual DMX standard limit (3,900 feet/1200m) with appropriate cable choice - although Acclaim Lighting recommends a maximum DMX / RDM control run length of 1,500’ (457m) without buffering.

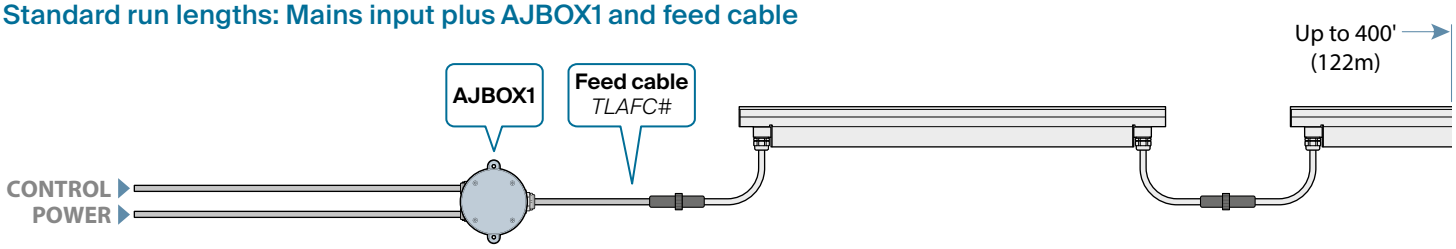


PROJECT	FIRM	ORDER #	TYPE	QTY

Power and control wiring

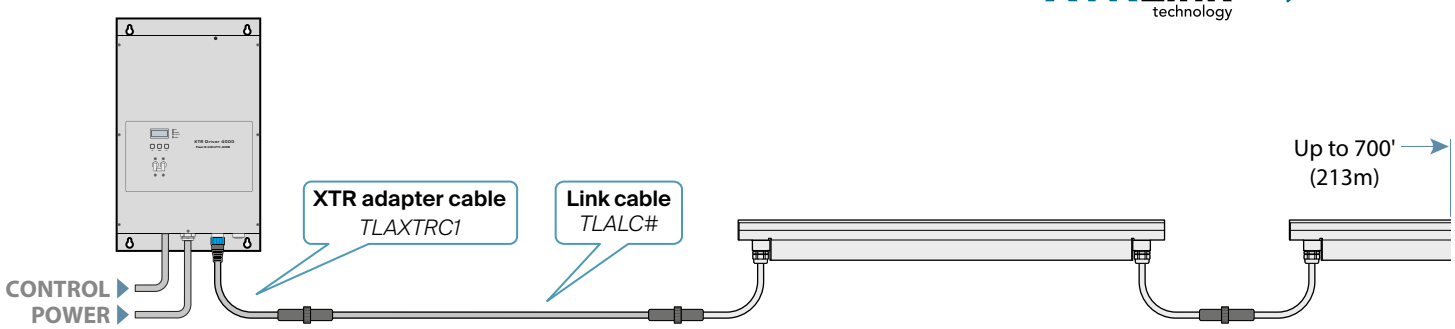
Terra Linear fixtures can be fed directly from a suitably protected mains supply (100 to 277VAC 50/60Hz) to provide standard run lengths up to 400' (122m). Alternatively, an Acclaim Lighting XTR Driver can create an increased supply voltage to allow continuous runs up to 700' (213m). *Note: Terra Linear fixtures can use either power method without any reconfiguration; voltage levels are automatically detected.*

Standard run lengths: Mains input plus AJBOX1 and feed cable



Extended run lengths: XTR Driver plus adapter and link cable

XTRLink technology



Run lengths

Maximum length of fixtures in a single run

(all fixtures controlled within a single DMX universe)

	Power draw	100/120VAC supply	230/277VAC supply	XTR Driver 4000	XTR Driver 8000
LO/EO	2.5 or 5W per foot	200' (61m)	400' (122m)	700' (213m)	2x 700' (213m)
CO	7W per foot	150' (45m)	300' (91.5m)	500' (152m)	2x 500' (152m)
SO	12W per foot	100' (30.5m)	200' (61m)	300' (91.5m)	2x 300' (91.5m)
HO	20W per foot	50' (15m)	100' (30.5m)	150' (45m)	2x 150' (45m)

Maximum overall length of a single run (fixtures + all cabling)

(all fixtures controlled within a single DMX universe)

	100/120VAC supply	230/277VAC supply	XTR Driver 4000	XTR Driver 8000
All models	200' (61m)	400' (122m)	800' (243m)	2x 800' (243m)

For full installation details, please refer to the **user guide**, available for free download here: