

# STR9® IG

UNIBODY COLOR-AMP®  
GVA TECHNOLOGY GVA TECHNOLOGY



**GVA**  
LIGHTING

## INGROUND Monochromatic Linear Wall Washing and Grazing LED Lighting

## PRODUCT SPECIFICATION SHEET

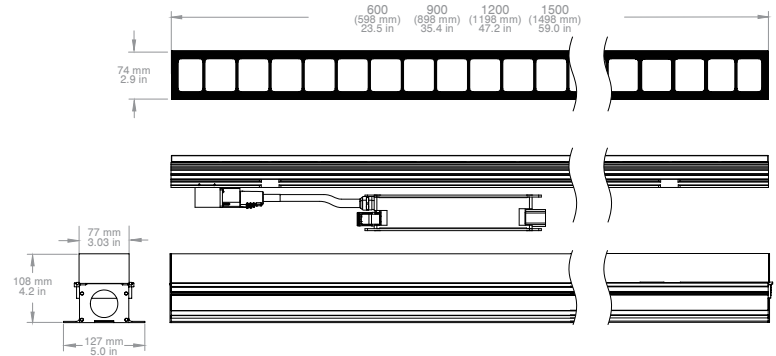


DATE:

TYPE:

COMPANY:

PROJECT:



### FEATURES

#### Lighting Performance:

- Up to 3755 lumens/meter (1144 lumens/foot)
- Superior quality of white light: excellent LED to LED color consistency
- Diffusing optical film creates uniform light output immediately adjacent to luminaire

#### Mechanical Details:

- Trimless inground luminaire, stainless steel top frame and aluminum body for improved thermal performance
- Compact size, 77 mm (3.03 in) wide, 108mm (4.2 in) high
- IP68 rated luminaire with proprietary sealing process and solid extruded, anodized aluminum UNIBODY™ design
- Electronic micro leak detection test performed for each hermetically sealed fixture
- Meets 3G ANSI C136.31-2010 Vibration Standard for Bridge and Overpass Applications
- IK10 with 10mm optically clear tempered glass lens (no yellowing over time)
- Through wiring via snap-in and lock connectors

#### Control:

- DMX control through GVA's power-data equipment
- 300mm resolution, each 300mm section can be addressed individually, self-addressing fixtures

**Projected Lifetime:** L70 > 100,000hrs @  $t_a = 50^\circ\text{C}$  (122°F)

**Operating Temperatures:** -40°C to +50°C (-40°F to 122°F)

### SPECIFICATION LOGIC

#### LUMINAIRE + IG-BOX + IG-POD

#### LUMINAIRE


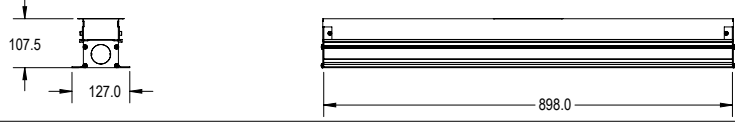
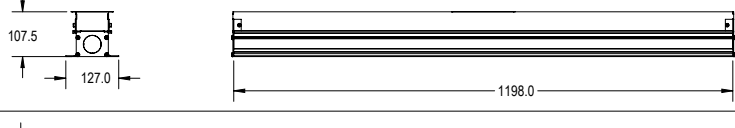
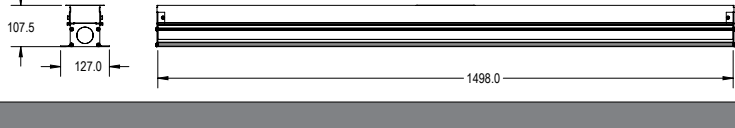
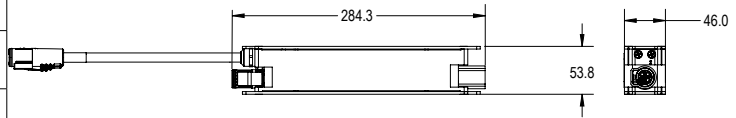
FAMILY	NOMINAL LENGTH	FINISH	POWER per 300mm (1ft)	LED COLOR	OPTICS (FWHM)	TILT	OPTIONAL
STR9-IG	300 <sup>1</sup>	TL - Trimless	3W	2200K	5°x5°	0 - No Tilt	NL - No Louver ILH - Internal Louver, Horizontal ILV - Internal Louver, Vertical IHL - Internal Honeycomb Louver
	600		5W - ASHRAE/ IESNA	2700K	8°x8°		
	900		10W	3000K	10°x10°		
	1200		15w	3500K	30°x30°		
	1500			4000K	60°x60°		
				5000K	80°x80°		
				6500K	100°x100°		
				RD - Red	5°x10°		
				AM - Amber	5°x30°		
				GR - Green	5°x60°		
				BL - Blue	10°x30°		
				RB - Royal Blue	10°x60°		
					10°x90°		
					20°x60°		
					30°x60°		

#### PRODUCT CONFIGURATION

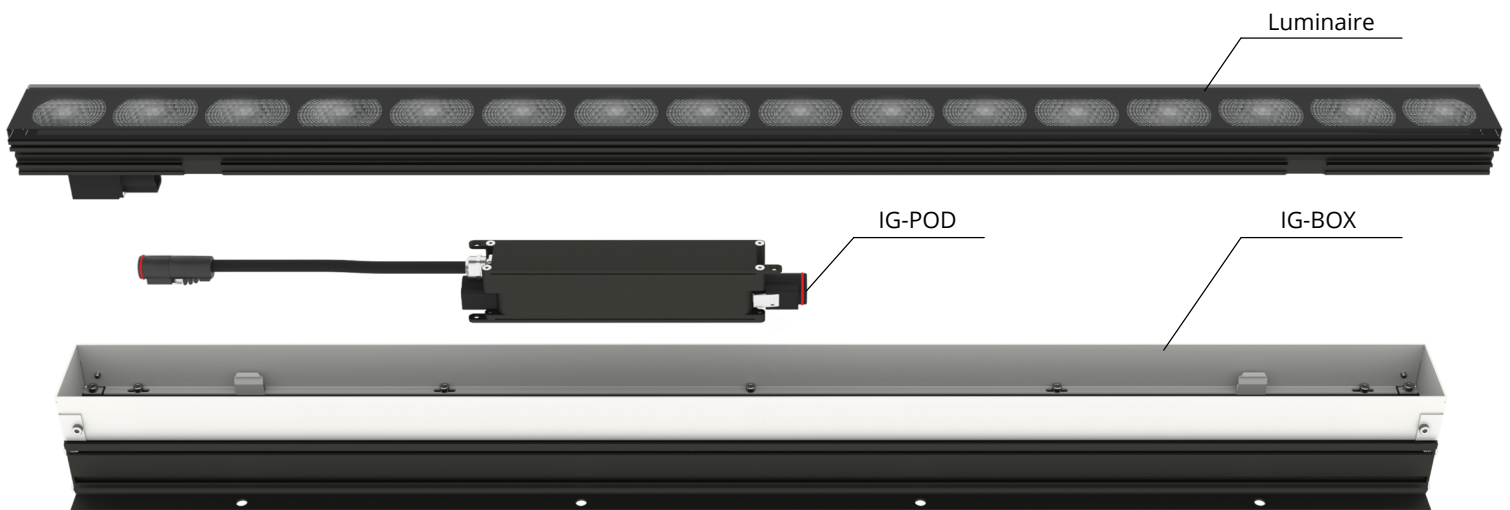
1. Custom; consult factory, some restrictions apply
2. Other distributions available; Consult factory.

## INGROUND Monochromatic Linear Wall Washing and Grazing LED Lighting

## PRODUCT SPECIFICATION SHEET

IG-BOX						
PART NUMBER	DESCRIPTION	LENGTH	WIDTH	HEIGHT	WEIGHT	
G00762	IG-BOX-TL-600	598 mm 23.54in	127mm 5.0in	107.5mm 4.23in	3.7kg 8.2lbs	
G00647	IG-BOX-TL-900	898 mm 35.35in			5.5kg 12.1lbs	
G00648	IG-BOX-TL-1200	1198 mm 47.47in			7.3kg 16.09lbs	
G00649	IG-BOX-TL-1500	1498 mm 58.98in			9.1kg 20.0lbs	
IG-POD						
PART NUMBER	DESCRIPTION	LENGTH	WIDTH	HEIGHT	WEIGHT	
G20462	IG-POD-50W-120~277VAC	284.3 mm 11.19 in	46 mm 1.81 in	53.8 mm 2.11 in	1.04 kg 2.29 lbs	
G20463	IG-POD-100W-120~277VAC				1.2 kg 2.65 lbs	
G20482	IG-POD, ELV				0.9 kg 1.98 lbs	


## STR9-IG EXPLODED VIEW





## INGROUND Monochromatic Linear Wall Washing and Grazing LED Lighting

## PRODUCT SPECIFICATION SHEET

PRODUCT SPECIFICATIONS						
Nominal Length			600	900	1200	1500
Electrical		Nominal Wattage				
	Power Consumption for 48VDC Input	3W/ft	6W	9W	12W	15W
		5W/ft	10W	15W	20W	25W
		10W/ft	20W	30W	40W	50W
		15W/ft	30W	45W	60W	75W
Power Consumption <sup>1</sup> for 120-277VAC Input	3W/ft	8.9W	12.1W	15.3W	18.5W	
	5W/ft	13.1W	18.5W	23.7W	29W	
	10W/ft	23.7W	34.5W	45.9W	56.8W	
	15W/ft	34.5W	51.2W	69W	85.2W	
Optical	Light Source	6 x High Power LEDs per 300mm (1ft)				
	CRI	>80				
	Lumen Output (typical) <sup>2,3</sup>	3W	480 lm	720 lm	960 lm	1,200 lm
		5W	794 lm	1,191 lm	1,588 lm	1,985 lm
		10W	1,560 lm	2,340 lm	3,120 lm	3,900 lm
15W		2,238 lm	3,357 lm	4,476 lm	5,595 lm	
Projected Lumen Maintenance		L70 > 65,000 hrs @ t <sub>a</sub> = 50°C (122°F)				
Control	Control Protocol		DMX, DALI or 0-10V control through GVA Power-Data Equipment			
	Control Protocol for ELV and AC	DMX	300mm (1ft) resolutions			
		DALI	Each run is 1 address			
		0-10V				
Physical	Luminaire		1.1kg 2.43lbs	2.2kg 4.85lbs	3.3kg 7.27lbs	4.4kg 9.70lbs
		Innovative and time proven UNIBODY™ design – machined from a solid aluminum extrusion to provide a hermetically sealed luminaire				
	IG-BOX	Stainless steel top frame fastened to aluminum channel				
	IG-POD	Innovative and time proven UNIBODY™ design – machined from a solid aluminum extrusion to provide a hermetically sealed enclosure				
	Corrosion Resistance	Assembled with parts made of corrosion resistant stainless steel and aluminum coated with multiple corrosion resistant layers				
Temperature Ranges	Rated Operation Temperature		-40°C to +50°C (-22°F to 122°F)			
	Minimum Starting Temperature		-30°C (-22°F)			
	Storage Temperature		-40°C to +85°C (-22°F to 185°F)			
Certification & Safety	IES Classifications		Class 1 LED Luminaire			
	Certifications					
		QPS (US Field Evaluation) or ETL (Special Electrical Equipment Inspection) where applicable CE Certified RoHS Compliant Constructed to meet requirements outlined in UL1598 & IEC60598 Meets ANSI C136.31, 3G Vibration standard for bridge and overpass applications				
	Environment		Dry, damp, or wet locations . 0-100% humidity, IP66			

1. Measured for 120VAC input voltage
2. Data provided for 4000K, with 10 Degree beam angles. Warmer color temperatures typically have a lower lumen output
3. Please consult factory for most recent photometric data

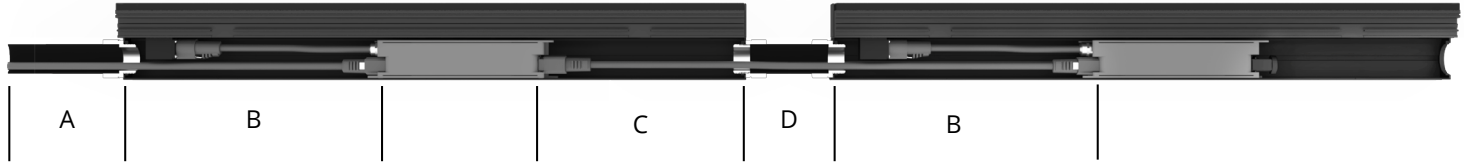
These figures are subject to change due to further development and innovations of LED light sources

MAXIMUM RUN LENGTHS <sup>1</sup>										
		3W	5W	10W	15W		3W	5W	10W	15W
ELV		51 m	31 m	15 m	10 m		170 ft	102 ft	51 ft	34 ft
120VAC	600	89 m	67 m	40 m	29 m		294 ft	222 ft	134 ft	96 ft
	900	133 m	88 m	46 m	32 m		438 ft	291 ft	153 ft	105 ft
	1200	140 m	91 m	47 m	30 m		460 ft	300 ft	156 ft	100 ft
	1500	147 m	92 m	47 m	30 m		485 ft	305 ft	155 ft	100 ft
240VAC	600	142 m	118 m	87 m	62 m		468 ft	388 ft	288 ft	206 ft
	900	197 m	160 m	94 m	64 m		648 ft	525 ft	309 ft	213 ft
	1200	234 m	175 m	96 m	63 m		768 ft	576 ft	316 ft	208 ft
	1500	266 m	181 m	97 m	64 m		875 ft	595 ft	320 ft	210 ft
277VAC <sup>2</sup>	600	10 m	10 m	10 m	10 m		36 ft	36 ft	36 ft	36 ft
	900	16 m	16 m	16 m	16 m		54 ft	54 ft	54 ft	54 ft
	1200	21 m	21 m	21 m	21 m		72 ft	72 ft	72 ft	72 ft
	1500	27 m	27 m	27 m	27 m		90 ft	90 ft	90 ft	90 ft

Ratings are for 30°C, de-rating will be used for higher ambient temperatures. Contact factory for applications support.

1. Run lengths may vary depending on luminaire length combination chosen. Please consult factory for layout configuration. Values calculated for 3 m leader cable and 0.3 m distance between luminaires.
2. Type D breaker required for 277VAC

## LEADER AND JUMPER CABLE SELECTION GUIDE



- A - Cable length from Power Data Equipment to input side of IG-BOX  
 B - Cable length from input side of IG-BOX to input of IG-POD  
 C - Cable length from output of IG-POD to output side of IG-BOX  
 D - Cable length required for gap between STR9-IG assemblies

### LEADER CABLE LENGTH SELECTION

STR9-IG NOMINAL LENGTH	B	A
600	0.43m 17 in	DETERMINED BY ON-SITE REQUIREMENT
900		
1200		
1500		

REQUIRED LEADER CABLE LENGTH = A + B  
 Round up to the next standard size. Refer to page 5.

#### Leader Cable Selection Example:

Input values:  
 A = 5 m (value determined by on-site requirement)  
 B = 0.43m (fixed value from Leader Cable Selection table)

Calculations:  
 $L_{(Leader\ Cable)} = B + A$   
 $L_{(Leader\ Cable)} = 0.43\ m + 5\ m$   
 $L_{(Leader\ Cable)} = 5.43\ m$

Round up to next standard size. Refer to page 5.  
 $L_{(Leader\ Cable)} = 6.0\ m$

### JUMPER CABLE LENGTH SELECTION

STR9-IG NOMINAL LENGTH	C + B	D
600	0.43 m 17 in	DETERMINED BY ON-SITE REQUIREMENT
900	0.73 m 28 3/4 in	
1200	1.03 m 40 9/16 in	
1500	1.33 m 52 3/8 in	

REQUIRED JUMPER CABLE LENGTH = C + B + D  
 Round up to the next standard size. Refer to page 5.

#### Jumper Cable Selection Example:

Input values:  
 C + B = 1.03 m (1200 mm STR9-IG used)  
 D = 1.6 m (value determined by on-site requirement)

Calculations:  
 $L_{(Jumper\ Cable)} = C + B + D$   
 $L_{(Jumper\ Cable)} = 1.03\ m + 1.6\ m$   
 $L_{(Jumper\ Cable)} = 2.63\ m$

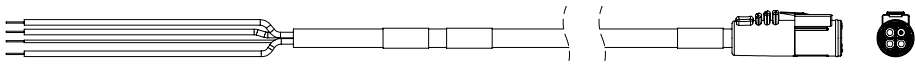

Round up to next standard size. Refer to page 5.  
 $L_{(Jumper\ Cable)} = 3.0\ m$

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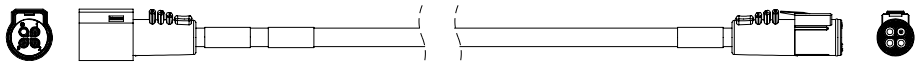

## PRODUCT SPECIFICATION SHEET

### ORDERING LOGIC: COMMON COMPONENTS

#### STR9 LEADER CABLE ELV

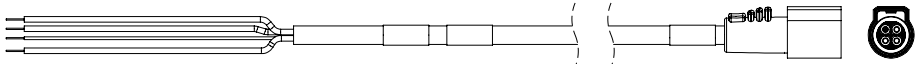

PART NUMBER	NOMINAL LENGTH	WEIGHT	INPUT	OUTPUT
141481	3.0 m (9 ft)	420 g (0.93 lbs)		
141484	6.0 m (19 ft)	815 g (1.80 lbs)		
141487	9.0 m (30 ft)	1210 g (2.67 lbs)		
141489	15.0 m (50 ft)	2000 g (4.41 lbs)		
141492	30.0 m (100 ft)	3975 g (8.76 lbs)		

#### STR9 JUMPER CABLE ELV

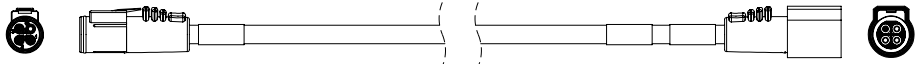

PART NUMBER	NOMINAL LENGTH	WEIGHT	INPUT	OUTPUT
141739	0.3 m (1 ft)	90 g (0.20 lbs)		
141740	0.6 m (2 ft)	129 g (0.28 lbs)		
141741	0.9 m (3 ft)	169 g (0.37 lbs)		
141742	1.2 m (4 ft)	208 g (0.46 lbs)		
141743	1.5 m (5 ft)	248 g (0.55 lbs)		
141744	1.8 m (6 ft)	287 g (0.63 lbs)		
141758	6.0 m (20 ft)	840 g (1.85 lbs)		
141768	9.0 m (30 ft)	1235 g (2.72 lbs)		

\*Not all jumper lengths are shown. Lengths available in 300mm increments.

#### STR9 LEADER CABLE AC

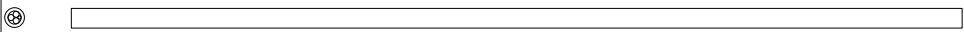
PART NUMBER	NOMINAL LENGTH	WEIGHT	INPUT	OUTPUT
141509	3.0 m (9 ft)	420 g (0.93 lbs)		
141512	6.0 m (19 ft)	815 g (1.80 lbs)		
141515	9.0 m (30 ft)	1210 g (2.67 lbs)		
141517	15.0 m (50 ft)	2000 g (4.41 lbs)		
141520	30.0 m (100 ft)	3975 g (8.76 lbs)		

#### STR9 JUMPER CABLE AC

PART NUMBER	NOMINAL LENGTH	WEIGHT	INPUT	OUTPUT
141789	0.3 m (1 ft)	90 g (0.20 lbs)		
141790	0.6 m (2 ft)	129 g (0.28 lbs)		
141791	0.9 m (3 ft)	169 g (0.37 lbs)		
141792	1.2 m (4 ft)	208 g (0.46 lbs)		
141793	1.5 m (5 ft)	248 g (0.55 lbs)		
141794	1.8 m (6 ft)	287 g (0.63 lbs)		
141808	6.0 m (20 ft)	840 g (1.85 lbs)		
141818	9.0 m (30 ft)	1235 g (2.72 lbs)		

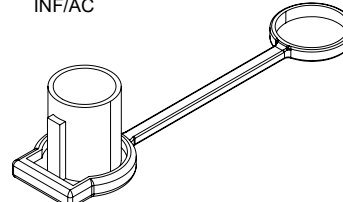
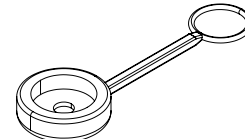
\*Not all jumper lengths are shown. Lengths available in 300mm increments.

#### STR9 CABLE 3X14 AWG + 1X24 AWG

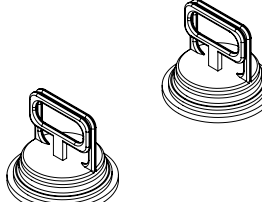
PART NUMBER	NOMINAL LENGTH	WEIGHT	
280253	Sold per m	132 g (0.291lbs)	

\* Raw cable cut to length. Please specify required length.

#### STR9 CONNECTOR CAP, IP67 (Must be used at the end of each run)

PART NUMBER	TYPE	WEIGHT	INF/AC	ELV
231182	STR-ELV	3.40 g (0.11 oz)		
230855	STR9-INF/AC	6.24 g (0.22 oz)		

#### LUMINAIRE INSTALLATION SUCTION CUP KIT

PART NUMBER	TYPE	WEIGHT	
310224	STR9-IG SUCTION CUPS	150 g (5.3 oz)	



OPTIONAL ACCESSORIES			
TYPE	COLOR	WEIGHT (Per 300mm)	
ILH - Internal Louver, Horizontal	BLACK	10 g 0.35 oz	  *Please select option in the specification logic table if required. Item is factory installed only.
ILV - Internal Louver, Vertical	BLACK	10 g 0.35 oz	  *Please select option in the specification logic table if required. Item is factory installed only.
IHL - Internal Honeycomb Louver	BLACK	20 g 0.71 oz	  *Please select option in the specification logic table if required. Item is factory installed only.

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## PRODUCT SPECIFICATION SHEET

### ORDERING LOGIC: POWER SUPPLIES & POWER DATA EQUIPMENT

#### ELV POWER DATA BOXES

FAMILY	OUTPUT VOLTAGE	POWER (Watts)		CONTROL INPUT	CONTROL OUTPUT	INPUT VOLTAGE	CONSTRUCTION
PS	ELV (48V)	240W 320W	480W 640W	-	-	120~277V AC	IP66 IP30
PDB	ELV (48V)	240W 320W	480W 640W	DMX	48V POWER & ZH DATA	120~277V AC	IP66 IP30

#### POWER-DATA CONVERTORS IP66

PART NUMBER	DESCRIPTION	LENGTH	WIDTH	HEIGHT	WEIGHT	
G20510 G20511	PDC-AC-120~240-1DMX PDC-AC-120~240-DALI/0~10V	260 mm 10.26 in	160 mm 6.30 in	91 mm 3.58 in	3.35 kg 7.39 lbs	
G20250 G20521	PDC-AC-277-1DMX PDC-AC-277-DALI/0~10V	160 mm 6.30 in	160 mm 6.30 in	91 mm 3.58 in	2.06 kg 4.54 lbs	

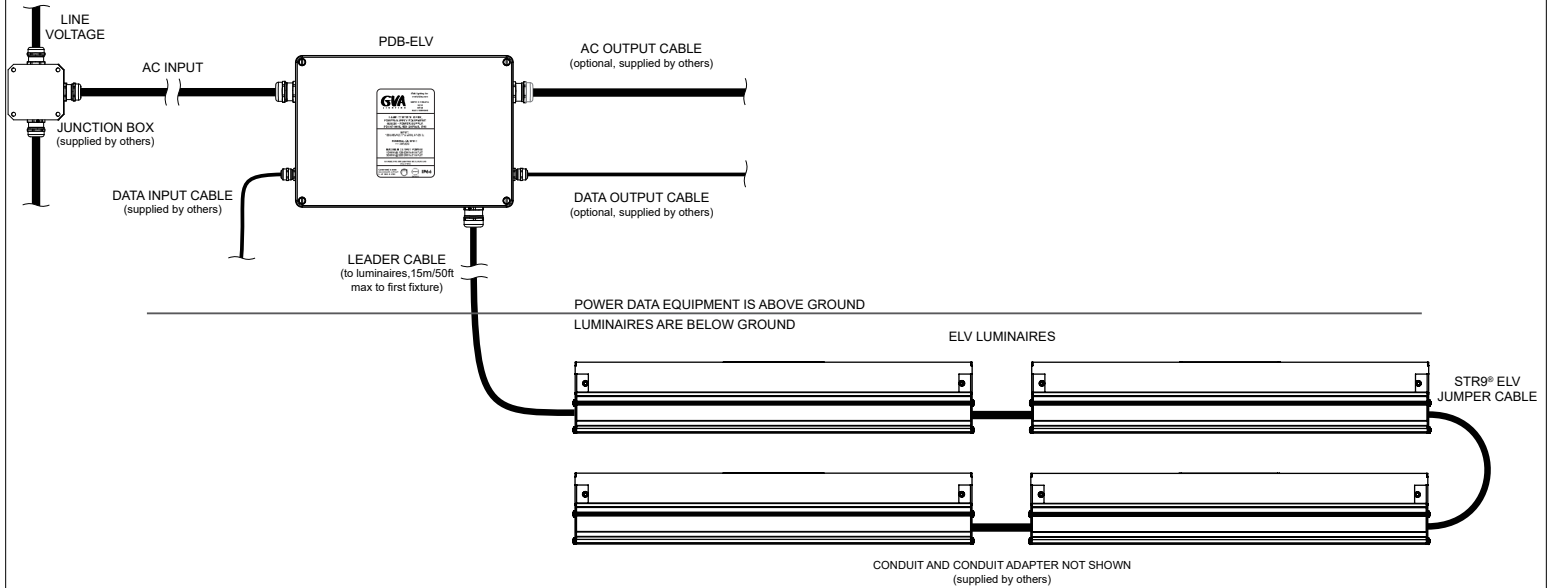
#### POWER-DATA CONVERTORS IP30

PART NUMBER	DESCRIPTION	LENGTH	WIDTH	HEIGHT	WEIGHT	
G20512 G20513	PDC-AC-120~240-1DMX PDC-AC-120~240-DALI/0~10V	260 mm 10.26 in	160 mm 6.30 in	91 mm 3.58 in	3.35 kg 7.39 lbs	
G20252 G20523	PDC-AC-277-1DMX PDC-AC-277-DALI/0~10V	160 mm 6.30 in	160 mm 6.30 in	91 mm 3.58 in	2.06 kg 4.54 lbs	

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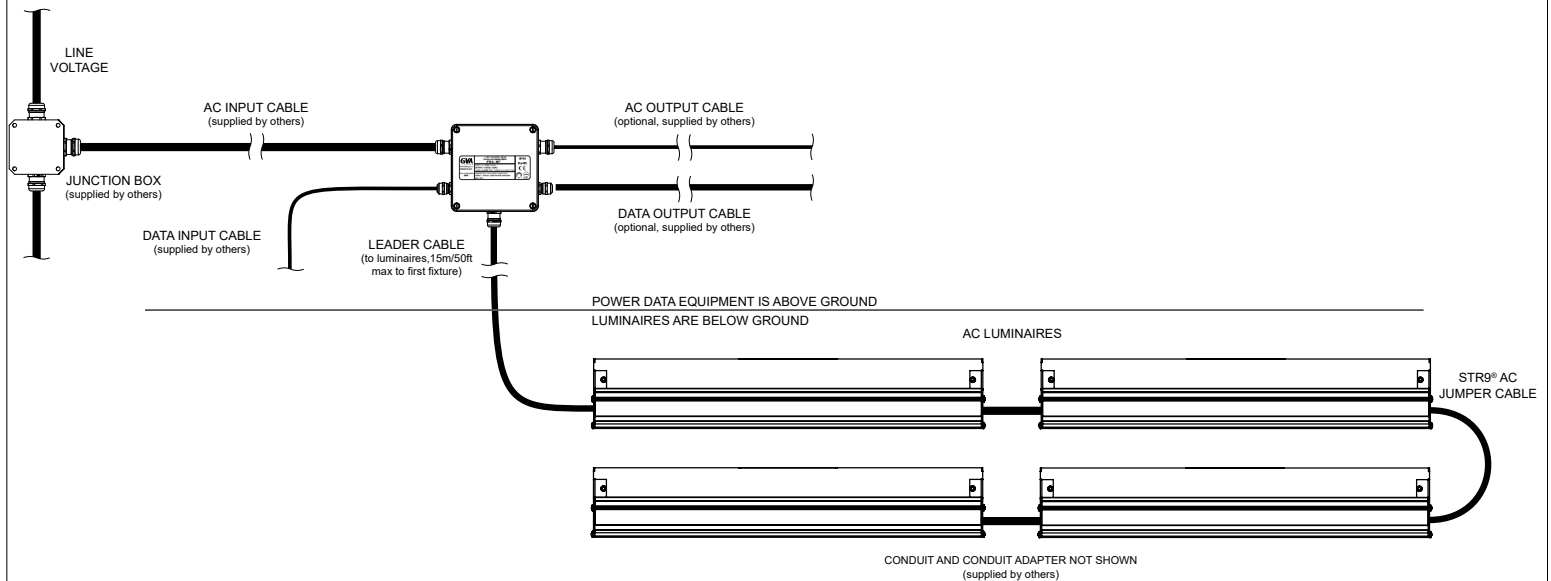
## PRODUCT SPECIFICATION SHEET

### TYPICAL SYSTEM DIAGRAM: ELV WITH CONTROL



\*For applications that do not require control, replace PDB with PS ELV.

### TYPICAL SYSTEM DIAGRAM: AC WITH CONTROL



\*For applications that do not require control, do not include PDC.