LIGHTISH PIXELS

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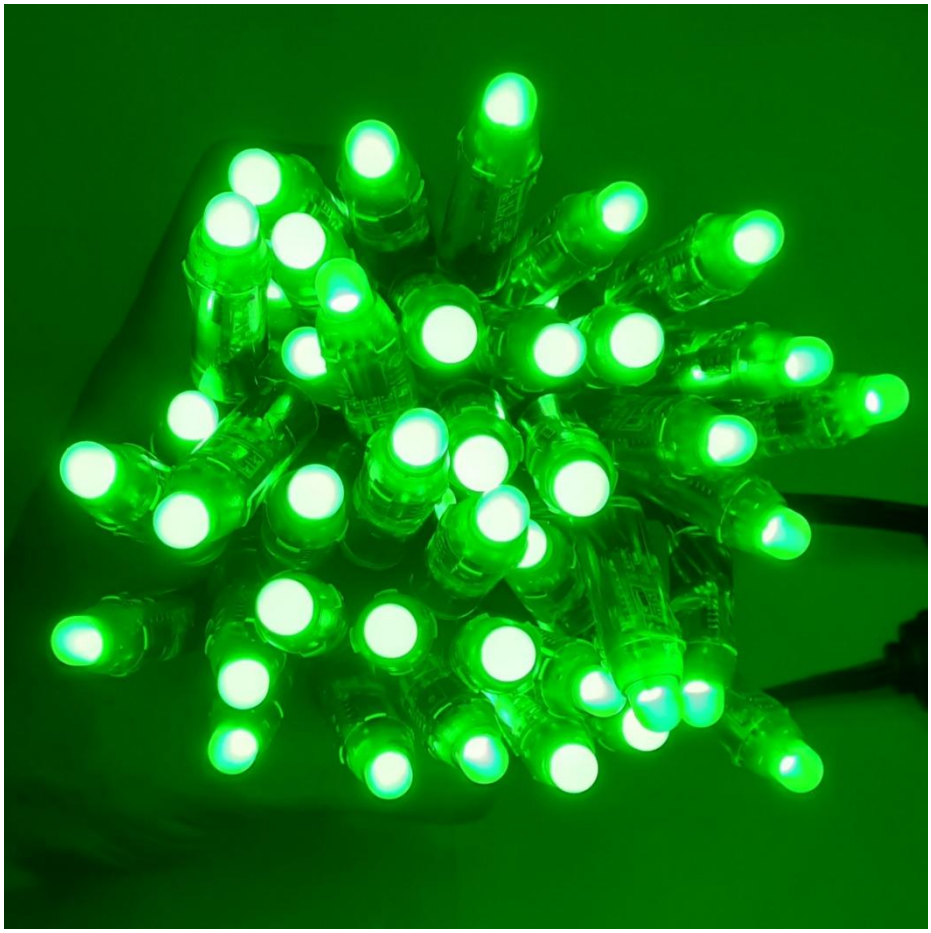

This document includes general information and technical specs about the products listed. It’s intended to help you understand what the products can do—but it’s not a substitute for a full evaluation of whether they’re the right fit for your specific needs.

If you’re integrating or using these products in your own system, it's your responsibility to carry out all necessary risk assessments, testing, and validation to ensure everything works safely and reliably in your application.

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If you're using our products in environments with technical safety requirements, always follow the provided instructions and documentation closely.

Using software not provided or approved by Lightish with our products may cause malfunction, damage, or even injury. Always stick to verified software and systems.

Ignoring these guidelines could lead to personal harm or equipment failure.

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PX-5-XXX-X-XX

Electrical Characteristics

Characteristic	Value	
Supply voltage	5 VDC (+/- 5%)	
Power @ 100%	For 50 pixels	15 W
Current @ 100%	For 50 pixels	3 A
Max continues length	50 pixels or 3 A	
Voltage Regulation	Native / Direct	
Conductor size	0,323mm^2	
Conductor count	3 (+/-/data)	
Wire color	Black, White or Green	
Connector	XConnect or RayWu	

Technical data

Characteristic	Value	
Pixel diameter	12 mm	
Distance between pixels	10 cm	
Total length	For 50 pixels	4,9 meters
Input wire length	15 cm	
Output wire length	15 cm	
Operating temperature	(-20°C) - 40°C	
Water protection	IP67	
Outdoor use	Yes	
Weight	50 pixel sting	0,4 kg

Technical data

Characteristic	Value
Control chip	WS2811
Channels per chip	3
Colors	Red, Green and Blue
Color order	GRB
Color depth	8 bit
Viewing angle	120°

Characteristic	Value
Contry of origin (COO)	CN (China)

PX-12-XXX-X-XX

Electrical Characteristics

Characteristic	Value	
Supply voltage	12 VDC (+/- 5%)	
Power @ 100%	For 50 pixels	30 W
Current @ 100%	For 50 pixels	2,5 A
Max continues length	75 pixels or 3,75 A	
Voltage Regulation	Resistor	
Conductor size	0,323mm^2	
Conductor count	3 (+/-/data)	
Wire color	Black, White or Green	
Connector	XConnect or RayWu	

Technical data

Characteristic	Value	
Pixel diameter	12 mm	
Distance between pixels	10 cm	
Total length	For 50 pixels	4,9 meters
Input wire length	15 cm	
Output wire length	15 cm	
Operating temperature	(-20°C) - 40°C	
Water protection	IP67	
Outdoor use	Yes	
Weight	50 pixel sting	0,4 kg

Technical data

Characteristic	Value
Control chip	WS2811
Channels per chip	3
Colors	Red, Green and Blue
Color order	GRB
Color depth	8 bit
Viewing angle	120°

Characteristic	Value
Contry of origin (COO)	CN (China)

PX-24-XXX-X-XX

Electrical Characteristics

Characteristic	Value	
Supply voltage	24 VDC (+/- 5%)	
Power @ 100%	For 50 pixels	14 W
	For 100 pixels	28 W
	For 300 pixels	84 W
Current @ 100%	For 50 pixels	Approx.. 0,59 A
	For 100 pixels	Approx.. 1,17 A
	For 300 pixels	3,5 A
Max continues length	300 pixels or 3,5 A	
Voltage Regulation	Native / Direct	
Conductor size	0,323mm^2	
Conductor count	3 (+/-/data)	
Wire color	Black, White or Green	
Connector	XConnect or RayWu	

Technical data

Characteristic	Value	
Pixel diameter	12 mm	
Distance between pixels	10 cm	
Total length	For 50 pixels	4,9 meters
	For 100 pixels	9,9 meters
Input wire length	15 cm	
Output wire length	15 cm	
Operating temperature	(-20°C) - 40°C	
Water protection	IP67	
Outdoor use	Yes	
Weight	50 pixel sting	0,4 kg
	100 pixel sting	0,8 kg
	300 pixel sting	2,4 kg

Technical data

Characteristic	Value
Control chip	LB1908
Channels per chip	3
Colors	Red, Green and Blue
Color order	GRB
Color depth	8 bit
Viewing angle	120°

Characteristic	Value
Contry of origin (COO)	CN (China)

Please note that the LB1908 chip works with the WS2811 protocol; it is not recommended to mix the two chips in the same string or on the same controller output.

PD-12-XXX-X-XXX-XX (Strings)

Electrical Characteristics

Characteristic	Value	
Supply voltage	12 VDC (+/- 5%)	
Power @ 100%	For 50 pixels	5,4 W
	For 100 pixels	10,8 W
	For 200 pixels	21,6 W
Current @ 100%	For 50 pixels	0,45 A
	For 100 pixels	0,9 A
	For 200 pixels	1,8 A
Max continues length	250 pixels or 2,25 A	
Voltage Regulation	Native / Direct	
Conductor size	15 mm pitch	0,154mm^2
	25 mm pitch	0,154mm^2
	50 mm pitch	0,201mm^2
	100 mm pitch	0,201mm^2
Conductor count	3 (+/-/data)	
Wire color	Black, White or Green	
Connector	XConnect or RayWu	

Technical data

Characteristic	Value	
Pixel width	6 mm	
Distance between pixels (pitch)	15, 25, 50 or 100 mm	
Total length	Pixel count * Pitch – Pitch Example: 50 * 10 - 10 = 490 mm	
Input wire length	15 cm	
Output wire length	15 cm	
Operating temperature	(-20°C) - 40°C	
Water protection	IP65	
Outdoor use	Yes	
Weight	50 pixels / 100 mm pitch	0,05 kg
	100 pixels / 100 mm pitch	0,09 kg
	200 pixels / 100 mm pitch	0,17 kg

Technical data

Characteristic	Value
Control chip	SKC6809
Channels per chip	3
Colors	Red, Green and Blue
Color order	GRB
Color depth	8 bit
Viewing angle	180°

Characteristic	Value
Contry of origin (COO)	CN (China)

Please note that the SKC6809 chip works with the WS2811 protocol; it is not recommended to mix the two chips in the same string or on the same controller output.

PDR-12-X-XXX (Roll)

Electrical Characteristics

Characteristic	Value	
Supply voltage	12 VDC (+/- 5%)	
Power @ 100%	For 1000 pixels	108 W
Current @ 100%	For 1000 pixels	9 A
Max continues length	250 pixels or 2,25 A	
Voltage Regulation	Native / Direct	
Conductor size	15 mm pitch	0,154mm^2
	25 mm pitch	0,154mm^2
	50 mm pitch	0,201mm^2
	100 mm pitch	0,201mm^2
Conductor count	3 (+/-/data)	
Wire color	Black, White or Green	
Connector	XConnect or RayWu	

Technical data

Characteristic	Value	
Pixel width	6 mm	
Distance between pixels (pitch)	15, 25, 50 or 100 mm	
Total length	Pixel count * Pitch – Pitch Example: 50 * 10 - 10 = 490 mm	
Input wire length	none	
Output wire length	none	
Operating temperature	(-20°C) - 40°C	
Water protection	IP65	
Outdoor use	Yes	
Weight	100 mm pitch	1,2 kg

Technical data

Characteristic	Value
Control chip	SKC6809
Channels per chip	3
Colors	Red, Green and Blue
Color order	GRB
Color depth	8 bit
Viewing angle	180°

Characteristic	Value
Contry of origin (COO)	CN (China)

Please note that the SKC6809 chip works with the WS2811 protocol; it is not recommended to mix the two chips in the same string or on the same controller output.

PDC-12-XXX-X-XX

Electrical Characteristics

Characteristic	Value	
Supply voltage	12 VDC (+/- 5%)	
Power @ 100%	For 50 pixels	5,4 W
	For 100 pixels	10,8 W
	For 200 pixels	21,6 W
Current @ 100%	For 50 pixels	0,45 A
	For 100 pixels	0,9 A
	For 200 pixels	1,8 A
Max continues length	250 pixels or 2,25 A	
Voltage Regulation	Native / Direct	
Conductor size	0,154mm^2	
Conductor count	3 (+/-/data)	
Wire color	Black, White or Green	
Connector	XConnect or RayWu	

Technical data

Characteristic	Value	
Pixel diameter	12 mm	
Distance between pixels (pitch)	100 mm	
Total length	For 50 pixels	4,9 meters
	For 100 pixels	9,9 meters
	For 200 pixels	19,9 meters
Input wire length	15 cm	
Output wire length	15 cm	
Operating temperature	(-20°C) - 40°C	
Water protection	IP65	
Outdoor use	Yes	
Weight	50 pixels	0,17 kg
	100 pixels	0,33 kg
	200 pixels	0,67 kg

Technical data

Characteristic	Value
Control chip	SKC6809
Channels per chip	3
Colors	Red, Green and Blue
Color order	GRB
Color depth	8 bit
Viewing angle	180°

Characteristic	Value
Contry of origin (COO)	CN (China)

Please note that the SKC6809 chip works with the WS2811 protocol; it is not recommended to mix the two chips in the same string or on the same controller output.

Part Numbers

PX Series

Item	1	2	-	3	4	-	5	6	7	-	8	-	9	10
Product code (example)	P	X	-	1	2	-		5	0	-	B	-	X	C

Item	Description
1…2	**Product range** PX = 12mm Bullet Pixels
3…4	**Voltage** 5 = 5 VDC 12 = 12 VDC 24 = 24 VDC
5…7	**Pixel count** 50 = 50 pixel per string 100 = 100 pixel per string
8	**Wire color** B = Black W = White G = Green
9…10	**Pigtail style** XC = xConnect RW = RayWu

Pixel Dots Series Strings

Item	1	2	-	3	4	-	5	6	7	-	8	-	9	10	11	-	12	13
Product code (example)	P	D	-	1	2	-	1	0	0	-	B	-		5	0	-	X	C

Item	Description
1…2	**Product range** PD = Pixel Dots
3…4	**Voltage** 5 = 5 VDC 12 = 12 VDC 24 = 24 VDC
5…7	**Pixel count** 50 = 50 pixel per string 100 = 100 pixel per string
8	**Wire color** B = Black W = White G = Green
9…11	**Pixel distance** 15 = 15 mm 25 = 25 mm 50 = 50 mm 100 = 100 mm
12…13	**Pigtail style** XC = xConnect RW = RayWu

Pixel Dots Series Roll

Item	1	2	3	-	3	4	-	8	-	9	10	11
Product code (example)	P	D	R	-	1	2	-	B	-		5	0

Item	Description
1…2	**Product range** PDR = Pixel Dots Roll
3…4	**Voltage** 5 = 5 VDC 12 = 12 VDC 24 = 24 VDC
8	**Wire color** B = Black W = White G = Green
9…11	**Pixel distance** 15 = 15 mm 25 = 25 mm 50 = 50 mm 100 = 100 mm

Pixel Dots Cylinder Series

Item	1	2	3	-	4	5	-	6	7	8	-	9	-	10	11
Product code (example)	P	D	C	-	1	2	-	1	0	0	-	B	-	X	C

Item	Description
1…3	**Product range** PDC = Pixel Dots Cylinder
4…5	**Voltage** 5 = 5 VDC 12 = 12 VDC 24 = 24 VDC
6…8	**Pixel count** 50 = 50 pixel per string 100 = 100 pixel per string
9	**Wire color** B = Black W = White G = Green
10…11	**Pigtail style** XC = xConnect RW = RayWu

Safety

Always install Endcaps on pigtail ends that are not connected.

Newer exceed the maximum length of pixel in one string without using current limitation setup specifically to the application and without exceeding the maximum current limitation.