Harmony Series, Sirius Pro, 80W Light Engine, 40 or 60° beam

GDS Pioneering Light

DATASHEET

Introduction

The Harmony Series Sirius Pro 80W light engine is a high output, multi-emitter fixture which can reproduce a wide spectrum of saturated colours plus dynamic white light in a range of colour temperatures. To suit your installation, the Sirius Pro 80W is available in yoke, recessed and pendant form factors.

| Yoke | Recessed | Pendant |

Key features

- RGB saturated colours plus dedicated 3000K and 5000K white emitters with 90CRI.
- 40 or 60 degree beam angle options paired with a high efficiency reflector.
- Silent passive cooling via GDS copper vapour heat dissipation system (CVD) and Dynamic Power Regulation.
- Up to six fixtures can be driven by a single IPM2 drive card.
- Each fixture driven by a Smart BOB module to allow multi-channel operation across legacy 2-core mains cabling.
- Aluminium construction keeps weight down below 5kg.
- Secondary safety bond link provided by eyelet on the top surface.

CAUTION: THIS IS A LOW VOLTAGE DEVICE

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Wide gamut colour mixing

The extensive gamut can be accessed using any or all of these mixing methods:

- Saturated colour mixes using the RGB emitters.
- High CRI dynamic white mixes from warm 3000K to cool 5000K using the dedicated white emitters.
- Subtle pastels by combining the RGB and white emitters.

Relative spectral distribution
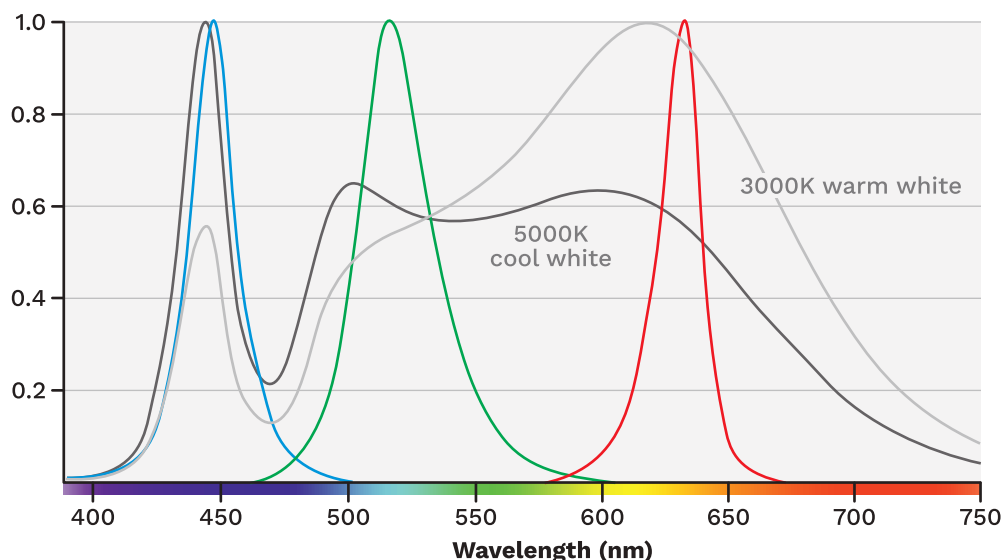
Dynamic Power Regulation

The fixture delivers silent operation using passive cooling via the large cylindrical heatsink, which can safely dissipate the equivalent of 100W emitter power. However, in the unlikely event of all channels being taken to 100%, the emitter array is capable of outputting over 200W. The potential disparity is solved using smart Dynamic Power Regulation, which allows all channels to reach their full output levels until the total load approaches 80W; at this point the output is proportionally throttled back to keep the emitters safely within strict thermal limits.

Although the fixture can operate at 100W nominal power draw, it is restricted to a total of 80W so that six units can be driven by a single IPM2 drive card.

Maximum emitter power dissipation (drive current=1300mA)

Colour	(@25°C)		(@85°C)	
	Forward voltage	Maximum power	Forward voltage	Maximum power
Red	36V	46.8W	35V	45.5W
Green	44V	57.2W	41V	53.3W
Blue	40V	52W	39V	50.7W
Cool white (5000K)	40V	52W	38V	49.4W
Warm white (3000K)	40V	52W	38V	49.4W

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Multiple channels and full power via only two wires

Harmony Sirius fixtures are powerful multi-channel luminaires, yet gain all of their power and control signals using only a 2-core legacy mains cable. The enabling factors are the GDS Smart BOB module closely allied with our proprietary IPM2 protocol. 48VDC power and control signals are combined using an IPM2 driver card (housed within a standard GDS **DRIVE Hub** housing) and fed onto the legacy 2-core mains cable running out to the Harmony Sirius fixtures.

Up to six Harmony Sirius 80W fixtures can be fully fed and controlled on a single legacy run. Near to each fixture a Smart BOB taps onto the 2-core feed, extracts the power it needs and decodes the embedded control signals. Five channels (red, green, blue, cool white and warm white) are decoded at each Smart BOB and fed down to the fixture.
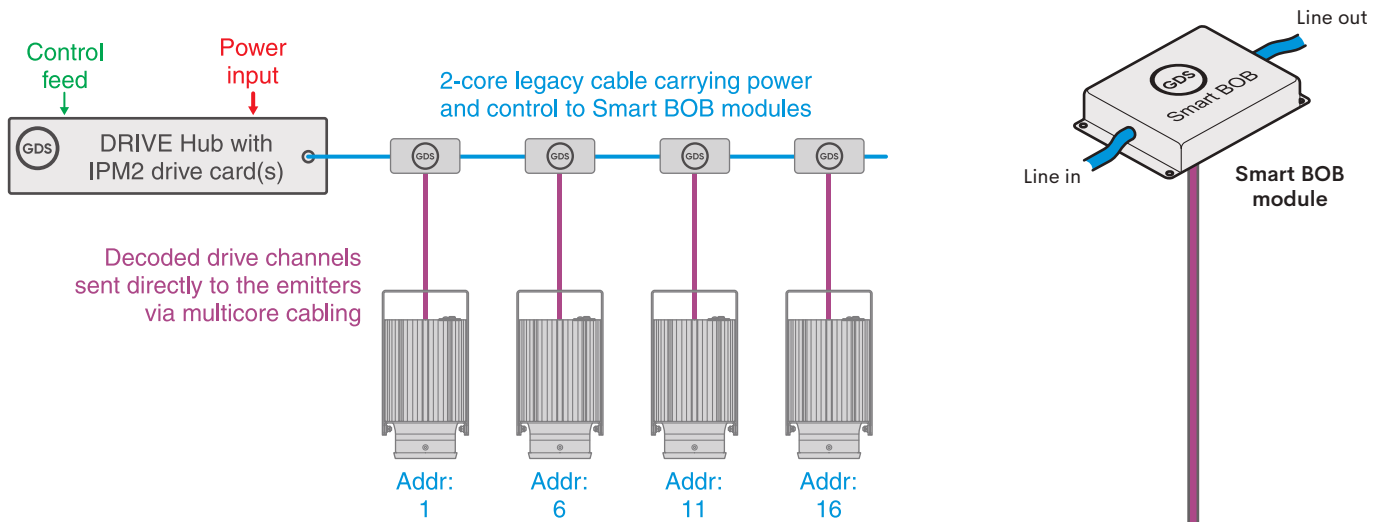

DMX channel allocations

|	
Start address	Red
Start address + 1	Green
Start address + 2	Blue
Start address + 3	Cool white (5000K)
Start address + 4	Warm white (3000K)

RDM support

In addition to DMX values being sent out to the Smart BOBs via the two-core cabling, RDM (Remote Device Management) is also supported. This provides two important benefits:

- Full remote configuration of all fixture parameters from the central controller:
  - Fixture address,
  - Dimming curve selection,
  - Maximum/minimum dimming levels,
  - PWM frequency and dimming response time.
- *[to be added in a future firmware update]* Live sensor reports, including emitter temperature and input line voltage, to allow the controller to fully monitor the connected fixtures.
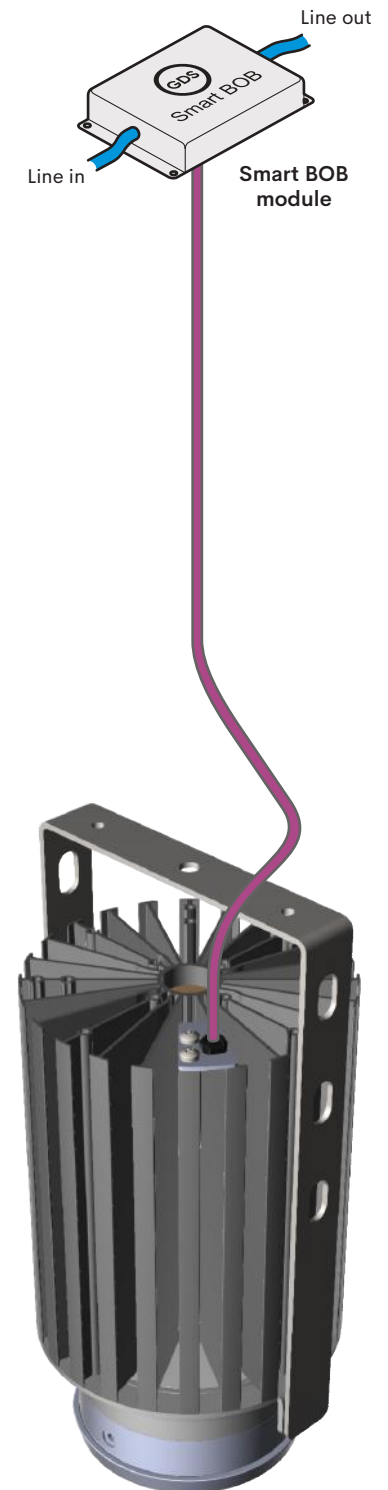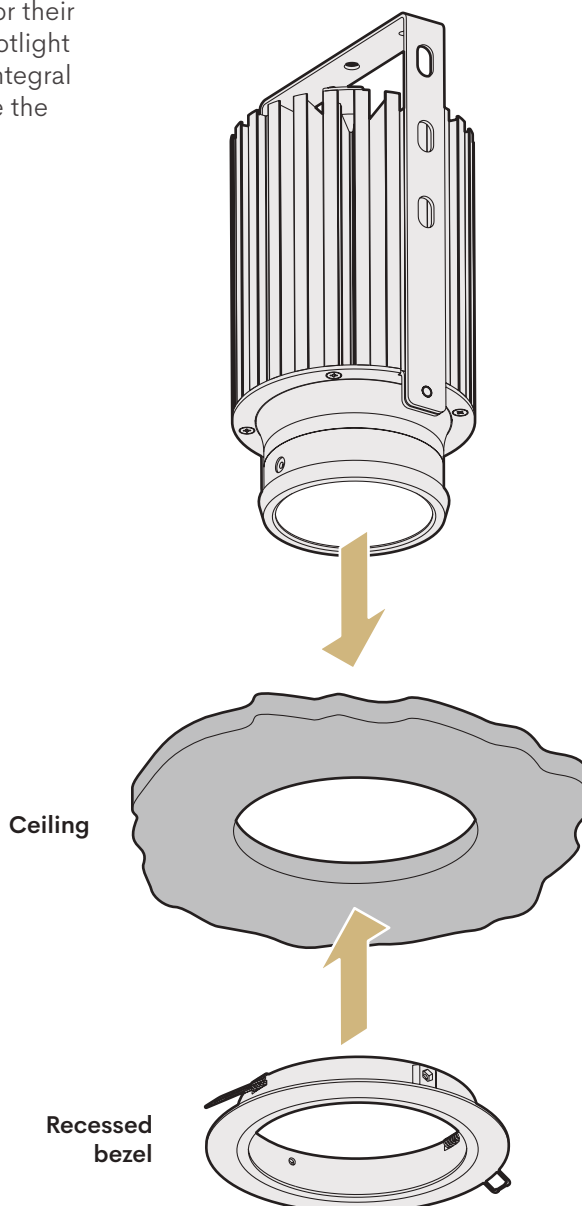
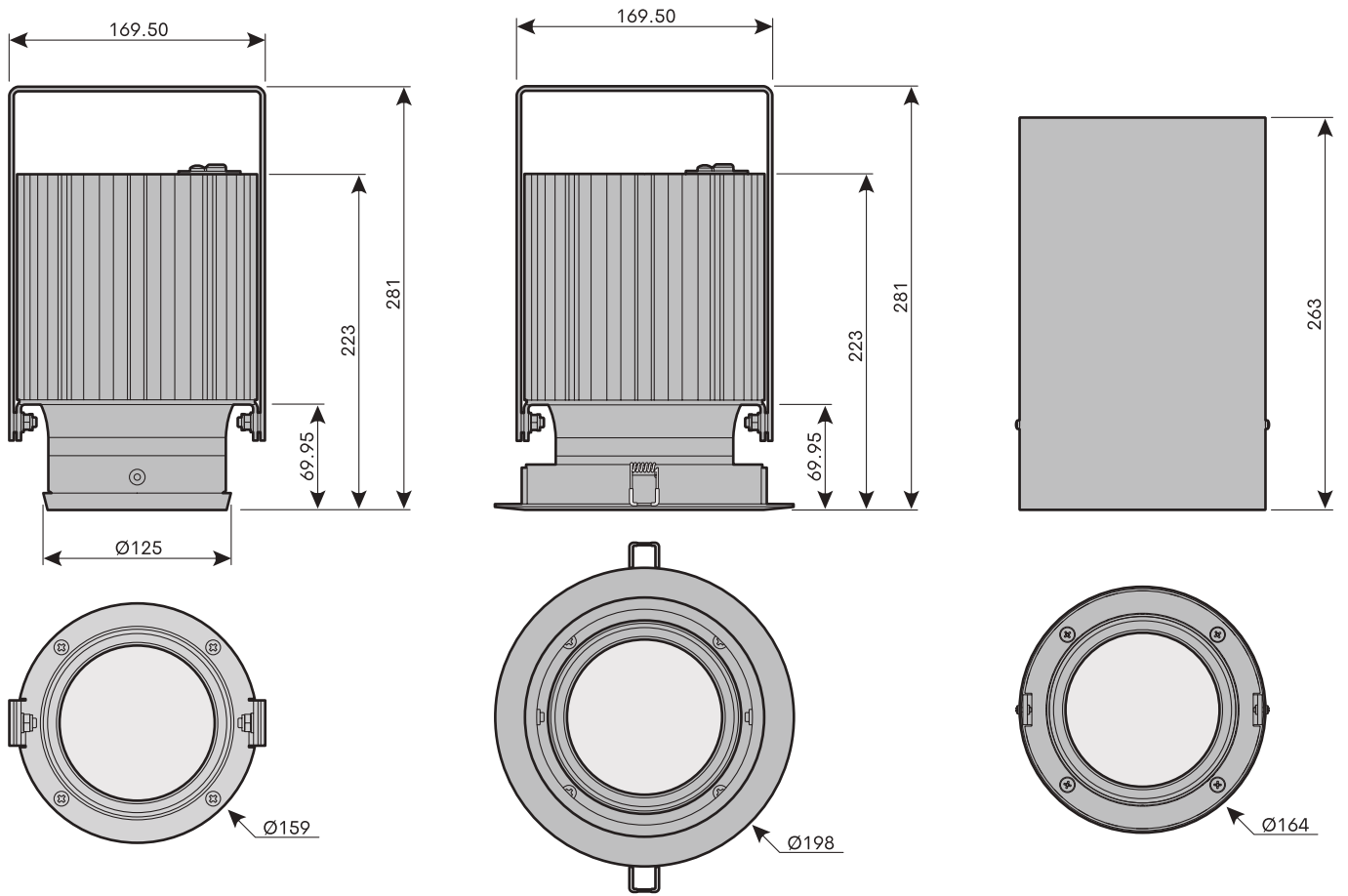## Cable connections (5 colour channels plus DPR temperature sensor feedback)

JST® SM16B-CPTK-1A-TBL
(16-way)

Pin 1
Pin 9
Pin 8
Pin 16
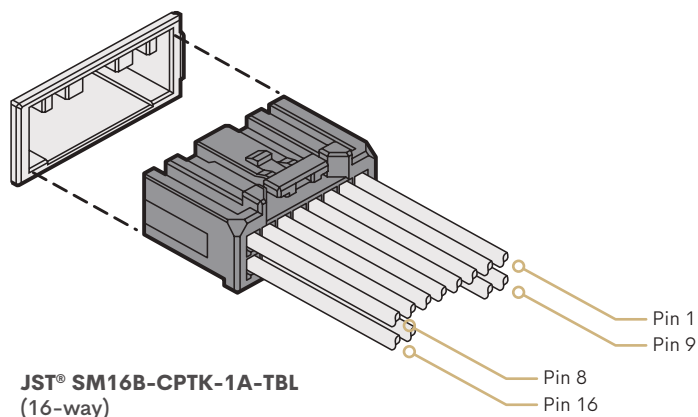
Pin	Signal
1	Channel 1 +
2	Channel 1 GND
3	Channel 2 +
4	Channel 2 GND
5	Channel 3 +
6	Channel 3 GND
7	Channel 4 +
8	Channel 4 GND
9	Channel 5 +
10	Channel 5 GND
11	NC
12	NC
13	NC
14	NC
15	Temperature sense +
16	Temperature sense GND

Fitting recessed versions

Although Harmony Sirius fixtures are very lightweight for their output, they are still heavier than a simple recessed spotlight and require support from above the ceiling level. The integral yoke arm is used to carry the weight of the fixture while the recessed bezel seals the ceiling aperture.

Ceiling

Recessed
bezel

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Dimensions

Yoke

169.50

281

223

69.95

Ø125

Ø159

Recessed

169.50

281

223

69.95

Ø198

Pendant

263

Ø164

Specifications are subject to change without notice.