

HER3045 + SAM10 or SAM10/FM with HRC-08



Typical Applications

The simple interfaces allows cost effective implementation of tunable white LED applications outside of central control systems. Using either the remote handset or the common 1-10V and Switch-DIM wall switches, high-end functionality is achieved with realistic budgets on smaller projects.

Suitable for LED panels and downlights - insulated terminal cover with cord restraint:

- Office / Commercial Lighting
- Hotels
- Classrooms
- Retail and Display
- Home office / Domestic lighting

Use for retrofit upgrades & new luminaire designs.

De-centralised Operation:

HER3045: 2-Channel 45W maximum fully featured LED driver. Operation from wall switches via the 1-10V and Switch-Dim inputs



SAM10 or SAM10/FM: Add remote control functionality using one of the plug in receivers



HRC-08



SAM10

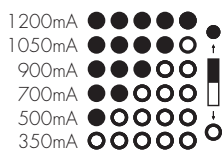


SAM10/FM

Features

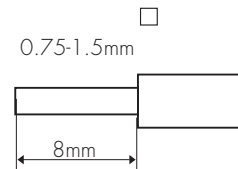
- Tunable White
 - Configurable Constant Current (CC) Output via Dip-Switch
 - Active PFC
 - <math><0.5W</math>
 - 1-10V
 - Switch-Dim & Synchronization
 - Thermal Cut-out Protection
 - Short Circuit Protection
 - Over-load Protection
 - Permanent Settings Memory, Protected against Loss of Power
 - 5 Year, 50,000hr Warranty
- } All with Auto-restart

Output Configuration



Warning: Please make sure the correct current is selected before starting the driver!

Wire Preparation



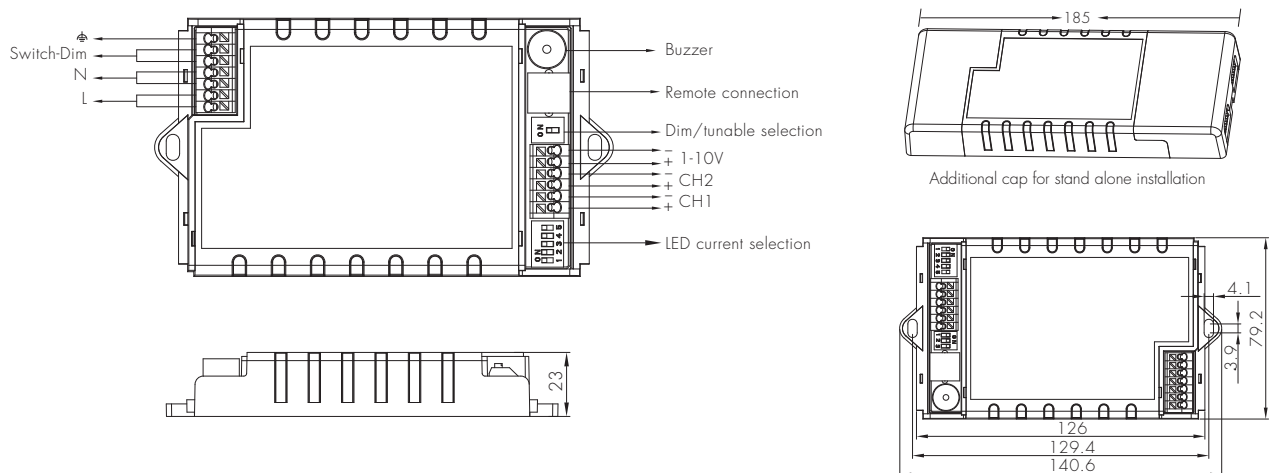
Solid or Stranded wire type 0.75 - 1.5mm².
To make or release the wire from the terminal, use a screwdriver to push down the button.

Technical Data

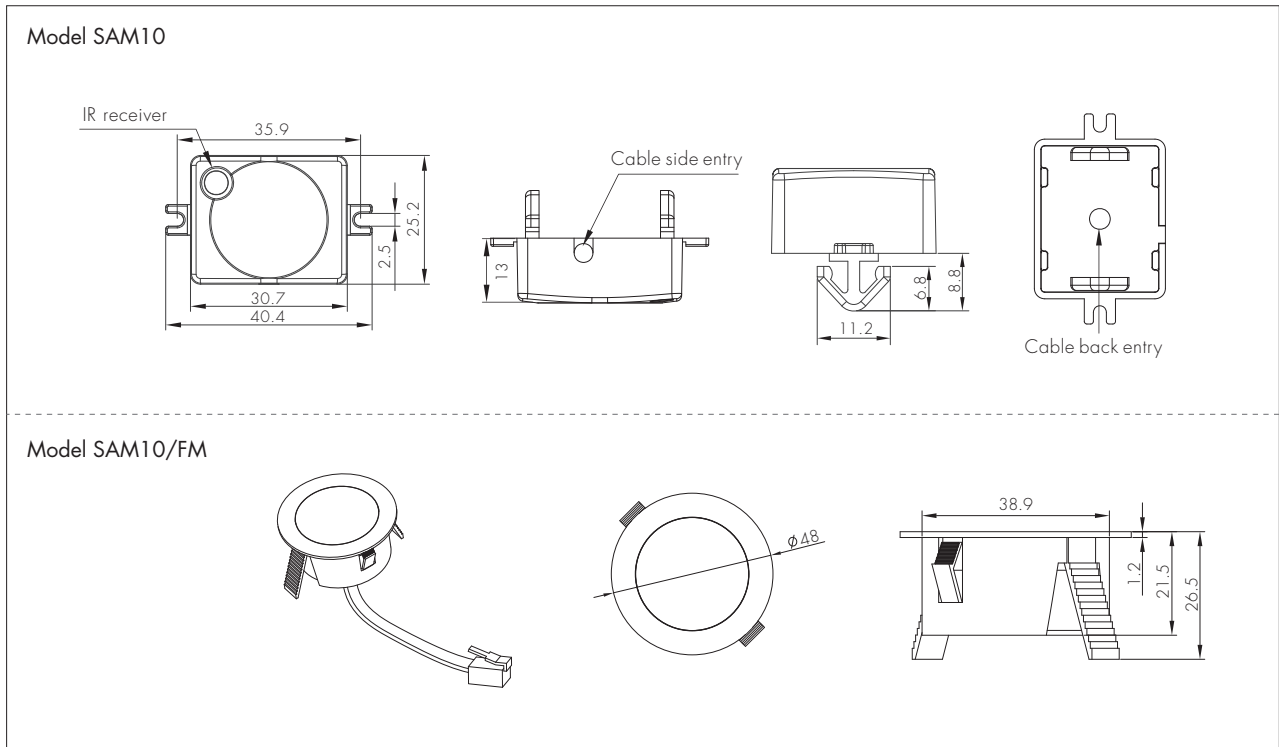
Input	Mains Voltage	220~240VAC 50/60Hz		
	Mains Current	0.22~0.2A		
	Power Factor	0.95		
	Max. Efficiency	85%		
	Dielectric Strength	Input→Output : 3000VAC		
	Leakage Current	< 0.25mA		
Output	Power/Current/ Voltage Range	20W/350mA/10~56V	40W/700mA/10~56V	42W/1050mA/10~40V
		28W/500mA/10~56V	45W/900mA/10~50V	40W/1200mA/10~34V
	Output power handling	Channel 1 (CH1) + Channel 2 (CH2) = 45W max.		
	Output channel function	CH1 = Cool white CH2 = Warm White		
	Ripple Current	<3%		
	Uout Max.	75V		
Environment	Turn-on Time	< 0.5s		
	Operation Temp.	Ta: -20~+45°C		
	Case Temp. (Max.)	85°C		
Safety and EMC	IP Rating	IP20		
	EMC Standard	EN55015, EN61547, EN61000-3-2, EN61000-3-3		
	Safety Standard	EN61347-1, EN62493, EN61347-2-13		
	Certifications	Semko, CB, SAA, CE, EMC		

Dimensions and Terminals

Main body



Remote Control Receiver



Loading and In-rush Current

Inrush Current (I _{max.})	7.2A
Pulse Time	100 μs

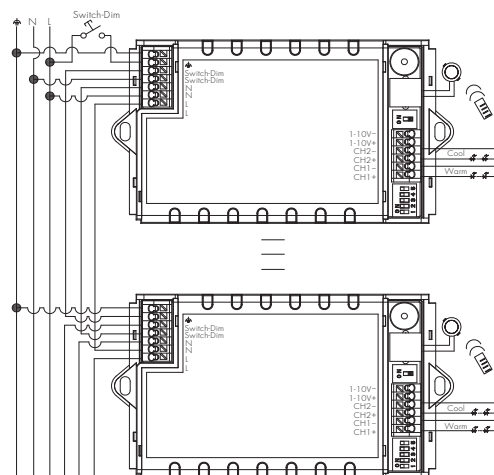
Number of Drivers Based upon 16A Circuit Breaker

Type B	30
Type C	50

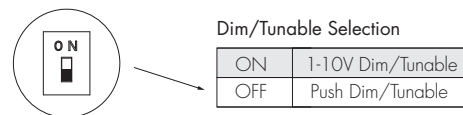
Light brightness and CCT adjust

The driver HER3045 has 2 independent output channels to tune the white colour and adjust light brightness. The colour temperature and light brightness are controlled either with the remote control (HRC-08) or manually via momentary push-switch and 1-10V output.

Remote control and push-switch wiring diagram:



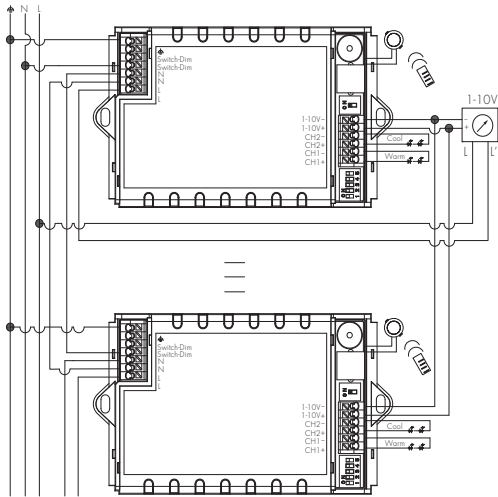
Light brightness and CCT adjust by push-switch



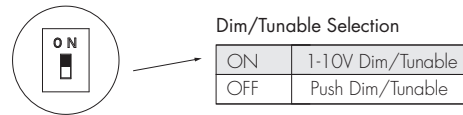
* Brightness adjust:
Light intensity can be finely adjusted by long pressing on the push-switch.

* CCT adjust:
The colour temperature starts tuning after pressing the push-switch three times within 2 seconds. Set the desired colour with a short press of the push-switch.

Remote control and 1-10V wiring diagram:



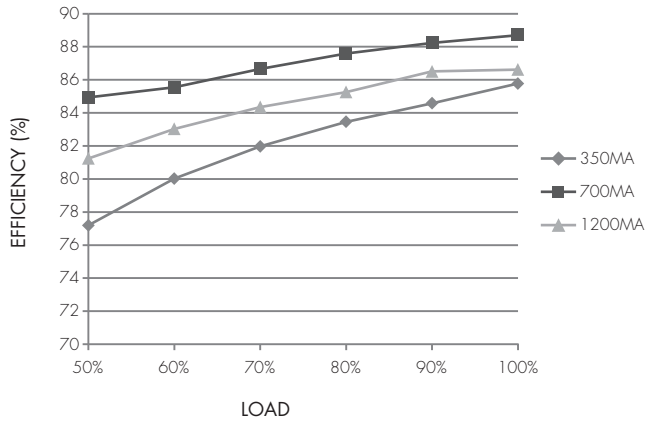
Light brightness and CCT adjust by 1-10V dimmer



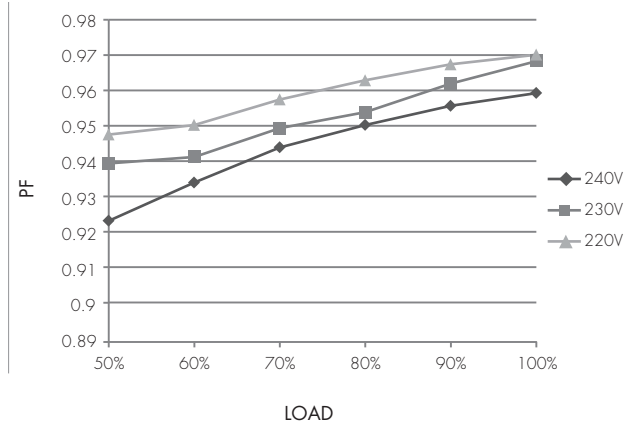
* Brightness adjust:
light intensity can be finely adjusted by rotating the 1-10V dimmer.

* CCT adjust:
The colour temperature starts tuning after cycling off/on the 1-10V dimmer 3 times within 3 seconds. Set the desired colour by a further off/on cycle.

Performance Characteristics



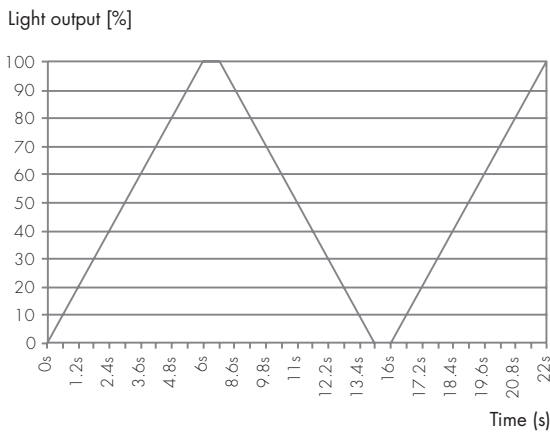
* Typical Efficiency vs Load



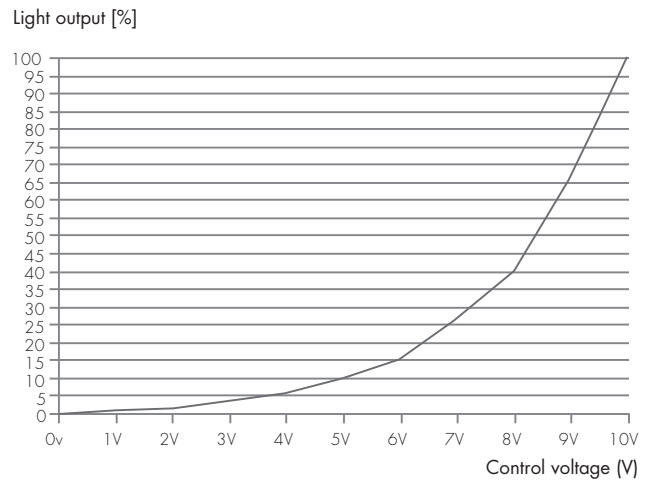
* Typical Power Factor vs Load

Dimming Characteristics

Switch-Dim Dimming Curve



1-10V Dimming Curve



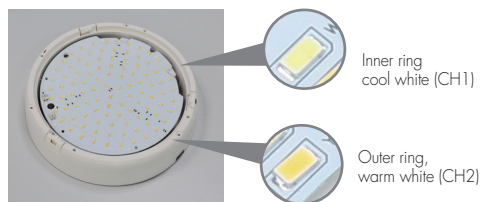
Dual Output Control

Connection to the LED PCB is made for CH1 and CH2 output connections

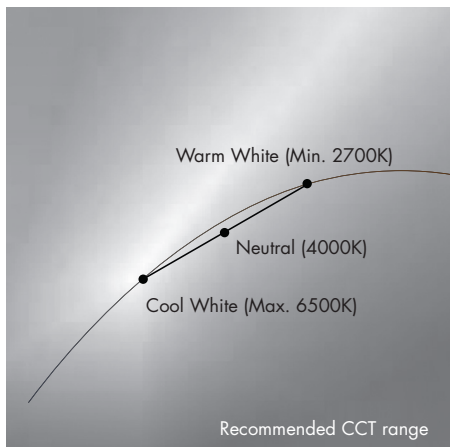
CH1 = Cool white LED array
CH2 = Warm white LED array

Each channel can supply up to 45W and white balance can be controlled as such:

Colour Temperature	Cool White	Neutral White	Warm White
Power Distribution	CH1=45W, CH2=0W	CH1=22.5W, CH2=22.5W	CH1=0W, CH2=45W



Linear Colour Tuning Profile



Manual Control via Push-DIM

- * Colour Tuning

Switch Action	Response
Step 1: Short press (3 times within 2 seconds)	Light starts tuning
Step 2: Short press (>1 second)	Set the desired colour

- * On/off control and brightness adjustment

Switch Action	Response
Short press (<1 second)	Toggle light on / off
Long press (>1 second)	Toggle dim / increase brightness

- * Synchronization

Switch Action	Response
Long press (>1.5 second)	All lights will dim down to minimum then return to 50% brightness and neutral colour.

Remote Control HRC-08

Permanent ON/OFF function

Press button to switch on or switch off the light.

CCT Adjust

Long press or to adjust the color of the light. means light turns to warm white, while means light turns to cool white.

Direct access to 2700k, 3500k, 4500k, 5500k are also available on the remote controller.

20% saving @ initial 10,000 hrs.

Luminaires can be oversized with 20% lumen output @ the initial 10,000 hours due to the lumen depreciation of LED. Press button first, then press , this 20% output can be saved during the first 10,000 hours accordingly.

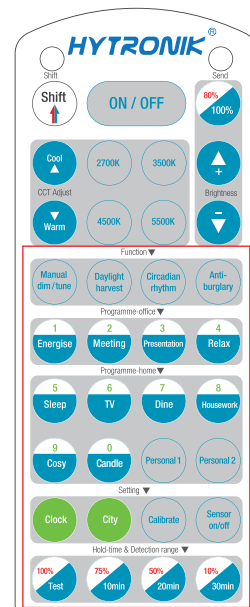
Press the button to go back to the full output after 10,000 hrs to maintain the total lumen output.

Brightness +/-

Long press or to adjust the brightness of the fixture.

Note: 1. The buttons of "Function", "Programme-office", "Programme-home", "Setting", "Hold-time & Detection range" are disabled.

2. The buzzer beeps once when the RC signal is successfully received.



Disabled

△ 2xAAA batteries are required to power the remote control.