

HFC

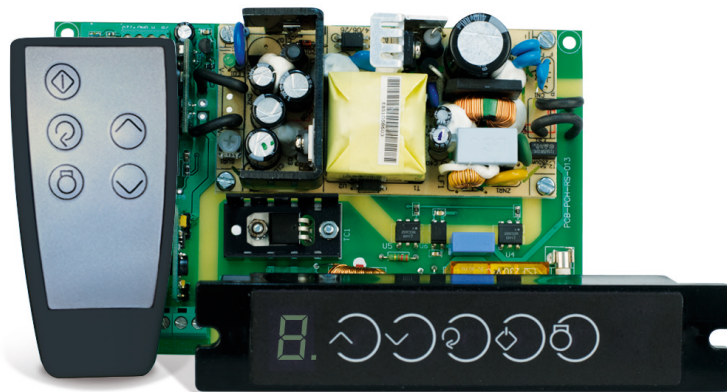
Kitchen hood controller

HFC is an advanced kitchen hood controller consisting of PCH power board based on phase regulation and HMI05 optical touchpad with output voltage regulator for setting the controller. The unit can be equipped with an additional infrared remote control - the RMT. It can also control kitchen hoods via 3SModbus software. The controller features a wide range of configurable control functions.

Key features

- Suited for both EC and AC motor control
- Optical touchpad with 5 blue LED buttons and a 1-digit 7-segment LED display without any mechanical parts*
- Speed control of motor(s) up to 2,5 A / 230 VAC
- Selectable analogue output
- Blue LED finger position indication (with ambient light compensation)
- Overload protection via hiccup mode with automatic recovery after troubleshooting
- Overcurrent protection with automatic recovery after reconnecting to the power supply
- Modbus RTU (RS485) communication via two RJ45 connectors or a terminal block with LED indication
- Free 3SModbus application for easy control, set up, and monitoring

*Up to two touchpads can be connected to the unit via the two RJ45 connectors on the PCB



Technical specifications

PCH-TR25LD-RC controller

Power supply	110–240 VAC / 50–60 Hz	
Analogue output	0–10 VDC / 0–20 mA / PWM (frequency - 2 kHz), selectable by slide switch (SW)	
Regulated output	Imax 2,5 A	
Load resistance	0–10 VDC mode	min. 50 kΩ (RL ≥ 50 kΩ)
	0–20 mA mode	max. 500 Ω (RL ≤ 500 Ω)
	PWM	min. 2 kΩ (RL ≥ 2 kΩ)
Relay output	Imax 16 A	
Leakage current	< 2 mA / 240 VAC	
Outputs for the LEDs	3 x 350–700 mA ± 10 % (according to jumper setting)	
Protection	Overcurrent	(automatic recovery)
	Overvoltage	(reconnect the power supply to recover)
	Fuse	F 5 A H 250 VAC
Protection standard	IP00	
Ambient conditions	Temperature	0–40 °C
	Rel. humidity	< 95 % rH (non-condensing)

HMI05-BB-HNL010 optical touchpad

Power supply	PoM (Power over Modbus)	
Protection standard	IP54	
Ambient conditions	Temperature	-10–40 °C
	Rel. humidity	< 95 % rH (non-condensing)

RMT-HCT-IR infrared remote control

Battery	2 x 1,5 VDC AAA	
Protection standard	IP54	
Ambient conditions	Temperature	-20–85 °C
	Rel. humidity	< 95 % rH (non-condensing)

Standards

- Low Voltage Directive 2014/35/EC
- EMC Directive 2014/30/EC: EN 61000-6-3:2007/A1:2011/AC:2012 or equivalent
- WEEE Directive 2012/19/EC
- RoHS Directive 2011/65/EC



Article codes

	HMI05-BB-HNL010 optical touchpad	RMT-HCT-IR infrared remote control
HFC-9-25/LD-RC	yes	no
HRC-9-25/LD-RC	yes	yes

Area of use

- Fan speed control of kitchen hoods
- For indoor use only

Wiring and connections

Ao	Analogue output (0–10 VDC / 0–20 mA / PWM) for EC fan / LED light control
GND	Ground for analogue output
LEDs +	Outputs for a LED modules, anode
LEDs -	Outputs for a LED modules, cathode
Motor, L'	Regulated output: Imax 2,5 A
PE	Earth terminal
L1, N	Relay output: Imax 16 A
L	Power supply, line 110–240 VAC / 50–60 Hz
N	Power supply, neutral
PE	Power earth terminal
A	Modbus RTU communication (RS485), signal A
/B	Modbus RTU communication (RS485), signal /B
RJ45 connectors	Connection points for HMI05 optical touchpads
Connections	Cable cross section: max. 2,5 mm ²

Modbus registers



The Sensistant Modbus configurator allows you to easily monitor and/or configure Modbus parameters. Designed to be used in combination with PDM or DPOM modules.

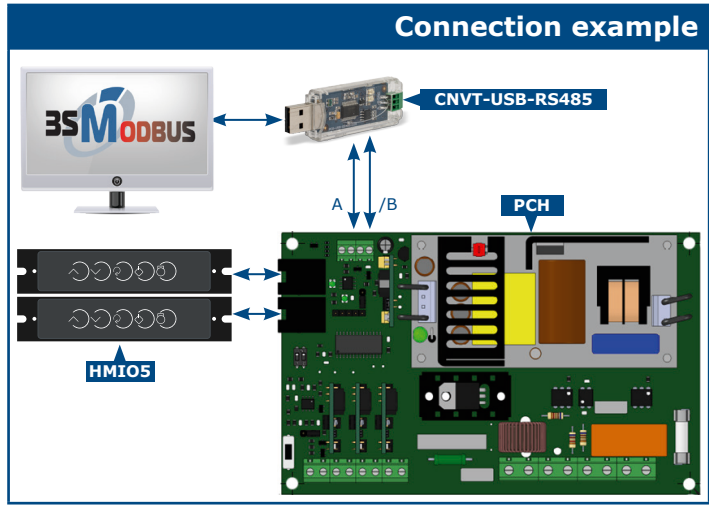
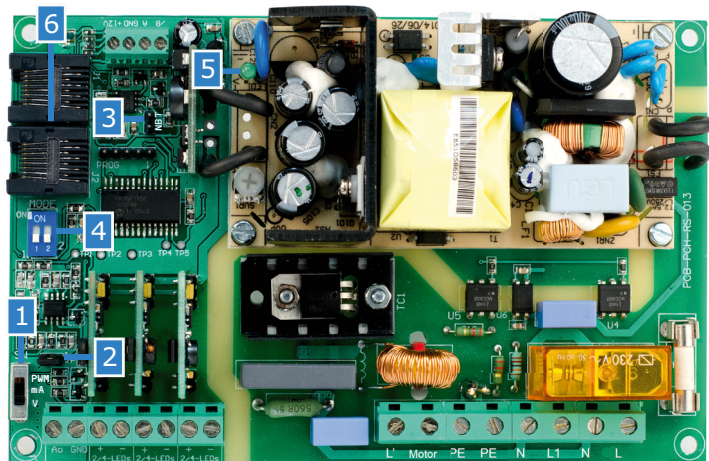
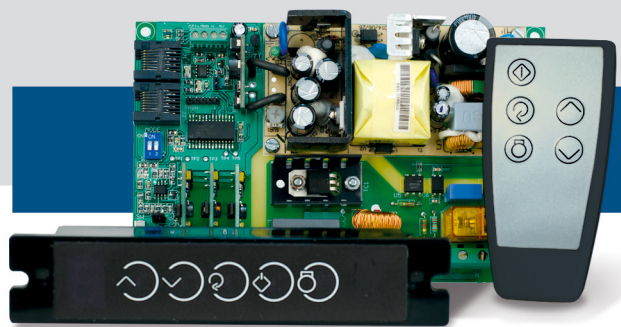


The parameters of the unit can be monitored / configured through the 3SModbus software platform. You can download it from the following link: <https://www.sentera.eu/Downloads/Index/ENG>

You can find register maps in the mounting instructions. Download them from: <https://www.sentera.eu/Product/Index/>

HFC

Hood fan controller



Settings

1 - Analogue output selection switch (SW)		PWM (default, connected to 12,5 VDC) mA: Analogue output 0—20 mA V: Analogue output 0—10 VDC
2 - JP jumper		Connected to 12,5 VDC (default) Connected to 3,3—30 VDC
3 - Network bus termination resistor, NBT		Connected only when the controller is the first or the last unit (disconnected by default)
4 - Mode selection		Switch 1 ON: Slave Mode, controller works with 3SModbus
		Switch 1 OFF: Master Mode (default), controller works with HMI05 touchpad
		Switch 2 ON: Reset to factory settings
5 - Modbus communication indication LEDs		Switch 2 OFF: Customised settings (default)
		Transmitting / receiving
6 - RJ45 connectors		Connection points for HMI05 optical touchpads

* indicates closed position of the jumper.

Packaging

Article code	Packaging	Length [mm]	Width [mm]	Height [mm]	Net weight	Gross weight
HFC-9-25/LD-RC	Unit (1 pc.)	175	125	105	0,42 kg	0,56 kg
HRC-9-25/LD-RC	Unit (1 pc.)	175	125	105	0,48 kg	0,62 kg

