CLCM1H,6H,6T
Digital Wall Modules

Product Data

CENTRA LINE®
by Honeywell

FEATURES

- **Fully compatible with the PANTHER Controller.**

- **Low power consumption.**

- **Integral 20kΩ NTC sensor.**

- **Separate mounting base for easy installation.**

- **Tamper-resistant locking cover.**

- **IP30 housing.**

- **CLCM6H,6T, only:**

  - **LCD display continuously shows current space temperature, occupied/unoccupied/standby mode, fan status/mode, humidity, as configured.**

  - **Push-button interface for full navigation and change control of wall module functions.**

  - **Single-touch occupied/unoccupied override.**

  - **Setpoint dial for setpoint adjustment.**

  - **Fan speed/mode can be set by push-button.**

  - **Selectable °F/°C temperature display.**

  - **Selectable setpoint type, absolute or relative.**

GENERAL

The CLCM6T21N and CLCM6H212 Digital Wall Modules (DWM) display and provide space temperature, setpoint, "occupied" / "unoccupied" override, and fan mode/speed selection for the PANTHER Controller. See also CLCM1H,6H,6T Installation Instructions (EN1Z-0902GE51) for details.

Using the three buttons of the CLCM6H,6T, the user can change room temperature setpoint, fan mode/speed, initiate/cancel bypass, and change configuration information such as the DWM's engineering units.

The CLCM1H112 Digital Wall Module has no user interface (e.g. LCD, buttons, or setpoint dial) and issues only temperature and humidity values.

SPECIFICATIONS

Table 1. CLCM Wall Module models

model	sensor	suitable controllers
CLCM1H112	temp. / humidity	PANTHER
CLCM6H212	temp. / humidity	PANTHER
CLCM6T21N	temperature	PANTHER + SERVAL

NOTE: See also CLCM1H,6H,6T Installation Instructions (Product Literature no.: EN1Z-902GE51) for wall module settings and wiring diagrams.

CE

Temperature Sensor

Accuracy

The COMMAND Wall Modules CLCM1H,6H,6T are furnished with a 20k ohm NTC temperature sensor that follows a specific temperature-resistance curve. See Fig. 1. The PANTHER Controller used with the CLCM1H,6H,6T employs an algorithm that provides readings close to the actual temperature.
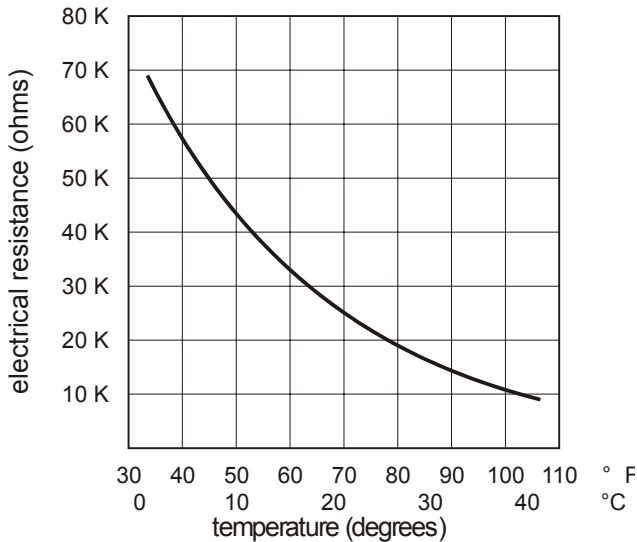

Fig. 1. Temperature vs. resistance for 20k ohm sensor

Table 2 summarizes the sensor accuracy of the COMMAND Wall Modules CLCM1H,6H,6T for normal operating temperatures. Throughout the range of 6...40°C, the accuracy is better than ±0.42°C.

Table 2. Temperature sensor accuracy

ambient temperature (°C)	max. error (°C)	nominal resistance (Ω)
15.5	±0.29	31543
18.3	±0.27	27511
21.1	±0.27	24047
26.7	±0.27	18490
29.5	±0.29	16264

Humidity Sensor

Table 3. Humidity sensor specifications

parameter	value
humidity sensing range	10…95% r.h.
output signal	1…10 Vdc (10…100% r.h.)
accuracy	±5% (full scale)

CLCM6H,6T Setpoint Dial

The CLCM6H,6T can be fitted with either an absolute-scale setpoint dial or a relative-scale setpoint dial; the PANTHER Controller must be configured, accordingly. This can be done using either COACH / COACH ONLINE or (in the case of the CLPA21LC11 and CLPA21LC21) the PANTHER Controller's MMI.

The relation between setpoint and resistance is given in Table 4. Accuracy of resistance is:

- ±5% in middle position, e.g. 5225 ohms to 5775 ohms

- ±10% in end position, e.g. 9450 ohms to 11550 ohms.

Table 4. Setpoint values vs. resistances

relative scale (Kelvin)		absolute scale (°C)	
setpoint	nominal resistance (Ω)	setpoint	nominal resistance (Ω)
-5	9574.0	12	9958.0
-4	8759.2	13	9468.7
-3	7944.4	14	8979.3
-2	7129.6	15	8490.0
-1	6314.8	16	8000.7
0	5500.0	17	7511.3
1	4685.2	18	7022.0
2	3870.4	19	6532.7
3	3055.6	20	6043.3
4	2240.8	21	5554.0
5	1426.0	22	5064.7
		23	4575.3
		24	4086.0
		25	3596.7
		26	3107.3
		27	2618.0
		28	2128.7
		29	1639.3
		30	1150.0

CLCM6H,6T Bypass Button

The bypass button of the CLCM6H,6T is a normally-open, pushbutton-operated switch used to override the PANTHER Controller's scheduled operating mode.

In the case of the CLCM6H,6T, the application engineer has no choice but to assign the bypass button's output to an analog input of the PANTHER Controller.

CLCM6H,6T Override Symbol

The override symbol of the CLCM6H,6T is currently not in use.

Contact your local CentraLine-PARTNER for further details.

CLCM6H,6T Fan Switch

The COMMAND Wall Modules CLCM6H,6T are equipped with a fan speed switch (essentially a series of resistances based on fan switch position – see also Table 5 for those resistances) which cannot be re-configured.

Table 5. Program settings for CLCM6H,6T

switch position	resistance (Ω)	fan behavior
auto	1861.4 ±100	runs as scheduled
0	2686.4 ±100	OFF
1	3866.4 ±100	runs at speed 1
2	3041.4 ±100	runs at speed 2
3	4601.4 ±100	runs at speed 3
bypass activated	0...100	unchanged

NOTE: An additional 10k ohm (±2%) series resistor can be set by jumper (jumper "A" set to position "1:XX," jumper "B" set to position "3:XL500"). See also CLCM1H,6H,6T Installation Instructions (Product Literature no.: EN1Z-902GE51) for jumper settings.

CONSTRUCTION

The COMMAND Wall Modules CLCM1H,6H,6T feature a two-piece construction consisting of cover and an internally wired sub-base. Field wiring 1.5 to 0.34 mm^2 connects to a terminal block on the PCB.

Mounting Options

The COMMAND Wall Modules CLCM1H,6H,6T can be mounted on a 60 mm diameter junction box or directly on a wall.

Dimensions (H x W x D)

104 x 104 x 33 mm.

RATINGS, APPROVALS

Environmental Ratings

Operating Temperature: 0...40 °C.
Shipping Temperature -30...60 °C.

Relative Humidity

5...95% non-condensing.

Approvals

CE.

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