CLCM1T,2T,4T,5T,6T Wall Modules

Product Data





FEATURES

- Fully compatible with the PANTHER, SERVAL, LION, and FALCON controllers.
- Mountable on 60 mm wall outlet box or directly on a wall.
- · Models with setpoint adjustment.
- Models with bypass button and override LED.
- Model with 5-position (auto/0/1/2/3 speed) fan switch.
- Setpoint dials with Celsius relative or Celsius absolute scale.
- · Locking cover on all models.
- Operating range 6...40 °C.
- CE-approved.
- IP30 housing.

GENERAL

The COMMAND Wall Modules CLCM1T,2T,4T,5T,6T are a family of direct-wired wall modules for use with CentraLine controllers. All models have a space temperature sensor; some models have setpoint adjustment, bypass button and override LED, and fan switch.

The CLCM2T,4T,5T,6T packages include two setpoint dials. By default, the "Celsius Relative" type (-5...+5) is mounted, but can be easily replaced with the "Celsius Absolute" type (12...30 °C).



SPECIFICATIONS

Table 1. CLCM Wall Module models

type no.	setpoint adjustment	bypass button + override LED	fan switch	compatible with
CLCM1T11N			l	
CLCM2T11N	1230 °C (abs.); ± 5 K (rel.)	_	_	PANTHER,
CLCM4T111	1230 °C (abs.); ± 5 K (rel.)	✓	_	SERVAL, LION,
CLCM5T111	1230 °C (abs.); ± 5 K (rel.)	✓	three-position	and FALCON
CLCM6T111	1230 °C (abs.); ± 5 K (rel.)	✓	five-position	

NOTE:

See also CLCM1T,2T,4T,5T,6T Installation Instructions (Product Literature no.: EN1Z-901GE51) for wall module settings and wiring diagrams.

Temperature Sensor Accuracy

The COMMAND Wall Modules CLCM1T,2T,4T,5T,6T are furnished with a $20 k\Omega$ NTC temperature sensor that follows a specific temperature-resistance curve. See Fig. 1. The CentraLine controller used with the CLCM1T,2T,4T,5T,6T employs an algorithm that provides readings close to the actual temperature.

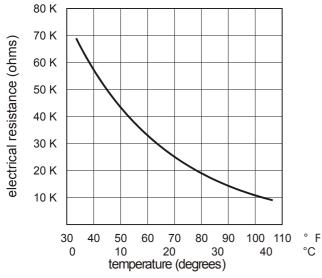


Fig. 1. Temperature vs. resistance for $20k\Omega$ sensor

Table 2 summarizes the sensor accuracy of the COMMAND Wall Modules CLCM1T,2T,4T,5T,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 tem- perature (°C)	max. error (°C)	nominal re- sistance (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

CLCM2T,4T,5T,6T Setpoint Dial

The CLCM2T,4T,5T,6T can be fitted with either an absolute-scale setpoint dial or a relative-scale setpoint dial; the CentraLine controller must be configured, accordingly. This can be done using either COACH / COACH ONLINE or (in the case of, e.g., the CLPAxxxx11 and CLPAxxxx21) the controller's MMI.

The relation between setpoint and resistance is given in Table 3. Accuracy of resistance is:

- For the relative setpoint scale: better than 0.5 K at a setpoint difference of "0";
- For the absolute setpoint scale: better than 0.8 K at a setpoint of 21 °C.

Table 3. Setpoint values vs. resistances

relative scale (Kelvin)		
setpoint	nominal resistance (Ω)	
-5	9574.0	
-4	8759.2	
-3	7944.4	
-2	7129.6	
-1	6314.8	
0	5500.0	
1	4685.2	
2	3870.4	
3	3055.6	
4	2240.8	
5	1426.0	

absolute scale (°C)				
setpoint	nominal resistance (Ω)			
12	9958.0			
13	9468.7			
14	8979.3			
15	8490.0			
16	8000.7			
17	7511.3			
18	7022.0			
19	6532.7			
20	6043.3			
21	5554.0			
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			

CLCM4T,5T,6T Bypass Button

The bypass button of the CLCM4T,5T,6T is a normally-open, pushbutton-operated switch used to override the CentraLine controller's scheduled operating mode.

In the case of the CLCM4T, using either COACH ONLINE or (in the case of, e.g., the CLPAxxxx11 and CLPAxxxx21) the controller's MMI, the application engineer can assign the bypass button's output to either an analog input or a digital input of the CentraLine controller.

NOTE:

In addition, the wall module's jumpers must also be set accordingly. Thus, if e.g. jumper "A" is set to position "3:XL500," then the contact is potential-free, enabling the bypass button's output to be assigned to a digital input. If set otherwise, the contact is connected to ground, and the bypass button's output must be assigned to an analog input. See also CLCM1T,2T,4T,5T,6T Installation Instructions (Product Literature no.: EN1Z-901GE51).

In the case of the CLCM5T,6T, the application engineer has no choice but to assign the bypass button's output to an analog input of the CentraLine controller.

CLCM4T,5T,6T Override LED

The override LED of the CLCM4T,5T,6T is currently not in use.

Contact your local CentraLine-PARTNER for further details.

CLCM5T,6T Fan Switch

The CLCM5T,6T are equipped with a non-configurable fan speed switch (essentially a series of resistances based on fan switch position – see also Table 4 for those resistances).

Table 4. Program settings for CLCM5T,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	0100	unchanged			
* CLCM6T, only					

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 CLCM1T,2T,4T,5T,6T Installation Instructions (Product Literature no.: EN1Z-901GE51) for jumper settings.

CONSTRUCTION

The COMMAND Wall Modules CLCM1T,2T,4T,5T,6T feature a two-piece construction consisting of cover and an internally wired sub-base. Field wiring 1.5 to 0.34 mm² connects to a terminal block on the PCB.

Mounting Options:

The COMMAND Wall Modules CLCM1T,2T,4T,5T,6T can be mounted on a 60 mm diameter junction box or directly on a wall.

Dimensions $(H \times W \times D)$

104 × 104 × 33 mm

RATINGS, APPROVALS

Environmental Ratings:

Operating Temperature: 6...40 °C Shipping Temperature -40...65 °C

Relative Humidity:

5...95% non-condensing.

Approvals:

CE.

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