T 253
30.03.03 LB

TEMPERATURE RECORDING UNIT

C ←BUS

UMM 348 Eng.

REPLACED BY: ULT 3..

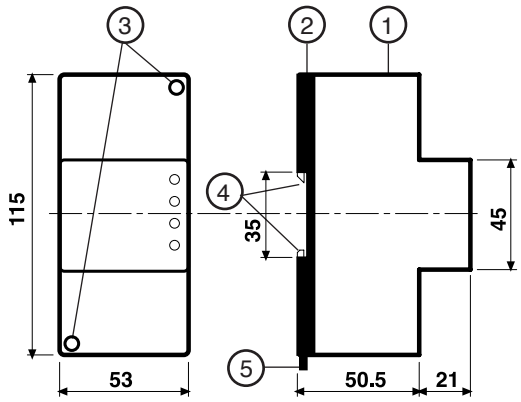
- **4 Measurement inputs : 1 outside temperature –30…40 °C (sensing element NT 1 kΩ)**
  1 room temperature 0…40 °C (sensing element NT 10 kΩ)
  2 water temperature 0…99.5 °C (sensing element NT 10 kΩ)
- **Alarm signals for minimum and maximum temperature limits and detector fault**
- **C-Bus communication system for telemanagement**
- **Power supply 230 V~ ; DIN rail mounting**

CE

1. APPLICATION

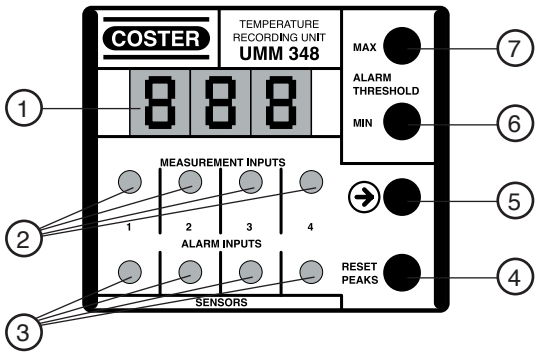
UMM 348 is designed for recording four temperature measurements at regular intervals, with option of triggering alarm for minimum and maximum limits. C-Bus connection for exchange of data with local PCs or remote telemanagement PC.

2. OVERALL DIMENSIONS



1 – Protective cover for electronic componentsi
2 – Base with transformer, relay and terminal blocks
3 – Screws for securing base and cover
4 – DIN rail securing elements
5 – DIN rail release lever

3. FACIA



1 - Numeric 3-figure display
2 - LEDs for measurements shown on display
3 - LED for measurement triggering alarm
4 - Key for reset measurement peaks
5 - Key for selecting detector to display and address plant
6 - Key for setting minimum temperature threshold
7 - Key for setting maximum temperature threshold

4. TECHNICAL DATA

Power supply	230 V~ ± 10%
Frequency	50 ... 60 Hz
Consumption	2 VA
Protection	IP40
Radio disturbances	VDE0875/0871
Vibration test	with 2g (DIN 40 046)
Construction standard	Italian Electrotech. committe (CEI)
Enclosure	DIN 3E module
Installation	on DIN 35 rail
Materials:	
Base	NYLON
Cover	ABS

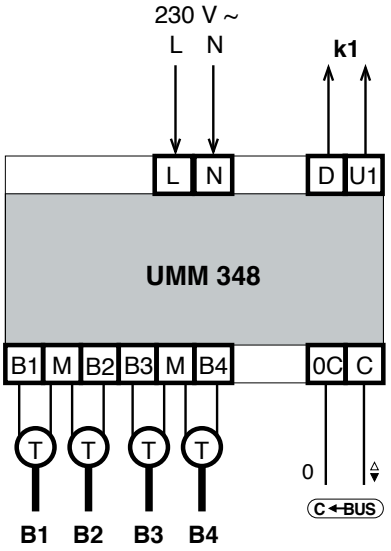
Ambient temperature:	
Operating	0 ... 45 °C
Storage	– 25 ... + 60 °C
Ambient humidity	Class F DIN 40040
Weight	0.27 kg
Measurement ranges:	
B1 sensor NT 1 kΩ (outside)	–30…40 °C
B2 sensor NT 10 kΩ (room)	0... 40 °C
B3 and B4 sensors NT 10 kΩ (water)	0... 99.5 °C
Maximum number of recordings.	240
Setting by PC :	
Interval recordings	5…240 min
Delay acquisition of alarms	0…255 min
Attempts alarm calls	2…**5**…200
Interval beteen calls	2…**10**…210 min

5. INSTALLATION

UMM 348 must be installed in a dry location that respects the ambient conditions given under 4. TECHNICAL DATA. If installed in a location classified as “Hazardous” it must be installed in a cabinet for electrical equipment constructed according to the current regulations for the class of danger concerned.
The controller can be mounted on a DIN rail and housed in a standard DIN enclosure.

6. WIRING DIAGRAM

B1 – NTC 1 kΩ sensing element (–30…40 °C)
B2 – NTC 10 kΩ sensing element (0…40 °C)
B3 - B4 – NTC 10 kΩ sensing element (0…100 °C)
k1 – Alarm signal to use as input to terminals D - E... of Coster controllers with C-Bus or to convert to a relay signal with ACR 328
L – 230 V~
N – Neutral
C-Bus – Transmission telemanagement data



7. ELECTRICAL CONNECTION

Proceed as follows :
• Separate base from cover (loosen the securing screws)
• Mount the base on the DIN rail and check that it is firmly anchored by the securing elements (2.4)
• Carry out the wiring according to the diagram and in compliance with current electrical regulations and using :
– 1.5 mm² cables for power supply.
– 1 mm² cables for detectors and alarm switch.
– 1 mm² for C-Bus. For length limits see data sheet T 021.
• Apply power (230 V~) and check its presence across terminals L and N.
• Remove power, replace cover on base/terminal block and secure it with the two screws supplied (2.3) .
You are advised not to insert more than two cables in a single terminal of the controller and, if necessary, to use an external junction box.

8. OPERATION

For each measurement input it is possible to :
• **Display the actual temperatures measured by the detectors**: press key 3.5 (for less than 10 seconds): at each depression the measurement changes and LED 3.2 corresponding to the detector concerned lights.
• **Display the minimum and maximum values measured by the detectors**:press key 3.5 until the corresponding LED 3.2 lights; press key 3.4: the minimum and maximum measurement values reached in are displayed alternately; to cancel the values keep pressed key 3.4 for 10 seconds until three dashes appeari.
• **Program the minimum and maximum limits for signalling the alarm**: press the key 3.5 until the LED 3.2 corresponding to the detector concerned lights. Press key 3.6 to display the minimum, or key 3.7 the maximum, value; if excluded, OFF appears. To change, press the relative key (min or max) for at least five seconds: "- - - " appears; release the key and press it again: the limit value appears. By continuing to press this value is changed. When the desired value is reached, do not press any keys for 10 seconds: the value is acquired and the measurement returns to the display. To exclude the limit, press key 3.6 or 3.7 until the dashes appear and then release the key and wait for about 10 seconds until the temperature measured re-appears on the display.
• **Program the telemanagement address**: press key 3.5 for more than 10 seconds: the present address appears. Release the key: "- - - " appears. If you do not want to make changes do not press any key. After 10 seconds normal operation re-starts. If you want to make changes, tap key 3.5 until the desired address appears. Do not touch the keys for 10 seconds: the address appears and normal operation re-starts.
• **To return to the factory settings**: power UMM 348 while keeping pressed keys 3.5 and 3.6: "ini" appears on the display.

From the telemanagement PC you can :
– enter the identifying name of the plant site
– enter the identifying name of each detector (e.g. flow detector / room detector)
– choose the minimum and maximum limit values for signalling alarm
– receive alarms for minimum and maximum limits for every measurement and for short or open detector circuits
– cancel the minimum and maximum measurement values reached
– enable the signalling of alarm for reaching minimum and maximum limits.
– set the delay for acquiring alarms for minimum and maximum limits (from 0 to 255 minutes)
– display and file the measurements recorded
– set the interval time between recordings
– set the telemanagement password

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