

ACTIVE SIGNALS RECORDING UNIT

C ← BUS

ULA 348 Eng.

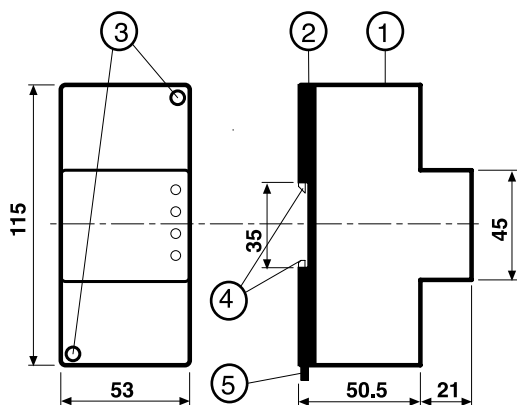


- 4 inputs: – two 4...20mA signals (B1-M & B2-M)
– two 0...10 V– signals (B3-M & B4-M)
- Alarm signals for minimum and maximum thresholds and detector fault (only for B1 & B2)
- Display of measurements as %
- C-Bus communication system for telemanagement
- Power supply: 230 V~ ; DIN rail mounting

1. APPLICATION

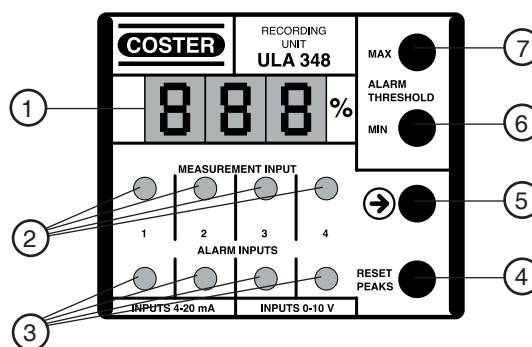
ULA 348 records at set intervals four different signals with optional minimum and maximum limits for signalling alarm. C-Bus connection for transmission data using local PCs or remote telemanagement PC.

2. OVERALL DIMENSIONS



- 1 – Protective cover for electronic components
- 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 - Three-figure numerical display
- 2 - LED for measurement shown on display
- 3 - LED for measurement triggering alarm
- 4 - Key to reset measurement peaks
- 5 - Key for selecting detector to be displayed & address plant site
- 6 - Key for setting minimum threshold
- 7 - Key for setting maximum threshold

4. TECHNICAL DATA

Power supply	230 V~ ± 10%	Ambient humidity	Class F DIN 40040
Frequency	50...60 Hz	Weight	0.27 kg
Consumption	3 VA	Measurement ranges :	
Protection	IP40	0...10 V– signals	0 ... 99.5 %
Radio disturbance	VDE0875/0871	4...20mA signals	0 ... 99.5 %
Vibration test	with 2g (DIN 40 046)	Max. number of recordings.	240
Construction standards	Italian Electrotech. Committee (CEI)	Settings by PC :	
Enclosure	DIN 3E module	Recording frequency	5...240 min
Mounting	on DIN 35 rail	Delay acquisition alarms for exceeding threshold	0...1...255 min
Materials:		Delay acquisition end alarm for exceeding threshold	0...1...255 min
Base	NYLON	Attempts to make alarm calls	2...5...200
Cover	ABS	Interval between calls	2...10...210 min.
Ambient temperature:		Enabling alarm for fault sensors (B1 - B2)	YES/NO
Operating	0 ... 45 °C	Enabling alarm for exceeding thresholds	YES/NO
Storage	- 25 ... + 60 °C		

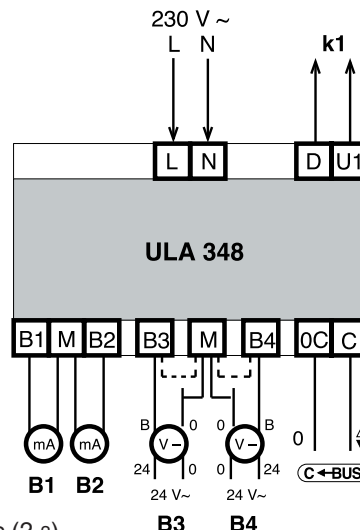
5. INSTALLATION

ULA 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 - B2 – Active detectors 4...20 mA
- B3 - B4 – Active detectors 0...10 V-
- k1 – Input alarm contact to be connected to terminals D and E1/E2/E3 of the equipment C-Bus.
- L – Phase 230 V~
- N – Neutral
- C-Bus – Transmission data by telemanagement

N.B. – ULA 348 has input terminals for detectors B3 and B4 short-circuited to the terminal M by means of jumper: this is done so that if the 0...10 V input were not to be used, the measurement unit would give a false reading. Therefore, before connecting the detector B3 or B4 it is necessary to remove the corresponding jumper.



7. ELECTRICAL CONNECTIONS

Proceed as follows :

- Separate base from cover after loosening the securing screws (2.3)
- 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 the 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 values as % measured by the detectors:** press (for less than 10 seconds) key 3.5: at each depression the measurement changes and the LED 3.2 corresponding to the detector lights.
- **Display the minimum and maximum values as % measured by the detectors:** press key 3.5 until the LED 3.2 corresponding to the detector lights. Press key 3.4: the minimum and maximum measurement values are displayed alternately. To cancel the values, keep pressed key 3.4 for 10 seconds until the three dashes appear.
- **Program the minimum and maximum limits for signalling the alarm:** press 3.5 key until the LED 3.2 for the detector concerned lights. Press key 3.6 to display the minimum value or key 3.7 to display the maximum. If excluded, OFF appears. To change, press the corresponding key (min or max) for at least five seconds: “ - - - ” will appear. Release the key and press it again: the limit value will appear. By continuing to press, the figure changes. When the desired value has been reached, do not touch the 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, then release the key and wait about 10 seconds until the value measured as a % re-appears on the screen.
- **Program the telemanagement address:** press key 3.5 for more than 10 seconds: the present address appears. Release the key: “ - - - ” appears. If no changes are required, 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 is acquired and normal operation re-starts.
- **To return to factory settings:** switch on ULA 348 and keep pressed keys 3.5 and 3.6 until “ini” appears on the display.

From the telemanagement PC you can :

- set the identifying name of the plant site,
- set the identifying name of each detector (e.g. flow detector/ room detector),
- choose the minimum and maximum limit values for signalling the alarm for exceeding threshold,
- receive the alarms for minimum and maximum limits of each measurement,
- receive the alarms for short or open circuits and end alarm for exceeding thresholds 4...20mA (B1 and B2)
- cancel the minimum and maximum values reached by the measurements,
- enable the signalling of the alarm for reaching the minimum and maximum limits,
- set the delay for acquiring and end alarms for exceeding threshold (from 0 to 255 minutes),
- display and store the measurement recordings,
- set the interval time between recording frequency,
- set the telemanagement password.
- enable the signalling of the alarm for fault sensors
- enable the signalling of the alarm for exceeding thresholds

Amendments to data sheet

Date	Revision No.	Page	Section	Details of amendment	Firmware version	Software version
10.10.05 LB 10.09.08 MM	01	various 2	Various 7. Wiring diagram	Addition delay end alarm Update "k1" description		



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