

PULSE COUNTER UNIT

C ← BUS

UCI 328 Eng.



- **Pulse counter with 2 inputs**
- **Communication systems:**
 - C-Bus for telemanagement or for connection with UMC 724 C2 central display unit
- **Power supply 230 V AC (or 240 V AC for UK market); DIN rail mounting**

1. APPLICATION

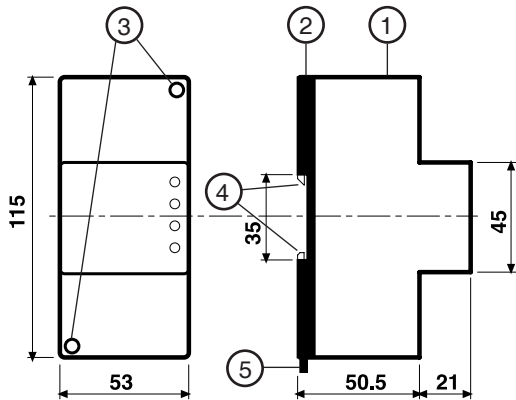
Designed to acquire and totalise two independent pulses coming from any type of emitter. The data can be displayed, via C-Bus connection, on a local PC and/or via telemanagement, on a UMC 734C2 central display unit.

2. OPERATION AND READING OF COUNTS

The unit totalises the pulses received from the two inputs and stores them in two separate memories; these memories can be erased by means of an operation executable only in the factory. Reading via telemanagement (C-Bus) and the SWC 701 program, includes the values totalised by the two counters, plus other information such as:

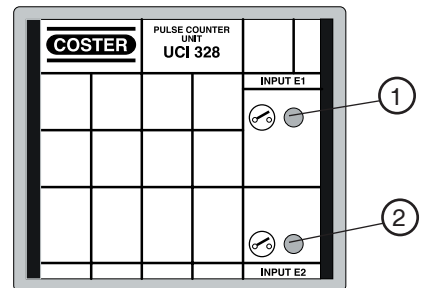
- * Measurement unit, and value of input pulses: e.g. 1 pulse = 10 litres.
- * Measurement unit and value of counts in desired mode: e.g. counts expressed in m³.
- * Name and other user data to which the counter unit refers: e.g. Mr Brown's hot water consumption.

3. 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

4. FACIA



- 1 - Closure Input 1 LED
- 2 - Closure Input 2 LED

Lit for at least half a second when a pulse arrives

5. TECHNICAL DATA

• Electrical

Power supply	230 V ~ ± 10% (or 240 V AC for UK market)
Frequency	50 ... 60 Hz
Consumption	0.5 VA
Protection	IP40
Radio disturbances	VDE0875/0871
Vibration test	with 2g (DIN 40 046)
Construction standard	Italian Electrotech. Committee (CEI)

• Mechanical

Enclosure	DIN 3E module
Mounting	on DIN 35 rail
Materials:	
Base	NYLON
Cover	ABS

Ambient temperature:

Operation	0 ... 45°C
Storage	- 25 ... + 60°C
Ambient humidity	Class F DIN 40040
Weight	0.15 kg

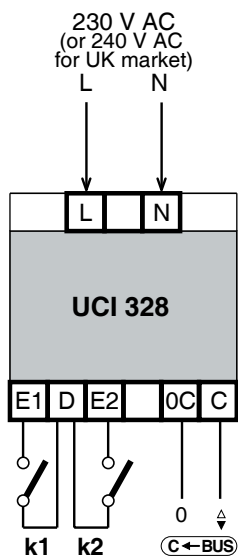
• Counts

Count pulses :	closure with an "OPEN COLLECTOR" or with a "VOLTAGE-FREE SWITCH"
Minimum duration pulses :	50 milliseconds
Maximum count speed :	1 pulse every 3 seconds
Interval between recording counts :	5 minutes

6. INSTALLATION

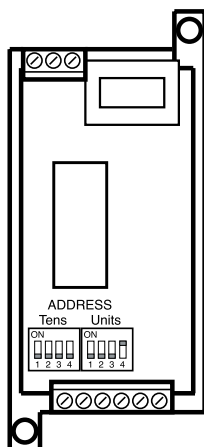
UCI 328 must be installed in a dry location that respects the relevant ambient conditions given under 5. TECHNICAL DATA. If installed in a location classified as "Hazardous" it must be installed in a cabinet for electrical equipment constructed according to the regulations in force for the class of danger concerned. The controller can be mounted on a DIN rail and housed in a standard DIN enclosure.

7. WIRING DIAGRAM



k1 – Count 1 input
k2 – Count 2 input

8. BASE



9. SETTING TELEMANAGEMENT ADDRESS



Factory setting (address No.)

1	2	3	4	Value
ON	ON	ON	ON	150
ON	ON	ON	OFF	140
ON	ON	OFF	ON	130
ON	ON	OFF	OFF	120
ON	OFF	ON	ON	110
ON	OFF	ON	OFF	100
ON	OFF	OFF	ON	90
ON	OFF	OFF	OFF	80
OFF	ON	ON	ON	70
OFF	ON	ON	OFF	60
OFF	ON	OFF	ON	50
OFF	ON	OFF	OFF	40
OFF	OFF	ON	ON	30
OFF	OFF	ON	OFF	20
OFF	OFF	OFF	ON	10
OFF	OFF	OFF	OFF	0

1	2	3	4	Value
ON	OFF	OFF	ON	9
ON	OFF	OFF	OFF	8
OFF	ON	ON	ON	7
OFF	ON	ON	OFF	6
OFF	ON	OFF	ON	5
OFF	ON	OFF	OFF	4
OFF	OFF	ON	ON	3
OFF	OFF	ON	OFF	2
OFF	OFF	OFF	ON	1
OFF	OFF	OFF	OFF	0

10. EXAMPLES OF ENTERING ADDRESS

- Address 5 : TENS (0) : 1= OFF 2= OFF 3= OFF 4= OFF
UNITS (5) : 1= OFF 2= ON 3= OFF 4= ON
- Address 18 : TENS (10) : 1= OFF 2= OFF 3= OFF 4= ON
UNITS (8) : 1= ON 2= OFF 3= OFF 4= OFF
- Address 130 : TENS (130) : 1= ON 2= ON 3= OFF 4= ON
UNITS (0) : 1= OFF 2= OFF 3= OFF 4= OFF

11. ELECTRICAL CONNECTIONS

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 (3.4)
- Carry out the wiring according to the diagram and in compliance with the safety regulations in force and using :
 - 1.5 mm² cables for power supply.
 - 1 mm² cables for input contacts.
 - 1 mm² for C-Bus. For length limits see data sheet T 021.

12. TESTING

- Apply power to the unit and check its presence across the power terminals.
- Short circuit the output of the pulse transmitter from No.1 contact and check that input 1 LED is lights.
- Short circuit the output of the pulse transmitter from No. 2 contact and check that input 2 LED is lights.
- Check carefully the address setting and if necessary test the Telereading with a portable PC, using the ACB 232 communication cable connected directly to C-Bus.
- Checking and testing are very important because UCI 328 will give no error signals and any fault will appear only after a long time..

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Head Office & Sales
Via San G.B. De La Salle, 4/a Tel. +39 022722121
20132 - Milano Fax +39 022593645
Orders Fax +39 0227221239
Reg. Off. Central & Southern
Via S. Longanesi, 14 Tel. +39 065573330
00146 - Roma Fax +39 065566517
Shipping
Via Gen. Treboldi, 190/192 Tel. +39 0364773200
25048 - Edolo (BS) Tel. +39 0364773202
E-mail: info@coster.info Web: www.coster.eu



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