# Installer/User Manual – M3 Water Leak Detector (1 water network)

2025

Tertiary Version **M3-CT9.42** / Résidential Version **M3-RT9.42**

ECOSENTRY thanks you for choosing this Water Leak Detector.
This high-performance leak detector can detect water leaks starting from a leak flow rate of:
•**RESIDENTIAL VERSION, Soft RT9.42**: 1 liter/h (small diameters DN15–20)
•**TERTIARY VERSION, Soft CT9.42**: 10 liters/h (diameters DN20–40), 25 litres/h (large diameters DN50–80), 40 litres/h (DN100)
(Example of meter accuracy for DN25: Counting error margin of 5–7% for flows <15 L/hour)

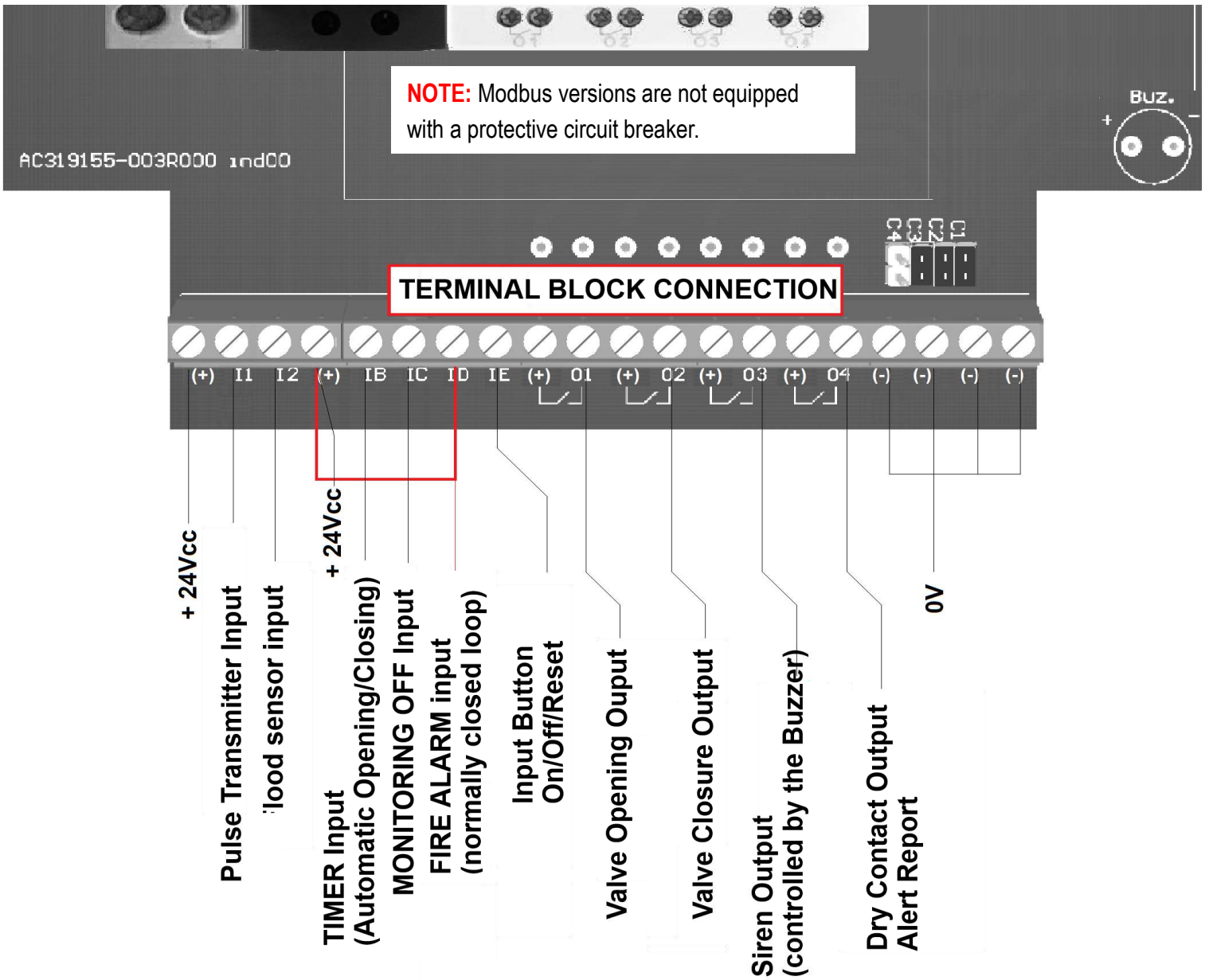
This detector continuously monitors for leaks, burst pipes, daily consumption, and the main transmitter, by permanently measuring the passing flow rate.
In case of an apparent fault, a first alert is given by the buzzer; if the fault persists, a second alert sounds and the water supply is shut off*.
In the event of a burst pipe, the system detects a sudden flow acceleration and quickly triggers the safety shut-off*.

The system features an automatic adjustment function for leak detection thresholds.
The system includes an input for connecting an optional external weekly timer to automatically open and close the water network at programmed days and times*.
*With shut-off device installed.
Testing and inspections ensure the product meets the requirements of the European Directive. CE

## IMPORTANT

Read all instructions.
The central control unit can be installed indoors or outdoors under shelter.
Install the control box away from impacts and water splashes; do not install in excessively dusty areas.
Securely mount the unit.
The central control box must not be installed near a heat source (minimum 1m distance).
When installing all components, the device must be powered off.
The pulse transmitter, water meter, and shut-off valve can be installed outdoors.
Only connect electrical components with cables compliant with current standards.
When pressing the control screen, press moderately to avoid injury risks.
Protect the control box's 230V power supply line with a 10A–16A circuit breaker (max).
See recommendations on page 2.
Keep these instructions.
**NOTE:** Do not install an automatic shut-off device on fire-fighting water networks. In buildings equipped with R.I.A. (fire hose reels) or fire hydrants, no automatic water shut-off device must be installed on these water networks.

## 1.0 TERMINAL BLOCK CONNECTION




## Recommendations

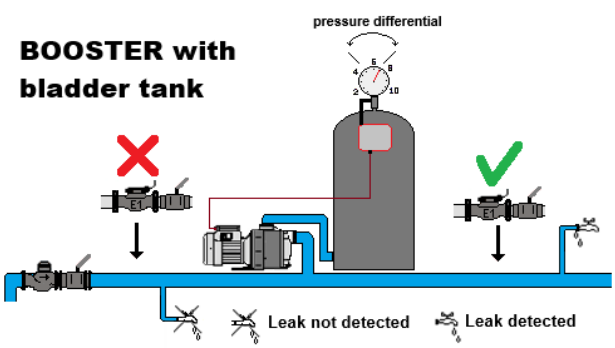
**WARNING:** In buildings equipped with R.I.A. (fire hose reels) or fire hydrant devices, any water shut-off device is prohibited on water networks reserved for fire protection.

**Appliances operating with a water supply:**

If a water shut-off device is installed on the network, ensure that shutting off the water supply will not damage any appliances connected to the network.

Verify that these appliances have a safety device to stop operation when there is no water.

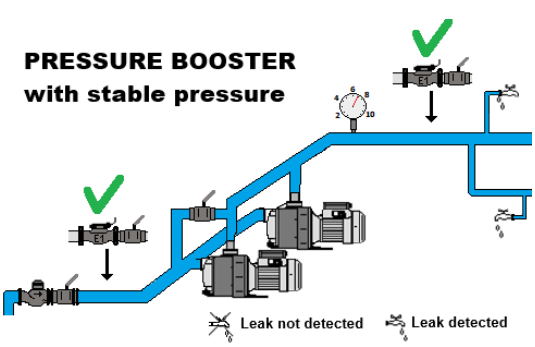
Once the user has been informed, ECOSENTRY declines all responsibility for any damage caused to appliances connected to the water network.




Leaks occurring upstream of the main transmitter E1 cannot be detected.

**Caution:** In the case of booster pumps with pressure vessels installed on the network, do not install the main transmitter E1 upstream of them.

The high and low pressure differential settings of the booster pumps should be as short as possible to avoid an excessive drop in a leak flow rate during low pressure.



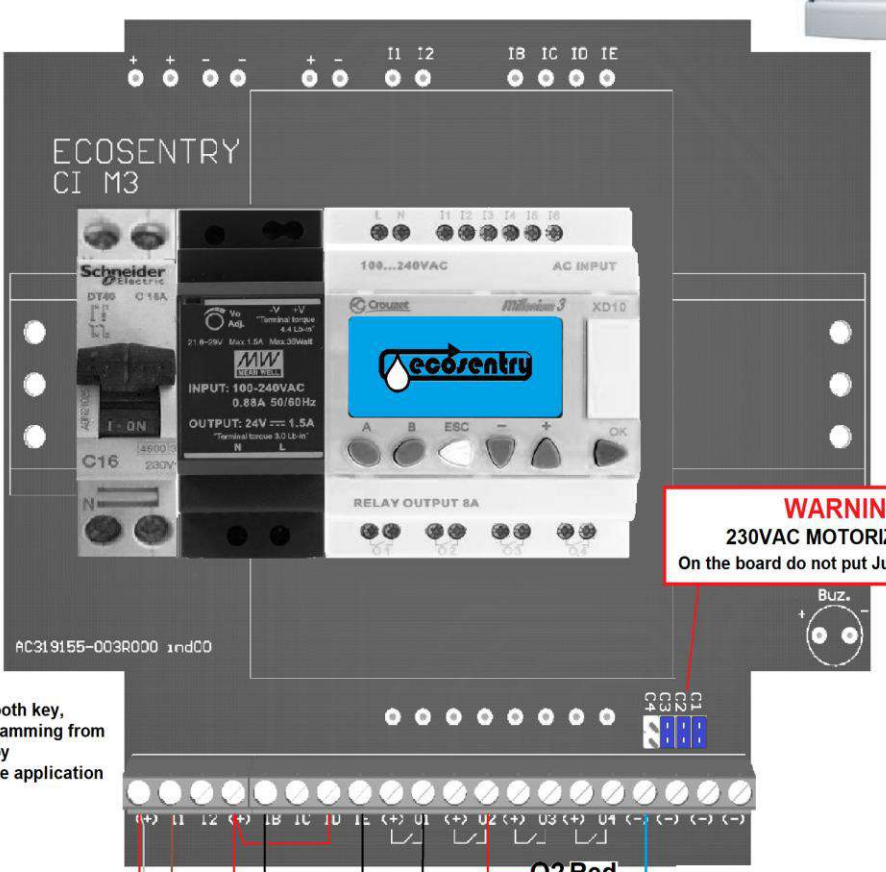
## 1.1 WIRING DIAGRAM

**NOTE:** Modbus versions are not equipped with a protective circuit breaker.

Automatic opening / closing of the network on scheduled days and times

**TIMER OPTION**
Weekly programmer
56 time programs


Optional Bluetooth key, Schedule programming from a smartphone by downloading the application




**WARNING**
230VAC MOTORIZATION
On the board do not put Jumpers C1 and C2

IB +

+ IE

O2 Red

O1 Black

Common Blue

**5L PULSE TRANSMITTER**
3 Pulse outputs
White wire on +24vdc
Brown wire on I1
or Yellow wire on I1
or Green wire on I1

On / Off / Reset button
or / and
100m radio
remote control


24Vcc

Attach the transmitter to the speedometer

Attach the transmitter to the speedometer

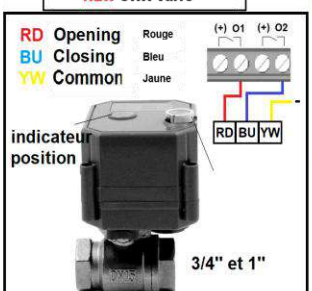
**1L PULSE TRANSMITTER**
White wire on +24vdc
Brown wire on I1
Green wire not connected

Valve opening
standard or progressive (configurable)

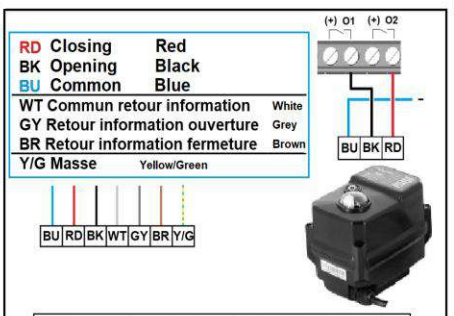
**WARNING**
230VAC MOTORIZATION
On the board do not put Jumpers C1 and C2


2 Wire Valve LYVA2 24Vdc 8W
Automatic opening by capacitor (lack of voltage)

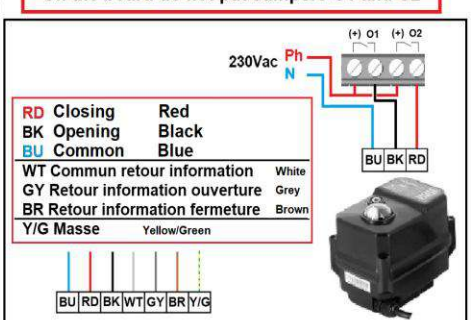
**NEW CWX Valve**




Valve CWX20-TC01 / CWX25-TC01
3 wire 9-24Vcc 5W




Servomotor IP67 TCR-02N 24vdc 15W
Servomotor IP67 TCR-05N 24vdc 25W




Servomotor IP67 TCR-02N 230Vdc 15W
Servomotor IP67 TCR-05N 230Vdc 25W

## 1.2 SYSTEM INSTALLATION

**1 -** The LCD control box should be installed indoors in technical rooms (preferred) or another suitable location.
(Control box with watertight door – IP65)
Install the box preferably in a location not exposed to direct sunlight to avoid overheating.
Operating temperature range: 0°C to 50°C.
Securely mount the device on a wall. (Fig. 1)

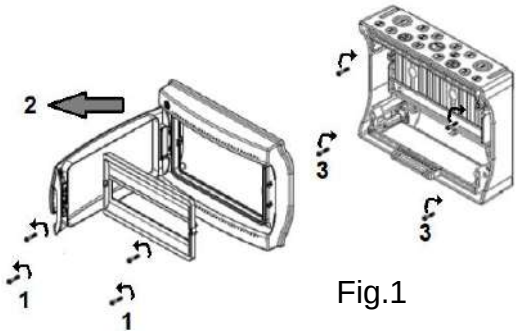
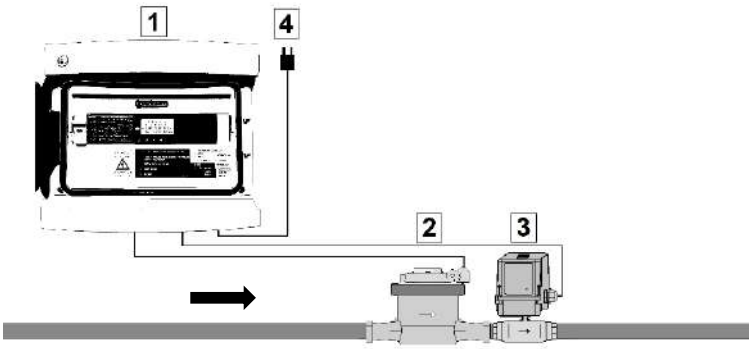



Fig.1

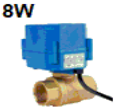



**2 -** The water meter + transmitter should be installed as close as possible to the main water meter, immediately downstream from it (to protect the entire water network).
Check the correct direction when installing.
•**Version RT9.42**: Pulse weight = 1 L
•**Version CT9.42**: In settings, for meters DN15 to DN40, set pulse weight to 1 L; for flanged meters DN50 to DN100, set pulse weight to 5 L.
Connect the transmitter to the control box. (See wiring diagram – Page 3)
If the cable needs to be extended (for lengths ≤ 50 m), solder connections with tin, use a shielded cable with a pair of at least 9/10° section (connect the shield to ground).

**3 -** Install the valve (or solenoid valve) as close as possible to the main E1 meter/transmitter.
If installation immediately after the E1 meter/transmitter is not possible, the valve may be installed remotely.
Connect the motorized valve with appropriately sized cable (see table below).
Refer to the valve wiring manual supplied.
For TCR valves installed outdoors (in a pit or chamber), the valve must be powered from the control box (anti-condensation heater). See wiring diagram – Page 3.
**IMPORTANT:** Ensure proper sealing after installing the E1 meter and valve with the main water meter.
The system can only detect leaks downstream of E1 (main transmitter).

**4 -**Connect the power supply to the LCD panel (110-230VAC).
See wiring diagram on page 3.After checking the wiring, turn on the power.

**IMPORTANT:** Never operate a valve manually while it is powered.
**Flanged valve installation:** The valve must be tightened with the butterfly disc in the open position (risk of gasket deformation)

| Tension 24Vdc | Section | Long. maxi câble |
|---|---|---|
| Vanne LYVA2 IP67 8W  | 0,5mm²<br>1,mm²<br>1,5mm²<br>2,5mm² | 25m<br>50m<br>80m<br>120m |
| Vanne CWX-TC01 5W  | 0,5mm²<br>1,mm²<br>1,5mm²<br>2,5mm² | 25m<br>50m<br>80m<br>120m |
| Vanne TCR-02N IP67 15W  | 1,mm²<br>1,5mm²<br>2,5mm²<br>4mm² | 30m<br>45m<br>70m<br>110m |
| Vanne TCR-05N IP67 25W  | 1,mm²<br>1,5mm²<br>2,5mm²<br>4mm² | 20m<br>30m<br>50m<br>75m |

**To program the valve for Progressive Opening: see chapter 2.6 page 9**

**Counters ALTAIR & AQUILLA DIEHL METERING**

| Nominal Flow rate- | Maximal Flow rate |
|---|---|
| DN15: 2.5m3/H | -3.12m3/H |
| DN20: 4m3/H | -5m3/H |
| DN25: 6.3m3/H | -7.9m3/H |
| DN32: 10m3/H | -12.5m3/H |
| DN40: 16m3/H | -20m3/H |
| DN50: 25m3/H | -31.2m3/H |
| DN65: 40m3/H | -50m3/H |
| DN80: 63m3/H | -78.75m3/H |
| DN100: 100m3/H | -125m3/H |

## 2.0 COMMISSIONING

**STARTING OR STOPPING A NETWORK**

**At first startup, the system is in STOP mode (Monitoring OFF).**
Water must not be flowing (solenoid valve / motorized valve closed, powered via O2 +24VDC output).
If water is flowing, cut power to the control box and check that there is no reversal in the valve wiring.
Check the motorized valve wiring (see Page 3).
In **STOP** mode, open a tap: If no water flows, the solenoid valve is correctly connected.


**To switch ON (MONITORING ON) , 1x** OK


The system requests an access code to unlock the control buttons (15 min unlock)
Press : OK "00000" flashes, set the **CODE** using the keys − + , validate with OK
**CODE1 required** **See CODES below**
The system requests confirmation of the command: press briefly OK again on to confirm.
The system is now in monitoring mode – open a tap to see water flow.
The flow rate is displayed for each liter consumed (pulse transmitter).



**WARNING:** Manually set the burst pipe flow rate and enable automatic leak threshold adjustment (see Pages 8 and 11).

## 2.1 MENU

To access the MENU, press the key B

**NOTE:** The LCD screen lights up when any button is pressed.
If a fault is detected (Leak, Consumption Alarm, Transmitter, Fire Alarm), the screen remains lit while the fault is present or during navigation in the MENU.

**CODES**
**Level 1:** (Commands): **00017**
**Level 2:** (Commands, Settings): **00111**

## 2.2 CONSUMPTION


In MENU select Consumption using the keys + −

Validate with OK

**CODE1 required**


**Navigate to the E1 (General) consumption and INDEX using the keys** A B


**Soft CT9.42 Version :**

Displays cumulative consumption from E1 for the current day in m³ and litres.

Displays cumulative consumption for the current year in m³

Displays the minimum flow recorded since 00:00 or since the last leak.


Displays the meter index.

At installation, synchronize the control box index with that read on the meter.
To do this, adjust litres, m³, and thousands of m³ values.
To modify a value:
•Select the value to modify using , − + validate with , OK
•Adjust the value with − + , validate with . OK

## 2.3 FORCED MODE


In MENU select Forced Operation using the keys 

Validate with 

**CODE1 required**



Forced Mode allows the system to temporarily exit MONITORING Mode for a programmed period (fixed, non-adjustable duration: **00002 hours**).
This mode enables high water usage without triggering a Leak Alarm.
**WARNING:** No leak detection is possible during Forced Mode

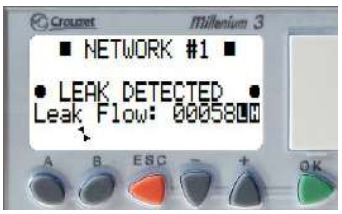
To start Forced Mode, press  the buzzer sounds.
The elapsed time is displayed (current: 0000 hours) since the start of Forced Mode.
To stop Forced Mode before the end of the programmed time, press ----------→ 
At the end of the programmed time, the system automatically returns to Monitoring mode.


**<- Display on the main page**

**NOTE:** Shutting down (network shutdown) stops Forced Operation.

## 2.4 LEAK / RESET

**Resetting a network**





**NOTE:**
Safety Shut-off will only trigger if the following conditions are met:
1- The recorded leak flow rate is ≥ the setting for Minimum Detectable Leak Flow Rate.
2- The Shut-off Device setting is for motorized valve or solenoid valve (set to 00001 or 00002).
3- The ID input (Fire Alarm) on the controller is not in an open-loop state.
4- The system is not in Forced Mode.
5- The IC input (Stop monitoring) is not activated.

When a leak is detected **First Alert**: buzzer sounds, press  to acknowledge the alarm sound
The recorded leak flow rate is displayed.
In **System Settings**, if output O4 (dry contact) Leak Alert is set to 1, contact O4 closes.
When the leak persists, after a certain time (default: 60 sec),
**the Safety Shut-off (Second Alert) permanently closes the water supply.**
**To RESET: press 3x** 



**CODE1 required**
Enter the code and validate 

The system requests confirmation of the command;
press briefly again on  to confirm.
The buzzer sounds to indicate reset.

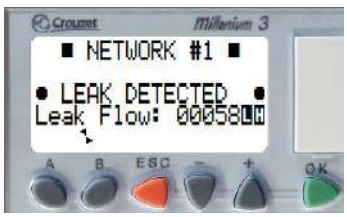
.

## To locate a LEAK, Do not RESET; go to MENU

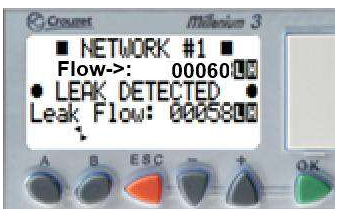

In System Settings, **set the Shutdown Device to 00000** , to allow the to open network .


On the main page, press OK to open the water network.
Display shows:
•Recorded leak flow rate.
•Last measured passing flow rate.

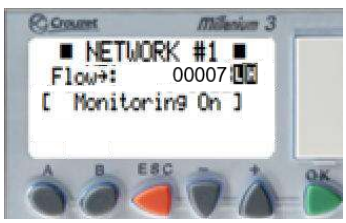
## Start LOCATION




Close the farthest valve **(A)** to isolate a pipe section.
For each litre consumed, the passing flow is displayed.
Wait for the passing flow rate to slow down to a value very close to the leak flow rate.
If the passing flow rate is much higher than the leak flow rate, water usage is too high on the network; in this case, wait again until the flow rate slows.

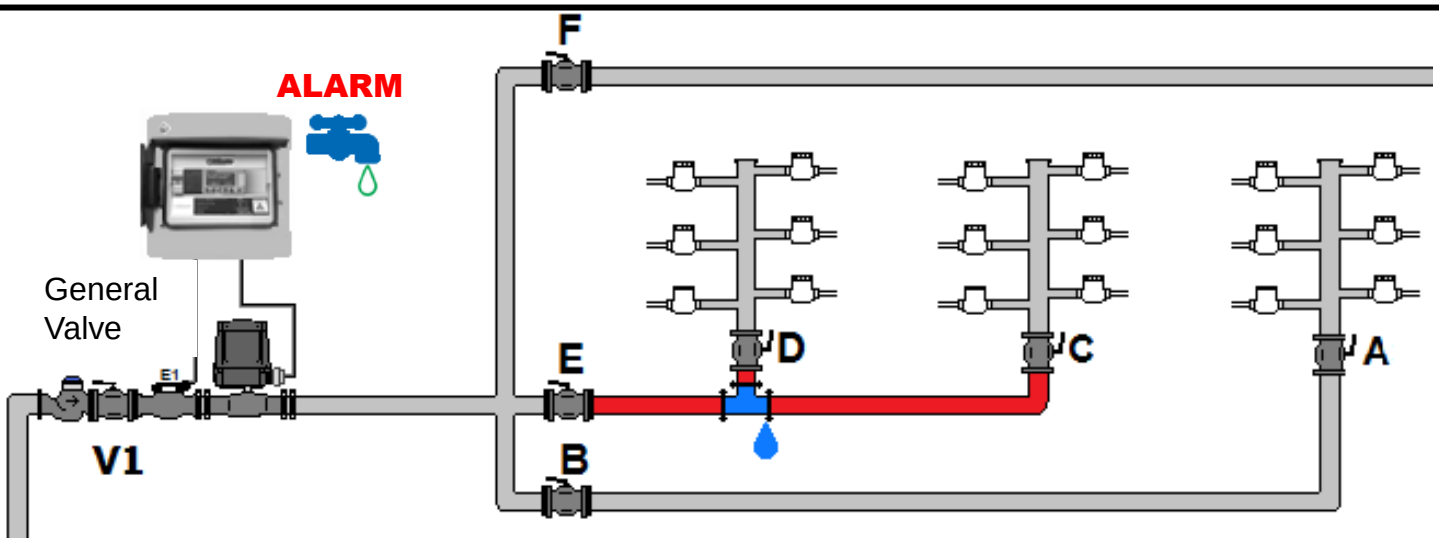



If a flow occurs at a value approximately close to the recorded leak flow rate, the leak is **probably not** located downstream of the closed pipe section **(valve A).**
Leave valve A closed and close the previous **valve (B).**
If a flow occurs at a value approximately close to the recorded leak flow rate, the leak is **probably not** located downstream of the closed pipe section **(valve B).**
Leave valve B closed and close the previous **valve (C).**
Repeat the same process for the following valves.
**During the test, always keep valves of tested pipe sections closed.**
Close the next valves in order: C, D, E, F, and V1
(always close valves moving back toward the source).




**Example:**
After several leak location tests (successive closure of valves A, B, C, D),
•A flow reappears after each closure, and the leak indication still appears on the screen.
•After closing valve E, the flow slows sufficiently, and the leak indication disappears from the screen.
•Recorded leak flow returns to 0.
**Conclusion:**
The leak is located downstream of the last closed valve.
**The leak is therefore between valves E, D, and C.**

**IMPORTANT:** At the end of the test, set the Shut-off Device back to **00001** (in System Settings)



## 2.5 FLOW METERS


In MENU, select **Flow Meters** using the keys. 

Validate with 

**CODE 2 required**


**IMPORTANT:** Activate **Automatic Adjustment of Leak Thresholds** when installing the system (see page 11).

Scroll through flow meters D0 to D8 using the keys  and 






**NOTE:** No manual adjustment of thresholds; the adjustment is done by launching the **Automatic Adjustment** in **System Settings** (default adjustment duration: 170 H). Auto

You can view, in real time, the current consumption values on the flow meters and the alert trigger thresholds.
**Current value** displays the pulse count of a stable ongoing flow rate.
(Soft RT9.42 version: 1 pulse = 1 liter) (Soft CT9.42 version: 1 or 5 liter depending on the setting) (for flanged meters DN50–100, set the pulse weight to 5 L in **System Settings**).

**Threshold setting:** displays the default value; if the current stable flow rate value reaches the threshold value, the Leak Alert is triggered (values and thresholds are displayed in liter; the system automatically adapts to the pulse weight set in **System Settings**).
In its leak detection program, the system calculates the instantaneous flow rate for each liter consumed.
Once the flow rate is stable, the system starts counting on the (Dx) meter corresponding to that stable flow rate range.
When using water from the network, you can see which flow meter is incrementing (after flow stability conditions are met).
If the flow rate is sufficiently reduced, you can see the current value on the flow meter reset, and after the new stable flow rate is reached, you can see the pulse count on the flow meter of the current flow rate.
This way, you can check all flow meters to verify correct counting after stability, as well as cascade resets of meters when the flow slows down or stops.
When the flow slows sufficiently, the system resets that meter.
If the flow remains constant within the range, the count will inevitably reach the **First Leak Alert** threshold.
The **Second Leak Alert** (Safety Shut-off)* will trigger after 60 seconds (default setting, modifiable in **System Settings**).

***Safety Shut-off will only trigger if the following conditions are met:**

1. Recorded leak flow rate ≥ Minimum Detectable Leak Flow Rate setting.
2. Shut-off Device setting is for motorized valve or solenoid valve (set to 00001 or 00002).
3. ID input (Fire Alarm) on the controller is not in an open-loop state.
4. The system is not in Forced Mode.
5. IC input (Stop monitoring) is not activated.

**AUTOMATIC ADJUSTMENT OF LEAK THRESHOLDS:** Activate Automatic Adjustment (see page 11).
When the system is in **Automatic Adjustment of Leak Thresholds**,
the alert threshold setting value is automatically adjusted (current value + 80%).
This new alert threshold value then becomes the reference.
**BURST PIPE FLOW RATE:** Manual adjustment of burst flow rate.
**IMPORTANT** Set the Burst Flow Rate according to the meter size (DN) (see meter table on page 4).
Press "+" to select the "Deb. Rupt." value, press **OK**, adjust with **"+" / "–",** validate with **OK.**
Monitoring a flow that is too high for several pulses enables detection of a sudden pipe burst.
**D0 value:** Displays the pulse count for flows ≥ the set **burst flow rate.**
Burst threshold set **(default: 10 PULSES)** —
if the D0 value reaches the set burst threshold, the water supply is instantly shut off.
If the flow slows sufficiently before reaching the burst threshold, the D0 value resets to zero.

**Note:** On the Soft CT9.42 version, the trigger thresholds are shown in liters; 1 pulse = 1 or 5 liters passed, depending on the pulse weight setting.
The system automatically adapts to the set pulse weight; leak thresholds are indicated in liters.

### IN CASE OF FALSE ALARMS

Example of alert triggering during another justified, normal water usage.
If the alert is regularly triggered by this normal water use, and the alert disappears as soon as users stop consuming water, in this case you should launch an **Automatic Adjustment of Leak Thresholds** (see page 11).

**WARNING:** An alert triggered by a forgotten tap is considered a leak by the system; in this specific case, the detected leak should not be regarded as a wrong threshold setting.
On automatic irrigation networks, to avoid unwanted shut-offs, it is preferable to split the watering cycle duration with at least a 10-minute pause between each cycle.

## Stable flow meters (D): flow rate range breakdown.

| | D0<br>Débit Rupture | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 |
|---|---|---|---|---|---|---|---|---|---|
| RT9.42 Version | xxxx L/h -set according to water meter | >=1200L/h | >=800 <1200L/h | >=500 <800L/h | >=250 <500L/h | >=100 <250L/h | >=20 <100L/h | >=5 <20L/h | >=1 <5L/h |
| CT9.42 Version | xxxx L/h -set according to water meter | >=5000L/h | >=3000 <5000L/h | >=1500 <3000L/h | >=720 <1500L/h | >=300 <720L/h | >=100 <300L/h | >=50 <100L/h | >=10 <50L/h |

## 2.6 SYSTEM SETTINGS


In MENU select System Settings using the keys 
Validate with 

**CODE 2 required**


**Scroll through the SETTINGS pages using the keys**  **and** 

### Humid environments / WARNING:

**Do not set to Progressive Opening (1) if the valve is installed outdoors in a pit (humid location).**
**Damage to the motorization will not be covered under warranty if the valve is not powered (open or closed).**
TCR02 and TCR05 motors are equipped with an anti-condensation heater; this will only be powered if valve opening and closing are set to **STANDARD mode (00002)**.


**CUT-OFF Device (0/1/2):** (0 = no device installed, 1 = motorized valve progressive opening, 2 = motorized valve standard opening). **Default setting: 00002.**
**Progressive opening on LYVA2 valve (2 wires) is not possible — set to 00002.**
**Pulse Weight:** Pulse weight of the transmitter on meter C1.
(Soft RT9.42 version: pulse weight always 1 litre, non-adjustable)
(Soft CT9.42 version: default setting 1 litre;
**set to 5 litres for flanged meters DN50 to DN100.**
**Cut-off Time:** When a leak is detected, shut-off occurs after the set time.
Default: **60 seconds.**
**Warning:** Increasing shut-off time will delay shut-off.



**Detection Delay: 180 sec**. (Delays leak detection after a restart following shut-off).
If the pipes have emptied during a long shut-off, restarting will cause a very high flow that could be interpreted as a burst pipe.
**Leak detection starting from:** The smallest detectable leak corresponds to the setting.
Default setting: Soft RT9.42 version – 1 L/h Soft CT9.42 version – 10 L/h

Note: Leak detection from 1 L/h for the RT9.42 soft version with DN15 and DN20
Leak detection from 10 L/h for the CT9.42 soft version with DN15 to DN40,
Set to 25 L/h with DN50 to DN80, set to 40 L/h with DN100.

**Flood Delay: 060sec.** (Minimum time for water to be collected on one of the ground water sensors before triggering the Flood Alert and Cutoff.

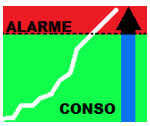
## *In case of shut-off on a Flood Alert:

To **RESET** and return to Monitoring: press: **3x**


---




**CONSUMPTION ALARM THRESHOLD: RT9.42 Version : 1000L, CT9.42 Version: 10m3**
(Default setting). The excessive consumption alert triggers when the daily consumption reaches the set threshold.
Adjust this setting according to usual daily consumption.
**J. Maxi (An):** Indicates the maximum volume reached in a single day since January 1 of the current year (used as a reference for setting the consumption alarm threshold).
**CONSUMPTION SHUT-OFF:** In case of a Consumption Alarm, the fault is displayed on the main screen, and the buzzer sounds (intermittent alarm).
Default **SHUT-OFF** setting on consumption alert: 00000 (OFF).
To turn ON shut-off on consumption alert, **set to 1*.**


On the main screen, to stop the alarm sound, press .
Daily consumption count is reset to 0 each day at 00:00, and the alert will automatically disappear at that time.
If excessive consumption occurs again the following day, the alert will trigger again.

## *In case of shut-off on a Consumption Alert:

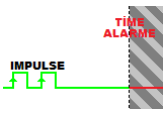
To **RESET** and return to Monitoring: press 3x


NOTE: After reset, the consumption alert will not be able to trigger the shut-off again until the next day (unless the alert threshold is increased).

---




**TRANSMITTER MONITORING:** 00001 (ON) (default setting).
To turn OFF transmitter monitoring, set to 00000 (not recommended).
**00000h = Number of hours elapsed without consumption.**
**Hours:** 96 hours (default setting).
Number of hours without consumption after which the system triggers the alert.
The system monitors pulses regularly from the transmitter on the meter.
If the time without any pulse reaches or exceeds the setting, the system triggers the alert and displays it on the main screen, the buzzer sounds (intermittent alarm).
**STOP on TRANSMITTER ALERT:** 0 (OFF) (default setting).
(If the Shut-off Device is ≥ 00001, in case of a transmitter alert the network is shut off.)
To enable shut-off on transmitter alert, **set to 1 (ON)*.**




## *En cas de Coupure sur une Alerte Émetteur:

Pour **RÉARMER** et mettre à nouveau en Surveillance: **3x**

**W A R N I N G :** Leak detection is delayed during the Auto-Adjustment period, because the system sets thresholds according to volumes consumed in the flow ranges.
If a leak occurs during this period, the system stops auto-adjustment because the threshold settings were skewed by the leak (set to excessively high values).
Repair the leak before restarting an Auto-Adjustment under proper conditions.
**C A U T I O N :** Frequently restarting auto-adjustment is strongly discouraged because leaks would be detected later, leading to greater water losses.




## AUTOMATIC ADJUSTMENT OF LEAK ALERT THRESHOLDS

The leak alert thresholds allow the Leak Alert to be triggered if a stable flow rate lasts too long in a given range.
**AUTO-ADJUSTMENT: 00001** = Number of times the system has been placed in Auto-Adjustment.
•To enable Auto-Adjustment of Leak Thresholds: press 
•To stop Auto-Adjustment of Leak Thresholds: press 
The buzzer sounds once to indicate entry into auto-adjustment mode.


**Auto-Adjustment Duration: 170 H (default, adjustable).**
For 7 days, the system adjusts thresholds according to the maximum values reached in the different flow ranges.
**In progress:** indicates the number of hours elapsed since the start of auto-adjustment.
00085 h = Number of hours elapsed in Auto-Adjustment.
On the main page, the message **"AUTO-ADJUSTMENT of Leak Thresholds"** appears.

**PERFORM an AUTO-ADJUSTMENT when installing the system.**
The burst flow rate setting is done manually (see page 8).

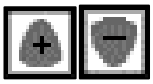

OUTPUT O4 (dry contact) – default setting: **00000* (NO)**
*No/Nc:00000 **(Contact is NO)** , *No/Nc:00001 **(Contact is NC)**
The O4 dry contact output remains **Open** or **Closed*** as long as the fault remains present if the output for the fault concerned is set to 1 (ON).
This contact can be used to remotely report an alert.
**W A R N I N G :** If the remote alert operates at 230 V, do not place jumper C4 on the board. By default, this jumper is not present. (See diagram – page 13).
If jumper C4 is positioned on the board, the O4 output will be 24 VDC.
The device must be connected accordingly; the device's power must be a maximum of 5W.


**INTERNAL CLOCK:** Daylight Saving Time / Winter Time change is automatic.

**N O T E :** It is important that the clock and date are correct because the daily, monthly, and yearly consumption readings will be incorrect otherwise.

Original codes are listed on page 6.
If code1 is set to 00000, the system remains permanently unlocked for commands.
If code2 is set to 00000, the system remains permanently unlocked for commands and settings (not recommended).
**In case of lost code** (emergency system unlock):
On the main screen, press simultaneously the keys.  and 
Then press the key  10 times briefly (while keeping + and A pressed).
Release everything , the system should be unlocked for 15 minutes.
**Go to Settings to check or modify codes 1 and 2.**
**- Soft CT9.42 Ethernet –**: Displays the software version of the program.

## 2.7 LEAK LOG


In MENU, select **Log** using the keys 
Validate with 



**LOG / recorded leak flow rates**
You can view the last 8 recorded leaks:
1 – being the oldest.
……..
8 – being the most recent (after the 8th leak, values shift upward with each new leak).

Scroll through the 2 pages with the keys 

and 


## 3.0 ADDITIONAL INPUTS

Diagram on page 13


**ID Input:**
Normally closed loop.
If the +/ID loop is interrupted, the fire alarm is triggered, and the shut-off valve opens regardless of the system state (STOP or SHUT-OFF).
The buzzer sounds.
A water push-button switch (NC) can also be connected; it will act as above, the shut-off valve opens regardless of the system state (STOP or SHUT-OFF).


**IC Input:**
Suspends monitoring for 2 hours (non-adjustable).
Connect a weekly timer, connect +24VDC and IC to the terminals of the dry contact (NO).
Leak monitoring is suspended for a maximum of 2 hours when the contact closes.
A push button (Monitoring OFF for 2 hours) can also be connected.


**I2 Input:**
Connection for an optional floor water detector.

**NOTE**: **In Settings**, adjust if needed the minimum water detection time on the probes before triggering the Alert (default: 60 sec).

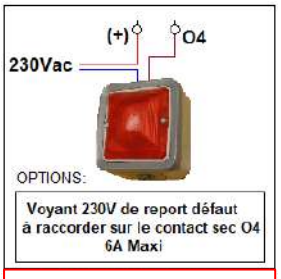

**IE Input: Start/Stop/Reset**
Allows connection of a push button (NO contact) between +24VDC and IE input (remote start/stop/reset command).
Pressing the button:
If the system is ON, it switches to OFF, and vice versa.
A 3-second press RESETS the system.


**IB Input: TIMER**
Opens and closes the water network automatically at programmed hours and days.
Connect a weekly timer, connect +24VDC and IB to the terminals of the dry contact (NO) — see diagram page 3.
When +/IB is closed, the network opens; when +/IB is open, the network closes.

**NOTE**: If a manual Start or Stop command is given, the system reacts accordingly (priority).

**O3 Ouput:**
Allows connection of a 24VDC siren or 24VDC indicator light.Activation is linked to the buzzer.

**O4 Output:**
Allows connection of a remote fault indicator light.
The O4 contact remains **closed* or open*** as long as a fault is present.
Refer to **Settings** to configure which faults close the O4 contact.
If jumper C4 is on the board, connect a 24VDC indicator light between O4 and –.

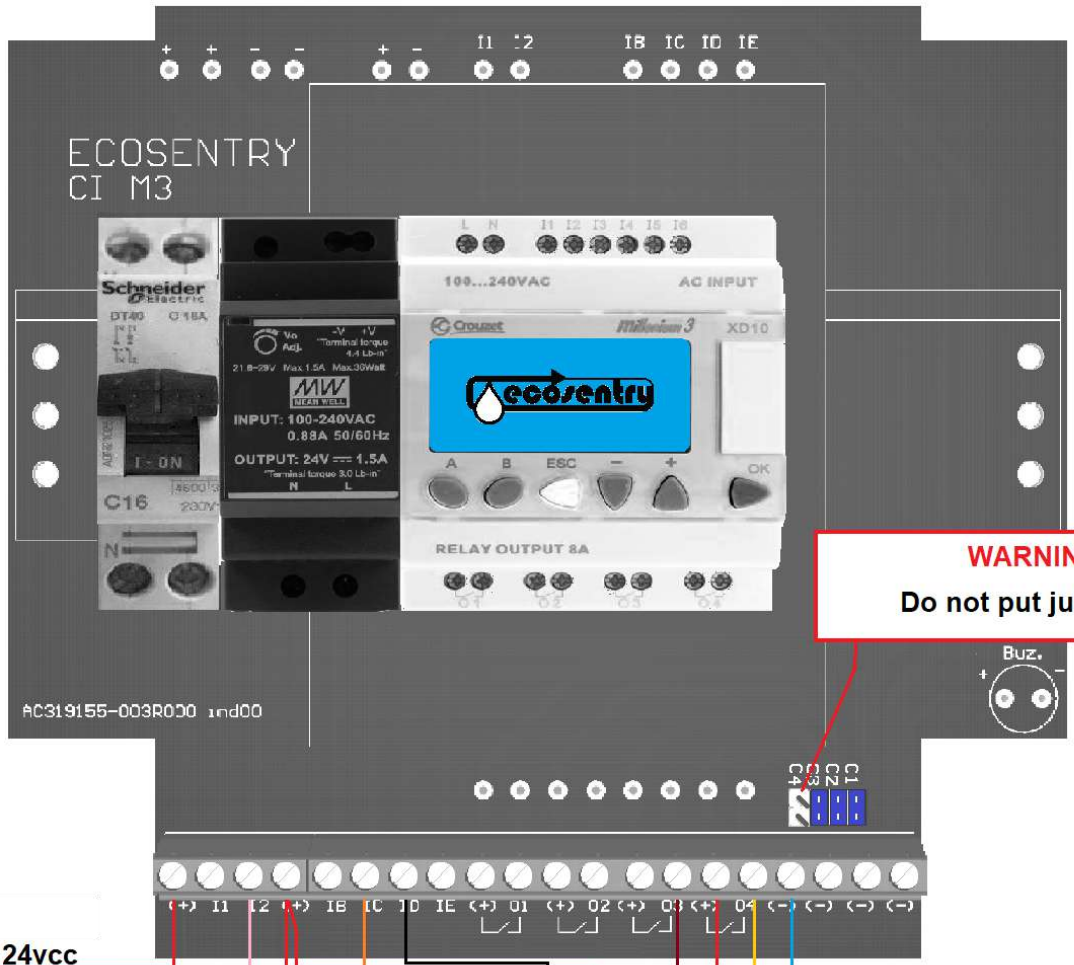



**do not put jumper C4 on the board.**

**230VAC Indicator Light – WARNING:**
To use O4 as a dry contact, do not put jumper C4 on the board.
Connect 230V Phase to (+) and return from the light to O4.
Connect Neutral from the light to neutral (230V).

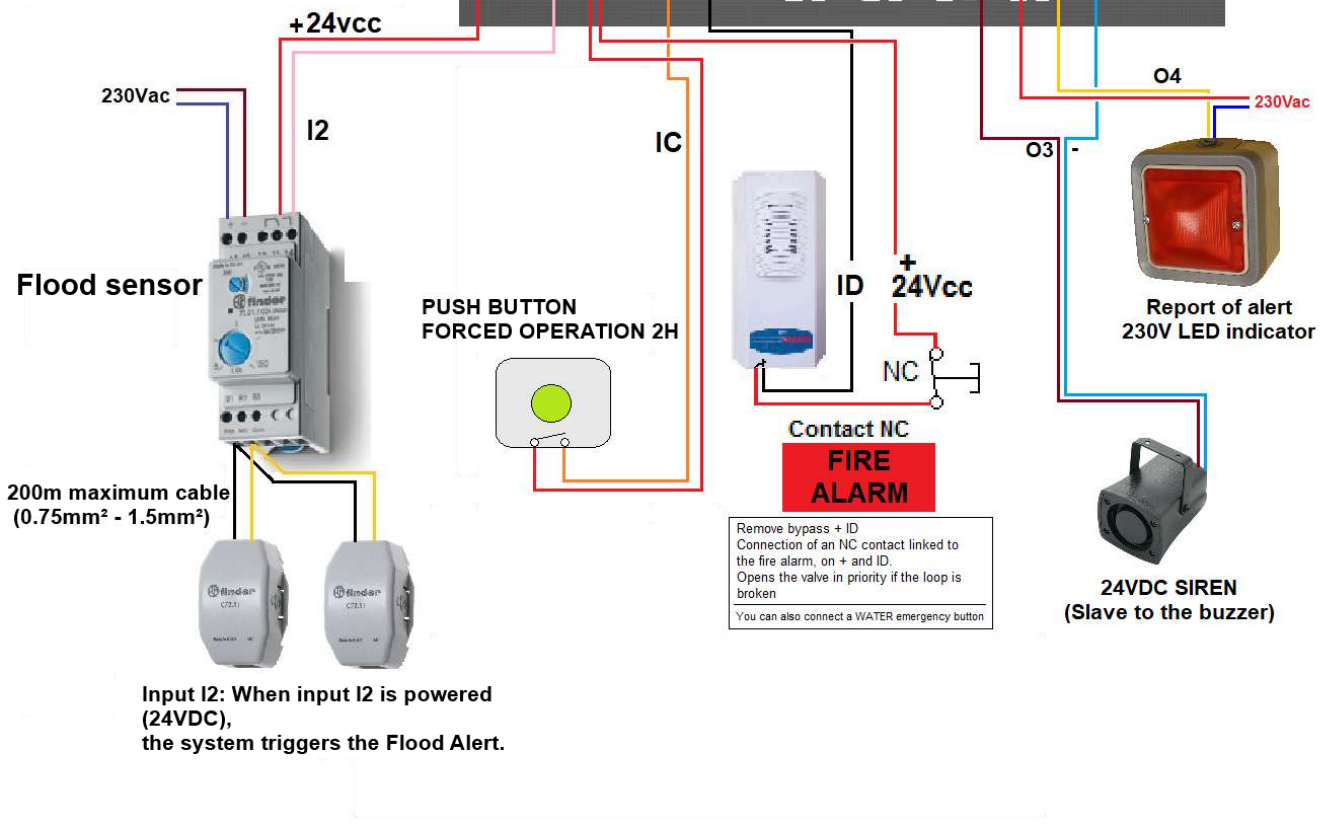
***In System Settings – O4 OUTPUT**
No/Nc:00000 **(Contact is NO)** ,
No/Nc:00001 **(Contact is NC)**

**NOTE:** Modbus versions are not equipped with a protective circuit breaker.




**WARNING**

**Do not put jumper C4**




**Input I2: When input I2 is powered (24VDC), the system triggers the Flood Alert.**

## 4.0 SPECIFICATIONS

**General Specifications**

**Automate M3 CUSTOM 24 V DC**

Operating limit: –15 % / +20 %, i.e., 20.4 V AC ⟶ 28.8 V AC
Operating frequency: 50/60 Hz (+4 % / –6 %), i.e., 47 ⟶ 53 Hz / 57 ⟶ 63 Hz
Power consumption: 4 VA
Effective isolation voltage: 1780 V AC
LCD Display: 4 lines of 18 white characters on a blue background
Operating temperature: –20 to +70°C
Relative humidity: RH1 level, 30 to 95 % RH (non-condensing)
Environment with pollution degree 2
Protection rating: IP20
Vibration resistance (IEC 60068-2-6):
– Rail and panel mounting: 5to 9 Hz, amplitude: 3.5 mm
– From 9 to 150 Hz, acceleration: 1 g
10 cycles/axes, 1 octave/minute
Altitude: 0 to 2000 m
Applicable standards / operating conditions: IEC/EN 61131-2

**Inputs**

Input voltage: 24 V AC (–15 % / +20 %)
Input impedance: 4.6 kΩ
Logic 1 turn-on voltage: ≥ 14 V AC  Logic 0 release voltage: ≤ 5 V AC
Logic 1 turn-on current: > 2 mA  Logic 0 release current: < 0.5 mA

**Relay output characteristics**

Maximum switching voltage: 5 ⟶ 30 V DC, 24 ⟶ 250 V AC
Switching current: 8 A
Mechanical life: 10,000,000 (operating cycles)
Response time: Turn-on 10 ms, Turn-off: 5 ms

**Operating environment:**

Environment with pollution degree 2.
Locations not exposed to flammable and corrosive gases.
Locations not exposed to excessive dust, oil vapour, iron powder, water, or chemicals.
Locations without excessive vibration or shock.
Locations not affected by high-voltage cables and equipment, power cables, radio transmitters, and other equipment generating switching surges (minimum distance 100 mm).

**MW Power Supply 24 VDC 30 W**

Nominal output voltage: 24 V (22.8 V ⟶ 29 V)
Output power: 30 W
Nominal output current: 1.25 A

Refer to the **transmitter, meter, and valve specifications** in the supplied manuals.
Testing and inspections ensure the product meets the requirements of the European Directive.

Download the technical data sheets

**Manufactured by SARL ECOSENTRY**
SIRET: 532 152 105 00013
34770 Gigean - FRANCE
**http://www.ecosentry.fr**
**contact@ecosentry.info**