2026

Installer / User Manual - Leak Detector Control Unit (2 water networks)

Commercial Version **EVO-CT2.04** Resid. **EVO-RT2.04** OPTION Modbus RS485 / Ethernet

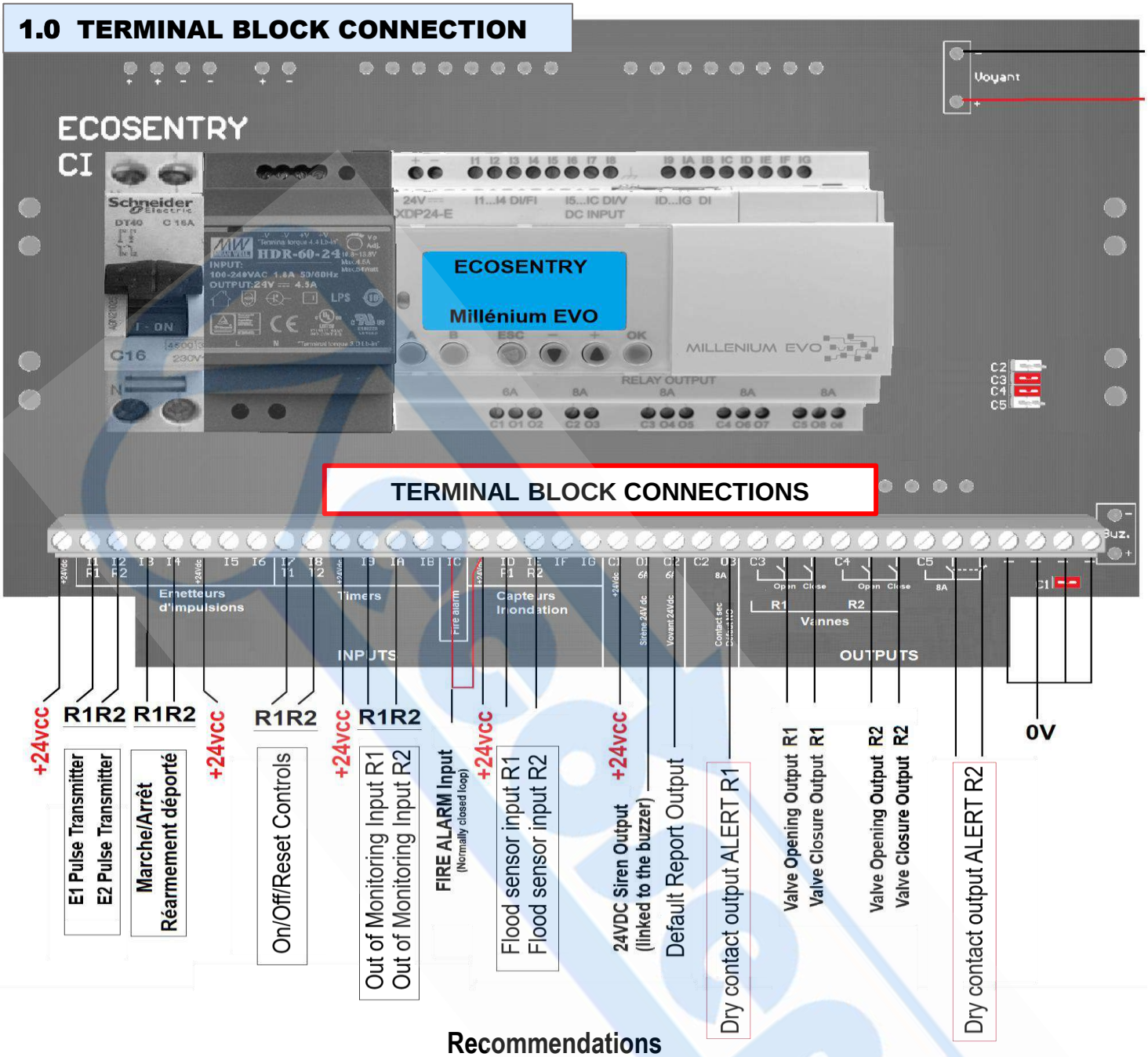
ECOSENTRY thanks you for choosing this Water Leak Detector
This high-performance leak detector can detect water leaks from a leak flow rate of:
COMMERCIAL VERSION, SOFT **CT2.04:** 10 litres/h (Dn20-40), 25 litres/h (Dn50-80), 40 litres/h (Dn100)
RESIDENTIAL VERSION, SOFT **RT2.04:** 1-2 litres/h (Dn15-20), 3 litres/h (Dn25)
(Meter accuracy, e.g. on DN25: counting error margin of 5-7% on flow rates <15L/hour)
This detector independently performs, on each water network (1 and 2), leak monitoring, pipe-burst monitoring, daily consumption monitoring and pulse-emitter monitoring.
Water leak monitoring is performed by continuous measurement of the flow rate.
If a fault appears, the Alert is given by the buzzer and the water shut-off is triggered *
In the event of a pipe burst, the system features sudden flow-acceleration detection and triggers the safety shut-off* very quickly
The system features an auto-adjustment function for the Leak trigger thresholds.
On the terminal block, 2 inputs are provided for connecting weekly timers (automatic opening and closing of the networks, optional), as well as 2 inputs for connecting floor flood sensors (optional)
*with shut-off devices installed
The checks and tests performed ensure the product complies with the European Directive requirements. CE

IMPORTANT

Read all instructions.
The central control unit may be installed indoors or outdoors under shelter.
Install the control unit away from impacts and water splashes; do not install in an overly dusty room.
Securely fasten the enclosure.
The central control unit must not be installed near a heat source (minimum 1 m distance).
When installing all components, the device must be de-energised.
The pulse emitter, the water meter and the shut-off valve may be installed outdoors.
Only connect electrical components using cables compliant with applicable standards.
When pressing the control screen, please press moderately on the screen to avoid the risk of injury.
Protect the 230V power supply line of the control unit with a maximum 16A circuit breaker.
See recommendations on page 2.
Keep these instructions.

NOTE: Do not install an automatic shut-off device on water networks reserved for fire protection. in buildings equipped with fire hose reels (R.I.A.) or fire hydrants, no automatic water shut-off device must be installed on these water networks.

1.0 TERMINAL BLOCK CONNECTION



Recommendations

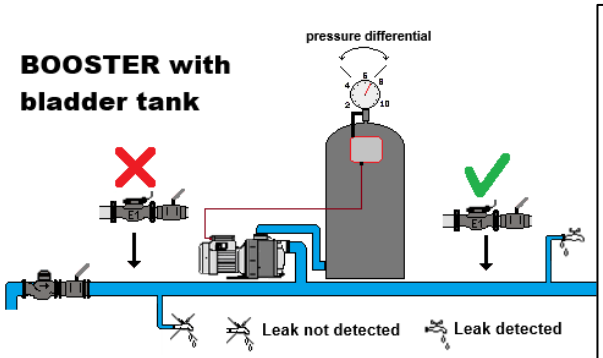
W A R N I N G : in buildings equipped with fire hose reels (R.I.A.) or fire hydrants, any water shut-off device is prohibited on these water networks reserved for fire protection

Appliances operating with a water supply:

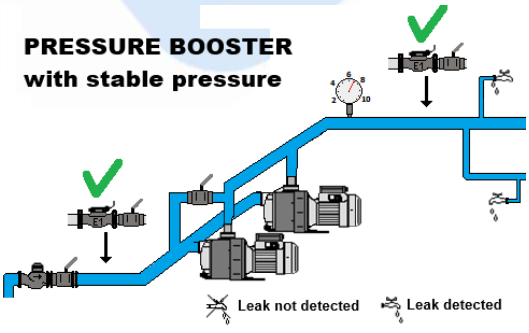
If the water network shut-off device is installed, ensure a water shut-off will not damage any appliance connected to the water network.

Verify that these appliances have a safety device for shutdown when there is no water.

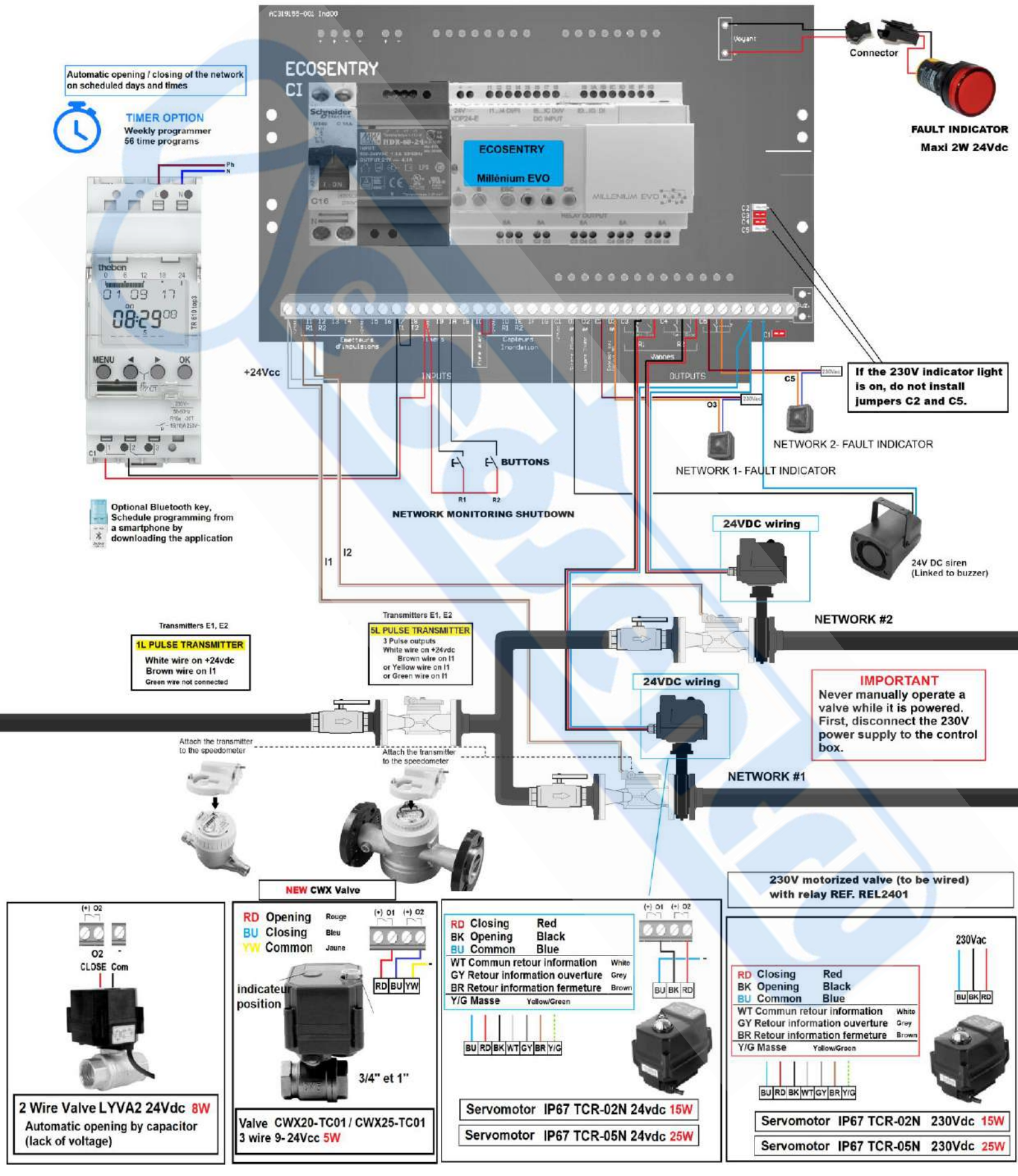
The user having been warned, ECOSENTRY disclaims all liability for damage to appliances connected to the water network.



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.



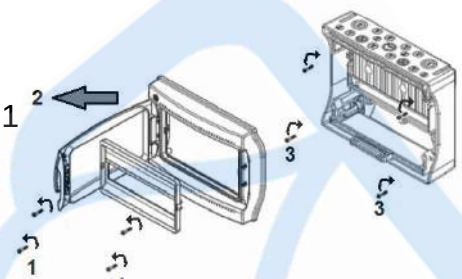
1.1 Wiring diagram

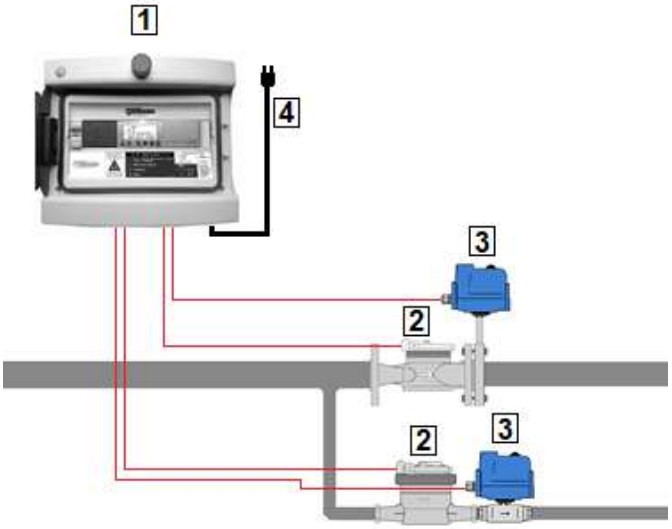


1.2 SYSTEM INSTALLATION

1 - The LCD control unit must be installed indoors in technical rooms (preferably) or another room. (Enclosure with IP65 sealed door)
Install the enclosure preferably away from direct sunlight to avoid temperature rise.
Designed operating range: 0°C to 50°C.
Securely fasten the device to a wall. (Fig.1)

Fig.1





2 - The meters + emitters must be installed at the start of each network (in order to fully protect the water network). Check the correct direction during installation.
Version CT2.04: in settings, (DN15 to 40 meters) set the weight to **1L ,** (flanged meters DN50 to 100) set the weight to **5L.**
Version RT2.04: (DN15 to 40 meters) set the weight to **1L**
Connect the pulse emitters to the control unit. (Inputs I1 to I2) (see wiring diagram page 3)
If the cable must be extended (for lengths <=150m), the connection must be made by tin soldering; use a shielded cable with a pair of 9/10mm minimum cross-section (connect the shield to earth).

3 - Install the motorised valves (or solenoid valves) as close as possible to each corresponding meter/emitter
Valves may be remotely located if it is impossible to install them immediately after the corresponding meter/emitter.
Connect the motorised valves with a cable of suitable cross-section (see table below).
See the wiring instructions supplied with the valves.
See wiring diagram page 3.
IMPORTANT: Ensure proper sealing after installing the meters and motorised valves.
The system can only detect leaks on the various outlets occurring after the meters/emitters (1 and 2).
For TCR valves installed outdoors (in a pit or chamber), the valve must be powered by the control unit (anti-condensation heater).
4 -connect the power supply to the LCD control unit (110-230 VAC) - See wiring diagram page 3
After checking the wiring, switch on the power.

IMPORTANT: never operate a valve manually while live (first switch off the 230Vac power supply to the control unit).
Flanged valve installation: the valve must be tightened with the butterfly in the open position.
Tightening with the butterfly closed = risk of deforming the seal.

For use of 230Vac motorised valves, use a relay REF. REL2401
For each of the valves

TENSION 24Vdc	Section câbles	Long. Maximum
Vanne CWX IP65 5W		
Vanne CWX- 24Vcc Du 3/4" au 1" 10bar	0,5mm² 1,mm² 1,5mm² 2,5mm²	25m 50m 80m 120m
Vanne TCR-02N IP67 15W		
Vannes TCR02N -24vcc Du 3/4" au 1" 16bar	1,mm² 1,5mm² 2,5mm² 4mm²	30m 45m 70m 110m
Vanne TCR-05N IP67 25W		
Vannes TCR05N -24vcc Du 1"1/4 au 2" Du Dn50 au DN125 10bar 16bar	1,mm² 1,5mm² 2,5mm² 4mm²	20m 30m 50m 75m

ALTAIR & AQUILLA Meters
DIEHL METERING

Nominal Flow -	Maximum Flow
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

1.3 CONTROL BUTTONS & DISPLAYS

Steady green indicator: powered on
Flashing green indicator: PLC error

Red indicator linked to Leak, consumption and emitter alerts

A — Stops the current buzzer / Displays DD/MM of the last recorded leak

B — Go to MENU

\+ / − — Select the network to display [1] to [2]

ESC — Returns to main page (network [1] display)

OK — 1 press: ON or OFF command on the selected network
3 presses: RESET command on the selected network

Fig.1

Fig.2

The ON command puts the system into MONITORING mode (if a shut-off device is connected, the valve opens)
M is shown under the relevant network (example fig.1, Network 1 and 2) / Flashing during the AUTO-ADJUSTMENT phase

The OFF command puts the system into MONITORING DISABLED mode (if a shut-off device is connected, the valve closes)
A is shown under the relevant network (example fig.2, Network 3)

The RESET command resets a network that is in safety shut-off following an Alert.
C is shown under the network in safety shut-off (example fig.2, Network 1)
To RESET network [1], position on [1] and press 3 times in succession on OK

Forced run allows a network to be taken out of Monitoring for a set time; at the end of the time the network returns to Monitoring automatically
mf is shown under the relevant network

ALERTE indicates that an alarm is active on one of the networks.

Navigate through the different networks with + and − ; the state of each network is displayed

DISPLAYS of States and Alerts

Fig.3

Fig.4

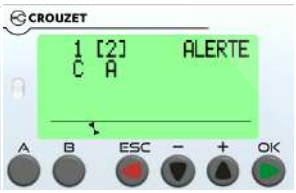


Fig.5

Fig.6

Fig.7

Network [1]: The network is in Safety Shut-off due to pipe-burst detection Fig.3
Network [2]: The network is in Monitoring; the passing flow rate shows 553L/h Fig.4
Network [2]: The network is OFF (the network is closed if a shut-off device is installed) Fig.5
Network [1]: The network is in Forced Run; leak and over-consumption detection disabled during the programmed time (default 4h, adjustable), returning to Monitoring at the end of the time. Fig.6
Network [2]: The network is in Monitoring; threshold Auto-adjustment is active for a programmed time (default 360h / 15 days) Fig.7

Fig.8

Fig.9

Fig.10

Fig.11

Fig.12

The led green flashing indicator indicates an error
Go to the log to see the error code

Network [1]: The network is in Safety Shut-off due to a Consumption Alarm Fig.8
The daily consumption has reached the daily consumption threshold setting.

Network [2]: The network is in Emitter Alarm Fig.9
The system has detected that the emitter has had no pulse for longer than the no-pulse threshold setting.

Network [1]: The network is in Safety Shut-off due to a LEAK Alarm Fig.10

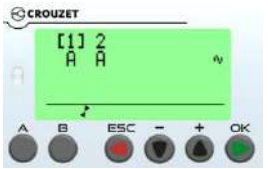
FIRE ALARM: input IC is no longer powered at 24V, the alert is triggered, the valves open. Fig.11
If the green indicator flashes, a PLC error is detected, go to the log to see the error number (see page 11)

When a new **ALERTE** occurs, the buzzer sounds 20 sec, stops 30 sec, sounds 20 sec, stops 30 sec, etc.
Buzzer duration: 10 min. To stop the buzzer, press A

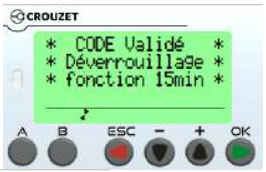
WARNING: Set the pipe-burst flow rate manually (page 10) and put the system into Leak threshold Auto-adjustment (See page 11).

2.0 Commissioning

Switching a network ON or OFF



Select the network with + − **to execute a command** OK
To switch ON (Monitoring ON) , make **a short press** on
The system requests **CODE1** to unlock the commands (unlocked for 15 min)



Enter each of the 4 digits of the code using the button +
and confirm each time. OK When the code is validated, the screen displays it
Confirm the command by pressing OK (ESC cancels the command)

Network [1] is in Monitoring; the valve opens.
To switch OFF, the procedure is the same; the system switches from ON to OFF.

CODES CODE 1: 1700 (Commands)
CODE 2: 1940 (Commands & Settings)

To cancel CODE 1, in Miscellaneous Settings set CODE 1 to «0000», CODE 1 will no longer be requested to execute a command

NOTE: The LCD screen lights up when a button is pressed.
If a fault is detected (Leak, Consumption Alarm, Emitter, Fire Alarm), the screen remains on as long as a fault is present or during MENU navigation.

The **CODE1** required (see codes page 6).

RESETTING a network

Select the network with + − **to execute a command**
To perform a RESET , make **3 short presses** on OK
If the system requests **CODE1,** proceed as above

Network [1] is again in Monitoring; the valve opens.

ON/OFF/RESET remotely,
see Additional Inputs pages 12-13

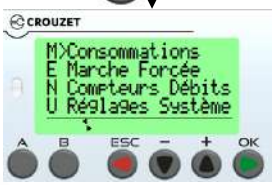
2.1 MENU

On the main page, to access the **MENU**

press B

Select using the buttons + −

Confirm with OK



Selection of Network 1 to 2

Power supply voltage indication
Must be between 24V and 27.5V max.

2.2 CONSUMPTION

Le **CODE1** required (see codes page 6).

Code entry

Selection of Network 1 to 2

***CONSUMPTION of NETWORK No.1* :** Since the reset at midnight, today's consumption (R#1) is 2549 Litres (consumption in Litres)

INDEX: corresponds to the index on the meter. Adjust the electronic index to match the meter if necessary.

Press OK the index flashes; adjust with + −, confirm with OK

Min Flow: 15 Lh, indicates the smallest flow rate recorded since midnight (or since the last detected leak if later than midnight).

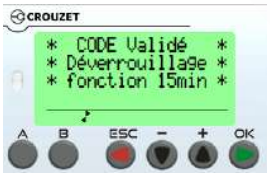
NOTE: Flanged Meters - pulse weight set to 5L or 10L.

To synchronise **the PLC index** with **the meter index** set it as follows:
PLC INDEX (to set) = Meter INDEX xxxxxxx,xxx
Example: flanged meter index 002 125.62 m3, set PLC to 002125.620

2.3 FORCED RUN

Le **CODE1** required (see codes page 6).

Code entry



Selection of Network 1 to 2

FORCED RUN forces the system to temporarily leave MONITORING MODE for a programmed time (adjustable from 1h to 4h, default 2h). Automatic return to Monitoring at the end of the programmed time.
This mode allows high water usage without triggering a Leak alarm.
CAUTION: No leak detection is possible during Forced Run

To change the desired forced-run duration,

Press OK ; the number of hours flashes; adjust with + −, confirm with OK

To start FORCED RUN press B ; press A to stop a forced run in progress.

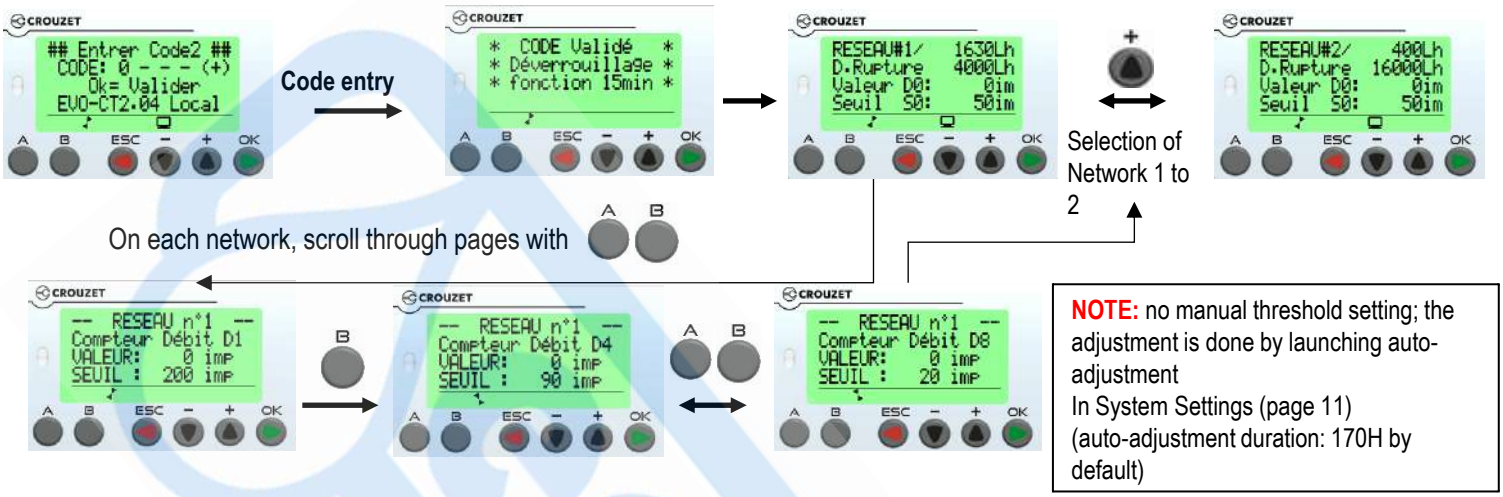
On/ Off indicates whether forced run is active or not. **Ec: 0H** indicates the number of hours elapsed since **On**

NOTE: forced run cannot be activated if the network is OFF or in Auto-adjustment.
Switching a network OFF stops any forced run in progress on that same network.

WARNING: Set the pipe-burst flow rate manually (page 10) and put the system into Leak threshold Auto-adjustment (See page 11).

2.4 FLOW COUNTERS

CODE2 required (see CODES page 6)



NOTE: no manual threshold setting; the adjustment is done by launching auto-adjustment
In System Settings (page 11)
(auto-adjustment duration: 170H by default)

You can view in real time the current values of consumption on the flow counters and the trigger thresholds for alerts.
Current value shows the pulse count of a current stable flow rate. (1 pulse = 1 or 5 litres depending on the weight setting)
(DIEHL METERING flanged meter Dn50-100, set the pulse weight to 5 L in settings)
Threshold setting: shows the default value; if the current stable flow value reaches the threshold value, the Leak Alert is then triggered
In its leak detection program, the system calculates the instantaneous flow rate at each meter pulse.
Once this flow rate is stable, the system starts counting on the counter (Dx) of the corresponding stable flow-rate band.
During water use, you can see which flow counter is advancing (after flow rate stability conditions are met).
If the flow rate is reduced sufficiently, the counter reset can be observed; after the new flow rate stabilises, the current pulse count on the active flow rate counter can be seen.

All flow counters can thus be checked to verify that counting after stabilisation is correct, and to observe the cascading reset when the flow rate slows or stops
When this flow rate slows sufficiently, the system performs a RESET on this counter. If this flow rate stays constant within the flow band, the count will inevitably reach the trigger threshold of the **LEAK Alert.**
The **Safety shut-off** will trigger instantaneously.

*The triggering of the **Safety shut-off** will only occur if the following conditions are met:
1- the leak flow rate must be > or = to the Minimum Detected Leak Flow setting
2- the Shut-off Devices setting must be set to 1 (devices connected)
3- the PLC's IC input (Fire alarm) must not have a broken loop
4- the system must not be in Forced run or out of Monitoring
5- inputs I9 and IA (Monitoring Disabled 1 and 2) must not be powered (24Vdc)

LEAK THRESHOLD AUTO-ADJUSTMENT (default duration 7 days) (Activate AUTO-ADJUSTMENT page 11).
During threshold Auto-adjustment, the alert-threshold setting value adjusts automatically as the current value progresses (increased).
This new alert-threshold value then becomes the reference.

Note: If a leak occurs during an Auto-adjustment period, the detection of this leak may occur late!
Auto-adjustment is stopped if a leak occurs during this period. (Auto-adjustment skewed by the leak)

Monitoring an excessively high flow rate over several pulses allows a sudden pipe burst to be detected.
PIPE-BURST FLOW RATE : Manual setting of the maximum flow rate according to the meter DN.
Value d0: counts the pulses on flow rates > or = to the **burst flow rate**
Threshold S0: (50 Imp by default); if the D0 value reaches the set burst threshold (S0), the water shut-off is instantaneous.
If the flow rate slows sufficiently before reaching the set burst threshold, the D0 value resets to zero.

Stable flow counters (D): flow rate breakdown

	D0 Burst Flow Rate	D1	D2	D3	D4	D5	D6	D7	D8
Version CT2.04	Xxxxx L/H Set according to meter	>=5000L/h	>=3000 <5000L/h	>=1500 <3000L/h	>=720 <1500L/h	>=300 <720L/h	>=100 <300L/h	>=50 <100L/h	>=10 <50L/h
Version RT2.04	Xxxxx L/H Set according to meter	>=1200L/h	>=800 <1200L/h	>=500 <800L/h	>=250 <500L/h	>=100 <250L/h	>=20 <100L/h	>=5 <20L/h	>=1 <5L/h

2.5 SYSTEM SETTINGS

CODE2 required (see CODES page 6)

Code entry

Selection of Network 1 to 2 + Miscellaneous Settings

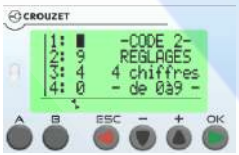
OK

When the network is selected, confirm with OK

A = Return to network selection

MISCELLANEOUS SETTINGS

B



B

B

B

B

CODE1 setting
(Commands access)

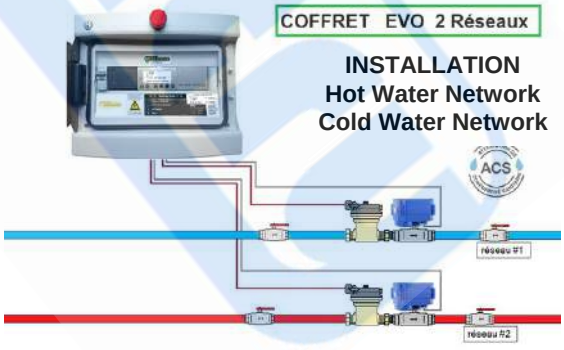
CODE2 setting
(Commands and Settings access)

Dry contact outputs O3 / C5 (NO):
Contacts linkeds to LEAK, CONSUMPTION or EMITTER if the setting is 1 (0 = not linked).
O3=Network#1
C5=Network#2
Pressing A tests the Fault Indicator

Setting of the time and date
Drift adjustment: allows, in certain cases, slowing down or speeding up the clock quartz
Det.Delay: duration 180 sec. (allows delaying the start of detection when switching on).

Connection case
Cold Water / Hot Water Network
To slave the hot water valve to the cold water valve
Set to 1

Setting of the buzzer duration



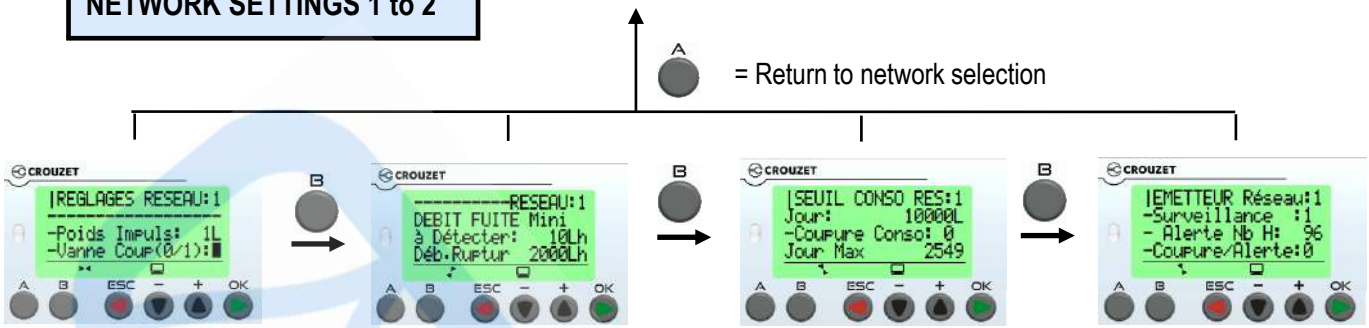
In case of code loss: (emergency unlocking of the system)

On the main screen, simultaneously press the buttons A and +
Then make 10 short presses on the button OK (while keeping + and A held down)
Release everything; the system should be unlocked for 15 minutes.
Go to settings to check codes 1 and 2, and reset them again if necessary.

To cancel the Code1 request (Commands), set CODE 1 to «0000»

INTERNAL CLOCK: the Summer/Winter time change is done automatically.
Depending on installation conditions, altitude, temperature and humidity, the internal clock may drift; in this case the precision drift can be adjusted.
The time and date can be readjusted by navigating to them.
NOTE: It is important that the clock and date are correct, as daily consumption readings and other data may be skewed.

NETWORK SETTINGS 1 to 2



PULSE WEIGHT (of the emitter), Default setting: **1 Litre** , set this value to 5 or 10 Litres for flanged meters Dn50 to Dn100. (5L, special programming k=0.5)
SHUT-OFF VALVE (0/1), Default setting: **1**(solenoid valve or motorised valve installed)
Set to 0 if no shut-off device is installed
With the SHUT-OFF VALVE set to 1, the shut-off will be instantaneous in case of a leak

Minimum Detected LEAK FLOW: the detected leak must have a flow rate > or = to the setting to be detected; otherwise the leak is ignored.
Default setting: Version Soft CT2.04: **10L/h** —Version Soft RT2.04: **1L/h**
FLOW RATE of BURST: IMPORTANT/ this value is the reference flow rate not to be exceeded; otherwise the system considers there is a pipe burst. Set it to the same value as the nominal flow rate of the meter (see meters table, page 4)

CAUTION: Do not set the minimum detectable leak flow too high (recommended <50L/H)
LEAK detection will only occur if a leak is > or = to the setting of the Minimum Detected Leak Flow
Version CT2.04: Meters dn15 to dn40, set the minimum to 10L/h; flanged meters dn50 to dn80 to 25L/h; dn100 to 40L/h

CONSUMPTION ALARM THRESHOLD: Default setting: Version Soft CT2.04: **10 000L** -Soft RT2.04: **2000L** (network 1 to 2)
The excessive consumption alert triggers when daily consumption reaches the threshold setting.
Adjust this setting according to usual daily consumption (+50% to +100%)
Refer to the Max Day consumption to adapt the alert threshold setting
Max Day: indicates the maximum volume reached in one day since January 1st of the year.
Consumption Shut-off: default SHUT-OFF setting on Consumption Alert: **0(OFF)**
In case of Consumption Alarm, the fault is displayed on the main screen. The buzzer sounds (intermittent).
To set the SHUT-OFF on consumption alert to ON, set to 1
On the main page, to stop the alert buzzer, press A
The daily consumption count is reset to 0 every day at midnight,
The alert will therefore clear by itself at that time.
If the following day the consumption becomes excessive again, the alert will trigger again.

Note: If the network is in Forced Run and the consumption threshold is exceeded, there will be no general shut-off of the network.

Monitoring: Default setting for Emitter Monitoring: **1 (ON)**
To set Emitter Monitoring to OFF, set to 0
ALERT No. of hours: Default setting: **96 hours** (adjustable, do not set too high a value)
Number of hours without consumption after which the system triggers the alert.
The system monitors the pulses regularly coming from the emitter 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 ringing).
Shut-off / Alert: Default setting for Safety Shut-off on Alert triggering: **0 (OFF)**
To set the Safety Shut-off to ON, set to 1

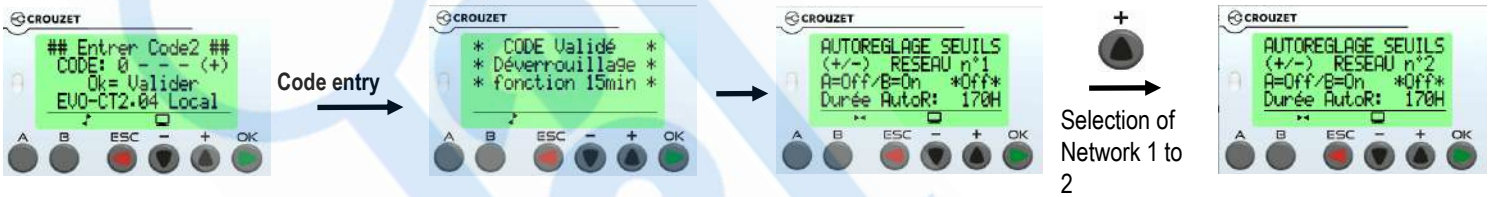
Note: If the network is in Forced Run and the number of hours is exceeded, there will be no general shut-off of the network.

WARNING: Leak detection is delayed during the leak-threshold Auto-adjustment period, because the system sets the thresholds according to the volumes consumed in the flow-rate bands. If a leak occurs during this period, the system stops the auto-adjustment because the threshold settings have been skewed by the leak (set to excessively high values).
Repair the leak before restarting Auto-adjustment under proper conditions.

CAUTION: frequently restarting an auto-adjustment is strongly discouraged because leaks would be detected late, leading to greater water losses.

2.6 LEAK THRESHOLD AUTO-ADJUSTMENT

The **CODE 2** required (see codes page 6).



LEAK ALERT THRESHOLD AUTO-ADJUSTMENT
The LEAK alert thresholds trigger the Leak Alert if a stable flow rate lasts too long within a flow rate band.

To perform an automatic adjustment of the alert thresholds press B ; to stop an auto-adjustment in progress, press A
The buzzer sounds once to indicate entering auto-adjustment mode; the display **«*On*»** appears
Auto-adjustment Duration: Default setting: **170H** (Adjustable)
For 7 days, the system will adjust the thresholds based on the maximum values reached in the different flow-rate bands.

On the main page, the **«M»** (Run) flashes to indicate that the network is in an Auto-adjustment period

IMPORTANT: PERFORM an AUTO-ADJUSTMENT of all networks when installing the system

Note: A network in Forced Run mode cannot be put into Auto-adjustment and vice versa.
A Leak Alert triggered during a network's Auto-adjustment stops the auto-adjustment of that network,
Find and repair the leak, then restart the auto-adjustment to On (allows resetting the leak thresholds again to real values)
Set the burst flow rate manually (see page 10)

2.7 LOG

The last 4 Leak Alerts are recorded in a log
The recorded leak flow rate is stored.

Note: The oldest recorded leak is n°A; the most recent is n°D.
After 4 records, each new recorded leak shifts the log;
the most recent leak is n°D
Recorded leaks do not specify the network concerned
Press + or − to change page

3.0 ADDITIONAL INPUTS

IC Input: 

Normally closed loop.

If the +24Vdc/IC loop is interrupted, the fire alarm is triggered; both network valves open regardless of their state (On or Off); leak detection is interrupted as long as the IC loop is not closed again the intermittent buzzer is triggered.

To stop the buzzer press 

Wire +24Vdc/IC to an NC dry contact linked to fire alarm activation. See diagram below

In case of fire alarm, the contact opens, the loop is interrupted, the alert is triggered.

A water emergency button with an NC contact can be connected in series.

Inputs I7, I8: 

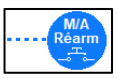
connection of a 56-program WEEKLY TIMER progr. The networks open and close on the days and programmed hours. (several Timers can be connected for different openings/closings on each network)

Inputs I9, IA: 

connection of a TIMER or push button, py a 24Vdc pulse (NO push-button closure) the network switches to Monitoring Disabled for a maximum of 2 hours. To end Monitoring Disabled sooner, switch the network Off then On.

Inputs ID, IE: 

connection of floor flood sensors; if water is detected on one of the sensors, after 30 sec the system goes into Alarm on the relevant network and activates the safety shut-off (valve closed)

Inputs I3, I4: 

Inputs for executing remote On/Off/Reset commands

Connect a push button or radio receiver to I3 for Network 1, to I4 for Network 2

one press opens or closes the network (depending on the current state); a 3-sec press Resets the Network.

Output O1: 

24Vdc static output linked to the alert buzzer. (siren) 5W max

Output O2: 

24Vdc static output linked to Leak, Emitter, Fire and Consumption Alerts. (remote Alert) 5W max

A 24Vdc remote alert indicator can be connected.

Output O3: 

Dry contact linked to Network #1 Alerts: Leak, Emitter and Consumption.

max 8A (see miscellaneous settings page 9)

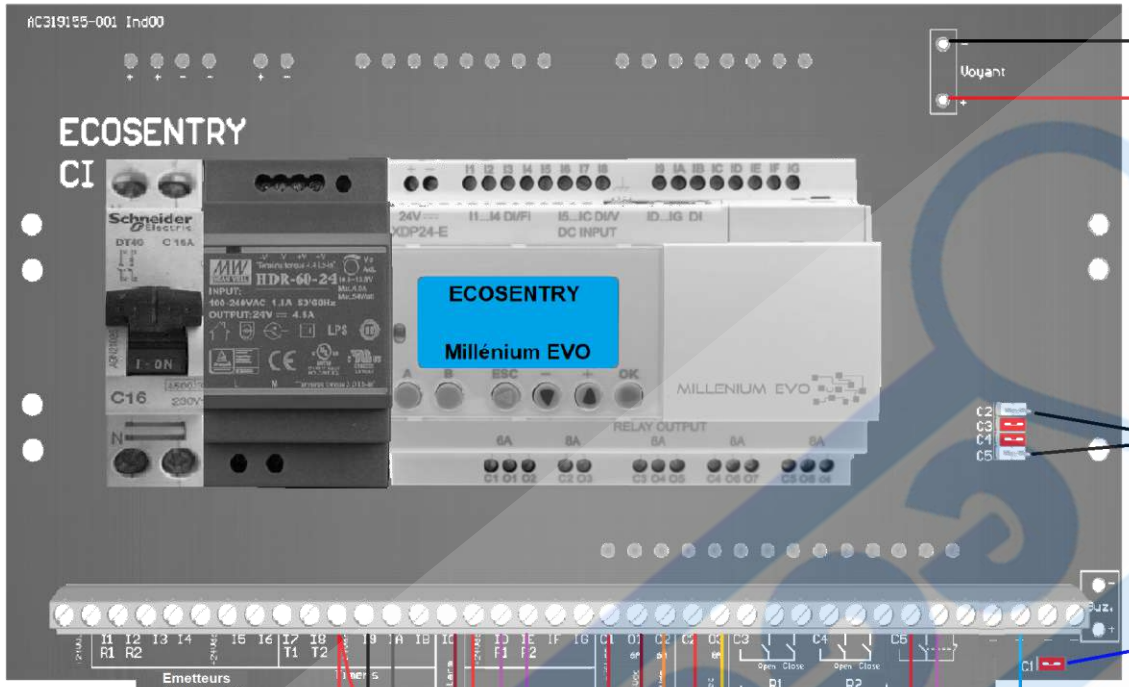
A 230V remote alert indicator can be connected (do not fit jumper C2 on the board).

Output C5: 

Dry contact linked to Network #2 Alerts: Leak, Emitter and Consumption.

max 8A (see miscellaneous settings page 9)

A 230V remote alert indicator can be connected (do not fit jumper C5 on the board).



Connector

FAULT INDICATOR
Maxi 2w 24VCC

TIMER OPTION
Weekly Timer
56 hourly programs

TIMER Network 1

If the 230VAC indicator light is on, do not connect jumpers C2 and C5.

Remove jumper C1 to disable the buzzer

When the contact closes, the water network is switched off for a maximum of 2 hours.

NC dry contact
FIRE ALARM

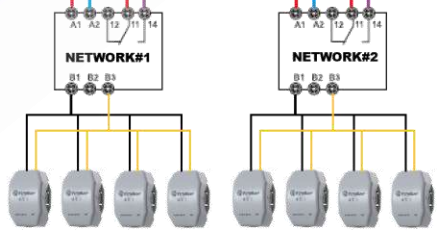
230Vac

TIMER Network 2

230vac

FAULT INDICATOR
230VAC
NETWORK #1

FAULT INDICATOR
230VAC
NETWORK #2



FLOOD SENSORS

24V DC siren
(Linked to buzzer)

24VDC Fault
Indicator Light
(Linked to buzzer)

4.0 SPECIFICATIONS

Made in France

General characteristics (PLC EVO)

Product certifications: CE, cULus Listed
Compliance with the Low Voltage Directive (acc. 2014/35/EU): IEC/EN 61131-2 (Open equipment)
Compliance with the EMC Directive (acc. 2014/30/EU): IEC/EN 61000-6-1 (Residential, commercial and light industry)
IEC/EN 61000-6-2 (Industrial), IEC/EN 61000-6-3 (Residential, commercial and light industry)
IEC/EN 61000-6-4 (Industrial)
Earthing: None
Overvoltage category: 3 acc. IEC/EN 60664-1
Pollution: Level 2 acc. IEC/EN 61131-2
Maximum operating altitude: For operation: 2000 m, for transport: 3000 m
Mechanical strength: Vibration immunity IEC/EN 60068-2-6, test Fc, Shock immunity IEC/EN 60068-2-27, test Ea
Electrostatic discharge withstand: ESD immunity IEC/EN 61000-4-2, level 3
HF interference withstand: Radiated field immunity IEC/EN 61000-4-3, level 3
Fast transient/burst immunity IEC/EN 61000-4-4, level 3
Surge immunity IEC/EN 61000-4-5, Common mode radio frequency IEC/EN 61000-4-6, level 3
Conducted and radiated emissions (acc. EN 55022/11 group 1): Class B
Operating temperature: -20°C →+60°C (+40°C in unventilated enclosure)
Storage temperature: -40°C → +80°C
Relative humidity: 95% max. (no condensation or dripping)
Screw terminal wiring capacity: Flexible wire with ferrule: 1 conductor: 0.2 to 2.5 mm²

Power Supply

Operating voltage: 24 VDC (-15% / +20%)
Operating limits: 20.4 - 28.8 VDC
Micro-break immunity: <= 1 ms (20 repetitions)
Maximum power consumption: 3.8 W @ 24 VDC, 5 W @ 28.8 VDC, -0.3 W backlight off
Polarity reversal protection: Yes

Processing Characteristics

LCD display: 4-line 18-character display
Programming method: FBD (Function Block Diagram), including SFC (Sequential Function Chart) (Grafcet)
Program size: Function blocks: 512 typical blocks, Macro blocks: 127 max (255 blocks per macro)
Program memory: Flash, Removable memory: N/A, Data memory: 2 kbytes
Backup time (in case of power failure): Program and settings in controller: 10 years, Data memory: 10 years
Data backup: Flash-backed data guaranteed if the product is powered for more than 10 seconds
Cycle time: 2 ms* to 90 ms, default value: 10 ms - 30* depending on configuration
Clock battery life: 10 years at 25°C (lithium battery)
Clock drift: Drift < 12 min / year (at 25°C), 6 s / month (at 25°C with calibration). Synchronisable over the network
Timer block accuracy: 0.5% ± 2 cycle times
Availability at power-on: < 8 s Base alone, < 5 s Base + 2 extensions + 1 interface (RS485)
Self-test: Firmware integrity test of the firmware (memory checksum), Internal power supply stability
Verification of hardware configuration compliance with the application program configuration

Power Supply 24 V DC 60W

Nominal output voltage: 24 V (22,8 V ➞28,8 V)
Output power: 60 W
Nominal output current: 2,5 A

SEE EMITTER, METER and VALVE SPECIFICATIONS in the supplied instructions.
The checks and tests performed ensure the product complies with the European Directive requirements.

Download the Technical Data Sheets

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