2026 Water circuit breakers -ENCLOSURE "EVO" - 2 Water

- RESIDENTIAL MODELS (Apartments, houses, villas, etc.)
- COMMERCIAL/INDUSTRIAL MODELS (Offices, Warehouses, Buildings, Industry, etc.)

2 Models: LOCAL (Modbus RS485 Option) and ETHERNET

FEATURES

LEAK MONITORING on 1 to 2 water networks
Leak flow rate monitoring from 10 L/h (DN15-40), 25 L/h (DN50-80), 40 L/h (DN100)

- Connection of 2 water meters
- Connection of 2 motorized valves
- Connection of 1 to 2 Timers (options) for automatic network opening/closing at programmed times and days (52 programs / 7 days)
- Remote control button connections

BUZZER high-power integrated (adjustable duration)
Integrated red LED alert indicator

PIPE BURST DETECTION, rapid shut-off

DAILY CONSUMPTION MONITORING
For each network (1 to 2)
Adjustable alert shut-off thresholds
PULSE EMITTER MONITORING
for each network (1 to 2)
Shut-off on Emitter Alert (enable/disable)

AUTOMATIC LEAK THRESHOLD ADJUSTMENT
for each network (1 to 2)

CONNECTIONS

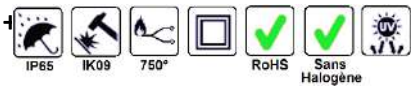
2 PULSE EMITTER INPUTS
2 FLOOD SENSOR INPUTS
2 BYPASS INPUTS (adjustable 1-4h)
2 REMOTE BUTTON INPUTS ON/OFF/ Reset
1 FIRE ALARM INPUT - opens both water networks instantly in case of alarm.

Valve 2 can be configured as slave to Valve 1 (safety feature - cold + hot water dual network)

OPTIONS: Bluetooth smartphone connection, etc.
- MODBUS RS 485, ETHERNET
- Remote 24Vdc 100dB siren, remote alert indicator
- Telephone transmitter
- Gateway (SMS transmission)
- Electronic clock (automatic open/close) Bluetooth KEY (time programming via smartphone)
- Flood sensors (rapid shut-off in case of flooding on a network)

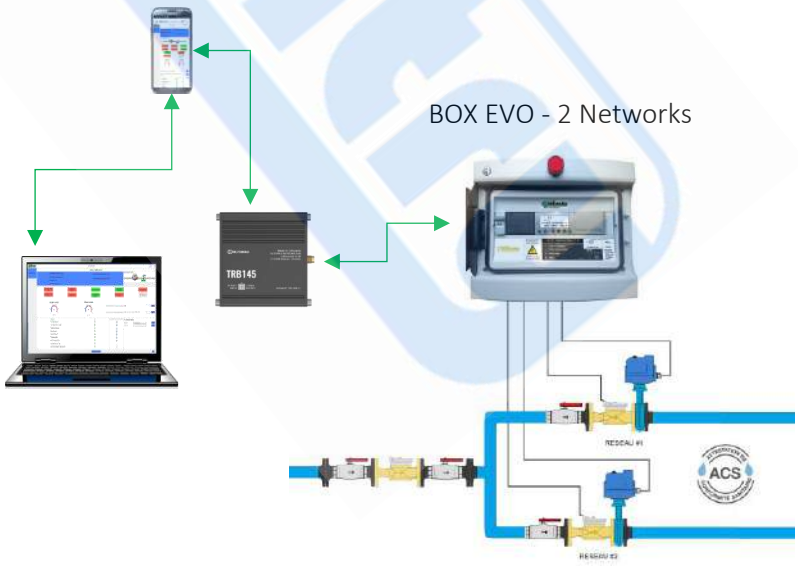
COMPOSITION

1 Polycarbonate enclosure dimensions 314x263x143mm



- Circuit breaker
- Custom 24Vdc PLC EVO
- 60VA 24Vdc Power supply + Buzzer + red indicator
- Terminal block
- Water meter DN15 to DN100

EASY INSTALLATION



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Technical specifications for water leak detectors

EVO (2 Networks) 2026

2 water networks COMMERCIAL-COLLECTIVE (Option: Modbus RS485)

COMMERCIAL	VERSION EVO CT2.04 LOCAL
COMMERCIAL	VERSION EVO CT2.04 ETHERNET

② During AUTO-ADJUSTMENT, leak thresholds (max volume across different flow rate levels) are automatically set to the maximum observed volumes,
These thresholds are increased by 80%.
③ The burst flow rate is set manually according to the meter size (DN)

SPECIFICATIONS ① =Local setting and from BMS/BAS (with Modbus or Ethernet option)	EVO CT2.04 LOCAL	EVO CT2.04 ETHERNET
Polycarbonate enclosure 314x263x143mm + watertight door IP65	YES	YES
Circuit breaker	YES	YES
LCD screen backlight 4 lines of 18 characters	YES	YES
Power consumption screen ON / screen OFF	4w / 0.3w	4w / 0.3w
Integrated buzzer (triggered on Alert) (adjustable duration)	YES	YES
Password 1 / COMMANDS access (4 changeable digits)	YES	YES
Password 2 / SETTINGS access (4 changeable digits)	YES	YES
Backup on mains power failure (10-year data memory)	YES	YES
Leak flow rate monitoring from (L/h): R1 to R2	10 (dn15-40) 25 (dn50-80) 40 (dn100)	10 (dn15-40) 25 (dn50-80) 40 (dn100))
LEAK detected -> 1st Alert: R1 to R2	YES	YES
Detection delay at activation: R1 to R2	180 sec (adjustable)	180 sec (adjustable)
Minimum leak detection flow rate (adjustable): R1 to R2	YES	YES
Flood detection (flood sensor option): R1 to R2	YES (Option)	YES (Option)
Pipe burst detection (rapid shut-off): R1 to R2	YES	YES
AUTO-ADJUSTMENT COMMAND for leak thresholds: R1 to R2 ②	YES ①	YES ①
Auto-adjustment duration, adjustable: R1 to R2	YES	YES
MANUAL COMMAND for burst flow rate: R1 to R2 ③	YES	YES
TIMER: Automatic opening/closing of networks R1 to R2 (option)	YES	YES
ON/OFF COMMAND (open/close): R1 to R2	YES ①	YES ①
RESET COMMAND (open): R1 to R2	YES ①	YES ①
FORCED RUN COMMAND (2h), adjustable 1 to 4h: R1 to R2	YES ①	YES ①
Fault Acknowledgement (buzzer off)	YES	YES
Daily consumption monitoring: R1 to R2	YES	YES
Manual setting of consumption alert threshold: R1 to R2	YES	YES
Shut-off on Consumption Alert (on/off setting): R1 to R2	YES	YES
Pulse emitter monitoring (on/off setting): R1 to R2	YES	YES
Max duration without pulses (96h), setting from 1 to 9999h: R1 to R2	YES	YES
Shut-off on Emitter Alert (on/off setting): R1 to R2	YES	YES
Shut-off device selection: R1 to R2 (0=no device: 1=solenoid valve or motorized valve)	YES	YES

Technical specifications for water leak detectors

EVO (2 Networks) 2026

2 water networks COMMERCIAL-COLLECTIVE (Option: Modbus RS485)

SPECIFICATIONS 1=Local setting and from BMS/BAS (with Modbus or Ethernet option)	EVO CT2.04 LOCAL	EVO CT2.04 ETHERNET
Network 2 shut-off slaved to Network 1 shut-off (cold water + hot water network) Slaving adjustable on/off	YES	YES
1 Configurable dry contact output FAULT ALERT relay (for network #1)	YES	YES
1 Configurable dry contact output FAULT ALERT relay (for network #2)	YES	YES

LCD SCREEN DISPLAYS 1=Value/status forwarding to BMS/BAS (with Modbus or Ethernet option)	EVO CT2.04 LOCAL	EVO CT2.04 ETHERNET
General Daily Cumulative Consumption (pulse count): R1 to R2	YES	YES
Meter INDEX: R1 to R2	YES 1	YES 1
Minimum recorded flow rate for the day (L/h) (from midnight): R1 to R2	YES 1	YES 1
Flow rate (L/h): R1 to R2	YES 1	YES 1
Recorded leak flow rate (L/h): R1 to R2	YES 1	YES 1
Log of the last 4 recorded leaks (leak flow rate, network number)	YES	YES
LEAK Alert on main network: R1 to R2	YES 1	YES 1
Pipe burst Alert: R1 to R2	YES 1	YES 1
CONSUMPTION Alert: R1 to R2	YES 1	YES 1
General network SHUT-OFF: R1 to R2	YES 1	YES 1
FLOOD ALERT: R1 to R2 (water sensor unit as option)	YES 1	YES 1
EMITTER Alert: R1 to R2	YES 1	YES 1
FIRE ALARM Alert	YES 1	YES 1
Auto-adjustment of leak thresholds (On/Off status): R1 to R2	YES 1	YES 1
System On/Off (valve open/valve closed): R1 to R2	YES 1	YES 1
Forced Run (On/Off status): R1 to R2	YES 1	YES 1
TIMER (On/Off status): R1 to R2 (Timer as option)	YES 1	YES 1
Shut-off on Consumption Alert (on/off status): R1 to R2	YES 1	YES 1
Shut-off on Emitter Alert (on/off status): R1 to R2	YES 1	YES 1
Pulse emitter monitoring (on/off status): R1 to R2	YES 1	YES 1
Date, Time (adjustable)	YES 1	YES 1
Software version	YES	YES
Program error / Error number	YES 1	YES 1

Technical specifications for water leak detectors

EVO (2 Networks) 2026

2 water networks COMMERCIAL-COLLECTIVE (Option: Modbus RS485)

INPUT / OUTPUT Connections	EVO CT2.04 LOCAL	EVO CT2.04 ETHERNET
2 Emitter Inputs (E1, E2)	YES	YES
2 Inputs - Automatic start/stop at programmed times (Electronic clock 56 programs/7 days not included)	YES	YES
2 Inputs Forced Run (Adjustable 1-4h in Forced Run menu)	YES	YES
2 Remote control inputs R1 to R2 (On/Off/Reset)	YES	YES
2 Flood sensor inputs R1 to R2	YES	YES
1 Fire alarm input (loop break)	YES	YES
2 Open/close outputs (motorized valve / solenoid valve)	YES	YES
1 24Vdc output (max 5W) External siren (slaved to buzzer O1)	YES	YES
1 24Vdc output (max 5W) Fault indicator relay (O2)	YES	YES
1 Dry contact output O3 (network #1 alert relay (Indicator, SMS Transmitter))	YES	YES
1 Dry contact output C5 (network #2 alert relay (Indicator, SMS Transmitter))	YES	YES
MODBUS RS485 AS OPTION	YES	NO
MODBUS TCP/IP AS OPTION	NO	INCLUS
Bluetooth module, control from smartphone, PC (*only without Modbus)	YES*	YES

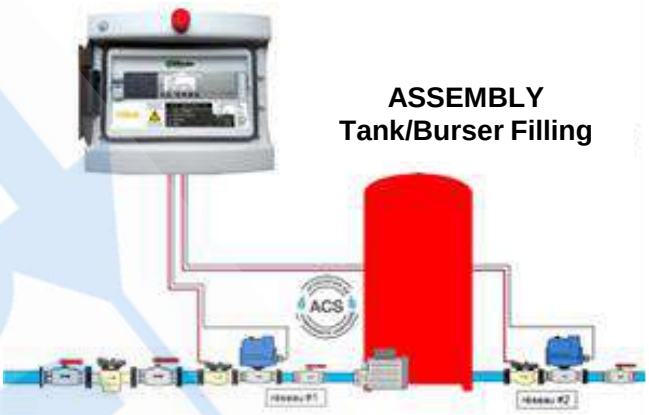
BMS / BAS	EVO CT2.04 LOCAL	EVO CT2.04 ETHERNET
With BMS/BAS supervision (Modbus or Ethernet)	YES	YES
Consumption / event archiving from BMS	YES	YES
Display of the status of 2 networks	YES	YES
Commands (R1 & R2): On, Off, Reset, Leak threshold auto-adjustment, Forced Run	YES	YES
Display of Alerts, Leak flow rates		

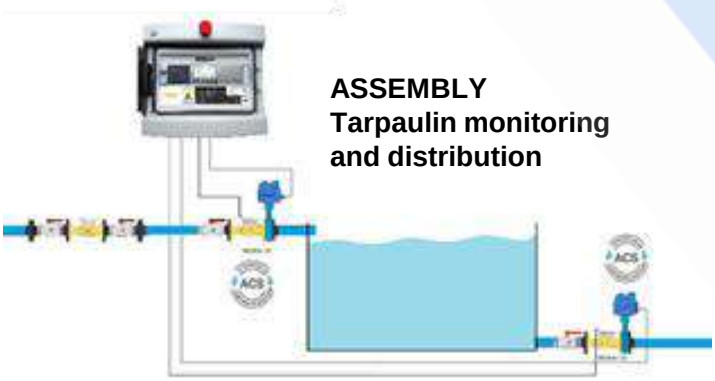
GATEWAY	EVO CT2.04 LOCAL	EVO CT2.04 ETHERNET
With Gateway supervision (Modbus RS485)		
SMS ALERT sending	YES	-
Consumption archiving	YES	-
Display of the status of 2 networks	YES	-
Remote control of Commands (R1 & R2): On, Off, Reset, Leak threshold auto-adjustment, Forced Run	YES	-
Display of Alerts, Leak flow rates	YES	-

Detection enclosure 314x263x143mm
IP65IK09
Translucent door
IP65 IK09 - Translucent door (lock as option)
Crouzet Millennium EM4 PLC
Power supply Meanwell 230vac/24vcc 60w
Option: Modbus RS485, Weekly TIMER, Bluetooth

2-network installation
Independently monitors leaks on 2 separate networks

Upstream & Downstream Booster Pump installation
Independently monitors leaks upstream of the booster pump (with expansion vessel) and downstream towards distribution





Upstream & Downstream Tank -
independently monitors leaks from tank filling and downstream distribution

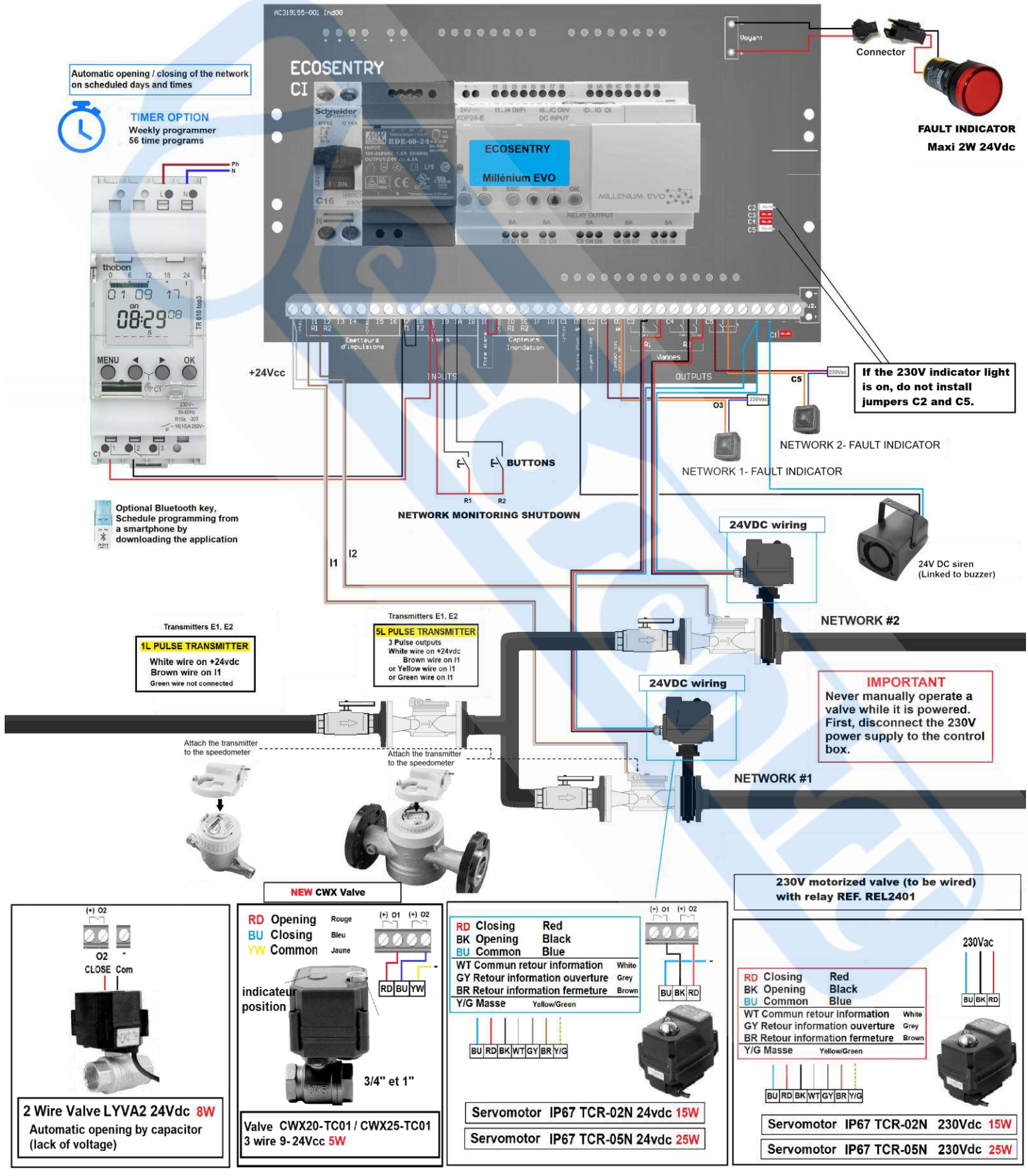
2-network installation
1 Cold Water (CW) network + 1 Hot Water (HW) network
If the CW network shuts off, the HW network also closes for safety (burn hazard)

Water leak detectors meeting the requirements of the **label HQE** et **label BREEAM**

Technical specifications for water leak detectors

EVO (2 Networks) 2026

2 water networks COMMERCIAL-COLLECTIVE (Option: Modbus RS485)



XDP24 XDP24-E

General features

XDP24-E Ethernet Modbus TCP/IP (Client/Server): Yes (16 address ranges / 16 words + 8 bits)
Datalog via email or FTP: Yes (16 data items; 32,000 records)
Event management via email: Yes (12 events)
XDP24 Modbus RTU RS485 (Slave): Yes via interface (16 words + 8 bits)
Local datalog: Yes (16 data items; 6,000 records)
Bluetooth Yes via interface

General specifications

Product certifications CE, cULus Listed
Low Voltage Directive compliance (acc. 2014/35/EU) IEC/EN 61131-2 (Open equipment)
EMC Directive compliance (acc. 2014/30/EU)
(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)
Power supply grounding: None
Overvoltage category 3 acc. IEC/EN 60664-1
Pollution degree: 2 acc. IEC/EN 61131-2
Maximum operating altitude: Operation 2000 m / Transport 3000 m
Mechanical endurance - 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 (immunity)
Radiated electrostatic 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 to +60°C (+40°C in unventilated enclosure); UL: max. surrounding air +50°C
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, AWG 24-14
2 conductors: 0.2 to 0.75 mm², AWG 24-18
Rigid wire: 1 conductor: 0.2 to 2.5 mm², AWG 24-14
2 conductors: 0.2 to 0.75 mm², AWG 24-18
Tightening torque: 0.5 N.m (tighten with 3.5 mm screwdriver) / Strip length: 6 mm
Material Lexan, UL94V0
Environment: Reach, RoHS, halogen-free 1272/2008/EC
Front panel color: Grey RAL 7035 / Base color: Black RAL 9011
Protection degree (acc. IEC/EN 60529): IP 40 on front panel / IP 20 on terminal block
Weight: Without packaging: 270 g / Including packaging: 330 g / Without packaging: 330 g / Including packaging: 380 g
Without packaging: 124.6 x 90 x 62 mm
Including packaging: 148 x 103 x 65 mm

Processing characteristics

LCD display: 4-line 18-character display, green/yellow
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 (on power failure): Program and settings in controller: 10 years
Data memory: 10 years
Flash-backed data guaranteed if product powered for more than 10 seconds
Cycle time: 2 ms* to 90 ms, default value: 10 ms /* : depending on configuration
Clock backup autonomy: 10 years at 25°C (lithium battery)
Clock drift: < 12 min/year (at 25°C) / 6 s/month (at 25°C with calibration). Synchronizable via network
Timer block accuracy: 0.5% ± 2 cycle times
Availability at power-up:
XDP24: < 8 s (base only), < 5 s (base + 2 ext. + 1 RS485 interface)
XDP24-E: < 10 s (base only), < 5 s (base + 2 ext. + 1 RS485 interface)
Self-test: Firmware integrity check firmware (memory checksum) / Internal power supply stability
Verification of hardware configuration compliance with the application program configuration

Power supply

Operating voltage: 24 VDC (-15%/+20%) / Operating limits: 20.4 to 28.8 VDC
Immunity to micro-interruptions: ≥ 1 ms (repeated 20 times)
Maximum power consumption
XDP24: 4W @ 24VDC, 5.3W @ 28.8VDC, -0.3W backlight off, 1.5W @ 24VDC (I/O + backlight) = 0
XDP24-E: 5W @ 24VDC, 6.5W @ 28.8VDC, -0.3W backlight off, 1.5W @ 24VDC (I/O + backlight) = 0
Polarity reversal protection Yes
Power supply monitoring: Yes, value available via "FB Status" application 1/10V, 5%

24 VDC digital and fast digital inputs - 4 inputs I1 to I4

Input used as digital

Input voltage: 24 VDC (-15%/+20%)
Input current: 1.8 mA @ 20.4 V / 2.1 mA @ 24 V / 2.5 mA @ 28.8 V
Input impedance: 11.6 kΩ
Turn-on voltage at logic state 1: 15 VDC / Turn-on current at logic state 1: 1.3 mA
Release voltage at logic state 0: 10 VDC / Release current at logic state 0: 0.8 mA
Response time: 1 to 2 cycle times
Sensor type Contact, PNP 3-wire
Compliance: IEC/EN 61131-2 Type 1
Input type: Resistive
Isolation between supply and inputs: None
Isolation between inputs: None
Polarity reversal protection Yes
Status indicator: On LCD screen / Cable length: ≤ 30 m

Input used as fast digital

Maximum counting frequency - 3-channel encoder (I1, I2, I3): 5 kHz*
2 independent counters (Cumul,IND,DIR): 2-channel 10 kHz*, 4-channel 5 kHz*,
2 independent counters (PH,PH2): 2/4-channel 5 kHz*
4 independent counters (Up/Down): 1-channel 15 kHz*, 2-channel 10 kHz*, >2-channel 5 kHz*
* cycle time = 10 ms, ton/toff = 50%±5%, level 0<2V, level 1>20.4V
Other functions: 4 tachometers (I1, I2, I3, I4)
Cable length: ≤ 3 m with twisted shielded cable

24 VDC digital and 12-bit/28.8V potentiometric analog inputs - 8 inputs I5 to IC

Input used as digital

Input voltage: 24 VDC (-15%/+20%) / Input current: 1.8 mA @ 20.4 V / 2.1 mA @ 24 V / 2.5 mA @ 28.8 V
Input impedance: 11.6 kΩ
Turn-on voltage at logic state 1: 11 V
Turn-on current at logic state 1: 1 mA
Release voltage at logic state 0: 9 V
Release current at logic state 0: 0.7 mA
Response time: 1 to 2 cycle times
Sensor type Contact or PNP 3-wire
Compliance: IEC/EN 61131-2 Type 1
Input type: Resistive
Isolation between supply and inputs: None
Isolation between inputs: None
Polarity reversal protection Yes
Status indicator: On LCD screen
Cable length = 30 m

Input used as analog

Measurement range: 0→10 V, 0→supply voltage, or voltmeter
Input impedance: 11.6 kΩ
Input voltage: 28.8 VDC max.
Input type: Common mode
Resolution: 12-bit at max input voltage (10-bit at 10V)
LSB value 7,03 mV
Conversion time: Controller cycle time
Max error in 0→10V mode: ±3.5% of full scale @ 25°C / ±5% of full scale @ 55°C
Max error in 0→supply voltage mode: ±5% of full scale @ 25°C / ±6.2% of full scale @ 55°C
Repeatability at 55°C ± 2 %
Voltmeter: 0 to 30.5 V, 5%
Analog channel and supply isolation: None
Polarity reversal protection Yes
Potentiometer control: 2.2 kΩ / 0.5 W (recommended) / 10 kΩ max.
Cable length: ≤ 10 m with shielded cable (non-isolated sensor)

24 VDC digital inputs - 4 inputs ID to IG

Input voltage: 24 VDC (-15%/+20%) / Input current: 1.5 mA @ 20.4 V / 1.7 mA @ 24 V / 2.1 mA @ 28.8 V
Input impedance: 13.9 kΩ
Turn-on voltage at logic state 1: 11 VDC
Turn-on current at logic state 1: 0.8 mA
Release voltage at logic state 0: 8 VDC
Release current at logic state 0: 0.5 mA
Response time: 1 to 2 cycle times
Sensor type Contact or PNP 3-wire

Compliance: IEC/EN 61131-2 Type 1
Input type: Resistive
Isolation between supply and inputs: None
Isolation between inputs: None
Polarity reversal protection: No
Status indicator: On LCD screen
Cable length = 30 m

Outputs

6A relay outputs - 2 outputs O1 to O2

Switching voltage 250 Vac max / Switching current 6 A / Derating : UL : = 45 °C : 4A max
Switching current in common: CEI @ 25°C: 12 A / CEI @ 60°C or UL: 10 A
Mechanical lifetime 5 000 000 (operating cycles) / Electrical durability for 50,000 operations
24 Vcc tau = 0 ms : 6 A, tau = 7 ms : 3 A, tau = 15 ms : 1,8 A
Utilization category DC-12: 24 V, 6 A / DC-14: 24 V, 1.8 A
250 Va cos phi = 1 : 6 A, cos phi = 0,7 : 5 A, cos phi = 0,4 : 2,5 A
Utilization category AC-12: 250 V, 6 A / AC-13: 250 V, 5 A / AC-15: 250 V, 2 A
Minimum switching current: 100 mA (at minimum voltage of 12 V)
Maximum operating rate: No-load 10 Hz / At rated current: 0.1 Hz
Rated impulse withstand voltage: 4 kV acc. IEC/EN 60947-1 and IEC/EN 60664-1
Response time: Pick-up = 1 cycle time + 8 ms max / Drop-out = 1 cycle time + 4 ms max
Built-in protections Against short-circuit: None
Against overvoltages and overloads: None
Status indicator: On LCD screen
Cable length = 30 m

8A relay outputs - 6 outputs O3 to O8

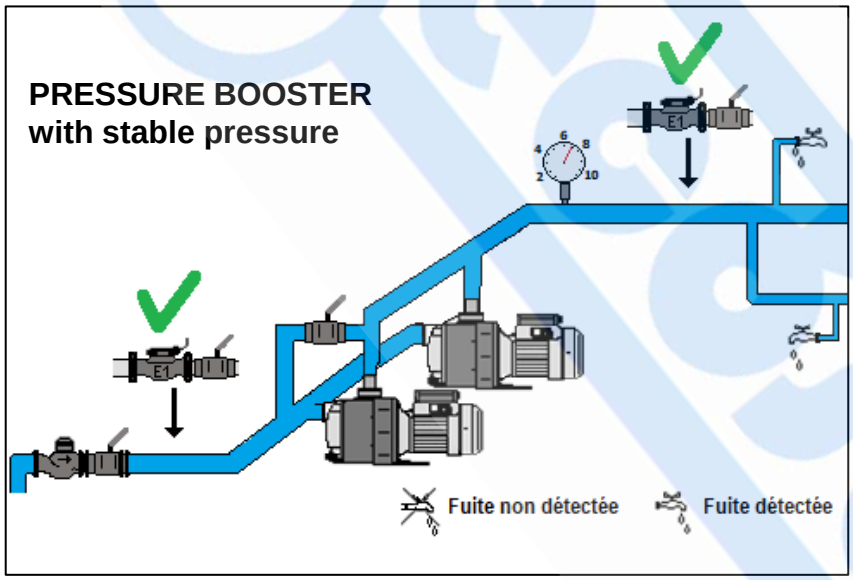
Switching voltage: 250 Vac max / Switching current: 8 A / Derating: CEI ≥ 55°C or UL ≥ 45°C: 6A max
Switching current in common: CEI @ 25°C: C3,C6: 8A; C4,C5: 16A / CEI @ 60°C or UL: C3,C6: 8A; C4,C5: 10A
Mechanical lifetime 20 000 000 (operating cycles) / Electrical durability for 50,000 operations
24 Vcc tau = 0 ms : 8 A, tau = 7 ms : 3 A, tau = 15 ms : 1,5 A
Utilization category DC-12: 24 V, 8 A
Utilization category DC-14: 24 V, 1.5 A
250 Va cos phi = 1 : 8 A, cos phi = 0,7 : 4,75 A, cos phi = 0,4 : 3 A
Utilization category AC-12: 250 V, 8 A
Utilization category AC-13: 250 V, 4.3 A
Utilization category AC-15: 250 V, 1.5 A
Minimum switching current: 100 mA (at minimum voltage of 12 V)
Maximum operating rate: No-load 10 Hz / At rated current: 0.1 Hz
Rated impulse withstand voltage: 4 kV acc. IEC/EN 60947-1 and IEC/EN 60664-1
Response time: Pick-up = 1 cycle time + 10 ms max / Drop-out = 1 cycle time + 5 ms max

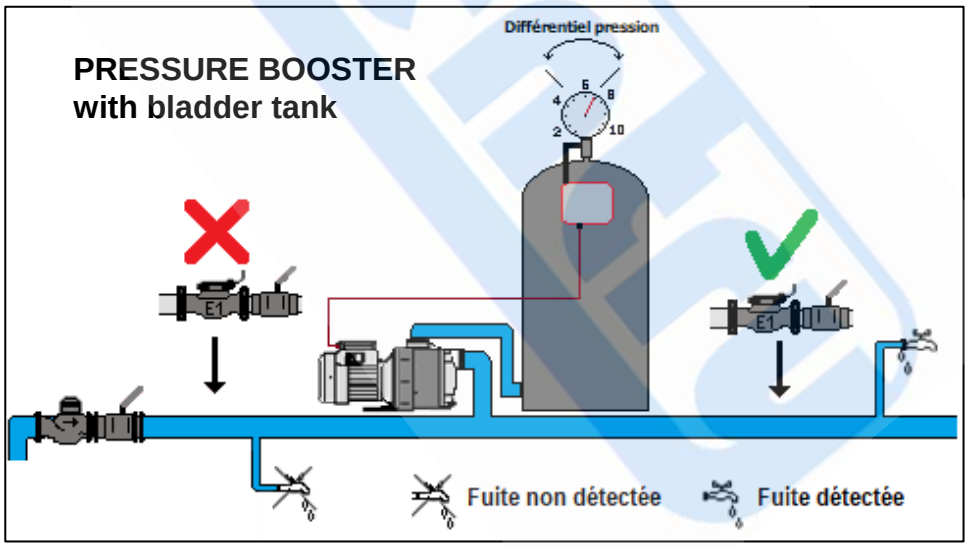
Built-in protections Against short-circuit: None
Against overvoltages and overloads: None
Status indicator: On LCD screen
Cable length = 30 m

XDP24-E

Ethernet Network

Programming / operation - USB & Port Ethernet / Port Ethernet
Ethernet connection: Type RJ45, 10/100 Mbit/s, MDI/MDIX
Addressing: Static or dynamic (DHCP server / Auto IP)
Protocols: Modbus TCP (client/server), Discovery, UDP, TCP, SMTP, SSL (workshop via Ethernet)
Network length - Maximum length between 2 devices: 100 m
Ethernet grounding: Yes, refer to the service instruction provided with the product





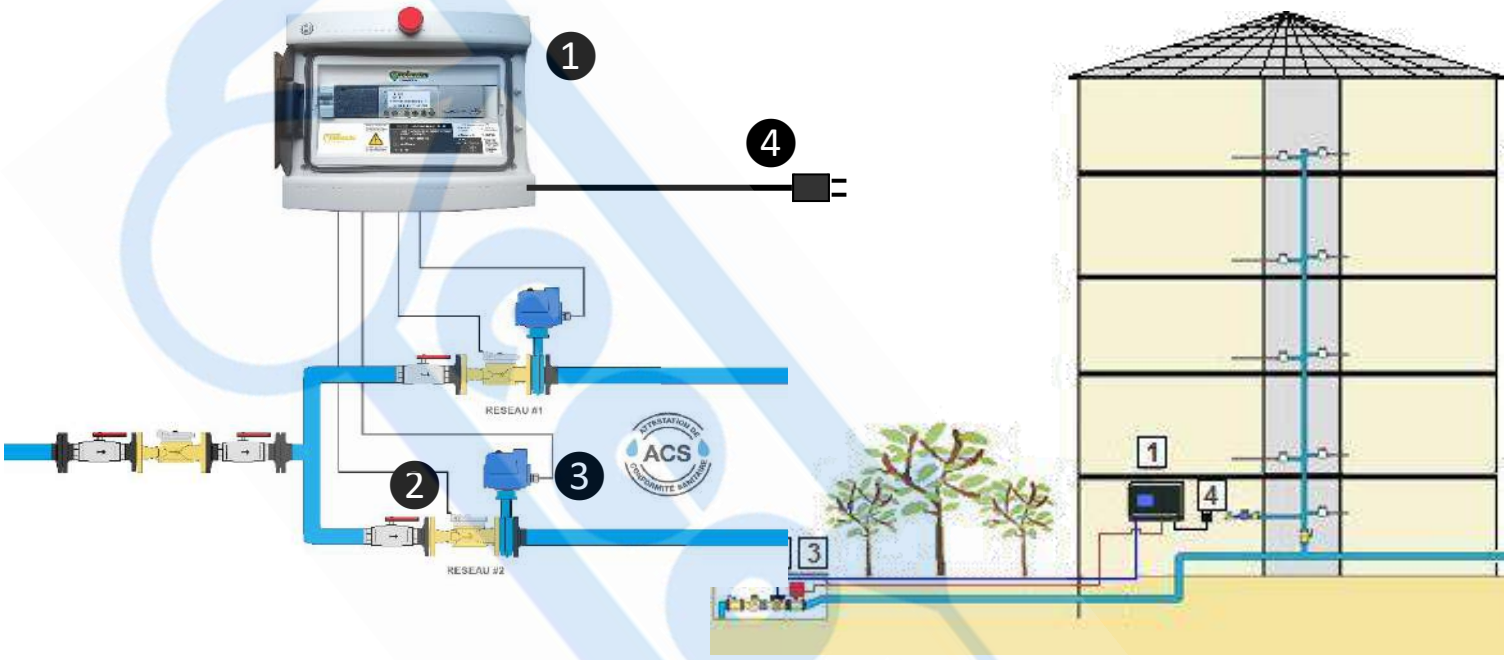
WARNING

Ef booster pumps with expansion vessels are installed on the network, do NOT install main emitter E1 upstream of them.
The high/low pressure differential of the booster pumps should be set as narrow as possible to avoid a leak flow rate drop at low pressure.

Leaks occurring before main emitter E1 **E1** cannot be detected.

EASY INSTALLATION

BOX EVO - 2 Networks



METER SIZE	2 Meter	3 Shut-off
Dn 15	A	J E
Dn 20	B	J E
Dn 25	C	F
Dn 32	C	F
Dn 40	C	F
Dn 50 BRIDE	D	G
Dn 65 BRIDE	D	G
Dn 80 BRIDE	D	G
Dn 100 BRIDE	D	G

Gradual opening of the programmable valve
(except LYVA2)

A		J		LYVA2	2-wire 8W 3-wire 5W
B		E		CWX-TC01 TCR02N IP67	7-wire 15W Regulated 3W resistance
C		F		TCR05N IP67	7-wire 25W Regulated 3W resistance
D		G		TCR05N IP67	7-wire 25W Regulated 3W resistance