Testing can be done in several ways, depending on what accessories are connected.

· With **Moisture Sensor**, see instructions for moisture sensor for how to simulate moisture.

· With **Master On/Off**, check that the water is turned on/off when the button is pressed.

· With **Timer**, check that the water turns off when the time expires.

· With **Motion Sensor**, check that the water turns off when the time since last movement expires.

CTM LYNG

Technical data	
Dimensions: H70 x W45 x L97 mm	**Operating voltage:** 12 VDC
Pressure/Flow: 0.15 – 10 bar / 42 l/min.	**Coil:** Bistable
Connection: IN: ¾" female thread OUT: ¾" male thread	

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CTM LYNG

Installation instructions

Solenoid Valve Local

½" Local
with ¾" connection
with rotating nut

No. 5648516 / 6251603

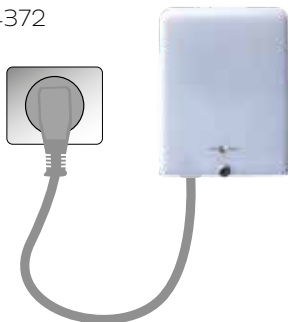The Solenoid Valve is a security product from CTM Lyng AS.

The valve controls the water supply for a dwelling, individual rooms and relevant consumer electronics/appliances.

The system is flexible, and can be expanded to accommodate different needs and security levels.
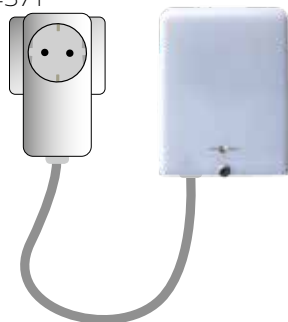
The valve can be controlled with:

Valve Driver
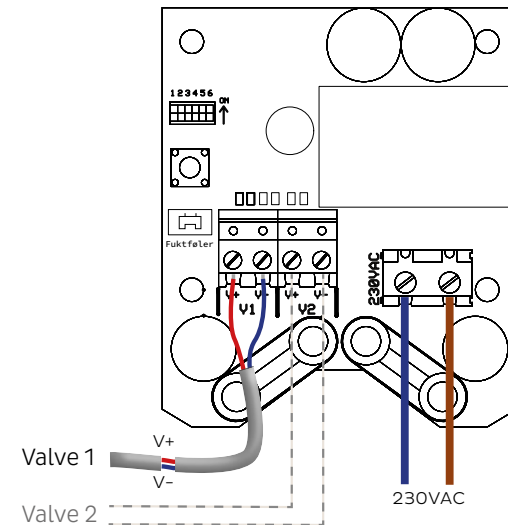No. 5648522 / 6254372

Valve Driver with power adapter
No. 5648523 / 6254371

- The arrow on the valve indicates the direction of the water.

- It is supplied open.

- It is controlled with a 12 VDC pulse.

- The valve remains in the position in which it has been set until it receives a pulse with the opposite polarity.

- The valve does not change position if it is disconnected from the valve driver.

- Its position in the event of a power failure can be set on the valve driver, see instructions for valve driver.

TIP: Program all the units in a system before mounting. This will make it easier to test the equipment.

123456
ON

Fuktføler

V1 V2

230VAC

V+
Valve 1
V-

Valve 2

230VAC

See instructions for valve driver for detailed information.

Pairing components (moisture sensor, control panel, motion sensor)

Alternative 1 (To be carried out by authorised personnel only)
1. Briefly press button SW1 in the valve driver.
   LED2 (yellow) will start to flash every 2 seconds.
   The valve driver is now in pairing mode for 60 seconds.
2. NB: Operate the unit you want to pair with, see separate instructions.

Alternative 2 (Can be carried out by anyone)
3. Disconnect the power to the valve driver for 5 seconds by unplugging it and plugging it back in again.
   LED2 (yellow) will start to flash every 2 seconds.
   The valve driver is now in pairing mode for 60 seconds.
4. NB: Operate the unit you want to pair with, see separate instructions.
   Disconnect the power to the valve driver for 5 seconds once more by unplugging it and plugging it back in again.
   This must be done within 1 minute of pairing.

Pairing HUB

(To be carried out by authorised personnel only)
1. Activate pairing mode on mTouch HUB, see separate instructions.
2. Hold button SW1 on the valve driver in for approx. 4 seconds until LED2 (yellow) and LED3 (red) light up simultaneously.
   The unit acknowledges that a pairing signal has been sent with 5 beeps.

DELETING PAIRED UNITS

To be carried out by authorised personnel only

NB: This deletes all the units that the valve driver is paired with.

1. Hold button SW1 on the valve driver in for approx. 10 seconds until LED3 (red) starts to flash.
   NB: LED2 (yellow) and LED3 (red) will come on and go off again. Continue to hold the button in until the red LED starts to flash.
2. When LED3 (red) flashes, release the button and LED3 (red) will acknowledge by flashing 5 times.

Deletion is complete.

TIP: To check how many units the valve driver is paired with, hold button SW1 in until LED2 (yellow) comes on steady. Then release the button. LED2 (yellow) will now flash a number of times = number of units it is paired with.

CTM LYNG

Testing the installation
Testing can be done in several ways, depending on what accessories are connected.

- With **Moisture Sensor**, see instructions for moisture sensor for how to simulate moisture.
- With **Master On/Off**, check that the water is turned on/off when the button is pressed.
- With **Timer**, check that the water turns off when the time expires.
- With **Motion Sensor**, check that the water turns off when the time since last movement expires.

Technical data

Dimensions:	Operating voltage:
HxWxD	230 VAC +10/−20%
95 x 73 x 37 mm	

RF:
868.100 MHz +5 dBm
Compatible with "v2" equipment, see page 2

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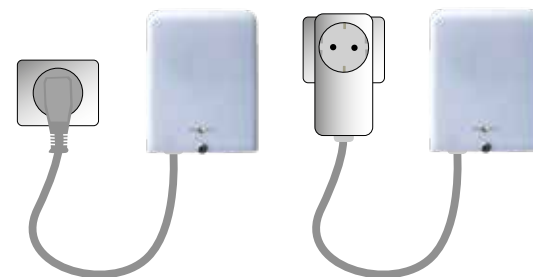**CTM LYNG**

Installation and user instructions
For prod. week 38-2019 onwards

Valve Driver

No. 5648522 / 6254372

Valve Driver with power adapter
No. 5648523 / 6254371

The Valve Driver is a security product from CTM Lyng AS.

The valve driver controls 1 or 2 valves simultaneously and can communicate wirelessly with up to 16 units.

Compatible with
- ½" and ¾" solenoid valves
- Moisture Sensor, wireless
- Motion Sensor, wireless
- Master On/Off, wireless
- Timer, wireless
- mTouch Economy Switch
- mTouch HUB

868.100 MHz v2

Look for products labelled "v2"

The system is flexible, and can be expanded to accommodate different needs and security levels.

The installation should be tested at least once a year, see *TESTING THE INSTALLATION*, page 6.

MOTION SENSOR FUNCTION

When the motion sensor detects movement, the valve turns the water on. Adjustable turn-off time: sets how long valve remains open after last detected movement. **1 min. – 4 hours.**

MOISTURE SENSOR FUNCTION

When an external wireless moisture sensor detects moisture, the valve closes. To open the valve, turn off the alarm on the moisture sensor that was tripped.
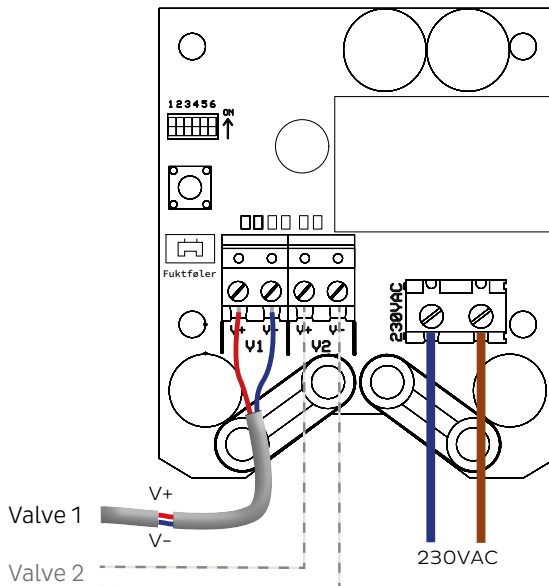
MASTER FUNCTION

Closes and opens the valve when operated.

The Master Switch overrides other units
If a valve is turned off with Master On/Off, the same Master Switch has to be used to open the valve again. Also applies to all Mstikk sockets.

TIP: Program all the units in a system before installation. This will make it easier to test the equipment.

Fuktføler

Valve 1
V+
V−
Valve 2
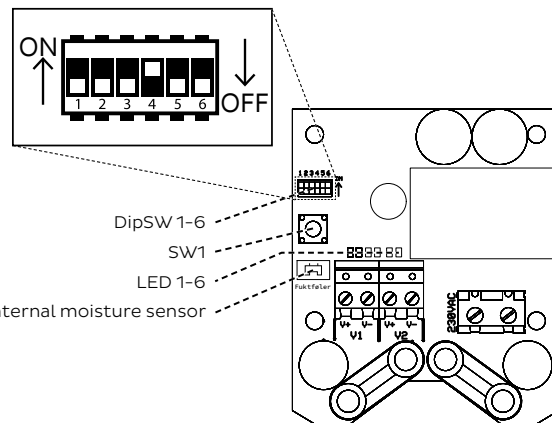230VAC

INTERNAL MOISTURE SENSOR

When the internal moisture sensor detects moisture (5 beeps every 10 seconds), the valve closes. To open the valve, turn the alarm off by pressing switch SW1 behind the front cover, or disconnect power to the valve driver for 5 seconds. If there is still moisture, the valve will be kept closed.

VALVE INFORMATION

- The arrow on the valve indicates the direction of the water.
- It is supplied open.
- It is controlled with a 12 VDC pulse.
- The valve remains in the position in which it has been set until it receives a pulse with the opposite polarity.
- The valve does not change position if it is disconnected from the valve driver. Its position in the event of a power failure can be set with DipSW (page 4).

DipSW	Factory	Function
1	OFF	ON*: Closes the valve if there is a power failure. OFF: Opens the valve if there is a power failure.
2	OFF	ON*: The valve does not change position in the event of a power failure. OFF: Follows DipSW 1.
3	OFF	ON: Test – Opens and closes every 5 seconds.
4	ON	ON: Jog function – Opens/closes the valve every 2 days.
5	OFF	ON: Emergency opening – Always open.
6		Not in use

*When DipSW 1 and 2 are ON, DipSW 2 has top priority

ON
OFF
1 2 3 4 5 6

DipSW 1-6
SW1
LED 1-6
Internal moisture sensor

Fuktføler

LED1	Green	Power (normal operation – 1 flash every second)
LED2	Yellow	Indicates pairing mode / number of paired units
LED3	Red	Indicates when valve is closed / internal alarm
LED4	Blue	Flashes briefly for radio communication
LED5	Green	Open pulse to valve
LED6	Red	Close pulse to valve

TESTING THE VALVE AND DRIVER

To be carried out by authorised personnel only

1. Open the tap halfway.
2. Set DipSW 3 to ON.
3. The valve will switch to being open/closed for 5 seconds.
4. Set DipSW 3 to OFF.
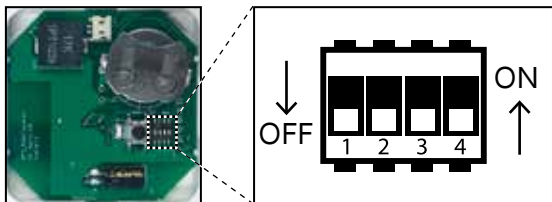
Testing is complete.

NB: It is best to carry out pairing and test the On/Off switch before installation.

Mount the switch directly on the wall or on the outside of a standard wall box.

TIP: Program all the units in a system before mounting. This will make it easier to test the equipment.

DIPSW

Back of On/Off switch

DIP 1 – not in use

DIP 2 – not in use

DIP 3 – Master switch function/Lock function: If DIP3=ON, only this switch panel can turn paired products back on if they have been turned off with this switch panel. Factory setting = OFF.

DIP 4 – not in use

ANNUAL END USER TEST
The system owner/user must familiarise themselves with the accompanying Installation and User Instructions at installation, and is under an obligation to test that installed equipment shuts off the water supply as required in the Norwegian Insurance Approval Board (FG) test.
Function testing must be performed at least twice a year in accordance with the Installation and User Instructions for sensors and switch panels.

Technical data

Dimensions: Conforms to RS16	IP Code: 20
Battery: CR2032	Battery life: 5 years in normal use
RF: 868.100 MHz +5 dBm Compatible with "v2" equipment, see page 2	RF range: 30 metres

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Installation and user instructions

On/Off switch, wireless

No. 5648533 / 6251647

The On/Off Switch.is a security product from CTM Lyng AS.

The switch controls the power supply to sockets it is paired with, and, where appropriate, the water supply to the dwelling, individual rooms and relevant consumer electronics/appliances.

Compatible with newer "*R*" / "*Radio*" products, e.g.:

- mKomfy cooker guards
- Mstikk sockets
- Aqua Xpress valve drivers

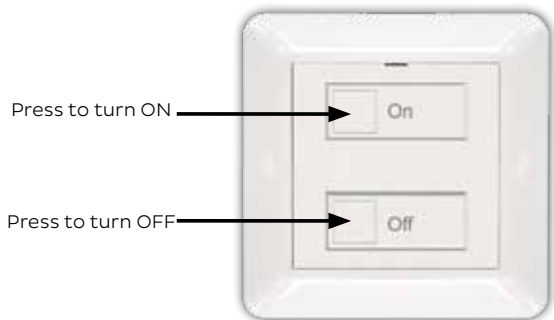**868.100 MHz v2**

Look for products labelled "*v2*"

The system is flexible, and can be expanded to accommodate different needs and security levels.
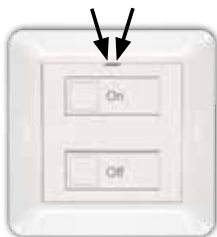
EVERYDAY USE

Lock function
The lock function can be activated by setting DIP3 to ON (see page 5).
If a valve or socket is turned off with the On/Off switch when the lock function is activated, it will have to be turned on again with the same On/Off switch in order to work.
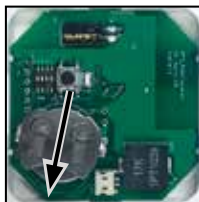
Press to turn ON

Press to turn OFF

The battery (**CR2032**) will need changing approximately every 5 years in normal use.

1. Lever the front off with a small screwdriver.

Back of On/Off switch

2. Slide the old battery out and insert a new one.

1. Activate pairing mode in **the product** that is to be paired with the On/Off switch.

2. To send a pairing signal from **the On/Off switch,** briefly press SW4 on the back of the product. A red LED lights up during pairing.

3. Test whether pairing has been successful by operating the On/Off switch.

Back of On/Off switch

SW4

TESTING COMMUNICATION

To test communication between the On/Off switch and socket/valve driver, briefly press the button on the On/Off switch.

The blue radio communication LED in the socket/valve driver will flash to acknowledge every press of the button.