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- 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.



4620 Art. No.: 13844



Installation instructions

Solenoid Valve Local



1/2" Local with 3/4" connection with rotating nut

No. 5648516 / 6251603

Technical data

 $\begin{array}{ll} \textbf{Dimensions:} & \textbf{Operating voltage:} \\ \textbf{H70 x W45 x L97 mm} & \textbf{12 VDC} \end{array}$

Pressure/Flow: Coil: 0.15 – 10 bar / 42 l/min. Bistable

Connection:

IN: ¾" female thread OUT: ¾" male thread

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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

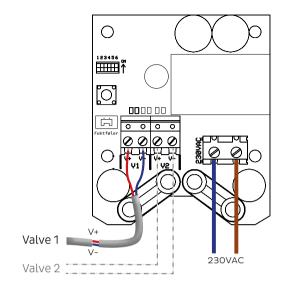
Valve Driver with power adapter

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.



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)

- 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)

- 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.
- 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)

- Activate pairing mode on mTouch HUB, see separate instructions.
- 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.

- 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.
- 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.

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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: HxWxD Operating voltage: 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



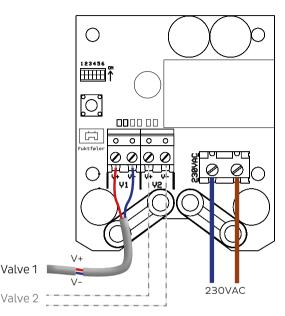
The system is flexible, and can be expanded to accommodate different needs and security levels.

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

MOTION SENSOR FUNCTION

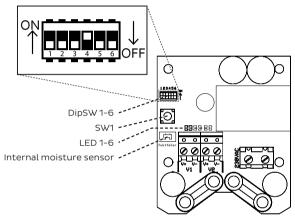
When the motion sensor detects movement, the valve turns the water on. Adjustable turn-off time: sets how long valve remains open after last detected movement. 1 min. – 4 hours.

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



DipSW	Factory	Function	i
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.	1
4	ON	ON: Jog function - Opens/closes the valve every 2 days.	ì
5	OFF	ON: Emergency opening – Always open.	1
6		Not in use	1

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



	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

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.

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.

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.

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).

TESTING THE VALVE AND DRIVER

To be carried out by authorised personnel only

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

Testing is complete.

Program the motion sensor to communicate with one or more units.

Alternative 1 (To be carried out by authorised personnel only)

- Briefly press the button (SW1 in the socket/valve driver).
 The amber LED will start to flash every 2 seconds.
 The unit is now in pairing mode for 60 seconds.
- Hold the button on the motion sensor (SW2) in and insert the battery. The motion sensor will beep twice to acknowledge that the battery has been inserted. Continue to hold the button in until the motion sensor beeps three times. The units are now paired.

Alternative 2 (Can be carried out by anyone)

- Disconnect the power to the socket/valve driver by removing the fuse circuit and putting it back again. The amber LED will start to flash every 2 seconds. The unit is now in pairing mode for 60 seconds.
- Hold the button on the motion sensor (SW2) in and insert the battery. The motion sensor will beep twice to acknowledge that the battery has been inserted. Continue to hold the button in until the motion sensor beeps three times. The units are now paired.
- Disconnect the power to the socket/valve driver once more by removing the fuse circuit and putting it back again. This must be done within 1 minute of pairing.

NB: If several timers are used with the same valve, it is always the longest time that counts.

TESTING COMMUNICATION

To test communication between the motion sensor and socket/valve driver, briefly press the button in the motion sensor (SW2) several times. The radio communication LED in the socket/valve driver will flash to acknowledge every press of the button.

TESTING THE MOTION SENSOR

NB: The motion sensor has a "warm-up time" of approx. 60 seconds after the batteries are inserted.

- Set SW1 to "0" 1 min. (see illustration on page 2).
- 2. Open the tap halfway.
- 3. Trip the motion sensor and the valve will turn the water on.
- Leave the motion sensor's detection field and allow the turn-off time to expire.

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5. The valve will close 1 minute after the last detected movement.

NB: Remember to set the desired turn-off time on the motion sensor after testing. Illustration on page 2.



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: Battery:

HxWxD 2xAAA/LR03

112x66x46 mm

Battery life: Detection: Up to 4 years 110°, 15x15 m

Warm-up time: RF:

60 seconds 868.100 MHz +5 dBm

Compatible with "v2" equipment, see page 2

0320 Art.

No.: 12795

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Installation and User instructions

Motion Sensor, wireless

No. 5648531 / 6251607



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The Motion Sensor is a security product from CTM Lyng AS.

The motion sensor ensures that the whole dwelling, individual rooms and relevant appliances are only supplied with water when needed. It can control the power supply to paired sockets.

Compatible with

- All Mstikk sockets
- Aqua Xpress valve driver

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



Look for products

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

When the battery is low, the motion sensor will beep twice and the red LED (LED1) will flash every 5 minutes in addition to flashing every 10 seconds.

MOTION SENSOR FUNCTION

When the motion sensor detects movement, the valve turns the water on.

The adjustable turn-off time sets how long the valve will remain open after the last movement.

1 min. - 4 hours.

The valve closes when the turn-off time expires.

If several timers are used with the same valve, it is always the longest time that counts.

Example: The timer (accessory) is set to 2 hours and is activated. Someone goes into the bathroom and this is detected by the motion sensor. It is set to 5 minutes. The valve will not close for 2 hours because of the timer, however.

TIP: Switch position «D» (3 hours) for rooms with appliances to ensure appliance has water for as long as needed.

2



SWITCH POSI	TURN-OFF T
0	1 min.
1	5 min.
2	10 min.
2	15 min.
4	20 min.
5	25 min.
5 6 7	30 min.
	40 min.
8	50 min.
9	1 hour
Α	1.5 hours
В	2 hours
С	2.5 hours
C D E	3 hours
E	3.5 hours
F	4 hours

TIP: Program all the units in a system before mounting. (Master, Moisture Sensor, Motion Sensor). This will make it easier to test the equipment.

Mount on a wall or in a corner using the bracket provided (Figure 3).

- 1. Loosen the screw (①-Figure 2) on the underside of the motion sensor. NB: Do not unscrew completely.
- 2. Undo the screw (@-Figure 1 and 2) on the circuit board.
- 3. Remove the circuit board (3-Figure 2).
- 4. Put the circuit board back and do up the screw (②-Figure 1 and 2) to secure the circuit board to the enclosure.

Figure 1

SCREW ©
LED2
LED3

SW2

SW1

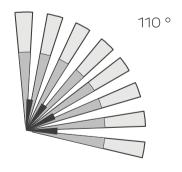
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SW1	Set turn-off time
S1	Not in use
SW2	Programming button
LED1	Red – Flashes briefly for radio communication
LED2	Green – Not in use
LED3	Red – Not in use

Figure 2

Figure 3

DETECTION FIELD

Top view



2.4m 2.5m 8m 15m

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