System for continuous monitoring Senzomatic

Installation manual

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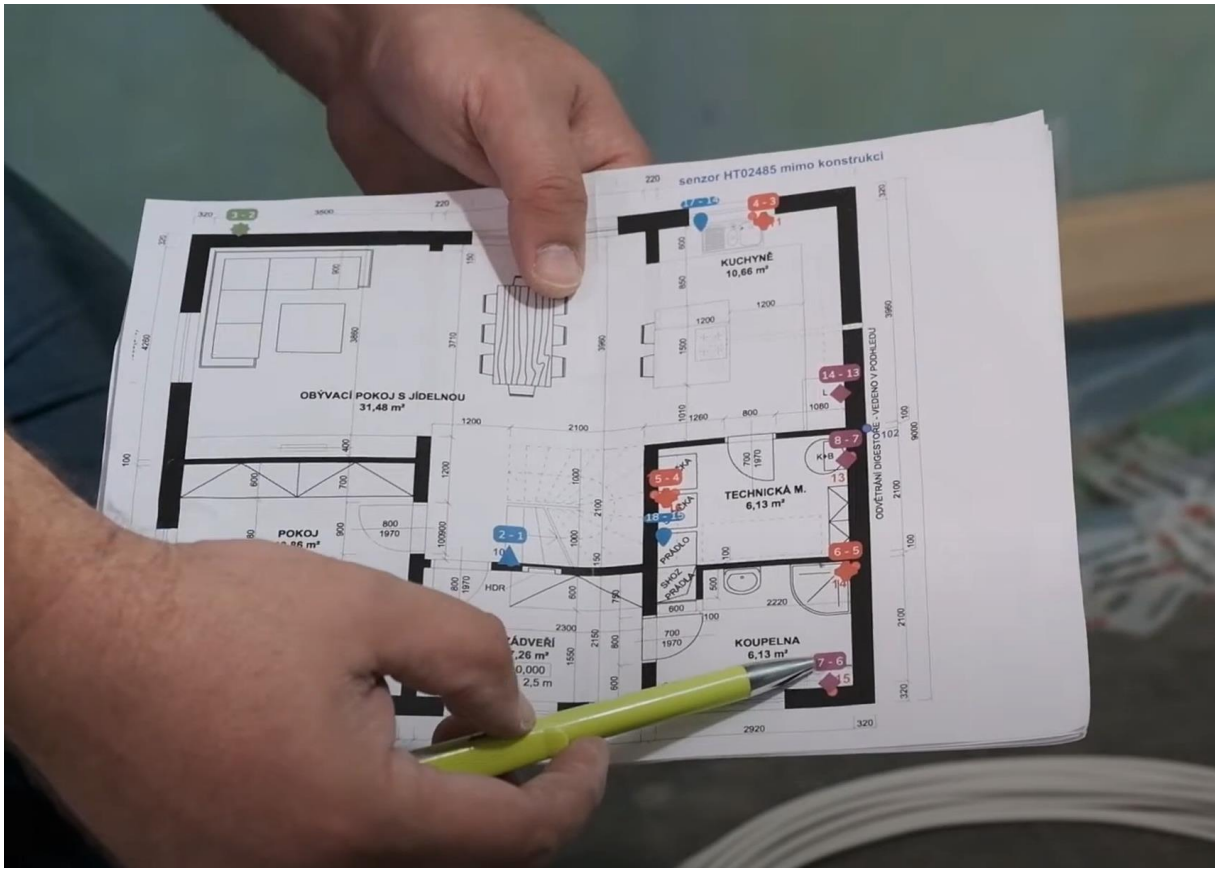
Content

Installation of the sensors

Before installation of the sensors familiarize yourself with the locations marked in the plan. Go through the whole building and mark the locations where sensors are going to be installed.



MHT, HT, FHT-C sensors are being installed in to the floor structure just above the hydro insulation of the concrete slab. The installation takes place at the time when water and waste piping is being done. Ideally the installation should take place once these are done since it's easier to locate the most suitable places for sensor installation.

HT-exterior sensor is being installed from outside of the house for monitoring exterior conditions like humidity and temperature. The ideal location is under the roof overhang on the northern side of the house. It's possible to installed into the installation box in the façade of the house with ventilation cover. The sensor cannot be exposed to the rain and direct sun irradiation. Installation takes place at the same time as the sensors into the floor structure with finalization after façade finalization.

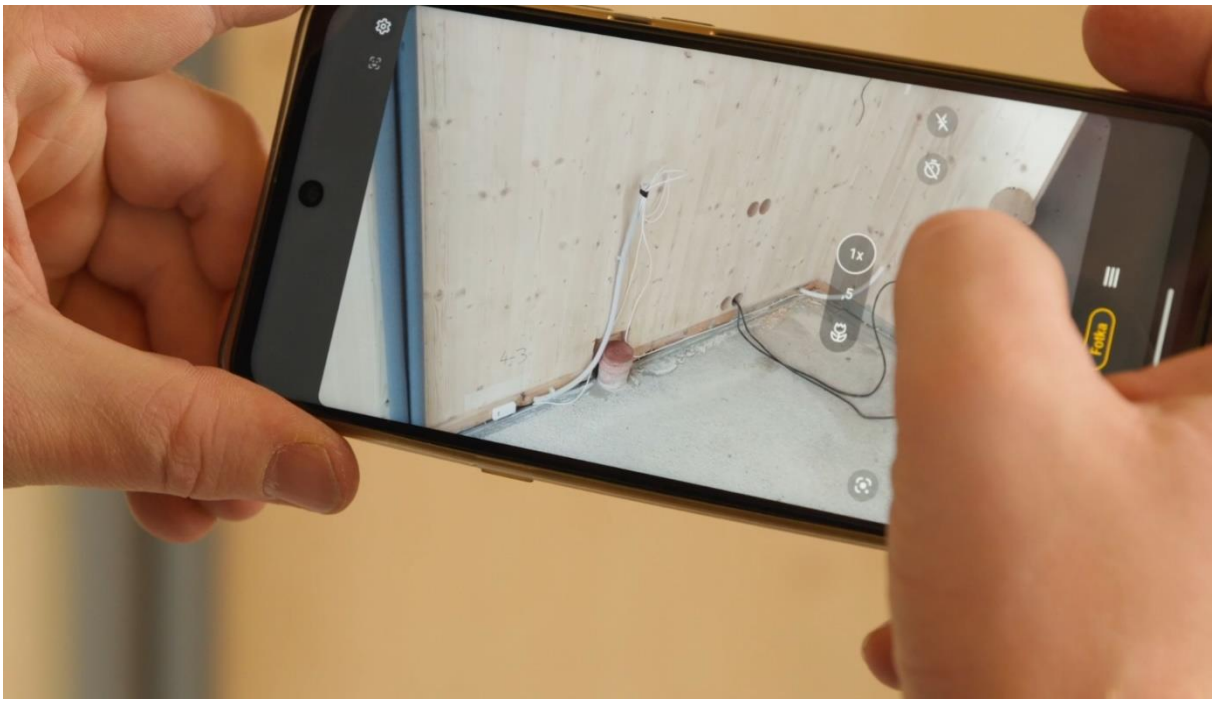
HT-interior sensor is being installed in the lobbies approximately 2m above the floor or into the ceilings. It can be installed in the installation box with later coverage by ventilation cover. It's determined for monitoring interior conditions, not conditions inside walls. It's not recommended to place it close to the sources of heat (fireplace) or high humidity (bathroom, kitchen). Installation takes place at the same time as the sensors into the floor structure with finalization after interiors.

FHT-I and IAQ sensors are being installed after finalization of interiors. When installing sensors into the floor structure, cables are prepared for these sensors with termination in the installation boxes in the wall at the place of later sensor placement. Sensors itself are installed later. FHT-I sensor shall be placed

approximately 10-20 cm above future floor level. Flood detection cable will hang freely from the sensor and lay on the floor. IAQ sensor measures interior conditions and monitors comfort of residents. There for it is installed in the level with light switches to the rooms where people spends most times.

Photo documentation of the installation

After installation of each sensor make a photo documentation. Take at least two pictures of each sensor – one detailed and the other one from a distance. There should be some reference object (window, door frame etc.) in every picture. The address marked with big numbers near the sensor (beam, wall, a sheet of paper) makes orientation in the pictures easier. Of course, it's possible to take all the pictures at once when all the sensors are installed. It's necessary to send all the pictures to Senzomatic to e-mail info@senzomatic.com, to be able react fast in case of emergency and analyse potential sources of accident.



Cable installation

For data communication and power supplying between Senzomatic components (sensors and central unit) there is a cable with white outer isolation with diameter 4 mm (further referenced as white Senzomatic cable). The cable has 4 color-coded wires – red, black, green and yellow. The cable is being delivered in several lengths, which should cover all usual situation on the construction site.

There is a black connector on one side of the cable. These connectors always go to the sensor and clicks in to it. The other end does not have any termination. This end of cable goes to switchboard or other place for interconnection of cables and can be shortened as needed.

Installation of each particular sensor type is described in relevant chapters of this installation manual. Sensors that will be hidden and inaccessible in the structure of finished house shall have free flexible conduit brought to wall. Even though it's hidden inside wall, it's relatively easily accessible by opening the wall and making an inspection hole. Endoscopic camera can be pushed through this conduit to check the suspicious area around the sensor in case there is a possible presence of water. Cable coming

from the sensor shall be routed through this place as well with a short reserve for future sensor manipulation or replacing. Everything must be documented well in order to be able to precisely locate the hidden conduit and cable reserve.

Cable routing

Cables from sensor to the interconnection point can be routed through ceiling (suspended ceiling), floor or wall. Always discuss the options with person responsible for the construction site (construction manager). Usually you can find inspiration in already installed cables. Cables must be fixed because people on the construction site can trip which is dangerous and can damage the sensor or the cable. Fixation can be done with 4 mm sized cable holders with nail. It is recommended to put the cables inside a flexible conduit in placement under the floor. The cable shall be protected at least in the most exposed areas such as door frames etc. It's not recommended to route the white Senzomatic cable in a harness together with power cables. The recommended distance is at least 10 cm apart to eliminate possible disturbance induced into the cables.

Tighten the cables into a harness in case it's not possible the installation in the place of future interconnection of cable free ends (switchboard, sub-switchboard, installation box) finish due to unpreparedness of construction site. Label the harness and inform the head of construction site about the harness and following steps.

Marking of cable ends

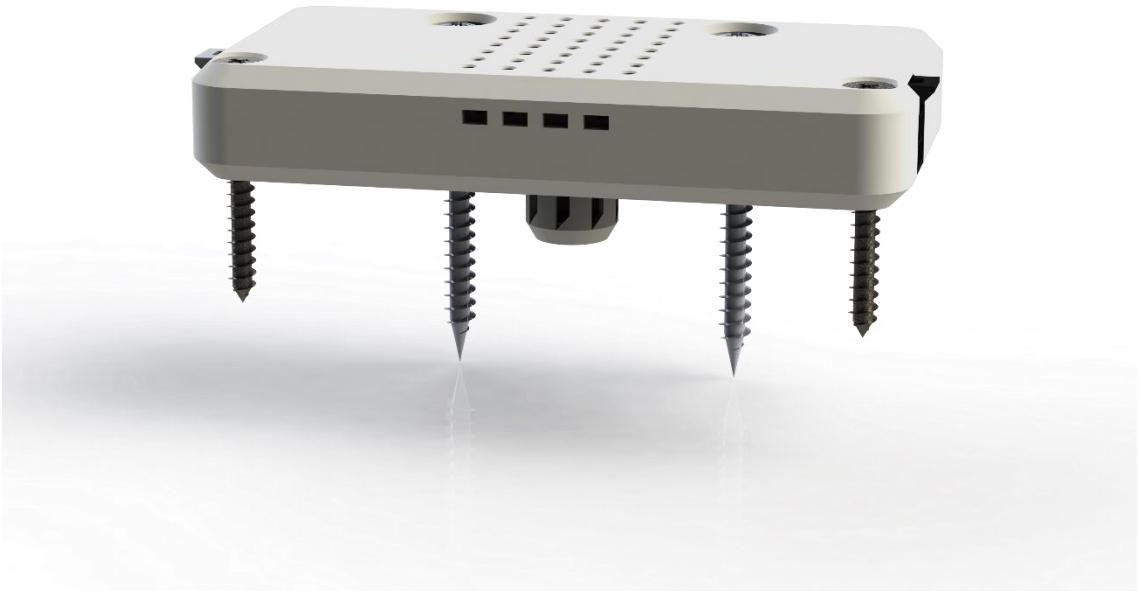
Use a thin permanent marker to write the address of sensor on every free end of cable (other side then sensor is). Place the numbers at least 10 cm away from the end of cable because there is an outer isolation that will be removed. It's a good practise to repeat the cable markings after another approx. 10 cm in case one of the marking gets damaged so the cable is still identifiable.

Cable connection in switchboard

Following steps regarding the cabling inside the switchboard are described in paragraph Sensors – connection in page 24 in chapter Central unit CU07.

Sensor MHT04

Combined sensor of moisture, humidity, temperature and flood for wooden structures



General information

This sensor is designed for installation into the timber building structure. It combines the measurement of wood moisture content, temperature and air humidity in the wood cavity itself and values of temperature and air humidity of neighbouring insulation material or in air gaps in the structure. The ideal placement of this sensor is on the foundation beam of the timber frame structure as close as possible to the base plate (foundation slab) of the house (where wood structural elements have a high risk of accumulating moisture from leaks and condensation that seep down through the construction).

Measurement	wood moisture content, air humidity and temperature in the cavity of the building material, air humidity and temperature of ambient environment flooding
Power	5-12 V DC, typ. < 5 mA, max. 25 mA
Working environment	−40 to +85 °C, 0 to 80 %RH noncondensing
Communication interface	RS-485 & Modbus RTU
Mounting	4 stainless screws (serves also as measuring electrodes)
Input	white Senzomatic cable with black connector flood Senzomatic cable with white connector, reduction
Dimensions	72 x 39 x 12 mm

Installation

Tools required

- Drill
- Drill bit ø 10 mm for wood
- Screw driver bit TX10, or screw driver
- Tape (electrical isolating tape or other), ruler or tape measure

Parts and material for installation

- Sensor
- 2x stainless steel electrode screw 3.5 x 40 mm (bigger)
- 2x stainless steel mounting screw 2.9 x 25 mm (smaller)
- Cable to the central unit
- Flood cable (optional)

Location

Installation starts with sensor's location selection. Ideal placement is base timber beam without any defect such knots etc. and far enough (at least 10 cm) away from metal elements such anchors and so on. It can be either from the top surface (insulation wool) or from the side (floor sandwich structure). The electrodes of the sensors have to be along the grain of wood timber. The sensor has to be placed only in one lamellae when installing on CLT panel. Sensor overlapping several lamellas is wrong installation.

It is necessary to take in account **distances from waste pipe line, water pipes and heating pipes**. Temperature differences caused by these sources can negatively affect humidity measurements. The minimum distance is 20 cm.

Each sensor has its unique address (marked on the sensor). Attention is required to install the sensor with respect to plan and take adequate measures according to the situation. For example changes in bathtub placement, waterpipes etc. requires changes in sensor position. These changes have to be marked in the plan and sent with a photo to Senzomatic.

Mounting

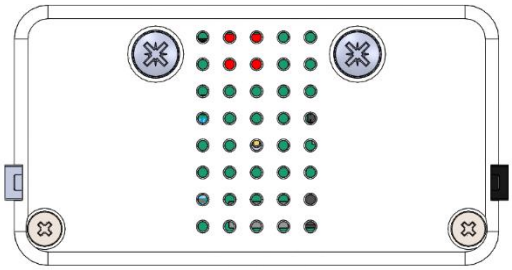
Mark the depth 20 mm on the wood drill bit with diameter 10 mm with tape. Drill out the hole for middle basket of the sensor to approx. 20 mm depth. It's recommended to start drilling counter-clockwise first until a circle in the wood is formed. Then switch the direction of drill to clockwise rotation and drill the rest of the hole. Counter-clockwise rotation breaks the grain of the wood and minimizes tear out to get smooth edges easier to seal.

Place the sensor on the wood with its basket in the drilled hole. Use electric screwdriver with TX10 bit to drive two bigger screws to larger openings in the sensor. The screws have to attach the sensor to wood firmly without any play. For better feel it is recommended to finish screwing with hand-held screwdriver. Install two smaller screw into smaller openings in the sensor then. There is no need to predrill holes for screws for most wood specimens (exception might be hard wood).

Sensor wiring

Next step is to connect cables. The cable with black connector connects sensor to central unit and attaches to the black connector of the sensor. Optional flood cable with white connector attaches to the white connector of the sensor. It's recommended to leave cables at least 30 cm longer for future manipulation and secure the cable against tearing out.

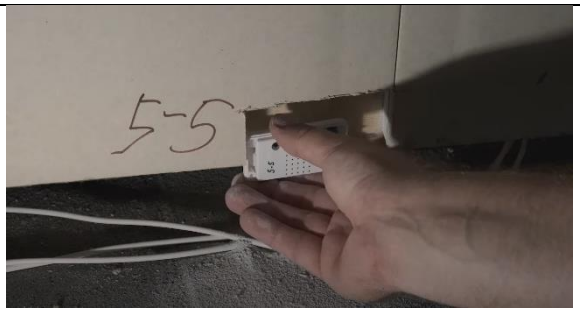
flood cable connection



central unit connection

Installation in the overview

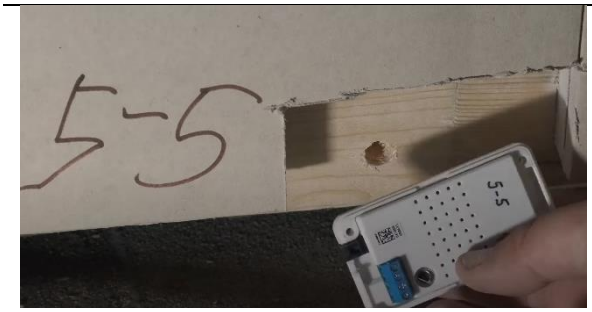
1. Open the wall for sensor installation (use of crown drill bit possible).



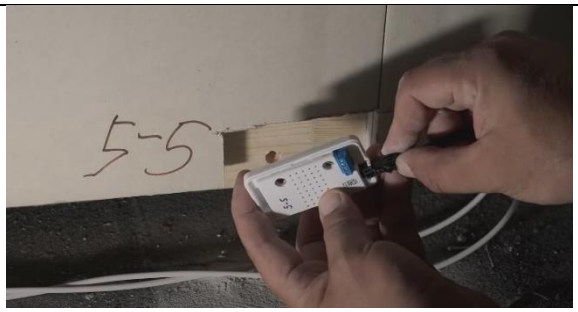
2. Measuring position of sensor and its hole for the basket.

3. Hole for the basket has to be placed such the electrodes of sensor are closer to the middle of timber beam.

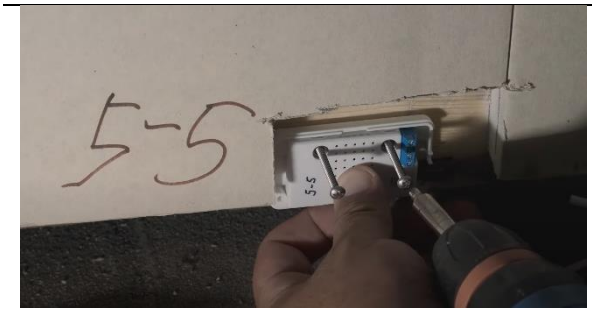
4. Drilling hole with 10 mm diameter and approx. 20 mm depth.



5. Check number of sensor and its position in the plan before installation.



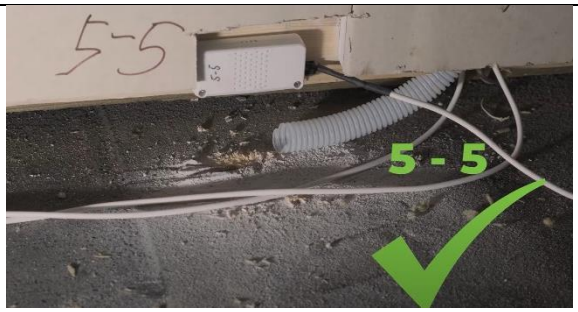
6. Attach cables to the sensor.



7. Attach the sensor to the wood with bigger screws.

8. The screws has to be driven all the way. Firm attachment of the sensor is crutial.

9. Drive smaller screws into the sensor.



10. Insert protector tube to the wall next to the sensor. This will serve for possible future inspection.

Sensor HT03

Air humidity and temperature sensor

General information

This sensor is designed to monitor environment conditions inside and outside the building structure. It measures air humidity and temperature values in the space where it is located (air gaps, breathable insulation material, interior, exterior).

Measured parameters	air humidity, temperature
Power supply	5 to 16 V DC, < 3 mA
Operating range	−40 to +85 °C, 0 to 80 %RH non-condensing
Communication interface	Modbus RTU (RS-485)
Sensor fixation	free installation, double-sided tape, or screw (up to ø 3.5 mm)
Input	white Senzomatic cable with black connector
Dimensions	63 x 10 x 6.6 mm (10 mm with connector included)

Installation

Sensor installation in building construction

The HT sensor is designed to be used in building construction, especially for measuring air humidity at any spot in the construction. Suitable locations for fast and reliable detection of leakages are in the structure of bathrooms, kitchens and utility room walls. Usually it is located close to water or waste water distribution infrastructure. This sensor is suitable also for the structures of flat roofs, under floor heating systems, exterior water valves etc., anywhere where leakage can happen. The sensor is typically installed on the building base plate (foundation slab) in a plastic protector. The final location of the sensor is then under the interior floor level, usually on the level of the floor insulation layer or under it.

It is necessary to keep a distance of at least 20 cm from water, waste water and heating distributions pipes, as large temperature changes can affect the humidity measurement.

Installation in the overview

1. Connect sensor with correct number to cable.

2. Cut off surface of plastic protector so small ventilation holes appears in the sides.

3. Insert sensor with cable attached to the protector. Sensor has to be in the area of ventilation holes of the protector.

4. Attach the cable with tape on the other side of protector. Sensor has to be fixed in the protector.

5. Attach the protector to the wall via tape or plastic hooks. Sensor is at the bottom part. Upper part remains above the floor level in the wall for future possible inspection.

Sensor installation in interior or exterior

When placing the sensor in an interior or exterior space, it is recommended to make a hole in the wall, place the sensor in it and then cover the hole with a ventilation grille (commonly available in hobby markets). An alternative is to build-in a plastic electrical installation box into the hole and cover it with a perforated lid (ø 2-3 mm holes, at least 10x). The sensor can also be placed in the underlay of the roof, ventilated facade, etc.

For precise and correct measurement of exterior temperature and humidity, it is necessary to place the sensor in a shady place which is not exposed to direct sunlight in any period of the day and season (ideally on the north side of the house and/or under the overhang of the roof).

Sensor wiring

This sensor can be placed into hard-to-access locations via a ø 14 mm hole, however the cable itself only needs an opening of ø 5-6 mm through the construction.

When connecting the sensor to another part of the Senzomatic system the colour coding of the individual wires in the cable has to be followed.

Sensor FHT01-I

Flood, air humidity and temperature sensor – interior version

General information

FHT-I sensor is meant for sensing floor flooding in interiors of houses in areas such utility rooms, behind washing machine, kitchen cabinets etc. In cooperation with central unit the sensor can shut off the main water valve in case of leakage detection.

Note: Sensor is not suitable for installation in places with regular flooding. Installation in cellars or undergrounds with pumps removing flood are not recommended.

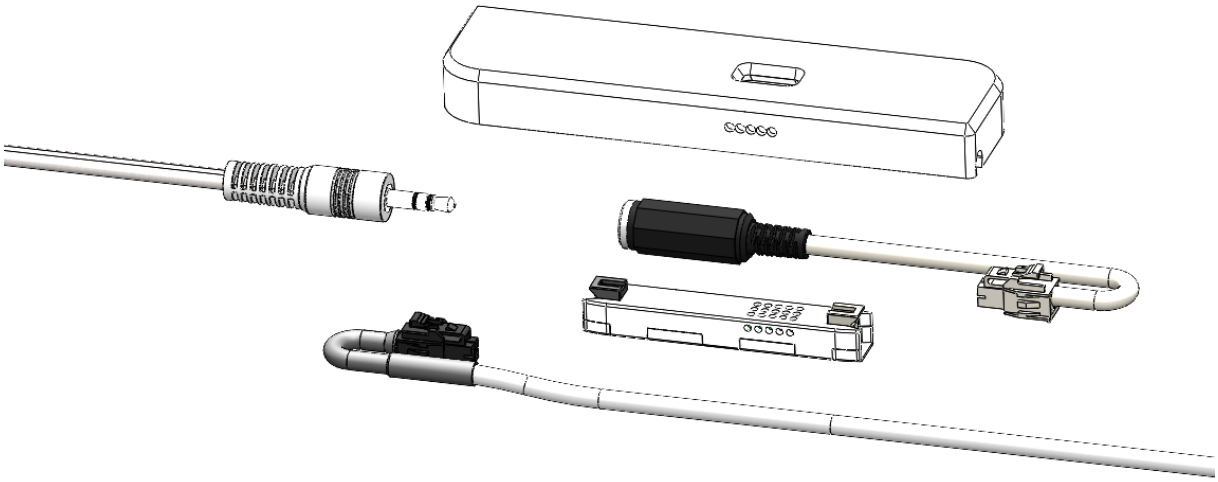
Sensor detects flooding by water utilizing sensing cable of 1 or 2 meters which is being laid on the floor.

Sensor measures also ambient temperature and air humidity. Based on central unit setting the Senzomatic system can detect leakage earlier before flooding the cable from the rapid increase of humidity. This functionality is optional since this feature is not suitable for areas with repeatedly increasing humidity (e.g. bathrooms).

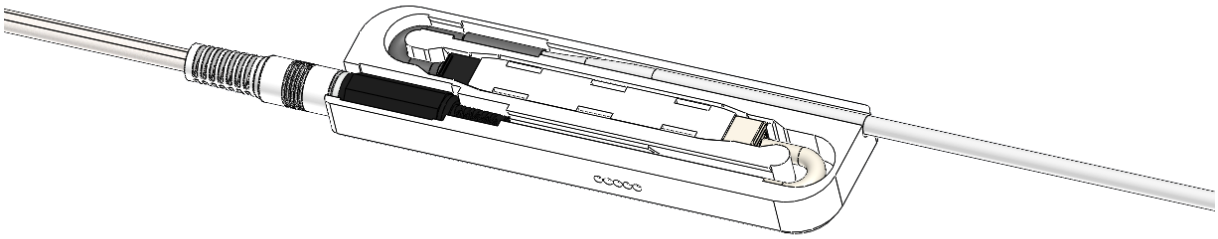
Measured parameters	air humidity, temperature, flooding
Power supply	5 to 16 V DC, < 3 mA
Operating range	−40 to +85 °C, 0 to 80 %RH non-condensing
Communication interface	Modbus RTU (RS-485)
Sensor fixation	double-sided tape on the interior wall
Input	white Senzomatic cable with black connector flood Senzomatic cable with white connector, reduction
Dimensions	115 x 30 x 12 mm

Installation

Sensor completion



Insert the Senzomatic cable with black connector to the black connector of FHT sensor. Insert the reduction with white connector to the white connector of FHT sensor. Put FHT sensor with both cables attached to the bigger enclosure as it is shown on the pictures. Put double sided tape on the rear side of the sensor afterwards.



As the last step insert jack connector of the flood sensing cable to the sensor assembly. It is possible to finish this step after sensor installation.

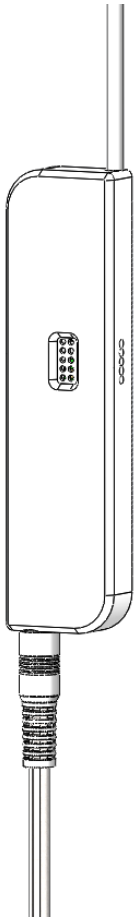
Cable routing for sensor connection

Cables connecting sensors to the central unit are being installed during construction similarly as mains electricity and other infrastructure. The cables are terminated with black connector which is being inserted into the sensor on the one side and free end which is being connected to the central unit on the other side.

Sensors are being installed after walls and floors are finished. Ideally the installation takes place during equipping house with furniture and appliances in order not to damage sensor and ensure ideal placing flood sensing cable.

Placing and installing the sensor in interior

FHT-I sensor is meant for installation in interiors for sensing flooding in places such like utility rooms, areas behind washing machines, kitchen cabinets etc.



For house structure monitoring there is FHT-C sensor instead. Its small size and different flood detecting cable is more convenient for built-in applications.

Sensor is being installed by sticking it on the wall with double sided tape. The preferred orientation is vertical, but horizontal is acceptable as well, the height shall be between 10 and 15 cm above the floor level. Flood sensing cable is left freely on the floor such it covers the protected area equally. The example of installation is shown in the picture.

Sensor IAQ01

Indoor air quality sensor

General information

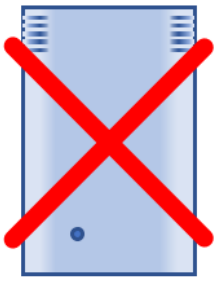
IAQ sensor monitors quality of indoor air quality in the interior environment. It is important to have it healthy since we spend there most of our time.

Measured parameters	temperature, humidity, CO2 concentration, VOC concentration, barometric pressure
Power supply	7 to 24 V DC, < 500 mA
Operating range	0 to +65 °C, 0 to 80 %RH non-condensing
Communication interface	Modbus RTU (RS-485)
Sensor fixation	screwing to the wall on installation box KU68
Input	white Senzomatic cable without connector
Dimensions	120 x 80 x 25 mm

Installation

Location

Air quality sensors are designed for installation on interior walls of residential buildings. To achieve the maximum possible measurement accuracy it is necessary to maintain the correct position of the sensor to ensure an optimal air flow inside the product.

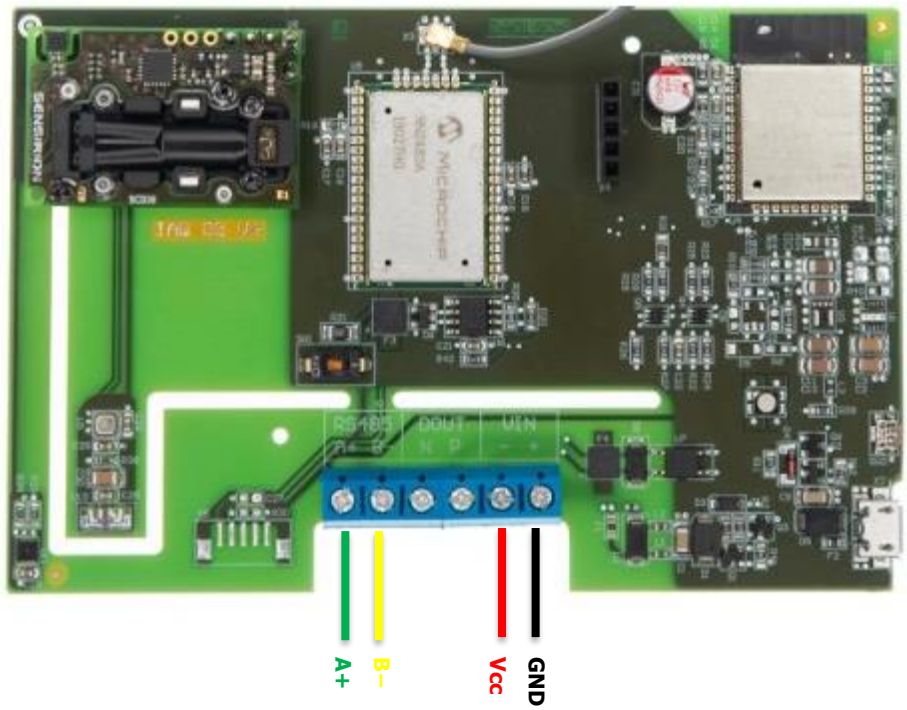


Beside the orientation the position in the room is also important. The ideal position is approx. 1.2 – 1.8 m above the floor level and at least 1 m apart of windows, doors, radiators etc.

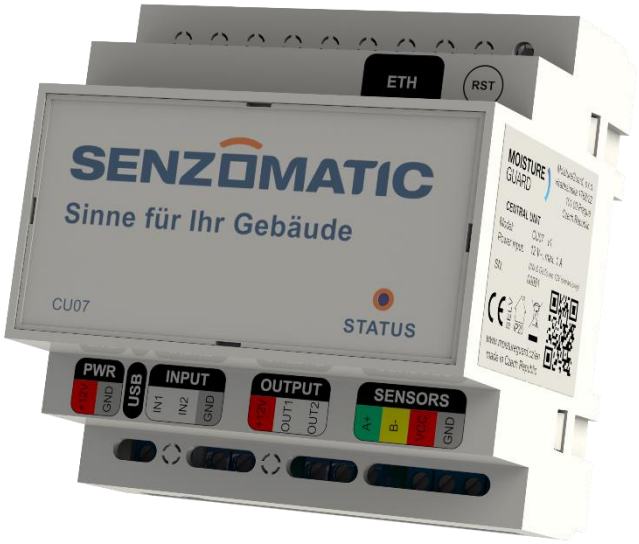
The enclosure of the sensor is ready to be installed on the wall socket installation box, however direct mounting is also possible.

Connection

In order to connect a cable it is necessary to remove the printed circuit board out of the enclosure. Then insert the wires to the terminal block according to the picture bellow and tighten the screws. Finish connection by putting the electronics back to the enclosure.



Central unit CU07



Warning

Check the laws in your country and verify if you are competent to execute a work on electric device. Incompetent installation may lead to electric shock or fire. Leave this to a professional electrician.

General information

Central unit communicates with up to 30 Senzomatic sensors, processes measured data and communicates with remote server via Ethernet where stores data in cloud (database). The unit has 2 inputs and 2 outputs for controlling other devices such as water shutter valve. It is powered by a small voltage from electrical switchboard, where the unit is being installed. Temporary supply from a power bank is possible via USB-C connector during testing.

Power	12 V DC, < 1 A; USB-C
Working environment	−40 to +85 °C, 0 to 80 %RH noncondensing
Communication interface	Ethernet, Senzomatic bus (max. 30 sensors), 2x DO, 2x DI
Mounting	DIN rail in switchboard
Input	power supply (terminal block or USB-C) Ethernet (RJ45) white Senzomatic cable for sensors
Dimensions	88 x 91 x 66 mm (5 DIN modules) *overall width 123 mm* *(7 DIN modules including circuit breaker and power supply)*

Installation

Tools required

- cutting and stripping pliers
- knife
- flat screwdriver 3.0 mm
- zip ties, electrical tape
- other tools according to electric switchboard

Parts and material for installation

- central unit
- power supply
- wires for connecting power supply and central unit (red and black)
- white Senzomatic cable (approx. 40 cm)
- 4x WAGO splicing connectors
- UTP CAT5e cable with RJ45 connector
- circuit breaker B2
- Cable to the central unit
- *relay, wires etc (optionally according to configuration)*

Mounting

Central unit is being installed into the electric switchboard on to the classical DIN 35 mm rail. It takes space equal to 6 DIN modules (1 DIN module corresponds to 17.5 mm) including the power supply. In case there is no free space in the main switchboard, it's possible to install the central unit into separate switchboard size at least 8 DIN modules.

Devices are being mounted on to DIN rail by hanging on the upper edge of the DIN rail and than clicking on the lower edge. Eventual unmounting is being done in reverse order after pulling the lock in the bottom part of device with screwdriver.

Connection

Follow the installation scheme, see bellow.

Power

It's necessary to provide 12 V DC power to the central unit. For this purpose there is a DIN mounted power supply delivered together with the central unit. There are output terminals on the top side of the power supply and input terminals in the left bottom corner of the central unit under "PWR" mark. Connect "V+" and "+12V" terminals with the red wire and "V-" and "GND" terminals with the black wire.

Connect the phase wire L (brown) and the neutral wire (N) to corresponding terminals on the bottom part of the power supply. The recommended cable is CYKY-J 3x1,5. The supply cable should be protected by circuit breaker with B2 characteristics.

To test the unit, it is possible to use 5 V DC options via USB-C connector using for example smartphone charger or power bank. Use this option only as temporary solution, not permanent.

Internet

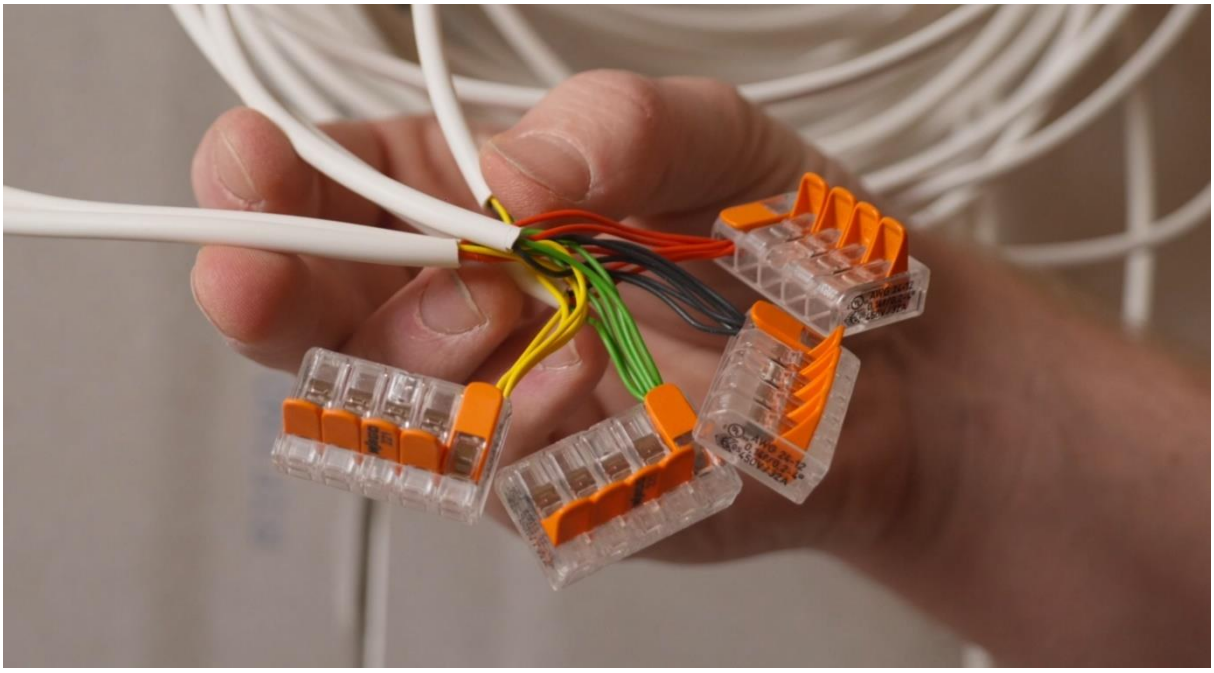
The central unit must be connected to the internet. Recommended ethernet cable is UTP CAT5e with RJ45 connector. There is socket on the top side of the unit.

Sensors – connection

Tie white Senzomatic cables from sensors aggregated at one point (switchboard) to a harness (use cable ties or electrical tape). Organize the harness in the switchboard so it doesn't obstruct anything, e.g. rear plate or side. Shorten the cables to proper length. Cut the wires one-by-one and rewrite numbers of sensor addresses marked at the end of each cable. Place new marks approximately 15-20 cm from newly cut end of cable.

Remove approx. 7-10 cm of outer white isolation from all cables. Strip 12-15 mm isolation from each wire. Connect all wires colour-to-colour using WAGO terminals. One WAGO terminal interconnects all wires of red colour, the other all black wires, another green wires and last the fourth all yellow wires. In case we have more wires then the WAGO terminal has slots, place multiple wires in one slot.

IAQ and FHT-C sensors have its own (fifths) WAGO terminal with red wires. These red wires must be kept separated from red wires of other sensor types.



Sensors – connection to central unit

Connect shorter piece of white Senzomatic cable to terminals labelled “SENSORS” in the bottom right corner of central unit. Connect the wires according to a colour marking on the unit. Add the other end of the cable to the WAGO terminals joining cables coming from sensors, respect the wire colours.

Valve

The assembly can be extended by a relay commanding water supply valve.

There are two types of valves from construction point of view:

- electromagnetic
- servo-actuated

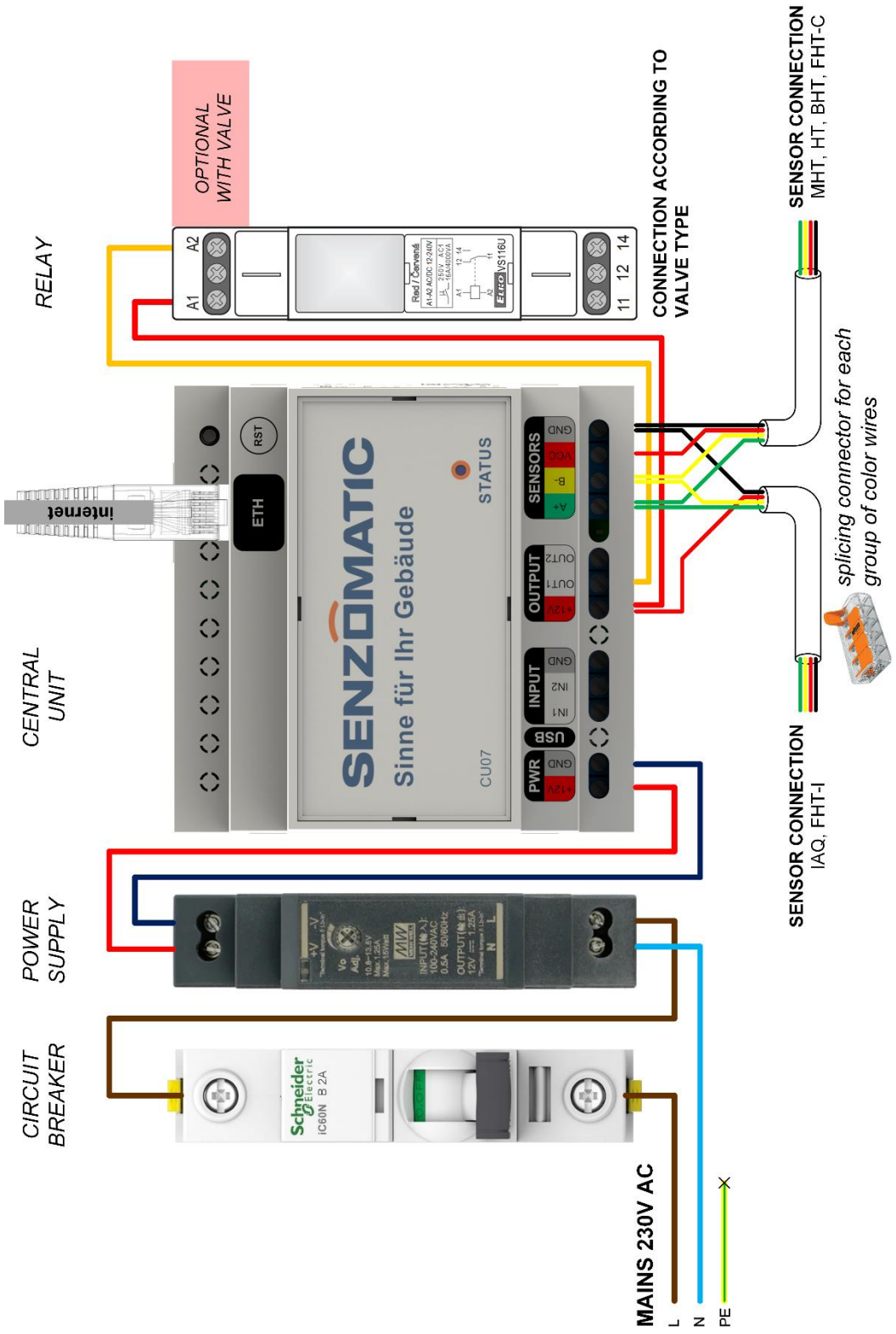
Both types are available in two variants:

- normally opened (NO)
- normally closed (NC)

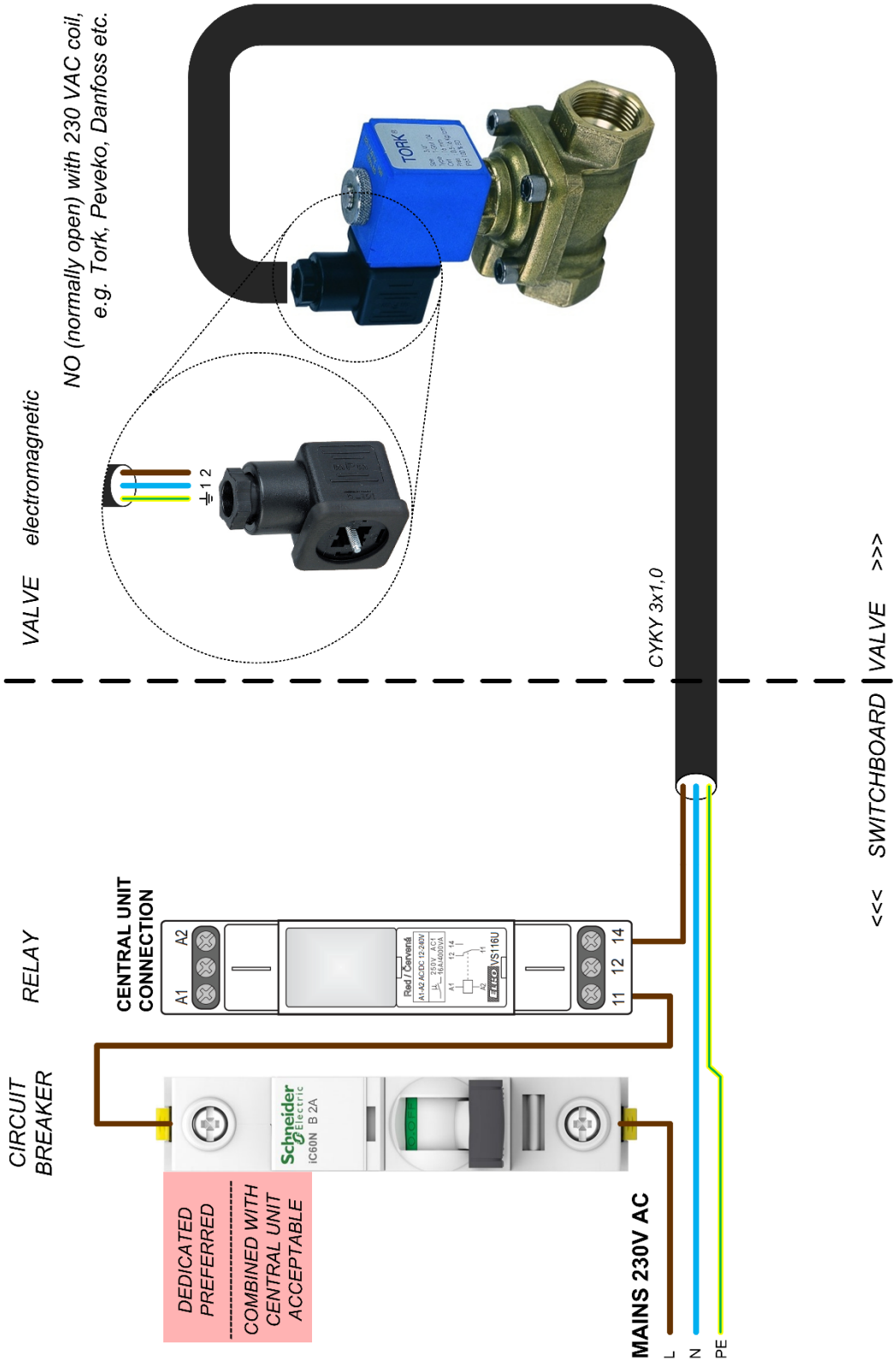
Connection schemes for all variants are listed bellow.

In mechanical connection to a water supply line the valves differs in pipe clearances (inner diameters) DN15, DN20 DN25, DN32, …Fitting sizes (thread sizes) G½“, G¾“, G1“, G1¼“, …corresponds to that and there are also both thread types (internal/external) available. Discuss suitable version of valve with your plumber.

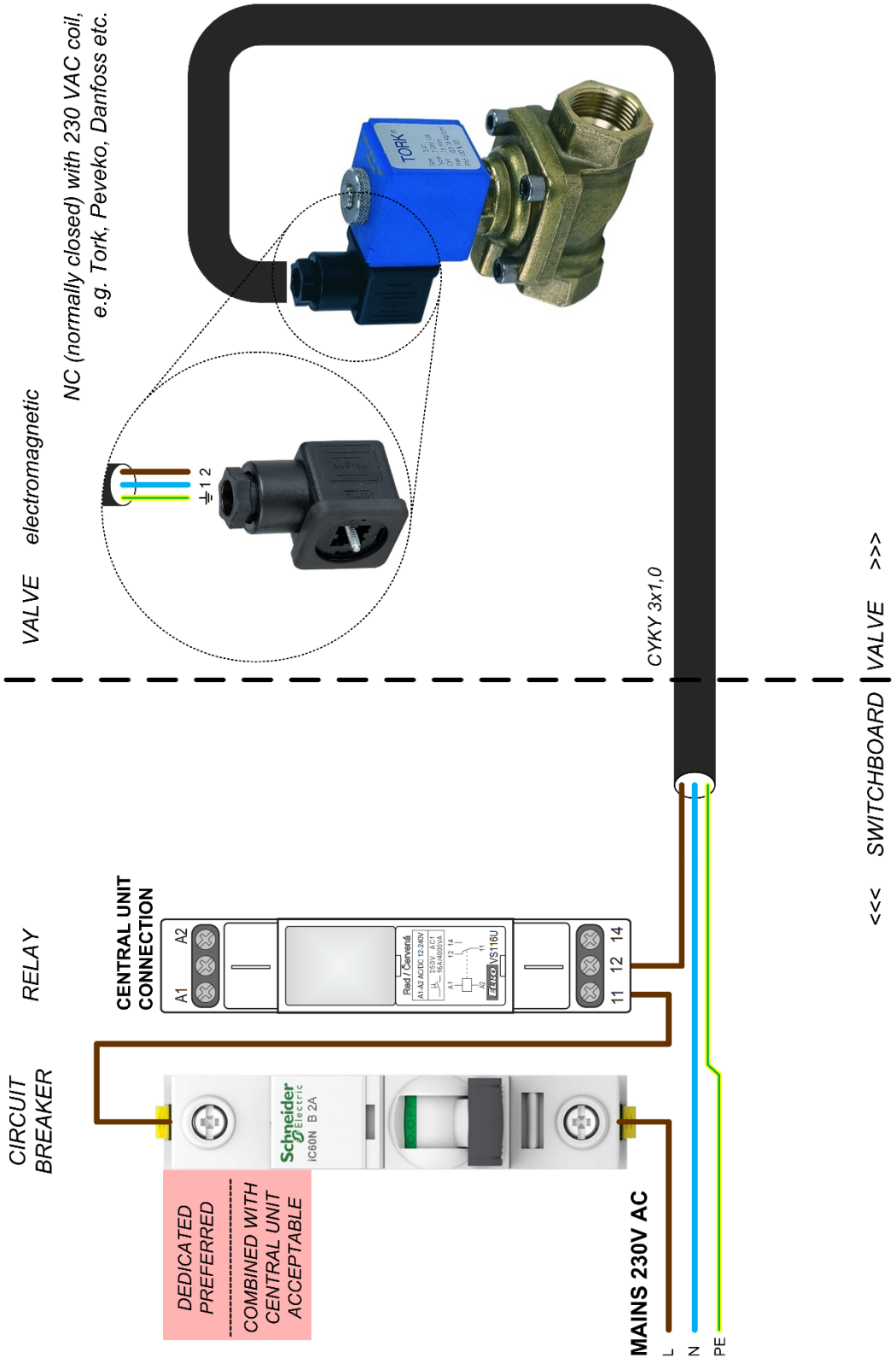
Connection scheme of central unit assembly



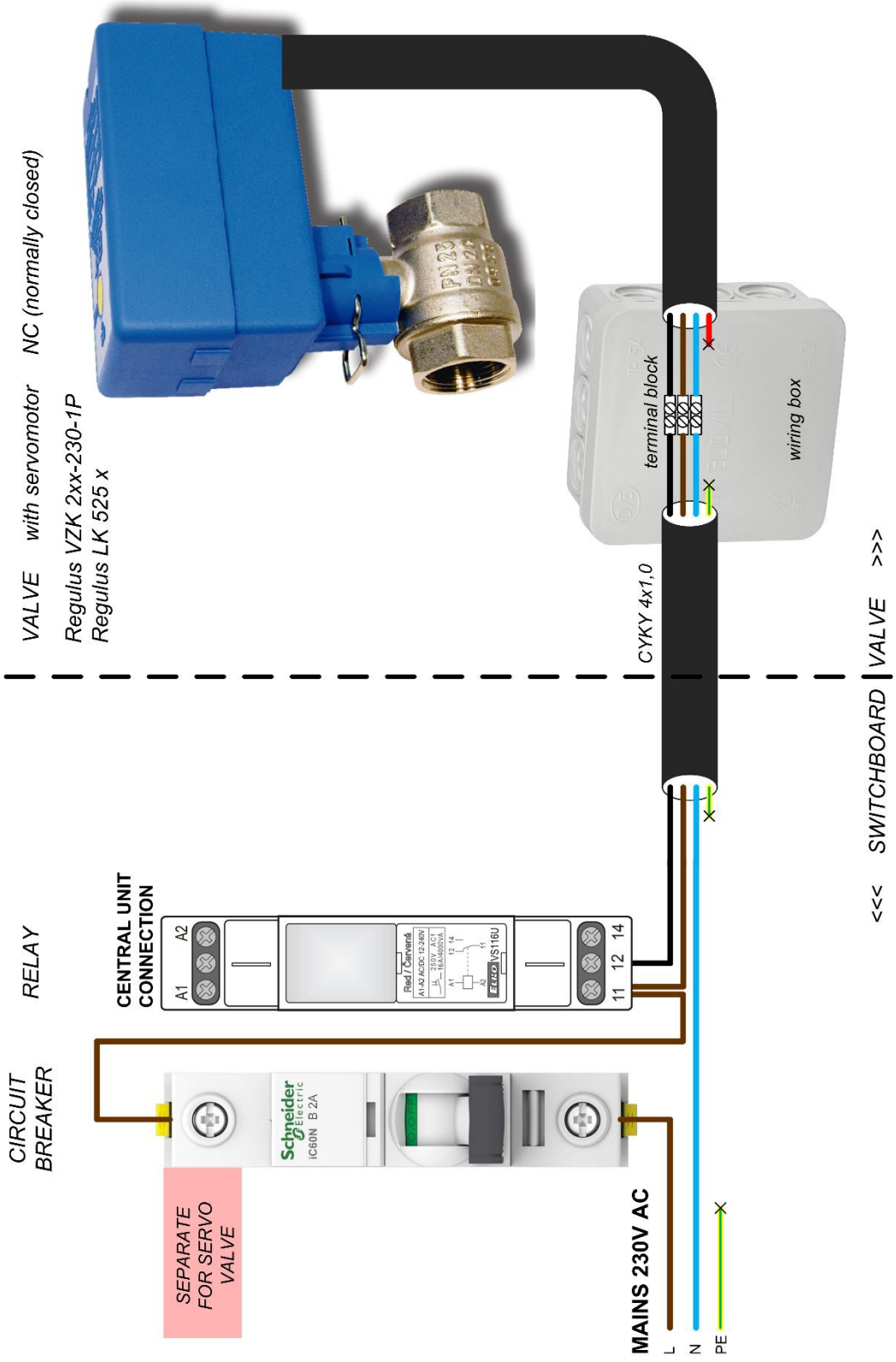
Connection scheme of NO electromagnetic valve to central unit assembly



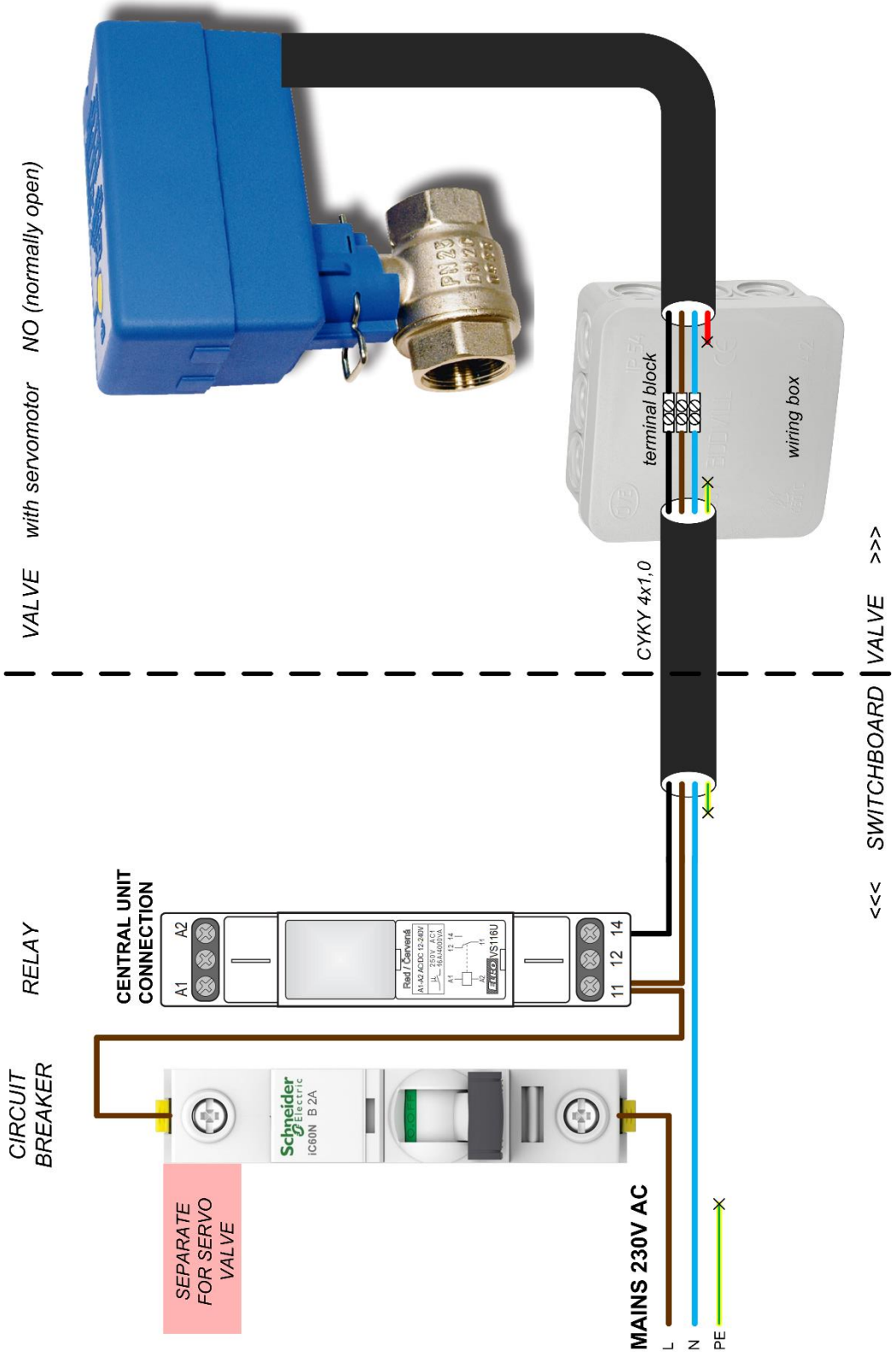
Connection scheme of NC electromagnetic valve to central unit assembly



Connection scheme of NC servo-actuated valve to central unit assembly



Connection scheme of NO servo-actuated valve to central unit assembly



Indicator „STATUS“

5 minutes from powering on the unit (before initial reading of sensors):

- First couple of seconds the indicator flashes rapidly with period 0.2 seconds until the configuration is loaded (if the configuration is not loaded the indicator keeps on rapid flashing).
- Every 5 seconds indicator signalizes internet connection status
  - indicator is **OFF** and then flashes 1-5x (turns ON)

After 5 minutes (after initial reading of sensors) the way of indicator flashing changes according to the sensor status. The indicator still signalizes internet connection status by number of flashes.

- In case all the **sensors** are connected **correctly**
  - indicator is **ON** and then flashes 1-5x (turns OFF)
- In case some of the **sensors** is connected **incorrectly**
  - indicator is **OFF** and then makes 1-5x sequences of rapid flashes (triple-flashes)

unit connection status	indicator
normal situations	
internet connection OK (HTTPS connection functional)	1 flash every 5 seconds
unit has IP address assigned from router (communication with server is not working, no internet connection)	2 flashes every 5 seconds
internet cable is connected, but IP address is not assigned (obtaining an IP address from router is not working)	3 flashes every 5 seconds
internet cable is not connected (cable in not connected to the unit or router or it is defective)	4 flashes every 5 seconds
unit is set for WiFi connection, but it is not connected (provided WiFi is not within reach)	5 flashes every 5 seconds
special situations	
AP mode	flashing period 1 second
without configuration **corrupted configuration**	flashing period 0.2 second (same as just after unit restart)
unit does not have power **unit is broken**	always OFF
unknown unit status	always ON

Testing the installation of sensors

To eliminate possible mistakes, it is necessary to test all the sensors once these are installed in the construction. Errors which will be revealed later won't be possible fix due to the inaccessibility of sensors in the construction. Testing is being done with central unit CU07 and smartphone. There is no need for internet connection during the test. The test can be done using ordinary USB-C charger or power bank.

Test preparation

All the cable shall be prepared before beginning with the test (see chapters Sensors – connection on page 24 and Sensors – connection to central unit on page 25 describing central unit).

Remove approx. 7-10 cm of outer white isolation from all cables. Strip 12-15 mm isolation from each wire. Connect all wires colour-to-colour using WAGO terminals. One WAGO terminal interconnects all wires of red colour, the other all black wires, another green wires and last the fourth all yellow wires. In case we have more wires then the WAGO terminal has slots, place multiple wires in one slot.

It's not necessary to connect all the sensors at once. The test can be performed with sensors connected one at a time or in groups.

Connect shorter piece of white Senzomatic cable (ca. 20 cm offcut from sensor installation) to terminals labelled "SENSORS" in the bottom right corner of central unit. Connect the wires according to a colour marking on the unit. Add the other end of the cable to the WAGO terminals joining cables coming from sensors, respect the wire colours.

CAUTION! All the red wires are grouped during the test, nevertheless these are separated for IAQ and FHT-I sensors in the final installation.

Test beginning

1. Connect the unit to the power supply first. Insert one end of USB-C cable to the charger and the other end to the unit. The "STATUS" indicator starts flashing periodically.
2. Press the **RST** button for **2–3 seconds**. Do not keep the button pressed any longer – configuration of the unit would be erased completely!
3. „STATUS" indicator starts flashing with 1 second period. That means the unit was set to AP mode in which it transmits a WiFi signal.
4. In the network setting of your smartphone search for Senzomatic or MoistureGuard WiFi network and connect to it. There is no password needed.
5. Open your favourite web browser and put into the address column (cell with the webpage address) address **192.168.10.1**.
6. After successful connection a user interface of central unit shows.
7. In the „Menu" select „Sensor test".
8. Test the sensors and fix eventual faults.

CAUTION! Do not perform system activation at this point. Activation performed just after sensor installation would become invalid. Do the activation once the central unit is permanently installed in the switchboard.

Testing procedure

1. Click on “Run sensor test” and check whether the unit recognized all the installed/connected sensors and that none of them reports a fault.
2. In case some of the installed sensors is not recognized, check its connection to the central unit and repeat the testing procedure.
3. If the fault persists is necessary to verify cable connections at sensor side for mechanical damages. Check the tightening of mounting screws in MHT sensors and check connection of the flood sensing cable in FHT sensors.
4. In situation when not all sensors have been installed we recommend to test the sensors anyway. Remaining sensors will be tested later once these are installed.
5. In case the unit loses internet connection, restarts or powers off from any reason, you will be warned with an error message. Repeat the whole process from the beginning then - including pressing RST button and connecting to the unit.
6. Once the system reports that all the sensors work correctly, fill in your name and contact in the form and save the protocol test please (name and other data is possible to fill since version FW 3.1 only).

System activation

The system must be activated after installation of central unit. The activation process verifies status of connected sensors and the system is put into operation. Always do the online activation if internet connection is present.

Online connection for system activation (with internet access and QR code)

Connect the central unit to the internet and turn it on by switching on the circuit breaker. Check connection status on indicator named “STATUS”. After turning on the power indicator flashes rapidly for a short moment and then keeps on flashing with period of 5 seconds indicating internet connection status.

If the indicator flashes only 1x every 5 seconds, the unit is connected to the internet and is ready for an online activation. Different flashing pattern indicates connection error. Each flashing pattern is described in chapter Indicator „STATUS“ on page 31. In case the indicator shows the unit is not connected, follow the manual and try to fix the connection error. The most frequent error is faulty RJ45 connector on internet cable. After fixing the error restart the unit a check if it connects to the network.

Take a picture of QR code in right side of central unit in order to get redirected to the pages with activation. Take a picture of QR code named “Online activation” in documentation included with the unit if side access to the unit is not possible.

Offline connection for system activation (without internet access)

In case you are going to activate the system without internet access (offline), connect to the unit same as during sensor testing (see chapter Test beginning on page 32). *That is turn on the unit, press the RST button for 2-3 seconds, connect to Senzomatic or MoistureGuard WiFi network and enter the address 192.168.10.1 to the internet browser.* Then select “Activation” in the menu.

Both online and offline system activation

Run the test sensor procedure pressing button “Run sensor test” on page with activation. After a while you will see whether the unit managed to communicate with all sensors and whether there aren’t any faults. Check the sensor cable for proper connection to the central unit in case there is any connection problem. Repeat the testing procedure once the problem have been fixed. In case some sensor shows installation error, it is necessary to check the installation and fix it in case it is still possible. Installation error could be incorrectly connected flood sensing cable or not properly tightened MHT mounting screws.

In case the unit loses internet connection, restarts or powers off from any reason, you will be warned with an error message. Repeat the whole process from the beginning then - including connecting for activation both online and offline.

Once the system reports that all the sensors work correctly, fill in your name and contact in the form and confirm the activation. In case some of the sensors haven’t been installed yet or won’t be installed for any reason, include that information in “Notes” with a brief explanation. The activation process have to be redone after installation of all remaining sensors is done.

Finishing the installation

Central unit installed in the switchboard after activation will acquire sensor data. If the internet connection works, the data are sent to Senzomatic servers immediately. The unit stores the data to an internal memory in case the property is not connected to the internet and sends it to the servers once the connection is established. In order to monitor clients property properly it is important to connect the internet after the activation as soon as possible.