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SIHGA®

MONITORIX®

SYSTEM SOLUTION FOR MOISTURE MONITORING

From specialists for specialists.

The SIHGA® Monitorix® catalogue

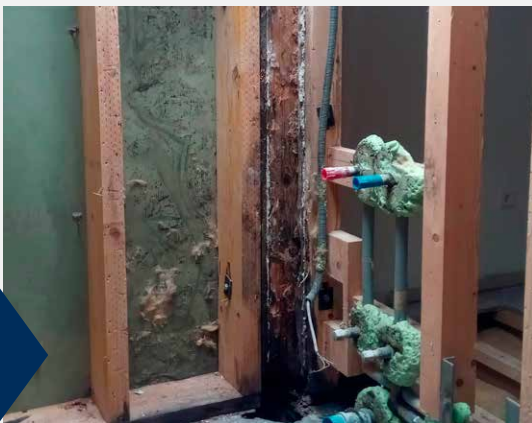
Personal catalogue copy for:



SIHGA® provides innovative construction technology and support for the future

S	SICHERHEIT	SECURITY
I	IM	IN
H	HOLZBAU	WOOD CONSTRUCTION
G	GARANTIERT	GUARANTEES
A	AUSSERGEWÖHNLICHES	EXTRAORDINARY RESULTS

WHY MOISTURE MONITORING?



WHY MOISTURE MONITORING?

The importance of a digital sensor system for permanent moisture monitoring in timber and mineral construction.

Moisture poses a considerable risk in building structures, both in timber and mineral construction. It can lead to structural damage, health problems and long-term loss of value. A digital sensor system for permanent moisture monitoring offers an innovative solution to minimize these risks and ensure the longevity and safety of buildings.

1. Importance of moisture control in timber and mineral construction

1.1. Risks due to moisture

Mold formation:

Moisture encourages the growth of mold, which weakens the material structure in both timber and mineral construction and is harmful to health.

Material destruction:

Timber construction:

Wood-destroying fungi and insects such as termites and beetles can cause considerable damage to the wood.

Mineral construction:

Moisture can lead to efflorescence, cracks and spalling of plaster or concrete.

Risk of warping and deformation:

Timber construction:

Swelling and shrinkage of the wood due to moisture.

Mineral construction:

Moisture penetration can lead to cracks and spalling that impair structural integrity.

1.2. Long-term effects

Structural integrity:

Permanently high moisture levels can impair the load-bearing capacity and stability of both timber and mineral constructions.

Loss of value:

Damage caused by moisture leads to costly repairs and reduces the value of the building.

Health risks:

Mold and fungal infestation can cause allergies and respiratory diseases.

2. Advantages of a digital sensor system

2.1. Permanent monitoring

Continuous data acquisition:

A digital sensor system monitors the humidity around the clock and provides continuous data on the condition of the materials.

Early warning system:

Real-time data enables the early detection of problems before significant damage occurs.

2.2. Precision and accuracy

Precise measurements:

Digital sensors offer precise measurements of humidity values that go beyond conventional methods.

Data recording:

Long-term records allow trends to be analyzed and problematic patterns to be identified.

2.3. Automation and integration

Ease of maintenance:

Automated systems reduce the need for manual inspections and maintenance, which saves time and money.

3. Implementation of a digital sensor system

3.1. Selection of sensors

<u>Types of sensors:</u>	Selection of suitable moisture sensors that are optimized for timber and mineral construction.
<u>Positioning:</u>	Strategic placement of sensors at critical points such as foundations, walls and roofs.

3.2. Data management

<u>Data transmission:</u>	Use of wireless technologies to transmit measurement data to central monitoring systems (ROOF IOT).
<u>Data analysis:</u>	Use of software solutions for the analysis and visualization of humidity data.

3.3. Alarm and intervention systems

<u>Real-time alarms:</u>	Setting up alarm systems that automatically trigger warnings if critical humidity values are exceeded.
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4. Economic aspects

4.1. Cost-benefit analysis

<u>Investment costs:</u>	Initial costs for the installation of the sensor system.
<u>Long-term savings:</u>	Reduced repair costs, extended service life of the building and increased value retention thanks to early problem detection and rectification.

4.2. Funding opportunities

<u>State subsidies:</u>	Opportunities to take advantage of subsidies and tax incentives for sustainable and innovative construction.
<u>Insurance discounts:</u>	Potential discounts on insurance premiums due to demonstrably increased safety measures.

5. Case studies and success stories

5.1. Example 1: Residential building in northern Germany

<u>Problem definition:</u>	Recurring moisture problems in an older wooden house.
<u>Solution:</u>	Installation of a digital sensor system for permanent monitoring.
<u>Results:</u>	Early detection and elimination of moisture sources, prevention of mold growth and wood damage.

5.2. Example 2: New construction of an office building

<u>Problem definition:</u>	High demands on building safety and integrity.
<u>Solution:</u>	Integrated moisture sensor system included in construction planning right from the start.
<u>Results:</u>	Stable moisture values, prevention of structural damage, positive feedback from users.

5.3. Example 3: Renovation of a historic building

<u>Problem definition:</u>	Moisture damage to the fabric of a historic building.
<u>Solution:</u>	Use of a digital sensor system to monitor the moisture values during and after the refurbishment.
<u>Results:</u>	Successful remediation, long-term monitoring to prevent further damage.

6. Conclusion

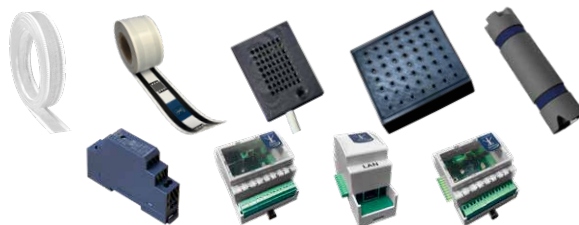
A digital sensor system for permanent moisture monitoring is a sensible investment in both timber and mineral construction. Continuous monitoring enables the early detection of moisture problems, which can prevent significant damage and extend the service life and value of structures. By integrating modern technologies and automating monitoring and control processes, such a system makes a significant contribution to safety and sustainability in the construction industry.

MONITORIX®

Digital building protection - the early warning system for moisture ingress

Advantages

- Innovative early warning system for moisture and water ingress in timber construction/solid building components
- The inconspicuous measuring system can be integrated both in new buildings and subsequently integrated into renovation measures
- Retrofitting is also possible (plaster-over system)
- With Monitorix®, damage can be detected at an early stage, thus preventing cost-intensive renovation measures
- Flexible use in roofs, walls, façades and wet rooms
- Reliable monitoring of all trades
- Tested technology
- Notification with exact location of the damage



MADE IN AUSTRIA

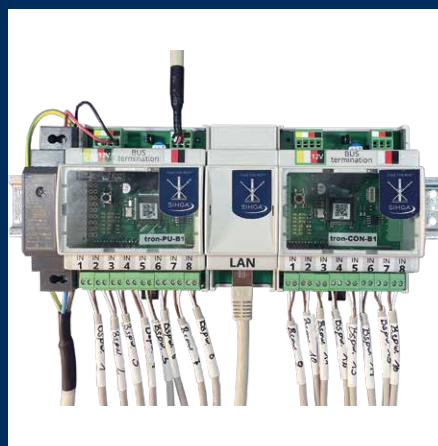
Big plus for you

In a property monitored with Monitorix®, there will hardly be any cases that you will have to rectify under warranty.
And for the life of the building!

The areas of application of the Monitorix®

The Monitorix® can be integrated into the intelligent planning for new buildings or retrofitted for renovations and special projects.

Flat roofs: detached houses, halls | **Wet rooms:** bathrooms, kitchens, laundry rooms | **Timber construction/solid construction:** wherever water flows.





RELIABLE CONTROL



LEGAL CERTAINTY



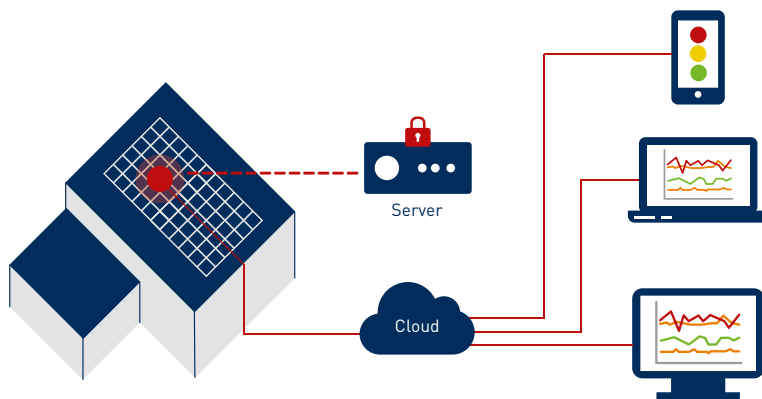
EARLY DETECTION



INSURANCE BENEFIT

How the Monitorix® works

The sensors are installed in the desired area of the building by a professional. These transmit their measured values continuously to a terminal, which is located in a protected technical room. The data is evaluated here. The owner can immediately see the current status via a traffic light system - in the event of damage, the exact location and time of occurrence of the damage is reported. Detailed data, including historical data, can be accessed via a cloud server.



1 Permanent, comprehensive data collection

2 Data transmission in to server in real time

3 Automatic data preparation



STAINLESS STEEL



NOT AN ACCELERANT

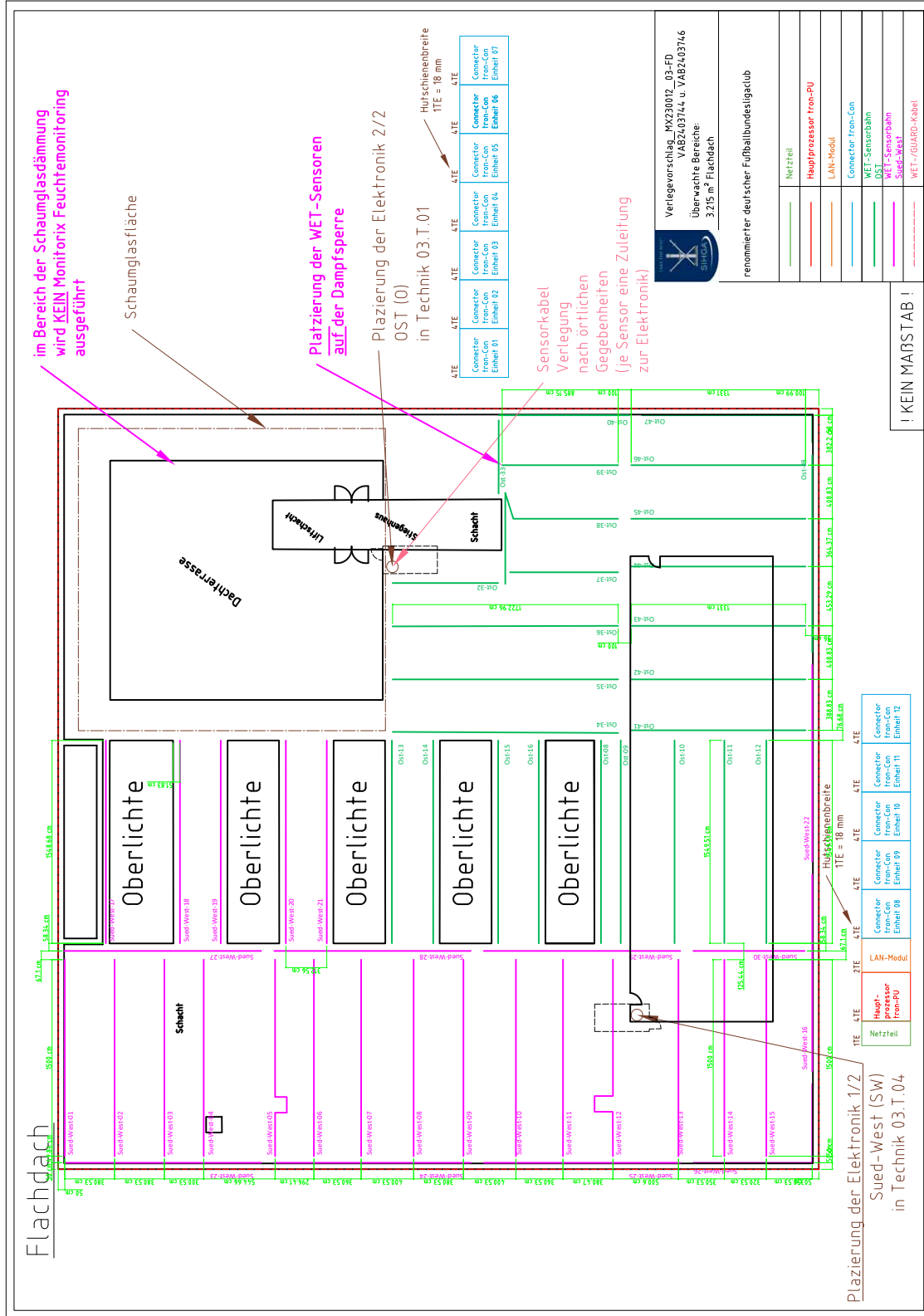


WATER RESISTANT

FROM THE FIELD

Renowned German soccer club in Leipzig (approx. 3,200 m² flat roof)





FROM THE FIELD

Multi-storey, hybrid residential building (wet rooms, WC, kitchenette and heating circuit distributor)



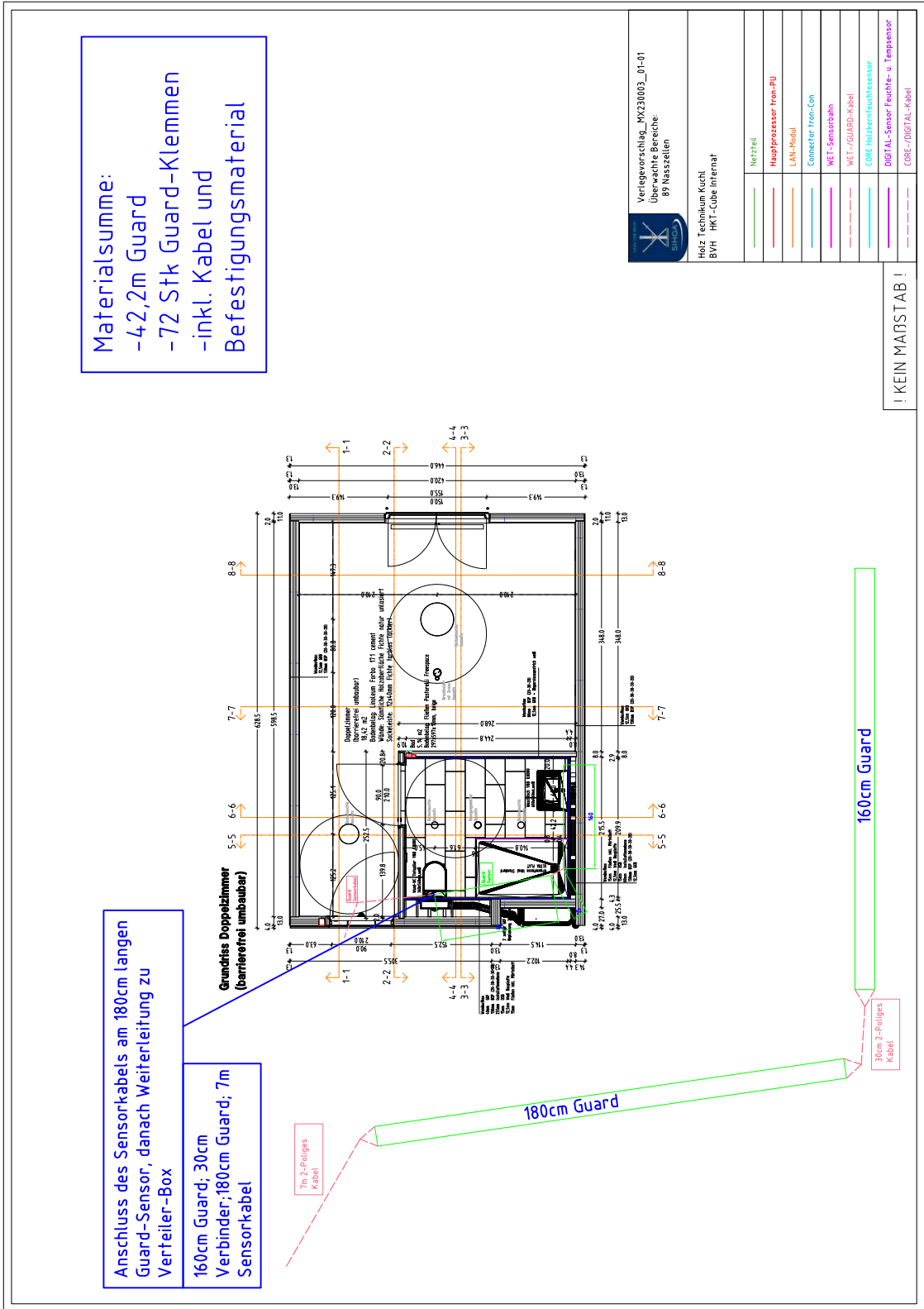
! KEIN MAßSTAB !

FROM THE FIELD

HTK-Cube - Holz Technikum Kuchl

(89 wet rooms in modular construction)



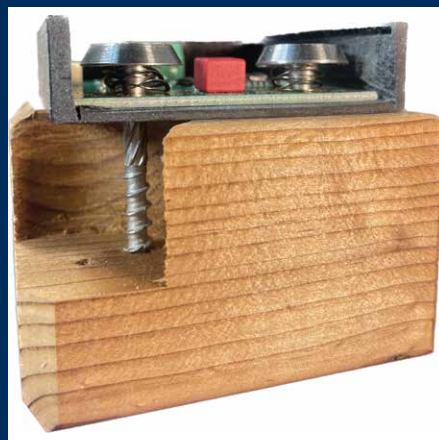


FROM THE FIELD

Wooden traffic sign bridge (30 m length)



- **Monitoring of wood core moisture at all neuralgic points**
- **Integration of sensor strips in the glued laminated timber**





SIHGA MONITORIX® PARTNER SYSTEM

Become part of the success story!
Further information at: monitoring@sihga.com

Only those who are courageous and
break new ground will succeed
in changing the world!

Monitorix® general

You can find a form and tender documents on our website.



Monitorix® wired

5 - Moisture monitoring



Your SIHGA® Monitorix® is
ready for real-time moisture
measurement.



Sensor types

WET	20
GUARD	24
DIGITAL	28
CORE	32



Evaluation electronics

Processor unit	36
Connector	40



WET sensor strip

SIHGA®



Monitorix® WET sensor strip



SIHGA® Feature

Two sensor wires embedded in plastic fabric

Insert length from 0.5 - 20 m

Tool-free mounting on sensor terminal

Delivery in handy cardboard boxes

Resistances from wet to dry

YOUR Benefit

The robust processing makes the sensor strip particularly suitable for practical use on the construction site

Enables a high degree of flexibility and makes work easier

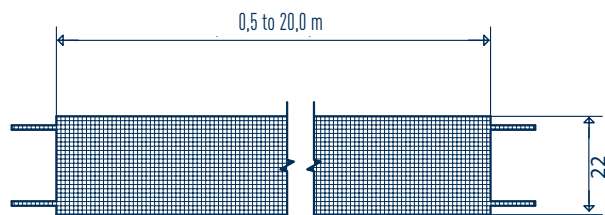
By sliding the sensor wires, a connection to the sensor terminal can be established without additional tools

Easy installation of the sensor strips using system packaging

Due to the fixed spacing of the wires, an exact diagram can be displayed in the cockpit using logic



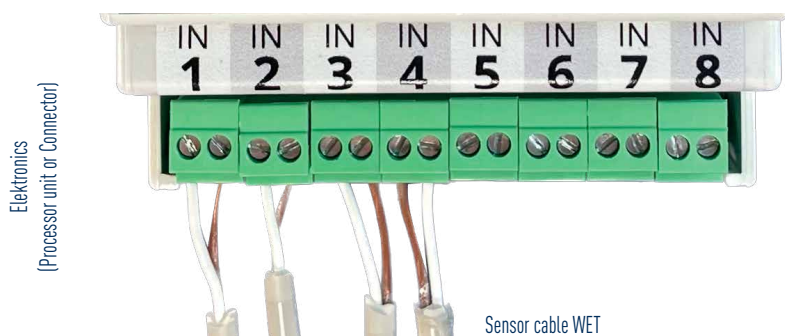
SIHGA®		Dimension		Effective length	Connections		Measurement type
montagepack		Width	Length	per slot	Sensor cable	Clamp WET	Resistance
Art. No.	PU	[mm]	[m]	min - max [m]	2 x 0,25 mm ²	Through connector	kOhm
TT60286	1	22	25	0,5 - 20	2-pole	2 Pcs.	0 - 300
TT60289	1	22	100	0,5 - 20	2-pole	2 Pcs.	0 - 300



Sensor strip connection



Electronics connection



SIHGA® TIP:

Sensor strips can also be divided at one and the same slot and the transitions connected with sensor cable WET.

Necessary accessories

(Except for expansion)



SIHGA® Feature

YOUR Benefit

Monitorix® Processor unit (Art. No.: TT60001)

Evaluation electronics

Is connected to the power supply using the Power supply and connected to the Internet / Monitorix® Cockpit via the LAN-module



Monitorix® LAN-module (Art. No.: TT60011)

Connection to the Internet via RJ45 network cable from Cat6

The Processor unit is connected to the Internet via LAN cable;
Cable not included in the scope of delivery



Monitorix® Power supply (Art. No.: TT60041)

230 V alternating current to 12 V low voltage

The Processor unit and the entire project are supplied with power via the Power supply



Monitorix® Sensor cable (Art. No.: TT60066 or TT60069)

Connecting cable between electronics and
WET/GUARD sensor strip

The pulse from the electronics is transferred to the sensor strip and the resistance measurement is transmitted to the cockpit



Monitorix® Clamp WET (Art. No.: TT60122 or TT60123)

Connection terminal between WET sensor track and
WET-/GUARD sensor cable

Tool-free connection of
WET sensor strip and
WET-/GUARD sensor cable



Monitorix® Gel box (Art. No.: TT60332 or TT60336)

Moisture protection for terminal connection WET

Immediately ready for use and accessible again without special tools



Monitorix® Checkbox (Art. No.: TT60346 or TT60356)

Terminating resistor for closing the sensor track

The functionality of the WET sensor track can be checked either in the cockpit or on site using a multimeter



SIHGA® TIP:

Secure the position using adhesive tape (see installation instructions or installation video).

GUARD sensor strip



Monitorix® GUARD sensor strip



SIHGA® Feature

The impedance in components is transmitted to the electronics by transmitting pulses

Self-adhesive, water-repellent cellulose strip with printed graphite sensors

Slim material thickness with high efficiency

Measuring the impedance of structurally demanding superstructures

Rust-resistant Clamp as a connecting element

YOUR Benefit

A wide range of units is covered to illustrate the explanation of vapor diffusion in building structures

Quick installation and processing thanks to factory-applied adhesive

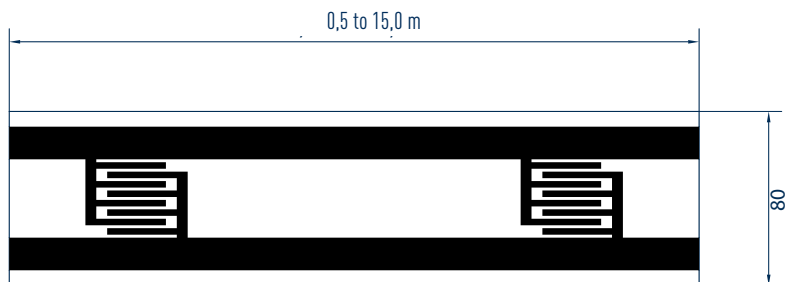
Sensor membranes can be embedded in laminated wood

Possibility of moisture monitoring on constructions with challenging features

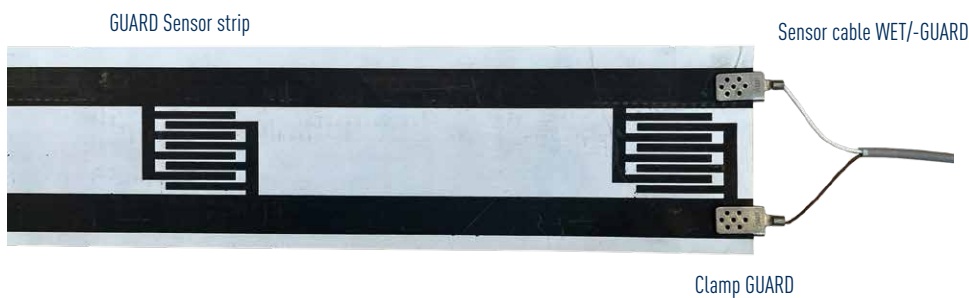
Clamping the toothing to the sensor strip ensures a static connection to the sensor cable



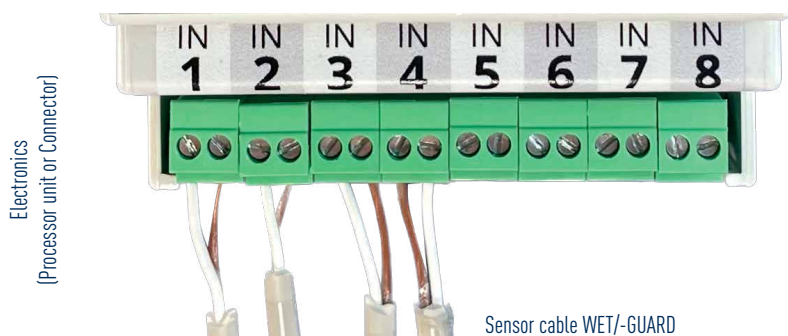
SIHGA®		Dimension		Effective length	Connections		Measurement type
montagepack		Width	Length	per slot	Sensor cable	Sensor clamp	Impedance
Art. No.	PU	[mm]	[m]	min - max [m]	2 x 0,25 mm ²	Clamp GUARD	Units
TT60056	1	80	25	0,5 - 15	2-pole	2 Pcs.	0 - 65.000
TT60059	1	80	250	0,5 - 15	2-pole	2 Pcs.	0 - 65.000



Sensor strip connection



Electronics connection



SIHGA® TIP:

It is recommended that the GUARD sensor membrane is not used in combination with wet fills during installation. In this case, however, the WET sensor track can be used.

Necessary accessories (Except for expansion)



SIHGA® Feature

YOUR Benefit

Monitorix® Processor unit (Art. No.: TT60001)

Evaluation electronics

Is connected to the power supply using the Power supply and connected to the Internet / Monitorix® Cockpit via the LAN-module



Monitorix® LAN-module (Art. No.: TT60011)

Connection to the Internet via RJ45 network cable from Cat6

The Processor unit is connected to the Internet via LAN cable;
Cable not included in the scope of delivery



Monitorix® Power supply (Art. No.: TT60041)

230 V alternating current to 12 V low voltage

The Processor unit and the entire project are supplied with power via the Power supply



Monitorix® Sensor cable (Art. No.: TT60066 or TT60069)

The Processor unit and the entire project are supplied with power via the Power supply

The pulses from the electronics are transferred to the sensor track and the impedance is transmitted to the cockpit



Monitorix® Clamp GUARD (Art. No.: TT60022 or TT60023)

Connection terminal between GUARD sensor track and WET/-GUARD sensor cable

Sensor clamp connects GUARD sensor track and sensor cable-WET/-GUARD



SIHGA® TIP:

The total length of the sensor cables must not exceed 100 meters per slot.

DIGITAL-sensor

SIHGA®



Monitorix® DIGITAL-sensor



SIHGA® Feature

- Compact design in plastic
- Pre-contacted screw terminal
- Measures relative humidity and room temperature
- Can be installed in a star-shaped arrangement

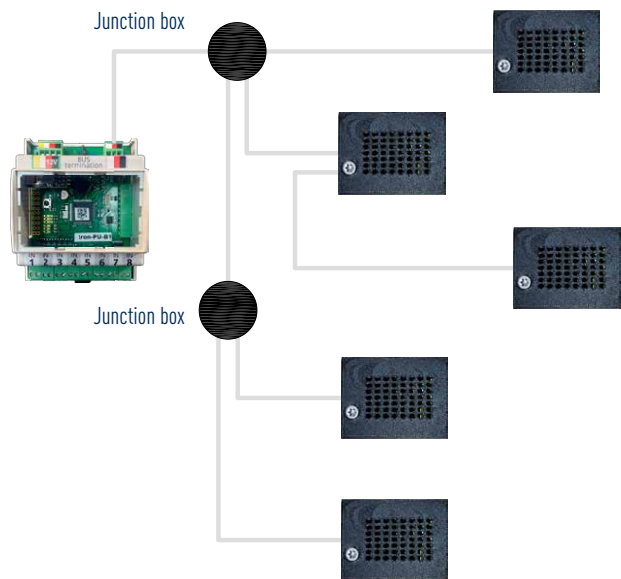
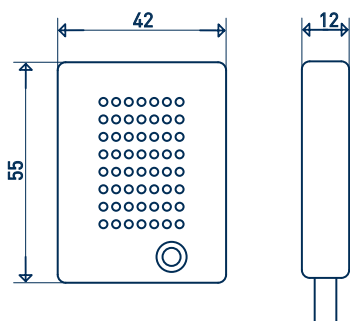
YOUR Benefit

- Very flexible installation due to small size
- The sensor cables can be mounted on the terminal so that it is not necessary to open the housing
- In combination with GUARD or WET, you have more informative power when analyzing the object data
- The LIN BUS cable allows you to cover up to 8 sensors with one electronic connection



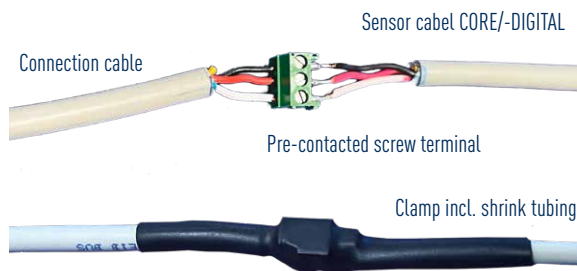
SIHGA®		Dimension	Assembly	Connections		
montagepack		L x W x H	Drill hole	Processor unit / Connector	Sensor cable	Connection cable
Art. No.	PU	[mm]	[mm]	LIN-BUS	2 x 2 x 0,8 mm ²	Assembly
TT60031	1	42 x 55 x 12	ø 5	1	4-pole	Screw terminal

Measurement type	
Measuring range	
rel. humidity	Temperature
0 - 100%	-40 to 100°C

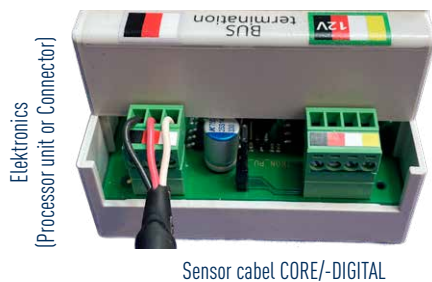


Star-shaped arrangement

Sensor connection



Electronics connection



SIHGA® TIP:

To prevent possible corrosion of the screw terminal and strands, a shrink sleeve is included in the scope of delivery.

Necessary accessories

(Except for expansion)



SIHGA® Feature

Monitorix® Processor unit (Art. No.: TT60001)

Evaluation electronics

YOUR Benefit

Is connected to the power supply using the Power supply and connected to the Internet / Monitorix® Cockpit via the LAN-module



Monitorix® LAN-module (Art. No.: TT60011)

Connection to the Internet via RJ45 network cable from Cat6

The Processor unit is connected to the Internet via LAN cable; Cable not included in the scope of delivery



Monitorix® Power supply (Art. No.: TT60041)

230 V alternating current to 12 V low voltage

The Processor unit and the entire project are supplied with power via the Power supply



Monitorix® Sensor cable (Art. No.: TT60216)

4-pole connection cable between electronics, CORE and DIGITAL sensors

Up to 8 sensors per Processor unit or connector can be installed in a star-shaped arrangement using the LIN BUS line

Optional accessories



Monitorix® Connector (Art. No.: TT60081)

Always expands the sensor slots of the Processor unit many times over

A Processor unit can be expanded by up to 13 connectors via a plug connection or BUS line (with local disconnection)



Monitorix® BUS-cable (Art. No.: TT60076)

4-pole CAN bus cable

Locally separated electronics can be connected in series via CAN BUS cable



SIHGA® TIP:

The sum of the sensor cables arranged in a star configuration must not exceed a total length of 100 meters per Processor unit or connector.

CORE sensor

SIHGA®



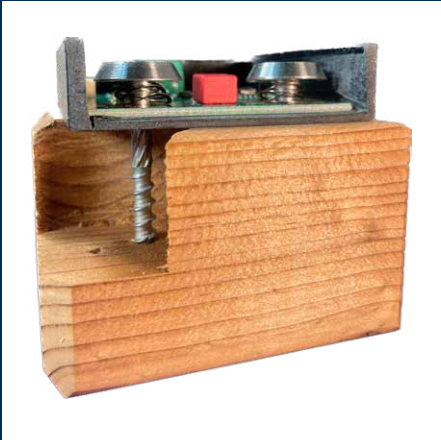
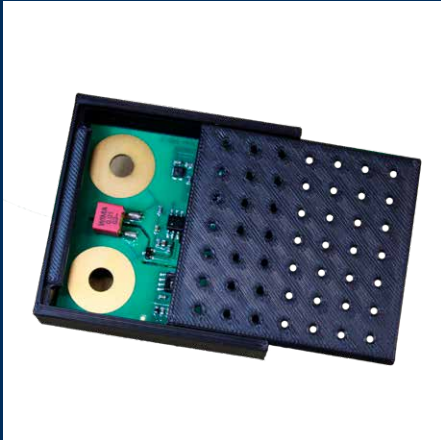
Monitorix® CORE sensor



SIHGA® Feature

YOUR Benefit

Plastic housing with integrated electronics	Very easy to install due to its small size
Connection via screw terminal in the housing	The CORE sensor cables can be clamped directly to the device and connected in a star configuration
Measures relative humidity and room temperature	In combination with GUARD or WET, you have more informative power when analyzing the object data
Can be installed in a star-shaped arrangement	The LIN BUS cable allows you to cover up to 8 sensors with one electronic connection
Measurement of wood core moisture	The screws supplied are both the measuring wires and also serve as fasteners
Spring for tension-free mounting	The spring to be installed prevents screw breakage and damage to the board due to shrinkage and swelling of the wood

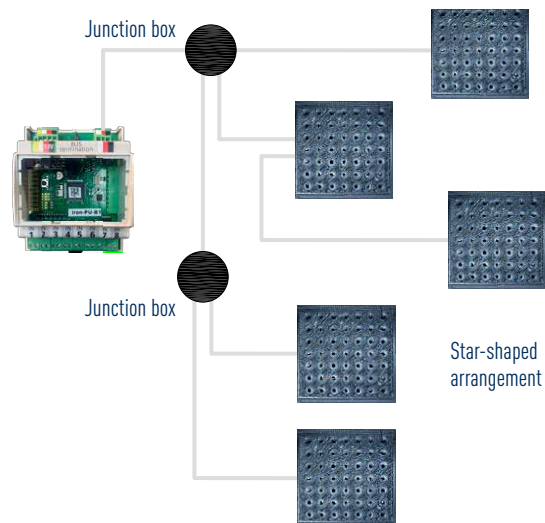
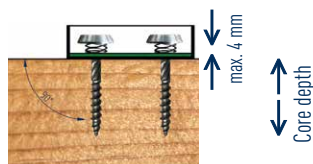
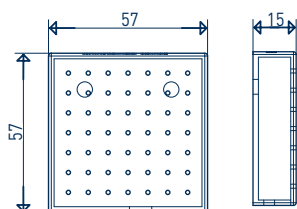


SIHGA®		Dimension	Assembly	Connections		
montagepack		L x W x H	2 holes	Processor unit / Connector	Sensor cable	Connection cable
Art. No.	PU	[mm]	[mm]	LIN-BUS	2 x 2 x 0,8 mm ²	Assembly
TT60201	1	57 x 57 x 15	ø 6	1	4-pole	Screw terminal

Measurement type

Measuring range

rel. humidity	Temperature
0 - 100%	-40 to 100°C

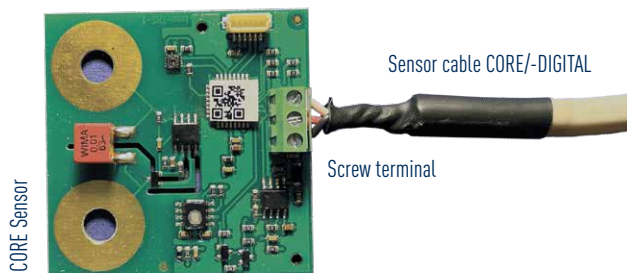


Wood core moisture

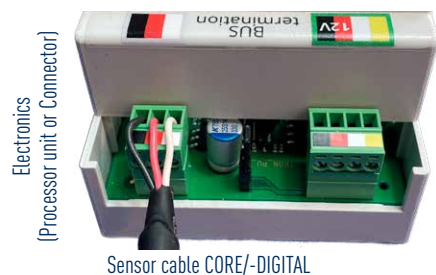
Measuring range

Core moisture	Core depth	Scope of delivery
6% - 30%	0 - 40 mm	Standard
6% - 30%	70 - 90 mm	on request

Sensor connection



Electronics connection



SIHGA® TIP:

Compress the spring to a maximum of 4 mm to avoid damage to screws and electronics due to shrinkage and swelling of the wood.

Necessary accessories

(Except for expansion)



SIHGA® Feature

Monitorix® Processor unit (Art. No.: TT60001)

Evaluation electronics

YOUR Benefit

Is connected to the power supply using the Power supply and connected to the Internet / Monitorix® Cockpit via the LAN-module



Monitorix® LAN-module (Art. No.: TT60011)

Connection to the Internet via RJ45 network cable from Cat6

The Processor unit is connected to the Internet via LAN cable; Cable not included in the scope of delivery



Monitorix® Power supply (Art. No.: TT60041)

230 V alternating current to 12 V low voltage

The Processor unit and the entire project are supplied with power via the Power supply



Monitorix® Sensor cable (Art. No.: TT60216)

4-pole connection cable between electronics, CORE and DIGITAL sensors

Up to 8 sensors per Processor unit or connector can be installed in a star-shaped arrangement using the LIN BUS line

Optional accessories



Monitorix® Connector (Art. No.: TT60081)

Always expands the sensor slots of the Processor unit many times over

A Processor unit can be expanded by up to 13 connectors via a plug connection or bus line (with local disconnection)



Monitorix® BUS-cable (Art. No.: TT60076)

4-pole CAN bus cable

Locally separated electronics can be connected in series via CAN bus cable



SIHGA® TIP:

The sum of the CORE or DIGITAL sensors per Processor unit or connector must not exceed 8, but it is possible to mix them.

Processor unit

SIHGA®



Monitorix® processor unit
tron-PU



SIHGA® Feature

YOUR Benefit

Evaluation electronics

Is connected to the power supply using the Power supply and connected to the Internet / Monitorix® cockpit via the LAN-module

Slot for up to 8 sensor strips (Monitorix® WET or GUARD)

Each electronic can mount up to 8 risk areas or problem areas on moisture

Space for up to 8 wood core moisture, relative humidity and temperature sensors in star connection

Ideal reference sensors for tuning the sensor paths and extended analysis in the event of moisture ingress; the core moisture of load-bearing timber components can also be monitored

Top-hat rail mounting possible

Can be mounted in a switch cabinet, flush-mounted or surface-mounted distribution board without tools

Browser-based recording in the cockpit

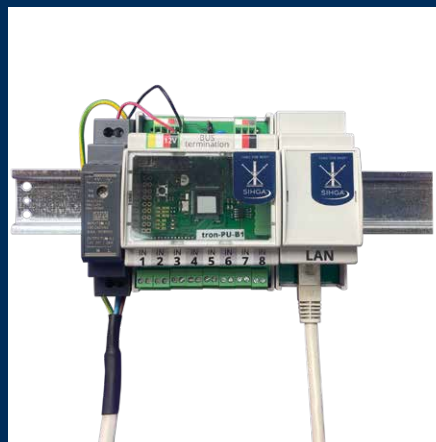
The cockpit can be accessed via any end device, no app or updates required

Jumper for opening or closing

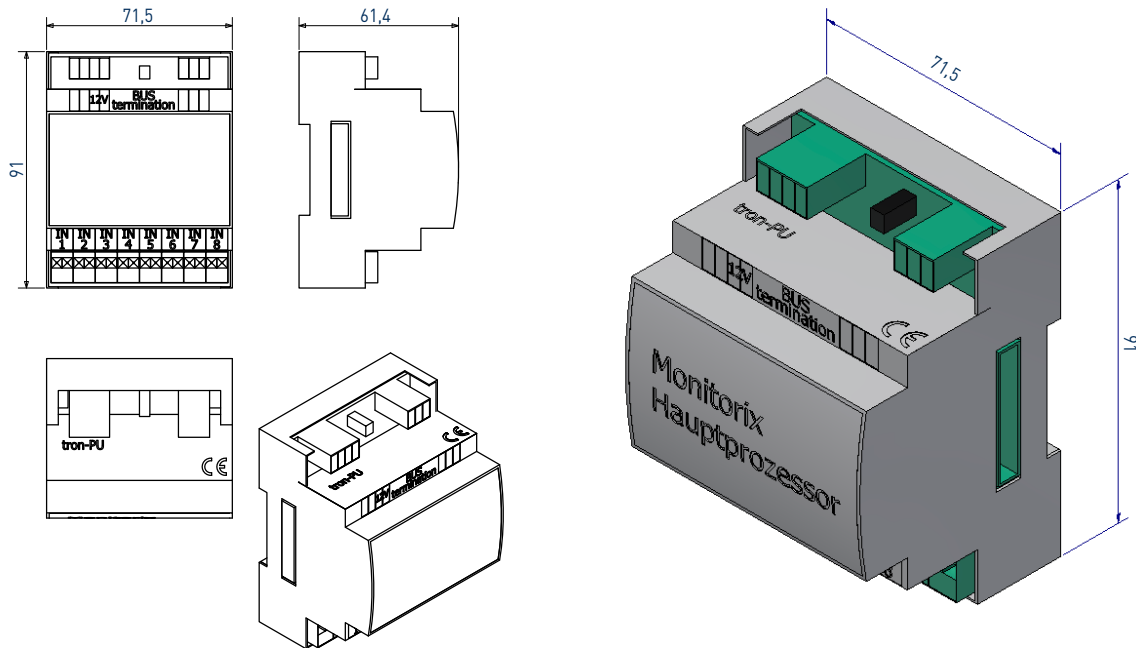
Enables locally separated placement of the electronics (Processor unit and Connector)

CE-compliant

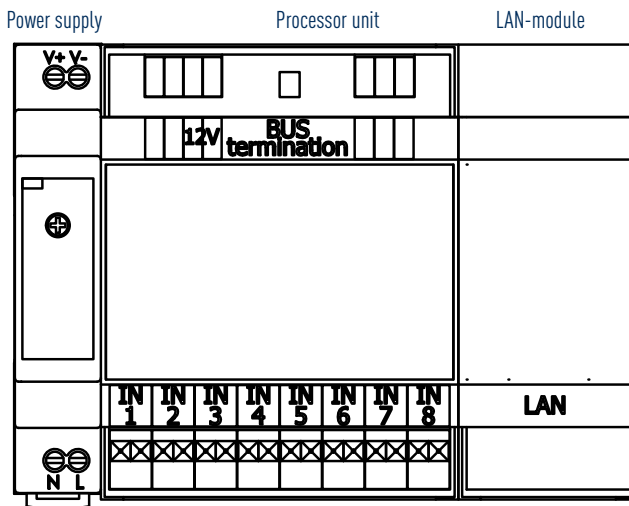
Tested quality



SIHGA®		Dimension	Dividing unit	Connections			
montagepack		L x B x H	Top hat rail	Connector	CORE-DIGITAL-Sensor	Sensor strip	Extension
Art. No.	PU	[mm]	1DU = 18 mm	CAN-BUS	LIN-BUS	WET	Coupling Connector
TT60001	1	71,5 x 91 x 61,4	4DU	1	8	8	1



Assembly sequence



SIHGA® TIP:

The hardware is only fully functional in combination with an annual software license.

Necessary accessories



SIHGA® Feature

Monitorix® LAN-module (Art. No.: TT60011)

Connection to the Internet via RJ45 network cable from Cat6

YOUR Benefit

The Processor unit is connected to the Internet via LAN cable; Cable not included in the scope of delivery



Monitorix® Power supply (Art. No.: TT60041)

230 V alternating current to 12 V low voltage

The Processor unit and the entire project are supplied with power via the Power supply

Optional accessories



Monitorix® Connector (Art. No.: TT60081)

Always expands the sensor slots of the Processor unit many times over

A Processor unit can be expanded by up to 13 connectors via a plug connection or BUS line (with local disconnection)



Monitorix® BUS-cable (Art. No.: TT60076)

4-pole CAN bus cable

Locally separated electronics can be connected in series via CAN BUS cable



SIHGA® TIP:

Up to 13 connectors can be connected to a main processor via the LAN module, either by plug connection or CAN bus line.

Connector

SIHGA®



Monitorix® Connector
tron-CON



SIHGA® Feature

Extends the sensor slots of the Processor unit many times over

Slot for up to 8 sensor strips (Monitorix® WET or GUARD)

Space for up to 8 wood core moisture, relative humidity and temperature sensors in star connection

Top-hat rail mounting possible

Browser-based recording in the cockpit

Jumper for opening and closing

CE-compliant

YOUR Benefit

A Processor unit can be extended by up to 13 connectors via plug connection or CAN bus line (with local disconnection)

Each electronic unit can monitor up to 8 risk areas or problem areas for moisture

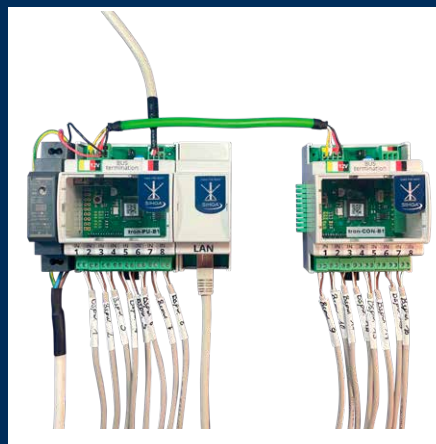
Ideal reference sensors for tuning the sensor paths and extended analysis in the event of moisture ingress; the core moisture of load-bearing timber components can also be monitored

Can be mounted in a switch cabinet, flush-mounted or surface-mounted distribution board without tools

The cockpit can be accessed via any end device, no app or updates required

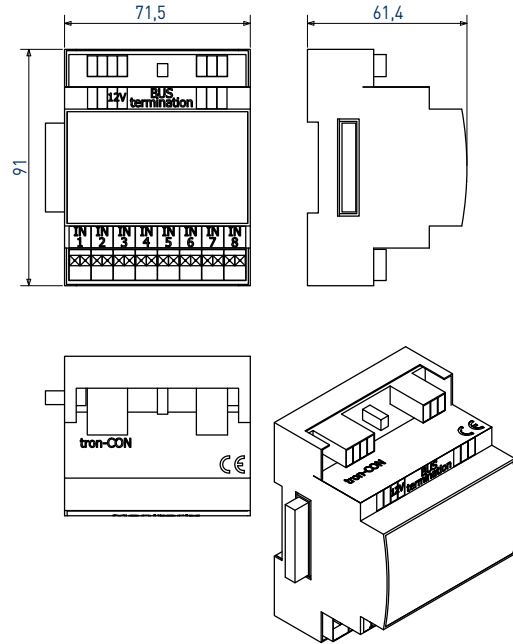
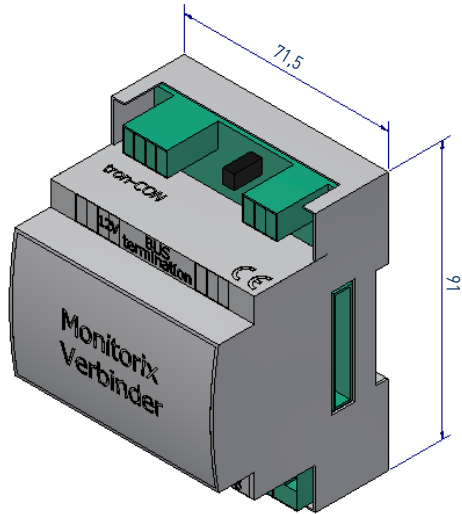
Enables locally separated placement of the electronics (Processor unit and connector)

Tested quality

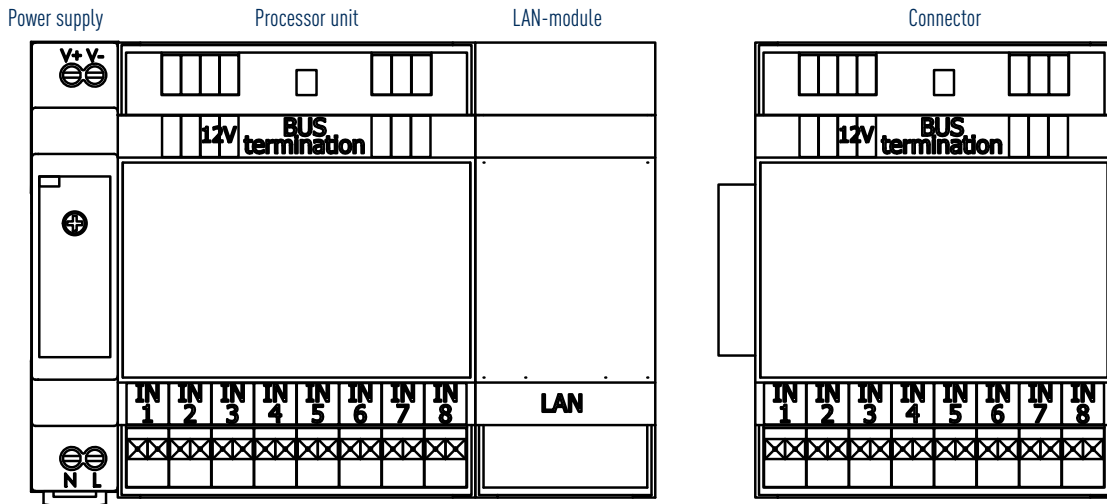


SIHGA®		Dimension	Dividing unit		Connections		
montagepack		L x W x H	Top hat rail	Main processor	CORE-DIGITAL-Sensor	Sensor strip	Extension
Art. No.	PU	[mm]	1DU = 18 mm	CAN-BUS	LIN-BUS	WET	Coupling Connector
TT60081	1	71,5 x 91 x 61,4	4DU	1	8	8	1

Extension	
Coupling Connector	Plug Connector
1	1



Assembly sequence



SIHGA® TIP:

When expanding the system, the connector can be plugged directly into the LAN-module or connected via the CAN bus line in the event of local disconnection.

Necessary accessories

(Except for expansion)



SIHGA® Feature

Monitorix® Processor unit (Art. No.: TT60001)

Evaluation electronics

YOUR Benefit

Is connected to the power supply using the Power supply and connected to the Internet / Monitorix® Cockpit via the LAN-module



Monitorix® LAN-module (Art. No.: TT60011)

Connection to the Internet via RJ45 network cable from Cat6

The Processor unit is connected to the Internet via LAN cable; Cable not included in the scope of delivery



Monitorix® Power supply (Art. No.: TT60041)

230 V alternating current to 12 V low voltage

The Processor unit and the entire project are supplied with power via the Power supply

Optional accessories



Monitorix® BUS-cable (Art. No.: TT60076)

4-pole CAN bus cable

Locally separated electronics can be connected in series via CAN BUS cable



SIHGA® TIP:

The network requirements can be found in the installation instructions at www.sihga.com/service/download.



RELIABLE CONTROL



LEGAL CERTAINTY



EARLY DETECTION

ROOF IOT



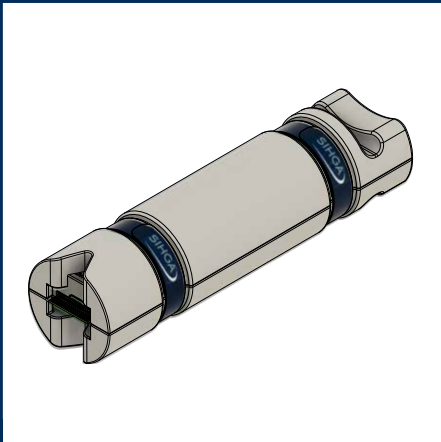
Monitorix® ROOF IOT



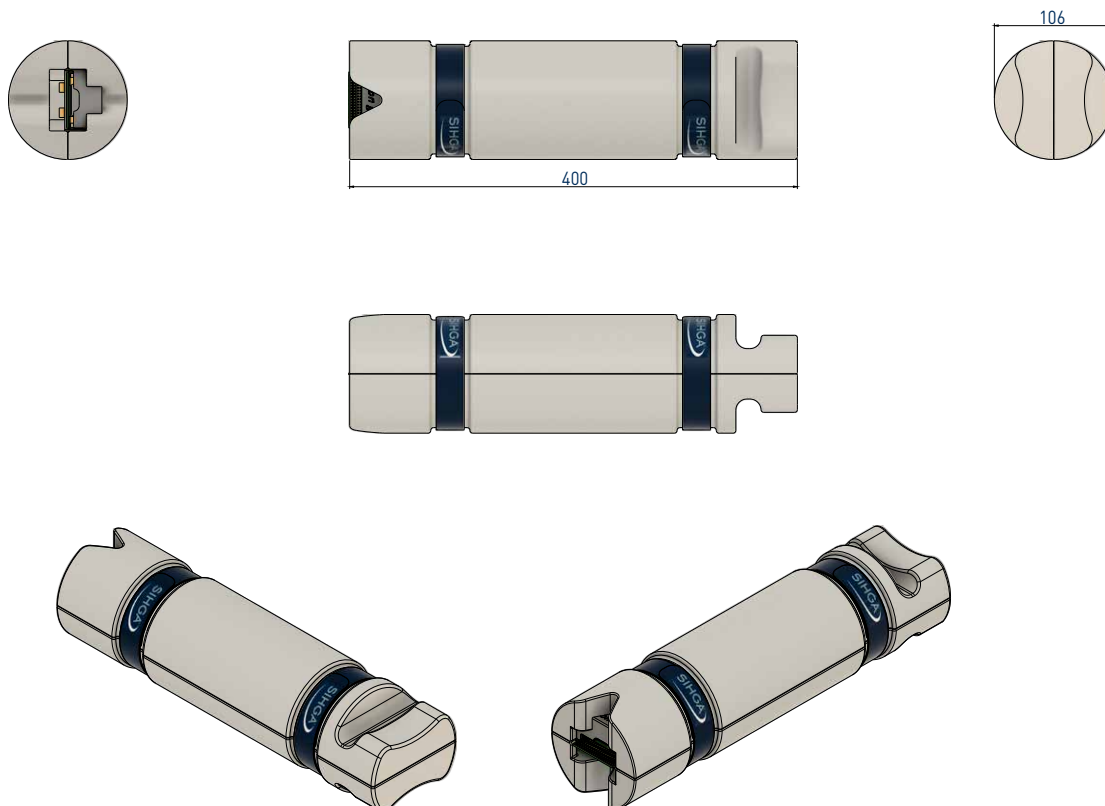
SIHGA® Feature

YOUR Benefit

EPS cylinder placed in inspection port	The ROOF IOT can be inserted and put into operation without tools
Measurement of 4 parameters	By measuring the temperature, relative humidity, water level in mm and moisture content of the EPS housing, these measured values can be used to detect damage
Existing roofs or new construction	The ROOF IOT can be used both on existing flat roofs by retrofitting an inspection spigot and on new flat roofs via the inspection spigot
No cabling necessary	The ROOF IOT is battery-operated and sends the data to the software via an integrated SIM card; an automatic alarm is triggered when the battery is low



SIHGA®		Dimension	Assembly	Operating mode	Battery	
montagepack		ø x L	Control nozzle inside	Battery	Service life	Operating temperature
Art. No.	PU	[mm]	min. 110 mm	1,5 V AA	years	°C
TT60291	1	106 x 400	No scope of delivery	6	> 3	-20 to 60



Data transmission

Transmission	Measuring interval	Transmission interval	Goal
Free network	Hours	Hours	Web application
NB IoT	6	24*	https://tagtron.sihga.com

* every 24 hours and when threshold values are exceeded

Measurement type

Measuring range	Water level	relative humidity		Temperature		Moisture measurement of the EPS housing	
[mm]	Res. [mm]	Range [%]	Res. [%]	Range [°C]	Res. [°C]	Measuring principle	Range [%]
0 - 12	0 / 4 / 7 / 12	0 - 100	0,1	-40 to 100	0,1	Resistance	6 - 100

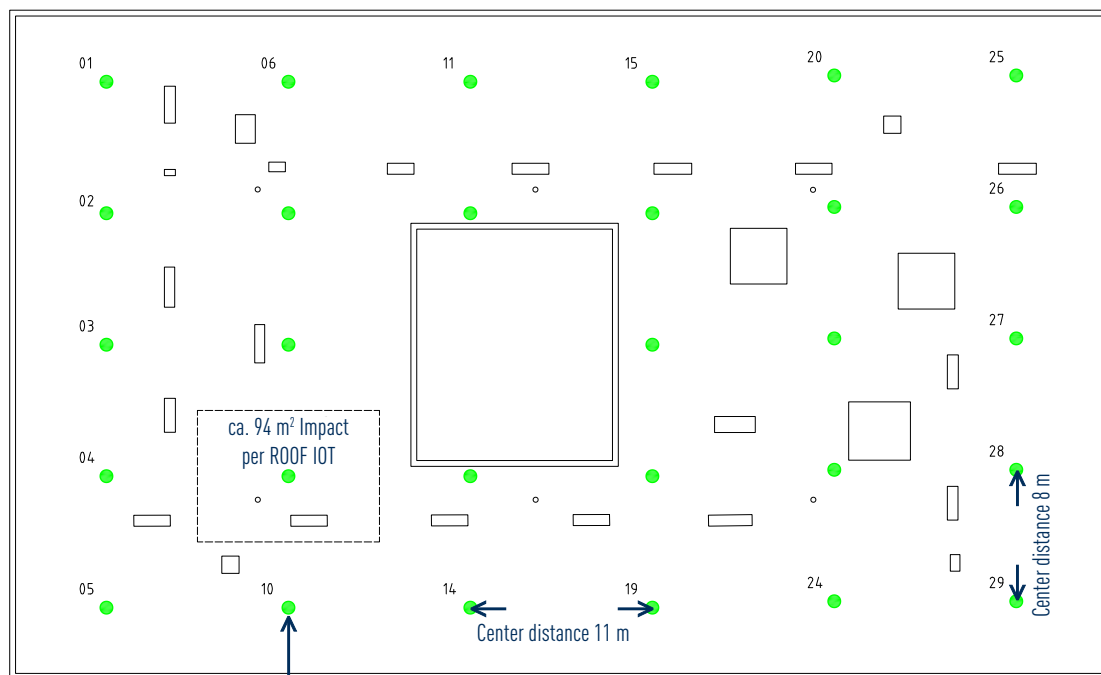


SIHGA® TIP:

When purchasing the control connection pieces, ensure that they have an internal diameter of at least 110 mm.

Application example

Flat roof (Warm roof)	Equipment	Impact	Center distances
Roof area [m²]	ROOF IOT (pcs.)	per sensor [m²]	per sensor [m]
ca. 2.700	29	ca. 94	ca. 11 x 8

**ROOF IOT**

Point measurement of the:

- relative humidity
- Temperature
- Water level on vapor barrier
- Moisture content of the EPS housing

**SIHGA® TIP:**

The inspection nozzle is not included in the scope of delivery.
This must be provided and pre-assembled.

Ideal for your first project



Possibilities with a Monitorix® StarterKit:

- a detached house can be completely monolithized indoors
- up to 8 problem areas can be monitored
- Leaks on smaller flat roofs can be localized down to the square metre
- only power and internet connection must be available
- An existing system can be easily expanded
- a SIHGA® Swedish meter is supplied to make measuring easier

SIHGA®		Monitorix® starter kit contains								
montagepack	Power supply	Main processor	LAN module	Sensor track- WET	Sensor clamp- WET/-GUARD	Clamp WET	Gel box	Checkbox	Adhesive tape*	
Art. No.	PU	Quantity (pcs.)	Quantity (pcs.)	Quantity (pcs.)	Quantity (m)	Quantity (m)	Quantity (pcs.)	Quantity (pcs.)	Quantity (pcs.)	Quantity (m)
TT60326	1	1	1	1	25	100	20	10	10	15

* Adhesive tape is only available in combination with StarterKit or project handling

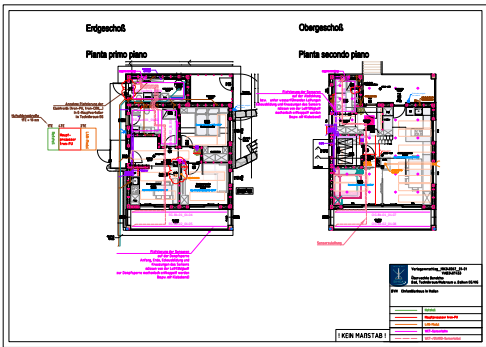


SIHGA® TIP:

The mains connection must be established by a qualified electrician.

From the offer to activation

Planning

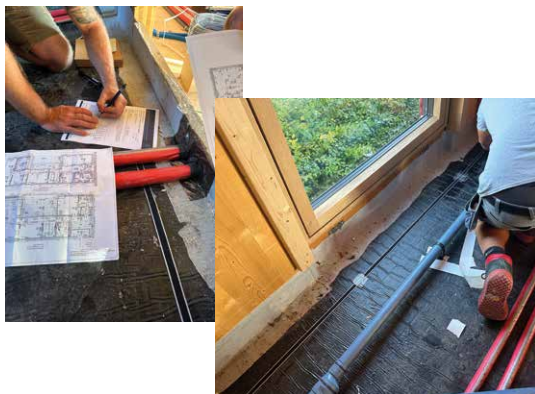


Calculation

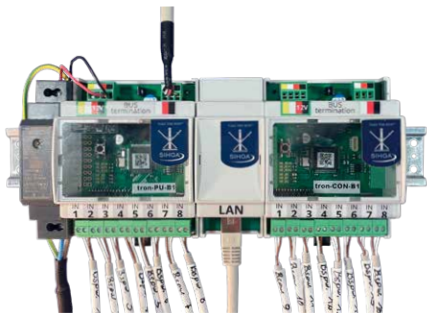


Seriennummer	Elektronik	Position/Beschreibung	Sensor	Sensor-Länge/Steckplatz (Guard max. 15,0 + 2,0 lfm) WET max. 20,0 + 2,0 lfm	Sensor-Kabel Zuleitung (max. 100 m)	Sensor-Verbinder Anzahl (inkl. Klemmen/Verbinder)	Sensor-Klemmen
1	EG-Technik		WET	2,0 lfm	5,0 lfm	-	2 Stk
2	EG-Bad-01		WET	3,0 lfm	5,0 lfm	-	2 Stk
3	EG-Bad-02		WET	2,0 lfm	5,0 lfm	-	2 Stk
4	EG-Bk-01		WET	4,0 lfm	15,0 lfm	-	2 Stk
5	EG-Bk-02		WET	4,0 lfm	15,0 lfm	-	2 Stk
6	_OG-Bad		WET	2,0 lfm	10,0 lfm	-	2 Stk
7	_OG-Bk-01		WET	4,0 lfm	20,0 lfm	-	2 Stk
8	_OG-Bk-02		WET	4,0 lfm	25,0 lfm	-	2 Stk

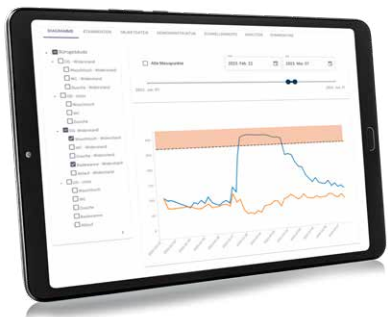
Installation



Connection



Automatic recording in the online portal



SIHGA® TIP:

Full functionality is only guaranteed if the software offer is accepted.

Monitorix[®] Awards



Young Entrepreneur award 2024

Awarded by: Wirtschaftskammer Österreich (WKÖ),
Junge Wirtschaft



State prize for digitalization 2023

Digital transformation & innovation

Awarded by: Republik Oostenrijk
(Bundeskanzleramt Digital Austria)



HolzLand award 2024

Top supplier & innovative product

Awarded by: www.holzland.com



Woody award 2023

1st place innovative produkt

Awarded by: Gesamtverband Deutscher Holzhandel e. V. (GD Holz)



Craftsmanship award 2022

1st Place innovation & digitalization

Awarded by: **Wirtschaftskammer Österreich (WKÖ),
Raiffeisen Bankengruppe**



Digitalos award 2022

1st Place digital transformation

Awarded by: **OÖNachrichten, Tabakfabrik Linz, KPMG, Sparkasse,
Wiener Städtische Versicherung AG**



JULIUS award 2022

Quality operation

Awarded by: **Wirtschaftsbund Österreich (ÖÖ)**



Austrian model company 2022

Quality mark certified quality

Awarded by: **Austria Gütezeichen**



TAKE THE BEST



Leitbetrieb
Österreich



Leitbetrieb
Deutschland

SIHGA®

SIHGA® GmbH

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