celsicom easyconnect®

Advanced remote measuring has never been easier.

Discover mobile connected and cloud-based monitoring of measurement values.

Scan and read about simple and reliable measurement remotely.

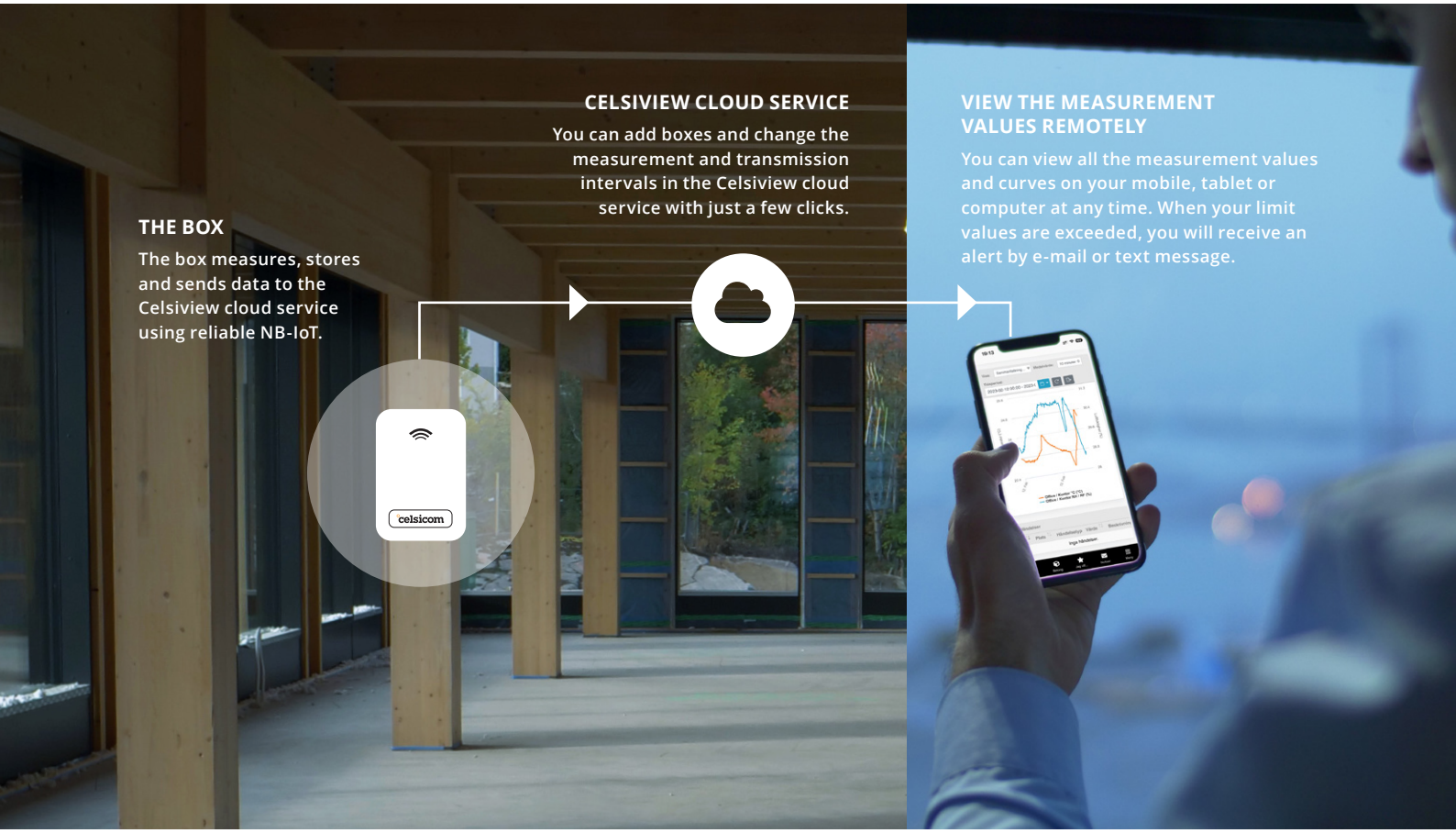
celsicom-easyconnect.com

Futureproof technology.

Our Celsicom Easy Connect system utilises the NB-IoT (Narrow Band Internet Of Things) technology to send measurement data via its own frequency in the existing mobile network. The frequency is only intended for sending small amounts of data and not for mobile telephony. This results in very good coverage, even in places where you might not be able to make a call or send a text message with your mobile. The technology is futureproofed with a global standard. The Easy Connect devices can also be updated via the NB-IoT network which means trouble-free maintenance.

No gateway required.
Each box measures and sends directly to the cloud.

This is how the future of remotely measuring different environments will work:



3 main advantages of Celsicom Easy Connect.

SIMPLE IN ANY SITUATION

After a quick installation, the box takes care of itself. You can calmly get on with your tasks and check the measurement data on your mobile, tablet or computer whenever you want.

HIGH RELIABILITY

All measurement data is sent directly and wirelessly from the box with the Narrowband-Internet of Things (NB-IoT) technology on its own frequency in the mobile network, which involves minimal risk of operational disturbances.

SMALL INVESTMENT

We have brought down the costs through conscious material choices and well-thought-out production. The result is a box that contains and performs significantly more than it costs.

All in one compact box.
At an equally streamlined price.

BACKUP MEMORY

Even though all data is sent with the reliable NB-IoT technology, the unexpected can still happen. That is why there is an internal memory that stores measurement data in the event of temporary network problems.

TRANSMITTER WITH ACTIVATED SIM CARD

Your measurement data won't need to take any detours that are sensitive to disturbances via a gateway. All data is sent from the box directly to the Celsiview cloud service.

ALERTS

When your limit values are exceeded, you will receive an alert by e-mail and/or text message.

BATTERIES

Most models are powered by two regular AA batteries that are cheap to replace after one year of operation (measuring every five minutes and transmitting to the cloud every three hours – basic settings that can easily be changed).

ROBUST AND DURABLE

The design of the snap-on cover and screw holes (for wall mounting) makes the box both dust and moisture resistant, and enables it to operate in slightly tougher environments.

SENSORS

Can be both internal sensors and external cable sensors.

Once you have installed and set up the measuring box (which doesn't take very long, see page 9), you no longer need to worry about the limit values being exceeded. As soon as a set limit value has been exceeded, the box automatically sends an alert to the cloud service and then on to selected users via text message and/or e-mail, so that they can act and quickly take appropriate action.

Imagination is the only limitation.

Here are some of the many applications of Celsicom Easy Connect:

CONSTRUCTION CLIMATE/MOISTURE DAMAGE

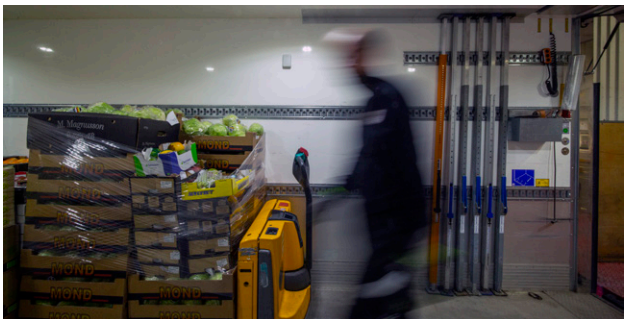
Our measuring boxes give you a quick overview of important measurement values in order to ensure an optimal dry climate during construction or after moisture damage.

FOOD

Simply installing Celsicom Easy Connect boxes in all conceivable refrigerators and freezers enables reliable temperature monitoring of all food.

WAREHOUSE

One or more smart measuring boxes give you unbeatable, valuable, simple and secure monitoring of large and small stocks of valuable goods.

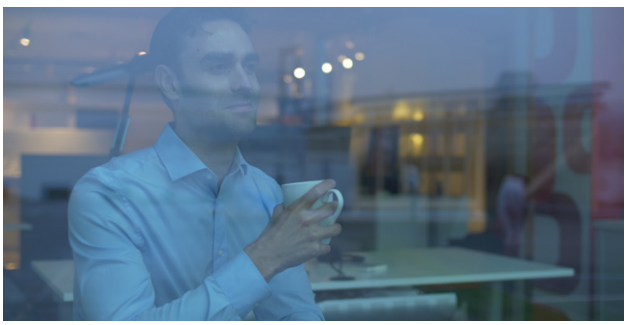


TRANSPORT

The Celsicom Easy Connect boxes are perfect aids for measuring and logging environmental conditions during transport of all kinds of goods.

CONCRETE CASTING

Celsicom Easy Connect helps you have full control of the development of the concrete's strength and see when the hardening is complete.



INDOOR CLIMATE

We have various models that allow you to measure and evaluate the indoor climate in homes, office spaces and production premises.

Nine varieties of grey.

Our in-house designed grey box is available in various designs for specific measurement needs.

T600

Internal temperature sensor

Directly connected temperature monitoring for heat adjustment, remote monitoring of climate rooms and indoor climate, etc.

- Measurement range: -30... +70 °C
- Accuracy: ±0.5 °C

TH600

Internal temperature/ moisture sensor

Directly connected monitoring of temperature, %RH, vapour concentration and dew point, for example when monitoring the construction climate.

- Measurement range: -30... +70 °C, 0 ... 100 %RH
- Accuracy: ±0.5 °C, ±3 %RH (at 0... 90 %RH)

TC602

Two external TE sensors

Directly connected measurement of differential temperatures in heating systems, cooling circuits, etc.

- Measurement range: depending on thermoelement type
- ±0.5 °C (instrument accuracy, without sensor)

THC600

Sensor for CO_2, air pressure, temperature, relative humidity and vapour concentration

Directly connected sensor for measuring the air quality in a number of different environments, e.g. classrooms, gyms, conference rooms and similar spaces. The sensor measures CO_2, temperature, moisture and air pressure.

- Measurement range: 0–5000 ppm CO_2, -30 to +70 °C, 260 to 1260 mbar absolute pressure, 0–100 %RH
- Maximum deviation: ±30 ppm + 3 % of the measurement value (in the range 0 °C to 50 °C and 0 % to 85 %RH), ±0.5 °C, ±1 mbar, ±3 %RH
- Operating area: 0 °C to 50 °C, 0 %RH to 85 %RH

DP600

Sensor for differential pressure and temperature

Directly connected remote monitoring of differential pressure and temperature.

- Measure pressure differences in homes or production premises
- Monitoring filters
- Pressure control during decontamination tasks
- Measurement range: ±125 Pa, -30 °C to 70 °C
- Maximum deviation: 3 % of the measurement value (Pa), ±2 °C

THR600

Internal radon, moisture and temperature sensor

Directly connected sensor for measuring radon between 0–4000 Bq/m³ and also temperature and relative humidity. Stable radon measurement values after just one hour.

- Satisfies the requirements of the Swedish Radiation Safety Authority's method description for measuring radon in workplaces
- Measurement range: 0–4000 Bq/m³, -30... +70 °C, 0... 100 %RH
- Maximum deviation: ± 25 % at 200 Bq/m³, ± 0.5 °C, ± 3 %RH

TH601x

External temperature/moisture sensor

Directly connected monitoring of temperature, %RH, vapour concentration and dew point, for example when damp proofing, for construction moisture, etc.

- Choose from two cable lengths: 0.4 and 2 metres
- Measurement range: -30... +70 °C, 0 ... 100 %RH
- Accuracy: ±0.5 °C, ±3 %RH (at 20–80 %RH)
- Optional: calibration/adjustment in the 75–95 %RH range for construction applications (the CelsiCal calibration concept)

T601x

External temperature sensor

Directly connected temperature monitoring with external cable sensor for refrigerators, freezers, etc.

- Choose from two cable lengths: 2 and 5 metres
- Measurement range: -40... +105 °C
- Accuracy: ±0.5 °C

MM611

Moisture content sensor

Directly connected moisture content monitoring

- Adjustable measuring curve for pine, spruce or WME
- Also measures resistance
- Cable length 1 m
- Measurement range: see page 13
- Maximum deviation: see page 13

Gives you full control of the concrete.

Our yellow box is produced for one thing only: to show the development of the concrete's strength and when the hardening is complete.

Keep track of the concrete strength

Model TC603 has a robust and durable enclosure and is intended to be used together with two external thermoelement sensors. Several types can be used and the standard setting is intended for thermoelement wire type T, which can be easily mounted with pole screws. It also has one built-in internal ambient temperature sensor. A typical application is concrete temperature measurement and strength calculations.

Concrete strength

The curve above is an example of what the curve can look like on a tablet, mobile or computer during concrete casting. By choosing the concrete recipe in the cloud service, you get a calculation of the strength and can plan when the moulds are to be removed, in a more efficient manner.

TC603

- For concrete temperature and concrete strength
- Directly connected temperature monitoring in concrete
- Inputs for two external wire sensors (ordered separately)
- Internal sensor for ambient temperature
- Measurement range: depending on thermoelement type (external sensor), -30 °C to +70 °C (internal sensor)

You will be up and running before you can say “directly connected temperature monitoring”.

After these four simple steps, the box is up and running and collecting measurement data:

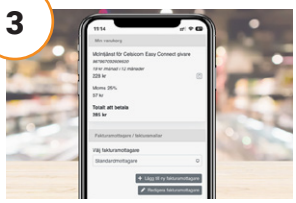
1

If you don’t already have an account, you need to create one and then log in.

2

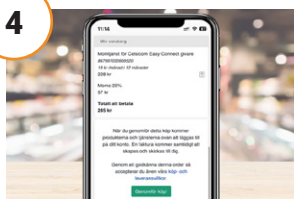
Remove the snap-on cover and scan the QR code located on the inside of the box.

3



Add your sensors to the shopping basket.

4



Open the shopping basket, pay for the cloud service and just place the sensor(s) where you want to measure. Done!

VIEW ALL VALUES WHENEVER YOU WANT

All measurement data is successively sent to the Celsiview cloud service for storage for up to 36 months. You can view current statistics on temperature and moisture, for instance, in different environments at any time on your mobile, tablet or computer.

The Celsiview cloud service gives you access to all measurement data whenever you want.

When your limit values are exceeded, you will receive an alert by e-mail and/or text message and you can set how often each box measures and sends data.

Current measurement values and alerts

You can always view the most recently updated values wherever you are through a regular web browser on your mobile, tablet or computer. If any of your set limit values are exceeded or undershot, you will also receive an alert by e-mail or text message (optional).

Simple installation of transmission and logging time

You decide for yourself how often your values will be measured and how often they will be sent to the cloud. You can easily change these settings. The factory setting on most models is set up for logging every five minutes and transmitting ever three hours, which results in the measuring box having a battery life of about one year.

Cloud service

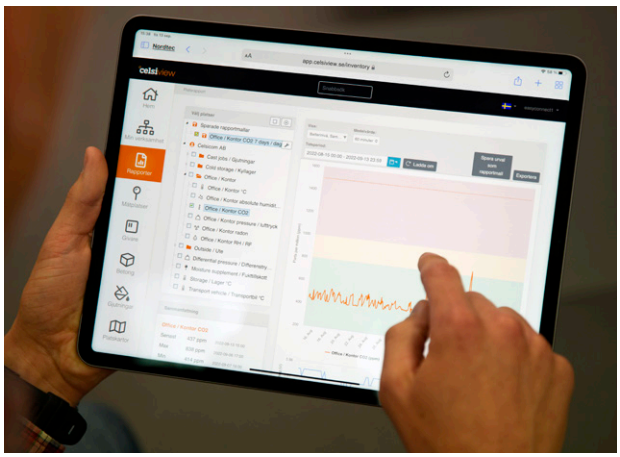
When you scan the QR code on your new measuring boxes, you can either choose to create a new cloud account or add them to an existing account. The price of the cloud service is the same if you choose to have all boxes in the same account or if you create a new one for each box. This means that you can group the boxes in a way that is logical in your application (per construction site, floor, or user profile, etc.). A good tip is to give them relevant names so that you can easily distinguish them from other boxes.

Select concrete recipe and view the strength directly

If you work with concrete casting and have bought our TC603 box, you can follow the concrete strength directly on your mobile or computer after having chosen the concrete recipe in the cloud service (fee per box will be added). You can also add your own concrete recipes if you can't use the standard ready-made recipes.

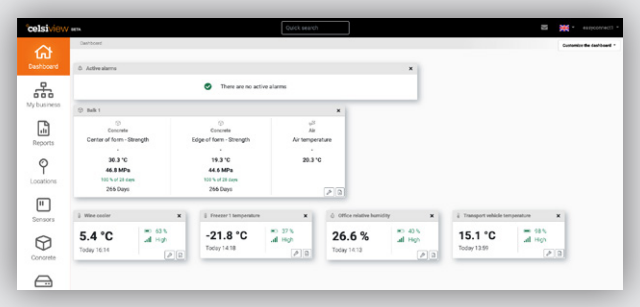
History for 36 months

We store all your measurement data for 36 months, which means that you have the option to document the temperature and moisture, for example, over a long period of time. Great if you subsequently need to show that the values have stayed within specific limits.

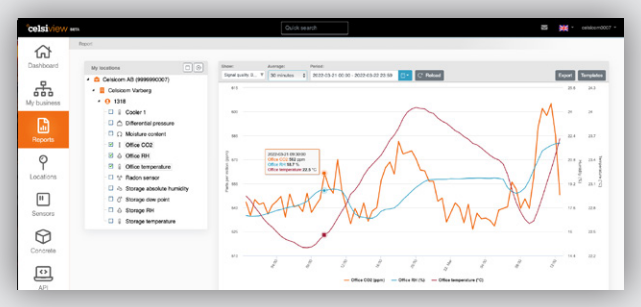


"We have really harnessed the technology so that the users don't have to."

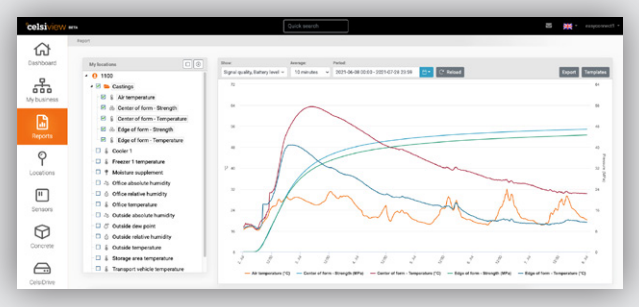
STEFAN CARLSSON, CELSICOM AB



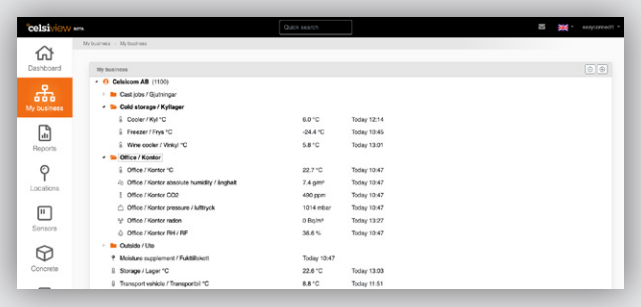
Innovative home screen (dashboard) which you design yourself according to your own wishes using simple drag and drop technology. Clear widgets give you all the important data you need. Active and ongoing alerts are also shown from the sensors/locations you have chosen to show on this dashboard.



The “Reports” menu option gives you a complete and quick overview of your measuring locations. Select the locations and the time period you want to investigate and then easily export the results to a PDF or Excel file. You can also send the report directly by e-mail from within the report view.



If you work with concrete castings, you can easily add and manage your current castings in the “Concrete” menu option. Add a new casting by selecting the sensors and the concrete recipe you want to use and the system will then take care of all logging and calculate the current strength. As the graph above shows, you can easily follow the temperature and strength development in a regular web browser on your computer, tablet or mobile. You will also be notified (by text message and/or e-mail) when your set strength has been achieved.



You can structure all your business, with all the measuring locations you have added, via the “My business” menu option. Assign certain measurement values to certain users with the rights you choose. Create several departments within your business where each department can handle its own sensors and measurement locations. The possibilities are endless!

You can convert the measurement values into clear graphs with a just few simple keystrokes.





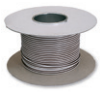
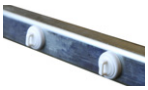
MODEL	T600	TH600	TC602	THC600	DP600
Measurement value	Temperature	Temperature, %RH, vapour concentration, dew point	Two inputs for thermoelement type T/K	CO_2, air pressure, temperature, relative humidity and vapour concentration	Differential pressure and temperature
Measurement range	-30... +70 °C	-30... +70 °C, 0–100 %RH	-200... +400 °C	0–5000 ppm CO_2 -30 to +70 °C 260 to 1260 mbar absolute pressure 0–100 %RH	±125 Pa -30 °C to 70 °C
Maximum deviation	±0.5 °C	±0.5 °C ±3 %RH (at 0–90 %RH)	±0.5 °C**	±30ppm + 3 % of the measurement value (in the range 0 °C to 50 °C and 0 % to 85 %RH) ±0.5 °C ±1 mbar ±3 %RH	3 % of the measurement value (Pa), ±2 °C
IP class	53	43	43	43	43
Size	Enclosure 78 (w) × 114 (h) × 30 (d) mm				
Weight	114 grams (without battery)			119 grams	119 grams
Power supply	2 × AA/LR6 1.5V batteries (not included)			2 × AA 1.5V lithium batteries (not included)	
Cable length	–	–	–	–	–
Battery time	Depending on transmission interval. Example at 20 °C, good signal quality, measurement every 5 minutes and transmission every 3 hours: >12 months				
Connection	NB-IoT (LTE Cat NB1) B20 Output power 23 dBm				
Measurement and transmission intervals	Adjustable by users via the Celsiview cloud service				
Memory	200 measurements				
Certificate	CE				
Mounting method	Mounted vertically with the screw holes facing up. **NB:** If the sensor is to be mounted against metal, magnet bracket 7040 0060 must be used.				

* Can be improved significantly with the Celsical calibration concept, contact your retailer.
** Instrument accuracy, without sensor.




	T601x	TH601x	MM611	THR600	TC603
	Temperature	Temperature, %RH, vapour concentration, dew point	Moisture content	Radon, temperature and relative humidity	3 × temperature: 2 × thermoelements 1 × internal sensor
	-40... +105 °C	-30... +70 °C 0–100 %RH	Resistance: 50 kOhm to 1 GOhm Pine (Trätek): 11.5 % to 45 % Fir (Trätek): 11.5 % to 46 % WME: 9.5 % to 50 %	0–4000 Bq/m^3 -30 to +70 °C 0–100 %RH (non-condensing)	Thermoelement -200... +400 °C Internal sensor -30 °C ... +70 °C
	±0.5 °C	±0.5 °C ±3 %RH* (at 20–80 %RH)*	Resistance: ±15 % (200 kOhm to 800 MOhm) Pine (Trätek): 3 % of the measurement value (12 % to 26 %) Fir (Trätek): 3 % of the measurement value (12.5 % till 27 %) WME: 3 % of the measure-ment value (10 % to 25 %)	±25 % at 200 Bq/m^3, ±0.5 °C, ±3 %RH	Thermoelement ±0.5 °C ** Internal sensor ±0.5 °C
	53 (enclosure) 67 (sensor)	53	53 (enclosure) 68 (measurement node)	20	53 (IP 67 without cable)
	Enclosure 78 (w) × 114 (h) × 30 (d) mm			Enclosure 110 (w) × 225 (h) × 63 (d) mm	Enclosure 125 (w) × 200 (h) × 75 (d) mm
	114 grams (without battery)			510 grams	620 grams (with battery)
	2 × AA/LR6 1.5V batteries (not included)		2 × AA 1.5V alkaline batteries (not included)	12 V DC / ≥1A (not included)	2 × AA/LR6 1.5V (included)
	2 or 5 m	0.4 m or 2 m	1 m	–	–
	Depending on transmission interval. Example at 20 °C, good signal quality, measurement every 5 minutes*** and transmission every 3 hours: >12 months				
	NB-IoT (LTE Cat NB1) B20 Output power 23 dBm				
	Adjustable by users via the Celsiview cloud service				
	200 measurements				
	CE				
	Mounted vertically with the screw holes facing up. **NB:** If the sensor is to be mounted against metal, magnet bracket 7040 0060 must be used.			–	Mounted with the mounting hook facing up

Accessories.

		DIMENSIONS (W × H × D)	QUANTITY	ITEM NO.
Thermoelement wire type T PVC insulated thermoelement wire on roll. Brown/white. The range also includes a fiberglass insulated wire.		–	1	**100 m:** A10TX-100 **50 m:** A10TX-50 **25 m:** A10TX-25
Magnetic bracket NB The magnetic bracket is used to attach Celsicom Easy Connect boxes to metal surfaces (not for certain kinds of stainless steel), to facilitate the installation and avoid transmission problems.		–	1	7040 0060
Celsicom magnetic bracket for cables Swivelling magnetic bracket for Celsicom sensors. Perfect for quick cable routing.		–	5	7040 0003
Celsicom magnetic bracket for cable ties These magnetic brackets facilitate the installation. You can easily attach sensors and cables etc. with a cable tie.		–	5	7040 0006
Waterproof enclosure – intern sensor Robust, shatterproof, water and dust resistant enclosure that protects your Celsicom Easy Connect box with internal temperature sensor in most weather conditions. Place the box in the enclosure and close the lid.		132 × 90 × 42 mm	1	7040 1020
Waterproof enclosure – extern sensor Robust, shatterproof, water and dust resistant enclosure that protects your Celsicom Easy Connect boxes in most weather conditions. Place the box in the enclosure and clip the external cable sensor to the edging.		162 × 97 × 45 mm	1	7040 1040
Service case for measuring boxes Practical and durable case with space for four grey Celsicom Easy Connect boxes as well as sensors, brackets and other accessories.		390 × 310 × 140 mm	1	7016 6012
Service case for concrete computer Practical and durable case intended for the yellow Celsicom Easy Connect box for measuring in concrete. There is also space for accessories such as a 100-metre roll of thermoelement wire.		390 × 310 × 140 mm	1	7016 6036
Moisture container Container with saline solution that contains a relative humidity, for control and calibration of humidity data loggers and measuring instruments. 85 %RH.		–	1	0160 2185
Sealing compound For drill holes. Bostik PV.		5 × 1 m	1	2460 0004
Tightness tester Rubber bellow for checking the tightness of drill holes.			1	3560 0001
Measuring tubes For drill holes when measuring moisture in concrete. 120 mm long.			12	3560 0120
Wire for Celsicom TC603 Wire for hanging the Celsicom TC603 concrete computer.			1	7040 0040

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