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## Operating instructions



Fig. 1: SensorCase Case for Cobra SMARTsense and SMARTlink

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## 1 SAFETY PRECAUTIONS



### Caution!

- Before using the SensorCase, read the operating instructions carefully and thoroughly. This will protect you and prevent damage to your device.
- Do not operate the SensorCase if it is visibly damaged.
- Never move the SensorCase up stairs on your own; always do it with another person. When transporting, use the transport handles on both sides of the SensorCase.
- Only connect the SensorCase to a properly installed 230-volt socket that is protected by a 16-amp fuse.
- If you use an extension cable to connect the device, make absolutely sure that the extension cable is properly grounded and equipped with the plugs customary in the country. Defective extension cords can cause injury and damage to the device.
- Switch off the SensorCase case at the ON/OFF switch and unplug the power plug before carrying out any maintenance or cleaning work on the SensorCase case or the integrated devices (tablets, sensors, etc.). Follow the corresponding operating instructions for the devices.
- Do not open the cover in the SensorCase case that covers the I/O electronics. If malfunctions occur, contact Phywe Systeme GmbH & Co. KG.

## 2 PURPOSE AND CHARACTERISTICS

The SensorCase is a storage case that can be used to store and charge SMARTsense sensors and the SMARTlink tablet in a space-saving way.

The case consists of several individual components that are integrated into a space-saving case system with smooth-running casters. The following is an overview of the individual components and their functions.

### The case

All components for a mobile storage solution are integrated into the multifunctional SensorCase in a space-saving way. The sturdy construction and durable surface make the SensorCase ideal for heavy use in everyday school life. Since all devices are internally wired, a single power connection is all that is needed to get the system up and running quickly and easily without any cable clutter. The SensorCase case can optionally be locked using classic padlocks, thus protecting the valuable devices from unauthorised access.

### The foam inlays

The foam inlays are customised to the equipment to be transported in the SensorCase. There are separate foam inlays for all SMARTsense sensors and the SMARTlink tablet. The foam inlays absorb impact energy and can be replaced or re-ordered at any time.

## 3 FUNCTIONAL AND OPERATING ELEMENTS



1. Transport handles
2. Pull-out transport handle
3. On/off switch with 230V connection
4. Locking clamps
5. Rollers
6. Ventilation grilles
7. Replaceable labelling field



8. Foam inserts
9. Charging unit with LEDs

## 4 NOTES ON OPERATION

This device fulfils all of the technical requirements that are compiled in current EC guidelines. The characteristics of this product qualify it for the CE mark.

The individual connecting leads are each not to be longer than 2 m.

The instrument can be so influenced by electrostatic charges and other electromagnetic phenomena (HF, bursts, indirect lightning discharges) that it no longer works within the given specifications. Carry out the following measures to reduce or eliminate the effect of such disturbance: Ensure potential equalization at the PC (especially with Laptops). Use screening.

## 5 HANDLING

This section describes how to use the SensorCase. Please read this section carefully and observe the safety and operating instructions.

### 5.1 Start-up

- 1) Connect the SensorCase to a 230V outlet using the supplied power cable.
- 2) Switch on the SensorCase with the I/O switch. As soon as the I/O switch is lit, the SensorCase is ready for operation.
- 3) Check that all 16 LEDs on the USB hub are lit green.
- 4) As soon as you connect a port to a component to be charged and the charging cycle begins, the colour of the LED changes from green to red. As soon as the charging cycle is complete, the colour of the LED changes back from red to green.



Make sure that there are no objects in front of the ventilation opening (6.) or in front of the fan on the opposite side of the case. Otherwise, this may cause the charging electronics to overheat.

## 5.2 Case transport

Use the three handles for transport or pull out the pull-out handle and carefully tip the case onto the wheels. Now you can transport the case at an angle on the wheels.



Never move the SensorCase suitcase up stairs by yourself; always have a second person help you.

## 5.3 Locking the case

There are two holes on the front of the case for hanging padlocks.



## 5.4 Care and maintenance



Make sure that the SensorCase is switched off and the power plug is disconnected before you start cleaning.

Clean the outer surfaces of the SensorCase with a dry cloth or with diluted mild detergent. Do not use any cleaning agents that contain organic solvents such as alcohol or acetone.

## 6 TECHNICAL DATA

Operating temperature range: 5 - 40°C  
Relative humidity < 80%.

### Dimensions and weight:

Height:	335 mm
Width:	460 mm
Length:	715 mm
Weight (empty):	16 kg
Maximum load:	60 kg

### Power requirements:

Maximum power consumption:	200 VA
Input voltage:	100-240 V
Input frequency:	50/60 Hz
Fuse:	6,3A Slow

### Fan:

Maximum noise:	48 dBA
Airflow:	110 m <sup>2</sup> /h

## 7 SCOPE OF DELIVERY

- Sensor Case 12990-00
- Power cable
- Rubber edge protection
- Padlock
- 5x Labelling field

## 8 ACCESSORIES

- Mains connection cable 1.8m, UK plug 07348-02
- Mains connection cable 1,5m 157712
- Storage block 1, small sensors 12990-01
- Storage block 2, large sensors 12990-02
- Storage block 3, sensors with probe 12990-03
- Storage block 4, Universal 120mm 12990-06
- Storage block for max. 16 tablets 12990-07
- Storage block supplement 12990-08
- Storage block fan 12990-09

## 9 WARRANTY INFORMATION

We offer a 24-month guarantee for devices delivered within the EU and a 12-month guarantee for those delivered outside of the EU. The following are excluded from the guarantee: damage resulting from failure to observe the operating instructions, improper handling or natural wear and tear.

The manufacturer can only be held responsible for the functioning and safety features of the device if maintenance, repair and modifications are carried out by the manufacturer itself or by agencies expressly authorised by the manufacturer.

## 10 DISPOSAL

The packaging mainly consists of environmentally-friendly materials that should be returned to the local recycling stations.



Do not dispose of this product with normal household waste. If this unit needs to be disposed of, please return it to the address that is stated below for proper disposal

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### Overview of storage blocks

SensorCase view without storage blocks  
(left block is permanently integrated into the case and glued in place as standard).



SensorCase after inserting the storage block Fan side (right)

The space immediately in front of the fan **MUST** remain free on both the left and right sides to ensure adequate ventilation. Please do not place any sensors here.

The space between the blocks on the right and left can be filled with as many storage blocks as required, depending on the sensors and your needs.



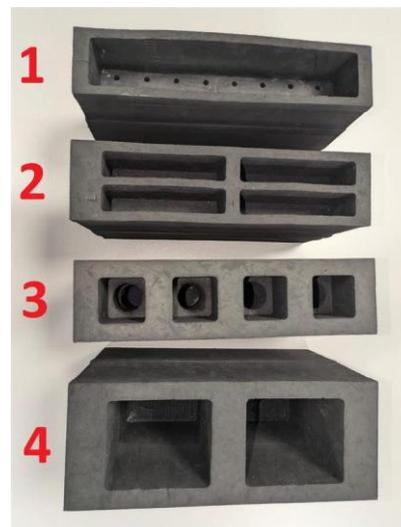
The storage blocks can be combined as desired. There are four different types, three of which are narrow (1, 2, 3) and one of which is wide (4).

12990-01 Storage block 1: small sensors

12990-02 Storage block 2: large sensors

12990-03 Storage block 3: sensors with probes

12990-06 Storage block 4: universal module



### 12990-01 Storage block 1 (small sensors)

- Narrowest block with 8x3 deep holes
- Suitable for sensors with long fixed probes, e.g. temperature sensors



### 12990-02 Storage block 2 (large sensors)

- Narrow block with two levels: top and bottom
- 4 narrow, long compartments per level
- Suitable for a wide variety of sensors such as current, photogate, force & acceleration (top), voltage, light, motion, heart rate, ECG (bottom or top)



### 12990-03 Storage block 3 (sensors with probes)

- Narrow block with 4 compartments, each with an additional recess for probes
- For sensors with wider probes
- For longer sensors
- Suitable for ORP, CO<sub>2</sub>, oxygen, pH, conductivity, magnetic field, relative humidity, etc.
- **We strongly recommend this block for the correct storage of probes in liquid, e.g. conductivity, pH and ORP.**



### 12990-06 Storage block 4 (universal module)

- Two large deep compartments
- Space for all sensors, even those with awkward dimensions, and accessories: e.g. spirometer, rotary motion, code, soil moisture, and the DigiCart.



## Combination options

### Several small blocks and one large block:

A maximum of five small blocks (including at least one temperature sensor block) can be combined with one large block.

### Small blocks only:

- Six small blocks can be combined with each other.

### Large blocks only:

- Four blocks can be used.

Alternatively, fewer modules can be used to create space in which more robust accessories can be placed (cables/spirometer attachments/electrodes, etc.).

### Summary of possible combinations:

- 1 large + 5 small
- 2 large + 3 small
- 3 large + 1 small + 1 smallest (temperature sensor block)
- 6 small
- 4 large

### Example combination options



Fig. 1: Example: 4 small + 1 large block



Fig. 2: Example: 4 small + 1 large block – with view of both levels of block 2



Fig. 3: SensorCase with fan blocks on the right and left, as well as 1 large and 4 small blocks. In this case, there remains a flexible space that can be filled.