Tuffigo Rapidex

SERENITY

SERENITY

The new generation of computers, visual, intuitive and accurate.

TIME AND ENERGY SAVER

SERENITY

A TOOL DEVELOPPED WITH FARM PRODUCERS, FOR FARM PRODUCERS .

It was born from the need to simplify equipment management in order to refocus on animal care.

Serenity allows catching in a trice the situation in real time, anticipating and having a fine tuning in livestock following up .

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Range positioning

Livestock Management

Feeding

Ventilation

Connectivity

Services

Welfare

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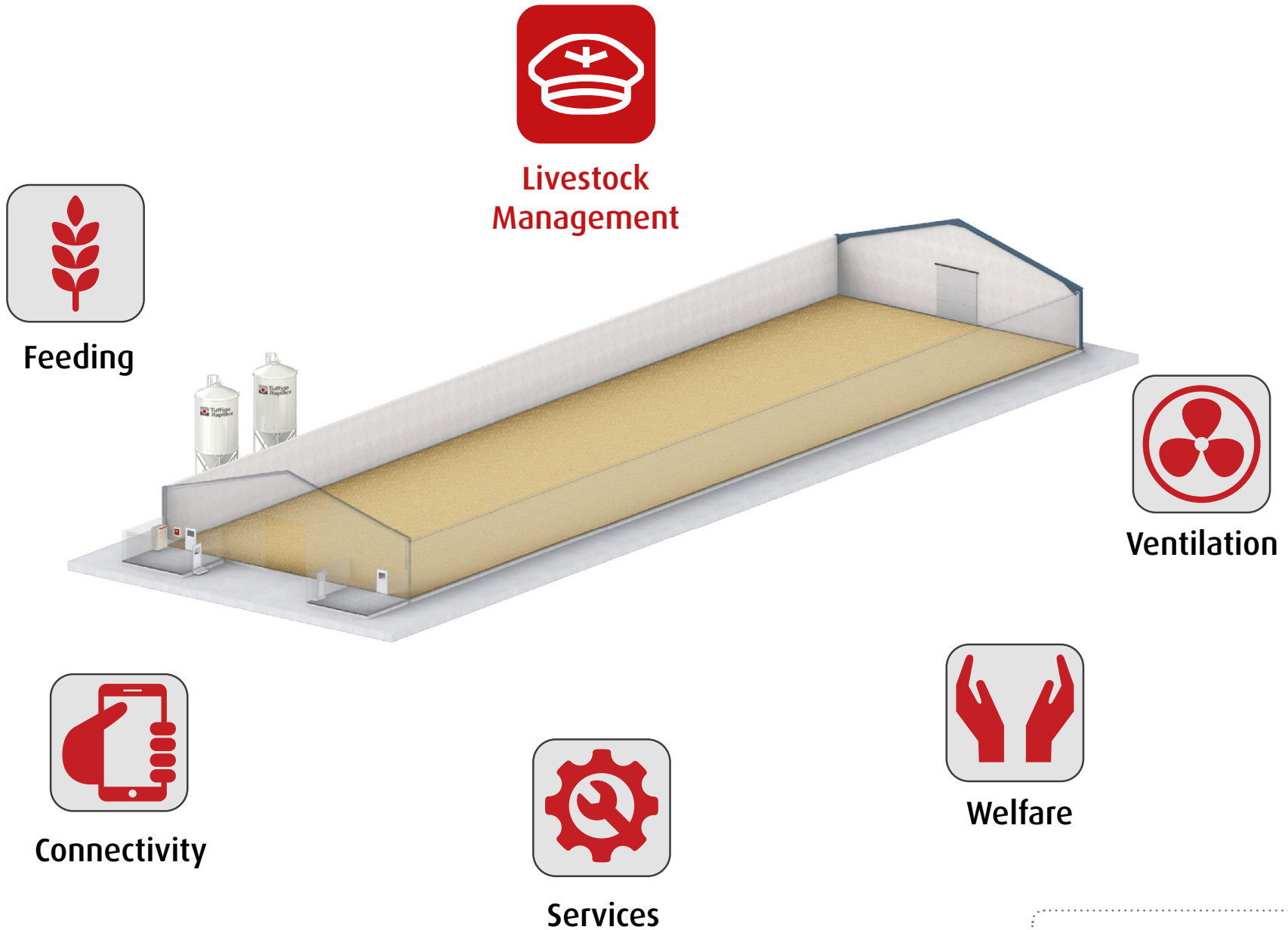
RANGE POSITIONING
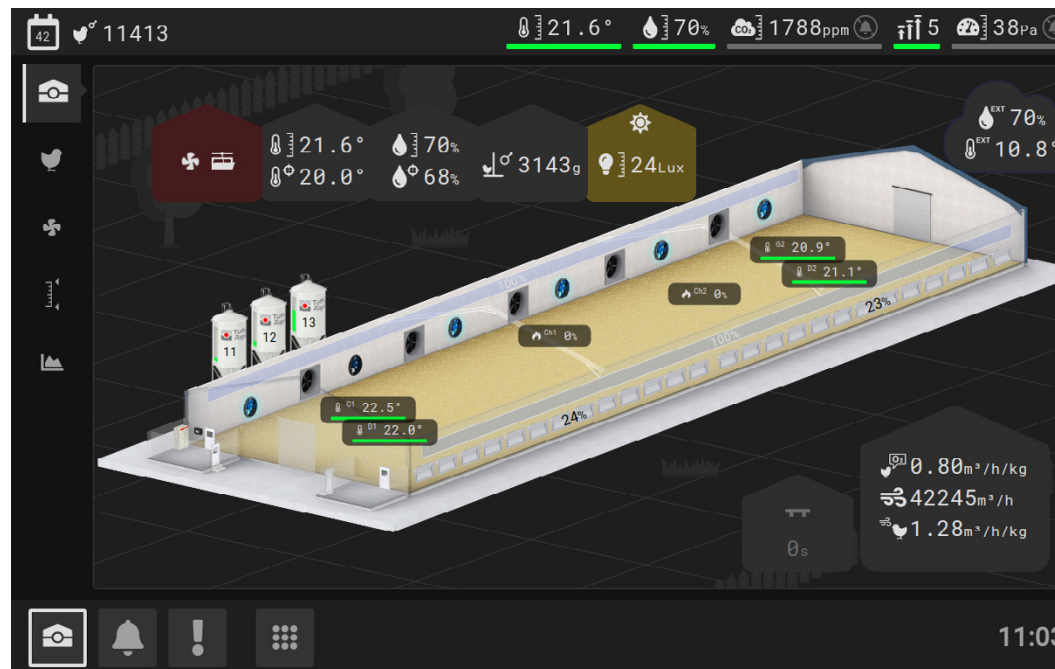
Management

Functionalities

Price

Our range of computers are evolving in order to fulfill your needs by proposing some up to date equipment.
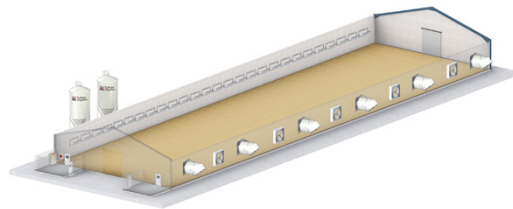
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Thanks to data centralization,
Serenity computer allows easy farm management

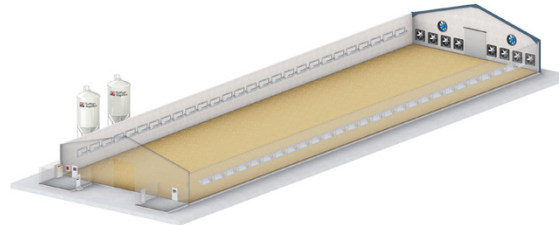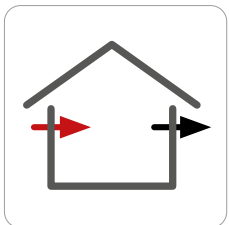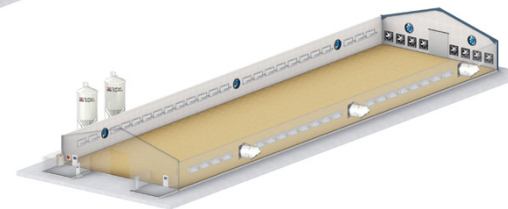# EXAMINE - ANALYSE - TAKE ACTION

SERENITY

4 DYNAMIC VENTILATION
CONCEPTS FOR BROILERS

Broiler

Cross

100% Tunnel

Bilateral >> Tunnel

Chimney extraction >>Tunnel

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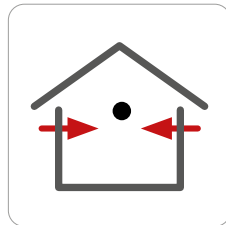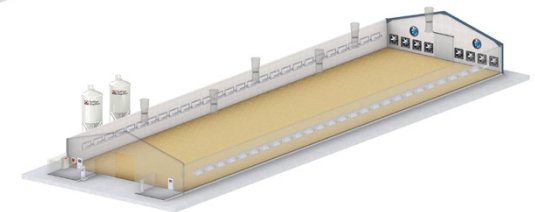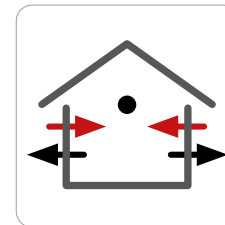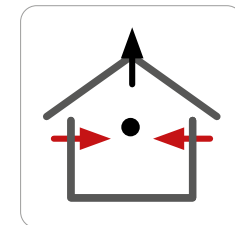
CUSTOMIZATION

3D building
with equipment adapted to each concept
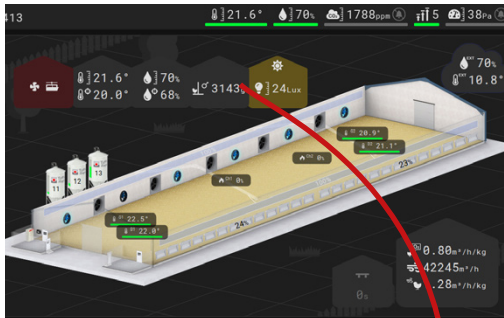
Cross

100% Tunnel

Bilateral >>Tunnel

Chimney extraction >> Tunnel
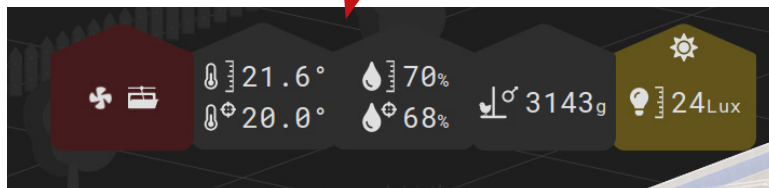
The user can select the data displayed on home screen

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Use - A status bar to EXAMINE

Vital parameters PERMANENTLY DISPLAYED

Status bar display:
📅 12056   🐦 11394   🌡 27.3°   💧 58%   CO2 800ppm   ⬆ 2   ⏱ 35Pa

Birds age

Number of females

Number of males

Average Temperature

Hygrometry

CO2 rate

Ventilation level

Depression

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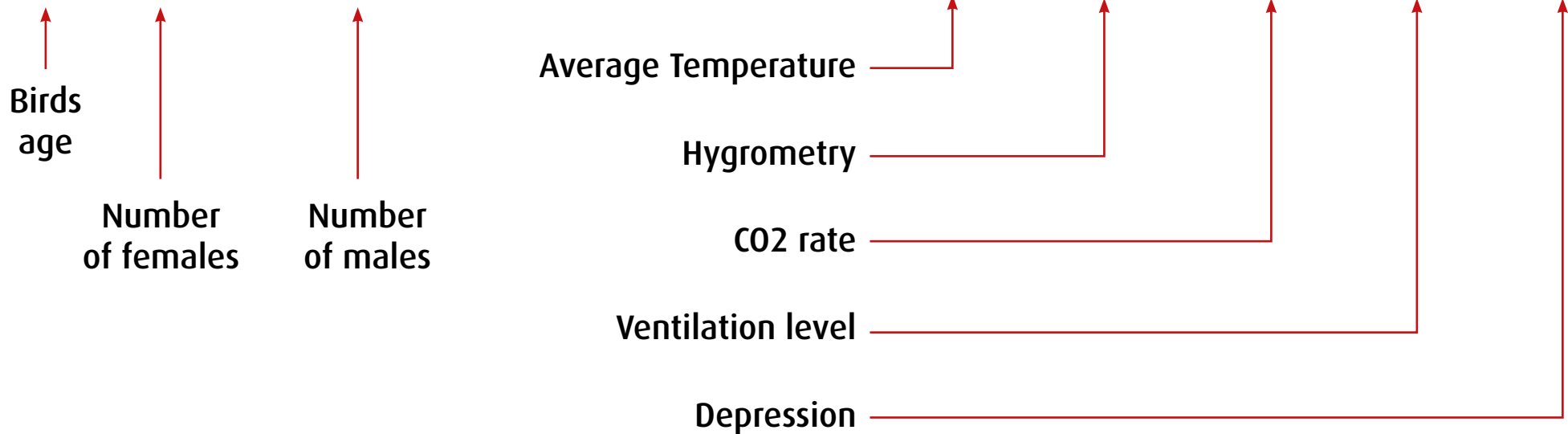
Use - Dashboards to ANALYSE
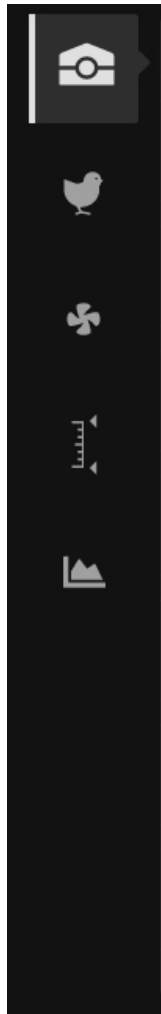
«Animal» dashboard

«Ventilation» dashboard

«Measure» dashboard

«Curves» dashboard

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Use - A browser to TAKE ACTION

Return to home screen

Alarm : Faults display, turning red in case of several active faults number of faults displays

Alert : Alert display, turning yellow in case of several alerts, number of alerts displayed. Allows anticipation.

User settings main menu access

10 last visited menus history

11:03

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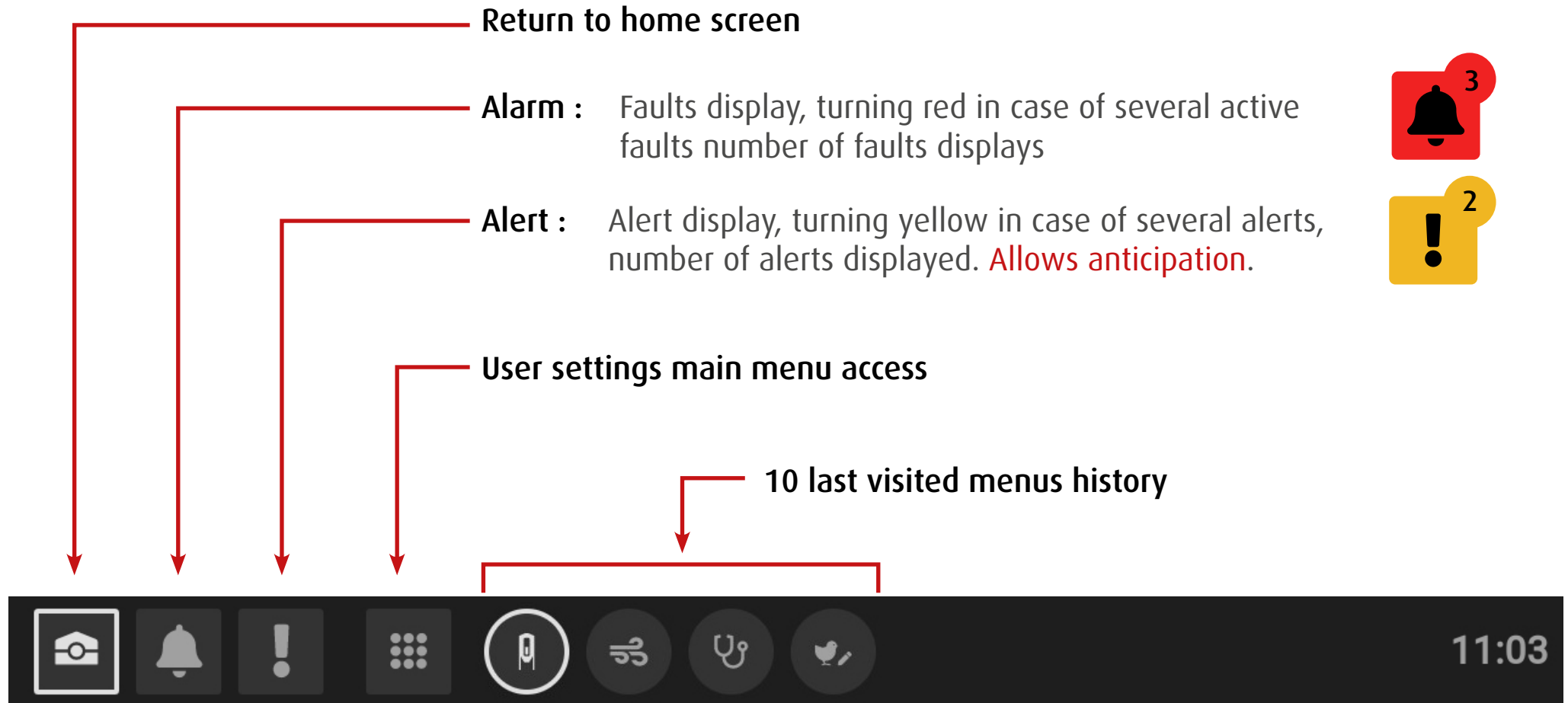
USE - HOME SCREEN

Over 30 DATA on 1 single screen

INSIDE CLIMATE

- Temperature
- Humidity
- Brightness

(CO2, Negative pressure,NH3...)

CUSTOMIZABLE

OUTSIDE CLIMATE

- Temperature
- Humidity

VISUAL DATA

Measured data

Target data (setpoint)

Screen values:
21.6° / 20.0° | 70% / 68% | 3143g | 24Lux
EXT 70% / EXT 10.8°
G2 20.9° | D2 21.1° | Ch2 0% | Ch1 0%
G1 22.5° | D1 22.0°
100% | 23% | 100% | 24%
0.80 m³/h/kg | 42245 m³/h | 1.28 m³/h/kg | 0s
11 | 12 | 13

LEVEL OF USE OF EQUIPMENTS

- Ventilation level
- Air inlet opening
- Fans in use
- Lighting status
- Feed stock level in silos

— OK

— Attention zone, we are getting away from the setpoint

— Alarm, an anomaly has been detected, action has to be taken

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SERENITY

Ergonomic Advantages
An easy to use tool - Accessible to all

• Quick parameters view

• Dark dashboard : Google Android inspired enviromnent (human eye research)

• Simple color coding : ━━━ Green : normal use
                         ━━━ Yellow : warning
                         ━━━ Red : critical default

   Color coding : Action, critical issue prevention

• Warning and default : Time and details displayed in the respective tabs
                              on the bottom banner

• Educational tool allowing immediate handling
      ➜ Intuitive and convenient use for everyone

• Data/parameters : Easily modifiable on numeric keypad.
                     Configurable (information mini and maxi)

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TECHNICAL ADVANTAGES
NEW FEATURES

USER

- Addition of the correction of the air needs curve.
- Temporary acceleration or deceleration of ventilation.
- Building/ground dedicated preheating. With dew point display.
- Modular features management.
- Feed description per silo.
- Ventilation quality display.
- Fan covers display and management.

INSTALLER

- Air inlet opening, ventilation level setting and control.
- Suction area taken into account based on fan type and accessories.
- Building description: equipment naming using accurate capacity curves of Tuffigo Rapidex equipment

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TECHNICAL DATA

THE BOX - THE OPERATING SCREEN

STATUS INDICATOR

White: ok

Blinking white: start up / communication issue

Blinking red:
Critical alert = Siren on

SCREEN
10 inchs
(AVItouch 7 '')

SEALING
IP54

The screen is a simple MONITOR, REMOTE ACCESS made possible for more SAFETY.

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Technical data

Device dimensions

400 x 400 x 200 mm

11,34 kg

600 x 400 x 200 mm

16,47 kg

2 Boxes, 6 configurations

- Same construction, same reliability
- 400 x 400 size designed in order to replace Avitouch
- 600 x 400 size offers even more flexibility, it can be loaded with more electronic cards

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TECHNICAL INFORMATION
INPUTS/OUTPUTS

SENSORS		
Inside temperature sensor	✓	x 20
Outside temperature sensor	✓	x 1
CO2 sensor	✓	x 1
NH3 sensor	✓	x 1
Humidity sensor	✓	x 1
Outside humidity sensor (with pack)	✓	x 1
Vacuum	✓	x 1
Luxmeter	✓	x 2
Thermostat	✓	x 10
Twilight switch	✓	x 1

COUNTERS		
Water meter	✓	
Feed meter	✓	
Water meter for cooling	✓	40 max in totality
Gas meter (with pack)	✓	
Energy meter (with pack)	✓	

WEIGHING		
Birds weighing (with pack)	✓	x 4
Silo weighing (with pack)	✓	x 6

| CONNECTIVITY	
USB port (Update, backup, export data)	✓
INTERNET connection via RJ45 Ethernet port	✓
INTERNET connection via modem 4G/3G	✓
Secure remote access	✓

AIR INTAKE MANAGEMENT		
Air inlet management in dynamic ventilation	✓	x12
Number of zones	✓	x3
Ridge ventilation (delamination)	✓	

AIR EXTRACTION MANAGEMENT		
EC BLUE management	✓	
Group of ventilation	✓	x40

OTHERS		
Air mixers management	✓	x3

HEATING		
Slab heating switch	✓	8 max in totality
Heater switch	✓	

LIGHTING		
Light switch	✓	x20
Windows blackout control	✓	x4

COOLING		
Fogging or pad cooling pump switch	✓	
Chain feeder control relay	✓	x10
Water rationing	✓	40 max in totality
Feed rationing	✓	
Nipples flushing	✓	x20

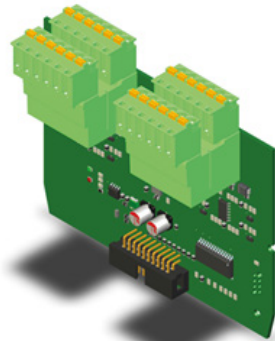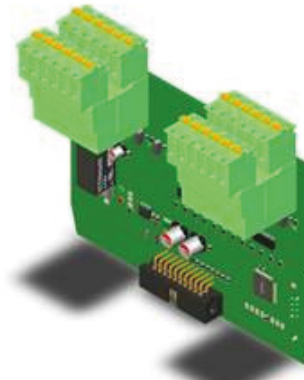| Alarm & Security		
Monitoring contact to alarm	✓	
Timer	✓	x 10

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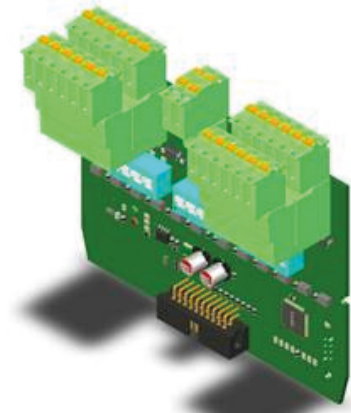# TECHNICAL INFORMATION

CARDS

• INTERNAL
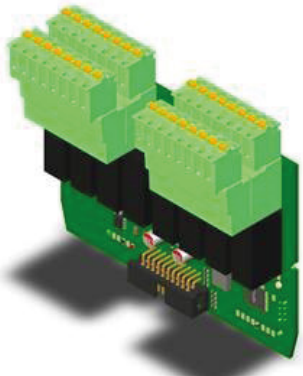
S001575041
CARD 18TR02 8 RELAYS

S001575042
CARD 18TR03 12 ANA OUTPUTS

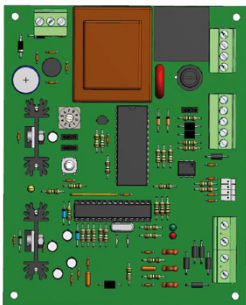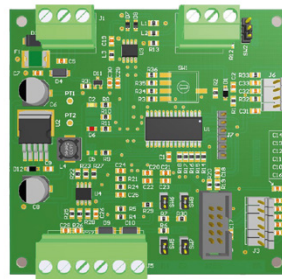S001575043
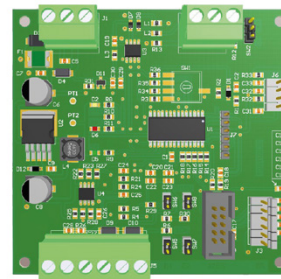**CARD 18TR04 12 ON/OFF INPUTS**

S001575044
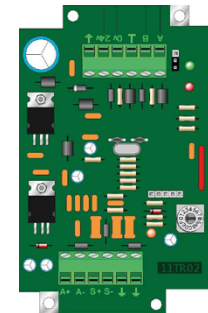**CARD 18TR05 12 ANA INPUTS**

• EXTERNE

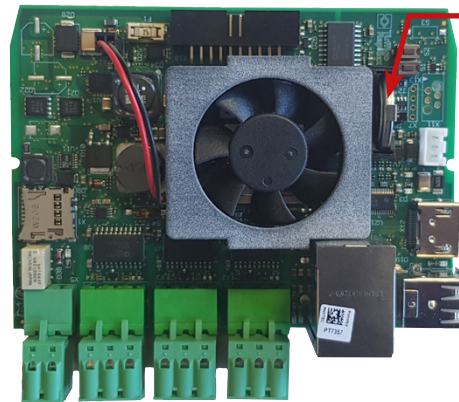**CARD 10TR02 – SILO WEIGHING**

CARD 10TR03 – ECBLUE

CARD 10TR03 – FCONTROL

CARD 11TR02 – BIRDS WEIGHING

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TECHNICAL INFORMATION

DESIGN

MOTHER BOARD

Battery

1 Ethernet port
4 USB ports
1 HDMI port
1 SD Card Port
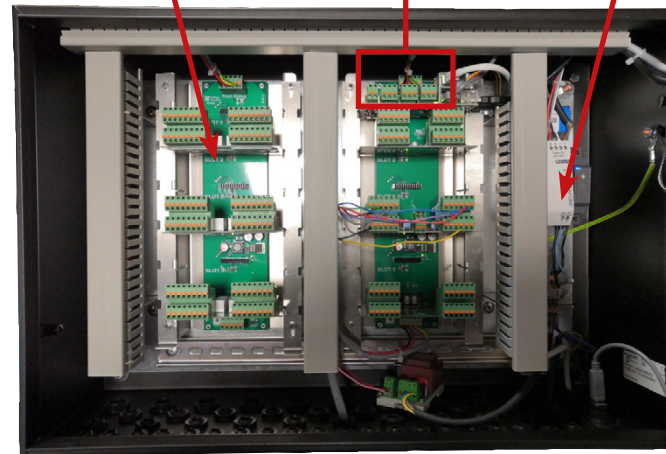3 RS 485 bus
1 Alarm output

CARD
for front light strip
management

BACK PANEL
with 6 slots per panel

Optionnal cards :
- Relay
- On/Off input
- 0-10 V inputs or sensors
- 0-10 V outputs

TRANSFORMER
for cards power supply

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TECHNICAL INFORMATION

FEATURES - A COMPREHENSIVE MENU

Batch	Weighing	Setpoints	Ventilation
Level	Air inlets	Fans	Diagnosis
Water	Flushing	Feeding	Silos
Heating	Fogging	Lighting	Windows
Alarms	Calculator	Software update	System
Dashboard	Installer		

TECHNICAL INFORMATION
DASHBOARDS FOR ANALYSIS

«BIRDS» DASHBOARD
Informing about birds health
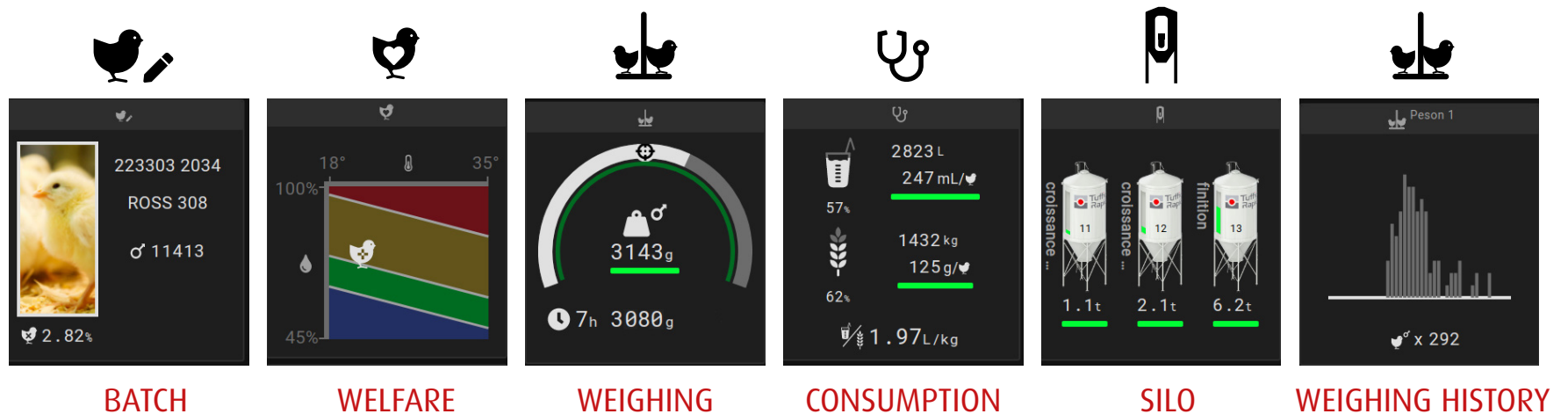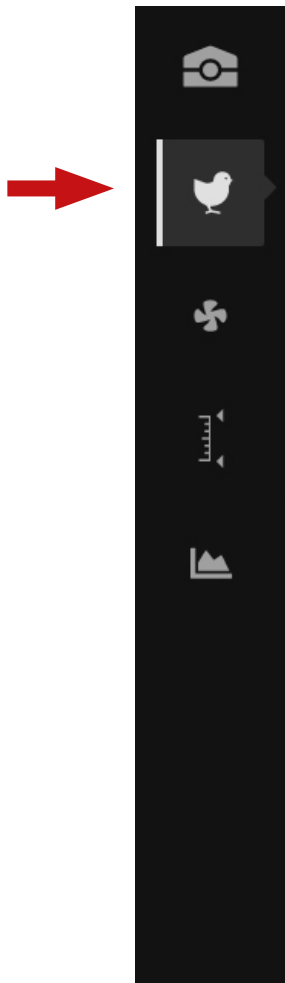
BATCH
- Number of birds
- Genetics
- Mortality rate

WELFARE
- Welfare based on several factors like temperature and humidity

WEIGHING
- Weight
- Weight at a fixed time
- Target weight

CONSUMPTION
- Water consumption
  - compare to the day before
  - in total and per head
- Feed consumption
  - compare to the day before
  - in total and per head
- Water/Feed ratio

SILO
- Feed name
- Weight
- Remaining capacity

WEIGHING HISTORY
- Weighing history of the day
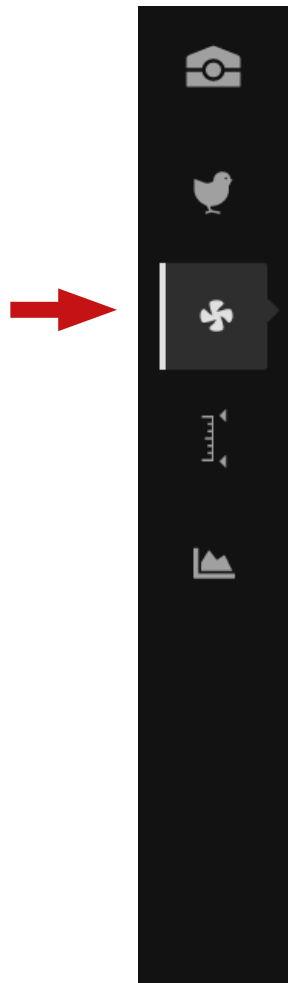- Number of weighings

Feed and birds growth indications

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Technical information

Dashboards for ANALYSIS

«VENTILATION» DASHBOARD

Informing on parameters related to birds oxygenation

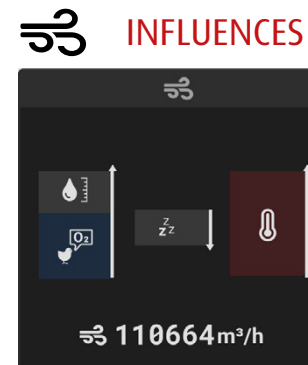**WEATHER FORECAST**

Plourivo

EXT **10.8°**

EXT **71%**

• Localisation
• Outside temperature
• Outside humidity

CLIMATE

21.6°
CO_2 1718ppm
70%
30Pa
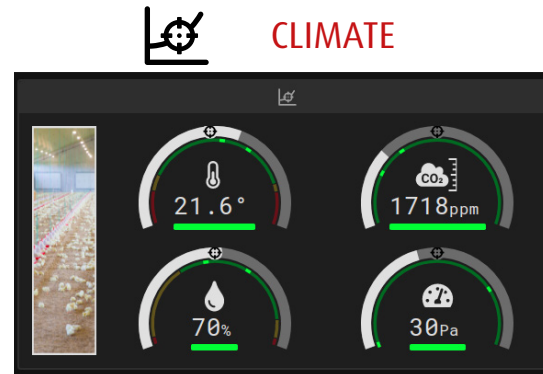
• Temperature
• Humidity
• CO_2
• Negative pressure

TEMPERATURE

EXT 10.8°

25.5°
^{7}22.0°
21.6°
^{6}21.4°
^{5}20.8°
^{4}20.3°
^{3}20.3°
^{0} 20.0°

• Outside temperature
• Température setpoint
• Average of température

LEVELS

11	206969m³/h
6	50694m³/h
5	39395m³/h
4	33796m³/h
1	7879m³/h

1 2 3 4 5 6 7 8 9 10 11
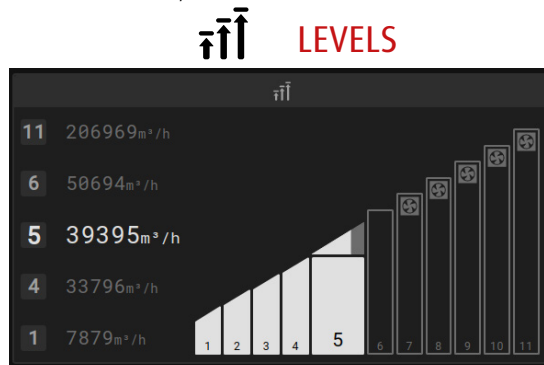
• Ventilation level
• Oxygenation rate

INFLUENCES

110664m³/h

• Ventilation flow
• Air needs
• Positive and negative influences
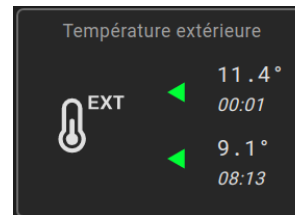• Oxygenation
  or beat the heat

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DASHBOARDS FOR **ANALYSIS**

«MEASURES» DASHBOARD

Mini and maxi in details at D- DAY and the day before

Température du bâtiment
22.4° 00:15
20.7° 04:31
INSIDE TEMPERATURE

Température extérieure
EXT 11.4° 00:01
9.1° 08:13
OUTSIDE TEMPERATURE

Dépression du bâtiment
53 Pa 07:54
0 Pa 04:32
NEGATIVE PRESSURE

42
41
AT D-DAY and
D - 1 DAY

Hygrométrie du bâtiment
77% 00:08
66% 10:05
INSIDE HUMIDITY

Hygrométrie extérieure
EXT 100% 04:02
67% 09:59
OUTSIDE HUMIDITY

Taux de co2 du bâtiment
CO_2 2057 ppm 09:02
1309 ppm 03:04
CO2 RATE

maximum record at D DAY and the day before since midnight

Minimum record at D DAY and the day before since midnight

Sonde la plus haute
G1 22.8° 00:13
HOTTER AREA
Displayed with measurement time

Sonde la plus basse
D1 20.2° 04:24
COLDER AREA
Displayed with measurement time

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DASHBOARDS **FOR ANALYSIS**

«CURVES» DASHBOARD

Graph details of farm data

This carrousel allows browsing data/ curves related to feeding, drinking and ventilation
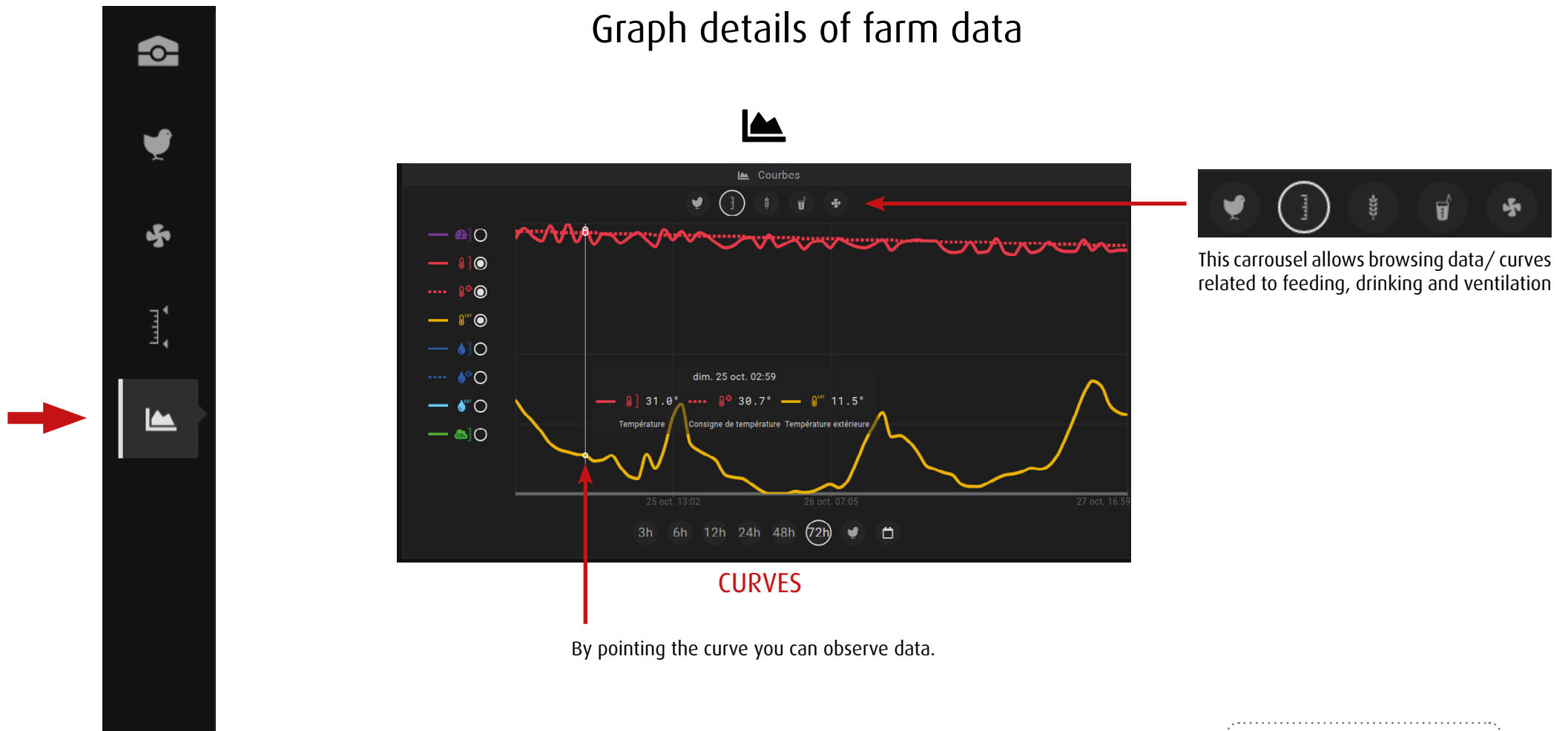
CURVES

By pointing the curve you can observe data.

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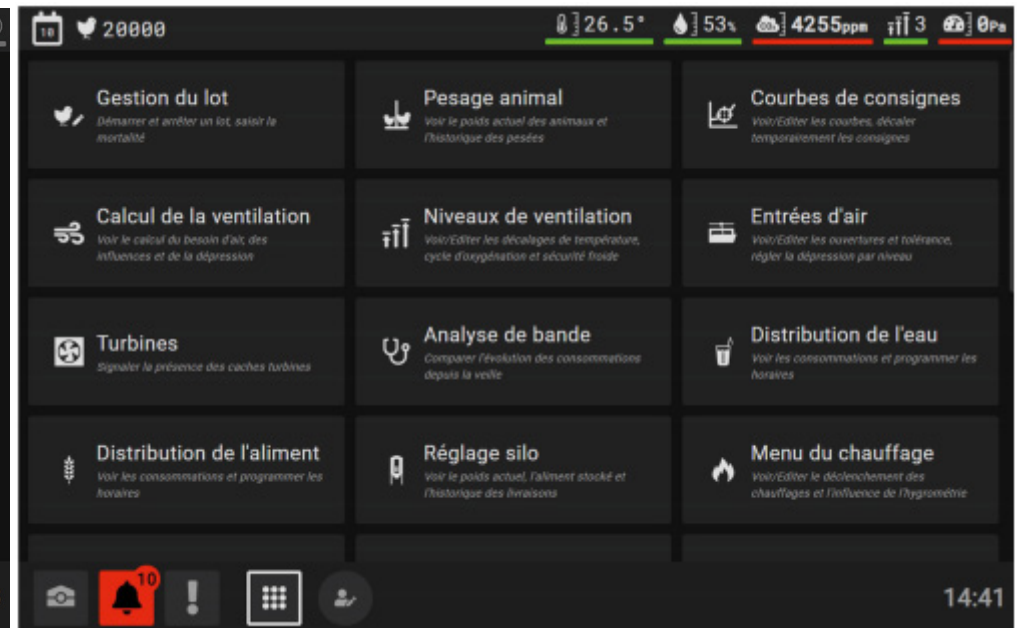# TECHNICAL INFORMATION

FEATURES - MAIN MENU FOR MANAGEMENT

2 TYPES OF DISPLAY

App Version
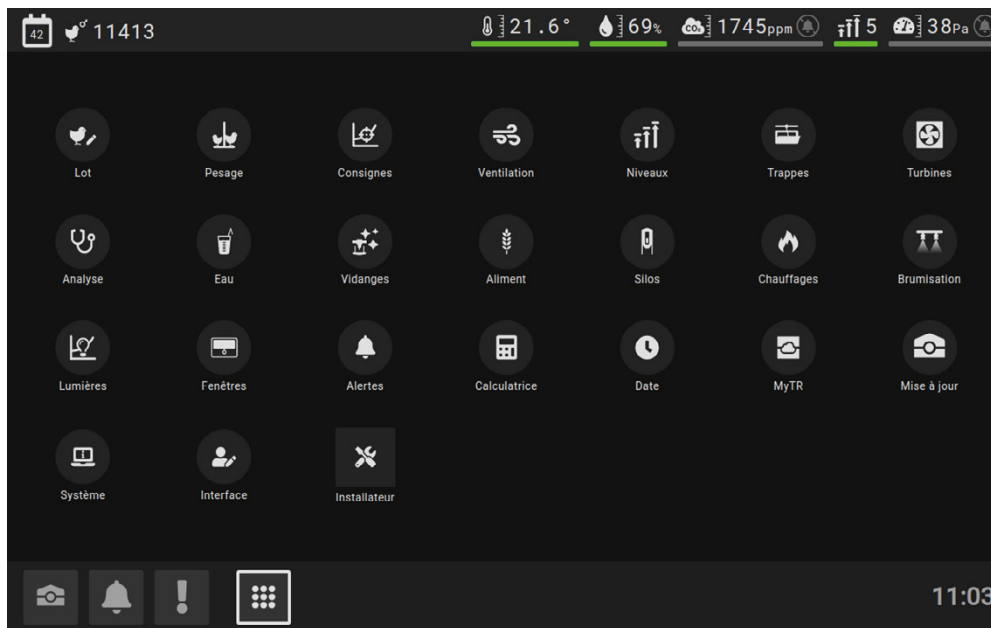
Very visual and compact

Educational Version

Easy handling

Allows access to everyone with a quick features
and icons understanding

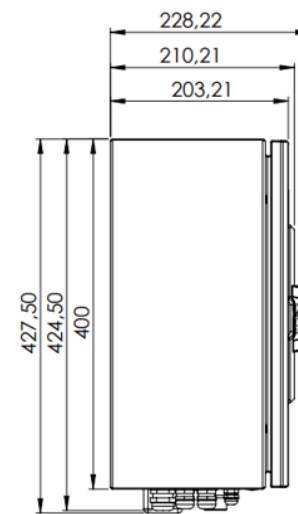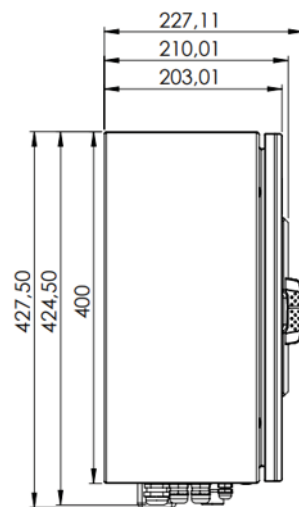Tuffigo
Rapidex
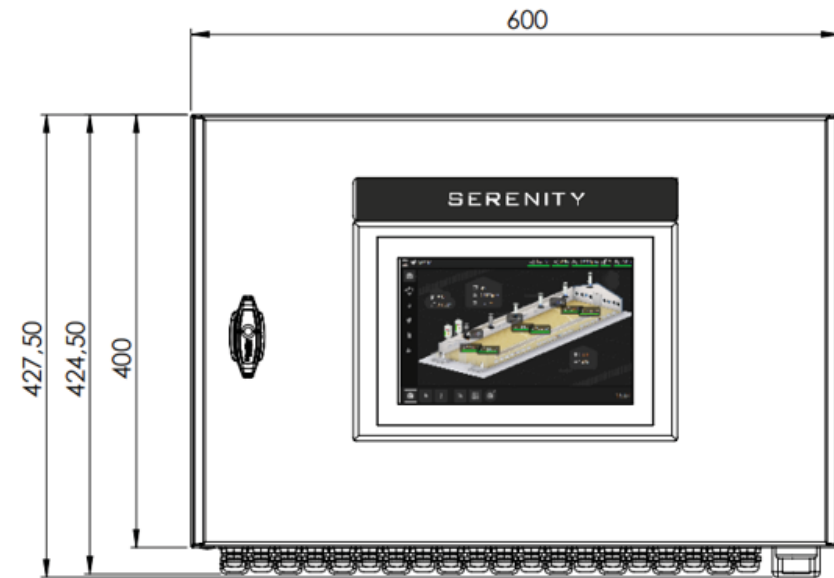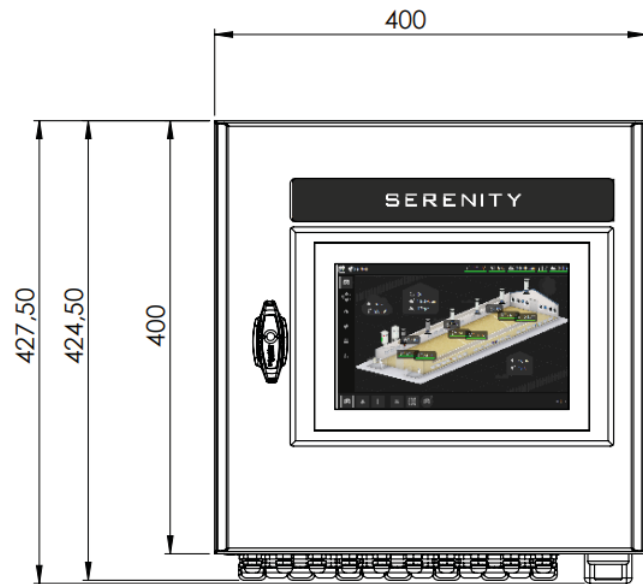
TECHNICAL INFORMATION

CONNECTIVITY

- Farm site management

- Allows secure remote access

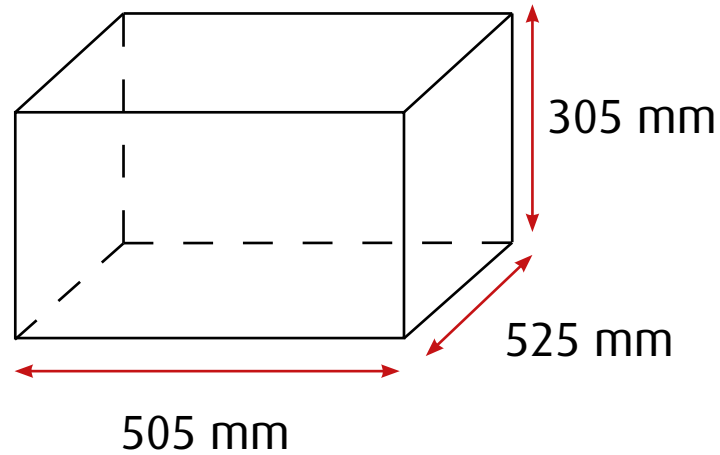All the teams will work on MyTR update in 2021.

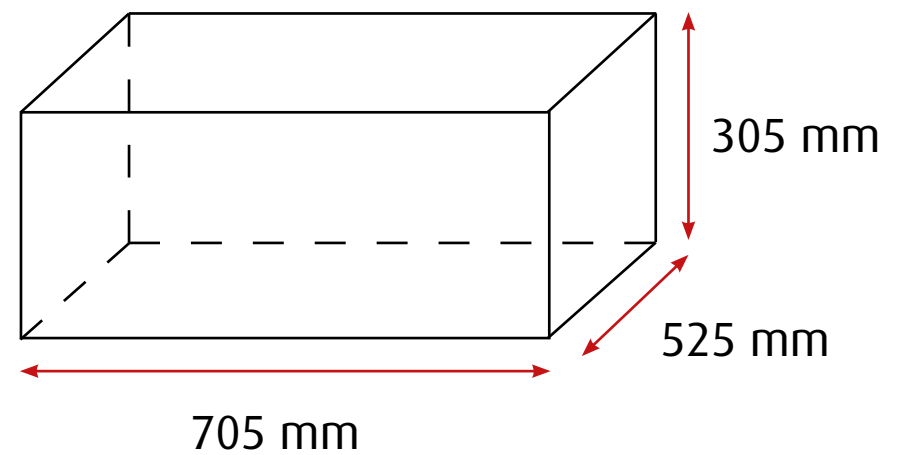# TECHNICAL INFORMATION

DIMENSIONS

TECHNICAL INFORMATION

PACKAGING

Small model

305 mm

525 mm

505 mm

525 x 305 x 505mm

11,34 kg

Big Model

305 mm

525 mm

705 mm

525 x 305 x 705mm

16,47 kg

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In place

IN PLACE

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