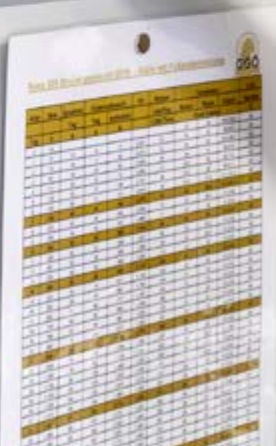# Viper**Touch** & BFN **Fusion**

The best digital solution for your poultry house.
Secure, comfortable, successful.

Setting standards with ViperTouch
Climate and production computer

> Climate and production computer developed specifically for poultry growing: broilers, turkeys and ducks.

> Brilliantly simple operation via touchscreen.

> Freely selectable climate control mode: Flex or Profi.

> Efficient quad-core processor.

> Selection of 40 languages – including yours!

> Large 10-inch display.

> Simple alarm management.

> Even more efficiency in combination with BFN Fusion.

ViperTouch is the principal component for secure climate and production control in your poultry house! The computer's outstanding features include:

�» 10-inch colour touchscreen.
Functions used on a daily basis are immediately available in the menu. Relevant curve trends are displayed as graphs.

�» Optimised user interface.
All important settings and production figures are available at a glance.

�» Modular hardware.
The hardware is easy to extend whenever you need new functions or the basic version is not sufficient.
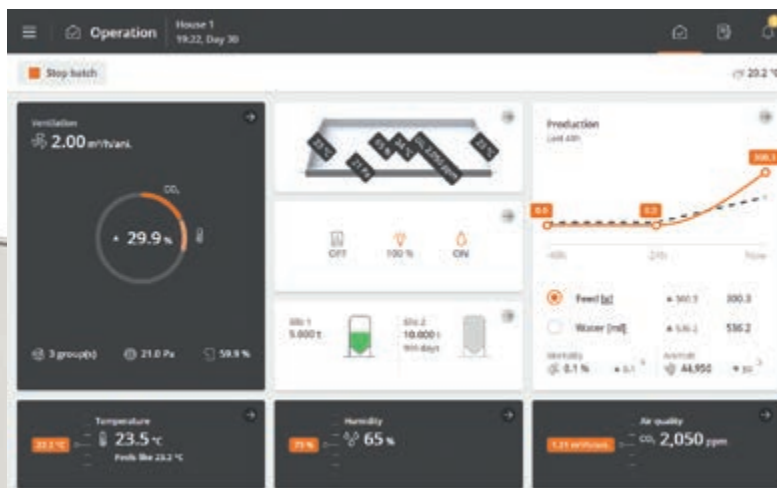
�» Easy software updates.
Updates can also be installed remotely, if necessary.

�» Full connectivity.
Use Big Dutchman's cloud solution BFN Fusion to operate your ViperTouch controllers comfortably via your phone or PC.

�» High operational reliability.
ViperTouch continues working correctly, even when not connected to the network.

Modern control cabinets by Big Dutchman: clever design, easy operation, high degree of protection.

For new buildings, especially, Big Dutchman can supply a control cabinet that has been customised for your individual situation. This control cabinet contains all fuses, residual-current devices, motor protection switches, control lamps, alarm devices, etc. for all components installed in the house, as well as the integrated ViperTouch controller. Such control cabinets are planned and manufactured individually for each project, based on the equipment in the house. Each cabinet's wiring is ready for connection when delivered, i.e. the electrician just has to connect the energy-consuming devices (motors, etc.).
In case of defects, error diagnosis is much easier, since the control cabinet comes with detailed plans.

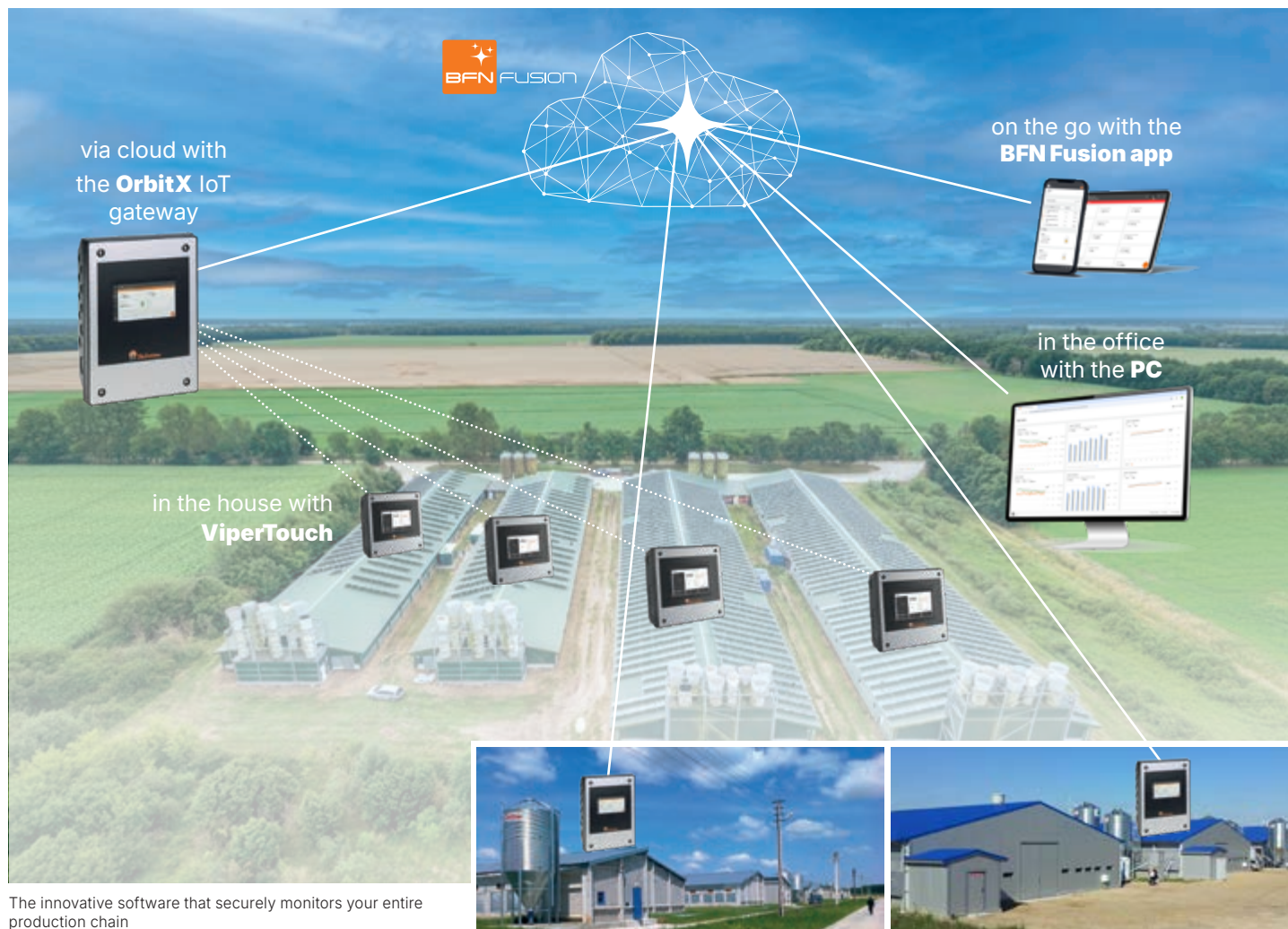# The digital future has a name:
Data-based decisions, predictable success

BFN Fusion means that you have access to your data from anywhere in the world and with any device. You can comfortably operate your ViperTouch controllers via your phone, tablet, laptop or PC. The user interface is easy to use and very intuitive. BFN Fusion provides you with the full overview and control of your production, at all locations and in real time, making sure that you stay safely on track for success.

via cloud with the **OrbitX** IoT gateway

on the go with the **BFN Fusion app**

in the office with the **PC**

in the house with **ViperTouch**

The innovative software that securely monitors your entire production chain

If required, additional farms at other locations can be added

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Everything always up-to-date

Use your ViperTouch controller, your PC or a mobile device to make inputs – directly in the house, while you are relaxing at home or even on different farms. BFN Fusion updates automatically on all devices.

Safe and neutral data storage

The BFN Fusion cloud stores your data safely and makes it accessible at any time. Your data belongs to you!

Optimised production, reduced costs

Improve your production results by using efficient analytical tools, and save time and avoid errors thanks to optimised processes.

Reliable and future-proof

Benefit from the fact that all BFN Fusion applications are thoroughly tested in the field and continuously developed by Big Dutchman. The platform's stability and connectivity are guaranteed.

Only buy what you need

It does not matter whether you have a smaller, family-owned farm or a large farm complex: BFN Fusion meets any requirement and grows with your needs.

On the go with the BFN Fusion app

The browser-based app enables remote access to ViperTouch. You can retrieve all production data at any time and from anywhere. Real-time warnings (alarms) help you react to issues immediately.

Service and support

Big Dutchman is happy to support you personally on site, but can also access your ViperTouch controller remotely for maintenance. This can save you time and money.

Climate control
Secure, comfortable and easy with ViperTouch

ViperTouch enables you to control the entire house environment according to state-of-the-art principles. The climate computer can be used for all established types of ventilation (natural, mechanical and combined). This includes side, cross, tunnel and CombiTunnel ventilation. ViperTouch controls:
- fresh air and exhaust air
- recirculating air

- heating
- heat exchangers
- cooling
- emergency openings
- alarms

Freely selectable control modes for the environment in the house

ViperTouch offers two different modes to control the house climate.

1 **Flex mode** (flexible control): In Flex mode, you decide how fresh air and exhaust air settings are combined, and define individual ventilation levels.

2 **Profi mode** (self-learning control): Profi mode comes with an **adaptive control**. This means that intelligent control algorithms ensure that all climate components constantly adjust to the current conditions in the house.

The house climate is thus permanently optimised, which ultimately increases productivity and sustainability and also improves bird welfare.

Sensors: the technical basis for data collection

Using sensors for climate control is state of the art today. Temperature, humidity, CO_2 and NH_3 sensors effectively measure and monitor changes in the house air. These sensors are therefore the basis for any computer-controlled climate system.

Big Dutchman offers a wide variety of suitable sensors.

DOL 12 is a sensor that determines the temperature inside the house.

DOL 114 is a sensor that measures the relative humidity inside the house. Due to its two analogue 0-10 V outputs, the sensor can also determine the temperature (optional).

DOL 18 is a negative-pressure sensor that actively measures the pressure in the house, emitting a 0-10 V signal. Power for this sensor is supplied by ViperTouch.

The DOL 119 sensor measures the carbon dioxide concentration of the house air. Its high-quality infrared measuring cell is able to detect CO_2 in a range from 0 ppm to 10 000 ppm. This makes it possible to control minimum ventilation based on the CO_2 concentration.

The weather station allows local weather conditions to be included in the ventilation control calculations. It measures the wind direction and the air speed.

DOL 53 is a sensor that continuously measures the important ammonia concentration in the house air. The sensor is very robust and accurate, with a measuring range from 0 ppm to 100 ppm NH_3.

"My ViperTouch controls the entire broiler house, including the Earny heat exchanger. The heat exchanger helps me save heating costs, and my birds are healthier."

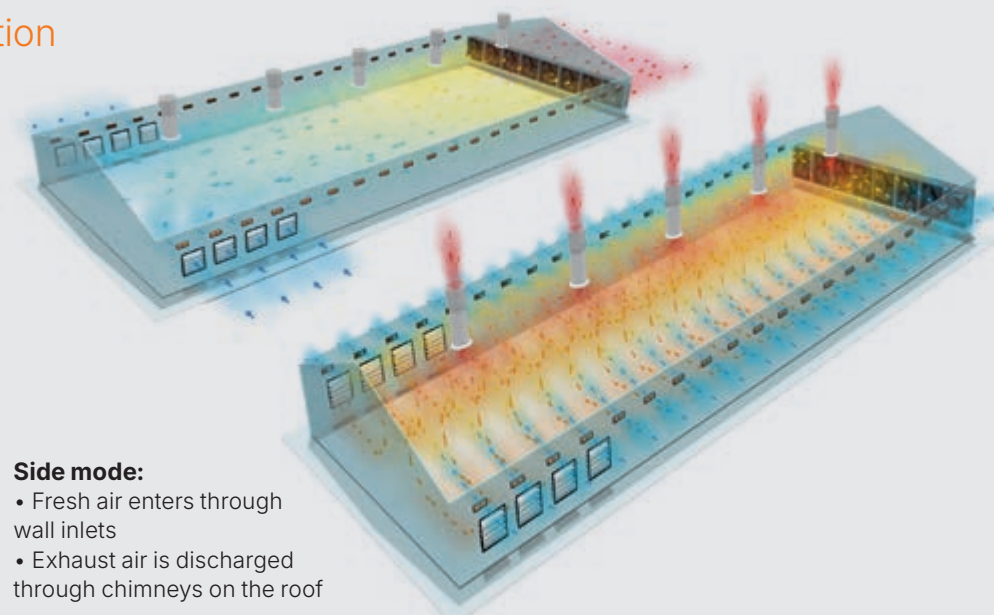# Examples of ventilation concepts that ViperTouch can control reliably and f

Side ventilation with wall inlets
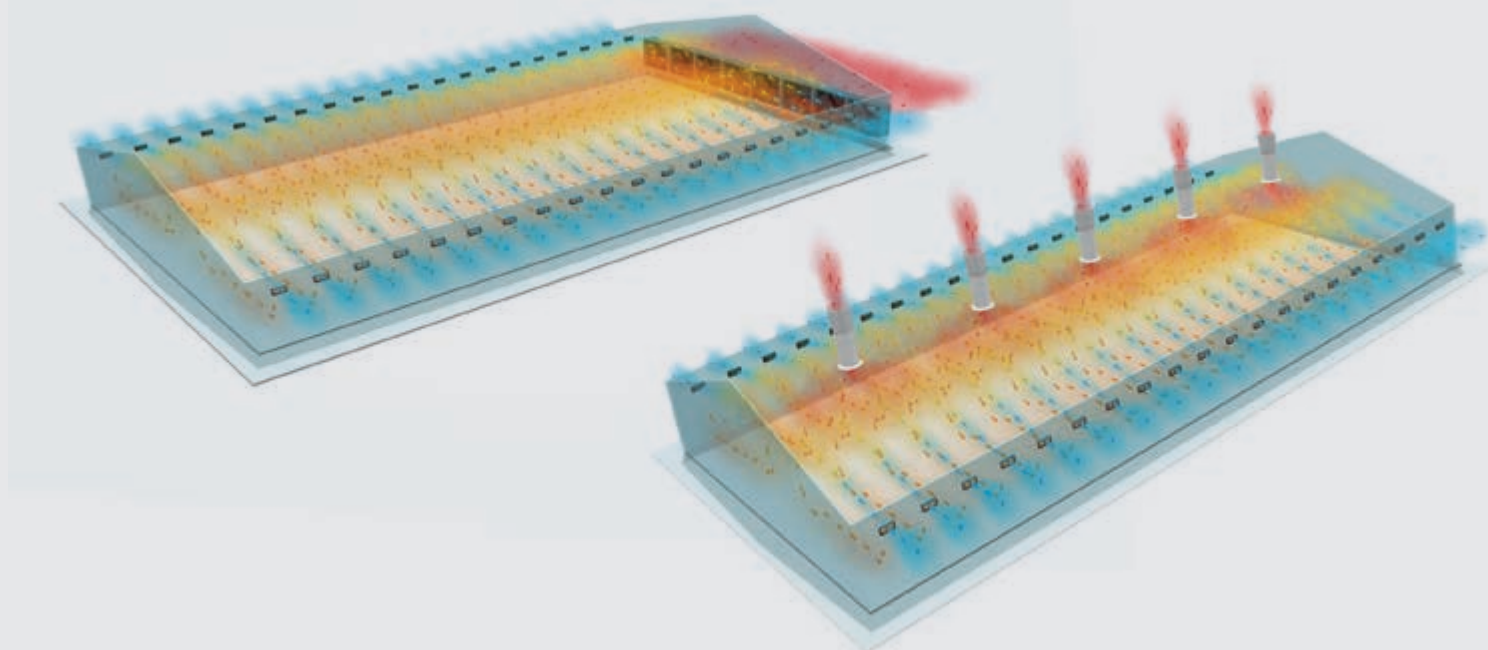
CombiTunnel ventilation

Tunnel mode:
• Fresh air enters through MVT shutters
• Exhaust air is discharged through fans in the gable

Side mode:
• Fresh air enters through wall inlets
• Exhaust air is discharged through chimneys on the roof

What can ViperTouch record and control?

- twelve sensors for inside temperature, two sensors for inside humidity;
- room heating in up to six zones;
- two separate climate zones per house with individual control;
- standard step control of the fans in Flex mode (16 steps in side mode and 32 steps in tunnel mode);
- two different "brooding zones" per house: one part is heated while temperatures in the other part are kept just above the point of freezing;
- up to four additional heating groups (e.g. gas brooders);
- up to 16 MultiStep groups (in side mode and tunnel mode);
- minimum ventilation in pulse/pause mode;
- the Dynamic MultiStep exhaust air principle for a ventilation concept that saves much energy;
- controlled tunnel ventilation with up to four actuators;
- different options for humidity control (ViperTouch increases ventilation or heating adaptively based on inside and outside humidity to prevent moist litter and reduce NH_3 emissions);
- lowered night-time temperature setting;
- cooling and humidification;

fully automatically

Natural ventilation with curtain control

without exhaust air chimneys

with exhaust air chimneys
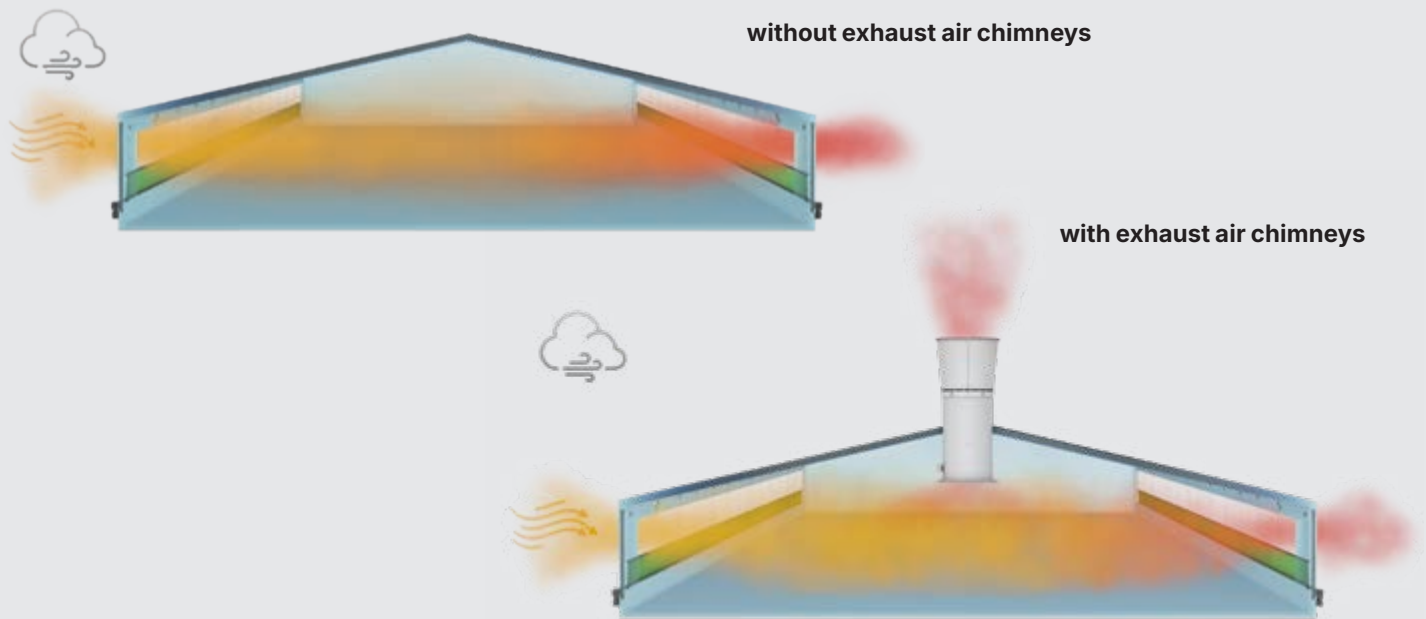
Tunnel ventilation with and without pad cooling
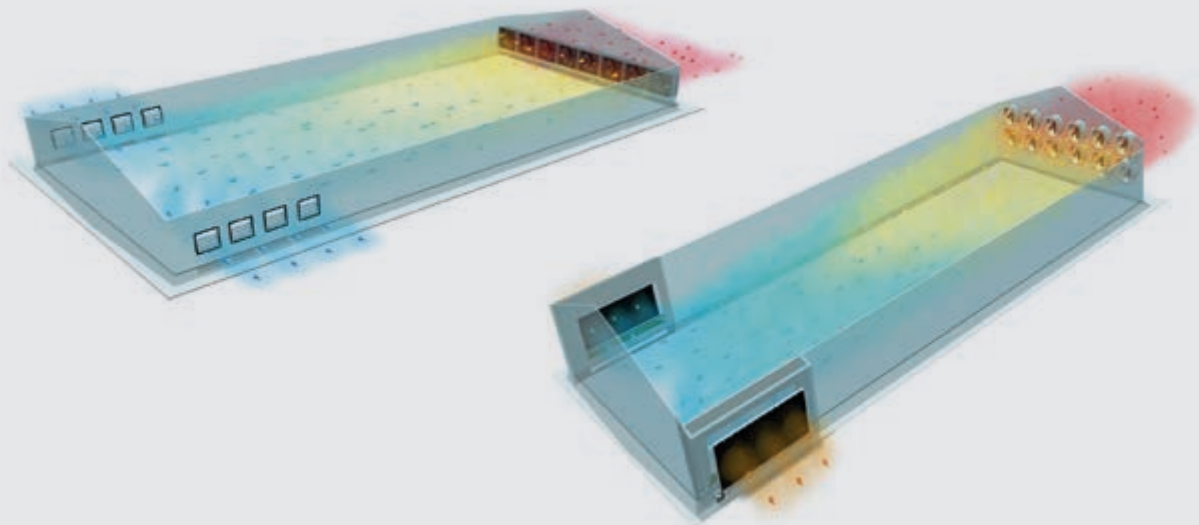
- display of the cooling temperature via two pad temperature sensors (optional);
- the Earny 2 heat exchanger, which is optimally integrated into ventilation control;
- temperature-controlled emergency opening with 378 T or 378 CT;
- optimised comfort temperature control that takes into account the air humidity;
- a CO_2 and/or NH_3 sensor to regulate

minimum ventilation actively based on the CO_2 and/or NH_3 concentration in the house air;

- additional free sensors, for example for air speed and current consumption of the ventilation system including alarms;
- active negative-pressure control, i.e. the negative-pressure sensor measures the pressure difference between outside air and inside air;

- natural ventilation using a weather station;
- sensors to monitor air cleaning (conductivity and pH value of the wash water);
- display of trend curves for the entire batch.

Production control
Secure, comfortable and easy with ViperTouch

ViperTouch is a state-of-the-art climate computer and also an extremely professional production computer. It records all the important data regarding growth, feed and water consumption, and mortality of your stock (broilers, turkeys and ducks). This enables you to react quickly to changes and to take any required action, which, in turn, will lead to better performance results and increase economic efficiency.

Extension module "Full Growing"

In addition to the standard configuration, Big Dutchman offers the extension module "Full Growing", which provides more functions for poultry growing.
The most essential ones are listed in the table below.

Function	Standard Growing	Full Growing
Number of feed silos with FW 99-B	2	5
Feed mixing with FW 99-B	–	✔
Number of light groups	4	4
Number of light sensors	–	5
Number of bird scales	2	12
Number of weighed silos	–	5
Number of time switches	4	10
Number of water meters	6	24
Number of drinkers with autom. flushing	32	32
Water level alarm	64	64

Silo weighing with UniScale

Feed weighing
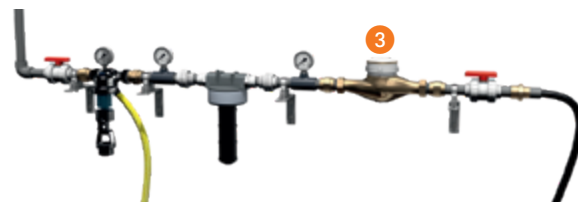
Water consumption

What can ViperTouch record and control?

- feed consumption: total, per day and per bird;
- silo weighing with up to eight weigh bars per silo using UniScale, QuadScale or weighing modules for easy monitoring of the silo contents;
- feed deliveries are registered and logged;

- the FW 99-B feed weigher permits mixing of feed components from up to five different silos (additional wheat feeding);
- water consumption: total, per day and per bird with up to 24 water meters;

- up to twelve bird scales to record bird weights;
- up to four different light groups with twilight phase for sunrise and sunset; the light intensity and colour temperature can also be changed;

House camera

Light control

Bird weighing

AC Touch alarm device
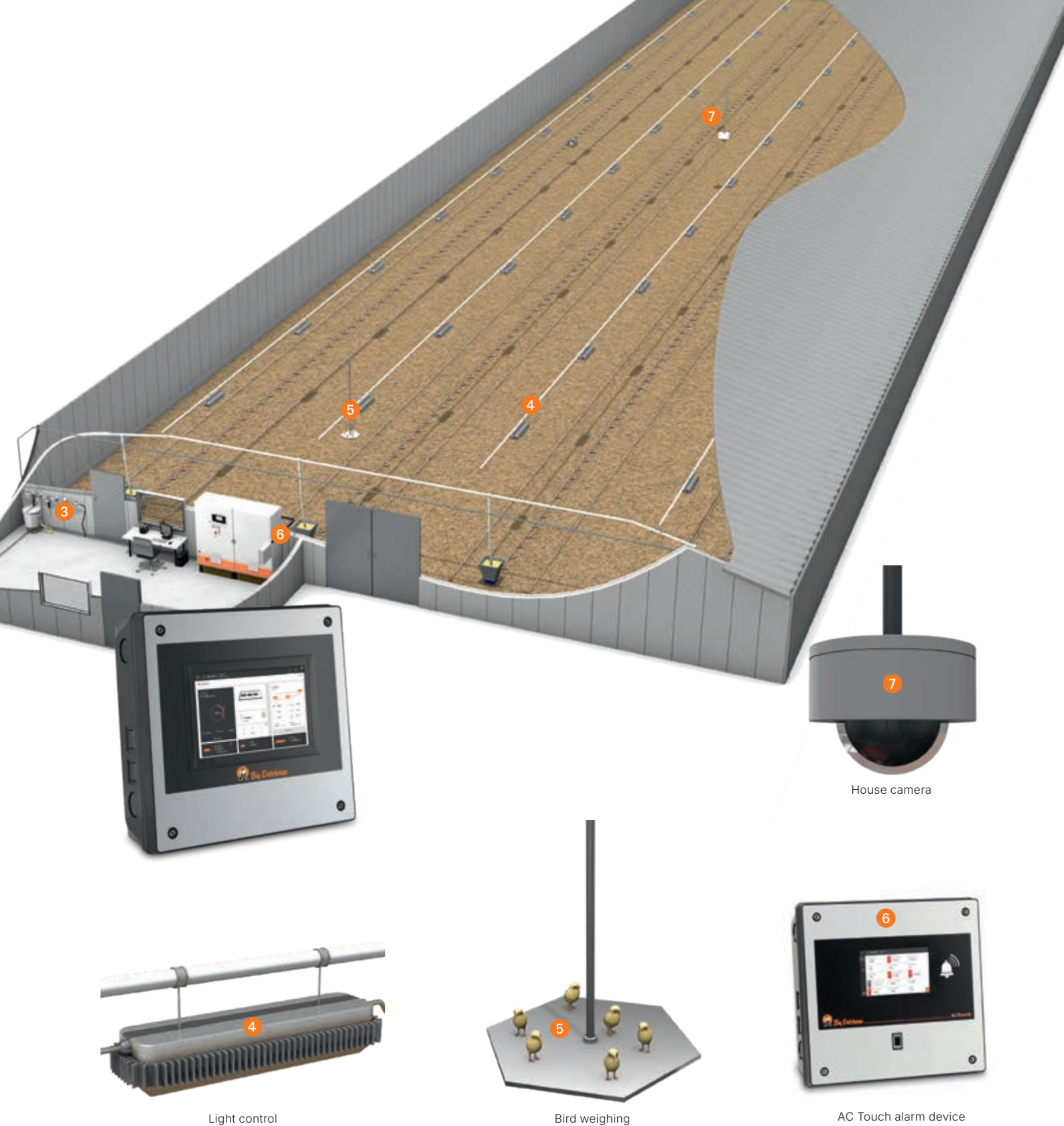
- pause function: helps the producer optimise the inter-batch period for soaking, cleaning, drying and heating, thus reducing costs;
- up to eight free time switches for individual tasks;

- catching function to empty the feeding system in a controlled and automatic manner before the birds are moved out while simultaneously allowing individual configuration of the climate during depopulation;

- alarm messages in case of power failures, deviations from set values such as temperature, humidity, water and feed consumption, and minimum silo content.
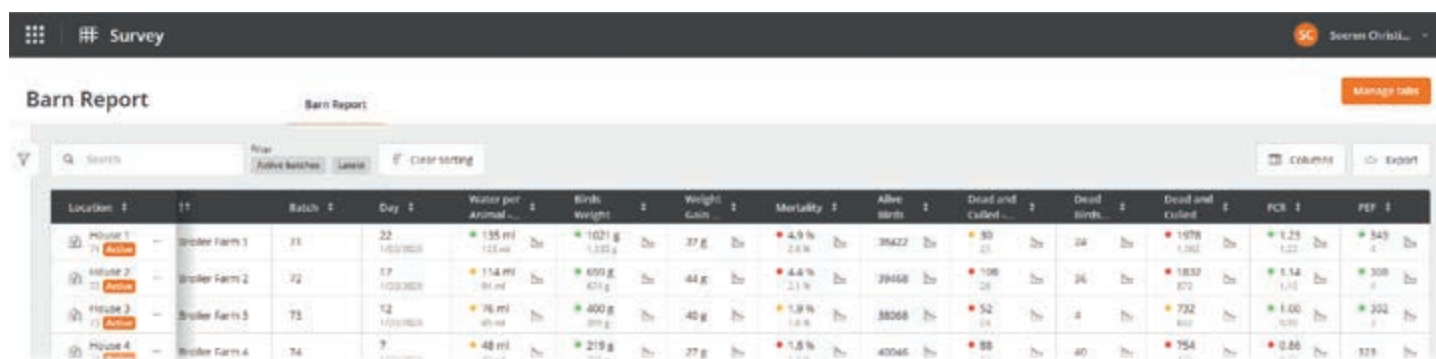
How exactly does BFN Fusion help me?

The combination of **ViperTouch** and **BFN Fusion** is the best digital control and analysis system for your poultry farm. BFN Fusion connects climate, feeding, water and bird data intelligently. This helps you to recognise issues early on and guarantees stable and more efficient production with measurable results.

Since every farmer has different requirements for meeting the current and future challenges of poultry growing, the BFN Fusion platform is modular. This means it can be adjusted exactly to your needs. The following modules are currently available:

❯ Survey module

Your production data is displayed in tables. You can apply various filters to the data collected by ViperTouch to configure these tables. The Survey module enables you to compare different key values so you can determine the cause of an issue and prevent it from occurring again. You can also compare batches across houses or farms, both for the current batch and for completed batches. This batch comparison is a valuable aid when trying to find the best settings.

❯ Silo module

The Silo module shows the current feed levels in your silos and predicts feed levels for the next days. It also estimates when a silo will run empty. A diagram of the historical feed levels shows changes over time, for example when feed is delivered and consumed. Thanks to a direct data connection to your feed producer, you can react before any shortages put your production at risk. You can also set up automatic deliveries so your birds always receive the feed they need.


❯ Reference module

The Reference module comprises reference profiles from breeding companies. This information enables you to easily measure productivity across farms and compare results.

❯ Export module

Use the Export module to create an interface that sends data to your slaughterhouse, feed mill, and other partners.

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❯ Boards module

The Boards module offers a quick overview of separate houses, entire farm complexes or all locations to which you have access. The views can be changed as required because every farm manager can create their own dashboard. Production managers can switch between these dashboards, for example to look at a farm in more detail.
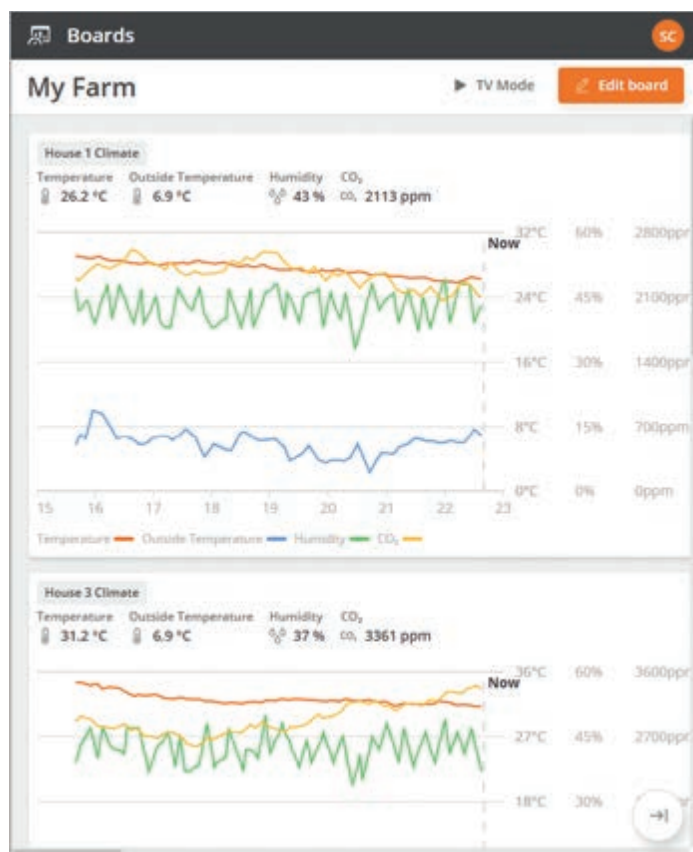
❯ Connection module

With the Connection module, you can set up and configure your farm with all its houses and silos. The module also checks the connection to the farm as well as incoming data.

❯ Alarm module

The Alarm module shows all alarms of your ViperTouch controllers in all houses. You can also see when alarms were acknowledged and cleared.

❯ Monitor module

Use this AI-supported module to illustrate poultry behaviour in the house and to select relevant sequences. Movement patterns, uneven distribution, etc., are visualised and recorded via livestream or time lapse.

❯ Trend Warnings module

The Trend Warnings module uses data from the first days of a batch to calculate the feed and water consumption that can be expected in the future. This calculation is repeated several times a day to incorporate any sudden changes.
If the measured values deviate from the calculated development, the module generates a warning and adds a specific icon to the diagram. Clicking on this warning provides you with additional information, such as an explanation and suggestions for the cause of the warning as well as ideas to solve the issue.

❯ Remote Access module

Remote Access is part of the Connection module and enables remote access to your controllers from anywhere in the world – via web browser on your computer or with a mobile device. Remote Access is only available in connection with the ViperTouch controller.
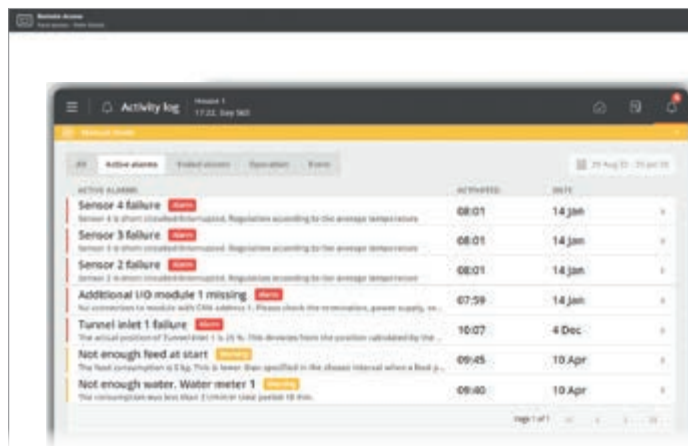

❯ Analytics module

The Analytics module creates reports for detailed analyses of your production and the influence of your climate settings. More than twenty key values are available to compare houses or batches.
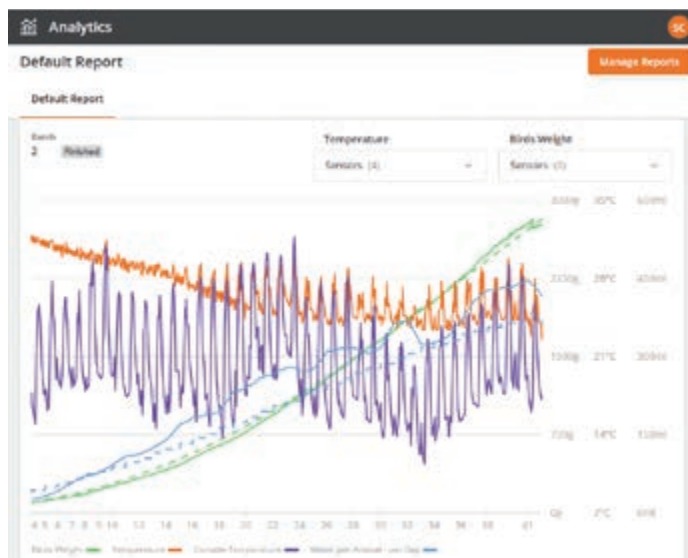
❯ Tasks module

This module helps you to keep abreast of your tasks – from standard activities to special "to-dos". All tasks are also documented in a comprehensible manner.
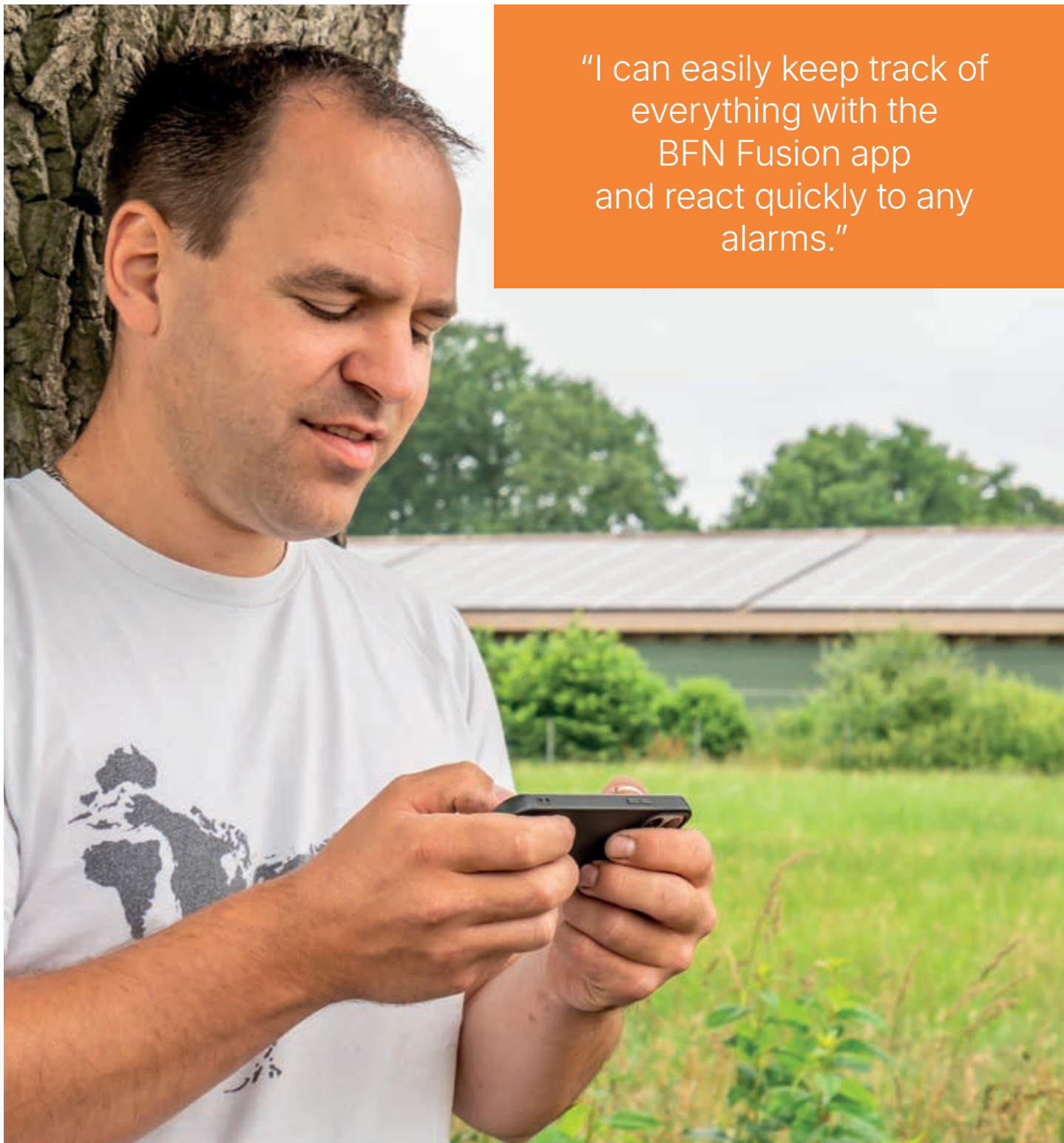
"I can easily keep track of everything with the BFN Fusion app and react quickly to any alarms."