

PigCenter & PigMaster



Technical specifications

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Display PigCenter

A large LCD display on PigCenter shows the following real-time data from the PigMaster in question: temperature, humidity, messages and alarms.

PigMaster

An LED display on PigMaster shows temperature in real-time.

Relays: Six integrated relays control fans, heating units, dampers, cooling systems, sprinkler systems, etc. The relays are equipped with 5-Amp fuses so that units of up to 5 Amps can be connected directly.

Automatic temperature adjustment

Max. 2 temperature sensors measure the temperature inside and outside to an accuracy of 0.5%. PigMaster ensures automatic daily temperature adjustment. When a desired temperature is set for up to ten selected growth days, PigMaster will automatically adjust the temperature in the intervening periods.

Humidity sensor and pressurestat

A humidity sensor measures the humidity of the air inside the stable. Using a sensor, the humid limits for cooling devices such as humidifiers can prevent moisture being added to the air in wet or humid weather. A pressurestat, e.g. RPS-1, can be connected for control of the air intake. A suitable level of negative pressure ensures an effective mixture of intake air with the air in the stable, thus leading to more uniform ventilation in the stable.

Control of automatic feeding and watering plant

A water meter sends contact signals for the registration of water consumption and triggers alarms if the water consumption is too high. PigMaster can also control feed consumption on the basis of the calibrated pulse input. If desired, PigMaster can trigger an alarm signal if feed consumption is too high.

Extra systems

Extra systems enable the feeding and watering plant to be started and stopped up to 10 times per day.

Variable output

Connect variable fans up to 10 Amps. This will enable smoother control of the fan.

Connection of PC

PigCenter can be connected to a PC. The PC enables the stable buildings to be monitored and controlled from home or from the office. A password prevents unauthorised persons from accessing the system.

Backup PigMaster

The built-in lithium battery provides backup power to the clock in the event of a power failure. It also maintains historical information in the computer's memory. The system parameters and control settings are stored in the non-volatile memory (EEPROM), which does not require power to store data.

In the event of communication failure with PigCenter, PigMaster will continue regulation without interruption since all settings and parameters are stored in each PigMaster unit.

The menu system in PigCenter is divided into 6 main areas: Control, management, history, test, calibration and configuration. The last three items are service menus. Control, management and history are described in the following.

Management and history are control functions which are not necessarily used in daily operation. They concern data that can be collected if required in the monitoring of daily operations. This data can either be read off and processed directly from PigCenter, or via Funki's PC-system.

Control

1. Temperature
2. Humidity
3. Min. ventilation
4. Spraying
5. Cooling
6. Pressure
7. Extra systems

Management

1. Stocks of animals
2. Growth day & herd/
flock number
3. Alarm setting
4. Alarm reset

History

1. Temperature
2. Humidity
3. Water
4. Feed
5. Mortality
6. Alarms
7. Events

Control

1. Temperature. Temperatures are entered according to the age of the animals. Young animals require higher temperatures than older animals. PigMaster has the capacity for up to 10 growth days with corresponding temperatures and set-points for heating and cooling.

2. Humidity. If a humidity sensor is connected, PigMaster can operate ventilation up to a desired level of humidity.

3. Minimum ventilation. Can be adapted according to the age of the animals.

4. Spraying. If a spraying system is connected, it can be regulated for up to 4 periods during the day.

5. Cooling. Regulates timing, cycle timers and degrees of humidity applicable to cooling pads or humidifiers.

6. Pressure. Pressurestat-controlled air intake ensures a good distribution and mixture of fresh air with the air already in the stable.

Management

1. Stocks of animals. The number of animals is entered here first, after which the number of animals that have died is keyed in each day, thus enabling an account to be kept of the number of animals in the herd/flock.

2. Growth day & herd/flock number. Editing of herd/flock number and growth day.

3. Alarm setting. Various alarms can be set here, e.g. high temp., high water consumption, high feed consumption, etc.

4. Alarm reset. For resetting the alarm.

History for the last 100 days

1. Temperature. Displays minimum, mean and maximum temperature. The computer calculates an updated average for all 24 hours of the day.

2. Moisture. Displays minimum, mean and maximum air humidity. As in the case of temperature, the computer calculates an updated average for all 24 hours of the day.

3. Water. Displays daily water consumption with percentage changes in relation to the previous day as well as total consumption.

4. Feed. Displays daily feed consumption with percentage changes in relation to the previous day for each growth day.

5. Mortality. Displays historical data for mortality.

6. Alarms. Stores 30 most recent alarm events with information concerning growth day, time and alarm code.

7. Events. Displays changes to settings and time for 50 most recent changes.