

**dol** SENSORS

# iDOL 65 Pig Weighing Camera

MONITORING SOLUTIONS



# Average weight in the pen

## Get accurate weight data every hour based on 3D images of the pigs in the pen taken every 10 seconds

With an iDOL 65 Pig Weighing Camera mounted in the ceiling over the pen, you will get accurate updates on the average weight in the pen every hour. The 3D camera captures an image of the pigs below it every 10 seconds. An algorithm analyses the images from the last 24 hours and estimates the average weight of the pigs in the pen to provide you with accurate weight data.

### All data belongs to you

To ensure data security, all weighing data is deleted from the DOL Cloud, after some time when it has been sent to your server via our API.

Every iDOL 65 Pig Weighing Camera has a unique Key and a MAC address to be identified in the API.

### Accurate data with high precision

The iDOL 65 Pig Weighing Camera is designed to estimate the average weight in the pen for pigs between 7 and 110 kg.

The precision of the iDOL 65 Pig Weighing Camera is +/- 5 % for DanBred pigs between 7 and 30 kg and +/- 3% for DanBred pigs between 30 to 110 kg.

The algorithm for automated weighing is based on data from over 29,2 million individual images of weaned and finishing pigs between 1.7 and 139.2 kg.



# Understand the data

## The iDOL 65 Camera provides four different data points

Every hour our iDOL 65 Pig Weighing Camera sends data on:

- Average weight in the pen
- Standard deviation
- Minimum and maximum weight in the pen
- Number of weighings last 24 hours and last hour

### Average weight in the pen

The average weight is based on approx. 8,600 images captured the last 24 hours. The iDOL 65 Pig Weighing Camera captures an image every 10 seconds and each image contains multiple weighings depending on the number of pigs that are beneath the camera at that time. An algorithm calculates the average weight in the pen based on the images.

### Standard deviation

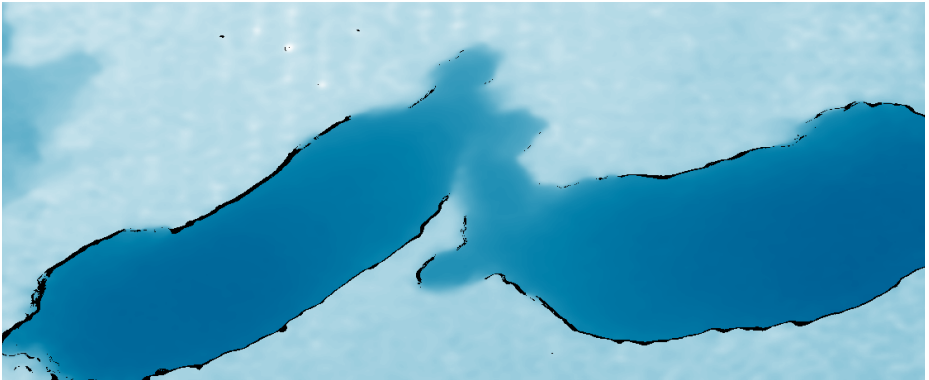
The standard deviation gives you an indication of how similar the pigs in the pen are. This data is e.g. used by some of our customers to move the smallest and biggest pigs to other pens to ensure that similar pigs are in the same pen.

### Minimum and maximum weight in the pen

The minimum and maximum weight in the pen is based on statistics from the last 24 hours' weighings. The data can show less than the smallest pig or higher than the biggest pig in the pen if the iDOL 65 Pig Weighing Camera has captured an image of e.g. two pigs on top of each other.

### Number of weighings last 24 hours and last hour

Last but not least, the iDOL 65 Pig Weighing Camera provides the number of weighings the last 24 hours and the last hour. Since the camera is placed next to the feed dispenser (at dry feeding) or next to the drinking nipple (at wet feeding), the number of weighings can e.g. be used to indicate how often the pigs are eating and drinking or how active they are.



*Example of an image from the 3D camera*

# How to use the data

When you receive the data on your server, it is completely up to you how you want to use it.

Most of our customers use the data from the iDOL 65 Pig Weighing Camera with other data about feed consumption, water consumption, and climate in the barn. Comparing current data with historical data makes it possible to compare different batches or dig into the weight development throughout the time period the pigs are in the pen.

## Change compound feed at the right time

Changing compound feed at the right time is vital to the production outcome. Comparing data from the iDOL 65 Pig Weighing Camera with feed data enables you to monitor the effect of compound feed changes e.g. FCR in relation to weight gain.

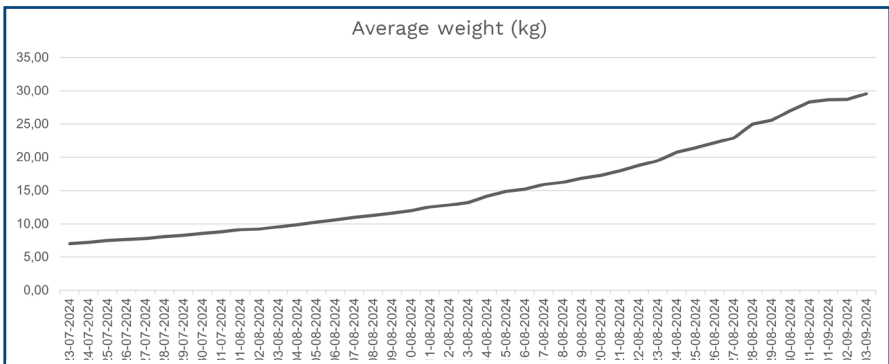
Furthermore, the data could be used to investigate whether the compound feed used gives the wanted results. It might be better to use a more expensive feed if it gives better results.



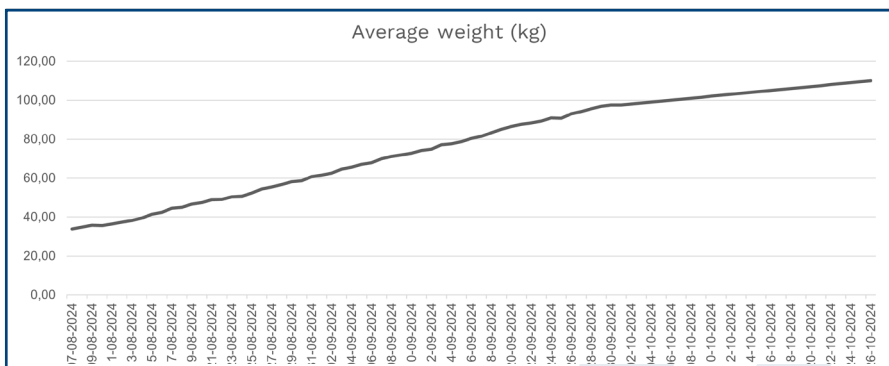
## Calculate the weight gain

If you want to monitor the weight gain of the pigs in a pen, you can calculate it in a very simple way. Just take the current weight data and subtract the weight data from e.g. yesterday.

$$\begin{aligned} & \text{Avg. weight in the pen now} - \text{Avg. weight in the pen yesterday} \\ & = \\ & \text{Weight gain since yesterday} \end{aligned}$$



Example of how you can show the average weight for 7-30 kg



### Compare average weight with standard weight curves

The data on the average weight in the pen can be compared with a standard weight curve to monitor the weight gain of your pigs. In this way you will get a more accurate indication of how the pigs are growing compared to expectations.

### Get a more modern production

With the data from the iDOL 65 Pig Weighing Camera and all other data you are collecting from the pen yourself, you will get a much more valid overview of your production and its performance. This means that you can optimize the production based on data instead of gut feeling.

Comparing the data with historical data that you saved on your server, will make your production even more modern.

By tracking the ages at which your pigs reach weights of 9, 15, and 25 kg and comparing this data with previous batches, you can determine if they are following the same growth curve.



# How to get started?

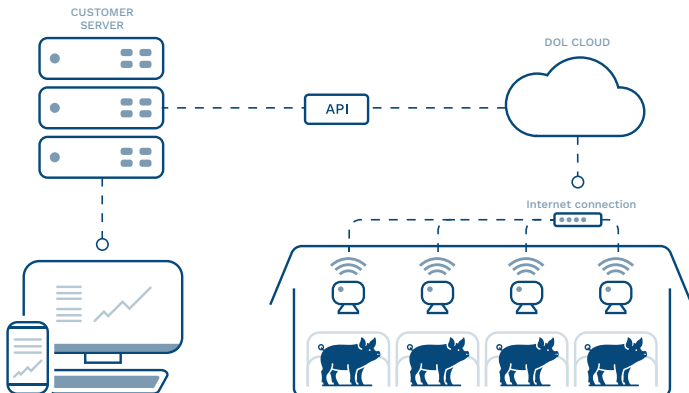
## Easy installation and setup

The iDOL 65 Pig Weighing Camera is connected to the DOL Cloud via an internet connection. The data is send every hour via an API directly to your server.

To get started you will need to mount the camera as stated in the Technical User Guide and provide it with an internet connection. The camera can be calibrated via our API.

If you have more cameras you can connect them serially.

Maintenance of the iDOL 65 Pig Weighing Camera software and updates are handled centrally if the camera is online, offering a carefree solution.

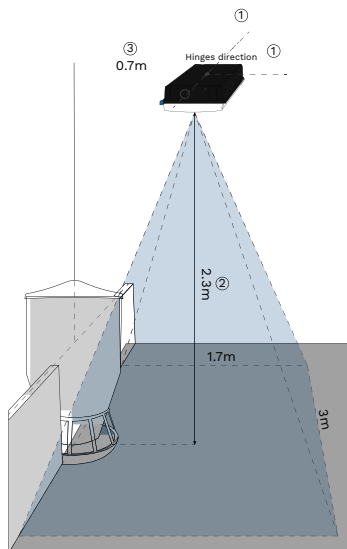


# Mounting iDOL 65

Please refer to the [Technical User Guide](#) found on our website to ensure correct mounting

iDOL 65 Pig Weighing Camera must be mounted above the feed dispenser at dry feeding as shown in the picture or above the drinking nipple at wet feeding.

- Place the camera above feed dispenser
- Vertical distance to the center of the dispenser: 70 cm
- Height: 230 cm
- Align to the floor
- Clean flat concrete or slatted floor, no deep litter
- Camera must have free sight, remove any cables spiderweb etc.





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