

The MP-2 Feed Intake Monitor (FIM) is a robust system that automatically records and measures the real-time food intake and the feeding behaviour of *group housed pigs* in their pen around the clock and throughout meals.

## Research Applications

- Obesity
- General metabolic process
- Impact of treatment on health/behaviour
- Food preference
- Eating behaviour

## Benefits

- Monitor individual food intake in group-housed pigs.
- Mounts quickly and easily to the pen enclosure with adjustable brackets for correct feeding height.
- Trough designed for high standards of hygiene, minimum food spillage, and ease of feed filling and cleaning.
- The FIM has a start/stop button for operation directly in the pen.
- A single cable connects both power and data network to the central data collection unit.
- Up to 48 MP-1+2 may be connected through the network to the controller cabinet.
- Data acquisition using the MP02 database allows robust storage of information, which is then made available by the data viewer or via interface filters to Excel®, SigmaPlot® and Graphpad Prism®.
- Simple tare function of the entire system or of each station.
- A light and heat free system.
- A built in calibration function allows perimeter adjustments to be made quickly and easily to meet project needs.

## Food Consumption Monitored Online

The FIM continuously monitors feeding activity at the trough, which has been designed for low spillage, for high standards of hygiene, and for ease of operation and cleaning. Animals are detected with an RFID reader connected to an antenna mounted next to the trough. The feeding data is measured without human intervention. The system records the start time of each meal, the amount of food consumed, the duration of the meal, and the finishing time. Setup configurations allow the researcher to set parameters for the data acquisition prior to each experiment.

## MP02 Database

The data collection software ensures robust storage of raw data and viewers are available to present the data quickly in order to check experiment results. Data may be extracted via filters to SigmaPlot®, Graphpad Prism® and Excel®, for in-depth correlation with other research. Export procedures to corporate database structures are also available on request.



Complete WS-2



Controller cabinet



Pig with RFID ear tag

Parameter	Abbreviation	Value	Unit	Note
Volume capacity	Vmax	12	l	
Load capacity	Lmax	40	kg	
Load resolution	Lres	5	g	
Load accuracy	Lacc	10	g	
Meal start detection	T <sub>Det start</sub>	5	s	1
Meal end detection	T <sub>Det end</sub>	5	s	2
Cable connection	Con-Phys	UTP/RJ45		3
Bus Type	Con-Sig	CAN		ISO 11898/11519
Weight of MP-2	W <sub>fim</sub>	20	kg	
RFID reader frequency	RFID		kHz	ISO FDXB

Note 1: The period in which the load cell readings are unstable before a meal session is started.

Note 2: The period in which the load cell readings are stable before a meal session is ended

Note 3: Standard UTP Cat 5 or better may be used to wire the MP-2 to the central unit

