## MP-1 Product Brief

Version 1.0, January 07

MBRose

The MP-1 Feed Intake Monitor (FIM) automatically measures and records the undisturbed, real-time food intake and the feeding behaviour of pigs in their home pen around the clock and meal by meal.

#### **Research Applications**

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

#### Benefits

- 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.
- Full operational control at the FIM allows individual experiments to be started and stopped directly from the pen.
- A single cable connects both power and data network to the central data collection unit.
- Up to 48 FIMs may be connected through the network to the central unit.
- Data collection using the HM-Win database allows robust collection of information, which is then made available by the data viewer or via interface filters to Excel®, SigmaPlot® and Graphpad Prism®. It also allows export facilities to other lab databases.
- For remote site monitoring, the FIM may collect data using a stand alone operation mode without a central unit.
- Simple tare function of the entire system or of individuals.
- The FIM emits no light, no heat and no noise.
- A built in calibration function allows simple calibration to meet company quality standards.

## 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. The feeding data is collected 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 establish the parameters for the data collection in advance. The system can operate without refilling the container for up to 5 days for the typical pig. It allows food intake data to be collected automatically without disturbing the animal's normal eating behaviour.

## HM-Win Database

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





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Parameter	Abbreviation	Value	Unit	Note
Volume capacity	Vmax	12	I	
Load capacity	Lmax	10	kg	
Load resolution	Lres	1	g	
Load accuracy	Lacc	5	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 FIM	Wfim	20	kg	

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 LITP Cat 5 or better may be used to wire the FIMs to the central unit

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

