

ModWeigh Digital Instrumentation

EMC's unique ModWeigh Series of Continuous Weighing Processors and Static Weighing Instruments utilise digital technology to provide users with a modular system that is highly accurate, cost-effective and easy to use.

P-Module

The P-Module is a removable module that plugs in to the Transmitter. It determines the device function (e.g. Belt Weigher) and holds calibration settings, etc.

Transmitters

ModWeigh digital transmitters have push-button calibration (no pots or dip switches) and combine high accuracy with low drift. They are 12-24Vdc powered with excitation supply for up to 10 loadcells.

One analog output and Modbus communications are standard (A-versions).

The MO2 option provides additional analog I/O (MT6x & MT8x transmitters).

ModWeigh transmitters are mounted in either DIN Rail or Field Housings.

Display

The MW99 ModWeigh Indicator features a graphics LCD display (64 x 128 pixel) with an easy to use menu selection.

The MW99 displays weight, flowrate, setup, calibration and system status. It is 24Vdc powered and 144 x 72mm panel mounted (IP65 facia).

A single MW99 can be used to calibrate several ModWeigh transmitters.



MW61 Weigher System

EMC MW61 Weigher Systems are state of the art weighing instruments for use with any strain-gauge loadcell based weighing system such as Silo/Tank weighing, Batch weighing and Platform Scales.

The system is fully digital with no potentiometers or dip switches. Basic calibration is done by pushbutton on the unit, or full calibration facilities remotely by an EMC MW99 Weight Indicator.

When calibrated remotely, the calibration may be done by entering loadcell capacity and sensitivity which allows the calibration of systems without the use of test weights.

- Digital high accuracy design (no pots or dip switches)
- Excitation for up to 10 x 350Ω loadcells
- Multiple loadcells connected via junction box or wired in parallel
- 6 or 4 wire loadcell connection
- Update rate 100 times per second
- Removable P-Module holds calibration settings
- Field software upgrades

MW61A Standard Version

- Programmable 4-20mA weight output
- Programmable digital inputs and outputs (see page 57)
- Accuracy - typically better than 0.01%
- Modbus communications
- Totalising function
- Peak reading function
- Rate of change function

MW61B Basic Version

- Fixed 4-20mA weight output (0 - 100%)
- Fixed Acquire Zero digital input
- Accuracy - typically better than 0.05%



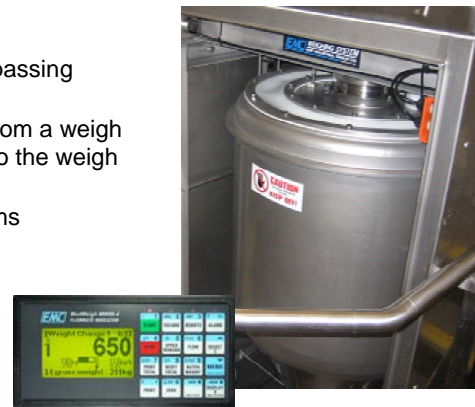
Component Codes	Features	System Code	Price
MW61A Standard Version			Prices on Application
MW61A, MT2R	2 loadcell terminal blocks, DIN rail mount (IP00)	EL MW 061	-
MW61A, MT2R, MW99d3, MAC	2 loadcell terminal blocks, DIN rail mount (IP00), display, cable	EL MW 061	-
MW61B Basic Version			
MW61B, MT2R	2 loadcell terminal blocks, DIN rail mount (IP00)	EL MW 061	-
MW61B, MT2R, MW99d3, MAC	2 loadcell terminal blocks, DIN rail mount (IP00), display, cable	EL MW 061	-
Options: See component details page 57			
Field Housing, IP67 (MTxF)			-
Field Housing / DIN Rail Mount, IP67 (MTxG)			-
4 loadcell terminal blocks - allows corner adjust (MT4x)			-

MW93 Weight Change System

EMC MW93 Weight Change Systems are used to control the flowrate of material passing through a weigh hopper and flow regulator (e.g. augers or rotary valves).

The processor is suitable for systems where the flow regulator removes material from a weigh hopper (weight loss system) and systems where the flow regulator adds material to the weigh hopper (weight gain system).

- Flowrate measurement and control for loss-in-weight (or gain-in-weight) systems
- Programmable 4-20mA motor speed control output
- Flowrate output (with MO2 option)
- Flowrate setpoint input (with MO2 option)
- Programmable digital inputs and outputs (see page 57)
- Material totaliser
- Modbus comms (independent RS232 & RS485 ports)
- Field software upgrades



Component Codes	Features	System Code	Price
MW93A, MT6R, MO2, MW99d4, MAC	2 loadcell terminal blocks, DIN rail mount (IP00), 4 digital inputs and outputs, 1 analog input, 2 analog outputs, display and cable	EL MW 093	Prices on Application
Options: See component details page 57			
Field Housing, IP67 (MTxF)			-
Field Housing / DIN Rail Mount, IP67 (MTxG)			-
MT8x Transmitter with 8 digital inputs and outputs			-

MW95 Belt Weigher System

EMC MW95 Belt Weigher Systems measure the flowrate of material carried by a belt conveyor. They measure the belt loading and belt speed and calculate the material flowrate.

- Flowrate measurement for belt weighers
- Programmable 4-20mA flowrate output
- Platform weight output (with MO2 option)
- Setpoint input (with MO2 option)
- Programmable digital inputs and outputs (see page 57)
- Material totaliser
- Modbus comms (independent RS232 & RS485 ports)
- Field software upgrades



Component Codes	Features	System Code	Price
MW95A, MT6R, MW99d4, MAC	2 loadcell terminal blocks, DIN rail mount (IP00), 4 digital inputs and outputs, display and cable	EL MW 095	Prices on Application
Options: See component details page 57			
Field Housing, IP67 (MTxF)			-
Field Housing / DIN Rail Mount, IP67 (MTxG)			-
MT8x Transmitter with 8 digital inputs and outputs			-

MW96 Weigh Feeder System

EMC MW96 Weigh Feeder Systems are used to measure and control the flowrate of material carried by a weighing conveyor.

They measure the belt loading and belt speed and calculate the material flowrate which is controlled by varying the belt speed.

- Flowrate measurement and control for weigh feeders
- Programmable 4-20mA motor speed control output
- Flowrate output (with MO2 option)
- Flowrate setpoint input (with MO2 option)
- Programmable digital inputs and outputs (see page 57)
- Material totaliser
- Modbus comms (independent RS232 & RS485 ports)
- Field software upgrades



Component Codes	Features	System Code	Price
MW96A, MT6R, MO2, MW99d4, MAC	2 loadcell terminal blocks, DIN rail mount (IP00), 4 digital inputs and outputs, 1 analog input, 2 analog outputs, display and cable	EL MW 096	Prices on Application
Options: See component details page 57			
Field Housing, IP67 (MTxF)			-
Field Housing / DIN Rail Mount, IP67 (MTxG)			-
MT8x Transmitter with 8 digital inputs and outputs			-

P-Module

- A removable module that plugs in to the Transmitter.
- The P-Module determines the device function and holds calibration settings, etc.



Model	Description	Price
MW61A	Weigher System (tank weighing, general weighing, scales, etc)	Prices on Application
MW61B	Weigher System (basic version with limited functionality)	-
MW93A	Weight Change System (loss-in-weight)	-
MW95A	Belt Weigher System	-
MW96A	Weigh Feeder System	-

Transmitter



Model	Loadcell Terminals	Size	Digital I/O see below	Price
DIN Rail Mounting (IP00).				
MT2R	2 terminal blocks	110 x 80 x 70mm	1 input / 2 outputs	-
MT4R	4 terminal blocks	170 x 80 x 70mm	1 input / 2 outputs	-
MT6R	2 terminal blocks	170 x 80 x 70mm	4 inputs / 4 outputs	-
MT8R	2 terminal blocks	230 x 80 x 70mm	8 inputs / 8 outputs	-
Alternative Housing Types				
MTxF	Field housing (IP67)			-
MTxG	Field housing with DIN Rail mounting (IP67)			-

Indicator / Display

- LCD graphics display (64 x 128 pixel) of weight, flowrate, setup, calibration and system status.
- A single MW99 can be used to calibrate several ModWeigh transmitters.
- 24Vdc powered, easy to use menu selection and 144 x 72mm housing (IP65 facia).



Model	Description	Price
MW99d3	For MW61 Weigher Systems	Prices on Application
MW99d4	For Continuous Weighing Systems (MW93, MW95 and MW96)	-

Accessories and Options



Model	Description	Price
MO2	Provides an additional analog input & output (MT6x & MT8x transmitters only)	Prices on Application
MOE1	+/-5Vdc excitation for safety barriers (factory fitted only)	-
MAC	RJ12 2m cable (COM1 cable)	-
MAD	RJ12 to 9 pin D connector	-
MAP	RJ12 to 25 pin D connector	-

Digital Inputs and Outputs

- ModWeigh Digital Input and Output functions are user-programmable. Defaults are shown below. (A-version P-Modules only).
- The number of Digital Input and Output functions available depends on the ModWeigh transmitter selected (see above).

Input	MW61	MW93	MW95	MW96
IN1	Acquire Zero	Hold Control	Pulse Input	Pulse Input
IN2	Acquire Tare	Acquire Zero	Acquire Zero	Acquire Zero
IN3	Print	Run	Run	Run
IN4	Capture Weight	Reset Total	Reset Total	Reset Total
IN5	Print Total	Print	Print	Print
IN6	Reset Total	Print Total	Print Total	Print Total
IN7	Totalise	Run	Stop	Stop
IN8	Hold Flowrate	Pause	Pause	Pause
Output	MW61	MW93	MW95	MW96
OUT1	Limit 1 Output	Pulse Output	Pulse Output	Pulse Output
OUT2	Limit 2 Output	Material Feed	Running	Low Flow
OUT3	Motion	Run Motor	Run Motor	Run Motor
OUT4	Healthy	Healthy	Healthy	Healthy
OUT5	Net Mode	Weight Fault	Weight Fault	Weight Fault
OUT6	At Zero	Low Flow	Belt Speed Fault	Belt Speed Fault
OUT7	Weight Fault	Not Filling / Discharging	Material Feed	Material Feed
OUT8	Alarm Alert	Alarm Alert	Alarm Alert	Alarm Alert