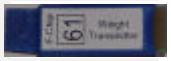
EMC ModWeigh MW261, MW461, MW661 & MW263, MW463, MW663 Loadcell Transmitters

APPLICATIONS

- Silo/Tank weighing
- Batch weighing
- Platform scales

FEATURES

- Digital high accuracy design (no pots or DIP switches)
- Excitation for up to 10 x 350W loadcells
- 6 or 4 wire loadcell connection
- Update rate 100 times per second
- 4-20mA output
- Digital inputs (1 or 4)
- Digital outputs (2 or 4)
- Modbus communications (independent RS232 and RS485 ports)
- Printer output on RS232 port
- Removable F-Chip memory to hold calibration settings



- Field software upgrades
- 12-24Vdc power supply

MWx63 ADDITIONAL FEATURES

- Totalising
- Peak reading
- Rate of change (flowrate)

HOUSING OPTIONS

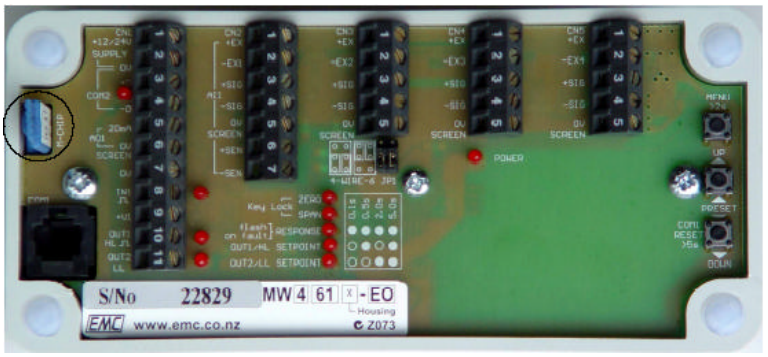
- DIN Rail mounting (IP00)
- Field mounting (IP65)
- Wet area mounting (IP67)
- MW2xx Size 110 x 80 x 70mm
- MW4xx Size 170 x 80 x 70mm
- MW6xx Size 170 x 80 x 70mm

OPTIONS

- MO-2 4-20mA or 0-10V input and 4-20mA output (MW6xx only)
- ±5V excitation for safety barrier applications

PLANNED FEATURES

- Digital corner adjustment
- Loadcell fault detection (MW6xx only)



MW461R Rail mounted Loadcell Transmitter

General

The EMC Loadcell Transmitters are state of the art weighing instruments that can be used with any loadcell based weighing system. The unit is fully digital with no potentiometers or DIP switches. The 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.

Analog Outputs *AO1 & AO2*

A 4-20mA output normally of weight may be programmed to be any of the internal signals including displayed weight, gross weight and net weight. The MW6xx units optionally have a second analog output AO2.

Digital Inputs *IN1..IN4*

IN1 is an event capture input which captures the current weight. The MW6xx units have additional inputs, IN2 - zero, IN3 - print, IN4 - hold.

MW99 Weight Indicator

The EMC MW99 Weight Indicator display is a separate product which may be used with the EMC ModWeigh family of products for display of weight, setup and calibration. It has a graphics display with easy to use menu selection of settings.

The display typically connects to the transmitter's communication port COM1 or COM2. For example, it may be connected using the MA-C cable to COM1 which provides both power and communications to the display.

When using COM2, one display may be connected to and used to calibrate several ModWeigh transmitters.

Digital Outputs *OUT1..OUT4*

OUT1 and OUT2 typically operate from the high and low limit signals. The outputs may be programmed to operate from any other internal signal (e.g. alarm, motion, net mode).

The high and low limits have adjustable setpoints, normally operated off the weight signal, but may be programmed to any internal signal.

SPECIFICATIONS

Loadcell Input AI1

Input Range:	±4 mV/V.
Excitation:	8Vdc ±10%, 250mA maximum current.
Signal processing rate:	100Hz (with response time setting ≤0.5s).
Input sensitivity:	0.5µV/division maximum.
Zero range:	±30mV.
Zero drift:	±(0.02µV+0.0005% of deadload)/°C typical.
Span drift:	±0.0005%/°C typical.
Non-linearity:	<0.006% of FS.
Input noise:	0.5µVp-p typical.
Filtering:	Adjustable response times of 0.04s to 32.0s.
Input impedance:	>1000M? .
Sense input:	>100k? input impedance. 3-10V range.

Analog Output AO1

0 to 20mA/5V maximum range (max. load 250? for 4-20mA). User calibrated within these limits. An external resistor is used to convert mA to volts. For example 250? gives 5V at 20mA. Resolution better than 1 in 10000. Non-linearity <0.01%. Drift <1µA/°C. Response time = response time setting+20ms.

Analog I/O Option MO-2 *(MW6xx only)*

AI2 4-20mA input has 47? input resistance. 0-10V input has >1M? input resistance.

AO2 0 to 20mA output (max. load 1000? @ 24V supply, 500? @ 12V). Resolution better than 1 in 10000. Non-linearity <0.01%. Drift <1µA/°C. Response time = response time setting+20ms.

Digital I/O

IN1..IN4 12-24Vdc inputs, loading of 3200? to 4800? .

OUT1..OUT4 12-24V solid state output, 0.25A max.

Communications

All ports, 8 data bits, no parity, 2 stop bits.

COM1 RS232 serial. Baud rate selectable between 9600, 19,200, 38,400, 57,600 and 115,200.

COM2 Two wire RS485 serial. Baud rate selectable between 9600, 19,200, 38,400, 57,600 and 115,200.

General

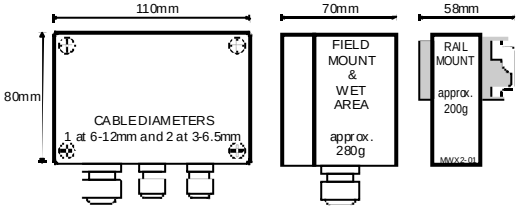
HOUSING Polycarbonate UV resistant.

ENVIRONMENT Ambient temperature range -10 to 45°C.

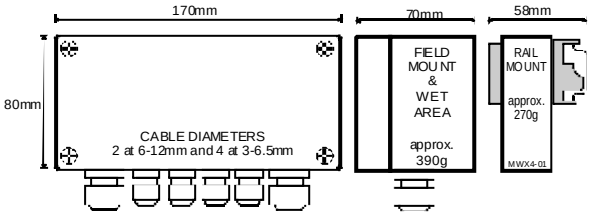
POWER SUPPLY 10 to 32Vdc. 2.5VA @ 100mA loadcell excitation current, 4VA @ 250mA. MW99 Display 2VA.

DIMENSIONS

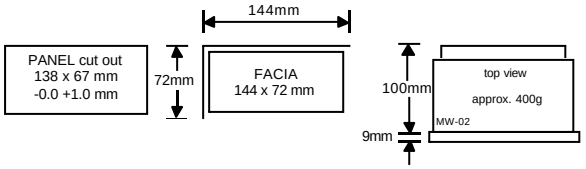
MW2xx Loadcell Transmitter



MW4xx & MW6xx Loadcell Transmitter



MW99 Weight Indicator



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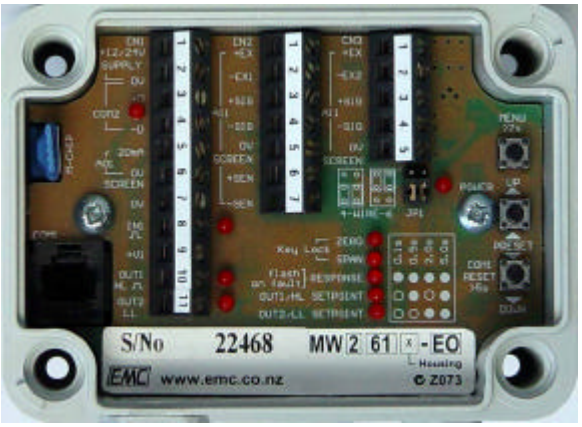
As we are continuously improving our products, changes to this specification may occur without notice.

CONNECTIONS (MW261 & MW263)



ORDERING

To order, specify the basic code and other items required.

I/O

2 loadcell terminals , digital 1 In / 2 Out	**MW2**
4 loadcell terminals , digital 1 In / 2 Out	**MW4**
2 loadcell terminals, digital 4 In / 4 Out, takes Analog I/O Option MO-2	**MW6**

PRODUCT

Loadcell Transmitter	**61**
Loadcell Transmitter (with additional features)	**63**

HOUSING

Rail mount, 4 loadcell terminals	**R**
Field mount, 6 cable glands	**F**
Wet area, 6 cable glands	**W**

EXCITATION

8Vdc (standard)	**-E0**
±5Vdc	**-E1**

Options (* user installable in MW4xx and MW6xx only)

Analog input/output AI2/AO2 *	**MO-2**
Rail mounting for field or wet area housing	**MO-R**

Accessories

RJ12 Cable 2m (COM1 cable)	**MA-C**
RJ12 to 9 pin D-connector adaptor	**MA-D**

Display

MW99 Weight Indicator Display	**MW99-1**

EXAMPLE OF ORDER CODE **MW261-E0, MA-C, MW99-1**

Other units in the EMC ModWeigh Family

EMC MW695 & MW895 Weigh Belt Transmitter – belt weigher processor for continuous flowrate measurement.

EMC MW696 & MW896 Weighfeeder Transmitter – weigh-feeder processor for continuous flowrate control application of a weigh belt.

EMC MW693 & MW893 Weight Change Transmitter – for loss-in-weight and gain-in-weight flow control systems.

Available from

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