

APPLICATIONS

- Batching into a weigh hopper
- Batching out of a weigh hopper
- Bagging machines

SPECIAL FEATURES

- Auto tuned pre-acts for accurate batch weights
- Over & under weight checking
- Dump or refilling control

FEATURES

- Simple to use
- Trade approved (TMU cert. 1412)
- Excitation for up to 8 x 350W loadcells
- 8 Relay outputs for direct connection to solenoids or PLC
- Update rate 100 times per second for high accuracy
- 14mm main LED display clearly visible at up to 6m
- 7mm sub display provides prompts for adjusting set-points and calibration settings
- Key locks prevent unauthorised operation
- Keypad beeper and tactile keys give positive feel of operation
- Compact panel mount design (144 x 72 x 100mm), fits in shallow panels
- Pluggable screw terminals are easy to wire to and easy to disconnect
- IP65 facia for use in dusty or wet conditions

OPTIONS

- Analog output
- Communications RS232 or RS422/485 with pulse output & clock and Device Net module

Analog Output Option

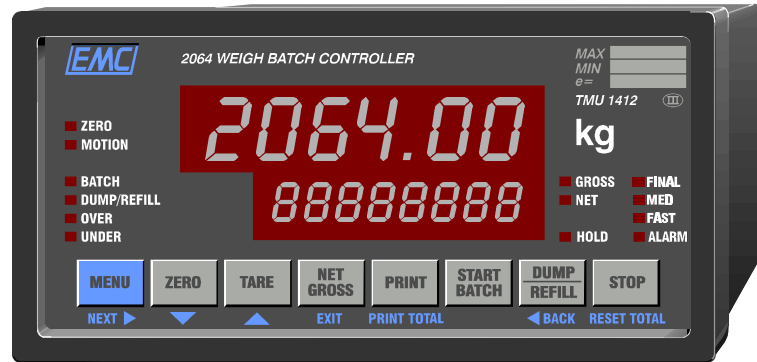
The analog output which can be user fitted, gives a programmable current output. It can also be used for voltage output.

The output signal and range are adjustable.

Communications Option

The serial option cards can be used as a fully programmable printer output or can be used for communications with computer or PLC. RS422/485 provide multi-drop capability.

A clock allows printing of time and date and the pulse output allows connection of remote weight totalisers.



The EMC2064 Weigh Batch Controller is a state of the art weighing instrument that can be used with any loadcell based weighing system.

The batch functions allow the operator to initiate batching in to or out of the weigh hopper from the facia controls of the instrument. It can be set up to batch weight into a weigh hopper and to control the dump or discharge gate. It can also be set up to batch weight out of a hopper and to control the refilling of the hopper.

The batch process allows for single, two and three speed filling systems. Pre-acts are adjustable for the final, medium and fast fill outputs for in-flight compensation. An auto tune featured allows automatic in-flight compensation for the final and medium filling outputs. Tuning can be set to occur after each batch or to maximise speed every say 20 batches. Similarly a zero can occur at each batch or after a set number of batches.

If the desired batch weight is greater than the weigh hopper capacity, an optional multi batch option allows for automatic repeated batching to reach the target batch weight.

The unit has eight relay outputs which are used as batching control outputs, as over and under tolerance check outputs, run and alarm outputs. The relays can be used to directly drive the feed or empty solenoid controls of a batching system.

As standard it provides a clear display of weight and has keys to tare and zero the weighing system. Calibration may be done with known weights or by entering loadcell capacity and sensitivity.

With simple user fitted options, the EMC 2064 can be expanded to provide connection to a PLC, computer and remote display or printer.

Each of the setpoints can be set to allow the operator to adjust their value or they may be preset commissioning values.

Key locks allow unrequired key functions to be disabled.

A total of 11 switch inputs allow remote control of the instrument.

The EMC 2064 may be used with intrinsic safety barriers for hazardous area applications.

SPECIFICATIONS

Inputs

LOADCELL INPUT

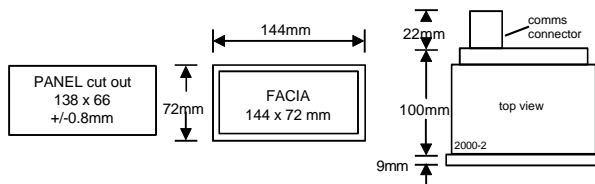
Input Range: $\pm 33\text{mV}$.
 Excitation: 10Vdc $\pm 10\%$, 240mA maximum current. (current reduces as more options are added).
 Update rate: 100 per second.
 Signal processing rate: 100Hz (response time setting $\leq 0.5\text{s}$). (120Hz at 60Hz mains frequency).
 Input sensitivity: 0.5 μV /division maximum.
 Zero range: $\pm 25\text{mV}$.
 Zero drift: $\pm (0.1\mu\text{V} + 0.0005\%$ of deadload)/ $^{\circ}\text{C}$ typical.
 Span drift: $\pm 0.0005\%$ / $^{\circ}\text{C}$ typical.
 Non-linearity: $< 0.006\%$ of FS.
 Input noise: 0.5 μV -p typical.
 Filtering: 3rd order digital filter. Adjustable response times of 0.05s to 5.0s.
 Input impedance: $> 1000\text{M}$ ohms.
 Sense input: 99k input impedance. Voltage range 5-10V.
 AD conversion: 24bit sigma-delta.

SWITCH INPUTS 8 inputs isolated 12-24Vac/dc inputs. An external power source is required. 3 inputs designed for connection to potential free, low voltage switch contacts. The inputs have 4k7 pull-up resistors to 5V.

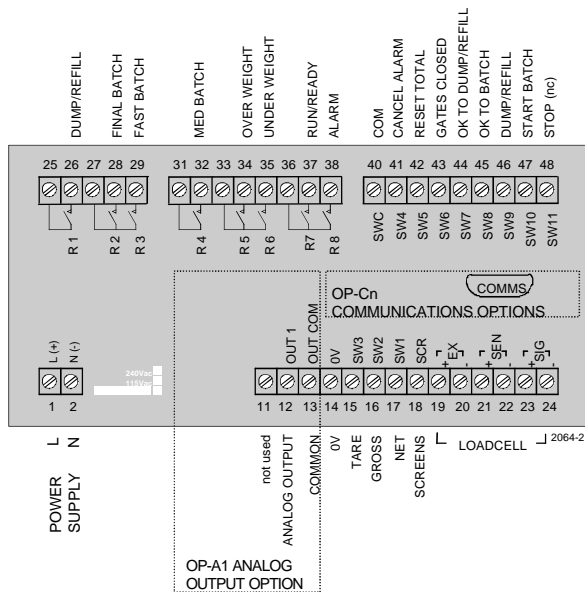
Relay Outputs

RELAY OUTPUTS Isolated clean contact rated at 250Vac 2A for general use.

DIMENSIONS



CONNECTIONS



Analog Output Option

ANALOG OUTPUT Isolated 0 to 20mA/10.5V maximum range (max. load 500 ohms for 4-20mA). User calibrated within these limits. An external resistor is used to convert mA to volts. For example 560 ohms gives 10V at 17.9mA. Resolution better than 1 in 5000. Non-linearity $< 0.01\%$. Drift $< 2\mu\text{A}/^{\circ}\text{C}$. Response time = response time setting + 20ms.

Communications Option

INTERFACE Isolated RS232 serial with handshaking or RS422/485. Baud rate selectable between 300, 600, 1200, 2400, 4800 and 9600. Includes real time clock.

TOTALISER OUTPUT Isolated transistor output. 640Hz pulse rate.

General

DISPLAY 6 digit LED display with 14mm high digits. Sub display is 8 digit LED with 7mm high digits. Weight reading in 100 to 15,000 divisions. Count by 1, 2, 5, 10, 20 or 50.

HOUSING Panel mounted according to DIN 43700. Facia covering is polyester membrane which is dust and splash proof to IP65. Connections are made via pluggable terminals at the rear. Shipping weight $< 1.0\text{kg}$.

ENVIRONMENT Ambient temperature range -10 to 40°C . Humidity $< 90\%$ (non-condensing).

POWER SUPPLY Standard option is 240Vac $+10\%$ -15% . Refer to order code for other available options.

ORDERING

To order, specify the type code and any options that are required.

PRODUCT

Weigh Batch Controller **2064**

POWER SUPPLY

240Vac $+10\%$ -15%	A
115Vac $+10\%$ -15%	B
24Vac $+10\%$ -15%	C
10 to 35Vdc (un-isolated, -ve supply connected to 0V)	L

OPTIONS (user installable)

Analog output (isolated)	OP-A1
Communications (isolated RS232)	OP-C0
Communications (isolated RS232, clock & pulse output)	OP-C1
Communications (isolated RS422/485, clock & pulse output)	OP-C2

EXAMPLE OF ORDER CODE

2064-A, OP-C0

Other units in the EMC2060 Weighing Series

EMC 2060 Weight Indicator - basic weight indicator with relay option, analog output option and communications option.

EMC 2061 Weight Indicator - similar to 2060 but with trade approval.

EMC 2063 Weight Processor - enhanced capabilities including totalising, peak hold, rate of change signal, tare value entry, etc. Relay, analog output and communications options.

EMC 2065 Continuous Weigh Batcher - optimised for continuous batching such as bagging systems and process weighers. Batch continuously, to a set weight or to a set batch number. Allows for flowrate measurement and control. Analog output and communications options.

Available from

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EMC INDUSTRIAL GROUP LTD

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