

APPLICATIONS

- Process weighing
- Bagging machines

SPECIAL FEATURES

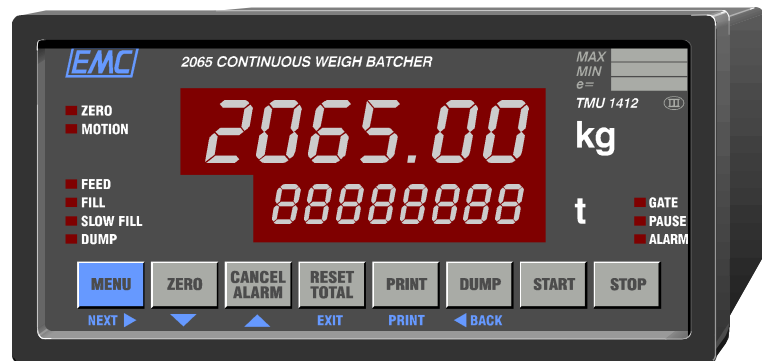
- Material totalising
- Repetitive batching to a target weight
- Flowrate measurement
- Flowrate control
- Auto tuned pre-acts
- Over & under weight checking

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



The EMC 2065 Continuous Weigh Batcher is ideally suited to continuous weigh batching systems as found with bagging type systems and process weighing systems. Inputs are provided for up stream and down stream process interlocking. Material gate closing times can be controlled by adjustable delays or with proximity switch inputs.

For bagging type applications the unit can totalise the material throughput, stop after a pre-set number of batches or after a pre-set weight of material has been bagged. The second display can for example be used to display the total weight bagged, the bagging rate or the current bag weight.

The main applications for process weighing are material totalising, batching out a pre-set weight of material, flowrate measurement and flowrate control. Time outs can be set on motion detection and failure to dump to ensure a system stall does not occur. A time out on filling makes sure the tail end of a batch is totalised.

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.

An alarm system detects, logs and reports errors during the process.

The two displays allow viewing of weight, setpoints, total weight, flowrate, batch number etc. Calibration may be done with known weights or by entering loadcell capacity and sensitivity.

With simple user fitted options, the EMC 2065 can be expanded to provide connection to a PLC, computer and remote display or printer.

The batch functions allow the operator to initiate batching in to the weigh hopper from the facia controls of the instrument. The relays can be used to directly drive the feed or empty solenoid controls of a batching system.

Pre-acts are adjustable on final, medium and fast fill outputs for in-flight compensation. An auto-tune option allows automatic in-flight compensation for the final and medium fill outputs.

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.

The EMC 2065 may be used with intrinsic safety barriers for hazardous area applications.

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.

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.

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

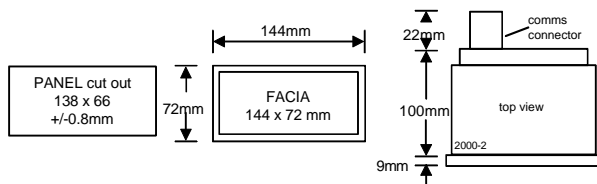
DISPLAY 6 digit LED display with 14mm high digits. Sub display is 8 digit LED with 7mm high digits. Weight reading in 100 to 15,000 divisions. Count by 1, 2, 5, 10, 20 or 50.

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 $< 1.0\text{kg}$.

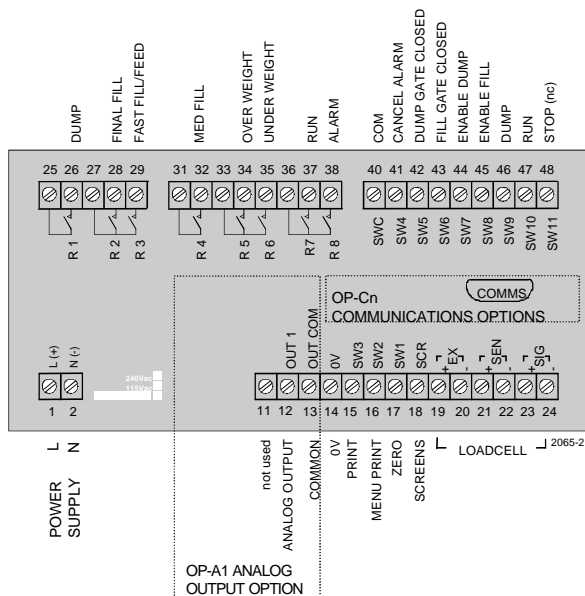
ENVIRONMENT Ambient temperature range -10 to 40°C . Humidity $< 90\%$ (non-condensing).

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

DIMENSIONS



CONNECTIONS



ORDERING

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

PRODUCT

Continuous Weigh Batcher **2065**

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

2065-A, OP-A1

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 2064 Weigh Batch Controller - weight indicator with batch control features. 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.

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