



## “Optimus” Electronic Weight Controller

“Optimus” is an advanced, precision, microprocessor based weight controller. Its unique design makes it suitable for use with the Web Tech range of weighfeeders and belt scales. Ample input & output facilities combined with a range of industrial communications protocols (Device-Net, Profibus & Modbus) make “Optimus” a powerful and versatile instrument. Housed in an industrial enclosure rated to IP66 specification, “Optimus” is suitable for use in the most demanding of industrial environments.



### Suitable for:

- Conveyor Belt Scales
- Weigh Belt Feeders

### STANDARD FEATURES

- ◆ Microprocessor based. AMD Elan SC400 microprocessor running at 33, 66 or 100 MHz
- ◆ All commands, readings etc. are entered via “thick film keypad”.
- ◆ Simple Menu driven interface.
- ◆ Dot matrix 64 x 240 pixel graphics LCD with digitally adjustable LED backlight brightness.
- ◆ No hieroglyphics are used.
- ◆ Local totaliser read out 8 digits wide. local mass rate read out 6 digits wide.
- ◆ Remote totaliser output 5V, 24V or clean relay contacts per increment.
- ◆ Remote 4-20mA mass rate output.
- ◆ Programmable PID 4-20mA or 0-25mA current loop.
- ◆ All analogue and digital outputs are isolated.
- ◆ Programmable Autozero tracking.
- ◆ Auto-gain: no user calculations required.
- ◆ Accepts belt speed input from high speed optical encoders or magnetic pick ups.
- ◆ Unit has a modular construction for ease of fault finding and repair.

### OPTIONAL FEATURES

- 304 or 316 stainless steel enclosure.
- Sloping roof enclosures.
- Stainless steel sunshade.
- DIP enclosure.
- Intrinsic Safety barriers.
- Load cell lightning surge protection.
- RS232/RS485 serial output.
- Special applications software
- DeviceNet, Profibus & Modbus

Web Tech AutoWeigh

Manufacturers & designers of bulk solids weighing & proportioning systems

## Technical Specification

**Power Requirements:** 110/240 VAC (switch selectable)  
+/- 10%, 50/60Hz. 12/24/48 VDC optional.

**Temperature Range:** -10°C to +40°C.  
Optional enclosure heater for lower temperatures.  
Optional high temperature screen -10°C to +60°C.

**Load Cells:** 3 inputs channels 24 Bit ADC  
**Excitation:** Temperature compensation  
10 VDC, up to eight (8) 350 ohm load cells.

**Load Cell Input:** 0 – 35mV.

**Speed Sensor Excitation:** 5 VDC to 15 VDC.

**Speed Sensor Input:** -50 V to +50 V DC or AC RMS.  
Maximum input frequency 800 Hz.

**Analogue Output:** 6 x isolated inputs/6 x Isolated outputs 4-20mA for Mass Rate, internally supplied.

**Digital I/O:** 6 inputs/6 x outputs optically isolated.

**Totaliser Output:** 5 VDC/24 VDC/Voltage Free Contacts (link selectable).  
Relay output: 5/24V Internal supply. Max switched current : 500mA  
Pulse width programmable from 10 mS to 1 second.

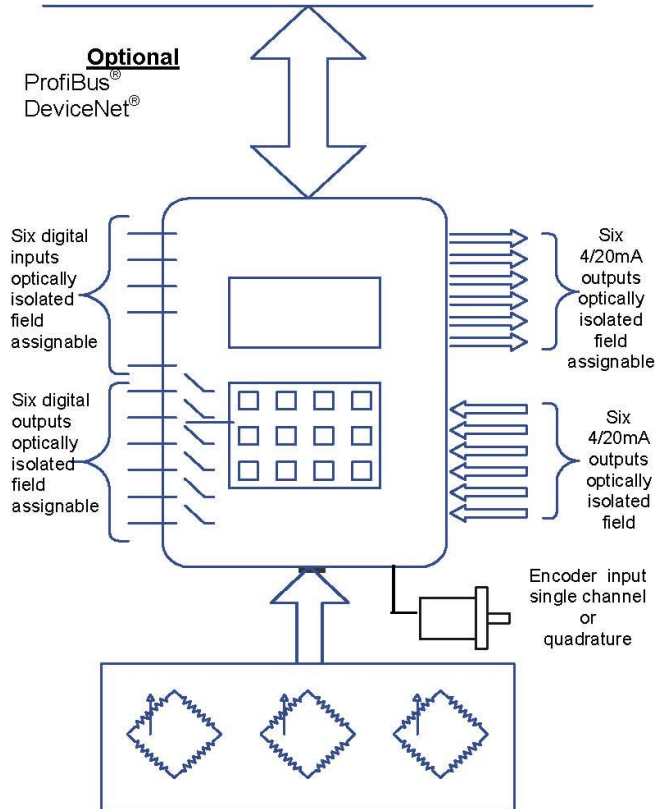
**Serial communication:** RS 232/RS 485

**Field bus options:** Profibus  
DeviceNet  
Modbus

**Firmware Update:**

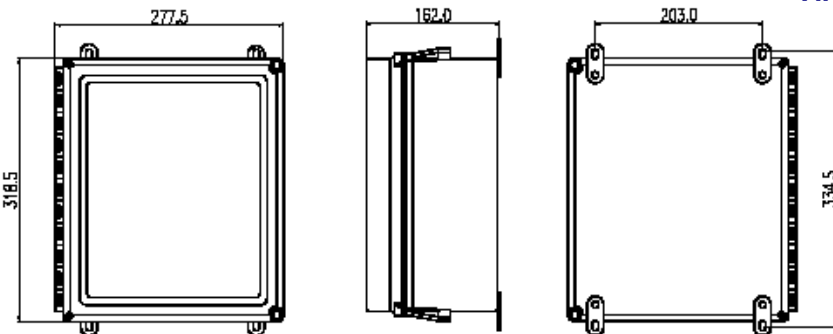
Compact flash card  
Watchdog timer for fault finding.

### Data Highway or direct to PC



3 Discrete load cell inputs.  
Provide Optimus with ability to perform  
Online Calibration using weighing hoppers.  
Weighed pre-feeding for use with delicate food products  
where regular inlet chutes can't be used.

### Enclosure mounting details



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