Masterweigh "Novus"

"Novus" is an advanced ARM Microcontroller based Integrator utilizing the latest technology.

Designed for use with all brands of Conveyor Belt Scales, Weigh Belt Feeders, Screw Weighing Systems, Weigh Conveyors and other dynamic weighing systems

The Modular, 'lift out" construction, designed with easy plug-in expansion cards and fieldbus communication options allow for easy replacement and upgrade.

Developed on the foundation of over 35 years of experience, "Novus" is user friendly and an ideal replacement for all load cell based, dynamic weighing systems.

STANDARD FEATURES:

- Easy to setup and use via simple user interface
- All interactions are entered via a "thick membrane keypad" - 21 keys.
- Large ¼ VGA (320 x 240 pixels) for enhanced information access
- Built in Switch mode power supply board 85-260 VAC (50/60Hz) - no requirement for external power supplies.
- Automatic conversion of data between metric and imperial measure units - Tonnes, Tons, Ibs, kg.
- Automatic Zero and Span calibrations.
- 24 bit A/D converter (more than 16,000,000 intervals).
- Audit trail showing calibration history.
- Diagnostics menu for load cell, belt speed sensor and analogue I/O.
- Battery backed-up clock/calendar for time and date monitoring (Real Time Clock)
- Local totaliser (mass total) read out 8 digits wide.
- Local rate read out 8 digits wide.
- Totaliser (mass total) output, 24VDC or voltage free contact per programmed increment for remote counter.
- Isolated 4 20mA (or 0-24mA) mass rate output for remote rate meter/PLC.
- Remote Zero facilityvia digital Input.
- All current and digital outputs are fully isolated.
- Programmable Auto Zero Tracking (AZT).
- Programmable access code capability.
- SD card to save /load parameters and download Audit Trail.

- Firmware/Software updates via USB
- Accepts belt speed input from high-speed optical encoders, magnetic pick-ups and proximity switches.
- Programmable internally generated frequency backup for fixed belt speeds.
- Modular 'lift out 'construction for ease of updating and repair.
- IP66 / Nema4X compression moulded fibreglass with chemical and temperature resistance qualities, utilising 316 stainless steel hinge and latches.
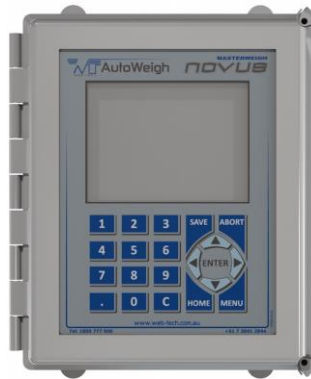
OPTIONS*:*
Expansion boards for extra Digital and Analogue I/O, PID and Inlet Chute control include:

- Programmable PID 4-20mA or 0-24mA current loop.
- Spare programmable digital I/O and current loops.
- On screen real-time numerical and graphical PID monitoring.
- Serial communications available for both standard and fully optioned systems.
- RS232, RS485, DeviceNet, Ethernet TCP (Modbus), TCP/IP, and Profibus protocols.
- Special applications software.
- Fully isolated AUX 24VDC supply.
- 12/24/48 VDC power supplies.
- 304 or 316 stainless steel enclosure.
- Sloping roof enclosure.
- Stainless steel or Polyester sunshade.
- DIP enclosure.
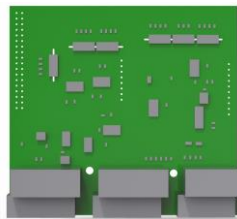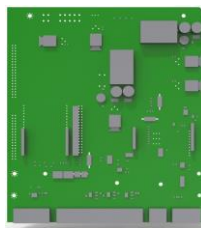- Intrinsic Safety barriers.

STANDARD MODEL FEATURES

1 x 4-20mA Rate Output

2 x Solid State Relays
- "System Healthy"
- Remote Totaliser

3 x Optical Isolated Digital Input
1 x Speed Sensor Input
1 x Load Cell A/D Channel
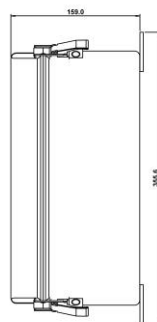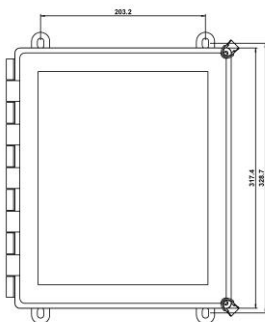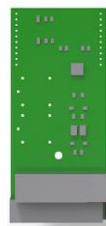**1** x AUX 24VDC Power Supply

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OPTIONAL PLUG-IN CARDS

1 x 4-20mA PID Control Loop
2 x Programmable Current Loop Outputs
1 x 4-20mA Setpoint Input
2 x Current Loop Inputs
2 x Individual Load Cell Channels
- Inlet Boot Hopper Weight
- Pre-Feed Hopper Weight

2 x Mechanical Relay Digital Outputs
2 x Optical Isolated Digital Inputs
2 x AUX 24VDC Power Supplies

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OPTIONAL FIELDBUS COMMUNICATIONS

- Ethernet TCP & TCP/IP
- Profibus
- RS232 and RS485
- DeviceNet

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TECHNICAL SPECIFICATIONS

POWER REQUIREMENTS
85-260 switch mode power supply,
Or optional 12/24/48 VDC @ 1A

LOAD CELLS
Up to 3 input channels (24 Bit)
Excitation: 10V
Input: 0-35mV

SPEED SENSOR
Excitation Voltage: 5 VDC standard,
adjustable to 30VDC

CURRENT LOOP INPUTS/OUTPUTS
Up to 3 current loop inputs with option
cards.

DIGITAL INPUTS/OUTPUTS
Up to 5 isolated digital inputs with option
cards
Up to 4 isolated digital outputs with
option cards

TOTALISER OUTPUT
24 VDC or voltage free contacts,
pulse width programmable

SERIAL COMMUNICATIONS
RS232, RS485, DeviceNet, Profibus,
Ethernet TCP or Ethernet IP

UNITS OF MEASURE
Tonnes, Tons. kg or lb with automatic
conversion

USB SLOT
For firmware/software upgrades

SD CARD SLOT
For quick parameter upload/download

STANDARD ENCLOSURE
Compression Moulded Fiberglass
NEMA/EEMAC Type 4, 4X, 12, 13
IEC 60529 – IP66
Flammability evaluated per UL508A

UNIT DIMENSIONS
318 x 267 x 159 mm (12.5 x 10.5 x 6.25")
Weight: 4.10 kg (9 lbs)

SHIPPING DIMENSIONS
37 x 33 x 22 cm (14.5 x 12.75 x 8.75")

SHIPPING WEIGHT
Actual: 5.00 kg (7 kg cubed)
          11 lb (16 lb cubed)

MADE IN AUSTRALIA