W100-N

WEIGHT INDICATOR - WEIGHING AND BATCHING





DESCRIPTION

- Weight indicator in DIN box suitable for front panel mounting.
- Dimensions: 48x96x124 mm (drilling template: 45x92 mm).
- Semi-alphanumeric white LED display with signalling symbols.
- 4-key keyboard.
- IP54 front panel protection rating (IP65 front optional).
- Real-time clock/calendar with buffer battery.
- Removable screw terminal blocks.
- Cybersecurity: secure by design.

INPUTS/OUTPUTS AND COMMUNICATION

- RS485/RS232 serial ports for communication via protocols ModBus RTU, ASCII Laumas or continuous one way transmission.
- Current or voltage 16 bit optoisolated analog output (option on request).
- 5 relay outputs controlled by the setpoint values or via protocols (4 outputs if the analog output is present).
- 3 optoisolated PNP digital inputs: status reading via serial communication protocols (2 inputs if the analog output is present).
- 1 load cell dedicated input.
- Bluetooth module for communication with Instrument Manager 2.0.

MAIN FUNCTIONS

- Connections to:
  - PLC via analog output (on request);
  - PC/PLC via serial port (up to 99 instruments with line repeaters, up to 32 without line repeaters);
  - remote display and printer via RS485/RS232;
  - up to 8 load cells in parallel by junction box.
- Digital filter to reduce the effects of weight oscillation.
- Theoretical calibration (via keyboard) and real calibration (with sample weights and the possibility of weight linearization up to 8 points).
- Tare weight zero setting.
- Automatic zero setting at power-on.
- Gross weight zero tracking.
- Semi-automatic tare (net/gross weight) and preset tare.
- Semi-automatic zero.
- Weight value printing with date and time via keyboard or external contact.
- Saving custom configuration.
- Alibi memory.
- The instrument can be configured and managed via the free Instrument Manager 2.0 app, available for Windows and Android (iOS in development).

BASE PROGRAM

- Setting setpoint values, hysteresis and acceptable weight range.
- Display of maximum and minimum weight values reached and temporary weight maintenance.
- Selection of 12 groups of 5 setpoints (4 if the analog output is present) via external selector switch or contact (option on request).

BATCHING PROGRAM

- 99 settable formulas.
- Batching resume after a blackout.
- Automatic fall calculation.
- Tolerance error control.
- Precision batching through slow function.
- Precision batching through tapping function.
- Consumption storage.
- Printing of batching data.
- Selection of the first 12 formulas via external selector switch or contact (option on request).
- Batching start via external contact, keyboard or remotely.

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ISO 9001
ISO 14001

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LAUMAS®

CERTIFICATIONS

OIML R76:2006, class III, 3x10000 divisions, 0.2 μV/VSI

UL Recognized component - Complies with United States and Canada regulations

Equivalent of the CE marking for the United Kingdom

TECHNICAL FEATURES

Power supply and consumption	12÷24 VDC ±10%; 5 W
Number of load cells • Load cells supply	up to 8 (350 Ω) - 4/6 wires • 5 VDC/120 mA
Linearity • Analog output linearity	<0.01% full scale • <0.01% full scale
Thermal drift • Analog output thermal drift	<0.0005% full scale/°C • <0.003% full scale/°C
A/D Converter	24 bit (16000000 points) - 40 kHz
Divisions (with measurement range ±10 mV and sensitivity 2 mV/V)	±999999 • 0.01 μV/d
Measurement range	±39 mV÷±625 mV
Usable load cells sensitivity	±7 mV/V÷±120 mV/V
Conversion rate	10÷1200 Hz
Display range	±999999
Decimals • Display increments	0÷4 • x1 x2 x5 x10 x20 x50 x100
Digital filter	14 levels
Relay outputs	5/4 - max 115 VAC/150 mA
Optoisolated digital inputs	3/2 - 5÷24 VDC PNP
Serial ports	RS485, RS232
Baud rate	2400, 4800, 9600, 19200, 38400, 115200 (bit/s)
Wireless	Bluetooth module
Optoisolated analog output	16 bit = 65535 divisions. 0÷20 mA; 4÷20 mA (up to 300 Ω) 0÷10 V; 0÷5 V; ±10 V; ±5 V (min 10 kΩ)
Humidity (condensate free)	85%
Storage temperature	-30 °C +80 °C
Working temperature	-20 °C +60 °C

c UL us	Relay outputs	5/4 - max 30 VAC, 60 VDC/150 mA
	Working temperature	-20 °C +50 °C
	Equipment to be powered by 12-24 VDC LPS or Class 2 power source	

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OPTIONS ON REQUEST

ACCESSORIES



IP65 panel gasket.



Stainless steel adjustable bracket for wall and table mounting.



ATEX kit: allows the instrument to be installed in the safe area and connected, without intrinsic safety barriers, to load cells or a junction box installed in Zone 2-22, in compliance with the ATEX Directive.

INTERFACES

ANALOG OUTPUT

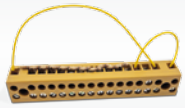


Optoisolated 16 bit **analog output**.
➔ *One input and one output not available.*

EXPANSIONS



✶ EC
Base: 12 groups selection by 5 setpoint (W100-N) or 4 setpoint (W100-NA) via external selector switch.
Load: 12 groups selection by 5 setpoint via external selector switch.



✶ E
Base: 12 groups selection by 5 setpoint (W100-N) or 4 setpoint (W100-NA) via external contact.
Load: selection of the first 12 formulas via external contact.



External 5-relay module to increase the capacity of SPDT contacts to 115 VAC/2 A.

✶ *Select one option among those marked with an asterisk.*

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