

MODBUS RTU



### PROGRAM

BASE	4 setpoint
BASE ANALOG	Analog Output
LOAD	12 formulas
UNLOAD	12 formulas
3 PRODUCTS	12 formulas
* 6 PRODUCTS	12 formulas
* 14 PRODUCTS	12 formulas

\* External 8-relay modules included

### DESCRIPTION

- Weight indicator in DIN box suitable for panel mounting (dimensions: 144x72x170 mm; drilling template: 139x67 mm; 170 mm mounting depth with serial wirings and terminal blocks).
- 5-digit semi-alphanumeric red LED display (20 mm height).
- 8 signalling LED.
- 5-key keyboard.
- IP54 front panel protection rating.
- Extractable terminal boards.
- External 8-relay modules included:
  - for **6 PRODUCTS**: dimensions: 80x60x160 mm; 115 VAC 2A external contacts.
  - for **14 PRODUCTS**: dimensions: 80x60x160 mm, 80x60x120 mm; 115 VAC 2A external contacts.

### INPUTS/OUTPUTS AND COMMUNICATION

- 2 independent serial ports: COM1 = RS232 and COM2 = RS422/485 for communication via ModBus RTU protocol, Profibus DP, ASCII Laumas bidirectional or continuous one way transmission.
- 4 relay outputs controlled by the setpoint values or via protocols.
- 3 optoisolated PNP digital inputs.
- 1 load cell dedicated input.
- Current or voltage 16 bit optoisolated analog output (option on request for batching programs).

### CERTIFICATIONS



Equivalent of the CE marking for the United Kingdom

### MAIN FUNCTIONS

- Connections to:
  - PLC via analog output;
  - PC/PLC via COM1/2 (up to 32 instruments) with PC supervision software;
  - remote display (COM1/2) and printer (COM1).
  - 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).
- Tare weight zero setting.
- Gross weight zero tracking.
- Semi-automatic zero.
- Displaying of the maximum weight value reached (peak).
- Weight value printing with date and time via keyboard or external contact.
- Reading the load cells value expressed in mV: load cells connections continuous check.
- Password to protect the access to selected functions.

### BASE PROGRAM / BASE WITH ANALOG OUTPUT

- Weight indicator with 4 setpoint.
- Hysteresis and setpoint value setting.
- Automatic zero setting at power-on.

### BATCHING PROGRAM

- 50 settable formulas.
- Batching resume after a blackout.
- Automatic fall calculation.
- Tolerance value control.
- Precision batching through slow function.
- Precision batching through tapping function.
- Consumption storage.
- Print of batching data.
- Alarm contact management.
- Selection of the first 12 formulas via external selector switch or contact (option on request).
- Batching start via external contact or keyboard.
- Setting a single tolerance value for all formulas/products
- Current batching can be interrupted via keyboard or external contact.
- Pause of the batching by the keyboard.

*Only for:*

#### LOAD program

- Autotare at batching start.

#### UNLOAD program

- Automatic loading of the product into the weighed structure.
- Management of batching with big bags.


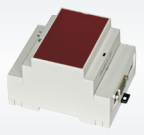


#### 3-6-14 PRODUCTS program

- Autotare at batching start.
- Net weight batching for each product.
- Slow contact for a product batching by two different extraction speeds (6 PRODUCTS).

### TECHNICAL FEATURES

Power supply and consumption	115/230 VAC; 50/60 Hz; 10 VA
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 • <0.03% full scale
Thermal drift • Analog output thermal drift	<0.0003% full scale/°C • <0.001% full scale/°C
A/D Converter	24 bit
Internal divisions	±99999
Measurement range	±2 mV ±19.5 mV
Display range	± 99999 (20% ÷ 100% full scale)
Decimals • Display increments	0-4 • x1 x2 x5 x10 x20 x50 x100
Digital filter • Readings per second	0.2-25 Hz • 5, 10, 25, 50 reading/s
Relay outputs	n. 4 - 115 VAC/30 VDC; 0.5 A
Digital inputs	n. 3
Serial ports	COM1: RS232; COM2: RS422/RS485
Baud rate	1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600 (bit/s)
Optoisolated analog output	16 bit = 65536 divisions; 0÷20 mA; 4÷20 mA (up to 300 Ω) 0÷10 V; 0÷5 V; 0-5 V; 0-10 V (min 10 kΩ)
Humidity (condensate free)	85%
Storage temperature	-20 °C +70 °C
Working temperature	-10 °C +50 °C

### OPTIONS ON REQUEST

	DESCRIZIONE
 ANALOG OUTPUT	Optoisolated 16 bit analog output.
	Profibus converter, IP40, suitable for Omega/DIN rail mounting, allows to connect 1 or 2 Laumas instruments in Slave configuration to any security Profibus DP Master by means of the RS422/RS485 port. Dimensions: 71x58x90 mm.  1 instrument 2 instruments
	EC External selector switch for selecting the first 12 formulas.
	E Selection of the first 12 formulas via external contact.

*The Company reserves the right to make changes to the technical data, drawings and images without notice.*