TYPE: SMW

A United Kingdom company

SMW Wall Mounting Weighing Indicator/Controller

Features

- Large 8 digit LCD display
- Variable gain load cell sensitivity from 0.5 to 200mV/V
- Simple one pass auto calibration
- Gross, net, tare and print function keys
- 4-20mA and 0-10V outputs (isolated)
- IP65 wall mounting case
- 10V @ 170mA excitation to drive up to 6 x 350ohm load cells
- High accuracy and stability
- Wide range of power supplies

Typical Applications

- Vessel weighing
- Silo weighing
- Platform weighing
- Vehicle weighing
- Batching plant
- Conveyor weighing

Description

The SMW surface mounted strain gauge display is housed in a light grey ABS case, sealed to IP65 with external dimensions of 200 x 120 x 75mm. The unit comprises an 8 digit 12.7mm LCD display, on an intelligent base unit with user configurable 4-20mA and 0-10volt analogue outputs. 'Plug-in' module positions are available for power supply, relay and communications options.

The relay module provides for two set points, together with In Flight compensation. Relays can be inverted and latched, all of these facilities being set in engineering units. Both relay and analogue outputs have a high level of isolation. A facility is available to alter the default display for gross or net values.

The optional communications RS232 and multi drop RS485 connects to a PC, PLC or mainframe. This allows for the load value to be read and the set up parameters changed. Communications protocol options include ASCII and MANTRABUS. The RS232 port is also available for a time/date or data only printer to be connected, to log all the desired activities. Baud rates of 300 to 19200 are programmable. Power supplies options of 115 or 230VAC and 9 to 32VDC are available.

A simple input auto calibration is achieved by entering the values of the lowest and highest weights used. Analogue output is pre calibrated and can be ranged over any part of the display range. Both input and output are calibrated via the front panel keypad. Gross, net and tare are activated by front panel function keys. Peak hold is reset by volt free contacts.

Specification

Strain Gauge Input	The input is suitable for any full wheatstone bridge sensor
Compensation	+/- sense wires for cable/safety barrier losses down to 3V excitation
Load Cell Sensitivity	Preset via DIL switches to 0.5, 0.8, 1, 1.25, 1.5, 2, 2.5, 3.5, 5, 10, 20, 50, 100 or 200mV/V
Initial Offset	≤±0.15mV (15uV/V) which is cancelled during auto calibration
Zero temperature coefficient	0.0005% FSO/°C typical with 2.5mV/V sensitivity selected
Span temperature coefficient	<0.0017% reading/°C
Excitation	10V DC nominal, 160mA maximum
Repeatability	±0.002% reading over 90 days
Display update rate	Selectable between 0.1 and 25.5 seconds
Display average	Set by programmer keypad, up to 64 standard updates
Display resolution	1:32,000
Data retention	10 years for setup values, minimum of 100,000 write cycles
Data protection	Watchdog timer giving repeat auto resets. Impending power detection and hold off. Keypad security and time out
Storage temperature	-20 to +70°C
Operating temperature	-10 to +50°C
Relative humidity	95% maximum non condensing
Low voltage directive	2006/95/EC
EMC Directive	2004/108/EC

Options

- 2 set points (output through 5A, 230V AC SPCO relays with latching option)
- Communications port for data transfer or print via:

  20mA loop enabling up to 254 units to be multi dropped to 1 x RS232 via IF25 interface(s)

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Options (continued)

RS485 enabling up to 32 units to be multi dropped

RS232 for 1 to 1 connection to a PC or printer

- Printer operation (by front panel function key)
- Baud rates (300, 600, 1200, 2400, 4800, 9600 (19200 MANTRAbus only)
- Back lighting for the LCD display
- DIN rail mounting for the motherboard
- DC powering (9-32V DC)
- Remote mounting display module for panel mounting

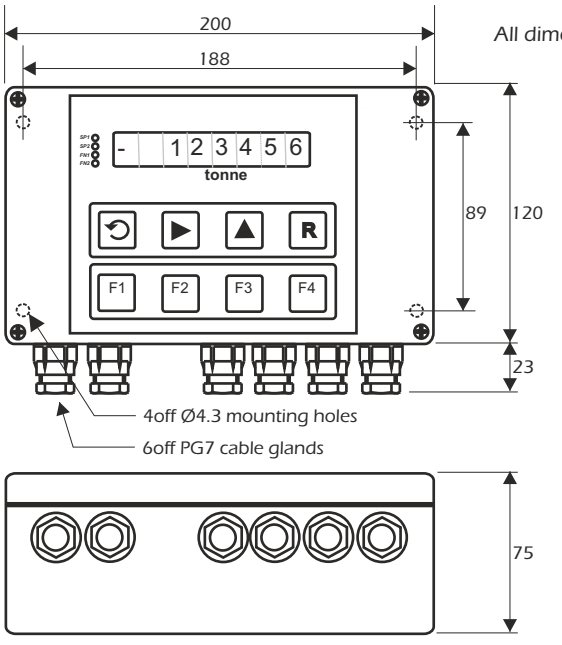
Analogue Outputs

Drive	4-20mA up to 1Kohm and 0-10 volts up to 2mA
Accuracy	4-20mA ± 0.15% of range (typically) 0-10V ±2% before calibration
Resolution	13 bits/4.5 digits. Setting time 350ms to within 1% of step change
Isolation	± 130V RMS or DC max to analogue input or any other port

Plug in output options

Relay set points	Programmed in engineering units with in flight compensation and hysteresis setting available for control or alarm purposes.
Format	MANTRABUS, ASCII
Communications	To read any value, change set points or any other parameter via RS232/ RS485 (LC3)
Printers	Activated by a function key or contact this will allow the user to print, the current live value with header message, engineering units, auto incrementing batch number and in real time if required.

Dimensions



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