



## Type GS1000 Weight Transmitter/Indicator

**IP65 front panel gasket**

**Programmable in flight compensation**

**Fully programmable via keypad and communications port**

**Variable gain load cell sensitivity from 0.5 – 200mV/V**

**7 segment, 4.5 digit LED display**

**AC or DC power supply options**

**10V @ 160mA excitation to drive up to 4 x 350 ohm load cells**

**Auto tare and peak hold**

**MODBUS RTU**

**Fully isolated 4-20mA and 0-10V analogue outputs**

The GS1000 is a compact microprocessor based unit specifically designed to indicate and control weighing applications. Its flexibility of design allows for the connection of most strain or pressure gauges.

The industry standard 72 x 72mm front panel offers a full 4.5 digit LED display, together with a 4 key arrangement for programming and reviewing the parameters. Programming and set point LEDs complete the layout.

The basic unit offers the following facilities: auto calibration of high and low values, an easy Auto Tare setting and review. A password facility giving protection to parameters which would not normally be changed by the operator.

Several output options are available: a relay output module in one of three variants provides for up to two Set Points. Hysteresis can be applied to both Set Points together with In Flight compensation. Relays can be both inverted and latched. All these facilities being set digitally, in real engineering terms from the keypad.

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## Technical Specification Sheet

<b>Inputs</b>	
Calibration	Automatic digital by use of keypad and 1 (or 2) known weights. Manual calibration can also be selected.
Auto Tare	By pressing keys '>' and then 'R' display will zero. Auto tare can also be viewed and manually changed if required. Auto tare value is retained on power down.
Sensitivity	Pre-set via DIL switches between 01.5 or 200 mV/V
Excitation	10V DC nominal, 150mA maximum
Compensation	By $\pm$ sense wires to compensate for cable, connection volt drops and any variation in 10 V supply
Accuracy	90 days $\pm$ 0.08% of reading $\pm$ 0.05% of FS typical
Drift	0.002°C typical @ 2.5 mV/V
<b>DC Analogue Outputs</b>	
DC Voltage	0 to 5V, 0 to 10V, -10 to +10V. Max Current out 50 mA
DC Current	0 to 1 mA, 0 to 20 mA, 4 to 20 mA, Max Current out 50 mA
Accuracy	Typical $\pm$ 0.08% of output, $\pm$ 0.08%FSD
Resolution	As display resolution, max 15 bits
Calibration	By 15-turn pre-sets for gain and offset
Inversion	By keypad value
Isolation	$\pm$ 130V RMS or DC max to analogue input or to any other port
Ranging	Fully keypad scalable over desired display range
PID	Power level when selected = 12 bit resolution output
<b>Communication Port CP Operation</b>	
All display data can be accessed via the communications port along with relay, PID power and EEPROM status. All user configurable data can be changed including EEPROM enable/disable and relay reset (address code cannot be changed)	
Type	Details
RS485/422	For up to 32 instruments on 1 bus, 4 wire
<b>Inputs</b>	
20mA	For up to 25 instruments per interface, 4 wire
Cable Length	1km (depending on baud rate)
Baud Rates	300, 600, 1200, 2400, 4800, 9600
Electrical Isolation	$\pm$ 130V RMS or DC max to analogue input or any other port
Formats	MODBUS RTU and printer output
<b>Alarms/Control Outputs</b>	
SPCO	1 relay on SP1, 2 relays on SP 1& 2
DPCO	1 relay on SP1
Relays	230V at 5 A AC resistive
Isolation	$\pm$ 130V RMS
Keypad Options	Hysteresis, Latching, Output Inversion, Delay Times, PID values and Time Proportioning
<b>Power Supplies</b>	
220V-230V AC 50-60 Hz 10 W, 110V-120V AC 50-60 Hz 10W, 9-32V DC 10 W isolated	
<b>Base GS1000</b>	
Displays	7 segment LED 4.5 digit 10mm. 3 x 3mm LED's, 2 for relay status, 1 for program and hold indication
<b>Controls</b>	
4 membrane panel keys with tactile feedback. 1 scroll key to view/update parameter. 1 digital select key. 1 digit increment key. 1 reset key. Keypad disable by internal links behind front panel. Hold function by digit select key when in input mode.	
<b>Data Retention Protection</b>	
Retention	10 years for set up values, minimum of 100,000 write cycles
Protection of Data Function(s)	Watchdog timer giving repeat auto resets. Impending power detection and hold off. Keypad security and time out.
<b>Physical</b>	
Case Material & Sizes	Grey Noryl, flame retardant – 72mm x 72mm x 180mm long - (67mm x 67mm panel cut-out)
<b>Environmental</b>	
Storage Temperature	-20 to + 70°C
Operating Temperature	-10 to +50°C
Relative Humidity	95% maximum non condensing
CE Environmental Approvals	European EMC Directive 2004/108/EC, Low Voltage Directive 2006/95/EC

Procon Engineering's policy is one of continuous product enhancement.

We therefore reserve the right to incorporate technical modifications without prior notification. E&OE.

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