



ADW15 Strain Gauge Weighing Indicator/ Controller

Features

- Variable gain strain gauge sensitivity from 0.5 to 200mV/V
- Fully programmable via keypad & comms port
- 4.5 digit high resolution
- Excitation compensation
- 10V @ 150mA excitation to drive up to 4/350 ohm Strain Gauges
- Standard strain gauge input 100mS sampling rate
- Isolated inputs & outputs
- Programmable in flight compensation
- Auto calibration
- High noise immunity
- Peak hold
- Auto zero (Tare)
- Isolated inputs & outputs



Outputs

- Analogue - Industry standard
- Relays
- Communications
- Printer Drive

Options & Accessories

A Fast (Peak & Trough) 10mS input version (FPT)
Panel Mounting or Din Rail Mounting
Supplies for 115/230 VAC or 9-32V DC
Communications Outputs for Printer, PLC or PC

IF25 Interface module connects up to 25 ADW15's to one RS232 port
Printers DP data only and TDP for real time/date

Specifications

Inputs

Calibration	Automatic digital by use of keypad and 1 (or 2) known weights. Manual calibration can also be selected	Sensitivity	Preset via DIL switches between 0.5 to 200mV/V
Auto Tare	By pressing keys \square and then \square display will zero. Auto tare value can also be viewed and manually changed if required. Auto tare value is retained on powerdown.	Excitation	10V DC nominal, 150mA maximum
		Compensation	By \pm sense wires to compensate for cable, connection volt drops and any variation in 10V supply
		Accuracy	90 days \pm 0.08% of reading \pm 0.05% of FS typical
		Drift	0.002% $^{\circ}$ C typical @ 2.5mV/V

DC Analogue Outputs

Order Code	Range	Order Code	Range
V02	0 to 5V	A01	0 to 1mA
V04	0 to 10V	A02	0 to 20mA
V06	-10 to +10V	A03	4 to 20mA
Max Current out 50mA		Max Current out 50mA	
Accuracy	typical \pm 0.08% of output, \pm 0.08%FSD	Isolation	\pm 130V RMS or DC max to analogue input or to any other port
Resolution	as display resolution, max 15 bits	Ranging	Fully keypad scalable over desired display range
Calibration	by 15-turn pre sets for gain and offset	PID	Power level, when selected = 12 bit resolution output
Inversion	By keypad value		

Communications Port CP Operation

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).

Order Code	Type	Details
COM1	RS485/422	For up to 32 instruments on 1 bus, 4 wire
S01	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 (19200 MANTRABUS only)		
Electrical isolation, \pm 130V RMS or DC max to analogue input or any other port		
Formats, MODBUS RTU, MANTRABUS and printer output formats		

Alarm/Control Outputs

Order Code	Type	Function
R01	SPCO	1 relay on SP1
R02	DPCO	1 relay on SP1
R03	SPCO	2 relays on SP1& 2

Relays, 230V at 5A AC resistive
Isolation, $\pm 130V$ RMS

Keypad Programmable options: Hysteresis, Latching, Output Inversion, Delay Times, PID values and Time Proportioning.

Power Supplies

Order Code	Type
W240	220V-230V AC 50-60Hz 10W
W110	110V-120V AC 50-60Hz 10W
W12/24	9-32V DC 10W isolated

Base ADW15

Displays 7 segment LED 4.5 digit 10mm.3 x 3mm LED's 2 for relay status, 1 for program and hold indication.

Controls

4 membrane panel keys with tactile feedback. 1 scroll key to view/update parameter. 1 digit 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.

Data Retention/Protection

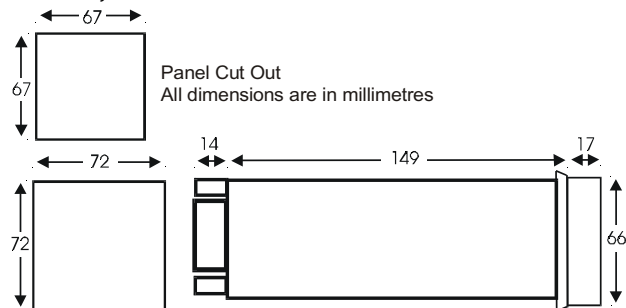
Retention: 10 years for set up values, minimum of 100,000 write cycles.
Protection of data and function(s): Watchdog timer giving repeat auto resets. Impending power detection and hold off. Keypad security and time out.

CE & Environmental

Storage temperature	-20 to +70°C	EMC Emissions	BS EN 55011:1998
Operating temperature	-10 to 50°C		
Relative humidity	95% maximum non condensing	EMC Immunity	BS EN 61000-42:1995
Safety/Low Voltage Directive	73/23/EEC amended by 93/68/EEC BS EN 61010-1:2001, IEC 1010-1-1990		BS EN 61000-4-3:2002 BS EN 61000-4-4:2004
EMC Directive	89/336/EEC Basic Standard BS EN 61326:1998		BS EN 61000-4-11:2004

Physical

Case Dimensions DIN 72 x 72 x 163mm (excluding mounting terminal)
Case Material Grey Noryl, flame retardant
Weight 750 grams
Terminals 2.5mm, saddle field terminals
Accessibility All electronics removable through front panel leaving field wiring and case in situ.



C In the interest of continued product development, Mantracourt Electronics Limited reserves the right to alter product specifications without prior notice.