

ADW15 Mantraweigh Load Cell Input Instrument



features

- Variable gain load cell 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
- Isolated inputs & outputs
- Programmable in flight compensation
- Auto calibration
- High noise immunity
- Selectable gain options
- Peak Hold
- Auto zero (Tare)

outputs available

- Analogue
- Relays
- Communications
- Printer Drive



options

- Panel Mounting & Din Rail Mounting
- Supplies for 110/240 VAC or 12/24 VDC
- Communications Outputs for Printers, PLC or PC
- Fast Analogue Output 4/350 ohm load cells

accessories

- IF25 Interface Module Connects up to 25 ADP15's to one RS232 port
- Printers DP data only and TDP for real time/date
- REM 4/8- for multi-set point units up to 16 set points

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input details specifications & order codes

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 value can also be viewed and manually changed if required. Auto tare value is retained on powerdown

Sensitivity Preset via DIL switches between 0.5 to 200mV/V

Excitation 10V d.c. nominal, 150mA maximum

Compensation By +/- sense wires to compensate for cable, connection volt drops and any variation in 10V supply

Accuracy 90 days +/- 0.08% of reading +/- 0.05% of FSD typical
Drift 0.002%/°C typical @ 2.5mV/V

output details

D C Analogue Outputs

Code	RANGE		Code	RANGE	
	Min	Max		Min	Max
V01	0	1V	A01	0	1mA
V02	0	5V	A02	0	20mA
V04	0	10V	A03	4	20mA

Max Current out 50mA

Max Voltage out 20V

Accuracy: typical $\pm 0.08\%$ of output, $\pm 0.08\%$ FSD

Resolution: as display resolution, max 15 bits

Calibration: by 15-turn presets for gain and offset

Inversion: By keypad code

Isolation: 130V RMS or DC max to analogue input or any other port.

Ranging: fully keypad scalable over desired display range

Communication Port SO1

Operation

All ADW15 display data can be accessed via the communications port along with relay and EEPROM status.

All ADW15 user configurable data can be changed including EEPROM enable/disable and relay reset. (ADW15 address code cannot be changed.)

Connections: 4 wire for 2x2 20mA isolated transmit and receive loops

Max cable length: 1 Km (depending on baud rate and can be used)

Baud rates: 300, 600, 1200, 2400, 4800, 9600 (19200 Fast Format only)

Electrical Isolation: $\pm 130V$ RMS or DC max to analogue input or any other port

Format: High Speed, high data integrity using check sum and ACK/NAK handshaking or ASCII format for easy use

RS232 to 20mA: Connection to RS232 via separate IF25 interface which will support up to 25 ADW15's. Up to 10 IF25's can be directly wired together to support 250 ADW15's from one RS232 port.

Printer output RS232

The printer option utilises the communications board RS232 output. With the output drive for a printer offering a Time/Date stamp and log number together with the label of units of measure, or With the output drive for a log number only, together with label of units of measure. A wide range of printers may be connected.

Control/Alarm Relay Outputs

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

Relays:

240V at 5A a. c. resistive. Isolation 354VP. Keypad programmable options: see configurable parameters for Hysteresis, Latching, Output Inversion, Peak Hold.

Power Supplies

Code	Type	
W240	220V-240V	A.C. 50-60Hz 10W
W110	110V-120V	A.C. 50-60Hz 10W
W12/24	9-32V D.C.	10W isolated (3A start up current)

Base ADW15

Display 7 segment LED 4.5 digit 10mm.
3 x 3mm LED's 2 for relay status, 1 for programme 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 10,000 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.

Environmental

Storage temperature	-20 to +70°C
Operating temperature	-10 to 50°C
Relative humidity	95% maximum non stop condensing
Front panel sealing	To IP65

Physical

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

In the interests of continued product development, we reserve the right to alter product specifications without prior notice.