

ADW15

Load Cell Input Instrument.

Features

Variable gain load cell sensitivity
from 0.5 to 200mV/V.

Full programmable via keypad & comms port.

4.5 digit high resolution.

Excitation Compansation.

10V @ 150mA excitation to drive up
to 4/350 ohm load cells.

Isolated inputs & outputs.

Programmable in flight compensation.

Auto calibration.

High noise immunity.

Selectable gain options.

Peak Hold.

Auto zero (Tare).

Output Available

Analogue.

Relays.

Communications.

Printer Drive.



Options

Panel Mounting or Din Rail Mounting

Supplies for 110/240 Vac or 24/48 Vdc

Communiations Output for Printer,
PLC or PC

Fast Analogue Output

Accessories

IF25 Interface Module Connects up to 25
ADP15's to one RS232 port

Printers DP data only and TDP for real
time/data

REM 4/8- for multi-set point nits up to
16 set points

specifications & order codes

input details

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 (SO)

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
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	
W24/48	18-60V	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 Nylon, 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, Mantracourt Electronics Limited reserves the right to alter product specifications without prior notice.