

## Weighing Controller with up to 16 Set Points

### Features

- All standard ADW15 system features retained
- Programmable from the ADW keypad
- 4 and 8 relay Din Rail modules
- Individual set point, In-flight & hysteresis values
- Programmable output actions
- Selectable set point values
- Relay contact rating 230V @ 5A AC
- Standard Strain Gauge input 100mS sampling rate
- Industry Standard Analogue Outputs
- Output Relays, Communications, Printer Drive



### Introduction

The DIN rail mounted remote relay units offer an increased number of set points over that provided by a standard ADW15 strain gauge indicator/controller.

This allows for multi action operations such as batch and recipe control.

The software of the ADW-SP16 gives the user freedom to program the number of set points for their requirements. A single ADW-SP16 will control up to 16 set points, programmed from its front panel.

Set points can be individually set up with In Flight compensation and hysteresis values.

Separate 'Output Latch' and 'Output Action' for up to 14 of the

16 set points is available, settable from the front panel of the ADW-SP16. A special mnemonic allows the user to specify the number of set points to be used.

A DIN rail mounted power supply unit is required where more than 4 set points are to be used.

The units are driven from the ADW-SP16 via an internal special remote driver board.

All relays are pluggable and connections are made via field screw terminals.

The operating procedures for these units are to be considered together with the standard ADW15 when preparing the system for operation.

### Options & Accessories

- IF25 Interface module connects up to 25 ADW15s to one RS232 port
- Power supplies for 115/230V AC or 9-32V DC
- Printers DP data only and TDP for real time/date
- Panel Mounting or Din Rail Mounting
- Power supplies for 115/230V AC, 9-32V DC

### 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 '▶' 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.	Excitation	10V DC 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 FS typical
		Drift	0.002%/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 ± 0.08% of output, ± 0.08%FSD	Isolation	±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		

## The Relay Output Module

The module consists of 8 relays rated at 230 volts 5 Amps - SPCO, Alarm via 30V 50mA NC contact, DIN rail mounted for a G or top hat profile. Each relay is plug-able and connections are made by 2.5mm field screw terminals. Indication of relay status is shown by LED's. Trip points volt free contact. The module can be situated up to 2 metres from the ADW15 load cell indicator controller.

## 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).

Communications Port

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, ±130V RMS or DC max to analogue input or any other port

Formats, MODBUS RTU, MANTRABUS and printer output formats

## 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.

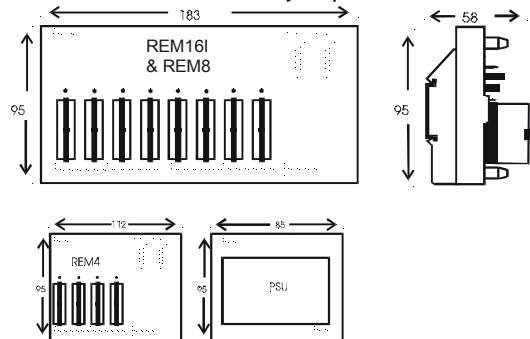
## CE & Environmental

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

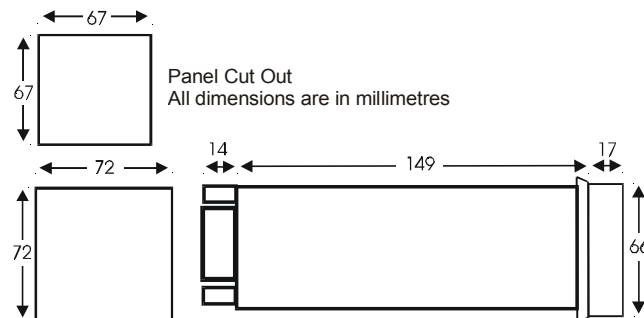
## Physical

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.

Dimensions for the DIN Rail Relay Output Module



Panel Mount Dimensions for the ADW15



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