ADW15-SP16
Weighing Controller with up to 16 Setpoints

TYPE: ADW15-SP16

Description

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 ADW15-SP16 gives the user freedom to program the number of set points for their requirements. A single ADW15-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 the16 set points is available, settable from the front panel of the ADW15-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.

Outputs include:- Analogue voltage and current, Industry standard digital communications, Relays, Printer Drive

Options and Accessories include:-

- Panel mounting via DIN rail mounting
- IF25 Interface module connects up to 25 ADPs to 1 RS232 port
- Power supplies for 110/230 V AC or 9-32V DC

Communications for Printer, PLC or PC.
Software Options include:- Power Factor Printers DP data only and TDP for real time/date. Printers DP data only and TDP for real time/date.

LCM Systems can supply this as a calibrated system with any of our range of compatible sensors. Please contact our technical department, to discuss your application.

Features

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

Typical Applications

- **Vessel/Silo weighing**
- **Simple batch control**
- **General force measurement**
- **Machinery condition monitoring**
- **Pump and motor torque control**
- **Crane overload protection**
- **Crane weighing**

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Weighing Controller with up to 16 Set Points

Specification

Input Type	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 b and then 'R' , display will zero. Auto tare value can also be viewed and manually changed if required. Auto tare value is retained on power down.
Sensitivity	Preset via DIL switches between ±0.5 to ±200mV/V
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	Details	Order code
0 to 5V		V02
0 to 10V		V04
±10V		V06
0-1mA		A01
0-20mA		A02
4-20mA		A03

Other Information	
Accuracy	Typical ± 0.08% of output, ± 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	±130V RMS or DC max to analogue input or to any other port
Ranging	Fully keypad scalable over desired display range

Communications Port	Details	Order code
RS485/232	RS485 - For up to 32 instruments on 1 bus, 4 wire RS232 – printer or direct connection to 1 device, 3 wire	COM 1
20mA current loop	For up to 25 instruments per interface, 4 wire	S1

Other Information	
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
Cable Length	1km (depending on baud rate)

Alarm / Control Outputs	Details	Order code
SPCO	4 relay module	REM4
SPCO	8 relay module (PSU required)	REM8
PSU	Power supply for REM8 module	REMPSU
REM cable	REM to REM cable (req. for additional REM units)	REMC2
DPCO	1 relay on SP2	R5

Other Information	
Relays	230V at 5A AC resistive
Isolation	±130V RMS
Keypad Programmable	Hysteresis, Latching, Output Inversion.

Power Supplies	Details	Order code
240	220V-230V AC 50-60Hz 10W	240
110	110V-120V AC 50-60Hz 10W	110
12 &24V	9-32V DC 10W isolated	12/24

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Mounting Type

	Order code
Front Panel	P
Din Rail Adaptor	D

Communication Port CP Operation

All display data can be accessed via the communications port along with relay and EEPROM status. All user configurable data can be changed including EEPROM enable/disable and relay reset (address code cannot be changed).

Other Options & Accessories

20mA PC Communications Interface (IF25)
VisualLink PC SCADA Software
Analogue Totaliser (Integrator)

Base ADW15

Input Filter	Programmable to average up to 64 display updates.
Displays	7 segment LED 4.5 digit 10mm.3 x 3mm LED's 2 for relay status, 1 for program and hold indication.
Update Rate	Up to 10 updates per seconds

Controls

4 membrane panel keys	Scroll key to view/update parameter.
	Digit select key.
	Digit increment key.
	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 cycle
	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 +70ºC
Operating temperature	-10 to 50°C
Relative humidity	95% maximum non condensing
Safety/Low Voltage Directive	73/23/EEC amended by 93/68/EEC BS EN 61010-1:2001, IEC 1010-1-1990
EMC Directive	89/336/EEC Basic Standard BS EN 61326:1998
EMC Emissions	BS EN 55011:1998
EMC Immunity	BS EN 61000-42:1995 BS EN 61000-4-3:2002 BS EN 61000-4-4:2004 BS EN 61000-4-11:2004

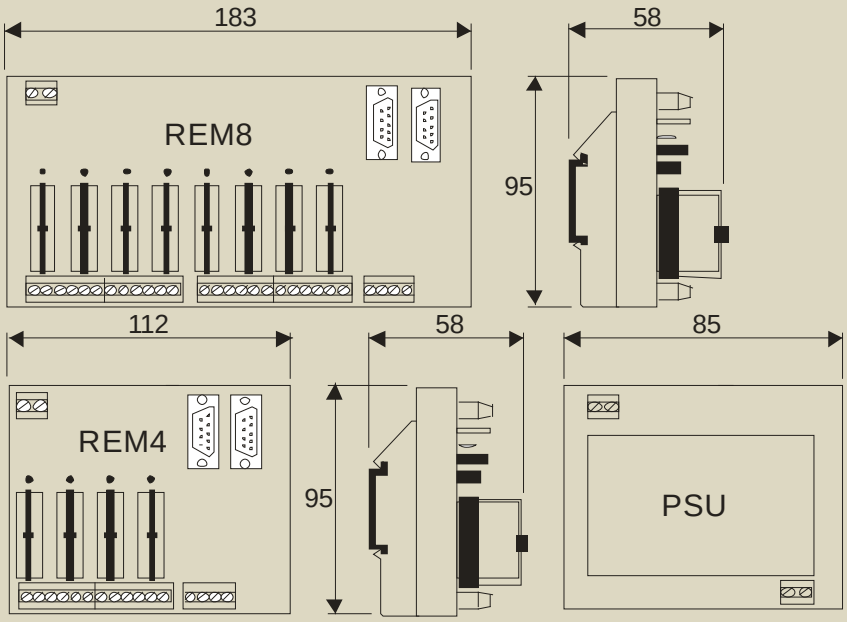
Physical

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.

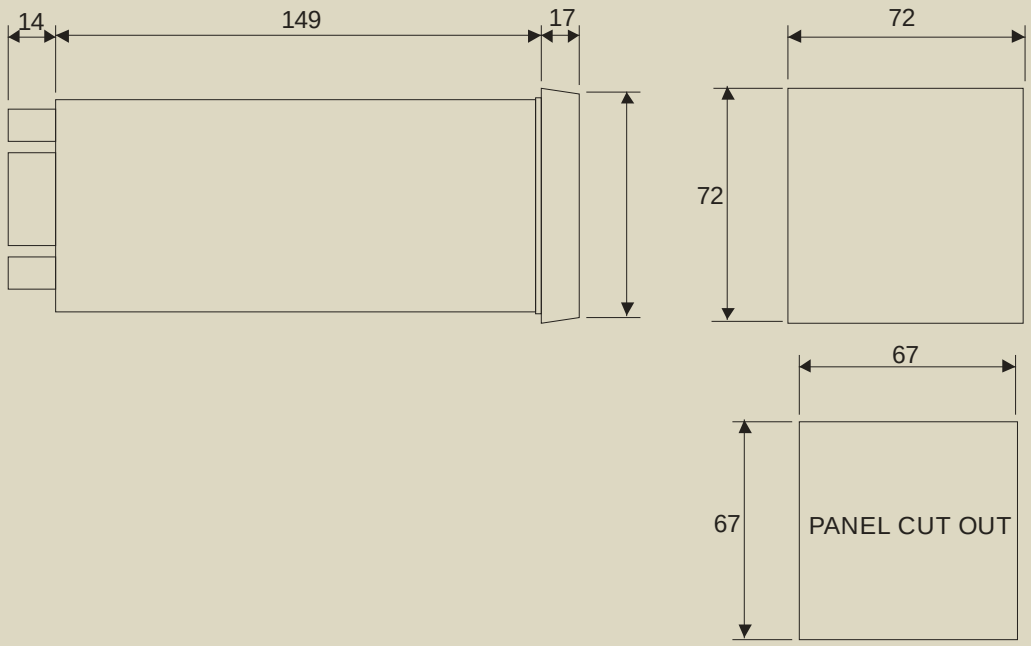
Mechanical Dimensions

All dimensions in millimeters

Dimensions for the DIN Rail Relay Output Modules



Panel Mount Dimensions for the ADW15



Due to continual product development, LCM Systems Ltd. reserves the right to alter product specifications without prior notice.

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