

ADW15 Strain Gauge Input Indicator

Features

- Suitable for full bridge sensor with a sensitivity of ± 0.5 to ± 200 mV/V
- Fully programmable via keypad & communications port
- 4½ digit display
- 10V @ 150mA excitation with sense facility
- Isolated inputs and outputs
- Programmable in flight compensation
- Auto calibration
- High noise immunity
- Peak hold
- Auto zero (tare)

Typical Applications

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

Description

The ADW15 range of products is very versatile offering many software and hardware variants, designed to meet specific application areas, whether these be weighing or force measurement.

These expanded configurations enable systems to be simplified, by using a single indicator, where it may otherwise have been necessary to use several instruments or even a PC with software.

The ADW15's flexibility makes it the first choice for many control system designers. Supporting products like PC software, printers, and sensors, means most customers can deal with a single supplier.

Output options include:-

Analogue voltage and current outputs, Industry standard digital communications, Relays, Printer Drive.

Options and Accessories include:-

A fast (peak & trough) 10mS input version (FPT), Panel mounting or DIN rail mounting, Power Supplies for 115/230 V AC or 9-32V DC, Communications outputs for printer, PLC or PC

The ADW15 can be supplied and calibrated with any of LCM Systems compatible sensors, and can be supplied on it's own or as part of a more complex system. Please contact LCM Systems technical department to discuss your application requirements.



Specification & Order Codes

Input Specifications

Response/Update Rate	Maximum 100mS (10Hz)
Accuracy	Typical $\pm 0.08\%$ of output, $\pm 0.08\%$ FSD
Resolution	As display resolution, max 15 bits
Calibration	By 15-turn pre sets for gain and offset
Inversion	By keypad value
Isolation	± 130 V RMS or DC max to analogue input or to any other port
Ranging	Fully keypad scalable over desired display range

Display

7 segment 4.5 digit display (max display ± 19999), 10mm high digits
3 x 3mm LED's 2 for relay status, 1 for program and hold indication.

Front Panel Keys/Buttons

4 membrane panel keys, offering the following functionality, when configuring:-

Scroll key to view/update parameter.	⏮
Digit select key	▶
Digit increment key	▲
Reset key	Ⓜ

The keys can be configured in normal operation, to offer the following functionality

Keypad can be disabled when in normal operation, required.
Peak/Trough hold reset
Resetting of relay latches
Auto-Zero display

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	Electronics removable through front panel leaving field wiring and case in situ.

ADW15 Strain Gauge Input Indicator TYPE: ADW15

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 +70°C
Operating temperature	-10 to 50°C
Relative humidity	95% maximum non-condensing
Low Voltage Directive	2006/95/EC
EMC Directive	2004/108/EC

DC Analogue Outputs

Output Range	Order Code	Output Range	Order Code
0 to 10V	V04	4-20mA	A03

Communications Port

Port Type	Order Code
RS485/232	COM 1

RS485 -For up to 32 instruments on 1 bus, 4 wire.

RS232 -For printer or direct connection to 1 device.

Port Specifications

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)

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

In all bi-directional communications option, 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).

Alarm/Control Outputs

Relay Output Type	Order Code
One Relay (DPCO)	R02
Two Relays (SPCO)	R03

Relay Output Specifications

Relays	230V at 5A AC resistive
Isolation	±130V RMS
Keypad	Can be used to reset latch, when relays configured for latching

Power Supplies

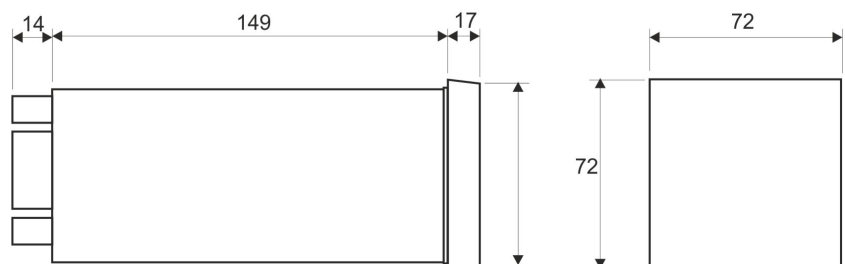
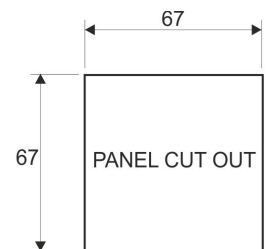
Power Supply Range	Order Code
220V-230V AC 50-60Hz 10W	W240
110V-120V AC 50-60Hz 10W	W110
9-32V DC 10W isolated	W12/24

Mounting Options

Mounting Type	Order Code
Panel Mounting	P
DIN Rail Mounting	D

Mechanical Dimensions:-

All dimensions in millimeters



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

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