ADP15-POTENTIOMETER
Position Indicator

Description

The ADP15-POTENTIOMETER range of products is very versatile, accepting a wide range of different signal input types and ranges.

The ADP15-POTENTIOMETER 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.

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 ADP15's to 1 RS232 port
- Power supplies for 110/230 V AC or 9-32V DC
- Communications for Printer, PLC or PC

The ADP15-POTENTIOMETER can be supplied as part of a system, and will interface directly with LCM Systems potentiometric sensors, including the PD13. Please contact our technical department to discuss your application.

Features

- **Microprocessor based design**
- **Full calibration & programming via keypad & communications import**
- **4½ digit scaling**
- **Isolated inputs & outputs**
- **3 year guarantee**
- **PID Control**
- **Any potentiometer**
- **Angular measurement**
- **Position measurement**

Typical Applications

- **Feedback control of stroke based control systems, requiring PID control**
- **Distance measurement**
- **Angular rotation measurement**
- **Leveling systems**

TYPE: ADP15-POTENTIOMETER

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The Potentiometer Position Indicator

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Specification

Input Type	Input Ranges	Order code
Potentiometer	Any value in the range 100R to 10K	RL

Outputs	Details	Order code
0 to 1V		V1
0 to 5V		V2
1 to 5V		V3
0 to 10V		V4
-10 to +10V		V5
0-1Ma		A1
0-20Ma		A2
4-20mA		A3
10-50mA		A4
0-5mA		A5
0-10mA		A6
Pulse Frequency		F1

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
PID	Power level, when selected = 12 bit resolution output

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

Alarm/Control Outputs	Details	Order code
SPCO	1 relay on SP1	R1
DPCO	1 relay on SP1	R2
SPCO	2 relays on SP1& 2	R3
SPCO	1 relay on SP2	R4
DPCO	1 relay on SP2	R5

Other Information

Relays	230V at 5A AC resistive
Isolation	±130V RMS
Keypad Programmable values and options:	Hysteresis, Latching, Output Inversion, Delay Times, PID Time Proportioning.

16 relay option can be supplied on external DIN rail modules (10A SPCO). Available for DC, AC, Temperature, Strain Gauge & Potentiometer inputs, ask for ADP15-SP16

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

Mounting Type

	Order code
Front Panel	P
Din Rail Adaptor	D

Communication Port CP Operation

All ADP15 display data can be accessed via the communications port along with relay, PID power and EEPROM status.
All ADP15 user configurable data can be changed including EEPROM enable/disable and relay reset (ADP15 address code cannot be changed).

Other Options & Accessories

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

Base ADP15

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

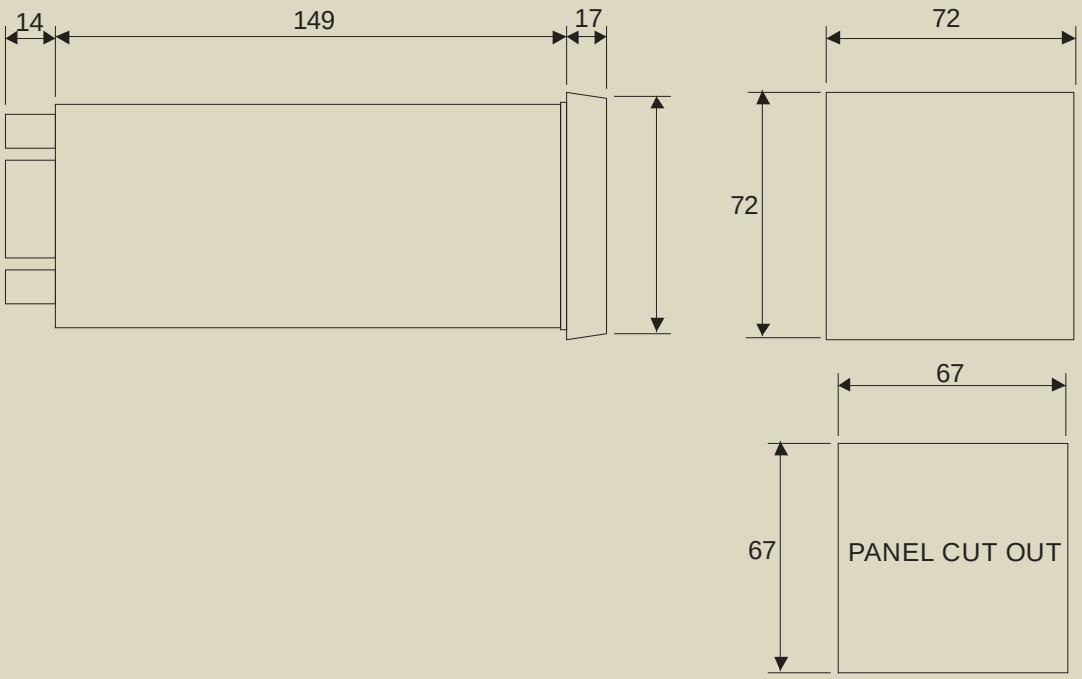
Storage temperature	-20 to +70ºC
Operating temperature	-10 to 50°C
Relative humidity	95% maximum non condensing
Safety/Low Voltage Directive	73/23/EEC amended by 93/68/EEC BS EN 61010-1:2001, IEC 1010-1-1990
EMC Directive	89/336/EEC Basic Standard BS EN 61326:1998
EMC Emissions	BS EN 55011:1998
EMC Immunity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



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

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LCM SYSTEMS

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