

# ADP15

## LVDT Input Instrument

### *features*

- Microprocessor based design
- Full calibration & program via keypad & comms
- Auto zero/calibration
- 5 Selectable excitation frequencies
- 9 Selectable sensitivity ranges
- Peak hold
- Offset adjustment
- Low gain & offset digit
- Read out in engineering terms
- 3 year guarantee

### *outputs available*

- Analogue
- Relays
- Communications
- Printer Drive
- Control



### *options*

Panel Mounting & DIN Rail Mounting

Supplies for 110/240 VAC or 12/24 VDC

Communications Outputs for Printer, PLC or PC

Fast Analogue Output

### *accessories*

IF25 Interface Module connects up to 25 ADP15s to one RS232 port

Printers DP data only and TDP for real time/date

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

THE  
PRODUCT  
RANGE



# specifications & order codes

## input details

<b>Input Code</b>	LVDT/C69C	<b>Offset drift</b>	For sensitivity	Typical ppm/°C	Max ppm/°C
<b>Excitation voltages</b>	2.6 volts RMS $\pm$ / 0.15 volts		20mV	35	150
<b>Excitation frequency</b>	1, 2, 3, 4, or 5 KHz selected by DIL switches		50mV	18	90
			100mV	15	70
			200mV	10	60
			500mV	10	60
			1V-10V	10	55
<b>Sensitivity</b>	20mV, 50mV, 100mV, 200mV, 500mV 1V, 2V, 5V and 10V. Full range operation for a full scale reading of the ADP, preset to within 5%, selected by DIL switches.	<b>Non linearity</b>	$\pm$ /0.05% FS typical, $\pm$ /0.1% FS maximum		
		<b>Drive impedance</b>	68 ohms minimum		
		<b>Connection</b>	4 wires. 2 for primary, 2 for secondary Wired in series with a common floating. 1 x zero volt for screen/earth		
<b>Gain drift</b>	75 ppm per degree C typical, 200 ppm per degree C, maximum.	<b>Protection</b>	Input protected against short circuit		

## output details

<b>D C Analogue Outputs</b>					
		<b>RANGE</b>			
Code	Min	Max	Code	Min	Max
V1	0	1V	A1	0	1mA
V2	0	5V	A2	0	20mA
V3	1	5V	A3	4	20mA
V4	0	10V	A4	10	50mA
			A5	0	5mA
Max Current out 50mA		Max Voltage out 20V			
<b>Accuracy:</b>	typical $\pm$ 0.08% of output, $\pm$ 0.08%FSD				
<b>Resolution:</b>	as display resolution, max 15 bits				
<b>Calibration:</b>	by 15-turn presets for gain and offset				
<b>Inversion:</b>	By keypad code				
<b>Isolation:</b>	354VP to any other port				
<b>Ranging:</b>	fully keypad scalable over desired display range				
<b>PID:</b>	Power level, when selected = 12 bit resolution output				

<b>Communication Port CP</b>	
<b>Operation</b>	
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.)	
<b>Connections:</b>	4 wire for 2x2 20mA isolated transmit and receive loops
<b>Max cable length:</b>	1 Km (depending on baud rate and can be used)
<b>Baud rates:</b>	300, 600, 1200, 2400, 4800, 9600 (19200 S1 only)
<b>Electrical Isolation:</b>	$\pm$ 130V RMS or DC max to analogue input or any other port
<b>Format:</b>	S1 High Speed, high data integrity using check sum and ACK/NAK handshaking S2 ASCII format for easy use
<b>RS232 to 20mA:</b>	Connection to RS232 via separate IF25 interface which will support up to 25 ADP15's. Up to 10 IF25's can be directly wired together to support 250 ADP15's from one RS232 port.

<b>Printer output RS232</b>	
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, <i>or</i>	
With the output drive for a log number only, together with label of units of measure. A wide range of printer may be connected.	

<b>Alarm/Control Outputs</b>					
Code	Type	Function	Code	Type	Function
R1	SPCO	1 relay on SP1	R5	DPCO	1 relay on SP2
R2	DPCO	1 relay on SP1	TR1	SPNO	1 Triac on SP1
R3	SPCO	2 relays on SP1&2	TR2	SPNO	2 Triacs on SP1&2
R4	SPCO	1 relay on SP2			
<b>Relays:</b> 240V at 5A a. c. resistive. Isolation 354VP. Triacs: 240V at 2V a.c. resistive. Zero crossing. Isolation 354VP. Keypad programmable options: see configurable parameters for Hysteresis, Latching, Output Inversion, Delay Times, PID values and Time Proportioning.					

<b>Power Supplies</b>		
Code	Type	
240	220V-240V	A.C. 50-60Hz 10W
110	110V-120V	A.C. 50-60Hz 10W
12/24	9-32V	D.C. 10W isolated

<b>Base ADP15</b>	
<b>Input Filter</b>	Programmable to average up to 64 display updates.
<b>Display</b>	7 segment LED 4.5 digit 10mm. 3 x 3mm LED's 2 for relay status, 1 for programme and hold indication.
<b>Controls</b>	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.

<b>Data Retention/Protection</b>	
<b>Retention:</b>	10 years for set up values, minimum of 10,000 write cycles.
<b>Protection of data and function(s):</b>	Watchdog timer giving repeat auto resets. Impending power detection and hold off. Keypad security and time out.

<b>Environmental</b>	
<b>Storage temperature</b>	-20 to +70°C
<b>Operating temperature</b>	-10 to 50°C
<b>Relative humidity</b>	95% maximum non stop condensing
<b>Front panel sealing</b>	To IP65

<b>Physical</b>	
<b>Case Dimensions:</b>	DIN 72 x 72 x 163mm (excluding mounting terminal)
<b>Case Material:</b>	Grey Noryl, flame retardant
<b>Weight:</b>	750g
<b>Terminals:</b>	2.5mm, saddle field terminals
<b>Accessibility:</b>	All electronics removable through front panel leaving field wiring and case in situ.

*In the interests of continued product development, we reserve the right to alter the product without prior notices.*