

ACTIVE DIGITAL CONTROLLER

Edwards Active Digital Controller (ADC) is a compact single vacuum gauge controller and display. It features a bright LED display and simple push-button controls. The ADC automatically recognizes compatible Edwards gauges, loads the appropriate look-up table and displays the pressure in commonly used vacuum units.



The ADC is available in standard and enhanced versions. The standard controller displays the pressure measured by a single active gauge. The enhanced controller supports two similar gauges - it has two variable hysteresis set-points which are linked to 48V DC 1A changeover relays and two 0-10V DC analog outputs. To aid system integration, the enhanced controller is provided with an RS232 interface.

When combined with a suitable gauge, such as the Edwards APGX-H Convection Pirani or Wide Range Gauge (WRG), the ADC represents a cost effective means of monitoring and controlling process vacuum in a broad range of applications.

Features and Benefits

- **Plug and Go Operation**
 - Simply plug in the mains supply, connect the gauge and ADC displays the measured pressure
- **Wide Pressure Range**
 - ADC supports Edwards gauges with a total measuring range of 2000 to 1×10^{-9} mbar (1500 to 7.5×10^{-10} Torr)
 - ADC and Edwards gauges address a broad spectrum of laboratory and industrial applications
- **High Visibility Display**
 - Bright LED display gives clear long distance readability
- **Choice of Units**
 - ADC displays in mbar, Torr, Pascal or Volts
- **Compact Instrument**
 - Small 1/8 DIN enclosure, may be panel or bench mounted
- **Very Simple to Use**
 - Push-button control makes operation highly intuitive

ACTIVE DIGITAL CONTROLLER

Specifications - Standard Version



Front panel:



Select displays units



Specifications - Enhanced Version



Front panel:



Enter/Select button

Turn the selected gauge on or off

Edit the selected numerical item

Move to the next digit of a numerical value



Scroll up button

Move to previous selection

Scroll selected numerical values up



Scroll down button

Move to next selection

Scroll selected numerical values down

G1 & 2 Indicates gauge displayed

SP1 & 2 Indicates set-point trip

Hi, Lo Indicates high and low set-point threshold for setting up

CAL Indicates calibrate message sent to gauge (remote calibration supporting gauges only)

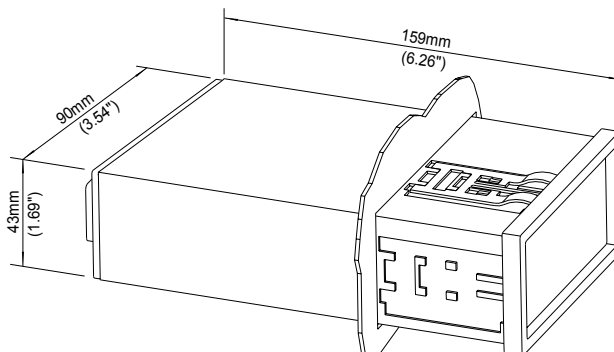


Common Interfaces and Configuration Details

		Standard	Enhanced
Active gauge compatibility	APG100, APG-L, APG-MP, APG-M, APGX-H, APGX-L, APGX-MP, APGX-M & WRG	✓	✓
	AIM-S, AIM-X & ASG		✓
Display	High brightness green LED display (0.47" high) Units - mbar/Torr/Pa/Volts	✓	✓
Electrical supply	100 to 240V AC 47 to 63 Hz	✓	✓
Serial interface	RS232 serial interface allows the ADC to be linked to a PC, PLC or OEM system controller		✓
	RS232 Protocol - 9600 baud, 1 stop bit, 8 data bits, no parity		✓
Logic Interface	May be used either to link to system relays, or a higher-level control system and includes:		
	Analog outputs One 0-10V DC output signal per gauge channel		✓
	Set-points One user programmable, variable hysteresis set point per gauge channel		✓
	Control Relays One volt-free, single pole change-over relay per gauge channel, tied to the respective programmable set-point: 1A @ 48V DC 2A @ 24V DC		✓

Dimensions, Mounting Options And Weight

Panel cut-out	92 ^{+0.8} x 45 ^{+0.6} mm (3.62" x 1.77") to DIN43700
Panel thickness	1.5mm (0.06") Min
Weight	0.33Kg



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Environment and Standards Compliance

OPERATING AND STORAGE DATA	
Operating temperature	+0 to +40°C
Storage temperature	-30 to +70°C
Max ambient operating humidity	90% RH non condensing at 40°C
STANDARDS	
Electrical safety	BS EN 61010-1 2001
Electrical noise immunity	BS EN 61326 (Industrial location, class B emissions)
Flame retardant case materials	UL94 V1
Enclosure rating	IP40

Ordering Information

Controllers	Order Number
ADC Standard	D395-90-000
ADC Enhanced	D395-91-000
Calibrated Controllers	
<i>Controllers are supplied with a certificate of calibration traceable to national standards.</i>	
ADC Controller standard + calibration certificate	D395-900-0C
ADC Controller enhanced + calibration certificate	D395-910-0C
<i>The above controllers are calibrated on their own without gauges. Contact Edwards for controllers calibrated with Active gauges as a set.</i>	
Interface cables	
2m RS232 interface cable	D397-00-834
Mains cables	
2m UK plug	D400-13-025
2m USA plug	D400-13-120
2m Northern European plug	D400-13-030
Example compatible gauges	
APGX-H-NW25 St SS	D023-92-000
WRG-S-NW25	D147-01-000
Active gauge cables (include FCC68/RJ45 compatible connectors at both ends)	
0.5m Active gauge cable	D400-01-005
1m Active gauge cable	D400-01-010
3m Active gauge cable	D400-01-030
5m Active gauge cable	D400-01-050
10m Active gauge cable	D400-01-100
15m Active gauge cable	D400-01-150
25m Active gauge cable	D400-01-250
50m Active gauge cable	D400-01-500
100m Active gauge cable	D400-01-999

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