

ACTIVE THERMOCOUPLE (ATC) GAUGE

edwardsvacuum.com

Edwards Active Thermocouple Gauge (ATC-E) is suitable for measuring from 50 to 10^{-3} Torr, with integral set-point for OEM use and LED indication of vacuum status.

The ATC-E mounts directly onto either ATC-D or ATC-M thermocouple tubes to form a compact stand-alone transducer to simplify the system design and save valuable racking space. The ATC-E electronics module drives both medium and low pressure gauge tubes, providing a cost effective measuring solution for higher pressures.

Active thermocouple gauges are ideally suited where a simple rugged gauge is required to measure higher pressures.



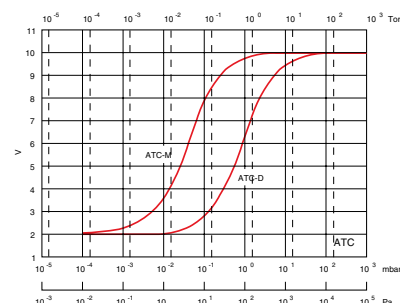
Features and benefits

- Drive electronics mount directly on the gauge tube
 - Simplifies system design
 - Saves valuable rack space
- Standard analogue output 0 to +10 V d.c. and gauge identifier
 - Easy to interface with a computer or PLC
 - Fault output indication
- Low output impedance and integral Faraday shield
 - Provides high level of noise immunity
 - Permits long cable runs (up to 100 metres)
- Adjustable set-point with vacuum status LED
 - Use for process control and interlocking
 - Includes a digital vacuum status signal
 - Set-point level ready visually
- Choice of medium and low pressure gauge tubes
 - ATC-D covers from 50 to 5×10^{-2} Torr
 - ATC-M covers from 1 to 10^{-3} Torr
- Wide range, regulated, internal power supply
 - Runs from standard d.c. power supplies
 - +20 to +36 V
 - Tolerant to voltage fluctuations

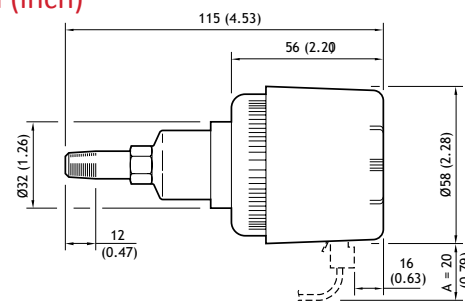
Technical data

ATC-E electronics module	
Power supply	+13.5 to +36 V d.c. (max 1 volt ripple)
Power consumption	0.54 W max
Output signal	
Operating	2 to 10 V d.c.
Fault output	0 to 2 V d.c., 10 to 13.5 V d.c.
Output impedance	0.1 Ω
Minimum load	10 k Ω
Tube type selection	
Adjustments	Adjust set point visually via potentiometer
Set point	Open collector transistor
Range of set point	2% to 85% full scale voltage
Fixed hysteresis	12% full scale voltage
Level setting	±2% full scale voltage
Rating	40 V d.c., 100 mA max
Temperature range	
Operating/storage	5 to 50 °C
Weight	110 g
External interface connector	8 way FCC68/RJ45 socket
ATC-D, ATC-M gauge tubes	
Pressure range	
ATC-D	65 to 6.5×10^{-2} mbar (50 to 5×10^{-2} Torr)
ATC-M	1.3 to 1.3×10^{-3} mbar (1 to 1×10^{-3} Torr)
Maximum overpressure	
ATC-D	10 bar absolute
ATC-M	3.4 bar absolute
Weight	55 g
Internal volume	
ATC-D/ATC-M	$1 \text{ cm}^3/8 \text{ cm}^3$
Vacuum fitting	$\frac{1}{8}$ " NPT

Output characteristics



Dimensions - mm (inch)



Ordering information

Product description	Order number
ATC-E Electronics module	D35108000
ATC-D $\frac{1}{8}$ " NPT gauge tube	D35512000
ATC-M $\frac{1}{8}$ " NPT gauge tube	D35513000
$\frac{1}{8}$ " NPT to NW16 adaptor	C10501072
Cable assemblies (inc FCC68 compatible connectors at both ends)	
0.5 m	D40001005
1 m	D40001010
3 m	D40001030
5 m	D40001050
10 m	D40001100
15 m	D40001150
25 m	D40001250
50 m	D40001500
100 m	D40001999

Non standard lengths and screened cables available on request

GLOBAL CONTACTS

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