

TIC Instrument Controller



The TIC Instrument Controller provides compact control with a large, clear graphical display, an intuitive user interface and serial communications. The supplied Windows™-based PC program provides full remote setup, control and data logging functions via the RS232 interface.

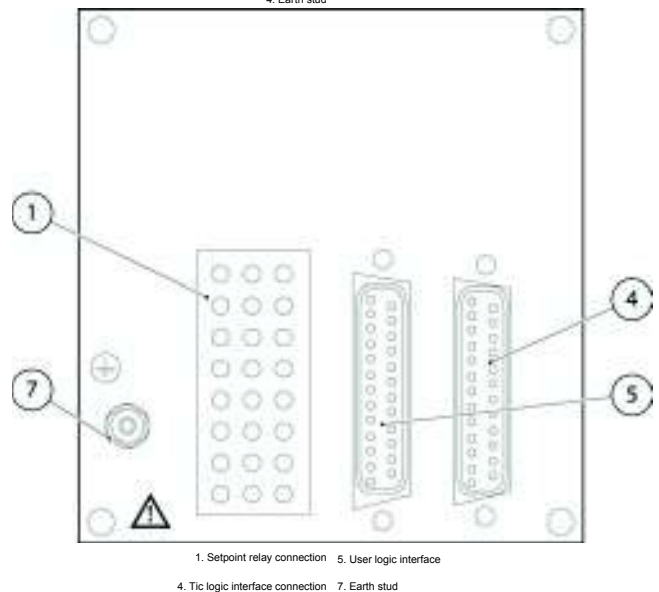
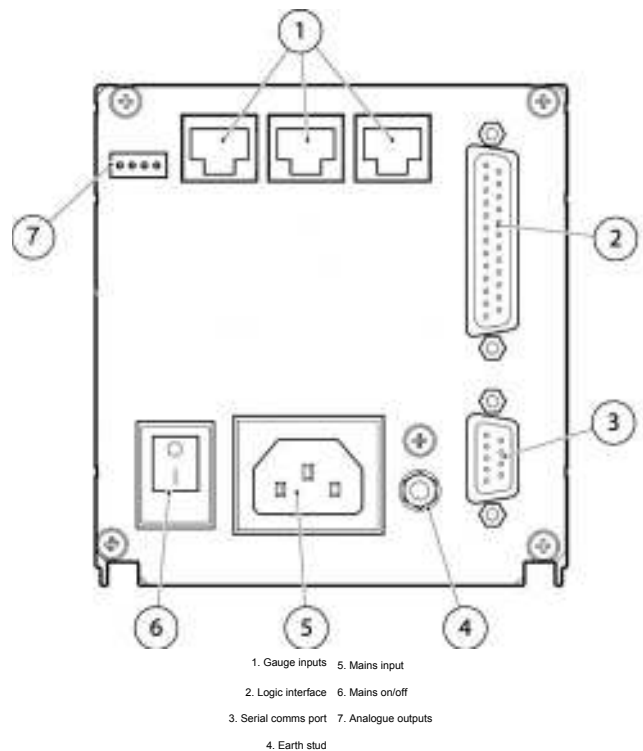
Three TIC Instrument Controllers are available; the three head and six head versions can accommodate 3 or 6 active gauges including the Active Ion Gauge Controller (ebeam version). The six head capman version can accept up to three Edwards Barocel® Capacitance Manometers.

4 Features & Benefits

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- TIC automatically recognizes and controls active gauges including APG100 Pirani, convection, thermocouple, strain, inverted magnetron, wide range and active ion gauges. To enable complete integration into PC and PLC controlled processes, all TIC variants include RS232 and RS485 interface.
- TIC has six pressure related set points, which operate open collector outputs rated at 24 V d.c. 50 mA. Using the optional relay boxes, these may be linked to 250 V a.c. changeover relays to provide a useful accessory control capability. All relay boxes include a logic bypass facility for further system integration.
- In most instances, TIC systems may be simply and quickly configured using the range of standard cables on offer, there is therefore no need for the customer to prepare loom assemblies or relay boxes and special interfaces.
- TIC includes lookup tables for a range of commonly encountered process gasses (N₂, He, Ar, CO₂, Kr & Ne). Selecting the appropriate gas enables direct readout of the correct pressure without the need to apply conversion factors.
- TIC is packaged in a compact case and may be panel or rack (¼ 19 inch rack 3U) mounted. With the addition of the bezel it becomes an attractive bench-top instrument. The large 128 x 64 pixel backlit graphics LCD and mobile phone style menu system simplifies programming and with a choice of summary screens excellent visibility of displayed parameters is assured.

Dimensions



This is the 6 setpoint version, the 3 setpoint version is similar.

Technical Data

Electrical Data

Connector type	CEE/IEC 320
Electrical supply	90 to 264 V AC, 47 to 63 Hz
Power consumption	3 head TIC 55 VA. 6 Head TIC 160 VA

Fuse The unit is self-protecting and has no user replaceable fuse. The unit will recover once any overload is removed.

Earth stud M4

Operating And Storage Data

Ambient operating temperature range	0 °C to 40 °C (measured underneath TIC)
Maximum ambient operating humidity	Max 90% RH non-condensing at 40 °C
Maximum operating altitude	3000 m max
IP rating	20
IEC rated pollution degree	2

Mechanical Data

Weight 1.7 Kg

Interfaces

Analogue output 0-10 V DC – one for each gauge

Serial Interface The TIC has two built-in communications protocols, RS232 and RS485. These may be used either to interface to a PLC or, using the Windows™ PC software package supplied, connected to a PC for full monitoring and control of a TIC system.

Set-points 6 set-point (open collector) rated at 24V DC 50 mA can be assigned to any gauge. Use directly or in conjunction with TIC relay boxes.

Capacitance manometer compatibility – 6 head capman versions only

3 x 600 series Barocel®

2 x 655 series Barocel®

1 x 658 series Barocel®

For more information, contact Edwards.

Ordering Information

Product Description	Order No.
TIC Instrument Controller 3 Head RS232/RS485	D39700000
TIC Instrument Controller 3 Head RS232/RS485, Certificated	D3970000C
TIC Instrument Controller 6 Head RS232/RS485	D39701000
TIC Instrument Controller 6 Head Capman	D39702000
TIC Instrument Controller 6 Head RS232/RS485, Certificated	D3970100C
TIC Instrument Controller 6 Head Capman, Certificated	D3970200C
Accessories & Spares	Order No.
0.5M Active Gauge Cable	D40001005
100M Active Gauge Cable Assembly	D40001999
10M Active Gauge Cable	D40001100
15M Active Gauge Cable	D40001150
1M Active Gauge Cable	D40001010
25M Active Gauge Cable	D40001250
3M Active Gauge Cable	D40001030
50M Active Gauge Cable	D40001500
5M Active Gauge Cable	D40001050
Linecord 2M North Euro Plug	D40013030
Linecord 2M UK Plug	D40013025
Linecord 2m With US Plug	D40013120
TIC front bezel kit	D39700803
TIC Logic Interface Cable 2m	D39700833
TIC Relay Box Instruments (3 x 3A, 250V)	D39700804
TIC Relay box instruments (6 x 5 A, 250 V)	D39701804
TIC RS232 Interface Cable 2m	D39700834