

## Datasheet Traqc-20 C21

- ✓ First of new generation of pressure controller/indicators
- ✓ Ease of operation
- ✓ Improved precision
- ✓ Improved long-term stability
- ✓ Control stability up to 0.001% FS
- ✓ High resolution color display
- ✓ Touch screen operation
- ✓ Less maintenance
- ✓ High precision pressure generation
- ✓ Up to 210 bar (3000 psi/21 MPa) gauge and absolute
- ✓ Very low drift
- ✓ Compatibility with AutoCal+ and third-party software
- ✓ Utilizes the unique piezo-resistive sensor technology
- ✓ Negative calibration included as standard
- ✓ Complementary supporting services available
- ✓ Modern design



The Tradinco Traqc-20 C21 automatic pressure calibrator brings together the latest control and measurement technology to offer an elegant and economical solution to pressure control for production, test and calibration. It employs full digital control to provide high control stability and high slew rate, while its digitally characterized pressure sensor offers the quality, stability, higher bandwidth and precision associated with this latest generation of piezo-resistive devices. The instrument is available in a desktop module.

### About Tradinco Instruments

Tradinco Instruments provides the best solution for every test, measurement and calibration challenge in the industry.

Our brand promises:

- ✓ Skilled specialists
- ✓ Customer focus
- ✓ Broad portfolio
- ✓ Long-term partnership

## Technical specifications\*

<b>Pressure measurement</b>	
Standard pressure ranges	25, 70, 200, 350 and 700 mbar gauge, 1, 2, 3.5, 7, 10, 20, 35, 70, 100, 135 and 210 bar gauge 0.35, 1, 3, 5, 10 15, 30, 50, 100, 150, 300, 500, 1000, 1500, 2000, 3000 psi 2.5, 7, 20, 35, 70, 100, 200, 350, 700 kPa, 1, 2, 3.5, 7, 10, 13.5, 21 MPa All gauge versions available with negative calibration as standard. For absolute pressure ranges select any range of 1 bar and above and add barometric option
Over range indication	10% above full-scale pressure range
Pressure media	Dry, oil free, non-corrosive gas maintained at a value of 10% above the maximum required outlet pressure. Dry air or Nitrogen recommended
<b>Display</b>	
Panel	4.3" TFT colour VGA resolution wide format display with integral touchscreen
Comms Update Rate	8 times per second
Display Update Rate	2 times per second
Readout	± 9999999
Pressure units	mbar, bar, Pa(N/m <sup>2</sup> ), hPa, kPa, MPa, mmHg @ 0°C, cmHg @ 0°C, mHg @ 0°C,, inHg @ 0°C, mmH2O @ 4°C, cmH2O @ 4°C, mH2O @ 4°C, mmH2O @ 20°C, cmH2O @20 °C, mH2O @ 20 °C, kg/m <sup>2</sup> , kg/cm <sup>2</sup> , torr, atm, psi, lb/ft <sup>2</sup> , inH2O @ 4°C, inH2O @ 20°C, inH2O @ 60°F, ftH2O @ 4°C, ftH2O @ 20°C, ftH2O @ 60°F, User Defined 1, User Defined 2, User Defined 3, User Defined 4
<b>Performance</b>	
CM0 Standard Precision	0.02% Rdg + 0.02% FS (25 mbar: 0.20% rdg + 0.20% FS, 70 mbar: 0.10% rdg + 0.10% FS, 200 mbar: 0.04% rdg + 0.04% FS) includes linearity, hysteresis, repeatability and temperature effects for gauge pressures and assumes steady state temperature and regular zeroing
CM0 Controller stability	0.005% FS
CM1 High Precision	0.01% Rdg + 0.01% FS (25 mbar: 0.10% rdg + 0.10% FS, 70 mbar: 0.05% rdg + 0.05% FS, 200 mbar: 0.02% rdg + 0.02% FS) includes linearity, hysteresis, repeatability and temperature effects for gauge pressures and assumes steady state temperature and regular zeroing
CM1 Controller stability	0.003% FS (25mbar range = 0.005% FS)
CM2 Premium Precision	0.005% Rdg + 0.005% FS (25 mbar: 0.05% rdg + 0.05% FS, 70 mbar: 0.025% rdg + 0.025% FS, 200 mbar: 0.01% rdg + 0.01% FS) includes linearity, hysteresis, repeatability and temperature effects for gauge pressures and assumes steady state temperature and regular zeroing
CM2 Controller stability	0.001% FS (25mbar range = 0.005% FS, 70mbar = 0.003% FS)
CM3 Reference Precision	0.001% FS, includes non-linearity, hysteresis, repeatability and temperature effects over calibrated temperature range
CM3 Controller stability	0.001% of absolute range FS
CM3 Accuracy	Absolute ranges 2, 3.5 bar accuracy (2 Sigma) over calibrated temperature range = 0.0016%Rdg + 0.0033% FS. Includes measurement precision, measurement long term stability per annum and calibration equipment expanded uncertainty ≤ (0.0032% Rdg + 0.7 Pa)
CM Long Measurement Long Term stability	CM0, CM1 and CM2 Ranges: 2 bar g to 210 bar g (30 psi g to 3000 psi g) 0.01% of reading per Long Term stability annum, 1 bar g 0.02% of reading per annum and 25 mbar g to 700 mbar g 0.03% of reading per annum, assumes regular Zeroing. CM3 Ranges: 0.0025% FS per annum absolute ranges. CM0-B, CM1-B, CM2-B, CM3-B and CM2-A: Barometric reference sensor 0.05 mbar a or 0.00072515 psi a per annum. CM3-B Pseudo Gauge Ranges: Absolute sensor plus barometric sensor.
Negative Gauge Precision pressure value	Maximum error at any given pressure value is equal to maximum error at the equivalent positive pressure value. (CM0, CM1 and CM2)
Pseudo Range Precision	Pseudo Absolute: gauge mode precision + barometric reference precision Pseudo Gauge: absolute precision + barometric precision

<b>Performance (cont)</b>	
CM0-B Precision-Barometric Reference	Precision for the optional barometric reference 0.10 mbar or 0.001450 psi. Includes non-linearity, hysteresis, repeatability and temperature effects over the calibrated range
CM1-B Precision-Barometric Reference	Precision for the optional barometric reference 0.05 mbar or 0.000725 psi. Includes non-linearity hysteresis, repeatability and temperature effects over the calibrated range
CM2-B Precision-Barometric Reference	Precision for the optional barometric reference 0.025 mbar or 0.0003625 psi. Includes non-linearity, hysteresis, repeatability and temperature effects over the calibrated range
CM3-B Precision-Barometric Reference	Precision for the optional barometric reference 0.020 mbar or 0.0002901 psi. Includes non linearity, hysteresis, repeatability and temperature effects over calibrated temperature range
Gas consumption	All supply gas is delivered to the system. No gas is used in measure mode, or when the instrument is turned off
<b>Electrical</b>	
Power supply	180 V AC to 260 V AC @ 47 to 63 Hz
<b>Communication</b>	
Communication	RS232, DPI520 emulation
<b>Environmental</b>	
Temperature	Operating 10°C to 50°C (50°F to 122°F) Calibrated 15°C to 45°C (59°F tot 113°F) Storage -20°C to 70°C (-4°F to 158°F)
Humidity	5% RH to 95% RH non-condensing
Conformity	EN61010, EN61326, PED, ROHS & WEEE CE marked
Dimensions	Primus One/Basic Series 42TE/6HE & 266 System, Height 6HU, Width 2WU

\* Specifications may be changed. Please check our website for the latest version.