PRESSURE CALIBRATOR

MicroCaiP20 Series

Hand-held Pressure Documenting Calibrator

Features
- Up to 2 internal pressure sensors
- External pressure modules
- ±0.025% FS accuracy
- Large graphic
- Backlighted display
- mV, V & mA (active and passive loop) measuring and simulating for TRX calibration
- Temperature with RTD for flow transmitters
- Pressure switch test
- Rechargeable batteries
- RS232 for instrumentation management with CalpMan software
- Real-time clock with memory for in-field calibration procedures (“as found”+”as left”)

MicroCal P20 Pressure Calibrator is a versatile calibration instrument that combines advanced sensor technology with latest developments in pressure instrumentation. It allows calibration and accurate testing procedures of the pressure process instrumentation as: pressure transducers and transmitters, switches, relief valves, analogue pressure gauges. Combined with Eurotron hand pressure pump, and related fittings, it becomes a complete calibration system to be used on field. Between several functions, MicroCal P20 allows you to use the calibrator as a TRX using the scalable output option.

Internal Pressure Sensors

Optional one or two built-in pressure sensors are available to cover main pressure application including gauge, differential, absolute, and vacuum. The calibration matrix pressure / temperature is stored in internal non volatile memory.

External Pressure Modules

Each unit is equipped with a connector for external pressure “smart” modules. A wide selection of modules are available as accessories for ranges up to 700bar. The calibration matrix pressure / temperature is stored in internal non volatile memory.

Ordering Code

3240 basic -AA-B-C-D
MicroCal P20 Basic: 2 internal sensor + external sensors pressure connector
3240 plus -AA-B-C-D
MicroCal P20 plus: 2 internal sensor + external sensors pressure connector + mA/V/Pt100 input / output

Standard package includes: Units, Charger, Instruction Manual, Report of calibration.	
Table A	**Internal Sensors** - AISI316SS - ±0.025% F.S.
0	None
2	-100 to 100mbar Gauge - res. 0.001mbar
3	-500 to 500 mbar Gauge - res. 0.01mbar
4	-0.95 to 1 bar Gauge - res. 0.01mbar
5	-0.95 to 2 bar Gauge - res. 0.01mbar
5A	2 bar Absolute - res. 0.01mbar
6	-0.95 to 7 bar Gauge - res. 0.1mbar
7	-0.95 to 20 bar Gauge - res. 0.1mbar
7A	20 bar Absolute - res. 0.1mbar
Table B	**Line Charger**
1	120V 50/60 Hz with USA plug
2	230V 50/60 Hz with Schuko plug
3	230V 50/60 Hz with UK plug
4	230V 50/60 Hz with European plug
5	230V 50/60 Hz with USA/Japan plug
Table C	**Options**
0	None
1	HART protocol (plus model only)
2	EC module (T + RH% + barometric measurements)
Table D	**Report of Calibration**
1	Eurotron certificate

Specifications

Pressure	
Pressure media:	AISI 316 SS compatible fluids (water, gas, and oil)
Temperature compensation:	Automatic with built-in calibration matrix.
Engineering units:	mbar, bar, Pa, hPa,kPa, MPa, kg/cm^2, kg/m^2, psi, mmH_2O, cmH_2O, mH_2O, Torr, atm, lb/ft^2, inH_2O, ftH_2O, mmHg, cmHg, mHg, inHg, programmable.
Accuracy:	The above accuracies are stated for 365 days and includes non linearity, histercsis, and repeability. The average temperature coefficient, inside the temperature compensated range, is ±0.002% of rdg/°C (w.t.r. +23°C/+73°F).
Compensation temperature range:	+0 to +45°C (+32°F + 113°F)
Internal sensors	
Accuracy:	±0.025% F.S.
Ranges:	see table on ordering code
Resolutions:	see table on ordering code
Overpressure:	125% F.S.
Port:	(female) 1/8 BSP
External modules	
Accuracy:	±0.025% F.S.
Ranges:	see table on ordering code
Resolution:	see table on ordering code
Overpressure:	125% F.S.
Port:	(male) 1/4 BSP
Connection wire length:	2 meters
General	
Calibration:	Self learning technique with automatic procedure
Common mode rejection:	140dB at ac operation
Normal mode rejection:	60dB at 50/60 Hz
Display:	Graphic LCD display with automatic and manual backlight device
Measurement sampling time:	250 ms
Digital interface:	Full bidirectional RS232
Power supply:	External charger and rechargeable Ni-MH battery
Battery life (typical):	10 h on Tc and mV input/output (Backlight off) 4 h with 20 mA simulation (Backlight off)
Recharging time (typical):	5h at 90% and 6 h at 99% with instrument switched off.
Battery charge indication:	Bar graph on the LCD display (flashing on charge)
Line operation:	100V - 120V - 230V - 240 Vac with the external battery charger
Line transformer insulation:	2500 Vac
Operating environment temperature range:	from -10°C to +55°C
Storage temperature range:	from 0°C to +60°C (excluding batteries)
Humidity:	max 95%RH non condensing
Case:	Injection moulded policarbonate case
Sealing:	IP54
Weights:	Nett 1.4 kg Gross 2.5kg
Dimensions:	290 x 98 x 57 mm
Warranty:	2 Years

Parameter	Range	Resolution	Accuracy (% of reading)
mV	-20 to 200mV	1μV	(0.02% rdg. + 3μV)
V	-0.2 to 2V	10μV	(0.02% rdg. + 10μV)
	-2 to 20V	100μV	(0.02% rdg. + 100μV)
mA	-5 to 22mA	0.1μA	(0.02% rdg. + 0.4μA)
Pt100 IEC	-200 to 850°C	0.01°C	(0.02% rdg. + 0.05°C)
OIML,∝=.3926	-330 to 1570°F	0.01°F	(0.02% rdg. + 0.09°F)

Pneumatic & Hydraulic Pumps and Accessories Available on Separate Bulletin	
Software	
BB530203	RS 232 PC cable
BB260167	CalpMan 2000 - Calibration procedure manager software
Miscellaneous	
EE300040	Electrical signal test lead kit
BB880043	Vinyl protection carrying case with shoulder strap
BB880048	Vinyl carrying case with shoulder strap
BB880033	Aluminum carrying case
BB880049	Rubber holster

External Pressure Modules - AISI 316SS - ±0.025% F.S.		
Gauge		
BB480009	from -100 to 100 mbar (1.5 PSI)	res. 0.001mbar
BB480010	from -500 to 500 mbar (7 PSI)	res. 0.01mbar
BB480011	from -0.95 to 1 bar (15 PSI)	res. 0.01mbar
BB480012	from -0.95 to 2 bar (30 PSI)	res. 0.01mbar
BB480013	from -0.95 to 7 bar (100 PSI)	res. 0.1mbar
BB480014	from -0.95 to 20 bar (300 PSI)	res. 0.1mbar
BB480015	from -0.95 to 35 bar (500 PSI)	res. 1 mbar
BB480016	from 0 to 70 bar (1000 PSI)	res. 1mbar
BB480017	from 0 to 150 bar (2000 PSI)	res. 1mbar
BB480018	from 0 to 350 bar (5000 PSI)	res. 10mbar
BB480019	from 0 to 700 bar (10000 PSI)	res. 10mbar
Absolute		
BB480020	from 0 to 2 bar (30 PSI)	res. 0.01mbar
BB480021	from 0 to 20 bar (300 PSI)	res. 0.1mbar

Specifications may change without notice.