

## Digital Precision Handheld calibrator Model PTE

with interchangeable measuring modules for pressure and temperature  
1 or 2 independent channels  
Accuracy 0,025%, 0,05% or 0,1% % F.S.  
Current and voltage measurements

### Features

- Rigid ABS-housing
- 12 different engineering units
- Leak and flow measurements
- Min/max value and trip detection
- RS-232 interface
- Extensive data logging function optional

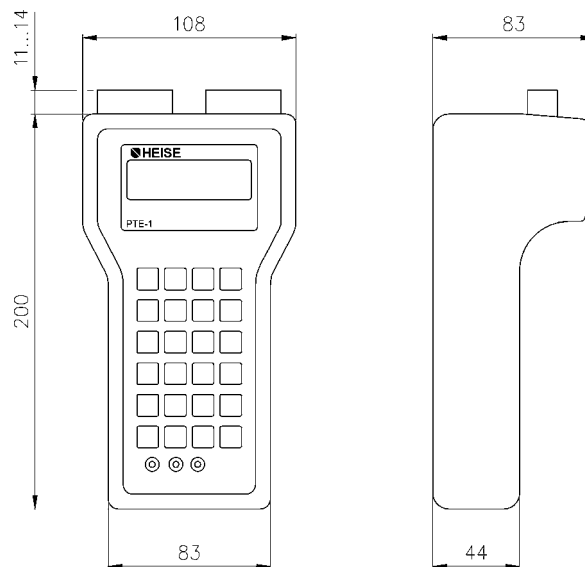
### Ranges

0 ... 0,6 mbar to 0 ... 700 bar  
0 ... 0,25 in. H<sub>2</sub>O to 0 ... 10.000 psi  
-250°C to 1820°C  
0 ... 30 VDC and 0 ... 50 mA



Technical specification	PTE
Indication LCD-Display	Alphanumeric, 2 lines a 16 characters
Functions Standard	Pressure, differential pressure and temperature measurements with interchangeable modules Tare, Engineering unit select, Damping, Min/max value, Battery check, Zero adjustment, Leak rate, Flow / Velocity measurement, Display hold, Trip detect / deadband for switches, Voltage and current measurement for transducer output signals, Calculation of relative error (%-function), Differential pressure between ports, Module calibration procedures and Owners name (both password protected)
Optional	Data logging and RS-232 output, Alarm switches (2)
Ranges (for specification see modules) Pressure Temperature	For modules see data sheet G6.modules 0,6 mbar to 700 bar -200°C ... 850°C, 0/400 Ω (HQS-RT1) or 0/4000 Ω (HQS-RT2); -250°C...1820°C, -10...100 mV (HQS-TC1)
Voltage measurement	0 ... 10 VDC Accuracy ± 0,025% F.S. 0 ... 30 VDC Accuracy ± 0,10% F.S.
Current measurement	0 ... 20 mA Accuracy ± 0,03% F.S. 0 ... 50 mA Accuracy ± 0,05% F.S.
Temperature influence for current and voltage measurements	0,018% / 10K from -7 ... 49°C (ref. 20°C)
Repeatability	Ranges ≥ 2,5 mbar 0,01 % F.S., < 2,5 mbar 0,02% F.S.
Resolution	±0,0016% F.S.
Indication refresh rate	130 ms
Engineering units Pressure Temperature	mbar, bar, kPa, MPa, mmHg, cmH <sub>2</sub> O, mmH <sub>2</sub> O, kg/cm <sup>2</sup> , psi, in. H <sub>2</sub> O, in. Hg, ftSW, 1 user defined unit °C, °F, K, °R, Ω or mV
Damping	Floating average over 1 to 16 reading values
Output signals	RS-232; 9-Pin; 300, 1200, 2400 or 9600 Baud
Data logging Software Alarm contacts	Optional for 714 Data sets Upload of logged data with PTE-1S for Windows® Optional 2 free programmable potential free relay outputs, Max. 110 VDC/125 VAC, max. 30 W/62 VA max. 1 A
Operation temperature Extended operation temperature Storage temperature	0 ... 49°C -20 ... 49°C -20 ... 70°C
Temperature influence (module)	0,07% / 10K from -0 ... 49°C (ref. 20°C)
Warm up time	5 minutes to rated accuracy, 30 minutes to complete stability
Material housing	ABS-plastic
Power supply	Internal two 9 VDC batteries, External AC adapter 9 VDC/500 mA - 110 VAC or 230 VAC/50 Hz
Power pack life	30 hours (with internal batteries, standard version)
CE-mark/EMC	Emission according EN 50011 (1995) Immunity according EN 50082-2 (1995)
Protection acc EN 60529/IEC 529	IP45, special protection cases available
Weight [kg]	Base unit appr. 1,3, module appr. 0,3
Options	Connections accessories, for modules see data sheet G6.modules

**General dimensions [mm]**



**Order information**

Rev. B

**Handheld base unit**

Type	Display	Temperature Range	Data logger, Alarm	Power supply	Options
<b>(PTE)</b> Base unit with basic accessories	(=) 2 line display	<b>(X)</b> Standard 0 ... 49°C	<b>(X)</b> without	<b>(X)</b> No power supply	<b>(X)</b> None
<b>(PTEF)</b> Base unit with basic accessories, intrinsically safe, FM approved		<b>(A)</b> Extended -20 ... 49°C (non FM)	<b>(B)</b> with (not FM)	<b>(1)</b> 110 VAC, 60 Hz	<b>(1A)</b> Soft case with 110 V adapter
<b>(PTEC)</b> Base unit with basic accessories, CE version		<b>(B)</b> Extended -20 ... 49°C (with FM)	<b>(C)</b> with, (FM) no alarms	<b>(2)</b> 230 VAC, 50 Hz <sup>1)</sup>	<b>(1B)</b> Hard case with 110 V adapter
				<b>(3)</b> 100 VAC, 50 Hz <sup>2)</sup>	<b>(2A)</b> Soft case with 230 V adapter
				<b>(4)</b> 230 VAC, 50 Hz, CE <sup>1)</sup>	<b>(2B)</b> Hard case with 230 V adapter
					<b>(3A)</b> Soft case with 100 V adapter
					<b>(3B)</b> Hard case with 100 V adapter
					<b>(4A)</b> Soft case with 230 V adapter (CE)
					<b>(4B)</b> Hard case with 230 V adapter (CE)

**How to order PTEs**

Type	Display	Temperature range	Data logging, Alarm	Power supply	Option
PTE	=	X	B	X	4A

**Accessories**

Model	Description
TP2	Pneumatic precision test pump with fine adjustment, range up to 2 bar
TP20	Pneumatic precision test pump with fine adjustment, range up to 20 bar
TPV	Pneumatic precision test pump with fine adjustment, range vacuum up to -900 mbar
TP200	Hydraulic precision test pump with fine adjustment, range up to 200 bar (higher pressures on request)
AS1	Set of adapters and hose AS-1 for HQS-1 (tubing connection)
AS2	Set of adapters and flex tubing AS-2 for HQS-2 (Minimess)
ADP	Set of adapters, 2x 1/4 NPT female, 2x 1/8 NPT male 2x 1/8" tubing, T-piece 1/8 NPT female, T-piece 1/8" tubing
ADU	Set of adapters 1/2-20 UNF/1/8 NPT female, 1/8 NPT male, 1/4 NPT female, 1/4 NPT male and 1/4" tubing connection
ELV	Vent valve (NPT)
FSL	Flexible tubing, 1,5 Meter long, connection 1/2-20 UNF
RSK	RS-232 cable with 9 Pin male/female connector

**How to order accessories**

Model
TP2=RSK=AS2