

# Digital Precision Calibrator Model ST-2H

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

- Integrated power source for transmitters testing optional
- 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

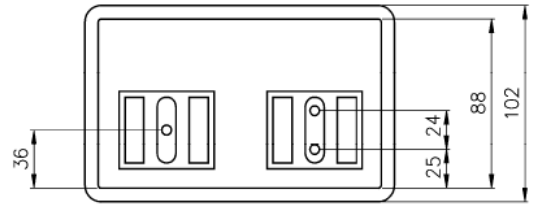
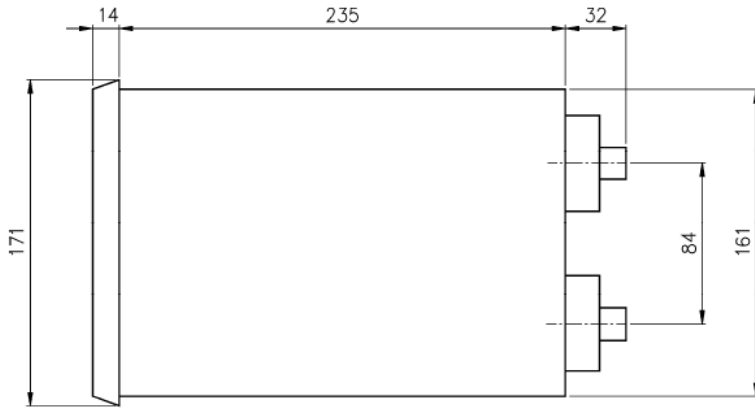


## Ranges

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	ST-2H
Indication	LCD-Display , alphanumeric, 2 lines a 16 characters, high 10 mm, optional with back light
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	Power supply for transmitter testing, display back light Data logging and RS-232 port, Alarm switches (2)
Ranges	For modules see data sheet G6.modules
Pressure	0,6 mbar to 700 bar
Temperature	-200 °C ... 850 °C, 0/400 Ω (HQS-RT1) or 0/4000 Ω (HQS-RT2), -250 °C ... 1820 °C, -10 ... 100 mV (HQ S-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 % / 10 K from -7 ... 49 °C (ref. 20 °C)
Power source	24 VDC, max. 25 mA
Repeatability	Ranges ≥ 2,5 mbar ±0,01 % F.S., < 2,5 mbar ±0,02 % F.S.
Resolution	±0,0016 % F.S.
Indication refresh rate	100 ms
Engineering units	
Pressure	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, one user defined unit
Temperature	°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	Optional for 714 Data sets
Software	Upload of logged data with PTE-1S for Windows®
Alarm contacts	Optional 2 free programmable potential free relay outputs, Max. 110 VDC/125 VAC, max. 30 W/62 VA max. 1 A
Operation temperature	0 ... 49 °C
Extended operation temperature	-7 ... 49 °C
Storage temperature	-20 ... 70 °C
Temperature influence (module)	±0,07 % / 10 K 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	External AC adapter 9 VDC/500 mA - 110 VAC or 230 VAC/50 Hz, optional built in NiCad-power pack
Power pack life	20 hours (2 hours with switched on display back light)
Protection acc EN 60529/IEC 529	IP54
Weight [kg]	Base unit approx. 1,4; Module approx. 0,3
Options	Connections accessories, for modules see data sheet G6.modules

## General dimensions [mm]



Rev.A

## Order information

### Base unit

Type	Power supply	Data logger, Alarm	Options
(ST-2H) Base unit	<b>(X)</b> No AC-adapter <b>(1)</b> 110 VAC, 60 Hz <b>(2)</b> 230 VAC, 50 Hz <b>(3)</b> 100 VAC, 50 Hz	<b>(X)</b> Without <b>(D1)</b> With, and PTE-1S upload program	<b>(X)</b> None <b>(B)</b> Display back light <b>(N)</b> Internal NiCad-power pack <b>(A)</b> Batteries (alkaline) <b>(L)</b> Integrated power source for transmitter testing <b>(H)</b> Carrying handle <b>(P)</b> Panel mounting brackets

### How to order base unit

Type	Power supply	Data logging, Alarm	Option
ST-2H	2	D1	B=N=L

## Accessories

Model	Description
LTP1	Pneumatic precision test pump with fine adjustment, range from -800 mbar up to 2 bar
TP1-40	Pneumatic precision test pump with fine adjustment, range from -950 mbar up to 40 bar
HTP1	Hydraulic precision test pump with fine adjustment, range up to 700 bar
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 meters long, connection 1/2-20 UNF
RSK	RS-232 cable with 9-pin male/female connector

### How to order accessories

Model
TP1-40=RSK=AS2