

## 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

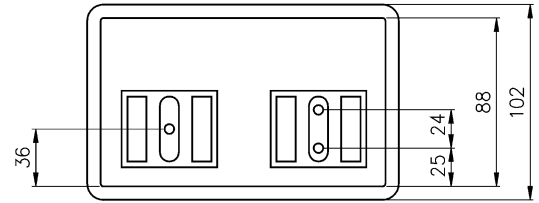
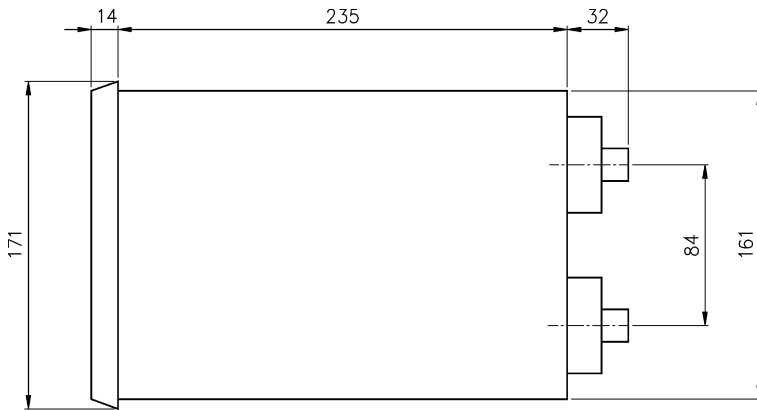
### Ranges

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<br>Standard  | Pressure, differential pressure and temperature measurements with interchangeable modules<br>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<br>Data logging and RS-232 port, Alarm switches (2)   |
| Ranges<br>Pressure<br>Temperature  | For modules see data sheet G6.modules<br>0,6 mbar to 700 bar<br>-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.<br>0 ... 30 VDC Accuracy ±0,10 % F.S.  |
| Current measurement  | 0 ... 20 mA Accuracy ±0,03 % F.S.<br>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<br>Pressure<br>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, one user defined unit<br>°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,<br>Max. 110 VDC/125 VAC, max. 30 W/62 VA max. 1 A   |
| Operation temperature<br>Extended operation temperature<br>Storage temperature | 0 ... 49 °C<br>-7 ... 49 °C<br>-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<br><b>(1)</b> 110 VAC, 60 Hz<br><b>(2)</b> 230 VAC, 50 Hz<br><b>(3)</b> 100 VAC, 50 Hz | <b>(X)</b> Without<br><b>(D1)</b> With, and PTE-1S upload program | <b>(X)</b> None<br><b>(B)</b> Display back light<br><b>(N)</b> Internal NiCad-power pack<br><b>(A)</b> Batteries (alkaline)<br><b>(L)</b> Integrated power source for transmitter testing<br><b>(H)</b> Carrying handle<br><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 |

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