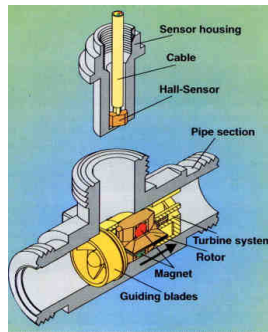


**Turbotron  
Turbine Flow Sensors**

- The liquid flowing into the Turbotron is divided by the guiding blades in four split beams. These hit the rotor from four directions and put it in motion. The uniform loading of bearing from four sizes causes the forces to cancel themselves out for the most part and wear is reduced to a minimum. The extremely hard bearing materials, sapphire and hard metal, ensure in addition an extraordinary life expectancy.
- Can be used together with TD32 500 local flow & Volume Measuring instrument



**TD32 500  
Local Flow & Volume Measuring Instrument**

- Delivery directly assembled on the turbine flow sensor of the product line Turbotron
- Selectable measurement unit:  
Rate of flow: l/min, l/h, m<sup>3</sup>/h, GPM(US), GPM(UK)  
Total flow: l, m<sup>3</sup>, GAL(US), GAL(UK)  
Temperature: °C, °F
- Power: 12~24V DC
- Dimensions: 80mm (dia.) x 55mm (H)
- Protection class: IP 65



TD32 500 with flow sensor (Flow sensor as optional accessory)

**VT Series Turbine Flow Sensors**

**DN15, 3/4" BSP  
(2~40L/min)**



Model	Economy-priced type for standard and serial application		High pressures, high temperatures, fuels		Magnet-free rotor, high measurement accuracy, high resolution	
	VTH 15 MS (Brass)	VTH 15 K5 (Plastic PO)	VTP 15 MS (Brass)	VTP 15 VA (Stainless steel)	VTI 15 MS (Brass)	VTI 15 K5 (Plastic PPO)
Accuracy/ Reproducibility	±1% of range/ ±0.2%				±0.5% of range/ ±0.1%	
Sensor	Hall effect sensor				Inductive proximity switch	
Pulse rate/ K-factor	855 pulses/ liter		915 pulses/ liter		1795 pulses/ liter	
Measurement range:	2~40l/min with special bearings for low flow rates with continuous flow max. 20l/min					
Signal output	Starting from 0.3l/min					
Nominal pressure	PN 10		P <sub>max</sub> = 300		PN 10	
Max. medium temperature	85°C		150°C		85°C	
Power supply	4.5~24V DC				10~30V DC	

**DN25, 1-1/4" BSP (4~160L/min)**

Accuracy: ±3% of measured value  
Reproducibility: ±0.5%  
Pulse rate/ K factor: 65 pulses/ Liter  
Signal output: <1l/min



**DN40, 2" BSP (0.4~25m<sup>3</sup>/min)**

Accuracy: ±5% of the measured value between 0.4~3m<sup>3</sup>/h  
±3% of the measured value between 3~25m<sup>3</sup>/h  
Reproducibility: ±0.5%  
Pulse rate/ K-factor: 26.6 pulses/ liter  
Signal output starting from: 0.1m<sup>3</sup>/h



**Pressure Calibrator**

- Pressure reference work together with test pump for calibrating pressure gauge

Test pump				Pressure references/ pressure calibrator			
Type	Medium	Measuring Range, bar	Pressure adjustment	Type	Medium	Measuring Range (bar)	Accuracy
P40	Air	-1 (-950mbar)~40	By handle	E	Fluid or gas	-1~40/ 0~350	±0.5% FS ±1 digit
P350		0~350		D		-1~3/ -1~40/ 0~350/ 0~700 0~1000	±0.10% FS ±1 digit
P700	0~400 (with distilled water) 0~700 (with hydraulic oil)	L		-1~2/ -1~20/ 0~200/ 0~400		±0.025% FS ±1 digit	
P1000	Distilled water or hydraulic oil	0~400 (with distilled water) 0~1000 (hydraulic oil)		PC700+	Special oil	0~60/ 0~200/ 0~350/ 0~700	±0.025% FS ±1digit



P40



P350



P700/1000



Type E



Type D/L



PC 700+



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### MH3700 Series Digital Temperature Meter



#### MH3710 (standard) (Not included sensor probe)

- 1 x mini-DIN-socket for Pt100/ 4-wire
- Measuring range/ resolution: 200~850°C/ 0.1°C, -199.99~199.99°C/ 0.01°C
- Accuracy:  $\pm 0.015\%$  FS  $\pm 1$  digit
- Function: °C/°F unit conversion, Max-Min value memory, hold function

#### MH3750 (same as 3710, but additional logger-, alarm- and clock-functions) (Not included sensor probe)

- Memory: 99 data set, CYCL; 16384 data sets
- Alarm, real time clock
- Optional accessories: software and connecting cable (for data analysis in computer)



**GTF401 standard temperature sensor probe**  
-50~400°C, 3mm dia. x 150mm length



**GOF401 temperature sensor probe for surface measuring**  
-50~400°C, 3mm (tip: 4mm) dia. x 300mm length

### MH3300 Series Digital Humidity and Temperature Meter

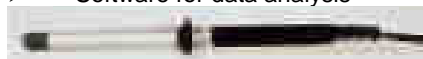


#### MH3300 (standard) (Not included sensor probe)

- 1 x mini-DIN-socket
- Measuring range/ resolution:  
Humidity: 0~100% TH/ 0.1%RH  
Temperature: -40.0~120.0°C/ 0.1°C  
Surface temperature: -80.0~250.0°C/ 0.1°C
- Accuracy: Humidity:  $\pm 0.1\%$  FS  $\pm 1$  digit  
Temperature:  $\pm 0.2\%$  FS  $\pm 1$  digit  
Surface temperature:  $\pm 0.5\%$  Reading  $\pm 0.5^\circ\text{C}$
- Function: °C/°F unit conversion, Max-Min memory, hold function, dew point calculation

#### MH3350 (not included probe) (same as 3300, but additional logger-, alarm- and clock function) (Not included sensor probe)

- Memory set: 16200 data set
- Alarm, real time clock
- Software for data analysis



**TFS0100E**, temperature sensor probe  
Temperature: -40.0~100.0°C (100~120°C for short period)  
Humidity: 0~100%RH

### MH3100 Series Digital Pressure Gauge



#### MH3110 (Not included external sensor)

- 1 x mini-DIN-socket
- Differential pressure, absolute pressure, air pressure, vacuum measurement
- Accuracy:  $\pm 0.1\%$  FS  $\pm 1$  digit
- Function: Unit conversion (Mbar, bar, Pa, kPa, mmHg, PSI), Max-Min-value Memory, hold function, dew point calculation

#### Interchangeable sensor (for MH3110, with different measuring range)

**MSD10BR**, Nylon type  
Accuracy:  $\pm 0.2\%$  FS  
Measuring range: -1~10 bar (rel.)



#### MH3160-01 range: -1~25mbar x 0.01mbar MH3160-07 range: -10~350mbar x 0.1mbar

- Differential pressure
- Accuracy:  $\pm 0.2\%$  FS
- Function: Unit conversion (Mbar, bar, Pa, kPa, mmHg, PSI), max-min value memory, hold function, dew point calculation,

**MSD350MRE**, stainless steel type,  
Accuracy:  $\pm 0.2\%$  FS  
Measuring range: 0~350mbar (rel.)



### Universal Calibrator

#### MC50 (accuracy: $\pm 0.017\%$ of rdg. +K, resolution: 5 digit)

- Simultaneous simulation and measuring of programmable test points
- Signals:  
TC: Types J/K/T/R/S/B/C/U/L/N/E  
Temperature adjustable in 0.1-steps  
RTD: Pt50/Pt100/Pt200/Pt500/Pt1000/Ni100/Ni120/Ni1000/Cu10/Cu50  
Different temperature ranges according to DIN, IEC, JIS etc.  
Temperature-coefficients adjustable  
Temperatures adjustable in 0.01-steps  
 $\Omega$ : resistance 0~400 $\Omega$ / 0~4000 $\Omega$   
Resistance resistances adjustable within m $\Omega$ -range  
mA: Current 0(4) ~20mA, 25mA  
Current adjustable within  $\mu\text{A}$ -range  
MV: Voltage 0~100 mV  
Voltages adjustable within  $\mu\text{V}$ -range  
V: Voltage 0~10 V, 25V, 50V  
Voltages adjustable within  $\mu\text{V}$ -range  
Hz: Frequency 1~20kHz  
Frequency adjustable in 0.01 Hz-steps



MC50

### Pocket calibrator

**UC RTD**, signal: RTD (accuracy:  $\pm 0.012\%$ rdg +K)

**UC TC**, signal: TC (accuracy:  $\pm 0.020\%$ rdg +K)

**UC mA/V**, Signal: Current and voltage (accuracy:  $\pm 0.015\%$ rdg +K)

UC RTD



UC TC

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Exact temperature measuring and monitoring are “musts” in applications crucial to operational safety of machinery, ships and industrial installations. Regular inspection of the temperature sensors used in these applications is absolutely essential for economic and technical-safety reasons and is already prescribed as obligatory in many sectors.

E.g. Temperature calibrators for applications in: energy-production and energy distribution sector, chemical and petrochemical industry, pharmaceutical industry, food industry and a great deal more.

## TP 38000 series Temperature calibrator

- The tank of the temperature calibrator provide accurate and stable temperature for calibrating the sensor probe
- Thermocouples (TC) of the types K, J, N, E,R, T, B, S, Land U
- Resistance thermometers (RTD): Pt 100, Pt 500 and Pt 1000 in 2, 3 or 4 wire
- Optional accessories: 1. Adaptor sleeves with inside diameter between 1.5mm and 25mm in steps of 0.5mm  
2. Software for setting temperature, processing report  
3. DKD-Certificate (acc.guidline DKD-R5-4), SIKA work certificate



Metal block

Model	TP38 165	TP38 600
Temperature range	-30°C~165°C	+40°C~600°C
Tolerance	±0.1K	±0.1K
Stability	±0.01K	±0.03K
Resolution	±0.01K	
No. of test piece	1	
Tank bore/ depth	28mm dia/150mm depth	
Computer interface	RS-232C	

## TP17000 Series Temperature Calibrator

- Test piece fixture:  
adapter sleeves: Inside diameter between 1.5mm and 2.5mm in steps of 0.5mm

Model	TP17450	TP17450S	TP17650S	TP17650	TP17650M
Temperature range	Ambient temperature to 450°C		Ambient temperature to 650°C		
Bath temperature control	Digital PID controller , automatic fine adjustment with softstart for fan				
Tolerance	±0.6°C	±0.3°C	±0.4°C	±0.8°C	±1°C
Stability	±0.1°C	±0.05°C	±0.05°C	±0.1°C	±0.1°C
Resolution	0.1°C				1°C



Metal block

Test piece fixture	
Block material	Brass
Block bore/ depth	60mm dia./ 150mm      28mm dia./ 150mm

## TP M(S) Series micro calibration bath

- Different calibration liquids with different calibration range can be covered for immersion thermometer or sensor probe
- Durable aluminum tank
- Optional accessory: Silicon oil (1L/ bottle)

Model	TP M 165S	TP M 225S
Temperature range	-30°C~165°C	Ambient temperature ~225°C
Tolerance	±0.1°C	±0.2°C
Stability	±0.05°C	±0.05°C
Resolution	0.1°C	0.1°C



Test piece fixture	
Tank material	Aluminum
Tank bore/ depth	60mm dia./ 150mm 170mm