

Test equipment for temperature, humidity and air velocity

Bench instruments Series T900



- 2-channel-instruments, for Pt100 according IEC 751, thermocouple according IEC 584 type J, K, L, N, R, S, T, relative humidity, dewpoint, air velocity(m/s)
- Simultaneous display of two measured values or differential measurement display
- Recording maximum, minimum, hold and average values(average over free selectable time)
- Integrated calibration function(options: 1-point, 2-point or 3-pointadjustment)
- High measuring accuracy ($T955 \pm 0,03 \text{ }^{\circ}\text{C}$)
- Scalable analog output 0-1V (resolution up to 0,01)
- password protection for calibration function
- galvanically isolated RS232 interface
- Optional Smartgraph Windows software for graphical and tabular documentation
- DKD or ISO-certificate for the complete set with indicator as a service

Areas of application

The universally applicable process-controlled instruments are ideal for measuring operations in which high accuracy counts or the possibility of online documentation via PC, Printer or Pen recorder is demanded.

The central issue for all instruments is the traceability of the measurement results to the national standards. DKD certified test equipment is recognized, without any further specifications, as an instrument of traceability in Europe and in many other non-European countries. As a service, certification for existing test equipment can be provided at any time.

- § Reference System for your laboratory
- § Service-Area
- § Quality insurance
- § Accurate longterm monitoring

Description

Useable for a lot of applications the T900 bench instrument contains two measuring channel for temperature(pt100&thermocouple, humidity, dewpoint and flow. The measuring range is whichever probe is connected: -200...+1760°C, 0..40m/s and 0..100%rH. Via a menu function the user is able to configure displayed units(°C/°F, td...), calibration options, measuring channel and two scaleable analoge output signals(each per channel).

Technical Data

	T905 (2 Measuring channels)	T955 (2 Measuring channels)
Measuring channel 1/2	Pt100, thermocouple: type K, J, L, N, R, S, T	Pt100, thermocouple: type K, J, L, N, R, S, T, humidity, flow,
Measuring range		
Pt100	-200...+850°C	-200...+850°C
Thermocouple	according IEC 584(-200..+1760°C)	according IEC 584(-200..+1760°C)
Ohm	---	0 ... 400 Ohm
Humidity	---	0 %...100 %rH
Flow	---	0 ... 40 m/s
Accuracy		
Pt100	+0,1°C from -100°C...+200°C otherwise 0,1%	+0,03°C from -100°C...+150°C +0,05°C from -200°C...+200°C, otherwise 0,1%
Thermocouple R, S	+1,0°C +0,1%	+1,0°C +0,1%
Thermocouple K, J, L, N, T	+0,2°C from 0°C...+200°C +0,5°C to 1000°C +1,0°C remaining range	+0,2°C from 0°C...+200°C +0,5°C to 1000°C +1,0°C remaining range
Humidity	---	+1,5%rH
Flow	---	0,5%
Ohm	0,5%	0,5%
Resolution	0,1°C	0,01°C from -200°C...+200°C, otherwise 0,1°C or 0,1% and 0,01m/s
Outputs	RS232-interface (serial printer can be connected), 2 analog outputs 0-1 Volt (11-bit scalable)	
Connectors	DIN 8-pole	
Working temperature	0°C ... +40°C	
Display	2-line LCD	
Housing	Metal	
Dimensions	200 x 200 x 80 mm (LxBxH)	
Weight	950 g	
Power supply	230 VAC	
Order No.	5000-0905	5000-0955

Accessories

Description	Order No.
PC-adaptor cable for RS232-interface	5090-0002
Windows Software Smartgraph for online documentation	5090-0007
CAL-Software for P600/T900 (calibration-software & password-activation)	5090-0030
Heat-conductive paste 20g for better heat transmission for measuring the surface	9905-0005
Probe connector for P600/T900	5920-0072
Adaptor plug DIN to type K – miniature plug	5600-0048

**Sensors for series T900 and series P600****Resistance-temperature probes****Order No.**

<i>Resistance probe, Pt100, class B, Platinum chip sensor IEC 751, 4-wire, cable 1000mm PVC</i>	
Immersion probe, with handle, mineral-insulated, WS 1.4571, -50..+350°C, 150x3,0mm	6000-1001
Immersion probe, with handle, mineral-insulated, WS 1.4571, -50..+350°C, 300x3,0mm	6000-1002
Immersion probe, with handle, mineral-insulated, WS 1.4571, -50..+350°C, 500x3,0mm	6000-1005
Insertion probe, with handle, mineral-insulated, WS 1.4571, -50..+350°C, 150x4,0mm	6000-1006
Insertion probe, with handle, mineral-insulated, WS 1.4571, -50..+350°C, 300x4,0mm	6000-1007
Surface probe, with handle and buffer-block, WS 1.4571, -40..+300°C, 150x6,0mm	6000-1059
Surface probe, magnetic sensor for metal surfaces-30..+200°C, 19x21mm	6000-1057
Self-clueing-surface probe, silicone-patch 35x13x2mm, -30..+250°C, (T90 <3sec.)	6000-1075
<i>High-accuracy resistance probe, Pt100 1/3-DIN, Platinum-ceramic sensor IEC 751, 4-wire, cable 1000mm PVC</i>	
<i>recommend for accurate measurings e.g. with certificate</i>	
Immersion probe, with handle, mineral-insulated, WS 1.4571, -200..+450°C, 150x3,0mm	6000-1018
Immersion probe, with handle, mineral-insulated, WS 1.4571, -200..+450°C, 300x3,0mm	6000-1019
Immersion probe, with handle, mineral-insulated, WS 1.4571, -200..+450°C, 300x1,4mm	6000-1023
Immersion probe, with handle, mineral-insulated, WS 1.4571, -200..+450°C, 300x6,0mm	6000-1078
<i>High-accuracy resistance probe, Pt100 1/10-DIN, Platinum-ceramic sensor IEC 751, 4-wire, cable 1000mm PVC</i>	
<i>recommend for accurate measurings e.g. with certificate</i>	
Immersion probe, with handle, mineral-insulated, WS 1.4571, -200..+450°C, 150x3,0mm	6000-1073
Immersion probe, with handle, mineral-insulated, WS 1.4571, -200..+450°C, 300x3,0mm	6000-1074
<i>High-temperature resistance probe, Pt100, Platinum-ceramic sensor IEC 751, 4-wire, cable 1000mm PVC</i>	
Working standard, stainless steel handle, WS 1.4571, -40..+500°C, 300x4,0mm	6000-1080
High-temperature probe, with handle, inconel-thermowell, -50..+600°C, 300x6,0 mm	6000-1056
High-temperature probe, with handle, nickel-thermowell, -50..+660°C, 300x6,0 mm	6000-1079
<i>Special shapes, resistance probe, Pt100 1/3-DIN, Platinum chip sensor IEC 751, 4-wire-connection</i>	
Tank probe with weight, stainless steel, -30..+150°C, 80x3,0mm with oil-resistant cable (10.000 mm length)	6000-1082
Thermocouple-temperature probes	
<i>Thermocouple type K (NiCr-Ni), class 2 IEC 584, cable 1000mm PVC</i>	
Insertion/Immersion probe, with handle, WS 1.4571, -40..+400°C, 120x3,5mm	6010-1016
Surface probe, with handle, WS 1.4571, -100..+1100°C, 300x6,0mm	6010-1003
Surface probe, with handle, WS 1.4571, -100..+1100°C, 500x6,0mm	6010-1009
Surface probe with thermocouple strip, -40..+540°C, 110x14,5mm, (T90 <3sec.)	6010-1014
Surface probe with thermocouple strip, 90° offset, -40..+600°C, 300x14,5mm, (T90 <3sec.)	6010-1020
Clamp probe for measurements on pipes, max. 35mm Ø, -40..+200°C	6010-1024
<i>Thermocouple type K (NiCr-Ni), class 1 acc. IEC 584, cable 1000mm PVC</i>	
Immersion probe, with handle, mineral-insulated, WS 1.4571, -100..+1100°C, 300x1,5mm	6010-1006
Immersion probe, with handle, mineral-insulated, WS 1.4571, -100..+1100°C, 500x1,5mm	6010-1005
Immersion probe, with handle, mineral-insulated, WS 1.4571, -100..+1100°C, 300x3,0mm	6010-1010
Immersion probe, with handle, mineral-insulated, WS 1.4571, -100..+1100°C, 500x3,0mm	6010-1007
Immersion probe, with handle, WS 1.4571, -100..+800°C, 100x0,5mm	6010-1011
Insertion probe, with handle, mineral-insulated, WS 1.4571, -100..+1100°C, 150x4,0mm	6010-1034
Insertion probe, with handle, mineral-insulated, WS 1.4571, -100..+1100°C, 100x3,0mm	6010-1017
<i>Special shapes, type K (NiCr-Ni)</i>	
Infrared probe, non-contact measuring, E=0.95 fixed, optics 4:1, -18..+260°C	6010-1015
Thermo-Globe, measures radiant heat, ..250°C	6010-1035

**Sensors for T955(humidity, dewpoint and flow)****Combination probe for humidity, dewpoint and flow**

	Order No.
<i>Capacitive sensor for humidity, Pt100 1/3-DIN IEC 751, cable 1000mm PVC</i>	
Combination probe, with handle, POM, 0..100%rH, -30..+80°C, 120x20mm	6020-1001
Combination probe, with handle, aluminium, 0..100%rH, -30..+100°C, 100x20mm	6020-1002
Combination probe, with handle, aluminium, 0..100%rH, -30..+120°C, 300x20mm	6020-1005
Combination probe, with handle, aluminium, 0..100%rH, -30..+120°C, 800x20mm	6020-1006
Humidity sword, with handle, aluminium, 0..100%rH, -30..+80°C, 300x20x5mm	6020-1003
Modul humidity probe, aluminium, 0..100%rH, -30..+80°C, 19x21x5mm	6020-1004

Accessories for combination probes

Sintered cover for probe 6020-1001	6020-0051
Sintered cover for probe 6020-1002/6020-1005/6020-1006	6020-0058
Humidity testing kit with testing cap 25%rH(+2%)	5600-0014
Humidity testing kit with testing cap 50%rH(+2%)	5600-0018
Humidity testing kit with testing cap 75%rH(+2%)	5600-0015
Humidity testing kit without testing cap 25%rH(+2%)	5600-0010
Humidity testing kit without testing cap 50%rH(+2%)	5600-0017
Humidity testing kit without testing cap 75%rH(+2%)	5600-0011

Flow sensors for gases and fluids

<i>Turbine, diameters of shafts for the hand-held instruments 15mm, cable 2500 mm PVC</i>	
Flow sensor Micro Air for air/gases, 0,5..20m/s, 165x11mm	6050-1001
Flow sensor Micro Air for air/gases, 0,7..40m/s, 165x11mm	6050-1002
Flow sensor Micro Water for fluids, 0,04..5m/s, 165x11mm	6050-1007
Flow sensor Mini Air for air/gases, 0,3..20m/s, 175x22mm	6050-1003
Flow sensor Mini Air for air/gases, 0,5..40m/s, 175x22mm	6050-1004
Flow sensor Mini Water for fluids, 0,02..5m/s, 175x22mm	6050-1008
Flow sensor Macro Air for air/gases, 0,15..20m/s, 225x80mm	6050-1005

Accessories for flow sensors

Replacement turbine Micro Air, 0,5..20m/s	6050-0056
Replacement turbine Micro Air, 0,7..40m/s	6050-0057
Replacement turbine Micro Water, 0,04..5m/s	6050-0066
Replacement turbine Mini Air, 0,3..20m/s	6050-0054
Replacement turbine Mini Air, 0,5..40m/s	6050-0055
Replacement turbine Mini Water, 0,02..5m/s	6050-0067
Replacement turbine Macro Air, 0,15..20m/s	6050-0068
Telescope extension for turbine sensor, 300-1000x23mm	6050-0052