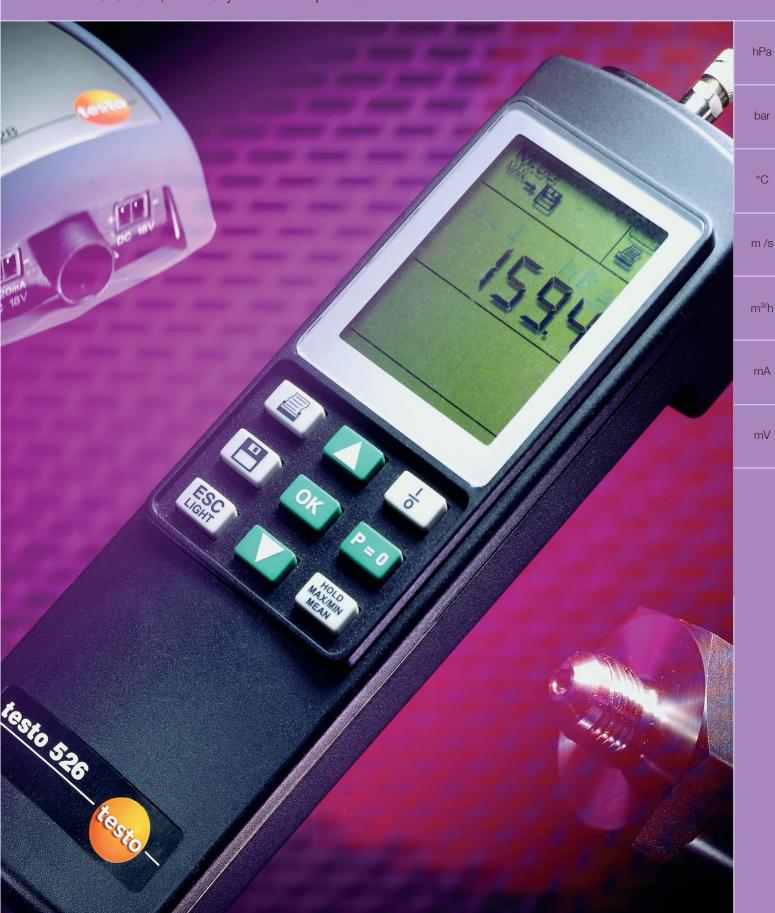


Precision Meters For All Pressure Ranges

Internal sensor, externally connected probes





Precision meters for all pressure ranges



testo 521 with internal sensor 0...100 hPa / 0.1%

The testo 521 is configured for precise differential pressure measurements in the VAC range, e.g. pressure drops at filters, inspection of fans and extraction equipment.

Pitot tube measurement: Flow velocities of 5 ... 100 m/s are measured via the internal pressure sensor. The external 100 Pa probe allows precise measurements in the 1 ... 12 m/s range. The advantages during flow measurement are direct calculation of the flow velocity and volume flow, averaging by points and time and automatic tightness compensation.

- Two probe sockets for connecting additional probes for measuring pressure, temperature, current and voltage
- Dynamic pressure measurement at a measuring rate of 0.04 seconds
- Calculation of the flow velocity and volume flow via pitot tube
- Available in 2 accuracy classes: 0.2 % and 0.1 % of full scale value

testo 526 with internal sensor from 0...2000 hPa / 0.05 %

The testo 526 is the pressure meter for industrial applications. Critical processes can be measured and monitored precisely with an accuracy of up to 0.05~% of full scale value.

Pressure test: The integrated test menu in the hand instrument permits seamless recording, particularly for leak tests in containers. The data can be subsequently processed using the software or printed out via the printer so that the pressure test is documented.

- Two probe sockets for connecting additional probes for measuring pressure, temperature, current and voltage
- Dynamic pressure measurement at a measuring rate of 0.04 seconds
- Verification of the pressure drop in tanks, pipes etc. via the integrated test menu
- Measurement of the leakage rate (time-dependent pressure drop)
- Available in 2 accuracy classes: 0.1 % and 0.05 % of full scale value



testo 521/526 Features



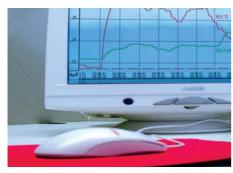
Precision meter for all pressure ranges: Differential pressure measurement at a filter with external pressure probe



Precision meter for any parameters: Testing a transmitter with 0/4 ... 20 mA interface



Documentation at the measuring site on printer



Easy data management on PC

Flexibility thanks to external probes

Additional probes can be connected to testo 521/526 pressure meters via 2 user defined probe sockets.

Precision meter for all pressure ranges

The differential pressure sensor is integrated in the testo 521 / 526. A large range of external pressure probes is available for additional applications:

- Probes for differential pressures up to 2000 hPa
- Probe for absolute pressures up to 2000 hPa
- Probes for relative pressures up to 400 bar

Precision meter for any parameters

- Probes can be connected to enable temperatures in the range -200...+1250 °C to be measured in air, liquid or on surfaces.
- The 0/4...20 mA interface allows a corresponding mA signal of a transmitter to be measured and simulated in the corresponding unit on the hand instrument. The major advantage: galvanic isolation for the 0/4...20 mA interface.

The transmitter is powered via the hand instrument - no external power source required.

Advantages during measurement

- The short-text menu makes operation of the instrument much easier.
- The large, two-line LCD display shows two measuring channels; the arrow keys are used to switch over to the calculated parameters.
- The relative and differential pressure probes are zeroed directly via the P=O key.
- When measuring pressure, you can choose between the following units: mbar, hPa, bar, Pa, kPa, inH2O, mmH2O, torr and psi.
- Key for Hold, Max, Min and Mean.
- Hands-free: TopSafe (impact protection) incl. carrying strap and magnetic plate is a useful accessory.

Long-term monitoring even for dynamic measurements

- Measurement data can be stored individually or as a series of measurements. The measuring rate (0.04 seconds, 1 second, ... 24 hours) and the number of values to be stored can be freely selected. The storage capacity is 100 KB (approx. 25,000 measurements).
- Dynamic measurements can be stored in the measuring instrument every 0.04 seconds - for large data volumes, activate online measurement via the PC.

Documentation at the measurement site:

- The individual measurement protocols can be printed out on site on the printer without the need for cables.
- Temperature-sensitive paper allows measurement data to be documented with high legibility for up to 10 years.

Simple measurement management on PC

- The stored measurements can be conveniently analysed and processed via the software.
- The readings are logged and can be displayed online using the software.

Precision for years ahead from the Testo DKD laboratory

Our DKD laboratory for pressure, temperature and electrical parameters means that you can be sure that all requirements regarding measuring and calibration technology as well as quality assurance will be satisfied fully and completely. How you benefit:

- Independent verification by certified and accredited service providers.
- Traceability to national standards.
- Individual on-site documentation conforming to standards.



Overview of probes



Probes for differential pressures up to 2000 hPa Dimensions: 116x80x40 mm



Probe for absolute pressures up to 2000 hPa $_{\rm abs}$ Dimensions: 116x80x40 mm



400 bar Dimensions: approx. 122x27 mm



0/4...20 mA interface Dimensions: 116x80x40 mm



Temperature probes

Probes for differential pressures up to 2000 hPa

In robust metal housing with impact protection. The magnet on the rear and the hook ensure optimal positioning of the probe. The probe is connected to the meter via the plug-in head cable. The piezoresistive sensors are long-term stable and temperature-compensated. Area of application: measurements in air or non-corrosive and non-ionising gases.

Probes for absolute pressures up to 2000 hPa_{abs} Housing, connection, sensor properties and area of application as for differential pressure probes.

Probes for relative pressures up to 400 bar

Very robust probes made from refrigerant-resistant stainless steel with screw-in thread 7/16" UNF (optional adapter 1/2" external and 1/4" internal thread available). The probe is connected to the meter via a connecting lead. The ceramic sensors are long-term stable and temperature-compensated. Suitable for all fluids, gases or vapours which can come into contact with stainless steel 1.4305 (303), ceramic Al_2O_3 and NBR.

0/4...20 mA interface

0/4 to 20 mA transmitters or external sensors in 2 or 4-wire systems can be connected to the 0/4...20 mA interface via terminals. 1 analogue signal can be analysed per interface. Up to 2 interfaces can be connected to the hand instrument. The major advantage is that the connected transmitter does not need its own power supply, because power is supplied directly via the testo 521/526 handheld meter. The analogue signal is scaled to the corresponding unit directly in the hand instrument.

Temperature probes

Numerous thermocouple and NTC probes for all areas of application can be connected to the testo 521/526, including air probes, surface probes and penetration probes.

Technical data: Probes for differential pressures up to 2000 hPa								
Meas. range	Accuracy *	Overload	Static pressure					
0100 Pa	\pm 0.3 Pa \pm 0.5 % of reading	50 hPa	100 hPa					
010 hPa	± 0.03 hPa	50 hPa	1000 hPa					
0100 hPa	± 0.1 hPa (0-20 hPa)	300 hPa	1000 hPa					
	\pm 0.5 % of reading (20-100 hPa)							
01000 hPa	± 1 hPa (0-200 hPa)	2000 hPa	1000 hPa					
	± 0.5 % of reading (200-1000 hPa)							
02000 hPa	± 2 hPa (0-400 hPa)	3000 hPa	1000 hPa					
	± 0.5 % of reading (400-2000 hPa)							

Temperature range (compensated): 0 ... +50 °C

Technical data: Probe for absolute pressures up to 2000 hPa _{abs}								
Meas. range	Accuracy *	Overload	Static pressure					
02000 hPa _{abs}	± 5 hPa	4000 hPa	-					
Temperature range (compensated): 0 +50 °C								

lechnical data: Probes for relative pressures up to 400									
Meas. range	Accuracy *	Overload							
-110 bar	± 1 % of full scale value	25 bar							
-130 bar	± 1 % of full scale value	120 bar							
-140 bar	± 1 % of full scale value	120 bar							
-1100 bar	± 1 % of full scale value	250 bar							
-1400 bar	± 1 % of full scale value	600 bar							

Temperature range: -40 ... +100 °C
Temperature compensation: 0 ... +70 °C

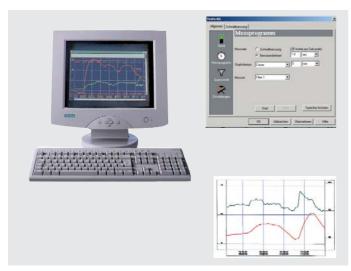
Technical data: 420 mA interface							
Meas. range	Accuracy	Channels	Auxiliary power output				
0/420 mA	± 0.04 mA	1 (galvanically isolated)	18 V DC ± 20 % (max. 24 mA)				

Temperature range: -20 ... +80 °C

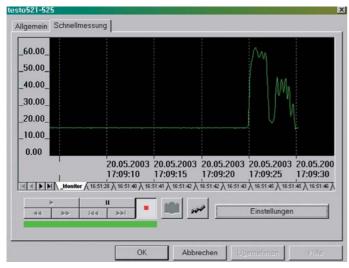
 $[\]ensuremath{^*}$ includes: linearity, hysteresis and reproducibility



Software and Accessories



ComSoft 3 Professional with measurement data management



Online monitoring of pressure peaks with ComSoft 3 Professional

Easy data management

The Windows®-compatible ComSoft 3 user interface allows stored data from the testo 521/526 pressure meters to be read out. The software enables stored measurement protocols to be simply archived in the data area by "Drag & Drop" or analysed in the work area. The readings are logged by the meter and can also be displayed online using the software.

In advance of measurements, you can, for instance, define measurement sites in the software which are then imported into the instrument.

Complex analysis - easy archiving

Analysing:

- with computation function
- with crosshair
- with averaging
- with calculation of the standard deviation

Imaging:

- as a table or graph
- as a number field or histogram
- measuring channels overlaid and screened out

Documenting:

 the data can be easily exported into Excel tables via "Copy and Paste"

Long-term monitoring of dynamic processes

The rapid measurement facility enables pressure peaks to be recorded every 0.04 seconds. Since pressure peaks occur unpredictably in most cases, the trigger function can be used to define a rule that filters out the pressure peaks and stores them separately for the user in the corresponding register pages.

Accessories







Ordering data

Meters				Accurac	У			Part no.	
testo 521-1, differential pressure meter 0100 hPa incl. b	attery and calibration protocol			Accuracy	Accuracy 0.2 % of full scale value				
testo 521-2, differential pressure meter 0100 hPa incl. b	attery and calibration protocol			Accuracy 0.1 % of full scale value				0560 5211	
testo 526-1, differential pressure meter 02000 hPa incl. quick-release coupling, battery and calibration protocol						Accuracy 0.1 % of full scale value			
testo 526-2, differential pressure meter 02000 hPa incl.	Accuracy	Accuracy 0.05 % of full scale value							
Pressure probes									
Differential pressure probes	Illustration	Probe type	Meas. range	Accurac	у	Cor	nection	Part no.	
Precision pressure probe, 100 hPa, for measuring differential pressure locities (in combination with pitot tube), in robust metal housing w protection, incl. magnet for rapid positioning	e and flow ith impact	Differential pressure probe	0 +100 Pa	±(0.3 Pa ±0 (0 +100).5% of m.v.) Pa)	Plug-in head, connection lead 0430 0143 or 0430 0145 required		0638 1347	
Pressure probe, 10 hPa, for measuring differential pressure and flow (in combination with pitot tube), in robust metal housing with impact incl. magnet for rapid positioning	velocities protection,	Differential pressure probe	0 +10 hPa	±0.03 hPa	±0.00 iii a (0 i 10 iii a)		in head, connection lead 0143 or 0430 0145 ed	0638 1447	
Pressure probe, 100 hPa, for measuring differential pressure and flow (in combination with pitot tube), in robust metal housing with impact incl. magnet for rapid positioning		Differential pressure probe	0 +100 hPa		±0.5% of m.v. (+20 +100 hPa) ±0.1 hPa (0 +20 hPa)		in head, connection lead 0143 or 0430 0145 ed	0638 1547	
Pressure probe, 1000 hPa, for measuring differential pressure, in rob housing with impact protection, incl. quick-release coupling (for hos magnet for rapid positioning	ust metal es 4x6 mm),	Differential pressure probe	0 +1000 hPa		±1 hPa (0 200 hPa) ±0.5% of m.v. (200 1000 hPa)		in head, connection lead 0143 or 0430 0145 ed	0638 1647	
Pressure probe, 2000 hPa, for measuring differential pressure, in rob housing with impact protection, incl. quick-release coupling (for hos magnet for rapid positioning	ust metal as 4x6 mm),	Differential pressure probe	0 +2000 hPa	2a ±2 hPa (0 400 hPa) ±0.5% of m.v. (400 2000 hPa)			in head, connection lead 0143 or 0430 0145 ed	0638 1747	
Absolute pressure probe	Illustration	Probe type	Meas. range	Accurac	у	Cor	nnection	Part no.	
Pressure probe, 2000 hPa, for measuring absolute pressure, in robus housing with impact protection, incl. quick-release coupling (for hos magnet for rapid positioning	et metal es 4x6 mm),	Absolute pressure probe	0 +2000 hPa	±5 hPa (0 .	+2000 hPa)	Plug-i 0430 (requir	in head, connection lead 0143 or 0430 0145 ed	0638 1847	
Relative pressure probes Illustr	ation	Probe	type Meas. rai	nge Accur	acy	C	onnection	Part no.	
Low-pressure probe made from refrigerant- resistant stainless steel, up to 10 bar	Screw thread UNF		e -1 +10 ba re probe	r ±1% of Overloa 25 bar	fsv (-1 +10 bar d	COI	ug-in head, nnection lead 0409 02 required	0638 1741	
High-pressure probe made from refrigerant- resistant stainless steel, up to 30 bar	Screw thread UNF		e -1 +30 ba re probe	tr ±1% of Overloa 120 bar		COL	ug-in head, nnection lead 0409 02 required	0638 1841	
High-pressure probe made from refrigerant- resistant stainless steel, up to 40 bar	Screw thread UNF		e -1 +40 ba e probe	tr ±1% of Overloa 120 bar		COL	ug-in head, nnection lead 0409 02 required	0638 1941	
High-pressure probe made from refrigerant- resistant stainless steel, up to 100 bar	Screw thread UNF		e -1 +100 t e probe	ear ±1% of Overloa 250 bar		COL	ug-in head, nnection lead 0409 02 required	0638 2041	
High-pressure probe made from refrigerant- resistant stainless steel, up to 400 bar	Screw thread UNF		e -1 +400 t re probe	ear ±1% of Overloa 600 bar		COL	ng-in head, nnection lead 0409 02 required	0638 2141	
Current/voltage probes Illustr	ation	Me	as. range Ac	curacy			Connection	Part no.	
Current/voltage cable (±1 V, ±10 V, 20 mA)		0	+10 V ±0.	mV (0 +100 01 V (0 +10 04 mA (0 +2	V) ´		Fixed line	0554 0007	
4 20 mA interface (galvanically isolated) for connection and the temporary power supply of transmitters (scaling via hand instrument), in robust metal housing with impact protection, incl. magnet for quick positioning		0/4	20 mA ±0.	04 mA			Plug-in head, connection lead 0430 0143 or 0430 0145 required	0554 0528	
Temperature probes Illustr	ation		Me	as. range	Accuracy	t ₉₉	Connection	Part no.	
Super quick-action surface sensor with sprung thermocouple strip, measurement range short-term up to +500 °C	150 mm		-200 Ø 10 mm) +300 °C	Class 2	3 s	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0604 0194	
Pipe wrap probe for pipes with diameter of up to 2", for flow/return temperature measurement			-60	+130 °C	Class 2	5 s	Fixed cable extended	0600 4593	
Super quick-action immersion/penetration sensor for measurements in liquids	150 mm Ø 1.5 mm		-200) +600 °C	Class 1	1 s	Plug-in head, connection lead 0430 0143 or 0430 0145 required	0604 0493	
High-precision air probe for air and gas temperature measurements with bare,	150 mm		-40	+130 °C	To UNI curve	60 s	Fixed cable extended	0610 9714	



Ordering data / Technical data

Prandtl pitot tubes		Illustration			Meas. range					Part no.		
Pitot tube, 350 mm long, stainless steel, measures velocity in combination with pressure probes 0638 1347/1447/1547		_L	350	mm Ø	7 mm	J	Oper. temp. 0 +600 °C	;		(0635 2145	
Pitot tube, 500 mm long, stainless steel, measures velocity in combination with pressure probes 0638 1347/1447/1547			500	mm Ø	7 mm		Oper. temp. 0 +600 °C	;		(0635 2045	
Probe accessories	Part no.			Probe acce	ssor	ies				Pa	rt no.	
Cable, 1.5 m long, connects sensor with plug-in head to meter Coating material PUR	0430 0143			Connecting hose set, (4x6 mm), 2 x 1 m, coiled, incl. 1/8" screw corpressure-resistant up to 20 bar, for probes 0638 1647/1747/1847				onnection 0554 0441				
Cable, 5 m long, connects sensor with plug-in head to meter Coating material PUR	0430 0145			Cable, 2.5 m long, for pressure probes 0638 1741/1841/1941/2041/2					/2041/2141	141 0409 0202		
Connecting hose, silicone, (4x6 mm), 5 m long Max. load 700 hPa (mbar)	0554 0440			Adapter for pressure probes, 1/2" external thread, 1/4" internal thread of 99 3127 for pressure probes 0638 1741/1841/1941/2041/2141								
Ordering data for accessories	Part no.			Technical c	lata							
9 V rechargeable battery for meter instead of battery	0515 0025			Sensor type	Piezo	to 521-1 oresistive	Piezo	resistive	testo 52 Piezoresis	tive	testo 526-2 Piezoresistive	
Plug-in mains unit for mains operation and charging the rechargeable batteries in the instrument	0554 0088			Measuring range		sure senso 100 hPa		ure sensor 00 hPa	pressure s 0 2000		o 2000 hPa	
TopSafe (indestructible protection case) incl. carrying strap, table stand	0516 0446			Overload	300	hPa	300 h	Pa	3000 hPa		3000 hPa	
and magnet. Protects the instrument against dust, impact and scratches				Static pressure	2000) hPa	2000	hPa	2000 hPa		2000 hPa	
Testo printer with 1 roll of tempsensitive paper and 4 mignon batteries for printing out readings on site	0554 0545			Accuracy ± 1 digit	±0.2	% of fsv	±0.19	6 of fsv	±0.1% of f	SV	±0.05% of fsv	
Charger for printer (with 4 standard rechargeable batteries) Rechargeable batteries are recharged externally	0554 0110			Resolution	0.00	0.001 hPa 0.		hPa	0.01 hPa (a)	0.01 hPa (0 <1000 hPa)	
Spare temperature-sensitive paper for printer (6 rolls)	0554 0569								0.1 hPa (1 2000 hPa)		0.1 hPa (1000 2000 hPa)	
Spare temperature-sensitive paper for printer (6 rolls)	0554 0568			Dimensions	219	x 88 x 50 r	nm 219 x	68 x 50 mm	229 x 68 x		229 x 68 x 50 mi	
Measurement data documentation legible for up to 10 years ComSoft 3 Professional with measurement data management incl. database, analysis and graphics function, data analysis, trend curve	0554 0830			Weight Common data	300		300 g		322 g		322 g	
RS232 lead Connecting lead from instrument to PC (1.8 m) for data transfer	0409 0178			Sensor type	Piezo			s. sensor Ceramic sensor re probes for ext. pressure pro		NTC		
Ethernet adapter, RS 232 - Ethernet incl. software driver, power supply unit enables data communication in the network	0554 1711			Measuring range	0 0	2000 hPa			00 bar -40 .		+150 °C	
Transport case for meter, probes, Prandtl pitot tube, accessories	0516 0527			Accuracy * ± 1 digit	±0.1	.1 % of reading ±0.2		±0.2 % of re			± 0.2 °C (-10 +50 °C) ± 0.4 °C (rem. meas. range)	
System case for meter, probes, straight or Prandtl pitot tube, accessories	0516 0526			Resolution	0.00	0.1 Pa (0638 1347) 0.001 hPa (0638 1447)		0.01 bar	0.01 bar (
DKD calibration certificate/Pressure Differential pressure, accuracy < 0.1 (% of full scale value)	0520 0205				0.1 h	0.01 hPa (0638 1547) 0.1 hPa (0638 1647; 0638 1747; 0638 1847)						
DKD calibration certificate/Pressure	0520 0215											
Differential pressure, accuracy 0.1 0.6 (% of full scale value)	0500 0005			Sensor type	Type	Type K (NiCr-Ni)		Volt. measurem. (0554 0007)			urrent measurem. 1554 0528)	
DKD calibration certificate/Pressure Differential pressure, accuracy > 0.6 (% of full scale value)	0520 0225	0225		Managering range	-200	-200 +1370 °C		0 10 V		, ,	20 mA	
DKD calibration certificate/Pressure	0520 0212			Measuring range Accuracy *		°C (-100					ee sensor data	
Absolute pressure, accuracy 0.1 0.6 (% of full scale value) ISO calibration certificate/Pressure	0520 0035			± 1 digit	+200 ±1 °	0 °C) C (remaini		•	20.0111111		oo oonoor data	
Differential pressure, accuracy < 0.1 (% of full scale value)				Donalution		s. range)	0.043		0.01 4	0	01 mA	
ISO calibration certificate/Pressure	0520 0025			Resolution	0.1 °	70	0.01 \		0.01 mA	U	.01 mA	
Differential pressure, accuracy 0.1 0.6 (% of full scale value) ISO calibration certificate/Pressure	0500 0005			Oper. temp.	0	50.00		Connect	ion		internal 4 mm	
Differential pressure, accuracy > 0.6 (% of full scale value)	0520 0005			(compensated)	0 +50 °C			11.	mak		external 6 mm	
ISO calibration certificate/Pressure	0520 0125			Storage temp.		+70 °C			material	ABS		
Absolute pressure, accuracy 0.1 0.6 (% of full scale value)	1123 0120			Battery type		9 V (6LR61) Battery/rech. battery,PSU 12V		1	21		100 KB (corresp. to approx. 25.000 measurements)	
ISO calibration certificate/Temperature	0520 0001			Power supply								
for air/immersion probe, calibration points -18 °C; 0 °C; +60 °C	0520 0021			Battery life		In permanent operation with interna					nterface	
ISO calibration certificate/Temperature						pressure sensor (AlMn): 30 h. With rechargeable battery (NiMH): 10 h.			ineous		onnection and	
Meas. instr. with air/immersion probe, calib. points +150 °C; 0 °C; +300 °C					With	With zinc carbon:18 h					charging in the	
ISO calibration certificate/Temperature Measuring instr. with surface probe, calib. points +60 °C; +120 °C; +180 °C			Display		I CD display with syml		th symbol	mbol, Ar		instrument Automatic detection		
DKD calibration certificate/Temperature				Display	LCD display with symbol, 7-segment display and dot matrix		connect			ed sensors		
Meas. instr. with air/immersion probe, calib. points -20 °C; 0 °C; +60 °C							2 years					
DKD calibration certificate/Temperature	0520 0271			Refresh rate	2x n	er second,	for quick					
Surface temp. probe touching, calibration points +100 °C; +200 °C; +300 °C	0211			of display			4x per sec.					
ISO calibration certificate/Electrical	0520 1000			* Accuracy figures ap	ply only	for the instr	ument (without	connected prob	e).			

 $[\]ensuremath{^\star}$ Accuracy figures apply only for the instrument (without connected probe).

