LUDWIG
SCHNEIDER

DIGITAL THERMOMETERS AND MEASURING SYSTEMS

THE FUTURE IS HIGHLY PRECISE

THE TEMPERATURE PROFESSIONALS

Ludwig Schneider GmbH & Co. KG ranks among the world's foremost manufacturers of high-precision temperature and density measuring instruments.

Our product variety ranges from push-in thermometers for universal use through to high-precision measuring systems. These, in combination with a traceable DAkkS calibration certificate – from our own calibration laboratory Ludwig Schneider Messtechnik GmbH – fulfill highest quality standards.

DIGITAL THERMOMETERS FROM -200 °C TO +1,370 °C

The high-precision digital instruments are designed for the mains-independent measurement of temperatures e.g. in quality control as well as process and production control and are used in the chemical, pharmaceutical and food industry as well in R&D facilities.

On request individual marking (e.g. logos, product marks, labels etc.) is possible.

+ PRECISE MEASURING
+ QUICK RESPONSE TIMES
+ EXCELLENT READING LCD DISPLAYS
+ VARIOUS TYPE-DEPENDENT MEMORY FUNCTIONS AVAILABLE (E.G. HOLD, MAX./MIN., TEMPERATURE LIMIT ALARM, TIME/DATE ETC.)
+ A CHOICE OF DIGITAL THERMOMETERS IS AVAILABLE WITH WORKS CALIBRATION CERTIFICATE OR DAkkS CALIBRATION CERTIFICATE

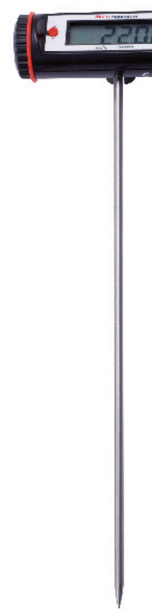
COLOR SYMBOLS

D	AVAILABLE WITH TRACEABLE DAkkS CALIBRATION CERTIFICATE
W	AVAILABLE WITH WORKS CALIBRATION CERTIFICATE
	WITH MAGNET (FOR THE ATTACHMENT AT REFRIDGERATORS ETC.)
	WITH INTEGRATED ALARM FUNCTION
	WATERPROOF (IP 67)
HACCP	FULFILLS HAACP FOOD REGULATIONS
	AVAILABLE WITH INDIVIDUAL SENSORS

UNIVERSAL PUSH-IN THERMOMETERS

DIGITAL PUSH-IN THERMOMETER WITH PLASTIC SLEEVE INCLUSIVE CLIP TYPE 12050

General Specification	
Measuring range	-50 °C to +150 °C/-58°F to +302 °F
Accuracy	±1 °C (-30 °C to +150 °C), < ± 2 °C
Resolution	0.1 °C (-19.9 °C to +150.0 °C), 1 °C (< -19.9 °C)
Battery	1 x 1.5 V (LR44 button cell)
Casing	75 x 20 mm, plastic, black
Ambient temperature	-10 °C to +50 °C
Temperature sensor	125 x 3.5 mm, stainless steel, with push-in tip
Response time	T 90 = 8 sec
Function	°C/°F selection, automatic deactivation after 60 min
Order-No.	**55685**



DIGITAL PUSH-IN THERMOMETER WITH PLASTIC SLEEVE INCLUSIVE CLIP WITH 90° TURNABLE CASING TYPE 12070

General Specification	
Measuring range	-50 °C to +300 °C
Accuracy	±1 °C (-30 °C to +150 °C), < ± 2 °C
Resolution	0.1 °C (-19.9 °C to +150.0 °C), 1 °C (< -19.9 °C)
Battery	1 x 1.5 V (LR44 button cell)
Casing	75 x 20 mm, plastic, black, turnable by 90°
Ambient temperature	-10 °C to +50 °C
Temperature sensor	200 x 3.5 mm, stainless steel, with push-in tip
Response time	T 90 = 10 sec
Function	hold, automatic deactivation after 60 min
Order-No.	**55681**

UNIVERSAL PUSH-IN THERMOMETERS

DIGITAL PUSH-IN THERMOMETER WITH PLASTIC SLEEVE INCLUSIVE CLIP TYPE 13020

General Specification	
Measuring range	-50°C to +150 °C/-58°F to +302 °F
Accuracy	±1 °C (-30 °C to +150 °C), ±1.8 °F (-22 °F to +302 °F), < > ±2 °C/±4 °F
Resolution	0.1 °C (-19.9 °C to +150.0 °C), 1 °C (< -19.9 °C)
Battery	1 x 1.5 V (LR44 button cell)
Casing	Ø 54 mm, plastic, black
Ambient temperature	-10 °C to +50 °C
Temperature sensor	135 x 4 mm, stainless steel, with push-in tip
Response time	T 90 = 10 sec
Function	°C/°F selection, automatic deactivation after 60 min
Order-No.	**64726**

DIGITAL PUSH-IN THERMOMETER WITH CABLE PROBE TYPE 13010

General Specification	
Measuring range	-50 °C to +300 °C/-58 °F to +572 °F
Accuracy	±1 °C (-30 °C to +150 °C) ±1.8 °F (-22 °F to +302 °F), < > ±2 °C/±4 °F
Resolution	0.1 °C (-19.9 °C to +199.9 °C), 1 °C (< -19.9 °C, > +199.9 °C)
Battery	1 x 1.5 V (LR44 button cell)
Casing	Ø 54 mm, plastic, black
Ambient temperature	-10 °C to +50 °C
Temperature sensor	120 x 3.5 mm, stainless steel, with push-in tip
Cable length	1 m
Response time	T 90 = 10 sec
Equipment	clip and magnet
Function	°C/°F selection, automatic deactivation after 60 min
Order-No.	**64725**

UNIVERSAL PUSH-IN THERMOMETERS

DIGITAL POCKET THERMOMETER WITH PLASTIC SLEEVE AND CLIP TYPE 12060

General Specification	
Measuring range	-50 °C to +150 °C
Accuracy	±1 °C (-30 °C to +150 °C), < ±2 °C
Resolution	0.1 °C (-19.9 °C to +150.0 °C), 1 °C (< -19.9 °C)
Battery	1 x 1.5 V (LR44 button cell)
Casing	58 x 20 mm, plastic, black
Ambient temperature	-10 °C to +50 °C
Temperature sensor	125 x 3.5 mm, stainless steel, with push-in tip
Response time	T 90 = 4 sec
Function	hold, automatic deactivation after 60 min
Order-No.	**55680**

DIGITAL POCKET THERMOMETER WITH PLASTIC SLEEVE TYPE 12080

General Specification	
Measuring range	-50 °C to +300 °C/-58 °F to +572 °F
Accuracy	±1 °C (-30 °C to +150 °C), < > ±2 °C ±1.8 °F (-22 °F to +302 °F), < > ±4 °F
Resolution	0.1 °C (-19.9 °C to +199.9 °C) 1 °C (< -19.9, > +199.9 °C)
Battery	1 x 1.5 V (LR44 button cell)
Casing	215 x 40/20 mm, plastic, black
Ambient temperature	-10 °C to +50 °C
Temperature sensor	120 x 3.5 mm, stainless steel, with push-in tip
Response time	T 90 = 8 sec
Function	°C/°F selection, hold, min/max memory, automatic deactivation after 60 min
Order-No.	**55682**

UNIVERSAL PUSH-IN THERMOMETERS

WATERPROOF POCKET THERMOMETER WITH PLASTIC SLEEVE TYPE 12090

General Specification	
Measuring range	-50°C to +150 °C/-58°F to +302 °F
Accuracy	±1 °C (-30 °C to +150 °C), < ±2 °C ±1.8 °F (-22 °F to +302 °F), < ±4 °F
Resolution	0.1 °C (-19.9 °C to +150.0 °C), 1 °C (< -19.9 °C)
Battery	1 x 1.5 V (LR44 button cell)
Casing	188 x 24 x 20 mm, plastic, white
Ambient temperature	-10 °C to +50 °C
Degree of protection	IP 67 (waterproof)
Temperature sensor	85 x 3.5 mm, stainless steel, with push-in tip
Response time	T 90 = 6 sec
Function	°C/°F selection, hold, automatic deactivation after 60 min
Order-No.	**55686**

DIGITAL TEMPERATURE MEASURING DEVICE WITH TEMPERATURE SENSOR TYPE 12200

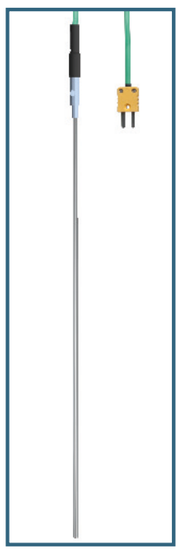
General Specification	
Measuring range	-50 °C to +300 °C/-58 °F to +572 °F
Accuracy	±1 °C (-30 °C to +150 °C), < > ±2 °C ±1.8 °F (-22 °F to +302 °F), < > ±4 °F
Resolution	0.1 °C (-19.9 °C to +199.9 °C) 1 °C (< -19.9, > +199.9 °C)
Battery	2 x 1.5 V (Alkaline AAA)
Casing	140 x 75 x 27 mm, grey, splashproof
Ambient temperature	-10 °C to +50 °C
Temperature sensor	with handle: 140 x 3.5 mm, stainless steel, with push-in tip
Fixed cable length	1 m
Response time	T 90 = 10 sec
Function	min/max memory, high/low alarm, hold, °C/°F selection
Order-No.	**55684**

DIGITAL HANDHELD MEASURING DEVICES FOR THERMOCOUPLES TYPE K

DIGITAL TEMPERATURE MEASURING DEVICE WITH 2 INPUT CHANNELS TYPE 13100 For measuring sensors type K (NiCr-Ni)

General Specification	
Measuring range	-200 °C to +1,370 °C/-328 °F to +2,498 °F
Accuracy	±0.1 % of displayed value + (+0.7 °C/+1.3 °F)
Resolution	0.1 °C/0.1 °F
Battery	1 x 9 V Block
Casing	184 x 64 x 30 mm, plastic, anthracite
Ambient temperature	0 °C to +50 °C
Temperature sensor	1 sensor with blade terminals
Cable length	3 m
Features	PC interface and bag
Function	°C/°F selection, min/max memory, average value memory, automatic deactivation after 60 min
Order-No.	**65625**

Available accessories	Order-No.
Mains adapter (100-240 V, 0.3 A, 50-60 Hz,Output: 9 V, 0.2 A)	**65627**
Software/USB-Set (cable, driver and German software)	**65826**
Software/USB-Set (cable, driver and English software)	**65827**



THERMOCOUPLES TYPE K

General Specification	Order-No.
Insertion probe with handle type K Measuring range: -50 °C to +600 °C (±2.5 °C) Acc. to DIN EN 60584 class 2	**65861**
Immersion probe with handle type K Measuring range: -50 °C to +700 °C (±2.5 °C) Acc. to DIN EN 60584 class 2	**65859**
Air and gas probe with handle type K Measuring range: -50 °C to +800 °C (±2.5 °C) Acc. to DIN EN 60584 class 2	**65863**
Surface probe with handle type K Measuring range: -50 °C to +400 °C (±2.5 °C) Acc. to DIN EN 60584 class 2	**65860**
Surface probe 90° with handle type K Measuring range: -50 °C to +400 °C (±2.5 °C) Acc. to DIN EN 60584 class 2 90° angled	**65862**
Beside this probes various further types are available on request.	

DIGITAL THERMOMETERS FOR MONITORING FREEZERS, REFRIGERATORS AND INCUBATORS

DIGITAL MIN/MAX-ALARM-THERMOMETER WITH DATALOGGING FUNCTION AND USB INTERFACE TYPE 15010

General Specification	
Measuring range	-50 °C to +70 °C/-58 °F to +158 °F
Accuracy	±0.5 °C/±0.9 °F
Resolution	0.1 °C/0.1 °F
Battery	2 x 1.5 V (Alkaline AAA)
Casing	94 x 110 x 25 mm, plastic, white
Memory	removeable 2GB Micro SD card (max: 4GB)
Capacity	24 million recordings
External temperature sensor*	plug-in sensor in 5 ml plastic bottle, filled with ethylene glycol/water for measuring delay/alarm lag during opened door
Cable length	2 m
Features	folding stand
Function	°C/°F selection, min/max memory, high/low alarm, date/time display, reset
Order-No.	**68260**

DIGITAL MIN/MAX-ALARM-THERMOMETER WITH DATE/TIME SETTING TYPE 13030

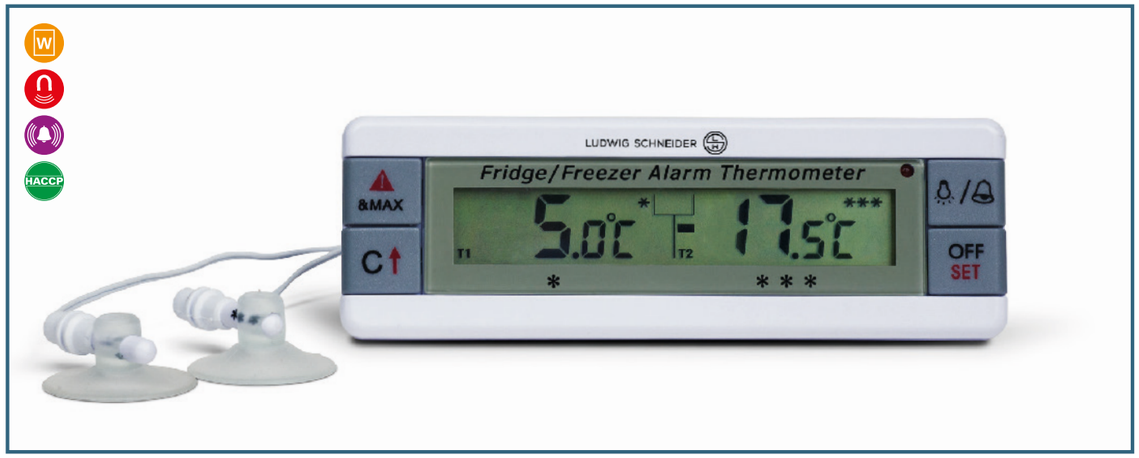
General Specification	
Measuring range	-50 °C to +70 °C/-58 °F to +158 °F
Accuracy	±0.3 °C/0.5 °F
Resolution	0.1 °C/0.1 °F
Battery	2 x 1.5 V (Alkaline AAA)
Casing	75 x 124 x 19 mm, plastic, white
Ambient temperature	0 °C to +40 °C
External temperature sensor*	plug-in sensor in 5 ml plastic bottle, filled with ethylene glycol/water for measuring delay/alarm lag during opened door
Cable length	3 m
Certificate	certificate of conformity acc. to table
Equipment	folding stand
Function	°C/°F selection, min/max memory, high/low alarm, date/time display

Application	Measuring range (°C)	Certified temperature (°C)	Bottle filling	Order-No.
Freezers	-50 °C to +70 °C	-20 °C	ethylene glycol mixture	**63927**
Refrigerators	-50 °C to +70 °C	+4 °C	ethylene glycol mixture	**63893**
Incubators	-50 °C to +70 °C	+37 °C	ethylene glycol mixture	**63894**

* A calibration can only be made for the external temperature sensor.

DIGITAL MONITORING THERMOMETERS

DIGITAL THERMOMETER FOR SIMULTANEOUS MONITORING OF FREEZERS AND REFRIGERATORS TYPE 13040



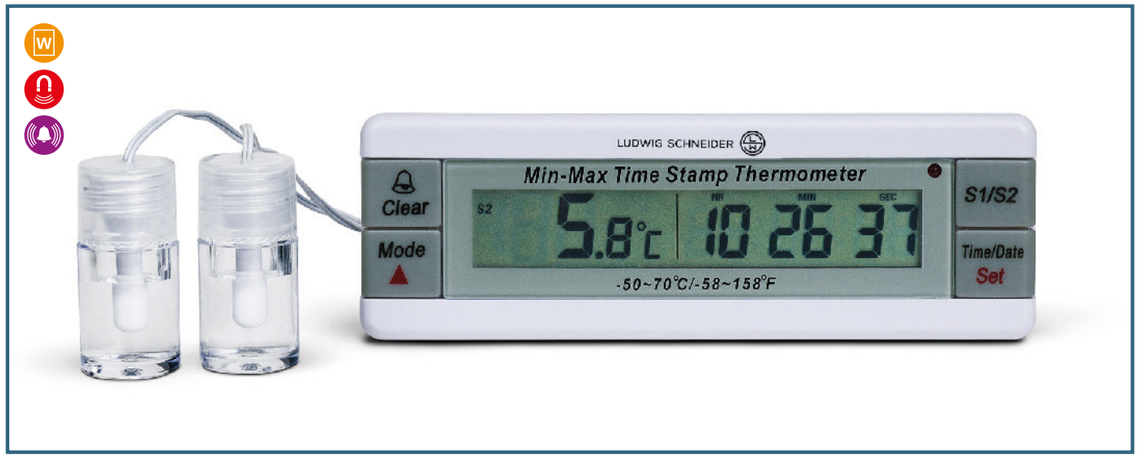
General Specification	
Measuring range	-40 °C to +70 °C/-40 °F to +158 °F
Accuracy	±1 °C/±2 °F
Resolution	0.1 °C/0.1 °F
Battery	2 x 1.5 V (Alkaline AAA)
Casing	135 x 45 x 23 mm, plastic, white
Ambient temperature	0 °C to +50 °C
Temperature sensors	2 pieces with suckers
Cable length	3 m
Response time	T 90 = 10 sek
Certification	certified at 0 °C, accuracy: ±1 °C
Equipment	with folding stand and two magnets
Function	°C/°F selection, min/max memory
Display	backlight
Order-No.	**65810**

OPTIONALLY AVAILABLE WITH BOTTLES (5ml)

General Specification	Order-No.
Type 13041 With 2 temperature sensors, attached in 5 ml plastic bottles, filled with ethylene glycol/ water for measuring delay/ alarm lag at opened door, cable: 3 m	**65811**

DIGITAL MONITORING THERMOMETERS

DIGITAL THERMOMETER FOR SIMULTANEOUS MONITORING OF FREEZERS AND REFRIGERATORS WITH DATE/TIME SETTING TYPE 13050



General Specification	
Measuring range	-50 °C to +70 °C/-58 °F to +158 °F
Accuracy	±1 °C/±2 °F
Resolution	0.1 °C/0.1 °F
Battery	2 x 1.5 V (Alkaline AAA)
Casing	135 x 45 x 23 mm, plastic, white
Ambient temperature	0 °C to +50 °C
Temperature sensors	2 pieces, plug-in sensor in 5 ml plastic bottle, filled with ethylene glycol/water for measuring delay/alarm lag during opened door
Cable length	3 m
Certification	certified at 0 °C, accuracy: ±1 °C
Equipment	with folding stand and two magnets
Function	°C/°F selection, min/max memory
Display	time display: 24 hours, date display: day/month/year
Order-No.	**65812**

PRECISION HANDHELD MEASURING DEVICES FOR Pt100 SENSORS

PRECISION DIGITAL HANDHELD MEASURING DEVICE WITH Pt100, IEC 751 TYPE 13750

General Specification	
Measuring range	-100 °C to +400 °C/-148 °F to +752 °F
Resolution	0.01 °C/0.02 °F
Battery	1 x 9 V
Casing	185 x 65 x 36 mm, plastic, black
Memory	for 99 values
Function	hold, °C/°F selection, min/max memory, time display
Relative operation	by press the REL-button the device memorize the present reading and show the difference to the next measured values
Display	backlight
Pt100 Probe, 4-Wire, Class A, IEC 751	
Accuracy Measuring system	±0.2 °C in range of: -50 °C to +150 °C
Nominal length	230 mm, Ø 5 mm
Cable length	1.5 m
Order-No.	**70542**

PRECISION DIGITAL HANDHELD MEASURING DEVICE WITH Pt100 WITH DATA LOGGING FUNCTION TYPE 13760

General Specification	
Measuring range	-100 °C to +400 °C/-37 °F to +93 °F
Resolution	0.01 °C/0.02 °F
Battery	1 x 9 V
Casing	185 x 65 x 36 mm, plastic, black
Memory	for 16,000 values
Probe	changeable
Function	hold, °C/°F selection, min/max memory
Logging function	data recording, setting of measuring interval, data evaluation
Relative operation	the device memorize the present reading and show the difference to the next measured values
Display	backlight
Pt100 Probe, 4-Wire, Class A, IEC 751	
Accuracy measuring system	±0.2 °C in range of: -50 °C to + 150 °C
Nominal length	230 mm, Ø 5 mm
Cable length	1.5 m
Order-No.	**70541**

DATALOGGER AND INFRARED THERMOMETERS

4-CHANNEL DATALOGGER FOR TEMPERATURE TYPE 15210

Suitable for thermocouples type K, J, E, T, N, R, S

General Specification	
Measuring range	-200 °C to +1,370 °C (Type K)/ -328 °F to +2,498 °F (Type K)
Resolution	0.1 °C/0.1 °F from 600 °C 1 °C/1 °F
Accuracy	±0.1 % of displayed value + (+0.7 °C/+1.3 °F)
Casing	187 x 75 x 29 mm, plastic, black
Memory	32,000 data logger records each channel
Function	hold, °C/°F selection, min/max memory, average value memory
Screen	4 channels simultaneous, battery indication
Display	backlight
Data transfer	wireless via bluetooth or USB
Order-No.	**70538**

HANDHELD INFRARED THERMOMETER WITH LASER SPOT TYPE 23520

General Specification	
Measuring range	-20 °C to +500 °C/-4 °F to +932 °F
Accuracy	±2 °C/±4 °F of displayed value
Resolution	0.1 °C/0.2 °F
Field of view	12:1
Casing	157 x 115 x 36 mm, plastic, black
Operation temperature	0 °C to +40 °C
Response time	0.5 sec
Function	°C/°F selection
Screen	temperature hold indication, low battery indication
Display	backlight
Symbol	laser on
Order-No.	**70539**

DIGITAL THERMOMETERS TO MONITOR FREEZERS, REFRIGERATORS AND INCUBATORS

DIGITAL MIN/MAX-ALARM-THERMOMETER TYPE 13000

General Specification	
Measuring range internal sensor	0 °C to +50 °C/+32 °F to +122 °F
Measuring range external sensor	-50 °C to +70 °C/-58 °F to +158 °F
Accuracy	±1 °C/±2 °F
Resolution	0.1 ° C
Battery	1 x 1.5 V (Alkaline AAA)
Casing	98 x 110 x 21 mm, plastic, black
Ambient temperature	0 °C to +50 °C
Cable length	3 m
Response time	T 90 = 10 sec
Equipment	with folding stand
Function	min/max memory, high/low alarm
Order-No.	**63800**

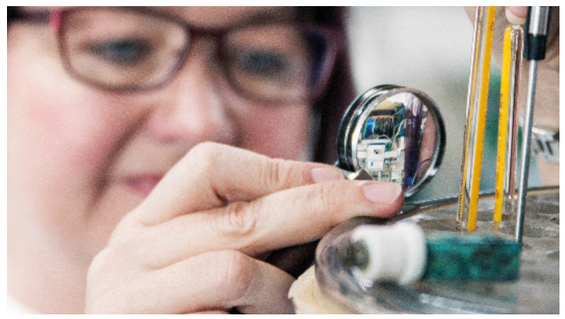
DIGITAL MIN/MAX-ALARM-THERMOMETER AVAILABLE WITH BOTTLE (30ml) TYPE 13000

	Freezers	Refrigerators	Incubators
Measuring range (°C)	-50 °C to +70 °C	-50 °C to +70 °C	-50 °C to +70 °C
Certified temperature (°C)	-20 °C	+4 °C	+37 °C
Bottle filling	ethylene glycol mixture	ethylene glycol mixture	ethylene glycol mixture
Order-No.	**63927**	**63893**	**63894**

ACCREDITED DAkkS-CALIBRATION LAB FOR TEMPERATURE & DENSITY

More than ever before today's products must provide reliably precise results. Through our DAkkS-calibration laboratory for temperature and density we provide the required reliability – now and in the future.

We measure temperatures from –196 °C to 1,850 °C and vouch for highest precision to all international standards. We document and certify measuring instruments in accordance with the individual requirements of our customers.



CERTIFIED PRECISION MADE BY LUDWIG SCHNEIDER MESSTECHNIK

In our modern calibration laboratory we offer our clients a wide variety of measurements including documentation:

+ **CALIBRATION TO FIXED POINTS**
  Resistance thermometers
+ **ADJUSTMENT OF**
  digital and analog measured-value detection systems
+ **COMPARISON MEASUREMENTS OF**
  Resistance thermometers
  Thermocouples
  Liquid-in-glass thermometers
  Mechanical thermometers
  Block calibrators
  Calibration baths and simulators
  Hydrometers and alcoholmeters

BEYOND THE USUAL OUR SERVICE PERFORMANCE

From consulting, through calibration, documentation and training up to the development and manufacturing of customized calibration systems we offer you a wide range of services.

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LUDWIG SCHNEIDER

PRODUCT SUMMARY

Catalogue	PRECISION LABORATORY THERMOMETERS / GROUND JOINT THERMOMETERS
Catalogue	PRECISION THERMOMETERS FOR MATERIAL TESTING ASTM, ETC.
Catalogue	GENERAL PURPOSE THERMOMETERS / THERMOMETERS FOR SPECIAL APPLICATION
Catalogue	CABLE-TEMPERATURE PROBES
Catalogue	RESISTANCE THERMOMETERS
Catalogue	THERMOCOUPLES
Catalogue	ACCU-SAFE
Catalogue	PRECISION THERMOMETERS FOR METEOROLOGY
Catalogue	ENGINE THERMOMETERS
Catalogue	PRECISION HYDROMETERS
Catalogue	DIGITAL THERMOMETERS AND MEASURING SYSTEMS

LUDWIG SCHNEIDER GMBH & CO. KG

Am Eichamt 4–6
D-97877 Wertheim
T +49 9342 8560-0
F +49 9342 84671

info@ludwig-schneider.de
www.ludwig-schneider.com

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