Digital Thermometers

Electronic temperature measurement with digital thermometers and sensors

Ludwig Schneider

High-precision measuring instruments for temperature and density
Digital Temperature Measuring Units

The temperature professionals

Ludwig Schneider ranks among the world’s foremost manufacturers of high-precision temperature and density measuring instruments.

The product program ranges from general-purpose thermometers and high-precision laboratory thermometers to precision hydrometers and digital measuring systems.

Digital thermometers

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.

Product features

- 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 test certificate

Color symbols

- Also available with works test certificate
- With certificate, traceable to international standards (PTB, NIST, ILAC etc.)
- Waterproof (IP67)
- With integrated alarm function
- With magnet (for the attachment at refrigerators etc.)
- Suitable for the temperature control in the food sector

Digital push-in thermometer with plastic sleeve and clip
Type 12050

Measuring range: -50...+150 °C
Accuracy: ±1 °C (-30+150 °C), < ±2 °C
Resolution: 0.1 °C (-19.9+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...+50 °C
Temp. sensor (downwards): 125 x 3.5 mm stainless steel, with push-in tip
Response time: T 90 = 8 sec
With max/min memory
Automatic switch-off after 60 min
Ref.-No. 55685
Digital Thermometers

**Digital push-in thermometer with plastic sleeve and clip**

**Type 12070**
- Measuring range: -50...+300 °C
- Accuracy: ±1 °C (-30+150 °C), < ± 2 °C
- Resolution: 0.1 °C (-19.9+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...+50 °C
- Temperature sensor (downwards): 200 x 3.5 mm, stainless steel, with push-in tip
- Response time: T 90 = 10 sec
- With max/min memory
- Automatic switch-off after 60 min
- Casing turnable by 90°

*Ref.-No. 55681*

**Digital push-in thermometer with plastic sleeve and clip**

**Type 13020**
- Measuring range: -50...+150 °C/-58...+302 °F
- Accuracy: ±1 °C (-30+150 °C) /±1.8 °F (-22+302 °F), < > ±2 °C /± 4 °F
- Resolution: 0.1 °C (-19.9+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...+50 °C
- Temperature sensor (backwards): 135 x 4 mm, stainless steel, with push-in tip
- Response time: T 90 = 10 sec, automatic switch-off after 60 min

*Ref.-No. 64726*

**Digital push-in thermometer with plastic sleeve and clip**

**Type 13010**
- Measuring range: -50...+300 °C/-58...+572 °F
- Accuracy: ±1 °C (-30+150 °C) /±1.8 °F (-22+302 °F), < > ±2 °C /± 4 °F
- Resolution: 0.1 °C (-19.9+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
- Temperature sensor: 120 x 3.5 mm, stainless steel, with push-in tip, cable length: 1 m
- With clip and magnet, with hold function

*Ref.-No. 64725*
Digital Thermometers

**Digital push-in thermometer with plastic sleeve and clip**
- **Type 12060**
- Measuring range: -50...+150 °C
- Accuracy: ±1 °C (-30+150 °C), < ± 2 °C
- Resolution: 0.1 °C (-19.9+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...+50 °C
- Temp. sensor (backwards): 125 x 3.5 mm, stainless steel, with push-in tip
- Response time: T 90 = 4 sec
- With max/min memory
- Automatic switch-off after 60 min

Ref.-No. 55680

**Digital push-in pocket thermometer with plastic sleeve**
- **Type 12080**
- Measuring range: -50...+300 °C/-58...+572 °F
- Accuracy: ±1 °C (-30+150 °C), < ± 2 °C
  ±1.8 °F (-22+302 °F), < ± 4 °F
- Resolution: 0.1 °C (-19.9+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...+50 °C
- Temp. sensor (backwards): 120 x 3.5 mm, stainless steel, with push-in tip
- Response time: T 90 = 8 sec
- With max/min memory
- With hold function, with max/min memory

Ref.-No. 55682

**Waterproof digital push-in pocket thermometer with plastic sleeve**
- **Typ 12090**
- Measuring range: -50...+150 °C/-58...+302 °F
- Accuracy: ±1 °C (-30+150 °C), < ± 2 °C
  ±1.8 °F (-22+302 °F), < ± 4 °F
- Resolution: 0.1 °C (-19.9+199.9 °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...+50 °C
- Degree of protection: IP 67 (waterproof)
- Temp. sensor (backwards): 85 x 3.5 mm, stainless steel, with push-in tip
- Response time: T 90 = 6 sec
- Automatic switch-off after 60 min
- With hold function

Ref.-No. 55686
Digital temperature measuring device
with temperature sensor
Type 12200
Measuring range: -50...+300 °C/-58...+572 °F
Accuracy: ±1 °C (-30+150 °C), <> ±2 °C
±1.8 °F (-22+302 °F), <> ± 4 °F
Resolution: 0.1 °C (-19.9+199.9 °C)
1 °C (< -19.9, > +199.9 °C)
Batteries: 2 x 1.5 V (Alkaline AAA)
Casing: 140 x 75 x 27 mm, grey, splashproof
Ambient temperature: -10...+50 °C
Sensor with grip: 140 x 3.5 mm, stainless steel, with push-in tip, fixed cable (length: 1 m)
Response time: T 90 = 10 sec
With hold function, with min/max alarm
Automatic switch-off after 60 min
Ref.-No. 55684

Digital temperature measuring device
with 2 input channels
Type 13100
For measuring sensors type K (NiCr-Ni)
Measuring range: -200...+1370 °C,
-328...+2498 °F
Accuracy: ± 0.1 %
Resolution: 0.1 °
Battery: 1 x 9 V block
Casing: 184 x 64 x 30 mm, grey,
Ambient temperature: -10...+50 °C
1 Temperature sensor with blade terminals,
cable length: 3 m
With hold function, with max/min memory
Automatic switch-off after 30 min
With PC interface and bag
Ref.-No. 65625

Available accessories:
65627 Mains adapter (100-240 V, 0.3 A, 50-60 Hz, Output: 9 V, 0.2 A)
65826 Software/USB-Set (cable, driver and German software)
65827 Software/USB-Set (cable, driver and English software)

Insertion sensor with handle type K (pic.)
Measuring range: -50...+800 °C (±2.5 °C)
Acc. to DIN EN 60584 class 2
Ref.-No. 65861

Immersion sensor with handle type K
Measuring range: -50...+700 °C (±2.5 °C)
Acc. to DIN EN 60584 class 2
Ref.-No. 65859

Air/gas sensor with handle type K
Measuring range: -50...+800 °C (±2.5 °C)
Acc. to DIN EN 60584 class 2
Ref.-No. 65863

Surface sensor with handle type K
Measuring range: -50...+400 °C (±2.5 °C)
Acc. to DIN EN 60584 class 2
Ref.-No. 65860

90° Surface sensor with handle type K
see above, but 90° angled sensor
Acc. to DIN EN 60584 class 2
Ref.-No. 65862

Beside this sensors various further types are available on request.
Digital Monitoring Thermometers

Digital thermometer for simultaneous monitoring of freezer and fridge
Type 13040
Measuring range: -40...+70 °C/-40...+158 °F, accuracy: ±1 °C/±2 °F, resolution: 0.1 °
Batteries: 2 x 1.5 V (Alkaline AAA)
Casing: 135 x 45 x 23 mm, plastic, white, ambient temperature: 0...+50 °C
With pull-out stand and two magnets, with min/max alarm (programmable)
With serial number, certified at 0 °C, accuracy: ± 1°C
With certificate traceable to international standards (PTB, NIST, ILAC etc.)
Ref.-No. 65810  With 2 temperature sensors (cable: 3 m) with suckers, response time: T 90 = 10 sec

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

Digital thermometer for simultaneous monitoring of freezers and fridges with memory date/time
Type 13050
Measuring range: -50...+70 °C/-58...+158 °F, accuracy: ±1 °C/±2 °F, resolution: 0.1 °
Batteries: 2 x 1.5 V (Alkaline AAA)
Casing: 135 x 45 x 23 mm, plastic, white, ambient temperature: 0...+50 °C
With pull-out stand and two magnets, with min/max alarm (programmable)
With time display: 24 hours, with date display: day/month/year
With serial number, certified at 0 °C, accuracy: ± 1°C
With certificate traceable to international standards (PTB, NIST, ILAC etc.)
Ref.-No. 65812  With 2 temperature sensors (cable: 1 m), attached in 5 ml plastic bottles, filled with ethylene glycol/water (for measuring delay/alarm lag during opened door)
Digital Thermometers

Digital min/max alarm thermometer, display of 3 temperatures, with memory date/time
Type 13030
Measuring range: -50...+70 °C/-58...+158 °F
Accuracy: ±0.3 °C/0.5 °F
Resolution: 0.1 °C
Battery: 2 x 1.5 V (Alkaline AAA)
Casing: 75 x 124 x 19 mm, plastic, white
Ambient temperature: 0...+50 °C
Temperature sensor with 3 m cable, response time: T 90 = 10 sec
With min/max alarm, with pull-out stand
Ref.-No. 65809

Digital min/max alarm thermometer with measuring delay, display of 3 temperatures, with memory date/time
Type 13030
Measuring range: -50...+70 °C/-58...+158 °F
Accuracy: ±0.3 °C/0.5 °F
Resolution: 0.1 °C
Battery: 2 x 1.5 V (Alkaline AAA)
Casing: 75 x 124 x 19 mm, plastic, white
Ambient temperature: 0...+50 °C
Temperature sensor (cable: 3 m) attached in 5 ml plastic bottle, filled with ethylene glycol/water (for measuring delay/alarm lag during opened door)
With serial number, certified at a defined temperature
With certificate traceable to international standards (PTB, NIST, ILAC)
With min/max alarm, with pull-out stand
Ref.-No. 65809/-20C For freezers, approved at -20 °C
Ref.-No. 65809/4C For refrigerators, approved at +4 °C
Ref.-No. 65809/37C For incubators, approved at +37 °C
Digital Thermometer

Digital min/max alarm thermometer
Large display of 3 temperatures
Type 13000
Measuring range internals sensor: 0...+50 °C/+32...+122 °F
Measuring range external sensor: -50...+70 °C/-58...+158 °F
Accuracy: ±1 °C/±2 °F, resolution: 0.1 °
Battery: 1 x 1.5 V (Alkaline AAA)
Casing: 98 x 110 x 21 mm, plastic, black/grey
Ambient temperature: 0...+50 °C
Temperature sensor with 3 m cable, response time: T 90 = 10 sec
With min/max alarm
With pull-out stand
Ref.-No. 63800

TempLoggi+
USB data logger for temperature and humidity
Type 14000
For stationary or mobile measurements (e.g. proof of cold chain)
Temperature measuring range: -30...+85 °C/-20...+185 °F
Temp. resolution: 0.1 °, temp. accuracy: ±0.3 °C/±0.6 °F
Humidity meas. range: 0-100 % RH, humidity accuracy: ±2 % RH
Battery: 1 x 3.6 V (1/2 AA Lithium)
Casing: 125 x 28 x 22 mm, plastic, light grey
LCD display: 18 x 13.5 mm, two-line
Memory: 43,000 measuring units, measuring cycles: 2 sec – 24 h
Degree of protection: IP 67 (waterproof)
With wallmount made of transparent plastic
With evaluation software
With serial number, certified at +20 °C, accuracy: ±0.3 °C
With certificate traceable to international standards (PTB, NIST, ILAC)
Ref.-No. 64535

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