

## Core temperature and food probe



- For Insertion into food
- **Large diameter:** from  $\varnothing$  3 mm
- **Precise:** Class AA/B (Platinum) or class 1 (Type K)
- **Ergonomic** large Teflon handle
- Made of durable **V4A stainless steel**
  - Food-safe
  - Corrosion-resistant
- Wide measuring range
- **Water protected** according to IP65

### DESCRIPTION

**Needle-shaped insertion tip: ideal for commercial kitchens, bakeries, butcher shops, etc.**

These precision insertion probes were specially developed for the demanding requirements of the food industry and professional catering. They enable reliable core temperature monitoring to ensure the highest quality standards and compliance with HACCP guidelines. All GES 21 probes feature a robust insertion tip made of food-grade stainless steel (V4A), which is easy to clean and resistant to aggressive cleaning agents. This makes them ideal for meat products, frozen goods, baked goods, and for monitoring cooling and cooking processes. The splash-proof housing and heat-resistant PTFE cable guarantee a long service life, even under extreme conditions. The probe tip dimensions represent a balanced solution between the requirements for response speed and robustness.

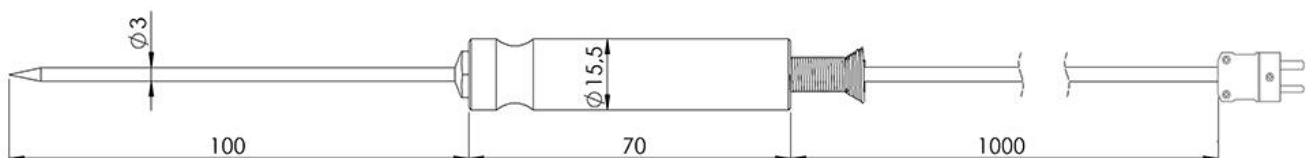
Available with high-precision Pt100/Pt1000 sensors for maximum accuracy or with a robust type K thermocouple.

When combined with a suitable display device (see section "Suitable Instruments"), the temperature sensors can optionally be equipped with DAkkS/ACCREDIA-accredited calibration ISO/IEC 17025 or with ISO 9001 calibration.

V4A probe tip  $\varnothing$  3 mm or 4 mm:



e.g.: GES21-K-1-L01 (Thermocouple Type K, class 1, 1 m PTFE cable, miniature flat-pin plug):



## TECHNICAL SPECIFICATIONS

|                                  |                                                                                                                                                      |                                                                |                                        |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------|
| Sensor                           | Thermocouple Type K (NiCr-NiAl) IEC 60584-2, not potential-free;<br>Thin film sensor Pt100 (2-/3-/4-wire), Pt1000 (2-wire)                           |                                                                |                                        |
| Measuring range                  | Type K:                                                                                                                                              | -50 ... +250°C                                                 |                                        |
|                                  | Pt100/Pt1000:                                                                                                                                        | -200 ... +250°C                                                |                                        |
| Accuracy                         | Type K: class 1: ±1.5°C (-40°C to +375°C) or 0.40% (+375°C to +1000°C)<br>Pt100 and Pt1000: class DIN AA or class DIN B                              |                                                                |                                        |
| Response Time (T <sub>90</sub> ) | Water 0.4 m/s < 2 s, Air 2 m/s approx. 40s                                                                                                           |                                                                |                                        |
| Cable                            | Teflon (PTFE, max. 250°C),                                                                                                                           |                                                                | L = 1 m / 2 m                          |
| Connection                       | Miniature flat-pin plug (Type K only)<br>BNC plug (Pt1000 2-Leiter only)<br>M12 connector (Pt100 4-Leiter only)<br>Loose ends with wire end ferrules |                                                                |                                        |
| Dimensions                       | Probe:                                                                                                                                               | Ø 3 mm / 4 mm,                                                 | L = 100 mm / 150 mm / 200 mm           |
|                                  | Handle:                                                                                                                                              | Ø 15.5 mm,                                                     | L = 70 mm (95 mm with kink protection) |
| Materials                        | Probe tube:                                                                                                                                          | AISI 316 (Material 1.4401) - V4A stainless steel               |                                        |
|                                  | Handle:                                                                                                                                              | Teflon (PTFE, max. 250°C) with stainless steel kink protection |                                        |
|                                  | Cable:                                                                                                                                               | Teflon (PTFE, max. 250°C)                                      |                                        |
| Protection degree                | IP65                                                                                                                                                 |                                                                |                                        |
| Application                      | Insertion                                                                                                                                            |                                                                |                                        |

## ORDER CODES

Core temperature and food probe with large Teflon handle

GES21 - 1 - 2 - 3 - 4 - 5 - 6

|   |                |                                                            |                        |
|---|----------------|------------------------------------------------------------|------------------------|
| 1 | Sensor element |                                                            |                        |
|   | K              | Type K (NiCr-NiAl)                                         |                        |
|   | P              | Pt100 (2-wire)                                             |                        |
|   | P3             | Pt100 (3-wire)                                             |                        |
|   | P4             | Pt100 (4-wire)                                             |                        |
|   | T              | Pt1000 (2-wire)                                            |                        |
| 2 | Accuracy       |                                                            |                        |
|   | 1              | Class 1                                                    | - Type K only          |
|   | B              | Class DIN B                                                | - Pt1000 / Pt100 only  |
|   | AA             | Class DIN AA (1/3 class DIN B)                             | - Pt1000 / Pt100 only  |
| 3 | Connection     |                                                            |                        |
|   |                | Miniature flat-pin plug                                    | - Type K only          |
|   | BNC            | BNC plug (e.g. ECO 120 / G 1700)                           | - Pt1000 (2-wire) only |
|   | M12            | M12 connector 4-pin (e.g. PRO 11X, pinning: 1,2-Pt100-3,4) | - Pt100 (4-wire) only  |
|   | LE             | Loose ends with wire end ferrules                          |                        |
| 4 | Probe length   |                                                            |                        |
|   |                | 100 mm (standard)                                          |                        |
|   | 150            | 150 mm                                                     |                        |
|   | 200            | 200 mm                                                     |                        |
| 5 | Probe diameter |                                                            |                        |
|   |                | V4A tube, Ø 3 mm                                           |                        |
|   | D4             | V4A tube, Ø 4 mm                                           |                        |
| 6 | Cable length   |                                                            |                        |
|   | L01            | 1 m Teflon (PTFE) cable                                    |                        |
|   | L02            | 2 m Teflon (PTFE) cable                                    |                        |

## STANDARD ARTICLES

|                             |                                                                                                                                               |                        |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>GES21-K-1-L01</b>        | Core temperature and food probe type K, class 1, large Teflon handle, miniature flat-pin plug, 1 m PTFE cable, probe tube: Ø 3 mm, L = 100 mm | <b>Art. No. 600074</b> |
| <b>GES21-T-B-BNC-L01</b>    | Core temperature and food probe Pt1000 (2-wire), class B, large Teflon handle, BNC plug, 1 m PTFE cable, probe tube: Ø 3 mm, L = 100 mm       | <b>Art. No. 481765</b> |
| <b>GES 21-P4-AA-M12-L01</b> | Core temperature and food probe Pt100 (4-wire), class AA, large Teflon handle, M12 connector, 1 m PTFE cable, probe tube: Ø 3 mm, L = 100 mm  | <b>Art. No. 489378</b> |

## SUITABLE INSTRUMENTS

### For GES 21 with miniature flat-pin plug

|                  |                                                                                                                                                                                                                                                                   |                        |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>PRO 131.2</b> | 2-channel handheld temperature meter for thermocouple probes, graphic display.<br>Device in carton box, incl. batteries, QuickStart, test protocol, without temperature probe                                                                                     | <b>Art. No. 486119</b> |
| <b>PRO 135.2</b> | 2-channel handheld temperature meter/data logger for thermocouple probes, graphic display.<br>Device in carton box, incl. batteries, QuickStart, test protocol, USB cable, without temperature probe.<br>Free Software ProXware downloadable from Senseca website | <b>Art. No. 486118</b> |
| <b>ECO 130</b>   | Type K thermocouple quick response thermometer (formerly G 1200).<br>Device in carton box, incl. batteries, Manual, test protocol, without probe                                                                                                                  | <b>Art. No. 486708</b> |
| <b>ECO 130.2</b> | Type K quick response 2-channel-alarm-thermometer (formerly G 1202).<br>Device in carton box, incl. batteries, Manual, test protocol, without probe                                                                                                               | <b>Art. No. 486732</b> |

### For GES 21 with BNC plug

|                        |                                                                                                                                                                                                                                                               |                        |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>ECO 120</b>         | Waterproof Pt1000 2-wire alarm thermometer for BNC exchangeable sensors.<br>Device in carton box, incl. 2 x AA alkaline batteries, manual, test report                                                                                                        | <b>Art. No. 486749</b> |
| <b>ECO 120-Gourmet</b> | Waterproof Pt1000 2-wire alarm thermometer for BNC exchangeable sensors, suitable for cooking, baking and barbecue with removable protective rubber cover and 2 strong magnets.<br>Device in carton box, incl. 2 x AA alkaline batteries, manual, test report | <b>Art. No. 489728</b> |

### For GES 21 with M12 connector

|                |                                                                                                                                                                                                                                                  |                        |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>PRO 111</b> | High precision thermometer for Pt100 4 wire probes, M12 socket 4-pole, graphic display.<br>Device in carton box, incl. 4 x AA alkaline batteries, QuickStart, test-protocol                                                                      | <b>Art. No. 486650</b> |
| <b>PRO 115</b> | High precision thermometer for Pt100 4 wire probes, M12 socket 4-pole, graphic display.<br>Device in carton box, incl. 4 x AA alkaline batteries, QuickStart, test-protocol, USB cable. Free Software ProXware downloadable from Senseca website | <b>Art. No. 486651</b> |