

## Laboratory electrodes

- | Article                                                                                                                                                                                          | Order No.            |
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| ① <b>SI Analytics BlueLine 11 pH</b>                                                                                                                                                             | <b>61 27 29114</b>   |
| pH combination electrode with glass stem and robust conical membrane, reference system: silver/silver chloride, with plug head (please order matching connection cable L1A or L1BNC separately). |                      |
| <b>Applications:</b> for universal applications.                                                                                                                                                 |                      |
| -5 to 100°C:                                                                                                                                                                                     | 0 to 14pH            |
| Temperature sensor:                                                                                                                                                                              | no                   |
| Length/Ø:                                                                                                                                                                                        | 120 mm/12 mm         |
| Electrolyte:                                                                                                                                                                                     | liquid, KCl 3 mol/l  |
| Diaphragm:                                                                                                                                                                                       | platinum             |
| Membrane resistance at 25°C:                                                                                                                                                                     | 300 M Ω              |
| Refilling opening closed by:                                                                                                                                                                     | sliding plug         |
| Article                                                                                                                                                                                          | Order No.            |
| ② <b>SI Analytics BlueLine 13 pH for low-ion media</b>                                                                                                                                           | <b>61 27 29139</b>   |
| pH combination electrode with glass stem, reference system: silver/silver chloride, with plug head (please order matching connection cable L1A or L1BNC separately).                             |                      |
| <b>Applications:</b> for superior measurement conditions, e.g. low-ion media or emulsions.                                                                                                       |                      |
| -5 to 100°C:                                                                                                                                                                                     | 0 to 14 pH           |
| Temperature sensor:                                                                                                                                                                              | no                   |
| Length/Ø:                                                                                                                                                                                        | 170 mm/12 mm         |
| Electrolyte:                                                                                                                                                                                     | liquid, KCl 3 mol/l  |
| Diaphragm:                                                                                                                                                                                       | ground               |
| Membrane resistance at 25°C:                                                                                                                                                                     | 400 M Ω              |
| Refilling opening closed by:                                                                                                                                                                     | sliding plug         |
| Article                                                                                                                                                                                          | Order No.            |
| ③ <b>SI Analytics BlueLine 14 pH with temperature probe NTC</b>                                                                                                                                  | <b>61 27 29147</b>   |
| pH combination electrode with glass stem and robust conical membrane, reference system: silver/silver chloride, with fixed cable 1 m, Ø=5 mm, DIN plug and 4 mm banana plug                      |                      |
| <b>Applications:</b> for universal applications.                                                                                                                                                 |                      |
| -5 to 100°C:                                                                                                                                                                                     | 0 to 14 pH           |
| Temperature sensor:                                                                                                                                                                              | NTC 30 kΩ            |
| Length/Ø:                                                                                                                                                                                        | 120 mm/12 mm         |
| Electrolyte:                                                                                                                                                                                     | liquid, KCl 3 mol/l  |
| Diaphragm:                                                                                                                                                                                       | platinum             |
| Membrane resistance at 25°C:                                                                                                                                                                     | 300 M Ω              |
| Refilling opening closed by:                                                                                                                                                                     | sliding plug         |
| Article                                                                                                                                                                                          | Order No.            |
| ④ <b>SI Analytics BlueLine 16 pH Micro</b>                                                                                                                                                       | <b>61 27 29163</b>   |
| Micro pH combination electrode with glass stem, reference system: silver/silver chloride, with plug head (please order matching connection cable L1A or L1BNC separately).                       |                      |
| <b>Applications:</b> for universal applications, especially for small sample volumes.                                                                                                            |                      |
| -5 to 100°C:                                                                                                                                                                                     | 0 to 14 pH           |
| Temperature sensor:                                                                                                                                                                              | no                   |
| Length/Ø:                                                                                                                                                                                        | 40/80 mm//12/5 mm    |
| Electrolyte:                                                                                                                                                                                     | liquid, KCl 3 mol/l  |
| Diaphragm:                                                                                                                                                                                       | platinum             |
| Membrane resistance at 25°C:                                                                                                                                                                     | 450 M Ω              |
| Refilling opening closed by:                                                                                                                                                                     | sliding plug         |
| Article                                                                                                                                                                                          | Order No.            |
| ⑤ <b>SI Analytics BlueLine 21 pH Insertion</b>                                                                                                                                                   | <b>61 27 29217</b>   |
| pH combination electrode with glass stem and robust spear membrane, reference system: silver/silver chloride (please order matching connection cable L1A or L1BNC separately).                   |                      |
| <b>Applications:</b> for penetration measurements in semi-hard media.                                                                                                                            |                      |
| -5 to 80°C:                                                                                                                                                                                      | 2 to 13 pH           |
| Temperature sensor:                                                                                                                                                                              | no                   |
| Length/Ø:                                                                                                                                                                                        | 65/25 mm//12/5 mm    |
| Electrolyte:                                                                                                                                                                                     | Referid®             |
| Diaphragm:                                                                                                                                                                                       | double hole          |
| Membrane resistance at 25°C:                                                                                                                                                                     | 400 M Ω              |
| Refilling opening closed by:                                                                                                                                                                     | no refilling opening |



| Article                                                                                                                                                              | Order No.          |
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| ⑥ <b>SI Analytics BlueLine 22 pH with plastic shaft</b>                                                                                                              | <b>61 27 29225</b> |
| pH combination electrode with plastic stem, reference system: silver/silver chloride and plug head (please order matching connection cable L1A or L1BNC separately). |                    |
| <b>Applications:</b> for universal applications.                                                                                                                     |                    |
| -5 to 80°C:                                                                                                                                                          | 0 to 14 pH         |
| Temperature probe:                                                                                                                                                   | no                 |
| Length/dia.:                                                                                                                                                         | 120 mm/12 mm       |
| Electrolyte:                                                                                                                                                         | gel, KCl saturated |
| Diaphragm:                                                                                                                                                           | fibre              |
| Membrane resistance at 25°C:                                                                                                                                         | 400 M Ω            |

| Article                                                                                                                                          | Order No.          |
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| <b>SI Analytics BlueLine 24 pH with fixed cable and temperature probe NTC</b>                                                                    | <b>61 27 29241</b> |
| pH combination electrode with plastic stem, reference system: silver/silver chloride and fixed cable, 1m, Ø=5 mm, DIN-plug and 4 mm banana plug. |                    |
| <b>Applications:</b> for universal applications.                                                                                                 |                    |
| -5 to 80°C:                                                                                                                                      | 0 to 14 pH         |
| Temperature probe:                                                                                                                               | NTC 30 kΩ          |
| Length/dia.:                                                                                                                                     | 120 mm/12 mm       |
| Electrolyte:                                                                                                                                     | gel, KCl saturated |
| Diaphragm:                                                                                                                                       | fibre              |
| Membrane resistance at 25°C:                                                                                                                     | 400 M Ω            |

| Article                                                                                                                                                                                | Order No.               |
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| ⑦ <b>SI Analytics BlueLine 27 pH</b>                                                                                                                                                   | <b>61 27 29274</b>      |
| pH combination electrode with glass stem and flat membrane, reference system: silver/silver chloride, with plug head (please order matching connection cable L1A or L1BNC separately). |                         |
| <b>Applications:</b> for measurements on surfaces.                                                                                                                                     |                         |
| -5 to 50°C:                                                                                                                                                                            | 2 to 13 pH              |
| Temperature probe:                                                                                                                                                                     | no                      |
| Length/dia.:                                                                                                                                                                           | 120 mm/12 mm            |
| Electrolyte:                                                                                                                                                                           | Referid®, KCl saturated |
| Diaphragm:                                                                                                                                                                             | annular gap             |
| Membrane resistance at 25°C:                                                                                                                                                           | 400 M Ω                 |

| Article                                                                                                                                                                 | Order No.           |
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| ⑧ <b>SI Analytics BlueLine 31 RX</b>                                                                                                                                    | <b>61 27 29311</b>  |
| Redox combination electrode with glass stem, reference system: silver/silver chloride, with plug head (please order matching connection cable L1A or L1BNC separately). |                     |
| <b>Applications:</b> for universal applications.                                                                                                                        |                     |
| -5 to 100°C                                                                                                                                                             |                     |
| Sensor:                                                                                                                                                                 | Pt disk             |
| Temperature probe:                                                                                                                                                      | no                  |
| Length/dia.:                                                                                                                                                            | 120 mm/12 mm        |
| Electrolyte:                                                                                                                                                            | liquid, KCl 3 mol/l |
| Diaphragm:                                                                                                                                                              | ceramic             |
| Refilling opening closed by:                                                                                                                                            | sliding plug        |

#### Accessories

##### Electrolyte solutions, test solutions

For topping up or replacing the reference electrolyte. Packed in 250 ml DURAN® bottles. Redox test solutions available on request.

| Article                                    | Order No.          |
|--------------------------------------------|--------------------|
| 2 mol/l KNO <sub>3</sub> + 0,001 mol/l KCl | <b>61 27 38349</b> |
| ⑨ 3 mol/l KCl                              | <b>61 27 38427</b> |

##### Buffer solutions

Sterilized with hot steam. With individual batch number. No conserving additives.

| Article                       | Order No.          |
|-------------------------------|--------------------|
| pH 4.00 250 ml DURAN® bottle  | <b>61 27 38032</b> |
| pH 7.00 250 ml DURAN® bottle  | <b>61 27 38049</b> |
| pH 10.01 250 ml DURAN® bottle | <b>61 27 38057</b> |

##### Buffer solution set

Calibration set for pH measurements. The set contains 20 ampoules à 20 ml volume (≅ 17 ml content) with pH 4.00, 7.00 and 10.01 (at 25°C).

| Article           | Order No.          |
|-------------------|--------------------|
| Buffer set L 4698 | <b>61 27 38192</b> |

##### Socket cable combinations L1 A und L1BNC

For BlueLine pH electrodes. Acc. to DIN 19262. 1 m long, 3 mm in diameter.

| Article                                  | Order No.          |
|------------------------------------------|--------------------|
| Cable combination L1A: plug head - DIN   | <b>61 27 22653</b> |
| Cable combination L1BNC: plug head - BNC | <b>10 27 12661</b> |

