

C3060 • C3061

pH - mV - Ion - Conductivity - Resistivity - Salinity - TDS - Temperature



|               |                     |
|---------------|---------------------|
| pH:           | -2...+16 pH         |
| mV:           | ±2000 mV            |
| Ion:          | 0.01 ng/l...100 g/l |
| Conductivity: | 0...2000 mS/cm      |
| Resistivity:  | 0...200 MΩ.cm       |
| Salinity:     | 0.0...70.0          |
| TDS:          | 0...100 g/l         |
| Temperature:  | -5...+105°C         |

**Eight independent channels  
for all measurements !  
(conductivity and  
temperature: only 2 channels)**

- pH**  
 Multi-point (1...5) calibration for more linearity.  
 Selectable resolution from 0.001 pH to 0.1 pH.  
 Automatic calibration with any of eleven pre-programmed and five user specified pH buffers. *Create your own buffer/temperature tables!*  
 Accepts pH electrodes with any zero point (E<sub>0</sub>) between ±999 mV.
- mV**  
 Features mV calibration for accurate ORP measurements.  
 Selectable resolution from 0.1 mV to 1 mV.
- Ion**  
 Direct concentration measurement.  
 Multi-point (2...5) calibration and an additional blank correction for measuring low concentrations.
- Conductivity**  
 Multi-point (1...3) calibration for more linearity.  
 An electrode with a typical cell constant of 1 cm<sup>-1</sup> permits to measure from 0.01 μS/cm to 200 mS/cm in five ranges.  
 An electrode with a typical cell constant of 0.1 cm<sup>-1</sup> permits to measure from 0.001 μS/cm to 20 mS/cm in five ranges.  
 An electrode with a typical cell constant of 10 cm<sup>-1</sup> permits to measure from 0.1 μS/cm to 2000 mS/cm in five ranges.  
 Automatically selects correct range and frequency.  
 Selectable reference temperature: 20° or 25°C.  
 Automatic calibration with any of three preprogrammed and three user specified standard solutions. *Create your own standard/temp. tables!*  
 Allows to lock the initial conductivity range to avoid non-linear titration curves.  
 Accurate low conductivity measurements by eliminating the capacitive component of the electrode and its cable (avoid the use of long cables!).
- Temperature**  
 Reads temperatures with 0.1°C resolution.  
 Manual or automatic temperature compensation.  
 Calibrates temperature probe for quality measurements.
- Inputs**  
 Two inputs for pH, mV, Ion or conductivity + corresponding temperature and reference inputs.  
 Six extra inputs for pH, mV or Ion + corresponding reference inputs.  
 Low voltage DC input for e.g. a mains adaptor.
- Outputs**  
**Two versions available:**  
 C3060: with USB communication port (galvanically isolated) and RS232 interface.  
 C3061: with Ethernet communication port and RS232 interface.

● **Display**

A large bright LCD screen with white backlight enables to view all channels individually or simultaneously.

Stability indicator prompts the user when readings should be taken.

Hold function allows to freeze the display for convenient reading or recording.

The interactive LCD screen provides step by step instructions in the language of your choice (English, Dutch, French, German).

Real-time clock displays time and date.

Shows a GLP report on the LCD screen.

● **Data-logging**

Stores up to 12000 values including temperature, time and date.

Allows to mix data from all ranges in the same table.

Download **free data acquisition software** from [www.consort.be](http://www.consort.be) to view, store and edit the measurements in your computer.

● **Cabinet**

Robust dust and splash-proof cabinet.

An optional wall mounting kit allows to fix the meter to any wall making more space available on the desk.

● **Special features**

Two-way communication with a computer using USB, Ethernet or RS232.

Can be programmed to continue automatically with the measurements or data-logging after a power failure.

Password protection prevents any unauthorised modification of the instrument's settings.

No electrical interference between pH/ORP/Ion and conductivity electrodes in the same solution.

Optional 12 V car adaptor.

Three year warranty.

● **GLP**

All procedures for a "Good Laboratory Practice" are on board.

● **Pre-programmed standards**

pH buffers: 1.68, 2.00, 4.00, 4.01, 6.87, 7.00, 9.18, 9.21, 10.01, 12.00, 12.45 (at 25 °C).

Conductivity: 1413 µS/cm, 12.88 mS/cm, 111.8 mS/cm (at 25 °C).



| Specifications     |                           | C3060 - C3061                         |
|--------------------|---------------------------|---------------------------------------|
| pH                 | Range                     | -2...+16 pH                           |
|                    | Resolution                | 0.001 pH                              |
|                    | Accuracy                  | 0.1% ± 1 digit                        |
|                    | Calibration               | 1...5 points                          |
|                    | Buffers                   | 11 pre-programmed<br>5 user specified |
|                    | Temperature compensation  | -5...+105° C                          |
|                    | ISO-pH                    | 6...8 pH                              |
|                    | Slope                     | 80...120%                             |
|                    | Zero point (Eo)           | ±999 mV                               |
|                    | mV                        | Range                                 |
| Resolution         |                           | 0.1 mV                                |
| Accuracy           |                           | 0.1% ± 1 digit                        |
| Calibration        |                           | 1 point                               |
| ION                | Range                     | 0.01 ng/l...100 g/l                   |
|                    | Resolution                | 3 digits                              |
|                    | Accuracy                  | 0.5% ± 1 digit                        |
|                    | Calibration               | 2...5 points + blank                  |
| CONDUCTIVITY       | Range (cc dependent)      | 0...2000 mS/cm                        |
|                    | Resolution (cc dependent) | 0.0001 µS/cm                          |
|                    | Accuracy                  | 0.5% f.s. of range                    |
|                    | Calibration               | 1...3 points                          |
|                    | Standards                 | 3 pre-programmed<br>3 user specified  |
|                    | Cell constant (cc)        | 0.07...13 cm <sup>-1</sup>            |
|                    | Temperature compensation  | -5...+105° C                          |
|                    | Reference temperature     | 20° or 25° C                          |
|                    | Temperature coefficient   | natural waters (EN27888)              |
|                    | Range lock                | ✓                                     |
| RESISTIVITY        | Range                     | 0...200 MΩ.cm                         |
|                    | Resolution                | 1 Ω.cm                                |
| SALINITY           | Range                     | 0.0...70.0                            |
|                    | Reference temperature     | 15° C                                 |
| TDS                | Range                     | 0...100 g/l                           |
|                    | Resolution                | 0.01 mg/l                             |
| TEMPERATURE        | Range                     | -5...+105° C                          |
|                    | Resolution                | 0.1° C                                |
|                    | Accuracy                  | 0.3° C                                |
|                    | Calibration               | 1 point                               |
| CHANNELS           | Measurement               | 8 (conductivity: 2)                   |
|                    | Temperature               | 2                                     |
| INPUTS             | Measurement               | 8 BNC, 10 <sup>12</sup> Ω             |
|                    | Temperature               | 2x2 banana, for Pt1000                |
| CALIBRATION        | Reminder                  | 0...999 h                             |
|                    | GLP                       | ✓                                     |
| DISPLAY            | LCD                       | 240x64 pixels                         |
|                    | White backlight           | ✓                                     |
|                    | Hold function             | ✓                                     |
|                    | Selectable resolution     | ✓                                     |
|                    | Real time clock           | ✓                                     |
| COMMUNICATION      | Interface with computer   | USB or Ethernet                       |
|                    | RS232, baud rate          | 1200...115200 b/s                     |
| DATA-LOGGING       | Data sets                 | 12000 + °C/date/time                  |
|                    | Modes                     | all                                   |
|                    | Manual or timed           | ✓                                     |
|                    | Interval                  | 1...9999 s                            |
| SECURITY           | Identification number     | ✓                                     |
|                    | Password protection       | ✓                                     |
| AMBIENT CONDITIONS | Temperature               | 0...40° C                             |
|                    | Humidity                  | 0...95%, non condensing               |
| POWER SUPPLY       | Mains                     | 100...240 VAC, 50/60 Hz               |
|                    | Low voltage               | 9...15 VDC                            |
| DIMENSIONS         | WxDxH                     | 26x18x9 cm                            |
| WEIGHT             | Meter                     | 1 kg                                  |

| CODE  | DESCRIPTION  |
|---|--|
| C3060   | pH/Ion/conductivity/DO meter (USB version) + USB cable |
| C3061   | pH/Ion/conductivity/DO meter (Ethernet version)        |
| SH300   | Flexible electrode holder (optional)                   |
| A4800   | Wall mounting kit (optional)                           |
| A4049   | Car adaptor, 12 V (optional)                           |
| → Add a \$-sign for US plug versions, e.g.: C3060\$ |  |
| → Add a U-sign for UK plug versions, e.g.: C3060U   |  |

**ZERO POINT (Eo)**

Standard pH meters assume a pH electrode to supply a zero potential at 7 pH. Electrodes for special applications (e.g. stomach pH measurements) may have a different zero point.

An adjustable zero point correction feature will allow users to measure with these electrodes.

You will find ordering codes and descriptions of accessories, electrodes, calibration solutions... on pages 24-29