C3040 • C3041

pH - mV – Ion - Conductivity - Resistivity - Salinity - TDS - Dissolved oxygen - Air pressure - 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
Dissolved oxygen:	0...60 mg/l
	0...600%
Air pressure:	600...1300 hPa
Temperature:	-5...+105°C

*Six independent channels
for all measurements !
(conductivity: 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 (Eo) 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^{-1} 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^{-1} 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^{-1} 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!).

- **Dissolved oxygen**
  Operates with a galvanic dissolved oxygen electrode requiring no polarisation time and no zero calibration.
  Selectable resolution from 0.01 mg/l (0.1%) to 0.1 mg/l (1%).
  Automatic air pressure compensation 600-1300 hPa.

- **Temperature**
  Reads temperatures with 0.1°C resolution.
  Manual or automatic temperature compensation (O$_2$: 0...50°C).
  Calibrates temperature probe for quality measurements.

- **Inputs**
  Two inputs for pH, mV, Ion, dissolved oxygen or conductivity + corresponding temperature and reference inputs.
  Four extra inputs for pH, mV, Ion or dissolved oxygen + corresponding temperature and reference inputs.
  Low voltage DC input for e.g. a mains adaptor.

- **Outputs**
  Two versions available:
  C3040: with USB communication port (galvanically isolated) and RS232 interface.
  C3041: 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*

  Up to 12000 data sets can be stored manually or at a programmable interval.

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

  Download **free data acquisition software** from *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.

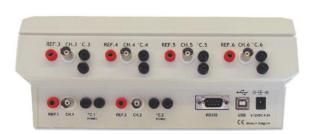 Optional 12 V car adaptor.

  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).

CODE	DESCRIPTION
C3040	pH/Ion/conductivity/DO meter (USB version) + USB cable
C3041	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 $-sign for US plug versions, e.g.: C3040$	
➜ Add a U-sign for UK plug versions, e.g.: C3040U	

Specifications		C3040 - C3041
pH	Range	-2...+16 pH
	Resolution	0.001 pH
	Accuracy	0.1% ± 1 digit
	Calibration	1...5 points
	Buffers	11 pre-programmed 5 user specified
	Temperature compensation	-5...+105°C
	ISO-pH	6...8 pH
	Slope	80...120%
	Zero point (Eo)	±999 mV
mV	Range	±2000 mV
	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)	0.001 µS/cm
	Accuracy	0.5% f.s. of range
	Calibration	1...3 points
	Standards	0.01/0.1/1 M KCl 3 user specified
	Cell constant (cc)	0.07...13 cm^{-1}
	Temperature compensation	-5...+105°C
	Reference temperature	20° or 25°C
	Temperature coefficient	natural waters (EN27888)
	Range lock	✓
	Capacitive compensation	✓
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
DISSOLVED OXYGEN	Range	0...60 mg/l (0...600%)
	Resolution	0.01 mg/l (0.1%)
	Accuracy	1% ± 1 digit
	Calibration	1 point
	Temperature compensation	0...50°C
	Salinity compensation	0...40
	Air pressure compensation	600...1300 hPa
TEMPERATURE	Range	-5...+105°C
	Resolution	0.1°C
	Accuracy	0.1°C
	Calibration	1 point
AIR PRESSURE	Range	600...1300 hPa
	Calibration	1 point
CHANNELS	Measurement	6 (conductivity: 2)
	Temperature	6
INPUTS	Measurement	6 BNC, 10^{12} Ω
	Temperature	6x2 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

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