

CA 10101E & CA 10141E

The new generation of laboratory
measuring instruments



Chauvin Arnoux accompanies you from measurement through to analysis

- Compatible with Regressi, Graph2D and CAEx interfaces
- Saves space on the workstation
- USB output and analogue outputs
- Supplied with Data Logger Transfer software
- Storage of 100,000 time/date-stamped results

The new Chauvin Arnoux instruments for laboratories

Developed in collaboration with our partners, **Chauvin Arnoux's** Electrochemistry range is welcoming a new generation of instruments for laboratory use.

The **CA 10101E pH meter** can be used to measure the pH, the oxydo-reduction potential (ORP) and the temperature.

The **CA 10141E conductivity meter** can be used to measure the conductivity (EC) and temperature. It can also be used to determine the level of Total Dissolved Solids (TDS), resistivity and salinity.

Ergonomic and compact, these instruments are practical to handle and help to save bench space in the laboratory.

Modern and rugged

Their design ensures solidity and optimum protection thanks to the shockproof sheath.

µ-USB output for

- Easy data transfer onto a computer
- Connection of the instruments to Regressi and Graph2D*
- Configuration of the instruments via Data Logger Transfer
- Access to the internal files on the instruments (calibration sets, etc.)



CA 10101E & CA 10141E terminal strip



Analogue outputs

For compatibility with CAEx interfaces

Large internal memory

- more than 200 hours of recordings
- 100,000 time/date-stamped measurements accessible via the Data Logger Transfer software**

Intuitive use

The **CA 10101E** and **CA 10141E** have been designed so that the user can follow a simplified calibration process. With just a few clicks, you can choose a set of pre-recorded calibration solutions. If the values proposed do not suit your application, you can customize them by accessing the instrument's internal file.

The instruments also allow you to compensate the temperature **automatically** (ATC mode) or **manually** (MTC mode).

Their large, multi-display, backlit LCD screen ensures that the values measured are easy to read in any lighting conditions.

- ✓ *Battery charge and power supply indicator (via USB port).*
- ✓ *Signal stability indicator for valid measurement result readings.*
- ✓ *Simultaneous display of the value of the parameter measured, the temperature of the sample and the time of measurement.*
- ✓ *Reminder of the temperature compensation mode chosen (ATC or MTC).*
- ✓ **CA 10101E** : *electrode status indicator.*
- ✓ **CA 10141E** : *indicator of the temperature correction and reference temperature chosen.*

These new-generation instruments are particularly suitable for laboratory work **in education and research, the agri-food sector, the environment, agriculture and the chemical industry.**



The portable format of the **CA 10101E** and **10141E** is ideal for fixed and mobile measurements.



* Same protocol as the Chauvin-Arnoux P310 and C320 instruments for Regressi and the MPC350 for Graph2D

** Our instruments can be used with the Data Logger Transfer software, developed by Chauvin Arnoux. With this Windows-compatible software, you can recover the measurements recorded (samples and calibrations), configure the instruments and parameterize recordings. It can be downloaded free of charge from our website at www.chauvin-arnoux.com

TECHNICAL SPECIFICATIONS

CA 10101E		
Measurement Ranges	pH	-2.00 to 16.00 pH
	Redox	±199.9 mV -1999 to -200 mV +200 to +1999 mV
	Temperature	-10.0 to +120.0 °C / 14.0 to 248.0 °F
Resolution (R)	pH	0.01 pH
	Redox	0.1 mV 1 mV
	Temperature	0.1 °C / 0.1 °F
Intrinsic uncertainty	pH	± 0.02 pH
	Redox	± 0.2 mV ± 2 mV
	Temperature	± 0.4 °C / ± 0.7 °F
Calibration	pH	Automatic, up to 3 points, 3 groups of predefined reference solutions modifiable by the user
	Redox	Automatic, 1 point, two predefined reference solution values modifiable by the user
Temperature compensation	Automatic (ATC) or Manual (MTC), -10°C to +120 °C / 14 to 248 °F	
Data storage	Date and time	Yes
	Memory	> 100,000 measurements
Connectors	Sensor input	BNC (pH and redox electrode) 2mm banana (reference electrode) Jack (Pt1000 temperature probe)
	Communication interface	Type-B micro-USB (also used for power supply) Analogue output (2 x 4mm banana)
Power supply / Battery life	4 x 1.5 V AA or LR6 alkaline batteries (supplied) Battery life: approx. 200 hours Mains adapter (supplied) Auto-power-off after 3, 10 or 15 min without activity (adjustable)	
Environmental conditions	Storage range (without batteries)	-20 to +70 °C
	Operating range	-10 to +55 °C
Dimensions (with sheath)	211 x 127 x 54 mm	
Weight (with batteries)	600 g	
Warranty	3 years	

CA 10141E		
Conductivity	Measurement range	0.050 µS/cm to 200.0 mS/cm
	Resolution (R)	1 nS/cm to 100 µS/cm (depending on range)
	Intrinsic uncertainty	± 1% of reading ± R
TDS	Measurement range	0.001 mg/l to 200.0 g/l
	Resolution (R)	1 µg/l to 100 mg/l (depending on range)
	Intrinsic uncertainty	± 1% of reading ± R
Resistivity	Measurement range	2 Ω.cm to 4999 kΩ.cm
	Resolution (R)	1 mΩ.cm to 1 kΩ.cm (depending on range)
	Intrinsic uncertainty	± 1% of reading ± R
Salinity	pH	2.0 to 42.0 psu
	Redox	0.1 psu
	Intrinsic uncertainty	± 0.5% of reading ± R
Temperature	Measurement range	-10 to 120°C / 14 to 248°F
	Resolution (R)	0.1 °C / 0.1 °F
	Intrinsic uncertainty	± 0.4 °C / ± 0.7 °F
	Available reference temperature	20/25 °C (68/77°F)
Calibration	1 point, 6 predefined conductivity references modifiable by the user	
Temperature compensation	Automatic (ATC) or Manual (MTC), -10 to +120 °C / +14 to +248°F	
Temperature correction	Linear, non-linear, no correction	
Data storage	Date and time	Yes
	Memory	> 100,000 measurements
Connectors	Sensor input	BNC (conductivity cell) JACK (Pt1000 temperature probe)
	Communication interface	Type-B micro-USB (also used for power supply) 2 analogue outputs for conductivity/TDS/salinity/resistivity and temperature (3 x 4mm banana)
Environment	Storage range (without batteries)	-20 to +70 °C
	Operating range	-10 to +55 °C
Dimensions (with sheath)	211 x 127 x 54 mm	
Weight (with batteries)	600 g	
Warranty	3 years	

Thanks to their standard connection technology, you can choose the electrodes and measuring probes to match your needs. See the selection from **Chauvin Arnoux** at www.chauvin-arnoux.com and on page 4 of this document.

Standard state at delivery

An instrument from the new generation of Chauvin Arnoux Electrochemistry products, delivered with 4 x AA or LR6 alkaline batteries, 1 USB- μ USB cable, 1 mains adapter, a quick start guide and a verification certificate (full User's Manual available from **Chauvin Arnoux's** website).

To order

CA1010IE pH-meter.....P01710011

Recommended accessories and optional replacement parts for the CA 1010IE:

BRV1H pH combination electrode with glass body.....	BRV1H-BNC
XRV1H pH combination electrode with PVC body.....	XRV1H-BNC
XV41 pH electrode with PVC body.....	XV41-BNC
Redox combination electrode with glass body.....	BRPT1-BNC
Redox combination electrode with PVC body.....	XRPT1-BNC
Redox electrode with glass body.....	BPT1-BNC
Redox electrode with PVC body.....	XPT1-BNC
Argentometry combination electrode with glass body.....	BRAG1-BNC
Argentometry electrode with PVC body.....	XAG1-BNC
Ag/AgCl reference electrode with glass body.....	BR41-BA2
Ag/AgCl reference electrode with PVC body.....	XR41-BA2
Hg ₂ C ₁₂ /Hg reference electrode with glass body.....	BR42-BA2
Hg ₂ Cl ₂ /Hg reference electrode with PVC body.....	XR42-BA2
Hg ₂ SO ₄ /Hg reference electrode with glass body.....	BR43-BA2
Hg ₂ SO ₄ /Hg reference electrode with PVC body.....	XR43-BA2

SOLUTIONS

pH 4.01 buffer solution (NIST)*, 125 mL.....	P01700106
pH 7.00 buffer solution (NIST)*, 125 mL.....	P01700107
pH 9.18 buffer solution (NIST)*, 125 mL.....	P01700108
pH 4.005 buffer solution (MRC COFRAC)**, 25ml (x10).....	P01700101
pH 6.865 buffer solution (MRC COFRAC)**, 25ml (x10).....	P01700102
pH 9.180 buffer solution (MRC COFRAC)**, 25ml (x10).....	P01700103
220 mV ORP buffer solution, 125 mL.....	P01700114
468 mV ORP buffer solution, 125 mL.....	P01700115
USB- μ USB cable and mains adapter.....	P01651023

CA 1014IE conductivity meter.....P01710021

Recommended accessories and optional replacement parts for the CA 1014IE:

BCP4 glass/platinum conductivity cell.....	BCP4-BNC
XCP4 PVC/platinum conductivity cell.....	XCP4-BNC
BT6 temperature probe.....	P01710070
147 μ S/cm conductivity reference solution, 125 mL*.....	P01700117
1048 μ S/cm conductivity reference solution, 125 mL*.....	P01700118
12.85 mS/cm conductivity reference solution, 125 mL*.....	P01700119
Concentrated KCl 1 mol/L conductivity reference solution.....	P01700116

Common accessories

BT6 temperature probe.....	P01710070
Set of 3 beakers.....	P01710056
Shockproof sheath.....	P01710050
USB- μ USB cable and mains adapter.....	P01651023

*Delivered with a quality certificate guaranteeing traceability to the NIST reference materials

** Delivered with a COFRAC certificate

