

Electrodes Range

Range suitable for every requirement

Reliability

Accuracy

General purpose electrodes

- pH electrodes
- Redox electrodes
- Reference electrodes
- Conductivity cells
- Temperature sensors

Specific electrodes and cells for Chauvin Arnoux instruments

Standard reference solutions,
cleaning solutions, cables and
accessories



General-purpose electrodes – pH electrodes

Combination pH electrodes are particularly rugged and reliable. They are intended for all laboratories: control and quality, production, R&D or educational. They are ideal for routine measurements and offer an excellent response time. Pointed electrodes are recommended for semi-solid and solid samples and are perfectly suited to the agri-food sector. Micro pH electrodes have also been designed for small-sized recipients or systems involving a small volume of the sample (haemolysis tube, NMR, electrophoresis plate, column output, etc.).

They are ideal for the pharmaceutical, medical and industrial research sectors. These electrodes are compatible with most Chauvin Arnoux instruments.

Combination electrodes



Electrode	BRV1A BRV1H	XRV1H	BRV22H	XRV22H	LRV6H	LRV7	BRV4A BRV4H	
pH range	0-14 0-12	0-12	0-12		0-12	0 - 14	0-14 0-12	
Shape of glass electrode	Spherical		Pointed	With reinforced point	With reinforced point	Pointed	Micro	
Electrode body	Glass	PVC	Glass	PVC	Polypropylene	PVC	Glass	
Reference system	Ag/AgCl							
Reference electrolyte	KCl 1 mol/L				Polymer		KCl 1 mol/L	
Junction	Ceramic			Fabric	None	Ceramic and open	Ceramic	
Temperature sensor	No		No	No				
Operating temperature	0 to 80°C	0 to 60°C	0 to 80°C	0 to 60°C			0 to 80°C	
Ø and length under cover	12 x 120		6.5 (end) x 120	12 x 120	12 (end) x 130	6 (end) x 123	6.5 (end) x 120	
Cable length	1 m							
References	BNC connections	BRV1A-BNC BRV1H-BNC	XRV1H-BNC	BRV22H-BNC	XRV22H-BNC	LRV6H-BNC	P01715019	BRV4A-BNC BRV4H-BNC
	S7 connections (screw-on)	BRV1A-S7 BRV1H-S7	XRV1H-S7	BRV22H-S7	-	-	-	BRV4A-S7 BRV4H-S7-130 BRV4H-S7
	DIN connections	BRV1H-DIN	XRV1H-DIN	-	-	-	-	-
	Waterproof 8-pin DIN connections	-	-	-	-	-	P01715020	-
	TV connections	BRV1H-TV	XRV1H-TV	-	-	-	-	-
Recommended applications	General use	General use Protected electrodes	Penetration in foodstuffs Fruit, cream, cheese, pasta		Cheeses and semi-solid products		Min. volume 0.5 mL in haemolysis tube	



Combination pH electrodes

Separate electrodes

Measuring electrodes

Reference electrodes



Electrode	DRV2A DRV2H	BV41H	XV41	BR41	BR42	XR41	XR42
pH range	0-14 0-12		0-12	0-14			
Shape of glass electrode	Spherical			-			
Electrode body	PVC and plexiglas	Glass	PVC	Glass		PVC	
Reference system	Ag/AgCl	-		Ag/AgCl	Calomel	Ag/AgCl	Calomel
Reference electrolyte	KCl 1mol/L	-		KCl 1 mol/L	KCl 3 mol/L	KCl 1 mol/L	KCl 3 mol/L
Junction	Mechanical bridge	-		Ceramic			
Temperature sensor	No						
Operating temperature	0 to 60°C	0 to 80°C	0 to 60°C	0 to 80°C		0 to 60°C	
Ø and length under cover	25 x 95	12 x 110	12 x 120	12 x 115	12 x 115	8 (end) x 110	
Cable length	1 m						
BNC connections	DRV2A DRV2H	BV41H-BNC	XV41-BNC	-	-	-	-
S7 connections (screw-on)	-	BV41H-S7	XV41-S7	BR41-S7	BR42-S7	XR41-S7	XR42-S7
DIN connections	-	-	-	-	-	-	-
TV connections	-	-	-	-	-	-	-
2 mm banana connections	-	-	-	BR41-BA2	BR42-BA2	XR41-BA2	XR42-BA2
4 mm banana connections	-	-	-	BR41-BA4	BR42-BA4	XR41-BA4	XR42-BA4
Recommended applications	Removable drainage bridge for clogging products (paint, emulsion, cream)	General use Can be used with a BR41, BR42, XR41 or XR42 reference electrode		General use Can be used with a BV41A, BV41H or XV41H measuring electrode			

References

Measurement of redox potential

The redox potential is a measurement in millivolts (mV) which serves to qualify an aqueous solution and classify it as oxidizing or reducing.

This measurement can be performed with a pH-meter measuring mV and a metal electrode dedicated to redox potential measurements.

A redox potential probe comprises a reference electrode consisting of a silver wire and a measuring electrode consisting of a platinum or gold wire. The value of the potential measured E depends on the concentration of ions, the pressure of the gases present and, if relevant, the pH when the H^+ ions are involved in a pair.

Redox combination electrodes

Simple Redox electrodes

Measuring electrodes

Reference electrodes



Electrode	BRPT1	XRPT1	BPT1	XPT1	XPT2	BR41	BR42	XR41	XR42
Range	+/- 2.000 mV								
Electrode body	Glass	PVC	Glass	PVC	PVC	Glass	Glass	PVC	PVC
Metal	Platinum wire				Platinum rod	-			
Reference system	Ag/AgCl		-			Ag/AgCl	Calomel	Ag/AgCl	Calomel
Reference electrolyte	KCl 1 mol/L		-			KCl 1 mol/L	KCl 3 mol/L	KCl 1 mol/L	KCl 3 mol/L
Junction	Ceramic		-			Ceramic			
Temperature sensor	No								
Operating temperature	0 to 80°C	0 to 60°C	0 to 80°C	0 to 60°C		0 to 80°C		0 to 60°C	
Ø and length under cover	12 x 115	12 x 120	8 x 115	12 x 120	12 x 120	12 x 115	12 x 115	8 (end) x 110	
Cable length	1 m								
BNC connections	BRPT1-BNC	XRPT1-BNC	BPT1-BNC	XPT1-BNC	XPT2-BNC	-	-	-	-
S7 connections	BRPT1-S7	XRPT1-S7	BPT1-S7	XPT1-S7	XPT2-S7	BR41-S7	BR42-S7	XR41-S7	XR42-S7
(screw-on)	-	-	-	-	-	-	-	-	-
DIN connections	-	-	-	-	-	-	-	-	-
TV connections	-	-	-	-	-	BR41-BA2	BR42-BA2	XR41-BA2	XR42-BA2
2 mm banana connections	-	-	-	XPT1-BA4	XPT2-BA4	BR41-BA4	BR42-BA4	XR41-BA4	XR42-BA4
Recommended applications	General use	General use Protected probe	General use Can be used with a BR41, BR42, XR41 or XR42 reference electrode			General use Can be used with a BPT1, XPT1 or XPT2 measuring electrode			



Combination electrode	Electrodes for argentometry					
	Measuring electrodes			Reference electrodes		



Electrode	BRAG1	BAG1	XAG1	BR43	XR43	BR44
Range	+/- 2.000 mV					
Electrode body	Glass		PVC	Glass	PVC	Glass
Metal	Silver rod			-		
Reference system	Mercurous sulphate	-		Mercurous sulphate	Mercurous sulphate	Ag/AgCl
Reference electrolyte	Saturated K ₂ SO ₄	-		Saturated K ₂ SO ₄	Saturated K ₂ SO ₄	KCl 1 mol/L KNO ₃ 1 mol/L
Junction	Ceramic	-		Ceramic		
Temperature sensor	No					
Operating temperature	0 to 80°C		0 to 60°C	0 to 80°C	0 to 60°C	0 to 80°C
Ø and length under cover	12 x 125		12 x 120	12 x 115	8 (end) x 110	12 x 120
Cable length	1 m					
BNC connections	BRAG1-BNC	BAG1-BNC	XAG1-BNC	-	-	-
S7 connections (screw-on)	BRAG1-S7	BAG1-S7	XAG1-S7	BR43-S7	XR43-S7	BR44-S7
DIN connections	-	-	-	-	-	-
TV connections	-	-	-	-	-	-
2 mm banana connections	-	-	-	BR43-BA2	XR43-BA2	BR44-BA2
4 mm banana connections	-	-	XAG1-BA4	BR43-BA4	XR43-BA4	BR44-BA4
Recommended applications	For argentometric measurements	For argentometric measurements in combination with the reference electrode		Reference electrodes for argentometry		Double junction for clogging products

References

Conductivity cells & temperature sensors

Electrical conductivity is the ability of a solution, metal or gas to allow an electric current to flow. In a solution, it is the anions (negative charge) and cations (positive charge) which transport the current, whereas in a metal, this is done by the electrons. Conductivity is measured by applying an alternating current to a measuring cell. This cell comprises a glass body supporting two to four platinum plates (also called poles) immersed in a solution.

Like pH, conductivity measurements are highly temperature-dependent. When a sample's temperature rises, its viscosity diminishes, leading to an increase in the mobility of the ions present and a rise in the conductivity. For correct conductivity measurements, a separate temperature sensor or a conductivity cell with a built-in temperature sensor must be used.

Conductivity cells

Temperature sensors



Probe	XCPST4	BCP4	XCP4	BT5	BT6
Range	0.1 μ S to 200 mS			0°C to +90°C	-10°C to +110°C
Probe body	PVC	Glass	PVC	Polypropylene	Stainless steel
Type of cell	2 platinum poles			-	-
Cell constant (cm ⁻¹)	1			-	-
Temperature sensor	Yes Pt100	No		Yes Pt100	Yes Pt100
Operating temperature	0 to 60°C	0 to 80°C	0 to 60°C	0 to 90°C	-10°C to 110°C
Ø and length under cover	12 x 115	11 (end) x 100	12 x 115	6 (end) x 116	5 x 97
Cable length	1 m				
5-pole connections	XCPST4	-	-	-	-
BNC connections	-	BCP4-BNC	XCP4-BNC	-	-
S7 connections (screw-on)	-	BCP4-S7	XCP4-S7	-	-
DIN connections	-	-	-	-	-
TV connections	-	-	XCP4-BA4	-	-
2 mm banana connections	-	-	-	BT5- JACK	P01710070 (JACK)
4 mm banana connections	-	-	XCP4-RAD	BT5-DIN	-
Recommended applications	General use				

References

Specific electrodes and cells for Chauvin Arnoux instruments

The CA 10101 pH-meter and the CA 10141 conductivity meter are portable measuring instruments specially designed by Chauvin-Arnoux for mobile applications: in the field, in the laboratory or in the production workshop. To facilitate work in the field, these instruments are supplied with combination electrodes which include a temperature sensor.

Waterproof 8-pin DIN connections

CA 10101 pH-meter



Electrode	XRGST1 P01710051	XRPTST1 P01710052	LRV7 P01715020
Measurement range	1-12	± 1,999 mV	0-14
Shape of glass electrode	Spherical		Pointed
Reference system	Ag/AgCl	Ag/AgCl	Ag/AgCl
Reference electrolyte	Gel	Gel	Polymer
Junction	Ceramic and non-woven fabric	Ceramic	Ceramic and open
Temperature sensor	Yes Pt1000	Yes Pt1000	No**
Temperature measurement range	0 to 60°C	0 to 60°C	0 to 60°C
Dimensions	150 x Ø 16 mm	190 x Ø 18 mm	132 x Ø 16 mm
Electrode body	122 x Ø 12 mm, polycarbonate	120 x Ø 12 mm, polycarbonate	PVC
Cable length	1 m*	1 m	1 m

* XRGST1 with 3-metre cable (P01710057)

** Possibility of using LRV7 equipped with S7 connections (P01715019) BT6 Jack temperature sensor (P01710070) by means of a male-S7 DIN /Jack adapter (P01295502)

CA 10101 waterproof portable pH-meter for pH/Redox/Temperature measurements



Multi-purpose

- Environment
- Treatment of waste water
- Agri-food
- Agriculture
- Education

For water quality inspections

- Industry
- Agriculture
- Swimming pools
- Environment
- Education



CA 10141 waterproof portable conductivity meter for measuring Conductivity/TDS/Salinity/Resistivity/Temperature

Conductivity meter CA 10141

Electrode	XCP4ST1 P01710053
Range	0.1 µS/cm – 500 mS/cm
Type of cell	4 graphite poles
Cell constant (cm-1)	0.55 ± 0.05 cm-1
Temperature sensor	Yes Pt1000
Operating temperature	0 to 100°C
Dimensions	190 x Ø 18 mm
Cell body	120 x Ø 12 mm, epoxy
Cable length	1 m

Buffer and cleaning solutions



MANUMESURE, a Chauvin Arnoux Group company, proposes a comprehensive range of calibration solutions for pH, redox potential and conductivity. With the aim of more closely meeting your needs, the range includes certified reference standards traceable to SI units which comply with the NIST (National Institute of Standards and Technology, USA) and DIN 19266 specifications. Manumesure also proposes three pH buffer solutions with use-by date, uncertainty and SI traceability recognized by COFRAC. The property value is directly traceable to the primary pH reference standards produced by the French LNE laboratory. The company has also developed cleaning solutions for pH and ORP electrodes. Regular maintenance includes storage between measurements in a suitable electrolyte solution, correct handling and appropriate cleaning for the type of contamination.



Reference standard solutions

Tampons pH NIST (125 ml vial)	
NIST buffer pH 1.68	P01700105
NIST buffer pH 4.01	P01700106
NIST buffer pH 7.00	P01700107
NIST buffer pH 9.18	P01700108
NIST buffer pH 10.01	P01700109
COFRAC-certified pH buffers (25 ml vials)	
COFRAC-cert. pH buffers pH 4.005 (x10)	P01700101
COFRAC-cert. pH buffers pH 6.965 (x10)	P01700102
COFRAC-cert. pH buffers pH 9.180 (x10)	P01700103
Set of 3x5 COFRAC-cert. pH 4, 7 and 9	P01700104
Concentrated pH buffers (125 ml vial)	
Concentrated buffer pH 4	P01700111
Concentrated buffer pH 7	P01700112
Concentrated buffer pH 9	P01700113
Redox buffers (125 ml vial)	
146 mV Michaelis solution	P01700110
220 mV Redox buffer	P01700114
468 mV Redox buffer	P01700115
Conductivity reference standards (125 ml vial)	
147 µS/cm conductivity reference standard	P01700117
1408 µS/cm conductivity reference standard	P01700118
12,85 mS/cm conductivity reference standard	P01700119
KCl 1 mol/L conductivity reference standard	P01700116

Cleaning solutions

Solutions pour sondes pH/redox	KCl 1 mol/L	KCl 3 mol/L	Pepsin/HCl solution containing 1% Pepsin
Type	Filling and storage solution		Solution for cleaning contamination by protein
Use	Ready-to-use codigoutte solution		Ready-to-use solution
Conditioning	30 mL vial		125 mL vial
Reference	P01700120	P01700121	P01700122

Cables and accessories

A large choice of connection technologies	
	BNC type Ref-BNC
	Screw-on S7 type Ref-S7
	DIN type Ref-DIN
	TV type Ref-TV
	2 mm banana type Ref-BA2
	4 mm banana type Ref-BA4
	Jack type Ref-JACK
	5-pole DIN type
For other connection technologies and mechanical accessories: please contact us	

Other accessories:

PVC extension for electrode: HEALLPVC – Support for 3 electrodes: PELECT – Closing tab for fillable electrode: P01710057 – Set of 3 plastic beakers: P01710056

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