

PH ELECTRODES

PORTABLE INSTRUMENTS

SOFTWARE

ACCESSORIES

ALARM / PROTECTION, LEVEL



FOR DEVICES WITH CINCH CONNECTION THE ADAPTER GAD 1 BNC IS NEEDED!
GAD 1 BNC
Item No. 601382



STERILIZABLE

	GE 100	GE 101	GE 104	GE 108	GE 114	GE 117	GE 120	GE 125	GE 126	GE 151	GE 171	GE 173
Measuring range	0..14 pH 0..80 °C	2..11 pH 0..60 °C	0..14 pH 0..80 °C	0..14 pH 0..80 °C	0..14 pH 0..60 °C	0..14 pH 0..80 °C	0..14 pH 0..60 °C	0..14 pH 0..70 °C	0..14 pH 0..+80 °C	0..14 pH 0..80 °C	0..14 pH 0..140 °C	0..14 pH 0..80 °C
Conductivity	> 100 µS/cm	> 100 µS/cm	> 20 µS/cm	> 100 µS/cm	> 200 µS/cm	> 100 µS/cm	> 200 µS/cm	> 200 µS/cm	> 100 µS/cm	> 100 µS/cm	> 100 µS/cm	> 50 µS/cm
Temperature measurement	No	No	No	No	No	integr. Pt1000 4 mm banana	No	integr. Pt1000 4 mm banana	No	No	No	No
Waterproof	No	No	No	No	optional	No	No	Yes	No	No	No	No
Pressure resistant	No	No	No	6 bar	No	6 bar	No	1 bar	5,5 bar	No	10 bar	6 bar
Cable	1 m ¹⁾	1 m ¹⁾	1 m ¹⁾	2 m ¹⁾	1 m	2 m ²⁾	1 m	2 m	5 m	1 m ¹⁾	without	1 m ¹⁾
Electrolyte	3 mol/l KCl	3 mol/l KCl	3 mol/l KCl	Gel electrolyte	Gel electrolyte	Gel electrolyte	Gel electrolyte	Gel electrolyte	Gel electrolyte	3 mol/l KCl	Gel electrolyte	Gel electrolyte
Diaphragm	2 x ceramics	2 x ceramics	variable grinding	2 x ceramics	1 x Pellon	2 x ceramics	2 x ceramics	1 x ceramic	2 x ceramics	1 x ceramic	2 x ceramics	joint
Thread	without	without	without	PG 13.5	without	PG 13.5	without	without	1/2" NPT	without	PG 13.5	PG 13.5
Electrode shaft	Tyrl, Ø 12 mm x 120 mm	Glass, Ø 12 or 6 x 120 mm	Glass, Ø 12 mm x 120 mm	PSU, Ø 12 mm x 120 mm	Epoxy, Ø 12 mm x 120 mm	PSU, Ø 12 mm x 120 mm	PVC, Ø 22 mm x 110 mm	Epoxy, Ø 12 mm x 120 mm	ABS, Ø 26,4 mm x 147 mm	Glass, Ø 12 mm x 120 mm	Glass, Ø 12 mm x 120 mm	Glass, Ø 12 mm x 120 mm
Particularities	Universal electrode	Tip Ø 6 mm, small sample volume	for low-ion media	low maintenance	Low cost low maintenance	temperature compensated	Insertion electrode, blade Ø 13 mm x 60 mm	submersible, water-proof IP67 (also BNC connector)	extreme low maintenance	chemical-resistant glass shaft	for extreme conditions, sterilizable, autoclavable	for process chemistry, biochemistry, alkali-resistant

PRICE PER CONNECTION:

BNC	GE 100	GE 101	GE 104	GE 108	GE 114	GE 117	GE 120	GE 125	GE 126	GE 151	GE 171	GE 173
Item No.	600704	600693	602063	600713	604701	600730	600698	600731	610987	600727	-	600735
S7 *)	-	-	-	-	-	-	-	-	-	-	-	-
Item No.	-	-	-	606089	-	-	-	-	-	-	606375	606572

*) Note: For the S7 connection, the GEAK-2S7-BNC or GEAK-5S7-BNC cable is required, for devices with a cinch connection the GAD 1 BNC adapter is also required. Electrodes are consumables. Service life with careful handling: > 2 years / guarantee: 12 months

OPTIONS:

Longer cables for ¹⁾²⁾
(available cable lengths up to 5 m)
Special designs
(Electrode with thread, special lengths, special applications, etc.)

ACCESSORIES AND SPARE PARTS:

Cable BNCM / BNCF
Item No. 606158
Extension cable for electrodes with BNC connection, cable length: 3 m



DIAPHRAGM:

The membrane establishes the electrical connection between the reference system and the sample. At the same time, it should prevent the medium to be measured from contaminating the reference electrolyte.

Ceramic membrane
Porous ceramic rods are inserted to allow low outflow rates.
Application: general applications in clean to slightly dirty media

Joint / movable cut
The roughened surface between the cut glass of the electrode and the glass sleeve enables an electrolyte flow of several ml/h.
Application: low-ion and heavily soiled samples

Pellon membrane
A Pellon tissue is inserted.
The permeable membrane enables fast response times and stable measured values.
Application: in clean to slightly soiled media



REFERENCE ELECTROLYTE:

The reference electrolyte enables a constant voltage in the reference system and establishes the electrical connection between the membrane and the reference electrode.

Liquid electrolyte
3 mol/l KCl is mainly used here. Liquid electrolytes usually enable a faster response time and can be replaced if they are dirty.

Gel electrolyte
This is where the electrolyte is solidified in order to reach low-maintenance electrodes that allow a short-term measurement regardless of the position. No noticeable leakage of electrolyte can be observed under normal measuring conditions.

ELECTRODES WITH S7 CONNECTION:

The electrodes offered are equipped with an S7 industrial screw plug head, which is also known as the S8 industrial screw plug head. In contrast to the S7 laboratory plug head, this is suitable for direct installation in fittings with PG 13.5 thread.

AREAS OF APPLICATION ELECTRODES

APPLICATION	GE100	GE101	GE104	GE108	GE114	GE117	GE120	GE125	GE126	GE151	GE171	GE173	GR105	GR175
Sewage									•			•		
Aquarium water	•		•	•	•	•			•	•			•	•
Soil testing		•												
Emulsions		•	•											
Field measurements				•	•	•		•					•	
Fish farming	•		•	•	•	•		•	•	•			•	•
Galvanic baths												•		•
Beverages								•		•		•	•	•
Low-ion media			•									•		
Cosmetics			•											
Food samples		•					•							
Sea water	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Online measurement											•	•		•
Process chemistry										•	•	•		•
Swimming pool water	•			•	•	•		•	•			•	•	•
Suspensions		•	•											•
Drinking water	•		•	•	•	•		•	•			•	•	•
Water-based lacquers			•									•		

Note: The information provided is a general recommendation. It must be checked which electrodes are suitable for the respective area of application.

REDOX ELECTRODES



GR 105-BNC
Item No. 607798
Redox electrode with BNC connection



GR 175-BNC
Item No. 607801
Redox electrode, pressure-resistant, BNC connector

GR 175-S7
Item No. 607802
Redox electrode, pressure-resistant, S7 plug head, without connection cable¹⁾

TECHNICAL SPECIFICATIONS:	GR 105	GR 175
Measured variable:	Redox	
Measuring range:	± 2000 mV, 0.80 °C	
Conductivity:	> 100 µS/cm	
Temperature measurement:	No	
Waterproof:	No	
Pressure resistant:	No	6 bar
Cable:	1 m ¹⁾	without / 1 m
Electrolyte:	3 mol/l KCL	Gel electrolyte
Diaphragm:	2 x ceramics	1 x ceramic
Metal electrode:	Platinum dome Ø 5 mm	
Thread:	without	PG 13.5
Electrode shaft:	Tyrl, Ø 12 mm x 120 mm	Glass, Ø 12 mm x 120 mm
Min. immersion depth:	15 mm	
Scope of delivery:	Redox electrode, operating instructions	

OPTIONS:

Longer cables for ¹⁾²⁾
(available cable lengths up to 5 m)

EQUIPMENT:

GRP 100
Item No. 601424
Redox test solution 220 mV, 100 ml



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