

Metrosensor electrodes



Precision is not accidental, but brought about by design!

Electrodes for Karl Fischer titration

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Double Pt-wire electrodes

Indicator electrode for volumetric KF determination

- For «Ipol» and «Upol» mode titrations
- Thanks to its two fused platinum rings, is more robust and easier to clean than the conventional platinum pin electrode (6.0338.100)

Technical specifications

Measuring range	-2000...2000 mV
Temperature range	-20...70 °C
Installation length	96 mm
Shaft diameter	8 mm
Shaft diameter bottom	3 mm
Minimum immersion depth	7 mm
Electrode plug-in head	Metrohm plug-in head G

Indicator electrode for coulometric KF determination

- With standard ground-joint 14/15

Technical specifications

Measuring range	-2000...2000 mV
Temperature range	-20...70 °C
Installation length	101 mm
Shaft diameter	12 mm
Shaft diameter bottom	8.75 mm
Minimum immersion depth	10 mm
Electrode plug-in head	Metrohm plug-in head G

Indicator electrode for KF sample changers

- Fixed cable (length 2 m with plug F)

Technical specifications

Measuring range	-2000...2000 mV
Temperature range	-20...70 °C
Installation length	103 mm
Shaft diameter	5.3 mm
Minimum immersion depth	10 mm

Generator electrodes

Generator electrode with diaphragm

- Standard ground-joint 29/22 and Metrohm plug-in head G
- Requires cable 6.2104.120 for connection with KF Coulometers

Technical specifications

Temperature range	-20...70 °C
Installation length	108 mm
Shaft diameter	24 mm
Minimum immersion depth	15 mm

Generator electrode without diaphragm

- Standard ground-joint 29/22 and Metrohm plug-in head G
- Requires cable 6.2104.120 for connection with KF Coulometers

Technical specifications

Temperature range	-20...70 °C
Installation length	108 mm
Shaft diameter	24 mm
Minimum immersion depth	15 mm

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Ordering information

Indicator electrode for KF volumetry (double Pt ring), without cable	6.00346.100
Indicator electrode for KF volumetry (double Pt wire), without cable	6.0338.100
Indicator electrode for KF coulometry, without cable	6.0341.100
Indicator electrode for KF Sample Changers, fixed cable (2 m), plug F	6.0340.000
Generator electrode with diaphragm, without cable	6.0344.100
Generator electrode without diaphragm, without cable	6.0345.100

Electrical connections

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Connection of pH electrodes, ion-selective electrodes (ISE) and metal electrodes on Metrohm instruments

Electrode plug-in head	Cable	Order number	Measuring device
Plug-in head G	Plug-in head G – plug F, 1 m	6.2104.020	For pH/ISE and Ind measuring inputs, Titrinos and Titrandos, pH-/ion meter from 691
	Plug-in head G – plug F, 2 m	6.2104.030	
	Plug-in head G – plug F, 3 m	6.2104.040	
	Plug-in head G – plug E (DIN 19262), 1 m	6.2104.050	For Metrohm pH Meter < 691
	Plug-in head G – plug E (DIN 19262), 2 m	6.2104.060	
	Plug-in head G – plug E (DIN 19262), 3 m	6.2104.070	
	Electrode cables for generator electrodes 6.0342.110, 6.0344.100 and 6.0345.100	6.2104.120	
pH electrodes with fixed cable, plug B (2 mm)	Adapter plug B (2 mm)/4 mm	6.2103.150	Titrinos (Pt1000 only) pH Meter ≤ 744 (Pt1000 only)
	Adapter plug B (4 mm)/2 mm (red) Adapter plug B (4 mm)/2 mm (black)	6.2103.130 6.2103.140	780/781/Titrandos/Ti-Touch/91X meters Pt1000 (2 mm)
Plug-in head U	Plug-in head U – plug F + 2 x B (2 mm), 1 m	6.2104.600	Ind. Temp.
	Plug-in head U – plug F + 2 x B (2 mm), 2 m	6.2104.610	

Connection of conductivity measuring cells and temperature sensors to Metrohm instruments

Electrode plug-in head	Cable	Order number	Measuring device
Plug-in head G	Plug-in head G – plug 2 x B (4 mm), 1 m	6.2104.080	712 Conductometer, measuring inputs Pt 100/ Pt1000 (4 mm)
	Plug-in head G – plug 2 x B (4 mm), 2 m	6.2104.110	
	Plug-in head G – plug 2 x B (2 mm), 1 m	6.2104.140	780/781/Titrandos/Ti-Touch/91X meters Pt1000 (2 mm)
	Plug-in head G – plug 2 x B (2 mm), 2 m	6.2104.150	

Connection of reference electrodes and separate metal electrodes on Metrohm devices

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Electrode plug-in head	Cable	Order number	Measuring device
Plug-in head G (6.0729.XXX)	Plug-in head G – plug F, 1 m	6.2104.020	For «Ind.» measuring inputs of Titrinos and for connection to a Metrohm differential amplifier
	Plug-in head G – plug F, 2 m	6.2104.030	
	Plug-in head G – plug F, 3 m	6.2104.040	
Plug-in head B	Plug-in head B (4 mm) – plug B (4 mm), 1 m	6.2106.020	For measuring input «Ref.»
	Plug-in head B (4 mm) – plug B (4 mm), 2 m	6.2106.060	
	Plug-in head B (4 mm) – plug B (4 mm), 3 m	6.2106.050	

Connection of Metrohm electrodes with plug-in head G to devices made by other manufacturers

Electrode plug-in head	Cable	Order number	Measuring device
Plug-in head G	Plug-in head G – BNC plug, 1 m	6.2104.090	Orion, Beckman, Corning, EDT, Fisher, Hanna, Mettler-Toledo, Jenway, Philips, Radiometer, Mitsubishi, SI Analytics, Crison, Kyoto/KEM Mettler
	Plug-in head G – LEMO	6.2104.160	
	Plug-in head G – plug E (DIN 19262), 1 m	6.2104.050	

Technical specifications

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6.03 Separate metal electrodes	Max. installation length (mm)	Shaft diameter top (mm)	Shaft diameter bottom (mm)	Min. immersion depth (mm)	Shaft material	Plug-in head	Type	Temperature range short-term (°C)	Temperature range long-term (°C)	Shape	Measuring range	pH range
6.0301.100	125	12	12	10	Glass	B	Pt	-20...70	-20...70	Wire	-2000...2000 mV	0...14
6.0309.100	101	12	12	10	Glass	G	Pt	-20...70	-20...70	Sheet	-2000...2000 mV	0...14
6.0338.100	96	8	8	5	Glass	G	Pt	-20...70	-20...70	Wire	-2000...2000 mV	0...14
6.0340.000	103	5.3	5.3	10	Glass	Fixed cable / Plug F	Pt	-20...70	-20...70	Wire	-2000...2000 mV	0...14
6.0341.100	101	12	8.8	10	Glass	G	Pt	-20...70	-20...70	Wire	-2000...2000 mV	0...14
6.0343.100	86	8	8	10	Plastic	Plug-in connector 5.5 mm	Pt	0...80	0...80	Pin	-2000...2000 mV	0...14
6.0331.000	100	NS14/15	3	5	PP	Socket B negative with cable (l = 1 m)	Pt	0...80	0...80	Pin	-2000...2000 mV	0...14
6.0331.010	100	NS14/15	3	5	PP	Socket B negative with cable (l = 1 m)	Ag	0...80	0...80	Pin	-2000...2000 mV	0...14
6.0331.010S	100	NS14/15	3	5	PP	Socket B negative with cable (l = 1 m)	Ag	0...80	0...80	Pin	-2000...2000 mV	0...14
6.0344.100	108	24	24	15	Glass	G	Pt	-20...70	-20...70	Grid/Sheet		0...14
6.0345.100	108	24	24	15	Glass	G	Pt	-20...70	-20...70	Grid/Sheet		0...14
6.00346.100	96	8	3	7	Glass	G	Pt	-20...70	-20...70	Ring	-2000...2000 mV	0...14
6.00353.100	125	12	6	20	Glass	G	Au	-20...80	-20...80	Ring	-2000...2000mV	0...14
6.0351.100	125	12	12	7	Glass	G	Pt	-20...80	-20...80	Ring	-2000...2000 mV	0...14
6.0352.100	125	12	12	7	Glass	G	Au	-20...80	-20...80	Ring	-2000...2000 mV	0...14
6.00350.100	125	12	6	7	Glass	G	Ag	-20...80	-20...80	Ring	-2000...2000 mV	0...14
6.00350.100S	125	12	6	7	Glass	G	Ag	-20...80	-20...80	Ring	-2000...2000 mV	0...14
6.0343.110	86	8	8	10	Stainless steel	Plug connector 5.5 mm	Steel	0...80	0...80			
6.0346.000	86	12	1.5	5	Glass	Plug connector 5.5 mm		0...60	0...60			

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6.04 Combined metal electrodes	Max. installation length (mm)	Shaft diameter top (mm)	Shaft diameter bottom (mm)	Min. immersion depth (mm)	Shaft material	Plug-in head	Type	Temperature range short-term (°C)	Temperature range long-term (°C)	Shape	Measuring range	pH range	Diaphragm	Reference electrolyte	Electrolyte outflow (µL/h)	Reference system	Reference resistance (kΩ)	Reference resistance (kΩ)
6.0421.100	113	12	12	10	Noryl/PP	G	Sb rod	0...70	0...70		-2000...2000 mV	2...11	Ceramic	c(KCl)=3 mol/L	3...10	LL system	5	5
6.00430.100	125	12	6	20	Glass	G	Ag	0...80	0...80	Cylinder	-2000...2000 mV	0...14				pH	150...400	150...400
6.00430.100BR	125	12	6	20	Glass	G	Ag	0...80	0...80	Cylinder	-2000...2000 mV	0...14				pH	150...400	150...400
6.00430.100CL	125	12	6	20	Glass	G	Ag	0...80	0...80	Cylinder	-2000...2000 mV	0...14				pH	150...400	200...500
6.00430.100S	125	12	6	20	Glass	G	Ag	0...80	0...80	Cylinder	-2000...2000 mV	0...14				pH	150...400	200...500
6.00404.300	125	12	6	20	Glass	Q	Ag	0...80	0...80	Cylinder	-2000...2000 mV	0...14				pH	150...400	200...500
6.00404.300S	125	12	6	20	Glass	Q	Ag	0...80	0...80	Cylinder	-2000...2000 mV	0...14				pH	150...400	5
6.00470.300	125	12	6	20	Glass	K	Ag	0...80	0...80	Cylinder	-2000...2000 mV	0...14				pH	150...400	5
6.00470.300S	125	12	6	20	Glass	K	Ag	0...80	0...80	Cylinder	-2000...2000 mV	0...14				pH	150...400	5
6.0431.100	125	12	12	20	Glass	G	Pt	0...80	0...80	Ring/hemisphere	-2000...2000 mV	0...14				pH	150...400	5
6.00401.300	125	12	12	20	Glass	Q	Pt	0...80	0...80	Ring/hemisphere	-2000...2000 mV	0...14				pH	150...400	5
6.0471.300	125	12	12	20	Glass	K	Pt	0...80	0...80	Ring/hemisphere	-2000...2000 mV	0...14				pH	150...400	150...400
6.0433.110	178	12	6.4	20	Glass	G	Ag	0...80	0...80	Ring/hemisphere	-2000...2000 mV	0...14				pH	200...500	200...500
6.0434.110	178	12	6.4	20	Glass	G	Pt	0...80	0...80	Ring/hemisphere	-2000...2000 mV	0...14				pH	200...500	150...400
6.0435.110	178	12	6.4	20	Glass	G	Au	0...80	0...80	Ring/hemisphere	-2000...2000 mV	0...14				pH	200...500	< 5 kΩ
6.00435.120	308	12	6.4	20	Glass	G	Au	0...80	0...80	Ring/hemisphere	-2000...2000 mV	0...14				pH	200...500	< 5 kΩ
6.00450.100	125	12	6	15	Glass	G	Ag	0...80	0...80	Ring	-2000...2000 mV	0...14	Fixed ground-joint	c(KNO ₃)=1 mol/L	10...25	LL system	5	150...400
6.00450.100BR	125	12	6	15	Glass	G	Ag	0...70	0...70	Ring	-2000...2000 mV	0...14	Fixed ground-joint	c(KNO ₃)=1 mol/L	10...25	LL system	5	200...500
6.00450.100CL	125	12	6	15	Glass	G	Ag	0...70	0...70	Ring	-2000...2000 mV	0...14	Fixed ground-joint	c(KNO ₃)=1 mol/L	10...25	LL system	5	
6.00450.100S	125	12	6	15	Glass	G	Ag	0...70	0...70	Ring	-2000...2000 mV	0...14	Fixed ground-joint	c(KNO ₃)=1 mol/L	10...25	LL system	5	
6.00402.300	125	12	12	20	Glass	Q	Ag	0...80	0...80	Ring	-2000...2000 mV	0...14	Fixed ground-joint	c(KNO ₃)=1 mol/L	3...30	LL system	5	
6.00402.300S	125	12	6	20	Glass	Q	Ag	0...70	0...70	Ring	-2000...2000 mV	0...14	Fixed ground-joint	c(KNO ₃)=1 mol/L	3...30	LL system	5	
6.00450.300	125	12	6	15	Glass	K	Ag	0...80	0...80	Ring	-2000...2000 mV	0...14	Fixed ground-joint	c(KNO ₃)=1 mol/L	10...25	LL system	5	
6.0451.100	113	12	12	15	Glass	G	Pt	-5...80	-5...80	Ring	-2000...2000 mV	0...14	Ceramic	c(KCl)=3 mol/L	10...25	LL system	5	
6.00403.300	125	12	12	20	Glass	Q	Pt	-5...80	-5...80	Ring	-2000...2000 mV	0...14	Fixed ground-joint	c(KCl)=3 mol/L	3...30	LL system	5	
6.0451.300	113	12	12	15	Glass	K	Pt	-5...80	-5...80	Ring	-2000...2000 mV	0...14	Ceramic	c(KCl)=3 mol/L	10...25	LL system	5	
6.0452.100	113	12	12	15	Glass	G	Au	-5...80	-5...80	Ring	-2000...2000 mV	0...14	Ceramic	c(KCl)=3 mol/L	10...25	LL system	5	