

## 2. Technical data of pH- and redox combination electrodes

All combination electrodes which are shown in the following table are equipped with a Ag/AgCl reference electrode.

### pH combination electrodes

type	shaft material	shaft length (standard) in mm	shaft diameter (mm)	shaft diameter below (mm)	temperature sensor	membrane shape	reference electrolyte (KCl concentration)	diaphragm	number of diaphragms	pH range	temperature range (°C)	pressure (bar)	sample: minimum conductivity (µS/cm)	minimum immersion depth (mm)	page
EGA121	plastic	120	12	12	yes	cylinder	fluid (3 M)	ceramic	1	2 ... 11	-5 ... 60	pressureless	100	15	10
EGA131	plastic	120	12	12	no	ball	fluid (3 M)	ceramic	2	0 ... 14	-5 ... 80	pressureless	100	15	10
EGA133	plastic	120	12	12	no	cylinder	gel (3 M)	ceramic	2	0 ... 14	-5 ... 80	< 6	100	15	10, 21
EGA142	plastic	120	12	12	yes	cylinder	gel (3 M)	ceramic	2	0 ... 14	-5 ... 80	pressureless	100	15	11
EGA150	glass	120	12	12	no	cylinder	gel (3 M)	ceramic	1	0 ... 14	-5 ... 80	< 6	100	22	21
EGAT150	glass	120	12	12	yes	cylinder	gel (3 M)	ceramic	1	0 ... 14	-5 ... 80	< 6	100	22	21
EGA151	glass	120	12	12	no	cylinder	fluid (3 M)	ceramic	1	0 ... 14	-5 ... 80	pressureless	100	22	11
EGAT151	glass	120	12	12	yes	cylinder	fluid (3 M)	ceramic	1	0 ... 14	-5 ... 80	pressureless	100	22	12
EGC151	glass	120	12	12	no	cylinder	fluid (3 M)	ceramic	1	0 ... 14	-5 ... 100	pressureless	100	22	11
EGC151I/S	glass	120	12	12	no	cylinder	fluid (saturated)	ceramic	1	0 ... 14	-5 ... 100	pressureless	100	22	23
EGA153	glass	120	12	12	no	cylinder	gel (3 M)	ceramic	3	0 ... 14	-5 ... 80	< 6	100	22	21
EGA161	glass	120	12	12	no	cylinder	fluid (3 M)	flexible sleeve junction	1	0 ... 14	-5 ... 80	pressureless	20	32	12, 22
EGA173	glass	120	12	12	no	cylinder	gel (3 M)	ring shaped sleeve junction	1	0 ... 14	-5 ... 80	< 6	50	27	22
EGAT173	glass	120	12	12	yes	cylinder	gel (3 M)	ring shaped sleeve junction	1	0 ... 14	-5 ... 80	< 6	50	27	22
EGA184	glass	120	12	6	no	spear	gel (3 M)	ceramic	2	2 ... 11	-5 ... 60	pressureless	100	15	13
EGA186	glass	170	12	6	no	cylinder	fluid (3 M)	ceramic	2	2 ... 11	-5 ... 60	pressureless	100	15	13
EGA193	glass	120	12	12	no	ball	gel (3 M)	ring shaped PTFE junction	1	0 ... 14	-5 ... 80	< 10	100	27	23
EGAT193	glass	120	12	12	yes	ball	gel (3 M)	ring shaped PTFE junction	1	0 ... 14	-5 ... 80	< 10	100	27	23
EGA233	Plastic	120	12	12	No	Cylinder	gel (3 M)	ceramic double junction	2	0 ... 14	-5 ... 80	< 6	100	15	23
EGA81	glass	120	12	12	no	spear	fluid (3 M)	ceramic	3	0 ... 14	-5 ... 60	pressureless	100	22	13
EGS150I	glass	120	12	12	no	ball	pressurized gel, with KCl reserve	ceramic	1	0 ... 14	0 ... 140	< 12	100	22	24
EGS173	glass	120	12	12	no	half ball	gel (3 M)	ring shaped sleeve junction	2	2 ... 13	0 ... 100	< 6	50	22	24
EGST173	glass	120	12	12	yes	half ball	gel (3 M)	ring shaped sleeve junction	2	2 ... 13	0 ... 100	< 6	50	22	24
OGA201	glass	120	12	17	no	flat	fluid (3 M)	ceramic	1	2 ... 11	-5 ... 60	pressureless	100	2	12

redox combination electrodes

type	shaft material	shaft length (standard) in mm	shaft diameter (mm)	metall electrode	reference electrolyte (KCl concentration)	diaphragm	number of diaphragms	measuring range (mV)	temperature range (°C)	pressure (bar)	sample: minimum conductivity (μS/cm)	minimum immersion depth (mm)	page
EMC133	plastic	120	12	platinum disc	gel (3 M)	ceramic	2	± 2000	-5 ... 80	< 6	100	15	14, 25
EMC173	glass	120	12	platinum disc	gel (3 M)	ring shaped sleeve junction	1	± 2000	-5 ... 80	< 6	50	17	25
EMC30	glass	120	12	platinum disc	fluid (3 M)	ceramic	1	± 2000	-5 ... 80	< 6	100	12	14
EMC33	glass	120	12	platinum disc	gel (3 M)	ceramic	1	± 2000	-5 ... 80	< 6	100	12	25