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pH-measurement/Paper, chopstick

1

1 LLG-Universal indicator paper, rolls

For the determination of pH values. Plastic dispensing reel with 1 roll of 5m.

Range	Description	PK	Cat. No.
pH			
1 - 11	Dispensing reel with 1 roll	1	9.129 800
1 - 14	Dispensing reel with 1 roll	1	9.129 802
1 - 11	Refill packs with 3 rolls	3	9.129 801
1 - 14	Refill packs with 3 rolls	3	9.129 803

2

2 LLG-Universal indicator paper, strips

For determination of pH value. Vial with snap lid of 100 pre-cut indicator paper strips.

Range	Package contents	PK	Cat. No.
pH			
1 - 14	100 strips per vial with snap lid	100	9.129 805

3

3 Universal indicator papers

For determination of pH- value. Plastic dispensing reel with 1 roll of indicator paper and colour scale.

MACHEREY-NAGEL

Range	Description	PK	Cat. No.
pH			
1 - 11	Dispensing reel with 1 roll	1	9.130 200
1 - 14	Dispensing reel with 1 roll	1	9.130 210
1 - 11	Refill packs with 3 rolls	3	9.130 203
1 - 14	Refill packs with 3 rolls	3	9.130 213

Further indicatorpapers available on request.

4

4 Special indicator papers

For determination of pH- value. Plastic dispensing reel with 1 roll of indicator paper and colour scale.

MACHEREY-NAGEL

Range	Description	PK	Cat. No.
pH			
0,5 - 5,5	Roll 5 m	1	9.130 305
0,5 - 5,5	Refill packs with 3 rolls	3	9.130 306
5,5 - 9,0	Roll 5 m	1	9.130 325
5,5 - 9,0	Refill packs with 3 rolls	3	9.130 326

Further indicator papers available on request.

5

5 Indicator paper, Duotest

Roll length 5 m, 10 mm width. With two colour zones. Plastic box with 1 roll of indicator paper and colour scale. Duotest indicator papers combine two different indicator zones on a single strip. The zones are separated by a hydrophobic barrier, which effectively prevents mixing of the reaction colors, simplifying and precisely assigning the pH value.

MACHEREY-NAGEL

Range	Description	PK	Cat. No.
pH			
1,0 - 12,0	Dispensing reel with 1 roll	1	9.130 344
1,0 - 4,3	Dispensing reel with 1 roll	1	9.130 356
3,5 - 6,8	Dispensing reel with 1 roll	1	9.130 359
5,0 - 8,0	Dispensing reel with 1 roll	1	9.130 347
7,0 - 10,0	Dispensing reel with 1 roll	1	9.130 362
9,5 - 14,0	Dispensing reel with 1 roll	1	9.130 363

3. Analytical measurement and testing pH-measurement/Paper, chopstick

1 Indicator paper, Tritest

For determination of pH-value.
Roll length 5m, 10mm width. With three colour zones, without hydrophobic zone.
Plastic container with 1 roll of indicator paper and colour scale.

MACHEREY-NAGEL

Range pH	Description	PK	Cat. No.
1 - 11	Dispensing reel with 1 roll	1	9.130 367
1 - 11	Refill packs with 3 rolls	3	9.130 368



2 Litmus paper

Litmus paper, available in blue, red and neutral.
Supplied in booklets of 100 strips, 10 x 70mm W x L.

MACHEREY-NAGEL

Measuring range	Type	Colour change	PK	Cat. No.
8.0 to 5.0	Litmus paper, blue	blue - red	100	9.130 112
5.0 to 8.0	Litmus paper, red	red - blue	100	9.130 116
5.0 to 8.0	Litmus paper, neutral	red - violett - blue	100	9.130 118

Also available as reel. Refill packs available separately.



3 LLG-Indicator paper sticks

For pH determination. Box of 100 indicator paper sticks of 80mm length.

Range pH	Package contents	PK	Cat. No.
0 - 14	50 sticks per pack	50	9.129 806
0 - 14	100 sticks per pack	100	9.129 807



4 LLG-Universal Indicator strips "Premium", in vial with snap lid

Flip-top vial is easy to open and close with one hand. The new LLG pH strips offer the utmost in convenience and ease of use in laboratory-grade testing. With a single colour match, and a 12 mm reagent pad, these universal pH strips (0.0-14.0) belong in every lab.

- pH measuring range: 0 - 14
- 12 mm matching area for quick matches,
- Flip-top vial stays closed when dropped, but is easy to open with one-hand.
- Vial keeps strips safe from the elements
- 1 pack (vial) of 100 strips

Range pH	Package contents	PK	Cat. No.
0 - 14	100 strips per vial with snap lid	100	9.129 808



5 pH-Fix indicator strips, universal

For determination of pH- value. Permanent colour. Non bleeding.

MACHEREY-NAGEL

Range pH	PK	Cat. No.
0.0 - 6.0	100	9.130 382
0 - 14	100	9.130 381
0 - 14 PT*	100	9.130 379
7.0 - 14.0	100	9.130 384

* PlopTop tube.



pH-measurement/Paper, chopstick

1



1 pH-Fix indicator strips, special

For determination of pH- value. Permanent colour. Non bleeding.

MACHEREY-NAGEL

Range	PK	Cat. No.
pH		
0,3 - 2,3	100	9.130 385
1,7 - 3,8	100	9.130 386
2,0 - 9,0 CE**	100	9.130 380
3,1 - 8,3 CE**	100	9.130 377
3,6 - 6,1 PT* CE**	100	9.130 378
3,6 - 6,1 CE**	100	9.130 387
4,0 - 7,0	100	6.280 450
4,5 - 10,0 CE**	100	9.130 383
5,1 - 7,2	100	9.130 388
6,0 - 7,7	100	9.130 389
6,0 - 10,0	100	9.130 392
7,5 - 9,5	100	9.130 390
7,9 - 9,8	100	9.130 391

* PlopTop tube.

2



2 Indicator paper, PEHANON®

For determination of pH-value in coloured solutions.
Supplied in packs of 200, 11 x 100mm W x L strips.

MACHEREY-NAGEL

Range	PK	Cat. No.
pH		
1 - 12	200	9.130 657
1,0 - 2,8	200	9.130 651
1,8 - 3,8	200	9.130 652
3,8 - 5,5	200	9.130 603
6,0 - 8,1	200	9.130 626

3



3 Special indicator strips

Non-bleeding. Supplied in packs of 100 strips.

Range	PK	Cat. No.
pH		
0.0 - 2.5	100	9.130 002
2.0 - 9.0	100	9.130 003
2.5 - 4.5	100	9.130 004
4.0 - 7.0	100	9.130 007
5.2 - 7.2	100	9.130 009
6.5 - 10.0	100	9.130 010
11.0 - 13.0	100	9.130 013

4



4 pH indicator strips

Non-bleeding. Ranges as indicated. Supplied in packs of 100 strips.

Range	Increments	Type	PK	Cat. No.
pH	pH units			
0 - 14	1	Universal	100	9.130 001
0 - 6	0.5	Acilit	100	9.130 016
5 - 10	0.5	Neutralit	100	9.130 017
7.5 - 14	0.5	Alkalit	100	9.130 018

3. Analytical measurement and testing pH-measurement/Portable devices

1 2 LLG-pH Pen

Cost efficient pH tester, ideal for testing small amounts of liquid and in narrow vessels. The supplied storage container prevents the electrode from drying out.

- ATC from 0 °C to 50 °C
- Large, easy-to-read LCD display
- **3-point calibration**

Scope of supply: pH meter

Specifications

pH Measuring range:	0 ... 14
pH Accuracy:	±0.1
pH resolution:	±0.1
Dimensions with electrode (W x D x H):	36 x 20 x 210 mm
Dimensions electrode (diam. x L):	12 x 110 mm
Weight:	72 g
Power supply:	2 x 3 V CR2032 button cell
IP code:	IP 65
Warranty:	2 years

Type	PK	Cat. No.
LLG-pH Pen	1	6.263 690



3 4 LLG-pH Meter 5

The LLG-pH meter 5 is a very easy to use pH/mV/°C handheld meter. The pH value and temperature can be stored directly on the SD card (Excel file) or transferred directly from the pH meter to a PC via the RS-232 interface.

- Gel filled pH electrode with external temperature sensor with 1m cable
- BNC connector
- Automatic temperature compensation (ATC)
- Large, easy-to-read LCD display
- 3 point calibration
- Suitable for all standard SD cards with 1 to 16 GB

Please order batteries separately (6 x 1.5 V AA)
Optional: power cable, PC connection cable, PC software

Scope of supply: pH meter, pH electrode with temperature sensor, buffers pH 4 and pH 7, 4 GB SD-Memory card, transport case.

Specifications

Measuring range pH:	0 ... 14
pH resolution:	0.01
pH accuracy:	±0.02 + 2d
Ambient conditions:	0 ... 50 °C, max. 85 % r.H.
Temperature range electrode:	0 ... 60 °C
Dimensions (W x D x H):	68 x 177 x 45 mm
Weight:	490 g
Power supply:	6 x 1.5 V AA batteries/9 V mains adapter (optional)
IP code:	IP 51
Warranty:	3 years (1 year on the electrode)

Description	PK	Cat. No.
LLG-pH Meter 5	1	6.263 691



Accessories for LLG-pH meter 5

Description	PK	Cat. No.
Electrode + temperature sensor for LLG-pH meter 5	1	6.263 692
SD card 4GB for LLG-pH meter 5	1	6.263 693
Case for LLG-pH Meter 5	1	6.263 694
Power cable for LLG-pH Meter 5	1	6.263 695
Connecting cable PC for LLG-pH Meter 5	1	6.263 696
Software for LLG-pH Meter 5	1	6.263 697

1



1 pH Meter PAL-pH

NEW

ATAGO

For the pH measurement this droplet type pH meter only needs 0.6 ml of sample. Suitable for e.g. foods, soil, water-soluble cutting oil or alkaline cleaning liquid.

- Quick measuring results in 3 seconds
- Unconsumable KCl due to internal electrode liquid
- Completely flat measurement unit allows easy cleaning
- 100 measured data can be wirelessly transferred via near field communication (NFC)

Specifications

Measuring range	0 ... 14 pH
Resolution:	0.01 pH
Accuracy:	±0.10 pH (2.0 ... 12.0 pH)
Calibration points:	at 4.01 pH, 6.86 pH, 9.18 pH
Temperature compensation:	0.0 ... 50.0 °C
Dimensions (W x D x H):	66 x 31 x 109 mm
Power supply:	2 x AAA alkaline batteries
IP code:	IP 65

Type	PK	Cat. No.
PAL-pH	1	6.312 228

2



2 pH tester PHX 800

ebro

- Housing made of ABS
- Automatic switch-off after 15 minutes
- Hold-function
- Auto-lock-function
- Automatic deactivation
- Battery level indicator
- Exchangeable battery
- Robust
- Waterproof
- Adjustable

Specifications

Measuring range:	0 to 14pH
Accuracy:	±0.1pH
Resolution:	±0.2pH
Operating temperature:	0 to +50°C
Storage temperature:	-25 to +60°C
Battery:	4 x 1.5V A76/LR44
Battery lifetime:	approx. 150 hours
Dimensions (W x L x H):	170 x 32 x 15mm
Weight:	approx. 70 g
IP code:	IP 65

Type	Description	PK	Cat. No.
PHX 800	pH tester	1	6.266 914

3



3 Pocket pH testers Eutech™ EcoTestr

Thermo Scientific

Valuable and waterproof pH testers, easy to use. Suitable for general and industrial purposes, e.g. in laboratories, pools, aquariums and cooling towers.

- Sensor protective cap can be used as a container for samples
- Easy battery change
- Auto-calibration and auto-buffer recognition
- Up to 3 calibration points (only EcoTestr® pH 2)
- Water and dustproof housing
- Long-lasting, fixed sensor
- Automatic temperature compensation (only EcoTestr® pH 2)
- Hold function freezes last reading temporarily

Specifications:

Range:	0.0 ... 14.0 pH
Resolution:	0.1 pH
Accuracy:	±0.1 pH
Protection class:	IP 67
Power supply:	4 x 1.5 V A76 batteries

Type	PK	Cat. No.
EcoTestr pH 2	1	6.233 465

1 Tester Expert pH

Simultaneously measure pH and temperature with a pocket sized tester designed to provide accurate measurements on the go for a variety of applications.

Thermo Scientific

- Large 4 digit double line display
- Display of battery life, status and recalibration
- Automatic temperature compensation (ATC)
- Automatic buffer recognition and calibration
- Auto-power-off

Specifications

pH range:	0 ... 14
Resolution:	0.1
Accuracy:	±0.1
pH calibration points:	1 to 3 points
Temperature range:	0 ... 50 °C
Resolution:	0.1 °C
Accuracy:	±0.5 °C + 1 digit
Operating temperature:	5 ... 45 °C
Dimensions (W x L x H):	43 x 170 x 30 mm
Weight:	90 g
Power supply:	Incl. 4 batteries (A76 or LR44 equivalent)
IP code:	IP 67
Warranty:	1 year



Type	PK	Cat. No.
Expert	1	6.284 896

pH Pocket Tester Elite pH/Elite pH Spear

Simultaneously measure pH and temperature with a pocket sized tester designed to provide accurate measurements on the go for a variety of applications. The Pocket Tester Elite pH has a leakproof, transparent wide-base cap for upright standing with fill line indicator. The Elite pH Spear pocket tester features a spear tip open pore sensor. This rugged and user-friendly tester is ideal for direct measurement of solid or semi-solid samples.

Thermo Scientific

- 1-push calibration
- Large 4-digit double line display
- Backlit graphic display
- Auto-hold readings
- Easy-to-operate, intuitive keypad
- Auto-off

Scope of supply:

Elite pH and Elite pH Spear: Tester incl. batteries and lanyard

Elite pH Kit and Elite pH Spear Kit: Tester incl. batteries, lanyard, soft carry case, buffer sachets set (pH 4.01, 7.00, 10.01, deionized water, 5 x 20 ml each)

Specifications

pH range:	-1.00 to 15.00
Resolution:	0.01 pH
Accuracy:	±0.01 pH ±1 LSD
pH calibration points:	1 to 3 points
Temperature range:	0 to 60 °C
Resolution:	0.1 °C
Accuracy:	0 to 50 °C (±0.5 °C + 1 LSD) 50 to 60 °C (±1.0 °C + 1 LSD)
Operating temperature:	5 to 45 °C
Relative humidity:	5 to 85 %, non-condensing
Temperature compensation Elite pH/pH Spear:	ATC/MTC
Dimensions (W x L x H) Elite pH/pH Spear:	200 x 45 x 36 mm/280 x 45 x 36 mm
Weight Elite pH/pH Spear:	160 g/150 g
Power supply:	4 x AAA 1.5 V batteries
IP code:	IP 67



6.290 131



6.290 136

Type	PK	Cat. No.
Elite pH	1	6.290 131 2
Elite pH Kit	1	6.290 137
Elite pH Spear	1	6.290 136 3
Elite pH Spear Kit	1	6.290 142

pH-measurement/Portable devices

1



6.222 767

Pocket tester Eutech™ pHTestr/pH Spear, waterproof

Thermo Scientific

Waterproof, rugged pH testers with one hand operation for general and industrial purposes, e.g. frequent testing of pools, aquariums, cooling towers, in the chemical industry and food processing.

- Large LCD display
- Easy maintenance and cleaning
- Waterproof and dustproof housing
- User-replaceable, rugged sensor
- Double junction sensor, pHTestr 10BNC only with BNC connector, without sensor
- Push-Button calibration with up to 3 points and Auto-Buffer recognition
- Buffer solutions USA 4.01/7.00/10.01 and NIST 4.01/6.86/9.18 usable
- Hold function, the last measured value remains on the display
- pHTestr 30, 10BNC and pH Spear with temperature display
- pH Spear tester with glass tip electrode for direct measurement of solid or semi-solid samples, e.g. in food processing
- Up to 500 hours operation time with single battery set

2



6.252 022

Specifications

pH range (pHTestr 10):	-1.00 -15.00 (-1.0 bis 15.0)
Resolution (pHTestr 10):	0.01 pH (0.1 pH)
Accuracy (pHTestr 10):	±0.01 pH (±0.1 pH)
pH calibration points:	3 points
Temperature range (only pHTestr 30, 10BNC, pH Spear):	0 to 50 °C
Resolution:	0.1 °C
Accuracy (only pHTestr 30):	±0.5 °C
Operating temperature:	0 to 50 °C
Temperature compensation (pHTestr 10BNC, pH Spear):	ATC (MTC)
Dimensions (B x L) (pH Spear):	165 x 38 mm (240 x 38 mm)
Weight (pH Spear):	90 g (103 g)
Power supply:	4 x 1.5 V A76 batteries
IP code:	IP 67

Type	PK	Cat. No.
pHTestr 30	1	6.222 767 1
pHTestr 20	1	6.902 406
pHTestr 10	1	6.223 017
pHTestr 10BNC	1	6.225 666
pH Spear	1	6.252 022 2

3



3 pH meter PHT 810

ebro

Portable pH meter with external electrode.

- BNC connection
- With automatic pH calibration
- Handy and robust
- Current value memory
- Simple calibration with keypad
- Electrodes for different applications
- Min/Max- and hold function

pH meter set contains: pH meter PHT 810, penetration electrode AT 206, punching pin, buffer solutions pH4 and pH7, KCl solution, carrying case, 2-point calibration certificate



Warning

H phrases: H315|H319

Specifications

Measuring range:	0 to 14pH
Accuracy:	±0.03pH
Resolution:	±0.01pH
Operating temperature:	0 to +50°C
Storage temperature:	-25 to +60°C
Battery:	Lithium 3V/1Ah
Battery lifetime:	approx.. 5 years
Dimensions (W x L x H):	54 x 110 x 22mm
Weight:	approx. 200g

Type	Description	PK	Cat. No.
PHT 810	pH meter (without electrode)	1	6.262 991
ST 1000	pH meter set	1	6.266 915

1 Electrodes for pH meter PHT 810

Plastic electrode AT 200: Housing material: Plastic, Diam.: 12mm, Length shaft: 120mm

ebro

Glass electrode AT 201: Housing material shaft: Glass, Diam. shaft: 12mm, Length shaft: 120mm

Penetration electrode AT 206 for measurements in semi-solid food stuff and other materials. Housing material: Glass, Diameter shaft/electrode: 25mm/5mm, Length shaft/electrode: 65mm/12mm, with 1m cable and BNC plug

Type	Description	PK	Cat. No.
AT 200	Plastic electrode for PHT 810	1	6.267 164
AT 201	Glass electrode for PHT 810	1	6.267 165
AT 206	Penetration electrode for PHT 810	1	6.252 036

1



pH meter Eutech™ pH150/pH450 series

The best value waterproof meter for measuring pH, mV and temperature.

Thermo Scientific

- Large, three line LCD, shows pH or mV measurement with temperature and % slope
- Built-in memory function, stores up to 150 measurements along with temperature
- Auto buffer recognition, automatically identifies USA, NIST or DIN buffer sets for rapid calibration
- Indication of necessary recalibration
- Power with AA batteries or use optional AC adapter
- Features mV offset, calibrate to a Redox/ORP standard or use for pH electrode diagnostics
- Ready indicator, manual or automatic measurement hold feature and optional automatic shutoff function
- % slope and temperature displayed with each measurement
- Includes innovative Grip-Clip™, quickly and easily secures the electrode to your beaker or container

Additional features PH450

- Backlit display
- Extended memory stores up to 500 data sets, easy USB or RS232 output with optional data cables
- Built-in real-time clock stamps storedata and calibration data with time and date, meets standards for GLP (Good Laboratory Practices)
- Ability to use ion selective electrodes

Scope of supply PH15002K and PH45002K: Meter with electrode, ATC probe, Grip-Clip™ electrode holder, 2 x AA batteries, hard carry case, pH buffers, storage solution, rinse solution

2



6.284 900

Specifications

pH range:	-2.00 to 16.00
Resolution:	0.01
Accuracy:	±0.01
pH calibration points:	Up to 5 points (USA & NIST), up to 6 points (DIN)
mV range:	±2000 mV
Accuracy:	±0.2 mV +2 digits or +0.5 % of reading
Temperature range:	-10.0 to +110.0 °C
Resolution:	0.1 °C
Accuracy:	±0.5 °C
Power supply:	incl. 2 x AA batteries, >700 h continuous use, AC adapter (optional)
Dimensions (W x L x H):	83 x 200 x 57 mm
Weight:	500 g
IP code:	IP 67
Warranty:	3 years on the meter

3



6.284 308

Type	Description	PK	Cat. No.
PH15000	Meter only	1	6.284 899
PH15002K	with double-junction pH electrode, ATC probe	1	6.284 900 2
PH45000	Meter only	1	6.284 901
PH45002K	with double-junction pH electrode, ATC probe	1	6.284 308 3

pH-measurement/Portable devices

1



6.280 112

pH meter FiveGo™ F2

Portable pH meter for field work and laboratories.

Mettler-Toledo Online

- Measurement made easy: A large, well-structured display, intuitive button arrangement and simple menu ensure measurements can be performed in just a few clicks.
- Ergonomic design for one handed operation: Thanks to its ergonomic design, handling the FiveGo™ is a comfortable experience. The foldable stand provides optimal viewing on flat surfaces.
- IP67 Water and dustproof: The IP67 waterproof protection makes the FiveGo™ portables able to withstand wet and demanding environments.

Scope of delivery:

- F2-Meter:** Meter only
- F2-Standard kit:** Meter with LE438 sensor
- F2-Food kit:** Meter with LE427 sensor and carrying case
- F2-Field kit:** Meter with LE438 sensor and carrying case

Specifications

pH	
Measuring range:	0.00 ... 14.00
Resolution:	0.01
Accuracy:	±0.01
mV	
Measuring range:	-1999...1999 mV
Resolution:	1 mV
Accuracy:	±1 mV
Temperature Compensation:	ATC and MTC
Calibration:	3 points, 4 predefined buffer groups
Memory size:	200 measurements, current calibration
Temperature	
Measuring range:	0 ... 100 °C
Resolution:	0.1 °C
Accuracy:	±0.5 °C
Dimensions (W x D x H):	188 x 77 x 33 mm
Protection class:	IP 67 (meter + electrode)

Type	PK	Cat. No.
F2-Meter	1	6.280 111
F2-Standard kit	1	6.280 112 1
F2-Field kit	1	6.280 113
F2-Food kit	1	6.280 114

2



6.243 880

pH/mV/°C Meter Eutech™ pH6+/pH5+ series

Thermo Scientific

The pH6+ and pH5+ offer you the greatest value-for-money for your basic pH measurement needs. Both meters measure pH and Temperature, the pH6+ additionally measures mV/ORP. Rugged and user-friendly, these meters come with rubber boots for protection against harsh field elements.

- 3-point-calibration with auto-buffer recognition
- Automatic temperature compensation (ATC)

Scope of delivery: Meter with Rubber Armour/Stand and plastic carrying case (except pH601+ and pH501+)

Specifications

pH range:	0.00 to 14.00 pH
Resolution:	0.01 pH
Accuracy:	±0.01 pH
pH calibration points:	1 to 3 points
mV range (pH6+ only):	±1000 mV
Accuracy:	±0.2 mV
Temperature range:	0.0 to 100.0 °C
Resolution:	0.1 °C
Accuracy:	±0.5 °C
Dimensions (W x L x H):	85 x 157 x 42 mm
Weight:	255 g
Power supply:	4 x 1.5 V AAA alkaline batteries, >200 h
IP code:	IP 54
Warranty:	3 years on the meter

Type	Description	PK	Cat. No.
PH603+K	with "3-in-1" pH/Temperature combi electrode	1	6.243 880 2
PH602+K	with single junction pH electrode, ATC probe	1	6.240 654
PH601+K	with ATC probe, stand and plastic carrying case	1	6.284 898
PH601+	with ATC probe	1	6.240 739
PH503+K	with "3-in-1" pH/Temperature combi electrode	1	6.244 042
PH502+K	with single junction pH electrode, ATC probe	1	6.240 492
PH501+	with ATC probe	1	6.262 080

3



pH-meter Seven2Go™ S2

Portable routine model for pH measurement

Mettler-Toledo Online

- New, intuitive menu structure with fast and easy T-Pad navigation in 12 languages
- Robust design with IP67 protection for use in harsh and demanding environments
- Intelligent Sensor Management (ISM®) functionality reduces the risk of errors
- Up to 5 point calibration with automatic buffer recognition and temperature compensation
- 4 predefined buffer groups and 1 user defined buffer group
- Automatic, manual and time dependant endpoint recording
- Data memory storage for 200 data points
- Power requirements: 4 x 1.5V AA or 1.3V NiMH accumulators

Items supplied:

S2-Meter: Instrument, electrode clip, operating instructions, quick guide, test certificate, declaration of conformity and batteries.

S2-Standard kit: As S2-Meter, but also with InLab Expert Pro-ISM-IP67, buffer sachets for pH 4.01, 7.00, 9.21 and 10.00.

S2-Field kit: As S2-Standard kit, but also with bottles for calibration and uGo™ carrying case.

S2-Food kit: As S2-Field kit, but with InLab Solids Pro-IP67 instead of InLab Expert Pro-ISM-IP67.

S2-Light kit: As S2-Standard kit, but with InLab Versatile Pro instead of InLab Expert Pro-ISM-IP67.



6.265 415

Specifications

pH

Measuring range: -2 to 20 pH
 Resolution: 0.01/0.1
 Accuracy: ±0.01

mV

Measuring range: -1999 ... +1999mV
 Resolution: 1
 Accuracy: ±1
 Relative mV-measurement: yes

Temperature

Measuring range: -5.0 ... 105.0°C
 Resolution: 0.1°C
 Accuracy: ±0.5°C
 Dimensions (W x D x H): 222 x 70 x 35mm

Type	PK	Cat. No.
S2-Meter	1	6.265 414
S2-Standard kit	1	6.265 415 1
S2-Field kit	1	6.265 416
S2-Food kit	1	6.265 417
S2-Light kit	1	6.265 418

Pocket pH meters ProfiLine Series

The WTW ProfiLine, hand-held, pH/mV meters are robust and waterproof, according to IP67. They have LCD or graphics displays. The proven DIN socket for connecting pH electrodes permits pH measurement even in wet environments. The instruments can be operated by standard alkaline or rechargeable batteries.

2 3 pH and redox meter pH 3110 ProfiLine

Make testing of pH and redox potential simple. Easy operation virtually eliminates errors. All function keys of the 3110 can be operated even when wearing gloves; automatic calibration and AutoRead functions ensure stable and reproducible results. The multifunctional display for pH, mV and temperature is always easy to read.

WTW®

Measuring ranges

pH: -2.0 ... +20.0
 -2.00 ... +20.0
 -2.000 ... +19.999
 Accuracy: ±0.01 pH (±1 digit)
 ±0.005 from +15 °C to +35 °C
 mV/Accuracy: ±1200.0/±0.3
 ±2000/±1
 Temperature: -5.0 to +105.0 °C
 Accuracy: ±0.1 °C
 Temperature compensation: Automatic via pH electrodes with integral temperature probe, TFK 325 or Pt1000



Type	Description	PK	Cat. No.
pH 3110	meter only	1	9.774 367
pH 3110 Set 2	case set including SenTix 41 and accessories	1	9.774 354

pH-measurement/Portable devices

1



1 2 pH meter pH 3310 ProfiLine

Convenient and versatile pH/mV meter with backlit graphics display and menu controlled operation. Waterproof and robust. With 5 point calibration for WTW technical or DIN/NIST buffers. Additional 20 pre-programmed buffer sets. The CMC function (Continuous Measurement Control) helps maintain the optimum measuring range and warns when limits are exceeded. The pH/mV handheld meter with integral, time controlled, data logger and memory for 5000 GLP compliant records is ideal for extended data collection. With 1 to 5-point pH calibration. Menu controlled, with backlit graphics display for comfortable and safe operation. 100% waterproof, USB interface for fast data transfer. Includes driver software and cable. WTW®

2



Measuring ranges

pH:	-2.0 ... +20.0
	-2.00 ... +20.00
	-2.000 ... +19.999
Accuracy:	±0.005 pH from +15°C to +35°C
mV/Accuracy:	±1200.0/±0.3 mV
	±2500/±1 mV
Temperature:	-5.0 to +105°C
Accuracy:	±0.1°C
Interface:	Mini USB-B
Memory:	5000 records (measured value, temperature, date, time, ID)

Type	Description	PK	Cat. No.
pH 3310	meter only	1	9.774 337
pH 3310 Set 2	case set including SenTix 41 and accessories	1	9.774 356

3



4.678 216

pH/Redox-Meter SD 305 pH

NEW
Lovibond®

Robust and waterproof hand-held meter for field use. For measurements in drinking water, cooling/boiler water, waste water, pool water and surface water.

- Automatic temperature compensation
- Buffer recognition of Lovibond® standards (pH 4.01/7.00/10.01) and buffers according to DIN 19266
- Choice between 1-, 2- or 3-point calibration
- Evaluation of the sensor quality after each calibration
- Alarm function with adjustable limits
- Auto hold function
- Battery status indicator
- Redox measurement in mV or mVH according to DIN 38404-6
- Data transfer and evaluation via software possible

Scope of supply:

SD 305 pH/ORP (Set 1): Instrument, protective covering with electrode holder, carrying case, pH/Temp. electrode Type 231, pH buffer solution (4.01/7.00/10.01), storage solution for pH/ORP electrodes, batteries, manual

SD 305 pH/ORP (Set 2): Instrument, protective covering with electrode holder, carrying case, pH/Temp. electrode Type 226, temperature probe Pt1000, pH buffer solution (4.01/7.00/10.01), storage solution for pH/ORP electrodes, batteries, manual

SD 305 pH/ORP (Set 3): Instrument, protective covering with electrode holder, carrying case, Redox electrode Type 242, temperature probe Pt1000, ORP control solution (470 mV), storage solution for pH/ORP electrodes, batteries, manual

Specifications

pH:	-2.000 ... 16.000
Accuracy:	±0.005
Temperature:	-5.0 ... 150 °C
Accuracy:	±0.2 °C
Redox (ORP):	-2000.0 ... 2000.0 mV
Accuracy:	±0.05 % FS (mV or mVH)
Datalogger:	10000 Data sets automatically
	1000 Data sets manually
Dimensions (W x D x H):	100 x 164 x 37 mm
Weight:	302 g
Power supply:	2 x AAA battery
IP code:	IP 67

Type	PK	Cat. No.
SD 305 pH/ORP (Set 1)	1	4.678 215
SD 305 pH/ORP (Set 2)	1	4.678 216 3
SD 305 pH/ORP (Set 3)	1	4.678 217

1 pH-meter HandyLab 100

SI Analytics

The portable allrounder for pH/mV measurements. The HandyLab 100 increases the measuring speed and accuracy thanks to the AutoRead and the CMC function. AutoRead displays when the measuring value is stable and eliminates the risk of a premature reading of the faulty measuring value. CMC (Continuous Measurement Control) visualizes whether the measuring value is still within the calibration limits. Having storage capacity for up to 200 data sets, stored data can be viewed. The HandyLab 100 can process 1- to 5-point calibration with a choice of 22 stored buffer sets easily and comfortably.

Supplied with:

HL100Versatile: pH meter set HandyLab 100 with pH/T combination electrode A7780-NTC30-DIN-N for general applications

HL100Field: pH meter set HandyLab 100 with pH-T-electrode BlueLine 24 pH and reinforcement for on-site measurements



Specifications

pH

Measuring range: -2 ... 20 pH
Resolution: ±0.1/±0.01/±0.001 pH
Accuracy: ±0.005 pH

mV

Measuring range: -2500 ... +2500 mV
Resolution: ±1 mV
Accuracy: ±0.3 mV

Temperature

Measuring range: -5.0 ... +105.0 °C
Resolution: ±0.1 °C
Accuracy: ±0.1 °C

Type	PK	Cat. No.
HL100Versatile	1	6.265 283
HL100Field	1	7.910 240

2

2 pH meter HandyLab 700/750

SI Analytics

Portable pH measuring devices by SI Analytics with Memosens® technology offers increased safety and a user-friendly interface

- Durable design for daily measurements
- Connection: 2 x 4mm diam. for integrated or separate temperature sensor
- Contrast-rich and scratch-resistant clear glass LCD display
- Self-explanatory operation with one clear text line
- Display of the sensor status at one glance with Sensoface
- Calibration of up to 3 points with automatic buffer detection (from 10 buffers)
- Manual calibration by indicating random buffer values
- Real-time clock and display of battery charging status
- Extended operating time of more than 1.000 hours with standard batteries (4 x AA)

HandyLab 750 additional features:

- Store up to 5.000 data points.
- Micro-USB connection to communicate with the software HandyLab Pilot software for evaluation of data from digital Memosens® sensors.
- HandyLab Pilot software (included with delivery), allows easy management and evaluation of stored data and can be used for device configuration.

Supplied with: Set with pH meter, AquaLine 90pH, SKK K1A and DIN buffer solutions in ampoules



Specifications

pH measurement Memosens (also ISFET)

Measuring range: -2.000 ... +16.000pH

mV measurement Memosens Redox

Messbereich: -2000 ... +2000mV

pH/mV measurement (analog)

pH measurement measuring range: -2 ... 16pH
mV measurement measuring range: -1300 ... +1300mV

Temperature measurement

Measuring range with sensor NTC 30kOhm: -20 ... +120°C
Measuring range with sensor Pt 1000: -40 ... +250°C

Type	PK	Cat. No.
HL700AL90pH	1	6.266 645
HL750AL90pH	1	6.266 646

1



6.265 259

pH/Ion-Meter Seven2Go™ pro S8

Mettler-Toledo Online

Portable professional model for pH measurement

- New, intuitive menu structure with fast and easy T-Pad navigation
- Robust design with IP67 protection for use in harsh and demanding environments
- Intelligent Sensor Management (ISM®) functionality reduces the risk of errors
- New sunlight-proof screen guarantees screen readability even in direct sunlight
- New StatusLight gives a fast, visual confirmation showing if the meter is ready to measure or not
- Operating support for 12 languages with information shown in complete words and sentences
- Up to 5 point calibration with automatic buffer recognition and temperature compensation
- 8 predefined buffer groups and 1 user defined ion-standard
- Automatic, manual and time dependant endpoint recording
- Data memory storage for 2000 GLP data points with weatherproof Micro-USB connection for data export
- Power requirements: 4 x 1.5V AA or 1.3V NiMH accumulators

Items supplied:

S8-Meter: Instrument, LabX direct pH, USB cable, electrode clip, base accessory, operating instructions, quick guide, test certificate, declaration of conformity and batteries.

S8-Standard kit: As S8-Meter, but also with InLab Expert Pro-ISM-IP67 and buffer sachets for pH 4.01, 7.00, 9.21 and 10.00.

S8-Field kit: As S8-Standard kit, but also with bottles for calibration and uGo™ carrying case.

S8-Biotech kit: As S8-Field kit, but with InLab Routine Pro ISM (incl. cable) instead of InLab Expert Pro-ISM-IP67.

S8-Fluoride kit: As S8-Standard kit, but with perfectION Fluoride instead of InLab Expert Pro-ISM-IP67, without buffer sachets.

Specifications

pH

Measuring range: -2 to 20 pH
 Resolution: 0.001/0.01/0.1
 Accuracy: ±0.002

mV (rel. mV)

Measuring range: -2000 ... +2000 mV
 Resolution: 0.1/1
 Accuracy: ±0.1

Ion

Measuring range: 1.00e-09 ... 9.99e+09
 Resolution: 3 or 4 digits (auto-range)
 Accuracy: ±0.5%

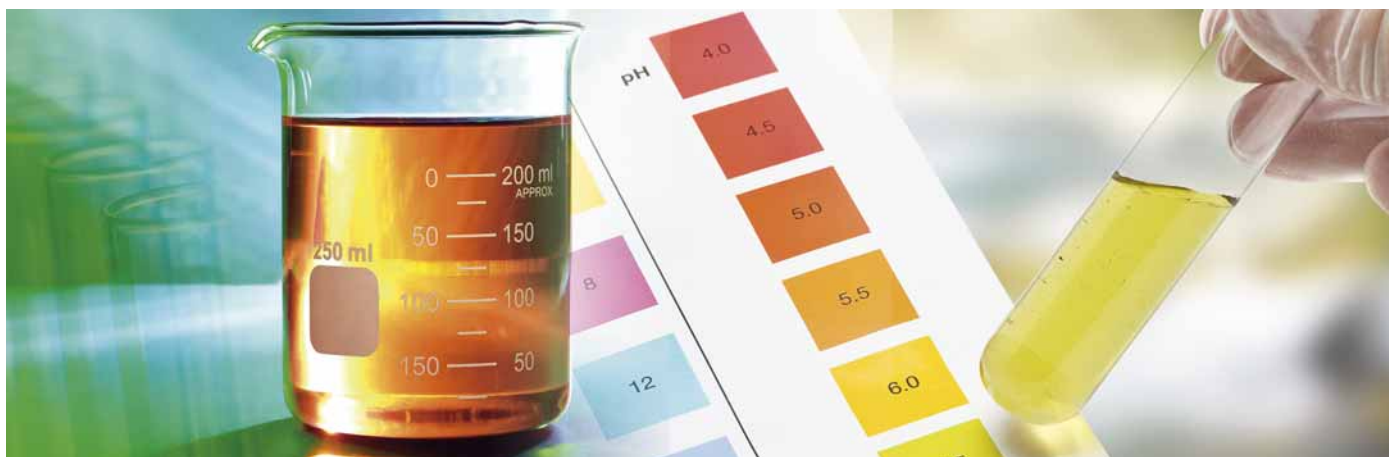
Temperature

Measuring range: -5.0 ... 130°C (ATC)
 -30.0 ... 130°C (MTC)
 Resolution: 0.1°C
 Accuracy: ±0.2°C if T = 0°C ... 105°C
 ±0.5°C if T < 0°C or T > 105°C

Dimensions (W x D x H): 222 x 70 x 35mm

Units: mg/L, mmol/L, mol/L, %, ppm, pX

Type	PK	Cat. No.
S8-Meter	1	6.265 258
S8-Standard kit	1	6.265 259 1
S8-Field kit	1	6.265 260
S8-Biotech kit	1	6.265 261
S8-Fluoride kit	1	6.265 262



LLG pH meter 7

The LLG pH Meter 7 is an easy-to-use, robust table-top instrument for measuring pH and redox potential. The large color-touch-display and the intuitive, language-independent user interface ensure fast and easy use. Particularly suitable for routine applications in laboratories, production plants and schools.

- Available as set with gel combination electrode ("Made in Germany") with temperature sensor
- Large color-touch-display with language-independent graphical user interface
- Automatic temperature compensation
- Memory for 500 values
- 3-point calibration
- Reminder function for upcoming calibrations
- BNC connection for the electrode
- RS232 interface for data transfer
- Electrode holder can be mounted left and right

Scope of supply:

LLG pH meter 7: pH meter, electrode holder, protective cover, power supply unit

LLG-pH Meter 7 set: pH meter, combination electrode, electrode holder, protective cover, power supply unit



6.263 601

Specifications

pH range:	0 ... 14
pH resolution:	0,01
pH accuracy:	±0.01
Temperature range electrode:	0 ... 80 °C
Dimensions (W x D x H):	180 x 240 x 80 mm
Weight:	0.7 kg
Power supply:	9 V DC/1A
IP code:	IP 54
Warranty:	3 years

Type	Plug type	PK	Cat. No.
LLG-pH Meter 7	EU	1	6.263 600
LLG-pH Meter 7 set	EU	1	6.263 601 1
LLG-pH Meter 7	UK	1	6.263 606
LLG-pH Meter 7 set	UK	1	6.263 607
UK plug for LLG-pH Meter 7	UK	1	6.263 634

Suitable accessories can be found in our online shop.

pH meter LAB 845

Due to the intuitive operation and robust aluminum housing the pH-Meter LAB 845 is perfect for training and routine purposes.

SI Analytics

- Made in Germany
- USB Interface
- Data logger (storage of up to 4000 entries: Date, time, main measured value, secondary measured value, measured temperature) with adjustable interval
- Numerical password protection
- Selectable user language (German, English, French and Spanish)
- Configurable turn-off time
- Sturdy aluminium housing
- Graphic LCD display, backlit



6.270 548

Scope of supply: Stand, mains adapter, electrode as indicated and 6 DIN buffers (2 x pH 4.01, 2 x pH 6.87 and 2 x pH 9.18)

Specifications

	Measuring range // Resolution // Accuracy
pH:	0 - 14 // 0.01 // ±0.01 (±2 at calibration point)
mV:	-1999 ... 1999 mV // 1 mV // ±0.3 mV
ISE:	0 ... 30000 ppm
Temperature:	-10 ... 100 °C // 0.1 °C // ±0.1 °C
Temperature compensation:	automatic with PT1000 or fix temperature

Description	PK	Cat. No.
LAB 845 without electrode	1	6.270 548 2
Lab 845 set with BlueLine electrode BL19pH	1	6.281 380
Lab 845 set with BlueLine electrode BL25pH	1	6.281 620
Lab 845 set t with BlueLine electrode BL29pH	1	6.281 621

pH meters Eutech™ PH700/PH2700 series

Economical, user-friendly and accurate, the PH700 is the ideal choice for routine applications in laboratories, production plants and schools. The advanced PH2700 offers an easy to read screen that says more. View pH or ORP readings, with temperature, electrode status, calibration points, date and time all at once.

Thermo Scientific

- Large, easy-to-read display
- Ready indicator
- 5-point calibration with auto-buffer recognition
- Memory holds up to 100 data points
- Integral electrode holder

Additional features PH2700

- Up to 6-point calibration with auto-buffer recognition
- Quick, easy electrode diagnosis with multiple pH slopes and offset display
- Extended memory holds up to 500 data points, time and date-stamped for GLP compliance
- Alarm for re-calibration
- Auto-Log function for convenient continuous monitoring
- Password protection for setup and calibration

Scope of delivery: Meter with Integral Electrode Holder (except PH70040) and electrodes as indicated.

Specifications

pH700 // pH2700

pH range:	0.00 to 14.00 // -2.000 to 20.000
Resolution:	0.01 // 0.001
Accuracy:	±0.002
pH calibration points:	Up to 5 points // Up to 6 preset or 5 custom
mV range:	±1999 mV // ±2000 mV
Accuracy:	±0.2 mV (±199.9 mV) // ±2 mV (beyond)
Temperature range:	0.0 to 100.0 °C
Resolution:	0.1 °C
Accuracy:	±0.5 °C
Dimensions (W x L x H):	155 x 175 x 69 mm
Weight:	650 g
Power supply:	100-240 V adapter
IP code:	IP 54
Warranty:	3 years on the meter

Type	Description	PK	Cat. No.
PH70040	Meter only	1	7.910 491
PH70040S	Meter with Integral Electrode Holder	1	6.284 902
PH70042S	with pH Electrode, ATC Probe	1	7.910 099 1
PH70042GS	with Glass body, open pore pH electrode, ATC Probe	1	6.284 903
PH270040S	With RS232 cable	1	6.284 904 2
PH270042GS	With pH Electrode, ATC Probe, RS232 cable, pH Electrode Refill Solution	1	6.284 905



7.910 099



6.284 904

3. Analytical measurement and testing pH-measurement/Table devices

1 2 Laboratory instrument inoLab® pH 7110

Basic pH/mV laboratory instrument for all tasks where reliable, accurate readings are required quickly and easily. With large LCD segment display and easy-to-read keyboard. The AutoRead function ensures correct and repeatable measurement results. A built-in timer reminds the user of periodical calibration.

WTW®

Scope of supply: Instrument, mains power adapter, stand

Specifications

Ranges All values ±1 digit
 pH: -2.0 ... 20.0 ±0.1 pH
 -2.00 ... 20.00 ±0.01 pH
 -2.000 ... 19.999 ±0.005 pH
 mV: ±(1200.0 ±0.3) mV
 ±(2000 ±1) mV
 Calibration: 1-, 2- or 3 point WTW technical buffer or DIN/NIST
 Temperature: -5.0 ... 105.0°C ±0.1°C
 Power supply: Universal power supply 100 to 240V, 50/60Hz, 4 x 1.5V AA or 4 x 1.2V NiMH rechargeable batteries



Type	Description	PK	Cat. No.
pH 7110	Stand-alone instrument with DIN connection	1	9.920 090
pH 7110 BNC	Stand-alone instrument with BNC connection	1	9.920 093
pH 7110 SET 2	Instrument incl. SenTix® 41, buffer 4.7 / 10.01 and 3 mol/l KCl	1	9.920 091
pH 7110 SET 4	Instrument incl. SenTix® 81, buffer 4.7 / 10.01 and 3 mol/l KCl	1	9.920 092

3 Laboratory instrument inoLab® pH 7310

Reliable Documentation for pH measurement, if desired also available with built-in printer. A modern backlit graphic display with menu controlled user interface allows easy and intuitive operation. The mini USB-B interface provides fast data transfer to a PC. The internal memory can record up to 5000 GLP complying data including ID, date and time. The housing and the keypad are easy-to-clean. Up to five calibration points cover almost the complete pH range. A calibration history of the 10 last calibrations allows conclusions on the state of the sensor. An integrated thermal printer (58mm width) is ready for printout of the measured data (option). **Supplied with:** meter, power supply, stand and USB cable.

WTW®



Specifications

Ranges All values ±1 digit
 pH: -2.0 ... 20.0 ±0.1 pH
 -2.00 ... 20.00 ±0.01 pH
 -2.000 ... 19.999 ±0.005 pH
 mV: ±(1200.0 ±0.3) mV
 ±(2500 ±1) mV
 Temperature: -5.0 ... 105.0 °C ±0.1 °C
 Calibration: 1-, 2-, 3-, 4-, 5 point WTW technical. DIN, NIST and 20 additional buffer sets
 Calibration memory: Up to 10 calibrations recallable
 Display: LCD Graphic, backlit
 Memory: manual 200/5000 automatic
 Logger: manual/time controlled
 Interface: Mini USB-B
 Power supply: Universal power supply, 100 to 240V, 50/60 Hz, 4 x 1.5V AA or 4 x 1.2V NiMH

Type	Description	PK	Cat. No.
pH 7310	Meter only incl. accessories	1	9.920 100
pH 7310 Set 2	Meter incl. SenTix® 41 and accessories	1	9.920 101
pH 7310 Set 4	Meter incl. SenTix® 81 and accessories	1	9.920 102
pH 7310P	Meter incl. integrated printer	1	9.920 104
pH 7310P BNC	Meter with integrated printer, incl. accessories, BNC input	1	9.920 107
RP 58 HQ	Printer paper	1	6.252 725

pH-measurement/Table devices

1

pH meter FiveEasy™ pH F20/FiveEasy Plus™ pH FP20

FiveEasy™ and FiveEasy™ Plus benchtop meters provide high quality pH/mV measurements with the simple click of a button.

Mettler-Toledo Online

- Large, easy to read and easy to understand display with all information visible at a glance
- Five self-explanatory buttons making operation simple and easy
- Fast and easy connectivity for simple and secure data transfer (FP only)
- Electrode arm extension pole included

F20-Meter: Meter with CD operating instructions, QuickGuide, declaration of conformity, test certificate and power supply

F20-Standard: as F20-Meter, plus plastic LE438 3-in-1 pH electrode and 1 each x 4.01, 7.00 and 9.21 buffer sachets

FP20-Meter: Meter with CD operating instructions, QuickGuide, declaration of conformity, test certificate and power supply

FP20-Standard: as FP20-Meter, plus plastic LE438 3-in-1 pH electrode and 1 each x 4.01, 7.00 and 9.21 buffer sachets

FP20-Bio: as FP20-Meter, plus glass LE410 3-in-1 pH electrode and 1 each x 4.01, 7.00 and 9.21 buffer sachets

FP20-Micro: as FP20-Meter, plus glass LE422 micro pH electrode and 1 each x 4.01, 7.00 and 9.21 buffer sachets

FP20-TRIS: as FP20-Meter, plus glass LE420 pH electrode with moveable sleeve diaphragm and 1 each x 4.01, 7.00 and 9.21 buffer sachets



6.280 101

Specifications

Measuring range (Accuracy)

pH F20/FP20: 0.00 to 14.00pH/-2.00 to 16.00pH (±0.01pH)

mV: -2000 to 2000mV (±1mV)

Temperature F20/FP20: 0 to 100°C (0.5°C)/-5 to 105°C (0.3°C)

Input: BNC, Cinch (NTC 30kΩ)

Temperature compensation: ATC and MTC

Power supply: 100-240V/50-60Hz/12V DC

Calibration F20: 3 points, linear, 4 predefined buffer groups

Calibration FP20: 5 points, linear/segmented, 4 predefined buffer groups

FP20 only:

Memory: 200 measurements

Interface: RS232, USB, Reference input

Type	PK	Cat. No.
F20-Meter	1	6.280 100
F20-Standard Kit	1	6.280 101 ¹
FP20-Meter	1	6.280 102
FP20-Standard Kit	1	6.280 103
FP20-Bio	1	6.280 104
FP20-Micro	1	6.280 105
FP20-TRIS	1	6.280 106

We can **supply** this
manufacturer's
whole
product range !



1 pH meter SevenCompact™ S210

Mettler-Toledo Online

The SevenCompact™ pH meter S210 is the perfect choice for a wide range of applications. At the same time, working with the S210 is like child's play. Starting a measurement or calibration has never been easier, requiring only a single keypress.

- Fast and accurate measurements
- User-friendly operation
- Menu guidance in 12 languages
- Clear, well arranged color display
- Many peripheral options
- GLP compliant

Supplied with:

S210-Basic: Instrument, electrode holder, protective cover, operating instructions, quick guide, declaration of conformity and test certificate

S210-Kit: As per S210-Basic, additionally with InLab® Expert Pro-ISM, guide to pH measurements and 2 buffer sachets for pH 4.01, 7.00, 9.21 and 10.00.

S210-Bio: As per S210-Kit, but with InLab® Routine Pro-ISM cable kit instead of InLab® Expert Pro-ISM.

S210-U: As per S210-Kit, but with InLab® Versatile Pro instead of InLab® Expert Pro-ISM.



Specifications:

pH-range:	-2 ... 20
pH-relative accuracy:	±0.002
pH-resolution User-definable:	0.001/0.01/0.1
mV-range:	-2000.0 ... 2000.0
mV-relative accuracy:	±0.2
mV-resolution User-definable:	0.1/1
Temperature range	
MTC:	-30.0 ... 130.0 °C
ATC:	-5.0 ... 130.0 °C
Temperature accuracy:	±0.1 °C
Display:	4.3 inch, TFT color
Ext. power supply:	9-12V/10W
IP code:	IP 54

Type	PK	Cat. No.
S210-Basic	1	9.704 156
S210-Kit	1	9.704 157
S210-Bio	1	9.704 158
S210-U	1	9.704 159

Printers for Mettler Toledo instruments

Suitable for the following Mettler Toledo instruments:

Mettler-Toledo Online

RS-P25, RS-P26, RS-P28: SevenExcellence™, SevenCompact™, FiveEasy Plus™, SevenMulti™

RS-P25/USB-P25: SevenExcellence™

RS-P26, RS-P28: SevenGo pro™, SevenGo pro Duo™, Densito, Refracto, SevenEasy™

Supplied with: Printer, power cable (country specific), interface cable, paper roll (1 pcs), ribbon cartridge (1 pcs)

Features

- Built-in real-time clock, Zero/Tare key:
- Statistic application, totalling application:
- RS232 Schnittstelle:
- Printer unit:
- Ribbon cartridge:
- Paper roll:
- Print quality:
- Interface:
- Dimensions (W x D x H):
- Net weight:

For model

- RS-P26, RS-P28
- RS-P28
- RS-P25, RS-P26, RS-P28
- Dot matrix printer
- Exchangeable, black ink
- Standard paper 57.5 mm (W), max. Ø 60 mm
- Thermally stable and lightfast paper (GxP)
- RS232C, 9pin male connector or USB* (*SevenExcellence ONLY)
- 120 x 203 x 73mm
- 740g (paper roll included)

2



6.252 178

3



9.773 710

Type	PK	Cat. No.
RS-P25/USB-P25	1	6.252 178 2
RS-P26	1	6.251 155
RS-P28	1	9.773 710 3

pH-measurement/Table devices



1 pH/Ion meter SevenCompact™ S220

Mettler-Toledo Online

The colour display with its well-designed icons and menu settings in 10 languages makes operation genuinely intuitive. Applications range from routine measurements through sample analysis, data handling and data archiving in compliance with GLP regulations. Simply innovative design that meets the requirements for a universal, easy-to-operate pH/Ion meter.

- User friendly instrument for demanding users
- Security and high reproducibility thanks to Intelligent Sensor Management (ISM®)
- Improved quality of measurements through professional calibration support
- Comprehensive service package including IQ/OQ
- Integrated USB and RS232 interfaces for data exchange

Supplied with:

S220-Basic: Instrument, electrode holder, protective cover, operating instructions, quick guide, declaration of conformity and test certificate

S220-Kit: As per S220-Basic, additionally with InLab® Expert Pro-ISM, guide to pH measurements and 2 buffer sachets for pH 4.01, 7.00, 9.21 and 10.00.

S220-Bio: As per S220-Kit, but with InLab® Routine Pro-ISM cable kit instead of InLab® Expert Pro-ISM.

S220-U: As per S220-Kit, but with InLab® Versatile Pro instead of InLab® Expert Pro-ISM.

S220-Micro: As S220-Kit but with InLab® Ultra Micro instead of InLab® Expert Pro-ISM

S220-uMix: As S220-Kit but also including the uMix™ magnetic stirrer

Specifications:

pH-range:	-2.000 to 20.000
pH-relative accuracy:	±0.002
pH-resolution User-definable:	0.001/0.01/0.1
mV-range:	-2000.0 to 2000.0
mV-relative accuracy:	±0.2
mV-resolution User-definable:	0.1/1
Ion-Concentration range:	1.00E-9 to 9.99E+9
Ion-Concentration accuracy:	±0.5%
Temperature range	
MTC:	-30.0 to 130.0°C
ATC:	-5.0 to 130.0°C
Temperature accuracy:	±0.1°C
Display:	4.3 inch, TFT color
Ext. power supply:	9-12V/10W

Type	PK	Cat. No.
S220-Basic	1	9.704 160
S220-Kit	1	9.704 161
S220-Bio	1	9.704 162
S220-U	1	9.704 163
S220-Micro	1	6.284 504
S220-uMix	1	6.284 505

Accessories for Printers for Mettler Toledo instruments

Mettler-Toledo Online

Description	PK	Cat. No.
Normal paper	5	9.947 538
Paper roll adhesive	1	9.947 540
Ribbon cartridge, black	2	4.668 465



1 LLG pH electrode

Low maintenance combination electrode with integrated temperature sensor. Robust design with plastic shaft, protective basket and fixed cable connection. Made in Germany.

Specifications

Temperature range:	0 ... 80 °C
Temperature sensor:	NTC 30 kΩ
pH range:	0 ... 14
Diaphragm:	2 x ceramic
Membrane shape:	Cylindrical
Electrolyte:	Gel, 3M
Min. immersion depth:	15 mm
Cable length:	1 m
Length/Ø:	120/12 mm
Electrode connection:	BNC
Temperature sensor connection:	Cinch 3 mm

Type	PK	Cat. No.
LLG pH electrode	1	6.263 602



pH combination electrode, gel electrolyte, SenTix®

Basic pH combination electrodes, with plastic body, gel reference system. SenTix® 20 with plug head (AS/DIN or AS/BNC cable combination please order separately). WTW®
 Sentix 21-3 and Sentix 41-3 with 3 m fixed cable.

Specifications

Temperature range:	0 to 80 °C
pH range:	0 to 14 pH
Length/diam.:	120 mm/12 mm
Electrolyte:	Gel
Diaphragm:	Fibre
Membrane shape:	Cylindrical
Membrane resistance at 25°C:	1 GΩ

Type	Temperature sensor	Connector	Cable m	PK	Cat. No.
SenTix® 20	-	Plug-in head	-	1	9.040 851
SenTix® 21	-	DIN, waterproof	1	1	9.040 872
SenTix®21-3	-	DIN, waterproof	3	1	9.040 873
SenTix® 22	-	BNC	1	1	9.040 840
SenTix® 41	NTC 30 kΩ	DIN, waterproof	1	1	9.040 876 2
SenTix® 41-3	NTC 30 kΩ	DIN, waterproof	3	1	9.040 877
SenTix® 42	NTC 30 kΩ	BNC	1	1	9.040 841



9.040 876

pH combination electrodes, liquid electrolyte, SenTix®, refillable

Standard pH combination electrodes with glass shaft, non-solid electrolytes. With fixed cable (1m). SenTix® 60 with screw head (AS/DIN or AS/BNC cable combination please order separately). WTW®

Specifications

Temperature range:	0 to 100°C
pH range:	0 to 14pH
Length/diam.:	120/12mm
Electrolyte:	Liquid, KCl 3mol/l
Diaphragm:	Platinum
Membrane shape:	Conical
Membrane resistance at 25°C:	600 MΩ
Refill hole cover:	Slide

Type	Temperature sensor	Connector	PK	Cat. No.
SenTix® 60	-	Plug head	1	9.040 842
SenTix® 61	-	DIN, watertight	1	9.040 881
SenTix® 62	-	BNC	1	9.040 843
SenTix® 81	NTC 30 kΩ	DIN, watertight	1	9.040 886 3
SenTix® 82	NTC 30 kΩ	BNC	1	9.040 844



9.040 886

pH-measurement/pH-Electrodes



1 IDS pH electrodes SenTix® 940

Low maintenance pH electrodes with plastic shaft and gel electrolyte, with built-in temperature sensor NTC 30 kOhm. Cable length 1.5 m, SenTix® 940-3 with 3 m cable.

WTW®

Specifications

Temperature range:	0 ... 80 °C
pH range:	0 ... 14 pH
Length/diam.:	120 mm/12 mm
Electrolyte:	Gel
Diaphragm:	Fibre
Membrane shape:	Cylinder
Membrane resistance at 25°C:	< 1GΩ

Type	PK	Cat. No.
SenTix® 940	1	6.240 824
SenTix® 940-3	1	6.239 769



2 pH combination electrode, SenTix® H/SenTix® HW, refillable

Precision pH combination electrodes with glass shaft and liquid electrolyte. With plug head (AS/DIN or AS/BNC cable combination please order separately). SenTix® H for high alkaline solutions, SenTix® HW for low conductive samples.

WTW®

Specifications

Temperature range:	0 to 80 °C // 0 to 60 °C	SenTix® H // SenTix® HW
pH range:	0 to 14 pH	
Length/diam.:	170/12 mm	
Electrolyte:	Liquid, KCl 3 mol/l	
Diaphragm:	Ground joint	
Membrane shape:	Cylindrical	
Membrane resistance at 25°C:	2 GΩ // 800 MΩ	
Refill hole cover:	Slide	

Type	Temperature sensor	Connector	PK	Cat. No.
SenTix® H	-	plug head	1	9.040 845
SenTix® HW	-	plug head	1	7.058 767



3 pH electrodes, SenTix® SP, not refillable

pH electrodes with plastic shaft and liquid electrolyte. SenTix® SP with plug head (AS/DIN or AS/BNC cable combination please order separately). SenTix® SP-DIN with 1m-fixed cable. For penetration measurements.

WTW®

Specifications

Temperature range:	0 to 80°C
pH range:	2 to 13pH
Length // diam.:	65/25 mm // 15/5 mm
Electrolyte:	Polymer
Diaphragm:	Hole
Membrane shape:	Spear
Membrane resistance at 25°C:	400MΩ

Type	Temperature sensor	Connector	PK	Cat. No.
SenTix® SP	-	plug head	1	9.040 890
SenTix® SP-DIN	-	DIN	1	7.655 158



4 pH/ORP electrodes Sensolyt® ProcessLine

For the Sensolyt® armature, for the installation in a flow vessel or in a replacement fitting

WTW®

- For drinking water, wastewater or in the process
- Also for high pressure and temperature conditions
- Easy to maintain by easy measuring chain replacement

Type	Description	Range pH	PK	Cat. No.
Sensolyt® SEA	For strongly contaminated waste water	2 - 12	1	6.223 033
Sensolyt® SE	As Sensolyt® SEA, but without arming for installation	2 - 12	1	7.008 185
TA-Sensolyt® SEA	As Sensolyt® SEA, also for installation in TA-197 pH	2 - 12	1	9.774 218
Sensolyt® SEA-HP	For increased pressure/temperature conditions	4 - 12	1	7.656 875
Sensolyt® ECA	For normal contaminated wastewater	2 - 12	1	6.223 031
Sensolyt® EC	As Sensolyt® ECA, but without arming for installation	2 - 12	1	7.618 407
Sensolyt® DWA	For drinking water applications	0 - 14	1	6.223 010
Sensolyt® DW	As Sensolyt® DWA, but without arming for installation	0 - 14	1	6.222 876

IDS pH electrodes SenTix® 980

Precision pH electrodes with glass shaft and liquid electrolyte KCl 3 mol/l Ag+ free, with built-in temperature sensor NTC 30 kOhm. Cable length 1.5 m, SenTix® 980-P wireless-ready.

WTW®

Specifications

Temperature range:	0 ... 100 °C
pH range:	0 ... 14 pH
Length/diam.:	120 mm/12 mm
Electrolyte:	KCl 3 mol/l Ag+ free
Diaphragm:	Platinum wire
Membrane shape:	Cone
Membrane resistance at 25°C:	< 600 MΩ

Type	PK	Cat. No.
SenTix® 980	1	6.238 921 1
SenTix® 980-P	1	6.285 212



6.238 921

Accessories for combination electrodes

Connection cable for pH electrodes with plug head connection to plugs as indicated.

WTW®

Type	Connector	Cable m	PK	Cat. No.
AS/DIN	DIN	1	1	9.040 895 2
AS/DIN-3	DIN	3	1	9.040 896
AS/BNC	BNC	1	1	9.040 897



9.040 895

3 pH-electrodes, BlueLine, not refillable

Low-maintenance pH combination electrode with plastic body, Ag/AgCl reference system. With fixed cable, length 1 m (BlueLine 24 pH IDS 1.5 m, BlueLine 24-3 pH IDS 3 m). BlueLine 22 pH with plug head (LB 1A or LB 1BNC cable combination please order separately).

SI Analytics

Specifications

Temperature range:	-5 to 80°C
pH range:	0 to 14pH
Zero point:	pH=7.0 ±0.3
Length/diam.:	120mm/12mm
Electrolyte:	Gel
Diaphragm:	Fibre
Membrane shape:	Cylindrical
Membrane resistance at 25 °C:	400MΩ

Type	Temperature sensor	Connector	PK	Cat. No.
BlueLine 22 pH	-	Plug head	1	9.041 147
BlueLine 23 pH	-	DIN	1	9.041 148
BlueLine 24 pH	NTC 30 kΩ	DIN + Banana	1	9.041 149
BlueLine 24 pH IDS	NTC 30 kΩ	Digital plug	1	6.265 622
BlueLine 24-3 pH IDS	NTC 30 kΩ	Digital plug	1	6.265 623
BlueLine 25 pH	-	BNC	1	9.041 150
BlueLine 26 pH	NTC 30 kΩ	BNC + Banana	1	9.041 151
BlueLine 26 pH-Cinch	NTC 30 kΩ	BNC + Cinch	1	6.251 893
BlueLine 28 pH	Pt 1000	DIN + Banana	1	7.075 024
BlueLine 28 pH-P	Pt 1000	DIN + 2-mm-pin	1	6.204 522
BlueLine 29 pH	Pt 1000	BNC + Banana	1	6.261 445
BlueLine 29 pH-P	Pt 1000	BNC + 2-mm-pin	1	6.226 741



3

4 Spear-tip electrode, BlueLine 21 pH, not refillable

pH combination electrode with plastic body, Ag/AgCl reference system and spear membrane tip. BlueLine 21 pH IDS mit 1.5 m fixed cable and digital plug. BlueLine 21 pH with plug head. LB 1 A or LB 1 BNC cable combination please order separately. Particularly suitable for penetration measurements in semi-solid media.

SI Analytics

Specifications

Temperature range:	-5 to + 80°C
pH range:	2 to 13 pH
Temperature sensor:	No
Taper length // Dia. max./min.	65/25mm // 12/5mm
Electrolyte:	Referid®
Diaphragm:	Hole
Membrane resistance at 25 °C:	400 MΩ

Type	PK	Cat. No.
BlueLine 21 pH	1	9.041 146
BlueLine 21 pH IDS	1	6.265 621

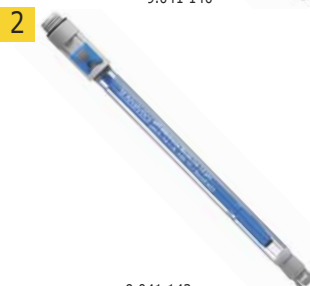


4

pH-measurement/pH-Electrodes



9.041 140



9.041 142

pH electrodes BlueLine, refillable

pH combination electrode with glass body, Ag/AgCl reference system. With fixed cable, length 1 m (BlueLine 14 pH IDS 1.5 m). BlueLine 11 pH and BlueLine13 pH with screw head (LB 1A or LB 1BNC cable combination please order separately).

SI Analytics

Specifications

Temperature range:	-5 to 100°C
pH range:	0 to 14pH
Zero point:	pH=7.0 ±0.3
Length/diam.:	120/12mm
BlueLine 13 pH:	170/12mm
Electrolyte:	Liquid, KCl 3mol/l
Diaphragm:	Platinum
BlueLine 13 pH:	Ground joint
Membrane shape:	Conical
BlueLine 13 pH:	Cylindrical
Membrane resistance at 25°C:	250MΩ
BlueLine 13 pH:	300MΩ
Refill hole cover:	Slide

Type	Temperature sensor	Connector	PK	Cat. No.
BlueLine 11 pH	-	Plug head	1	9.041 140 1
BlueLine 12 pH	-	DIN	1	9.041 141
BlueLine 13 pH	-	Plug head	1	9.041 142 2
BlueLine 14 pH	NTC 30 kΩ	DIN + Banana	1	9.041 143
BlueLine 14 pH ID	NTC 30 kΩ	DIN + 4-mm-banana, ID function	1	6.233 381
BlueLine 14 pH IDS	NTC 30 kΩ	Digital plug	1	6.265 620
BlueLine 15 pH	NTC 30 kΩ	BNC + Banana	1	9.041 144
BlueLine 15 pH ID	NTC 30 kΩ	BNC + 4-mm-banana, ID function	1	9.041 155
BlueLine 15 pH Cinch	NTC 30 kΩ	BNC + Cinch	1	6.240 767
BlueLine 17 pH	-	BNC	1	7.608 144
BlueLine 18 pH	Pt 1000	DIN + Banana	1	7.054 864
BlueLine 19 pH	Pt 1000	BNC + Banana	1	7.658 006
BlueLine 15 pH	NTC 10 kΩ	BNC + jack connector	1	7.672 009



3 pH combination electrodes with gel electrolyte

Low-maintenance pH combination electrode for use in water management and process chemistry. Not refillable.

SI Analytics

- With glass shaft and Silamid® reference
- Gel electrolyte with visible KCl reserve
- With factory test certificate 2.1 for pressure and temperature resistance

Scope of delivery: Electrode with screw plug head (Pg 13.5 installation thread), HD seal, connection cable.

Specifications

Temperature range:	-5 ... 80 °C
Pressure range	1 ... 12 bar
pH range:	2 ... 12
Length/diam.:	120 mm/12 mm
Electrolyte:	Gel
Diaphragm:	Ceramic
Membrane shape:	Sphere
Membrane resistance at 25 °C:	30 MΩ

Type	PK	Cat. No.
L7781 HD	1	7.070 780

pH-combination electrodes

With plug head, glass shaft, platinum diaphragm (N 64 with sleeve diaphragm), 3mol/l KCl electrolyte, Silamid® reference system and 12mm dia. spherical membrane.

SI Analytics

Type	Temp. range max. °C	Length mm	Membrane	Diam. mm	PK	Cat. No.
N 61	-5 ... +100	170	A-glass	12	1	9.041 100
H 61	+10 ... +100	170	H-glass	12	1	9.041 105
N 62	-5 ... +100	120	A-glass	12	1	9.041 110
H 62	+10 ... +100	120	H-glass	12	1	9.041 112
N 64	-5 ... +100	170	A-glass	12	1	9.041 120 4



9.041 120

pH-Electrodes ScienceLine plus



With glass shaft, Silamid®-reference system with silver ion barrier and double-electrolyte, electrolyte KCl 3 mol/l, banana plug. pH range 0 to 14 pH. SCPpHT-A170MF-3M-DIN-N additionally with ID function.

SI Analytics

Type	Temp. range max. °C	Length mm	Diam. mm	Membrane	Diaphragm type	Connector	Temperature sensor	Glass	PK	Cat. No.
SCPpHT-SP-A-3M-DIN-N	-5 ... 100	120	12/8	Spear	3 x Ceramic	DIN	Pt 1000	A	1	4.672 216 1
SCPpHT-SP-A-3M-BNC-N	-5 ... 100	120	12/8	Spear	3 x Ceramic	BNC	Pt 1000	A	1	4.672 217
SCPpHT-H170MF-3M-DIN-N	-5 ... 100	170	12	Sphere	Ceramic	DIN	Pt 1000	H	1	4.672 222
SCPpHT-A170MF-3M-DIN-N	-5 ... 100	170	12	Sphere	Platinum	DIN	Pt 1000	A	1	4.672 219
SCPpHT-A170MF-3M-BNC-N	-5 ... 100	170	12	Sphere	Platinum	BNC	Pt 1000	A	1	4.672 218
SCPpH-H120MF	-5 ... 100	120	12	Sphere	Platinum	Plug head	-	A	1	4.672 220 2
SCPpH-H170MF	-5 ... 100	170	12	Sphere	Platinum	Plug head	-	H	1	4.672 221
SCPpHT-MIC-AMF-3M-DIN-N	-5 ... 100	70/130	12/5	Cylinder	Platinum	DIN	Pt 1000	A	1	4.672 224 3
SCPpHT-MIC-AMF-3M-BNC-N	-5 ... 100	70/130	12/5	Cylinder	Platinum	BNC	Pt 1000	A	1	4.672 225
SCPpH-MIC-AMF	-5 ... 100	70/130	12/5	Cylinder	Platinum	Plug head	-	A	1	4.672 223



4 Cable combinations

For BlueLine pH electrodes, ScienceLine, IoLine and TopLine. Cable length: 1 m coaxial cable.

SI Analytics

Type	Connector	PK	Cat. No.
LB 1 A	DIN	1	9.041 303
LB 1 BNC	BNC	1	9.041 304
L 1 N	Banana, 4 mm	1	6.225 150
L 1 A	DIN	1	9.041 235
L 1 BNC	BNC	1	9.041 301



pH electrodes InLab® Routine Series

Combined pH electrode, glass shaft, ARGENTHAL™ reference with silver-ion trap, detachable cable. For InLab®Routine please order separately InLab® cable S7 and for InLab®Routine Pro and InLab®Routine Pro ISM please order separately InLab® cable MultiPin-BNC/RCA.

Mettler-Toledo Online

Specifications:

Temperature range: 0 to +100 °C
 pH range: 0 - 14
 Electrode Dia.: 12 mm
 Electrolyte: Liquid, KCl 3 mol/l
 Diaphragm: ceramic
 Membrane resistance at 25 °C: < 600 M Ω
 Shaft length: min. 120 mm

Description	Temperature sensor	Electrode head	PK	Cat. No.
InLab® Routine	-	S7	1	9.041 450 5
InLab® Routine Pro	NTC 30 kΩ	MultiPin™	1	9.041 454 6
InLab® Routine Pt1000	Pt1000	MultiPin™	1	9.041 456
InLab® Routine Pro ISM	NTC 30 kΩ	MultiPin™	1	7.629 195
InLab® cable S7-BNC 1.2 m			1	9.041 613
InLab® cable MultiPin-BNC/RCA, 1,2 m			1	9.041 611 7



8 pH combination electrode InLab® Solids

With spear-tip membrane. With glass shaft, Argenthal™ reference system and S7 plug head. Cable - please order separately.

Mettler-Toledo Online

Specifications

Temperature range: 0 to +80°C
 pH range: 0 - 11
 Temperature sensor: no
 Length/Diam.: 25mm/6mm
 Electrolyte: XEROLYT® PLUS polymer electrolyte, non-refillable
 Diaphragm: open junction
 Membrane resistance at 25 °C: < 250 M Ω

Type	Connector	Temperature sensor	PK	Cat. No.
InLab® Solids	S7	-	1	9.041 553
InLab® Solids Pro-ISM	MultiPin™	NTC 30 kΩ	1	9.041 555
InLab® Solids Go-ISM	BNC/RCA IP67	NTC 30 kΩ	1	6.270 667



pH-measurement/pH-Electrodes



1 pH electrode InLab® Micro

pH-combination electrode with glass shaft, ARGENTAL™ reference system with Ag⁺ trap and S7 electrode head. Cable - please order separately.

Mettler-Toledo Online

Specifications

Temperature range:	0 to +80°C
pH range:	0 - 14
Temperature sensor:	no
Length/Diam.:	60mm/3mm
Electrolyte:	Fluid, KCl 3mol/l
Diaphragm:	Ceramic type Z (pore size 0.9µm)
Membrane resistance at 25 °C:	< 1000MΩ

Type	PK	Cat. No.
InLab® Micro	1	9.041 560



2 pH electrodes InLab® 413

For portable applications in the lab and outdoors, robust and maintenance-free. pH-combination electrode with chemically resistant PEEK shaft, ARGENTAL™ reference system. Fixed BNC/RCA (Cinch) cable. InLab® 413 IP67 with MultiPin™ electrode head.

Mettler-Toledo Online

Specifications

Temperature range:	0 to +100 °C
pH range:	0 - 14
Temperature sensor:	NTC 30 kΩ
Length/Diam.:	120 mm/12 mm
Electrolyte:	XEROLYT® polymer
Diaphragm:	double open junction
Membrane resistance at 25 °C:	< 250 MΩ
IP code:	IP67

Type	Connector	Cable m	PK	Cat. No.
InLab® 413 SG Expert Go	BNC / RCA (Cinch)	1,8	1	6.233 316
InLab® 413 IP67	BNC / RCA (Cinch)	1,2	1	6.900 314



pH electrodes InLab® Expert Pro

pH-combination electrode with chemically resistant PEEK shaft, ARGENTAL™ reference system. Fixed BNC/RCA (Cinch) cable.

Mettler-Toledo Online

InLab® Expert Pro ISM for SevenCompact and SevenExcellence.

Specifications

Temperature range:	0 to +100°C
pH range:	0 - 14
Temperature sensor:	NTC 30kΩ
Length/Diam.:	120mm/12mm
Electrolyte:	XEROLYT® polymer
Diaphragm:	open junction
Membrane resistance at 25 °C:	< 250MΩ

Type	Connector	Temperature sensor	Cable m	PK	Cat. No.
InLab® Expert Go-ISM	BNC/RCA IP67	NTC 30 kΩ	1,8	1	7.626 196
InLab® Expert	S7	-	-	1	9.041 500
InLab® Expert Pro-ISM	BNC/RCA	NTC 30 kΩ	1,2	1	9.041 508
InLab® Expert Pro	BNC/RCA	NTC 30 kΩ	1,2	1	9.041 506 3
InLab® Expert DIN	DIN 19262 / 4 mm	Pt1000	1,2	1	9.041 503
InLab® Expert NTC30	MultiPin™	NTC 30 kΩ	1,2	1	9.041 504

9.041 506



4 pH electrode InLab® Micro Pro ISM

pH-combination electrode with glass shaft, ARGENTAL™ reference system with Ag⁺ trap and MultiPin™ electrode head. Cable - please order separately.

Mettler-Toledo Online

Specifications

Temperature range:	0 to +100°C
pH range:	0 - 14
Temperature sensor:	NTC 30kΩ
Length/Diam.:	130mm/5mm
Electrolyte:	Fluid, KCl 3mol/l
Diaphragm:	Ceramic
Membrane resistance at 25 °C:	< 300MΩ

Type	PK	Cat. No.
InLab® Micro Pro ISM	1	6.243 633

1 pH combination electrode LE 438

With epoxy body and gel electrolyte, fixed cable with BNC/Cinch connection. For simple measurements, particularly suitable for portable pH meters, with temperature sensor.

Mettler-Toledo Online

Electrolyte:	3 mol/L KCl sat. with AgCl as gel, non-refillable
Body length:	120 mm
pH:	0 to 14
Temperature:	0 to 80 °C
Temperature sensor:	NTC 30 kΩ

Type	Connection	PK	Cat. No.
LE 438	BNC / Cinch	1	9.041 400



2 pH electrode InLab® Science Pro ISM

pH-combination electrode with glass shaft, ARGENTAL™ reference system with Ag⁺ trap and MultiPin™ electrode head. Cable - please order separately.

Mettler-Toledo Online

Specifications

Temperature range:	0 to +100°C
pH range:	0 - 12
Temperature sensor:	NTC 30kΩ
Length/Diam.:	170mm/12mm
Electrolyte:	Fluid, KCl 3mol/l
Diaphragm:	movable glass sleeve
Membrane resistance at 25 °C:	< 600MΩ

Type	PK	Cat. No.
InLab® Science Pro ISM	1	9.041 472



3 pH electrode InLab® Pure Pro-ISM

For ion-weak samples like ultra-pure water, deionized water. pH-combination electrode with glass shaft, ARGENTAL™ reference system with Ag⁺ trap and MultiPin™ electrode head.

Mettler-Toledo Online

Cable - please order separately.

Specifications

Temperature range:	0 to +80 °C
pH range:	0 - 11
Temperature sensor:	NTC 30 kΩ
Length/Diam.:	170 mm/12 mm
Electrolyte:	Fluid, KCl 3mol/l
Diaphragm:	Glass sleeve
Membrane resistance at 25 °C:	< 50 MΩ

Type	PK	Cat. No.
InLab® Pure Pro-ISM	1	7.629 193



Connection cables

For connecting pH electrodes with built-in temperature sensors and MultiPin plug head or with S7 plug head (without temperature sensor) as indicated. Cables suitable for a variety of other manufacturers meters.

Mettler-Toledo Online

Connector	Electrode head	Length m	PK	Cat. No.
DIN	S7	1.2	1	9.041 634 4
BNC	S7	1.2	1	9.041 613 5
2 mm	S7	1.2	1	9.041 662
4 mm	S7	1.2	1	9.041 661 6
-	S7	5.0	1	9.041 669
BNC/RCA	MultiPin™	1.2	1	9.041 611
BNC/1x4 mm	MultiPin™	1.2	1	6.282 405
DIN/RCA	MultiPin™	1.2	1	9.041 649
Lemo 00/2x4 mm	MultiPin™	1.2	1	9.041 650 7



pH-measurement/Redox-Electrodes



IDS ORP electrodes SenTix® ORP-T 900

Universel ORP electrodes with platinum disc for laboratory applications.

WTW®

Specifications

Measuring range:	-1250.0 ... +1250.0 mV
Working temperature range:	0 ... 100 °C
Length/diam.:	120 mm/12 mm
Electrolyte:	KCl 3 mol/l
Sensor:	Platinum
Diaphragm:	Ceramic

Type	PK	Cat. No.
SenTix® ORP-T 900	1	6.267 995 1
SenTix® ORP-T 900-P	1	7.644 433



2 Combined redox electrodes InLab®

Redox combination electrodes for measuring the oxidation/reduction potential in aqueous solutions. The signal is generated on the surface of the indicator electrode by an electron exchange with the oxidation/reduction system of the measured medium. Without temperature sensor.

Mettler-Toledo Online

With Safelock™ end ring for easy refilling of the reference electrolyte and complete sealing in closed position. For use with a wide variety of measuring instruments.

InLab® Redox: For general purpose. With platinum ring indicator electrode

InLab® Redox Pro: For emulsions, wastewater analysis and general purpose. With movable ground joint junction and platinum ring indicator electrode

InLab® Redox L: For large samples. With platinum ring indicator electrode

InLab® Redox Au: Combined redox electrode with gold ring indicator electrode

InLab® Redox Ag: Combined redox electrode with silver ring indicator electrode

InLab® Redox Micro: For small samples. With platinum ring indicator electrode

Please order connection cable separately.

Specifications

Temperature range:	0 ... 100 °C
Connection:	S7
Reference system:	Silver/silver chloride
Reference electrolyte:	3 mol/l KCl (InLab® Ag: 1 mol/l KNO ₃)
Type of junction:	Ceramic
Shaft material:	Glass

Type	Length mm	Shaft diameter mm	PK	Cat. No.
InLab® Redox	120	12	1	9.041 540
InLab® Redox Pro	120	12	1	9.041 541
InLab® Redox L	170	12	1	9.041 542
InLab® Redox Au	120	12	1	9.041 544
InLab® Redox Ag	120	12	1	9.041 545
InLab® Redox Micro	100	6	1	9.041 543



3 ORP electrodes SenTix® ORP, analogue

With glass shaft, Ag/AgCl reference system, connections for AS/DIN, AS/DIN-3, AS/BNC, S7 plug head.

WTW®

Specifications

Temperature range:	0 ... 100 °C
Length/Diam.:	120 mm/12 mm
Electrolyte:	KCl 3 mol/l
Sensor:	Platinum
Sensor shape:	Disc (4 mm)
Diaphragm:	Ceramic

Type	PK	Cat. No.
SenTix® ORP	1	7.050 767

Ion-selective electrodes

Combined ISE and GSE electrodes.

WTW®

Type	For	Measuring range	Range	Connector	Membrane	PK	Cat. No.
pH							
NH 500/2	Ammonium	0.02 ... 900 mg/l	4-12	S7	-	1	7.008 136
Ca 800	Calcium, Magnesium	0.02 ... 40000 mg/l 5 x 10 ⁻⁷ ... 1 mol/l	2.5-11	DIN	Matrix	1	6.803 397
Ag/S 800	Silver, Sulfide	0.01 ... 108000 mg/l 10 ⁻⁷ ... 1 mol/l	2-12	DIN	Solid state	1	6.226 445
Cl 800	Chloride	0.003 ... 32000 mg/l 10 ⁻⁷ ... 1 mol/l	2-12	DIN	Solid state	1	6.204 775
CN 800	Cyanide	2 ... 35000 mg/l 5 x 10 ⁻⁵ ... 1 mol/l	0-14	DIN	Solid state	1	7.634 542
CU 800	Copper, Nickel	8 x 10 ⁻⁶ ... 10 ⁻² mol/l 0.0006 ... 6400 mg/l	2-6	DIN	Solid state	1	7.620 500
K 800	Potassium	10 ⁻⁸ ... 10 ⁻¹ mol/l 0.04 ... 39000 mg/l	2-12	DIN	Matrix	1	7.624 548
Br 800	Bromide	10 ⁻⁶ ... 1 mol/l 0.4 ... 79000 mg/l	1-12	DIN	Solid state	1	6.225 474
F 800	Fluoride, Aluminium, Phosphate, Lithium	5 x 10 ⁻⁶ ... 1 mol/l 0.02 ... sat. mg/l 10 ⁻⁶ ... sat. mol/l	5-7	DIN	Solid state	1	7.615 487
NO 800	Nitrate	0.46 ... 2000 mg/l	2.5-11	DIN	Matrix	1	6.204 944
Na 800/S7	Sodium	0.01 ... 23000 mg/l	8-11	S7	Glass	1	6.313 274

1 Ion selective combination electrodes perfectION™

With integrated reference electrode. Easy cleaning of the diaphragm between measurements with Click & Clear™ (except Na electrode): by pressing the electrode head, the electrolyte solution flows through the diaphragm. The electrolyte can be easily emptied and refilled. Optimum contact between sample and electrolyte solution is always guaranteed.

Mettler-Toledo Online

Scope of delivery: Sensor with permanently connected 1.2 m cable with BNC connection, 60 ml reference electrolyte, operating instructions.

Scope of delivery Na-electrode: Sensor with S7 plug head, diaphragm made of glass with higher sensitivity to sodium, 25 ml reference electrolyte, operating instructions.



Type	Membrane	Measuring range mol / l	Temp. range max. °C	Range pH	PK	Cat. No.
F	Solid	10 ⁻⁶ ... saturated	0 ... 80	4.5 ... 5.5	1	6.239 828
Na	Na ⁺ glass	10 ⁻⁷ ... 1	0 ... 80	8 ... 11	1	6.239 927
Cl	Solid	5 x 10 ⁻⁵ ... 1	0 ... 80	2 ... 12	1	6.240 856
NO3	Polymer	7 x 10 ⁻⁵ ... 1	0 ... 40	2.5 ... 11	1	6.251 376
Ca	Polymer	5 x 10 ⁻⁷ ... 1	0 ... 40	2.5 ... 11	1	9.041 169
Ag/S2	Solid	10 ⁻⁷ ... 1	0 ... 80	2 ... 12	1	9.041 170
CN	Solid	8 x 10 ⁻⁵ ... 10 ⁻²	0 ... 80	10 ... 14	1	9.041 171
Cu	Solid	10 ⁻⁸ ... 0.1	0 ... 80	2 ... 12	1	9.041 172
I	Solid	5 x 10 ⁻⁸ ... 1	0 ... 80	0 ... 12	1	9.041 173
K	Polymer	10 ⁻⁶ ... 1	0 ... 40	2.5 ... 11	1	9.041 174
Pb	Solid	10 ⁻⁶ ... 0.1	0 ... 80	4 ... 7	1	9.041 175

2 Ion selective, gas-sensitive electrodes

Modular half cell with exchangeable diaphragm and S-7 plug head for determining the concentration of individual ions in aqueous solutions. Easy to use and require comparatively low expenditure on apparatus thereby offering advantages over wet chemistry and instrument analysis methods. Ion selective electrodes must be used in conjunction with a suitable reference electrode (InLab® Reference, cat no. 9.041 590).

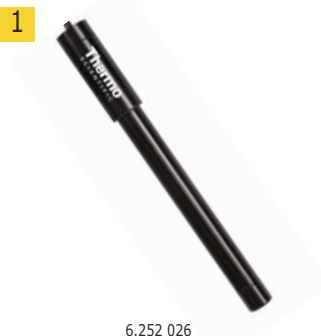
Mettler-Toledo Online

Type	Measuring range mol / l	Temp. range max. °C	Membrane	PK	Cat. No.
Bromide DX280	1 to 10 ⁻⁶	0 to 80	Solid state	1	9.041 721
Chloride DX235	1 to 10 ⁻⁵	0 to 80	Solid state	1	9.041 723
Fluoride DX219	1 to 10 ⁻⁶	0 to 80	Solid state	1	9.041 725
Calcium DX240	1 to 10 ⁻⁶	0 to 50	Polymer matrix	1	9.041 730
Potassium DX239	1 to 10 ⁻⁶	0 to 50	Polymer matrix	1	9.041 731
Nitrate DX262	1 to 10 ⁻⁵	0 to 50	Polymer matrix	1	9.041 732
Ammonium DX218	1 to 10 ⁻⁶	0 to 50	Polymer matrix	1	9.041 733
Copper DX264	1 to 10 ⁻⁶	0 to 50	Polymer matrix	1	9.041 736
Sodium DX223*	1 to 10 ⁻⁷	0 to 60	Glass	1	9.041 735
NH3	10 ⁻² - 10 ⁻⁶	0 to 50	Foil	1	9.041 745
InLab® Reference		0 to 100		1	9.041 590

* Module not exchangeable.

Further ions sensitive electrodes on request.





6.252 026

Ammonia gas sensing ISE Electrode

Gas and ion selective electrode for determination of ammonia content in aqueous solutions. For rapid and precise measurement of ammonia.

Thermo Scientific

Scope of delivery: Waterproof BNC connector, 1 m cable, 20 loose membranes, preassembled outer body and membrane cap, 2 x 60 ml bottles of electrode filling solution, spout cap and tweezers.

Specifications

Concentration range:	0.01...17000 ppm ammonia (NH ₃) 0.01...14000 ppm nitrogen (N)
Temperature range:	0...50 °C
Electrode resistance:	<5000 MΩ
Length/∅:	150 mm/16 mm
Cable length:	1 m

Type	PK	Cat. No.
Ammonia ISE electrode 9512BNWP	1	6.252 026 1
Replacement membranes for 9512BNWP	3	6.260 763
Replacement membranes for 9512BNWP	20	6.252 027



7.659 280

Fluoride electrodes

For quick and easy measurement of fluoride ions in aqueous solutions. When using the half cell electrodes 9409BN and 9409SC, a separately available reference electrode is needed.

Thermo Scientific

Specifications

Measurement range:	0.02 ppm...saturated
Temperature range:	0...80 °C
Length/∅:	110 mm/13 mm
Cable length:	1 m

Type	Description	Electrode head	PK	Cat. No.
9409BN	Solid state, half cell	BNC	1	7.659 280 2
9409SC	Solid state, half cell	Screw cap	1	6.285 489
9609BNWP	Solid state, combination	BNC	1	6.091 369



3 LLG-Electrode stand for 3 electrodes

With cable duct. For three electrodes, 3 opening with diam. 16 mm. Additional opening for temperature sensor. Three joints for high flexibility and adjustment options.

Base plate:	105 x 125 mm
Base plate weight:	0.7 kg
Arm weight:	0.1 kg
Max. arm height:	320 mm

Type	PK	Cat. No.
LLG-Electrode stand	1	6.286 248



4 Electrode stand

With flexible electrode holder for two electrodes and temperature sensor.

WTW®

Type	PK	Cat. No.
Electrode stand	1	9.040 870



5 Electrode vessel Z 453

Free standing electrode vessel for storing electrodes with 12mm diam. shaft.

SI Analytics

Type	PK	Cat. No.
Z 453	1	7.624 578

3. Analytical measurement and testing pH-measurement/Buffer solutions

1 LLG-pH-Buffer solutions with colour coding in twin-neck dispensing bottles

The ready-to-use buffer solutions offer excellent quality, precision and advantages in use. The calibration vessel, integrated into the twin-neck dispensing bottles, allows the particularly economical dispensing of solution and prevents contamination.

Features

- Accuracy ±0.01, tested and certified at 25°C
- Temperature dependence data table printed on the label
- Traceable to NIST
- Shelf-life: 24 months (pH 7 and 10) or 36 months (pH 4) from date of production
- Colour-coded

pH-value at 25 °C	Colour	Capacity ml	PK	Cat. No.
4.00	red	250	1	9.040 868
7.00	yellow	250	1	9.040 869
10.00	blue	250	1	9.040 871



2 LLG-pH buffer solutions with colour coding

The ready-to-use colour coded LLG-pH buffer solutions offer excellent quality, precision and are designed to suit all end user requirements. Supplied in 1L bottles and conveniently colour coded to eliminate any risk of confusion between the 3 pH values.

- Accuracy ±0.01, tested and certified at 25 °C
- Temperature dependence data table printed on the label
- Traceable to NIST

pH-value at 25 °C	Colour	Capacity ml	PK	Cat. No.
4.00	red	1000	1	9.040 865
7.00	yellow	1000	1	9.040 866
10.00	blue	1000	1	9.040 867



3 LLG-pH-Buffer solution

Tested and certified at 20°C. Provided with label that gives the pH value at different temperatures. Tolerance ±0.02 pH. Supplied in HDPE containers. Traceable to NIST (SRM). Temperature dependence data is printed on the label as well as batch numbers and expiry dates. Buffers have a 24 month shelf life from date of manufacture.

pH-value at 20 °C	Buffer	Capacity ml	PK	Cat. No.
4.00	Citrate	1000	1	4.664 603
7.00	Phosphate	1000	1	9.041 368
9.00	Borate	1000	1	9.041 374
10.00	Borate	1000	1	9.041 369



4 pH buffer solutions

Clear, Colourless pH Buffer Solutions. Tested and ISO17025 Certified at 20 °C, supplied with a detailed Certificate of Analysis which outlines traceability to N.I.S.T. Temperature dependence data is printed on the label as are lot numbers and expiry dates. Containers made of HDPE.

Reagecon

pH-value at 20 °C	Accuracy (±)	Capacity ml	PK	Cat. No.
1,00	0,02	500	1	6.235 385
2,00	0,02	500	1	6.228 059
3,00	0,02	500	1	6.206 738
4,00	0,01	500	1	9.040 911
4,00*	0,01	500	1	4.011 211
5,00	0,10	500	1	4.011 214
6,00	0,01	500	1	6.203 561
6,80	0,01	500	1	6.206 693
7,00	0,01	500	1	9.040 913
8,00	0,01	500	1	4.011 221
9,00	0,01	500	1	6.225 161
10,00	0,01	500	1	9.040 915
11,00	0,05	500	1	4.011 226
12,00	0,05	500	1	6.234 641
13,00	0,05	500	1	6.230 322

* Phthalate free



pH-measurement/Buffer solutions

1

1 Buffer solutions

Sealed sachets in boxes as indicated. For single use only. Packaging ensures that buffer solution is always fresh, has not been used before and is not contaminated.

Mettler-Toledo Online

Warning

H phrases: H319



pH-value at 25 °C	Capacity Tolerance		PK	Cat. No.
	ml	± ml		
4.01/7.00/9.21	20	0.02	30	9.041 813
4.01/7.00/10.01	20	0.02	30	9.041 814
4.01	20	0.02	30	9.041 816
7.00	20	0.02	30	9.041 817
9.21	20	0.02	30	9.041 818
10.01	20	0.02	30	9.041 815

2

2 Standard buffer solutions

To DIN/NIST. Supplied in 250ml bottles. Tolerance ±0.02 pH.

WTW®

Warning

H phrases: H319



pH-value at 25 °C	Capacity ml	PK	Cat. No.
4.01	250	1	9.040 744
6.87	250	1	9.040 746
9.18	250	1	9.040 749
12.47	250	1	9.040 752

3

3 pH buffer solutions

Colour coded. pH values at 25°C. Provided with label that gives the pH value at different temperatures. Supplied in 250ml containers. Tolerance ±0.02 pH.

SI Analytics


pH-value at 25 °C	Colour	Capacity ml	PK	Cat. No.
7.00	green	250	1	9.041 051
10.01	orange	250	1	9.041 052

4

4 Cleaning solution


Warning

H phrases: H315|H319

WTW®


Type	Description	Capacity ml	PK	Cat. No.
RL-G	Cleaning solution for galvanic oxygen sensors	30	1	9.822 552

5

5 Electrolytes and cleaning solutions

Electrolytes are used as refill solutions for liquid filled electrodes as well as a storage solution for all types of pH electrodes. With the pepsin cleaning solution, you can remove protein precipitation from the diaphragm of electrodes with liquid electrolyte.

WTW®

Danger

H phrases: H290|EUH208



Type	Description	Capacity ml	PK	Cat. No.
KCl-50	Reference electrolyte, 3 mol/l KCl	50	1	7.059 778
KCl-250	Reference electrolyte, 3 mol/l KCl	250	1	7.008 211
PEP/pH	Pepsin cleaning solution	3 x 250	3	9.040 796

3. Analytical measurement and testing pH-measurement/Buffer solutions

1 Technical pH buffer solutions

Colour coded. Tested and ISO 17025 Certified at 25 °C. Uncertainty of measurement ±0.02 pH. Temperature dependence data is printed on the label as are lot numbers and expiry dates. These pH buffer solutions are suitable for use where very accurate measurements are required and are supplied with a detailed Certificate of Analysis which outlines traceability to N.I.S.T (the N.I.S.T SRM(s) Lot No. is stated on the certificate). This item has a 12 to 36 month shelf life from date of manufacture depending on pH value. Reagecon

pH-value at 25 °C	Colour	Capacity ml	PK	Cat. No.
2,00	Red	250	1	9.040 949
4,01	Red	250	1	9.040 950
7,00	Yellow	250	1	6.240 744
9,21	Blue	250	1	9.040 951
10,00	Blue	250	1	6.240 745
4,01	Red	500	1	6.206 907
7,00	Yellow	500	1	6.229 762
4,01	Red	1000	1	9.040 955
7,00	Yellow	1000	1	6.238 677
10,00	Blue	1000	1	6.238 676



2 Technical buffer solutions

Identified by colour-coded labels. Tolerance ±0.03 pH. WTW®

pH-value at 25 °C	Capacity ml	PK	Cat. No.
2.00	1000	1	9.040 721
4.01	50	1	9.040 734
4.01	250	1	9.040 727
4.01	1000	1	9.040 722
7.00	50	1	9.040 735
7.00	250	1	9.040 728
7.00	1000	1	9.040 723
10.01	250	1	7.401 072
10.01*	1000	1	9.040 725

* For handheld meters 315i, 330i, 340i, 350i, 3110, 3210, 3310, MultiLine® 3410, 3420, 3430, 3510, 3620, 3630 and Inolab® versions from 2004 onwards



3 Redox calibration solutions

To test redox (ORP) of electrodes. Supplied in bottles as indicated. Mettler-Toledo Online



H phrases: H314|H319

pH-value	Redox potential at 25°C	Volume	PK	Cat. No.
7	220 mV, U _{ref} = 427 mV	250ml	1	9.041 872
7	220 mV, U _{ref} = 427 mV	250ml	6	6.801 283
0.1	468 mV, U _{ref} = 675 mV	6 x 30ml	6	9.041 878



4 Redox buffer solution

For testing ORP electrodes. 427mV, pH7. Supplied in pack of 250ml. WTW®

Type	PK	Cat. No.
Redox	1	9.040 782



1



1 LLG-Electrolyte solutions, KCL

Potassium chloride electrolyte for pH electrodes - Filling solution for reference electrolyte.

Type	Capacity ml	PK	Cat. No.
3mol/l	1000	1	9.041 370
3mol/l	250	1	9.041 371
3mol/l, (AgCl saturated.)	250	1	9.041 372

2



2 KCL electrolyte solutions

For refilling or replacing reference electrolyte. Supplied in 250ml DURAN® bottles.

SI Analytics


Danger

H phrases: H225

Type	Description	Capacity ml	PK	Cat. No.
L 2114	2mol/L KNO ₃ + 0.001mol/l KCl for Ag-probes	250	1	9.041 072
L 3004	potassium chloride solution 3 mol/l, sterilized	250	1	9.041 092
L 3014	potassium chloride solution 3 mol/l, Ag/AgCl saturated	250	1	9.041 036
L 4204	potassium chloride solution 4.2 mol/l	250	1	9.041 033

3



3 Cleaning and storage solutions for pH-electrodes

Cleaning, rinse, regeneration and storage solution. Designed to extend the useful life of pH electrodes.

Reagecon


Danger

H phrases: H334

Type	Capacity ml	PK	Cat. No.
Pepsin / HCL, for protein removal	500	1	9.040 940
Organic cleaning solution	500	1	9.040 942
Electrode Storage solution	100	1	9.040 945
Electrode Storage solution	500	1	9.040 944
Electrode Storage solution	1000	1	6.226 124
Electrode Rinse solution	500	1	6.287 444

4



7.400 760

ISE reference electrolyte

Bridge electrode for reference electrodes as well as combined ISE electrodes of the 800 series for adaptation to the sample composition.

WTW®

Type	Description	PK	Cat. No.
ELY/BR/503	Standard electrolyte (Cl-free)	1	7.400 760 4
ELY/BR/503/N	Electrolyte for nitrate measurement	1	6.204 945
ELY/BR/503/K	Electrolyte for potassium measurement	1	6.250 333

ISE sample conditioning solutions

For sample preparation with pre-made ion strength adjuster solutions (ISA and TISAB) for the direct concentration determination with ion selective electrodes.

WTW®


Warning

H phrases: H315|H319

Type	For	Capacity ml	PK	Cat. No.
ISA/K	Potassium ions	250	1	6.204 398
TISAB	Fluoride measurement	1000	4	7.008 227
ISA/FK	Other suspended solids electrodes	250	1	7.008 228
ISA/Ca	Calcium ions	250	1	7.008 229
ISA/Ag	Silver and sulfide ions	1000	1	7.008 230
TISAB/NO3	Nitrate	1000	1	7.008 231
ISA/Na	Sodium	1000	1	7.008 232