pH-электроды, принадлежности CARL ROTH LE407, LE409, LE410, LE438, LE420, LE422, LE427, InLab, ScienceLine, SenTix, SensoDirect pH 110

Технические характеристики

Алматы (7273)495-231 Ангарск (3955)60-70-56 Архангельск (8182)63-90-72 Астрахань (8512)99-46-04 Барнаул (3852)73-04-60 Белгород (4722)40-23-64 Благовещенск (4162)22-76-07 Брянск (4832)59-03-52 Владивосток (423)249-28-31 Владикавказ (8672)28-90-48 Владимир (4922)49-43-18 Волгоград (844)278-03-48 Волоград (8172)26-41-59 Воронеж (473)204-51-73 Екатеринбург (343)384-55-89 Иваново (4932)77-34-06 Ижевск (3412)26-03-58 Иркутск (395)279-98-46 Казань (843)206-01-48 Калининград (4012)72-03-81 Калуга (4842)92-23-67 Кемерово (3842)65-04-62 Киров (8332)68-02-04 Коломна (4966)23-41-49 Кострома (4942)77-07-48 Краснодар (861)203-40-90 Красноярск (391)204-63-61 Курск (4712)77-13-04

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pH single-rod measuring cell standard

Technical specifications:

Art. No.	HAE4.1 HAH3.1 HAH4.1		HAH4.1	
Туре	201T	GEL	2PoreT	
pH range	0 to 14	0 to 14		
Operating temperature	0 to +60 °C			
Diaphragm	Ceramic	Double	Perforated	
Reference system	Ag/AgCI		Ag-coated	
Electrolyte	Gel F		Polymer	
Maintenance-free	Yes			
Storage solution	3 mol/l KCl			
Shaft length	120 mm 35 mm		35 mm	
Ø Shaft	12 mm 6 mm		6 mm	
Shaft material	Epoxid POM		POM	
Temperature sensor	NTC 30 kΩ	without	NTC 30 kΩ	
Connection	BNC (pH), Cinch (°C)	BNC (pH)	BNC (pH), Cinch (°C)	

Delivery incl. fixed cable (length 1 m).

For aqueous solutions in general

Pic.	Туре	Art. No.	Pack Qty.
(1)	201T	HAE4.1	1 unit(s)
(2)	GEL	HAH3.1	1 unit(s)

For solid to semi-solid samples e.g. meat, fruit, butter.

Pic.	Туре	Art. No.	Pack Qty.	
(3)	2PoreT	HAH4.1	1 unit(s)	



pH single-rod measuring cell LE series

Mettler-Toledo.

Affordable pH single-rod cells for various applications.

Delivery incl. fixed cable (length 1 m).

(1) LE407
Tough with plastic shaft and gel electrolyte, suitable for simple applications and straightforward samples such as water.

Technical specifications:

Art. No.	TC47.1
Туре	LE407
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Nylon
Reference system	Ag/AgCl
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	POM
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Туре	Art. No.	Pack Qty.	
LE407	TC47.1	1 unit(s)	

(2) LE409 With glass shaft and liquid electrolyte for simple and quick measurements in the laboratory, suitable for aqueous samples such as acids, bases, etc.

Technical specifications:

Art. No.	HY58.1
Туре	LE409
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	Ag/AgCl
Electrolyte	3 mol/l KCl + AgCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Туре	Art. No.	Pack Qty.
LE409	HY58.1	1 unit(s)

(3) LE410
With glass shaft, liquid electrolyte and integrated temperature gauge for quick, easy measurements in the lab. Suitable for aqueous samples (e.g. acids, bases, etc.) with changing temperatures.

Technical specifications:

Art. No.	1L80.1
Туре	LE410
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	Ag/AgCI
Electrolyte	3 mol/l KCl + AgCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	No
Connection	BNC (pH), Cinch (°C)

Туре	Art. No.	Pack Qty.	
LE410	1L80.1	1 unit(s)	

(4) LE438

With plastic shaft and integrated temperature gauge for field applications and samples with variable temperatures.

Technical specifications:

Art. No.	HY59.1
Туре	LE438
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Nylon
Reference system	Ag/AgCI
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	POM
Temperature sensor	NTC 30 kΩ
ISM Technology	No
Connection	BNC (pH), Cinch (°C)

Туре	Art. No.	Pack Qty.	
LE438	HY59.1	1 unit(s)	

(5) LE420 With glass shaft and PTFE sliding sleeve for demanding or contaminated samples such as wastewater, suspensions, emulsions, viscous samples, low-ion media, TRIS buffers.

Technical specifications:

Art. No.	NP41.1
Туре	LE420
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ground joint
Reference system	Ag/AgCl
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Туре	Art. No.	Pack Qty.	
LE420	NP41.1	1 unit(s)	

(6) LE422

Micro-pH single-rod measuring cell with gel electrolyte, suitable for small samples in sample tubes and test tubes.

Technical specifications:

Art. No.	NP42.1
Туре	LE422
pH range	0 to 14
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	Ag/AgCI
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	90 mm
Ø Shaft	4.3 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Туре	Art. No.	Pack Qty.	
LE422	NP42.1	1 unit(s)	

(7) LE427

Thanks to its pointed diaphragm, this product is ideally suited to solid samples such as meat, fruit, cheese, soil samples and many more.

Technical specifications:

Art. No.	TH61.1
Туре	LE427
pH range	0 to 11
Operating temperature	0 to +50 °C
Diaphragm	Ceramic
Reference system	Ag/AgCI
Electrolyte	Gel
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	17 mm
Ø Shaft	6 mm
Shaft material	Glass
Temperature sensor	without
ISM Technology	No
Connection	BNC (pH)

Туре	Art. No.	Pack Qty.	
LE427	TH61.1	1 unit(s)	



pH single-rod measuring cell InLab®

Mettler-Toledo

High-quality pH single-rod cells for various applications. With S7 connector.



Technical specifications:

Art. No.	H948.1	A915.1	A916.1	A917.1	A918.1	KL07.1	1L2X.1
Туре	InLab® Easy	InLab® Routine	InLab® Semi-Micro	InLab® Science	InLab® Solids	InLab® Surface	Inlab® Viscous
pH range	0 to 14		0 to 12		0 to 11	·	0 to 14
Operating temperature	0 to +80 °C	0 to +100 °C			0 to +80 °C	0 to +50 °C	0 to +130 °C
Diaphragm	Ceramic	·	Perforated	Ground joint	Perforated	Ceramic ring	Ceramic
Reference system	ARGENTHAL™ with	Ag* ion trap				·	SteadyForce™
Electrolyte	Gel	3 mol/l KCl	Polymer	3 mol/l KCl	Polymer	3 mol/l KCl	FRISCOLYT-C®
Maintenance-free	Yes	No	Yes	No	Yes	No	Yes
Storage solution	3 mol/l KCl					·	
Shaft length	120 mm		100 mm	120 mm	25 mm	110 mm	40 mm
Ø Shaft	12 mm		6 mm	12 mm	6 mm	12 mm	6 mm
Shaft material	PSU	Glass				PSU	Glass
Temperature sensor	without						
ISM Technology	No						
Connection	S7 connector						

Delivery without connecting cable, please order separately.

(1) Easy

For general applications in the laboratory and outdoors. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.
InLab® Easy	H948.1	1 unit(s)

(2) Routine

For aqueous solutions in general; quick and extremely resistant to chemicals.

Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	
InLab® Routine	A915.1	1 unit(s)	

(3) Semi-Micro

For measurements in small or narrow vessels or for small sample volumes. With ARGENTHALTM reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	
InLab® Semi-Micro	A916.1	1 unit(s)	

(4) Science

For difficult applications such as low-ion media, organic solvents, emulsions, suspensions, viscous samples and media containing proteins. With ARGENTHALTM reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Туре	Art. No.	Pack Qty.
InLab® Science	A917.1	1 unit(s)

(5) Solids

For semi-solid and solid samples such as creams, yoghurt, butter, dough, cheese, meat, fish, fruit and vegetables. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Туре	Art. No.	Pack Qty.	
InLab® Solids	A918.1	1 unit(s)	

(6) Surface

For surfaces such as skin, leather, textiles, paper and agar plates, and droplet-size samples. With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Type	Art. No.	Pack Qty.	
InLab® Surface	KL07.1	1 unit(s)	

(7) Viscous

For emulsions and viscous samples such as cosmetics, paints and adhesives.

With SteadyForce™ reference system for reliable and repeatable results: Electrolyte is under pressure (3 bar) and thereby protects the diaphragm against blockages.

Туре	Art. No.	Pack Qty.	
Inlah® Viscous	1L2X.1	1 unit(s)	



pH single-rod measuring cell InLab® with integrated temperature gauge

Mettler-Toledo.

High-quality pH single-rod measuring cells for temperature-compensated measurements.



With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	X571.1	A920.1	N504.1	TA11.1
Туре	InLab® ExpertNTC30	InLab® Expert Pt 1000	InLab® RoutinePro	InLab® VersatilePro
pH range	0 to 14		·	·
Operating temperature	0 to 100 °C			
Diaphragm	Perforated		Ceramic	
Reference system	ARGENTHAL™ with Ag ⁺ ion trap			
Electrolyte	Polymer		3 mol/l KCl	
Maintenance-free	Yes No			
Storage solution	3 mol/l KCl			
Shaft length	120 mm			
Ø Shaft	12 mm			
Shaft material	PEEK		Glass	PSU
Temperature sensor	or NTC 30 kΩ Pt 1000 NTC 30 kΩ			
ISM Technology	No		·	
Connection	MultiPin™			BNC (pH), Cinch (°C)

(1) Expert NTC30

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides. PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no need for a diaphragm which could become clogged.

Delivery without connecting cable, please order separately.

Туре	Art. No.	Pack Qty.	
InLab® ExpertNTC30	X571.1	1 unit(s)	

2) Expert Pt 1000

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no need for a diaphragm which could become clogged.

Delivery without connecting cable, please order separately.

Туре	Art. No.	Pack Qty.	
InLab® Expert Pt 1000	A920.1	1 unit(s)	

(3) RoutinePro

For aqueous solutions in general; quick and extremely resistant to chemicals.

Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum.

Delivery without connecting cable, please order separately.

Туре	Art. No.	Pack Qty.	
InLab® RoutinePro	N504.1	1 unit(s)	

(4) VersatilePro

For aqueous solutions in general, tough and quick.

Delivery incl. fixed cable.

Туре	Art. No.	Pack Qty.	
InLab® VersatilePro	TA11.1	1 unit(s)	



pH single-rod measuring cell InLab® with ISM® technology

Mettler-Toledo

High-quality pH single-rod measuring cells for temperature-compensated measurements.

Thanks to the Intelligent Sensor Management (ISM®) system, all important data is stored in the sensor and automatically sent to ISM®-compatible measuring devices.

(1) Expert Go-ISM®

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

With IP67 protection for waterproof measurements with FiveGo™, Seven2Go™ and SevenGo Duo™ measuring devices.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no diaphragm which could become clogged.

With ARGENTHALTM reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	LN43.1
Туре	InLab® Expert Go-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Perforated
Reference system	ARGENTHAL™ with Ag ⁺ ion trap
Electrolyte	Polymer
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	PEEK
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
IP rating	67
Connection	BNC (pH), Cinch (°C)

Delivery incl. fixed cable (length 1.8 m).

Туре	Art. No.	Pack Qty.	
InLab® Expert Go-ISM®	LN43.1	1 unit(s)	

(2) Expert Pro-ISM®

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no diaphragm which could become clogged.

With ARGENTHALTM reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	YX49.1
Туре	InLab® Expert Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Perforated
Reference system	ARGENTHAL™ with Ag* ion trap
Electrolyte	Polymer
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	PEEK
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	BNC (pH), Cinch (°C)

Delivery incl. fixed cable (length 1.2 m).

Туре	Art. No.	Pack Qty.	
InLab® Expert Pro-ISM®	YX49.1	1 unit(s)	

(3) Routine Pro-ISM®

For aqueous solutions in general; quick and extremely resistant to chemicals.

Tough HA diaphragm glass, specially designed for use at high pH values, reduces alkali errors to a minimum.

With ARGENTHALTM reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	YX50.1
Туре	InLab® Routine Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Ceramic
Reference system	ARGENTHAL™ with Ag⁺ ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	120 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Туре	Art. No.	Pack Qty.
InLab® Routine Pro-ISM®	YX50.1	1 unit(s)



(4) Science Pro-ISM®

For difficult applications such as organic solvents, emulsions and samples containing protein.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1L31.1
Туре	InLab® Science Pro-ISM®
pH range	0 to 12
Operating temperature	0 to +100 °C
Diaphragm	Movable ground-joint diaphragm
Reference system	ARGENTHAL™ with Ag* ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	170 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Туре	Art. No.	Pack Qty.	
InLab® Science Pro-ISM®	1L31.1	1 unit(s)	

(5) Solids Pro-ISM®

For semi-solid and solid samples such as creams, yoghurt, butter, dough, cheese, meat, fish, fruit and vegetables.

With ARGENTHALTM reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1L30.1
Туре	InLab® Solids Pro-ISM®
pH range	1 to 11
Operating temperature	0 to +80 °C
Diaphragm	Hole
Reference system	ARGENTHAL™ with Ag* ion trap
Electrolyte	Polymer
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	25 mm
Ø Shaft	6 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Туре	Art. No.	Pack Qty.
InLab® Solids Pro-ISM®	1L30.1	1 unit(s)

(6) Micro Pro-ISM®

For measurements in small or narrow vessels (such as test tubes, vials and cuvettes) or for small sample volumes.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1L33.1
Туре	InLab® Micro Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +100 °C
Diaphragm	Ceramic
Reference system	ARGENTHAL™ with Ag* ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	130 mm
Ø Shaft	5 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Туре	Art. No.	Pack Qty.
InLab® Micro Pro-ISM®	1L33.1	1 unit(s)

(7) Ultra-Micro-ISM®

For measurements in extremely small or narrow vessels (such as vials, microtiter plates and cuvettes) or for small sample volumes.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Technical specifications:

Art. No.	1LAT.1
Туре	InLab® Ultra-Micro-ISM®
pH range	1 to 11
Operating temperature	0 to +80 °C
Diaphragm	Ceramic
Reference system	ARGENTHAL™ with Ag* ion trap
Electrolyte	3 mol/l KCl
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	40 mm
Ø Shaft	3 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately

Туре	Art. No.	Pack Qty.
InLab® Ultra-Micro-ISM®	1LAT.1	1 unit(s)

(8) Viscous Pro-ISM®

For emulsions and viscous samples such as cosmetics, paints and adhesives.

With SteadyForce[™] reference system for reliable and repeatable results: Electrolyte is under pressure (3 bar) and thereby protects the diaphragm against blockages.

Technical specifications:

Art. No.	1L32.1
Туре	InLab® Viscous Pro-ISM®
pH range	0 to 14
Operating temperature	0 to +130 °C
Diaphragm	Ceramic
Reference system	SteadyForce™
Electrolyte	FRISCOLYT-C®
Maintenance-free	Yes
Storage solution	3 mol/l KCl
Shaft length	40 mm
Ø Shaft	6 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Туре	Art. No.	Pack Qty.	
InLab® Viscous Pro-ISM®	1L32.1	1 unit(s)	

(9) Pure Pro-ISM®

For samples with a low ion concentration such as ultrapure water and deignised water.

Fixed ground-joint diaphragm enables high electrolyte outflow; this results in reduced potential at the diaphragm and therefore more stable measurements

With ARGENTHALTM reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions.

Technical specifications:

Art. No.	1LAP.1
Туре	InLab® Pure Pro-ISM®
pH range	1 to 11
Operating temperature	0 to +80 °C
Diaphragm	Ground joint (fixed)
Reference system	ARGENTHAL™ with Ag ⁺ ion trap
Electrolyte	3 mol/l KCl (internal electrolyte), 1 mol/l KCl (external bridge electrolyte)
Maintenance-free	No
Storage solution	3 mol/l KCl
Shaft length	170 mm
Ø Shaft	12 mm
Shaft material	Glass
Temperature sensor	NTC 30 kΩ
ISM Technology	Yes
Connection	MultiPin™

Delivery without connecting cable, please order separately.

Туре	Art. No.	Pack Qty.	
InLab® Pure Pro-ISM®	1LAP.1	1 unit(s)	



pH single-rod measuring cell with IP67 protection

Mettler-Toledo.

For waterproof measurements.

Technical specifications:

EEP6.1	EEP7.1	CY88.1	
LE438-IP67	LE427-IP67	InLab® ExpertGo IP67	
0 to 14	0 to 11	0 to 14	
0 to +80 °C	0 to +50 °C	0 to +100 °C	
Nylon	Ceramic	Perforated	
Ag/AgCI		ARGENTHAL™ with Ag ⁺ ion trap	
Gel	iel		
Yes			
3 mol/l KCl			
120 mm	17 mm	120 mm	
12 mm	6 mm	12 mm	
POM	Glass	PEEK	
NTC 30 kΩ	without	NTC 30 kΩ	
No			
67			
BNC-IP67 (pH), Cinch-IP67 (°C)	BNC-IP67 (pH)	BNC-IP67 (pH), Cinch-IP67 (°C)	
	LE438-IP67 0 to 14 0 to +80 °C Nylon Ag/AgCl Gel Yes 3 mol/l KCl 120 mm 12 mm POM NTC 30 kΩ No 67 BNC-IP67 (pH),	LE438-IP67 LE427-IP67 0 to 14 0 to 11 0 to +80 °C 0 to +50 °C Nylon Ceramic Ag/AgCI Gel Yes 3 mol/l KCI 120 mm 17 mm 12 mm 6 mm POM Glass NTC 30 kΩ without No 67 BNC-IP67 (pH), BNC-IP67 (pH)	

Delivery incl. fixed cable (length 2 m).

(1) LE438-IP67

pH single-rod measuring cell with plastic shaft and integrated temperature gauge for field applications and samples with variable temperatures.

Туре	Art. No.	Pack Qty.
LE438-IP67	EEP6.1	1 unit(s)

(2) LE427-IP67

Thanks to its pointed diaphragm, this product is ideally suited to solid samples such as meat, fruit, cheese, soil samples and many more.

Туре	Art. No.	Pack Qty.	
LE427-IP67	EEP7.1	1 unit(s)	

(3) InLab® ExpertGo IP67

Wide range of applications including emulsions, suspensions, wastewater and solutions containing proteins and sulphides.

PEEK shaft with excellent chemical and mechanical resistance for extreme strain.

The use of a solid polymer as a reference electrolyte means that there is no need for a diaphragm which could become clogged.

With ARGENTHAL™ reference system for a long pH single-rod measuring cell service life: Electrolyte with no silver ions, preventing the diaphragm becoming clogged with sulphides.

Туре	Art. No.	Pack Qty.	
InLab® ExpertGo IP67	CY88.1	1 unit(s)	



pH single-rod measuring cell BlueLine

SI Analytics.



Technical specifications:

Art. No.	N525.1	N523.1	N524.1	H772.1	N520.1	N521.1	N522.1		
Туре	22 pH	23 pH	25 pH	28 pH	12 pH	14 pH	15 pH		
pH range	0 to 14								
Operating temperature	-5 to +80 °C				-5 to +100 °C				
Diaphragm	Fibre				Platinum				
Reference system	Ag/AgCI								
Electrolyte	Gel				3 mol/l KCl	3 mol/l KCl			
Maintenance-free	Yes				No				
Storage solution	3 mol/l KCl								
Shaft length	120 mm								
Ø Shaft	12 mm								
Shaft material	Noryl				Glass				
Temperature sensor	without			Pt 1000	without	out NTC 30 kΩ			
Connection	Schott connector	DIN 19262 (pH)	BNC (pH)	DIN 19262 (pH), 1 x 4 mm banana plug (°C)	DIN 19262 (pH)	DIN 19262 (pH), Banana 1 x 4 mm (°C)	BNC (pH), 1 x 4 mm banana plug (°C)		

22 pH

For general measurements. Tough with gel electrolyte and plastic shaft.

Delivery without connecting cable, please order separately.

Pic.	Туре	Art. No.	Pack Qty.	
(1)	22 pH	N525.1	1 unit(s)	

Ha 23

For general measurements. Tough with gel electrolyte and plastic shaft.

Delivery incl. fixed cable (length 1 m).

Pic.	Type	Art. No.	Pack Qty.	
(2)	23 pH	N523.1	1 unit(s)	

25 pH

For general measurements. Tough with gel electrolyte and plastic shaft.

Delivery incl. fixed cable (length 1 m).

Pic. Type	Art. No.	Pack Qty.	
(3) 25 pH	N524.1	1 unit(s)	

28 pH

For general measurements. Tough with gel electrolyte, plastic shaft and integrated temperature gauge.

Delivery incl. fixed cable (length 1 m).

Pic.	Туре	Art. No.	Pack Qty.	
(4)	28 pH	H772.1	1 unit(s)	

12 pH

For demanding measurements. With liquid electrolytes and glass shaft.

Delivery incl. fixed cable (length 1 m).

Pic.	Туре	Art. No.	Pack Qty.	
(5)	12 pH	N520.1	1 unit(s)	

14 pH

For demanding measurements. With liquid electrolytes, glass shaft and integrated temperature gauge.

Delivery incl. fixed cable (length 1 m).

Pic.	Туре	Art. No.	Pack Qty.	
(6)	14 pH	N521.1	1 unit(s)	

15 pH

For demanding measurements. With liquid electrolytes, glass shaft and integrated temperature gauge.

Delivery incl. fixed cable (length 1 m).

Pic.	Туре	Art. No.	Pack Qty.	
(7)	15 pH	N522.1	1 unit(s)	

pH single-rod measuring cell ScienceLine

SI Analytics.

High-performance electrodes for demanding measurements. The Silamid® reference system enables quicker and more stable measured values and increased service life.



Technical specifications:

Art. No.	C887.1	C894.1	C889.1	C892.1	C899.1		
Туре	N 42 A	N 52 BNC	N 1042 A	N 6000 A	N 6000 BNC		
pH range	0 to 14	·					
Operating temperature	-5 to +100 °C	-5 to +100 °C					
Diaphragm	Ceramic	Platinum	Ceramic	Platinum			
Reference system	Silamid®	·	·	·			
Electrolyte	3 mol/l KCl	3 mol/l KCl					
Maintenance-free	No	No					
Storage solution	3 mol/l KCl						
Shaft length	120 mm			96 mm			
Ø Shaft	12 mm	3 mm					
Shaft material	Glass			·			
Temperature sensor	without Pt 1000 without						
Connection	DIN 19262 (pH)	BNC (pH)	DIN 19262 (pH), 1 x 4 mn banana plug (°C)	DIN 19262 (pH)	BNC (pH)		

Delivery incl. fixed cable (length 1 m).

(1) N 42 A

Includes glass shaft with ceramic diaphragm for aqueous solutions.

Туре	Art. No.	Pack Qty.	
N 42 A	C887.1	1 unit(s)	

(2) N 52 BNC

Includes glass shaft with ceramic diaphragm for aqueous solutions.

Туре	Art. No.	Pack Qty.	
N 52 BNC	C894.1	1 unit(s)	

(3) N 1042 A

For temperature-compensated measurements.

Type	Art. No.	Pack Qty.	
N 1042 A	C889.1	1 unit(s)	

(4) N 6000 series

For low quantities of fluid (0.1 ml or higher) or narrow vessels.

Туре	Art. No.	Pack Qty.	
N 6000 A	C892.1	1 unit(s)	
N 6000 BNC	C899.1	1 unit(s)	





pH single-rod measuring cell SenTix®

Technical specifications:

Art. No.	X174.1	X173.1	ETC4.1
Туре	SenTix® 21	SenTix® 41	SenTix® 81
pH range	0 to 14		
Operating temperature	0 to +80 °C		0 to +100 °C
Diaphragm	Fibre		Platinum
Electrolyte	Gel		3 mol/l KCl
Maintenance-free	Yes		No
Storage solution	3 mol/l KCl		
Shaft length	120 mm		
Ø Shaft	12 mm		
Shaft material	PPE, PS		Glass
Temperature sensor	without	NTC 30 kΩ	
Connection	DIN 19262 (pH)	DIN 19262 (pH), Banana 1 x 4 mm (°C)	DIN 19262 (pH), 1 x 4 mm banana plug (°C)

Delivery incl. fixed cable (length 1 m).

Standard

With gel electrolyte for mobile pH measurements as well as routine measurement in the laboratory.

Pic.	Туре	Art. No.	Pack Qty.
(1)	SenTix® 21	X174.1	1 unit(s)
(2)	SenTix® 41	X173.1	1 unit(s)

Precision SenTix® 81
With liquid electrolyte for demanding measurement applications. Glass shaft and platinum diaphragm are easy to clean. Can be used even with difficult samples.

Pic.	Туре	Art. No.	Pack Qty.
(3)	SenTix® 81	ETC4.1	1 unit(s)



Metal single-rod measuring cell ScienceLine

SI Analytics.

For measuring the redox potential.

Technical specifications:

Art. No.	C893.1	C900.1
Туре	Pt 42 A	Pt 6280
Operating temperature	0 to +100 °C	
Sensor type	Platinum, pin, Ø 1 mm	
Diaphragm	Ceramic	
Reference system	Silamid®	
Electrolyte	3 mol/l KCl	
Shaft length	120 mm	
Ø Shaft	12 mm	
Shaft material	Glass	
Temperature sensor	without	
Connection	DIN 19262 (pH)	BNC (p

Delivery incl. fixed cable (length 1 m).

Туре	Art. No.	Pack Qty.
Pt 42 A	C893.1	1 unit(s)
Pt 6280	C900.1	1 unit(s)

Adapter for pH single-rod measuring cells

Mettler-Toledo.

		Pack Qty.	
pH single-rod measuring cells with BNC connector and pH meter with DIN 19262 socket	1EP5.1	1 unit(s)	
pH single-rod measuring cells with BNC + Cinch connector and pH meter with DIN 19262 + 4 mm banana plug socket	1EP6.1	1 unit(s)	



Electrode holder with cable duct

ROTH SELECTION.

For three electrodes, opening Ø 16 mm. One additional opening with Ø 11 mm. Three joints enable a high degree of adjustment flexibility. Base plate: 110 x 130 mm. Base plate weight: 0.6 kg. Arm weight: 0.1 kg. Max. arm height: 32 cm.

Version	Art. No.	Pack Qty.	
Electrode holder	EHY1.1	1 unit(s)	



Storage set for electrodes

ROTH SELECTION.

For safe storage of electrodes with shaft \varnothing 12 mm so that they are ready for use at all times.

Set 1

Delivery incl. GL 45 screw cap and 5x seals with hole. Without screw top bottle and storage solution, please order separately.

Version	Art. No. Pack Qty.
Set 1	KH88.1 1 unit(s)

Set 2

Delivery incl. GL 45 screw cap, 5x seals with hole, 100 ml screw top bottle and 250 ml storage solution.

Version	Art. No.	Pack Qty.	
Set 2	KCN1.1	1 unit(s)	





Portable pH meters SensoDirect pH 110

Tintometer.

- Splash-proof membrane keyboard
- Protective cover for measuring in difficult conditions
- Manual single-point or double-point calibration via trimmer

Technical specifications:

Art. No.	YP68.1	
Туре	SensoDirect pH 110	
Parameters	pH	
pH measuring range	0 to 14	
pH resolution	0,01	
pH accuracy	±0.1 (pH 4.0–10.0), ±0.2 (pH 1.1–3.9 and pH 10.0–13.0), ±0.3 (pH 0.1–1.0 and pH 13.1–14.0)	
pH temp. compensation	without	
Calibration points	1/2 (pH)	
Calibration memory	Current calibration	
Connection	BNC (pH)	
LxWxH	208 x 110 x 34 mm	
Power supply	E-Block 9 V battery	

Delivery incl. pH plastic electrode with gel electrolyte, buffer solutions (pH 4.01 and pH 7.00, each 90 ml), protective armouring, case and batteries.

Туре	Art. No.	Pack Qty.
SensoDirect nH 110	YP68.1	1 unit(s)

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