FiveEasy™

FiveEasy™ Bench Instruments

FiveEasy Plus

FiveEasy

pH

mV / ORP

Conductivity

TDS

Salinity

Economic & Reliable

The Easy Introduction to the World of pH

METTLER TOLEDO

5 x 5 Reasons for FiveEasy™
Easy pH & Conductivity Solutions

Agriculture

The pH value of arable land must be monitored regularly to protect people and the environment from potential hazards and to create ideal conditions for growing agricultural products.

Water

No matter whether it's a lake or a sewage plant – compliance to certain pH and conductivity values in water is vital for the sustainability of all life, be it human, plant or animal.

Industry

The pH and conductivity of cooling and cleaning water as well as the manufactured products themselves must be tested during the manufacturing process – to guarantee a high level of quality in the finished products, to keep manufacturing costs down and to protect manufacturing equipment from corrosion and other damage.

Foodstuffs

Yogurt, cheese, fish, meat, sauces … the number of samples is virtually endless, but they all have one thing in common: The pH value must be kept at the optimum level so that quality and freshness of the products is guaranteed.

Beverages

pH value must be monitored during various processing stages involved in the production of beverages to ensure that the final product has the desired flavor.

5 x useful information on a large, well organized display

- Simultaneous display of measurement, temperature and endpoint recording
- Electrode icon: provides information on the condition of the electrode
- Calibration icon: the instrument is calibrating
- Measurement icon: the instrument is carrying out measurements
- Setup icon: settings can be modified

5 x outstanding price/ performance ratio

- METTLER TOLEDO quality for reliable measurements
- Separate reference input for pH measurement with half-cells
- RS232 interface for data print out (FiveEasy Plus)
- Handy electrode arm automatically included in kit versions
- Over 60 years of sensor know-how also included in entry-level instruments

5 x superb functionalities

- Automatic or manual termination of a measurement or calibration
- Automatic calibration with predefined pH buffer groups or predefined conductivity standards
- Automatic or manual temperature compensation
- Up to 3 point calibration with automatic buffer recognition during pH calibration
- Data storage for 99 measurements (FiveEasy Plus)

5 x self-explanatory buttons for the simplest operation

- Simple start and finish of measurements and calibrations
- Fast changeover between pH and mV parameters, or between conductivity, TDS and salinity
- Intuitive adjustment of settings e.g. for manual temperature compensation
- Saving and accessing of measurements and calibraiton data at the push of a button
- Separate on/off switch

5 x useful accessories

- Electrode arm can be attached to the left or right-hand side of the instrument
- "Quick guide" for the lab bench – laminated in case of spills
- A variety of electrodes for various applications
- Extensive range of solutions for calibration and cleaning
- Separate temperature sensor and ORP electrodes are also available

Comparison Table

	FiveEasy Plus pH FEP20	FiveEasy pH FE20	FiveEasy Plus Conductivity FEP30	FiveEasy Conductivity FE30
Calibration point	3	2	1	1
Memory	99 measurements	-	99 measurements	-
RS232 interface	Yes	-	Yes	-

Other specifications of FiveEasy Plus and FiveEasy are identical

Technical Specifications

	FiveEasy Plus pH FEP20	FiveEasy pH FE20	FiveEasy Plus Conductivity FEP30	FiveEasy Conductivity FE30
Measuring range	0.00…14.00 pH -1999…1999 mV 0 °C…100 °C (32 °F…212 °F)		0.1 µS/cm…199.9 mS/cm 0.1 mg/L…199.9 g/L (TDS) 0.00…19.99 psu (salinity) 0 °C…100 °C (32 °F…212 °F)	
Resolution	0.01 pH / 1 mV / 0.1 °C		Automatic range / 0.00…19.99 psu / 0.1 °C	
Error limits	± 0.01 pH / ± 1 mV / ± 0.5 °C		± 0.5% of the measured value / ± 0.3 °C	
Calibration	3 points 4 predefined buffer groups	2 points 4 predefined buffer groups	1 point 3 predefined standards	
Input	BNC, Impedance > 10e+12 Ω Cinch, NTC 30 kΩ / Reference: 2 mm		Mini-DIN	
Temperature-compensation	ATC & MTC		Linear: 0.00%/°C…10.00%/°C Reference temperature: 20 & 25 °C	
Display	Liquid crystal			
Housing	ABS/PC reinforced			
Power supply	100-240 V / 50-60 Hz / 9V DC			
Size/weight	200 x 175 x 52 mm / 0.6 kg			

Ordering Codes & Scope of Supply

Instrument	Description	Order No.
FEP20-Basic	FiveEasy Plus pH instrument incl. operating manual, "Quick Guide", power adapter	51302914
FEP20-ATC Kit	FiveEasy Plus instrument and accessories as with FEP20 Basic, also with LE438 pH electrode, electrode arm, 2 x pH 4.01 and 2 x pH 7.00 buffer sachets	51302915
FE20-Basic	FiveEasy pH instrument incl. operating manual, "Quick Guide", power adapter	51302910
FE20-Kit	FiveEasy instrument and accessories as with FE20 Basic, also with LE409 pH electrode, electrode arm, 2 x pH 4.01 and 2 x pH 7.00 buffer sachets	51302911
FE20-ATC Kit	FiveEasy instrument and accessories as with FE20 Basic, also with LE438 pH electrode, electrode arm, 2 x pH 4.01 and 2 x pH 7.00 buffer sachets	51302916
FEP30-Basic	FiveEasy Plus conductivity instrument incl. operating manual, "Quick Guide", power adapter	51302935
FEP30-Kit	FiveEasy Plus instrument and accessories as with FEP30 Basic, also with LE703 con-ductivity probe, electrode arm, 2 x 1413 µS/cm and 2 x 12.88 mS/cm standard sachets	51302936
FE30-Basic	FiveEasy conductivity instrument incl. operating manual, "Quick Guide", power adapter	51302912
FE30-Kit	FiveEasy instrument and accessories as with FE30 Basic, also with LE703 conductivity probe, electrode arm, 2 x 1413 µS/cm and 2 x 12.88 mS/cm standard sachets	51302913

Electrodes & Applications

Type	Description	Plug/Connection		Order No.
LE407	Robust plastic pH electrode with gel electrolyte, suitable for simple applications and easy samples such as water; low-maintenance	BNC		51340330
LE407-DIN		DIN		51340341
LE408	Robust plastic pH electrode with liquid electrolyte, suitable for simple applications; refillable electrolyte	BNC		51340347
LE408-DIN		DIN		51340342
LE409	Glass pH electrode with liquid electrolyte for simple and rapid measurements in the laboratory, aqueous samples such as acids, bases etc.; refillable electrolyte	BNC		51340331
LE409-DIN		DIN		51340343
LE420	Glass electrode with movable PTFE-sleeve junction for demanding, "dirty" samples such as waste water, emulsions (e.g. milk), oily samples; refillable electrolyte	BNC		51340332
LE420-DIN		DIN		51340345
LE427	The spear tip design makes it ideal for solid samples such as meat, fruit, cheese, soil and many more; low-maintenance	BNC		51340333
LE427-S7*		S7		51340334*
LE438	3-in-1 plastic electrode with integrated temperature sensor for field use, samples with fluctuating temperatures; low-maintenance	BNC/Cinch		51340242
LE438-DIN		DIN/Banana		51340346
LE703	Robust conductivity probe for medium to high conductivities (10 µS/cm…200 mS/cm)	Mini-DIN		51340335
LE740	Robust conductivity probe from low to medium conductivities (0.01 µS/cm…500 µS/cm)	Mini-DIN		51340336
LE501	Glass ORP electrode for lab use	BNC		51340338
LE510	Robust plastic ORP electrode for field use, e.g. swimming pools	BNC		51340339
NTC 30kOhm	Separate temperature sensor	Cinch		51300164

* No cable is included, a selection of cables is available for connection to various instruments, e.g. Red S7-BNC, 1.0 m
   (Order no. 59902392) for METTLER TOLEDO, Hanna etc. More cable information is available at **www.mt.com/electrode-guide**.

Our InLab® sensors can, of course, also be connected to our "Five" series instruments. More detailed information about our InLab portfolio is available at **www.mt.com/electrodes.**

Accessories

Accessories for FiveEasy Plus & FiveEasy	Order No.
Power adapter	51302950
Electrode arm (complete)	51302951
Rubber cap (2 pieces for electrode arm opening on instrument)	51302952

Calibration & Cleaning Solutions

Calibration solutions	Order No. 30 x 20 mL sachets	Order No. 6 x 250 mL bottles
pH 4.01	51302069	51350018
pH 7.00	51302047	51350020
pH 9.21	51302070	51350022
pH 10.01	51302079	51350024
1413 µS/cm	51302049	51350096
12.88 mS/cm	51302050	51350098

Cleaning solutions	Order No. 1 x 250 mL bottle	Order No. 1 x 25 mL bottle
Pepsin/HCL solutions for cleaning diaphragms with proteinaceous contamination. Reaction time: approx. 1 hour.	51350100	
Thiourea solution for cleaning diaphragms contaminated by silver sulfide. Leave to act until decolorization.	51350102	
Reactivation solution for regen-erating glass pH electrodes. Reaction time: 1 min.		51350104

METTLER TOLEDO – the Right Solution Right from the Start…

…also for outdoor applications: FiveGo™, the splash-pro-tected portable instrument for a mobile introduction to the world of pH, conductivity and DO.

Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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