SevenExcellence™ pH/mV
Flexible and Precise

SevenExcellence™ stands for convenient, easy-to-understand operation combined with high measurement accuracy and outstanding reliability, continuing the tradition of the Seven™ series from METTLER TOLEDO. The instrument can effectively cope with complex applications and stringent requirements in regulated markets, but it also feels at ease with routine measurement tasks in the laboratory.

SevenExcellence pH/mV meter redefines flexibility and offers various measurement parameters in the form of one meter. Starting an analysis, changing the settings and accessing the results is easily achieved thanks to the cleverly-devised touch screen menu operation.

Seven good reasons for SevenExcellence™
- User-friendly touch-screen operation
- Large well-arranged color display
- Menu guidance in 10 languages
- Modular expansion at any time
- Many peripheral options
- Method concept, including One Click™
- GLP compliant, including user management

METTLER TOLEDO

Productive Work from the Start
Secure and Powerful

SevenExcellence™ has been designed with the objective to optimize the workflow and increase the efficiency of your lab work. Just one click is required to start a sample or a series of samples. The interfaces on the instrument allow you to connect peripherals simultaneously supporting your workflow in the best possible way.

Security

The instruments' focus on workflow is also reflected in its security package. Mistakes are minimized to an absolute minimum by using methods, by using ISM® sensors, by the professional user management and the sophisticated calibration support. Archiving results can be done automatically by creating a hardcopy on a line or network printer and/or transfer to EasyDirect™ pH PC software.

Large color display and intuitive touch screen operation	**Modularity and peripherals – expand at any time**	**Perfect ergonomics and high productivity with uPlace™**
The huge 7 high-resolution display and capacitive touch screen with clear buttons and intuitive menu structure makes the instruments' operation fast and easy. The menus exist in 10 languages and do not contain a single cryptic expression!	SevenExcellence fits three modules in any composition and order and it can be expanded at any time, adding new measurement parameters. The USB, Ethernet and RS232 interfaces allow the connection of a barcode scanner, fingerprint reader, Rondolino sample changer, USB stick and line or network printer.	uPlace™: the electrode arm can be operated with one hand, moving perfectly straight up and down to bring the electrode to the perfect position. This allows for faster measurements and poses less risk of the sample vessel tipping over and damaging the sensor.

Specifications for SevenExcellence™ pH/mV

	Measuring range	Resolution	Accuracy
pH	–2.000 … 20.000	0.001 / 0.01 / 0.1	± 0.002
mV	–2000.0 … 2000.0*	0.1 / 1	± 0.1
Rel. mV	–2000.0 … 2000.0	0.1 / 1	± 0.1
ISFET pH	0.000 … 14.000	0.001 / 0.01 / 0.1	± 0.05
Temperature MTC / ATC	–30.0 … 130.0 °C	0.1 °C	± 0.1 °C
Calibration	Calibration points	Max. 5	
	Buffer groups	8 pre-defined and 20 user-defined	
	Buffer recognition	Automatic and manual	
	Isopotential point	pH 7.00	
	Temperature capture	Automatic and manual	
	Calibration reminder	Yes: usable life for each sensor configurable	
	Electrode status icon	Yes: shows quality of last calibration	
	Automatic pH calibration	Yes: with rondolino sample changer	
Measurement	Choice of endpoint formats	Automatic, manual, timed	
	Choice of stability criteria	Fast, standard, strict, user-defined	
	Choice of pH decimal places	X.XXX, X.XX, X.X	
	Temperature capture	Automatic and manual	
	Measurement type	Direct measurements and methods	
	Interval measurements	Yes: time interval user-configurable	
	Methods	34 pre-defined and 50 user-defined	
	Series	Max. 9 samples	
System and GLP	Menu guidance	10 languages	
	Time and date	2 time formats, 4 date formats	
	PIN protection	Yes: login (password or fingerprint reader)	
	User management	4 groups: operator, technician, expert, administrator	
	Measurement limits	Yes: user-defined	
	ID input	Yes: user ID, sample ID, Sensor name, sensor SN	
	ID input automation	Barcode reader (USB)	
Data processing	Data storage	At least 20 000 data points, 250 analyses	
	Print formats	Summary and user-defined	
	Printing	US-P25, RS232 and network printer, memory stick (pdf)	
	Data Export	USB-stick, EasyDirect™ pH PC software	
Connectors	pH Sensor input	BNC (impendance > 3×10^{12} Ω)	
	Temperature sensor input	Cinch/RCA (NTC30 kΩ)	
	ISFET sensor input	Mini-DIN	
	Digital sensor input	Mini-LTW	
	Communication interfaces	RS232, USB-A, USA-B, LAN	
	Stirrer connector	Mini-DIN	
General	Power requirements	DC 12V-10W	
	Size/weight instrument	235 × 188 × 75 mm, 1120 g	
	Module weight	111-130 g	
	Display	TFT	
Ambient conditions	Temperature	5 … 40 °C	
	Relative humidity	5 … 80% (non-condensing)	
	Installation category	II	
	Pollution degree	2	
	Altitude	Up to 2000 m above sea level	
Materials	Housing instrument	ABS/PC reinforced	
	Housing expansion units	ABS/PC reinforced	
	Touch panel	Tempered glass	

* Display range: –2000.9...2000.9 for informational purposes only.

Order Information

Description and order information for SevenExcellence™ pH/mV

Order info	Description and sensors	Order no.
S400-Basic (instrument)	Includes instrument, pH/mV expansion unit, 2 blank expansion units, uPlace™ electrode holder, semi-transparent cover, user manual, installation and quick guide, EasyDirect™ pH PC software, declaration of conformity and test certificate.	30046240
S400-Kit (kit)	As S400-Basic, but also with InLab® Expert Pro-ISM, guide to pH measurements and 2 buffer sachets for pH 4.01, 7.00, 9.21 and 10.00.	30046241
S400-Bio (kit)	As S400-Kit but with InLab® Routine Pro-ISM cable kit instead of InLab® Expert Pro-ISM.	30046242
S400-ISFET (kit)	As S400-Kit but with InLab® 490 instead of InLab® Expert Pro-ISM.	30046243

Accessories for SevenExcellence™

Modules	Order no.
pH/mV expansion unit	30034472
Conductivity expansion unit	30034473
pH/Ion expansion unit	30034471
Blank expansion unit	30034475

General accessories	
uPlace™: electrode holder (included in standard delivery)	30019823
Semi-transparent cover (included in standard delivery)	30041154
Protective film for display (2 pcs)	30041155
Mains adapter 12V (included in standard delivery)	11120270
uMix™ magnetic stirrer	30040000
LogStraigth™ fingerprint reader	51192107
Barcode reader	30417466
Rondolino sample changer, complete for SevenExcellence	51302888

Sensors and cables for SevenExcellence™ pH/mV

Sensors with fixed cable	Order no.
InLab® Expert Pro-ISM, rugged 3-in-1 pH sensor, PEEK shaft, ATC	30014096

ISM® sensors with MultiPin™ head	
InLab® Routine Pro-ISM, 3-in-1 pH sensor, glass shaft, ATC, refillable	51344055
InLab® Micro Pro-ISM, 3-in-1 pH sensor, glass shaft, 5 mm shaft diameter, ATC, refillable	51344163
InLab® Power Pro-ISM, 3-in-1 pH sensor, glass shaft, ATC, pressurized SteadyForce™ reference system	51344112
InLab® Pure Pro-ISM, 3-in-1 pH sensor, glass shaft, immovable glass sleeve, ATC, refillable	51344172
InLab® Science Pro-ISM, 3-in-1 pH sensor, glass shaft, movable glass sleeve, ATC, refillable	51344072
InLab® Solids Pro-ISM, 3-in-1 pH sensor, glass shaft, open junction, sharp membrane, ATC	51344155
ISM® cable 2 m, BNC/RCA-MultiPin™	51344291

Digital ISM® sensors with diagnostic functions	
InLab® Smart Pro-ISM, 3-in-1 pH sensor, glass shaft, ATC, pressurized SteadyForce™ reference system	30027775
Cable InLab® Digital, 1.2 m	30027776

pH Buffers

Description	Order no.
pH 4.01 buffer solution in side-sealed sachet, 30 x 20 mL	51302069
pH 7.00 buffer solution in side-sealed sachet, 30 x 20 mL	51302047
pH 9.21 buffer solution in side-sealed sachet, 30 x 20 mL	51302070
pH 10.01 buffer solution in side-sealed sachet, 30 x 20 mL	51302079
Rainbow I (3 x 10 sachets of 20 mL, 4.01/7.00/9.21)	51302068
Rainbow II (3 x 10 sachets of 20 mL, 4.01/7.00/10.01)	51302080

ISO 9001 registered   ISO 14001 registered

www.mt.com/pH

For more information