



Benchtop pH/Water Quality Analyzer

LAQUA

F-70/DS-70 Series

CALRIGHT INSTRUMENTS

The Right Source For Your Test & Measurement Needs

8715 Mesa Point Terrace San Diego, CA 92154

Toll Free: 1.866.363.6634 Tel: 1.619.429.4545 Fax: 1.619.374.7012

Email: sales@calright.com <http://www.calright.com>

Intuitive and very easy-to-use touch panel operation

- pH**
- mV(ORP)**
- ION**
- Conductivity**
- Resistivity**
- Salinity**
- TDS**



Simply slide your finger across the screen to switch displays



Two channels can be displayed simultaneously



Color LCD touch panel display

NAVI 2CH USB
PC PRT ID
USP/EP/JP

F-74

CH.1 pH ORP ION
CH.2 COND RESI SAL TDS

NAVI 2CH USB
PC PRT ID
USP/EP/JP

F-73

CH.1 pH ORP ION
CH.2 pH ORP ION

NAVI 2CH USB
PC PRT ID
USP/EP/JP

F-72

CH.1 pH ORP ION

NAVI USB PC PRT
ID USP/EP/JP

DS-72

COND RESI SAL TDS

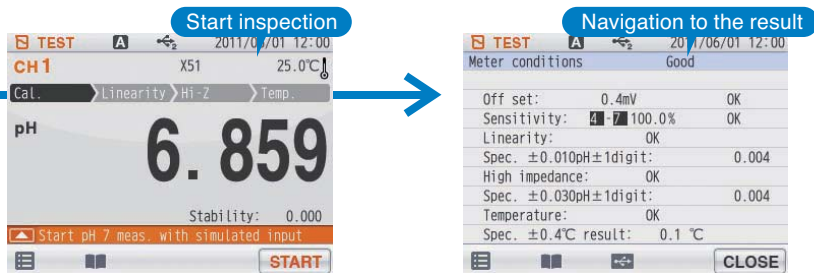
*Set includes conductivity electrode (model 3552-10D)

*Accessories included : Electrode stand/Instruction manual/Quick manual/AC adapter/Cover (F-72/F-73/F-74/DS-72 only)

Full support for on-screen setting confirmation, maintenance information and troubleshooting tips guide you through trouble-free operation

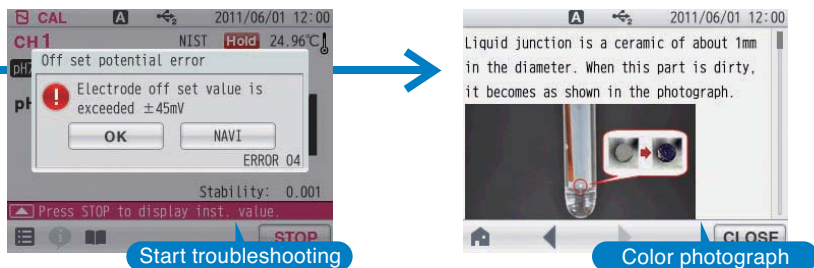
Inspection Navigation

Easy navigation for main unit and electrode inspections. Various industrial standards (JIS, USP, EP, JP, CP) are also supported.



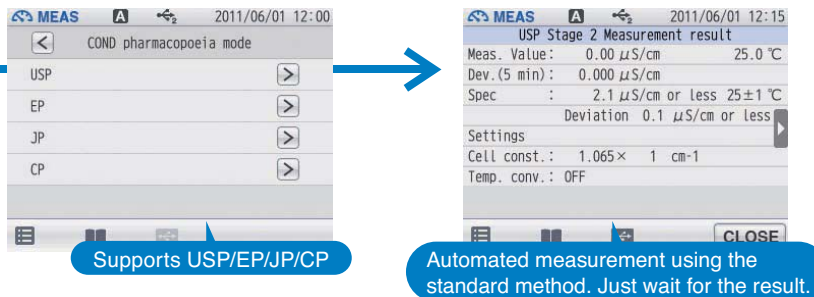
Troubleshooting Navigation

Reliable on-screen support if a problem occurs during calibration or measurement. The software has a user guide to resolve any operation difficulties.



Application Functions

Various industry standard methods are supported from measurement to result output. Conductivity measurements for pharmaceutical pure water guidelines of various countries are also supported.



Free Arm Electrode Stand

The free arm of the stand-alone electrode stand can be positioned in any direction, vertically or horizontally. The long-type electrode stand* with a telescopic stand is also provided for measurements with large beakers.

*Optional



450~650mm

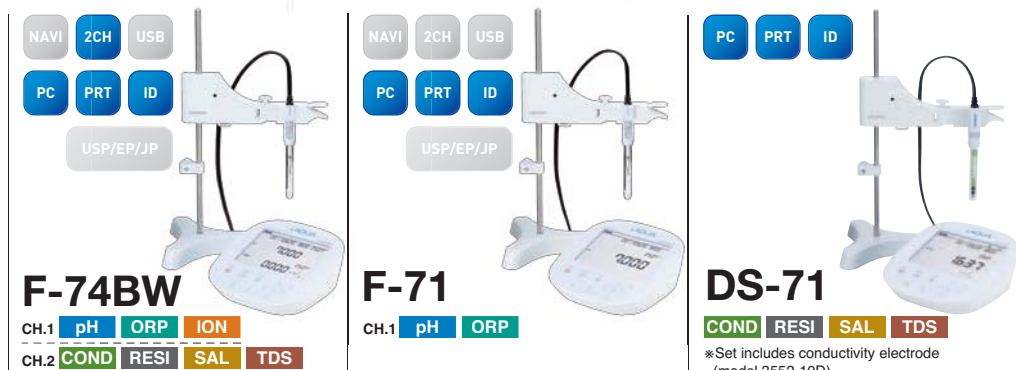
The long electrode stand* has a maximum length of 650 mm, it can also be stored neatly thanks to the telescopic shaft.

*Optional

Full-Range Functions for Validation and Usability

- Periodic inspection mode: JIS/Pharmacopeias/Digital Simulator (F-72/F-73/F-74)
- Full support for pharmaceutical pure water guidelines of various countries. (USP/EP/JP/CP) (F-74/DS-72)
- Customizable auto-hold function for calibration and measurement (F-72/F-73/F-74/DS-72)
- Simultaneous connection to a GLP/GMP compatible printer and PC
- Digital memory: Up to 2,000 sets of measurement data can be recorded (F-71/F-74BW/DS-71:999)
- USB-PC communication *(all models) and USB memory (F-72/F-73/F-74/DS-72)
- Multi-language support (Japanese, English, Chinese, Korean) (F-72/F-73/F-74/DS-72)
- FDA21CFR Part 11 (please ask for a quotation)

Custom LCD display



The Right Place For Your Test & Measurement Needs

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Electrodes/Accessories



The Right Source For Your Test & Measurement Needs

For LAQUA/LAQUA^{act}

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pH Electrode

*1 0-50°C when completely immersed.

	Description	Model	Temp. range (°C)	pH range	Part No.
Combination (3-in-1) pH electrode	Plastic body	9625-10D	0~100*1	0~14	3200360505
	Standard ToupH	9615S-10D	0~100	0~14	3200585428
	Sleeve ToupH	9681S-10D	0~ 60	0~14	3200585463
	Long ToupH	9680S-10D	0~100*1	0~14	3200585455
	Micro ToupH	9618S-10D	0~ 60	0~14	3200585447
	Sleeve	6367-10D	0~ 60	0~14	3014079136
	For measurement of low-conductivity water and non-aqueous solvents	6377-10D	0~ 60	0~14	3014093085
	Needle type	6252-10D	0~ 60	0~12	3014080850
	For Tap water	9630-10D	0~100	0~14	3200528726
	For Hydrofluoric acid sample	9631-10D	0~ 60	2~12	3200524119
	For Strong alkali sample	9632-10D	0~100	0~14	3200524120
ISFET pH electrode	Needle type ISFET	0030-10D	0~ 60	0~14	3014028323
	Flat type ISFET	0040-10D	0~ 60	0~14	3200367925
	Needle type ISFET(0030-10D) sensor	0131	—	—	3014028400
	Flat type ISFET(0040-10D) sensor	0141	—	—	3200367926
Combination pH electrode	For very slender test tubes	6069-10C	0~ 60	0~14	3014081107
	Flat type	6261-10C	0~ 50	0~12	3014081807
Glass pH electrode	Standard type	1066A-10C	0~100	0~14	3014080432
	For measurement of low-conductivity water and non-aqueous solvents.	1076A-10C	0~100	0~14	3014093084
Reference electrode	Standard type	2060A-10T	0~100	—	3014080434
	Double-junction type	2565A-10T	0~100	—	3014080436
Temperature electrode	For temperature compensation and measurement	4163-10T	0~100	—	3014080375
ORP electrode	Water proof Platinum 3-in-1 type	9300-10D	0~ 60	—	3014046710

* See pages 18 and 19 for the application guide for each electrode.

Conductivity Electrode

Electrode	Cell constant m ⁻¹ (cm ⁻¹)	Model	Range m ⁻¹ (cm ⁻¹)	Minimum Volume (mL)	Temp. range (°C)	Part No.	
Conductivity electrode	Immersion type	10 (0.1)	3551-10D	10 μS~1 S (0.1 μS~10 mS)	50	0~ 60	3014081712
		100 (1)	9382-10D	0.1 mS~10 S (1 μS~100 mS)	20~30	0~ 80	3014046709
		100 (1)	3552-10D	0.1 mS~10 S (1 μS~100 mS)	15	0~100	3014081545
		1000 (10)	3553-10D	1 mS~100 S (10 μS~1 S)	50	0~ 60	3014081714
	Flow type	10 (0.1)	3561-10D	10 μS~1 S (0.1 μS~10 mS)	10	0~ 60	3014082350
		100 (1)	3562-10D	0.1 mS~10 S (1 μS~100 mS)	16	0~ 60	3014082513
		1000 (10)	3573-10C	1 mS~100 S (10 μS~1 S)	4	0~ 60	3014082590
		1000 (10)	3574-10C	1m S~10 S (10 μS~100 mS)	0.25	0~ 60	3014082592

Ion Electrode

*All ion electrodes (except combination electrodes) require a sensor holder for attaching to the electrode stand.

*Please be aware of the hindering ion and pH range interference of ion electrodes. *D-73 connects combination type ion electrodes only.

Electrode name	Model	Measuring range	Applicable reference electrode	Interfering ion influence*1	Part No.
Sodium ion electrode	1512A-10C	2.3~230,000 mg/L Na ⁺	2565A	K ⁺ , Li ⁺ =10 NH ₄ ⁺ =20 Ca ²⁺ =500	3014068526
Cyanide ion electrode	8001-10C	0.03~2,600 mg/L CN	2060A-2565A	S ²⁻ , MnO ₄ ⁻ =N/A I ⁻ =0.1 S ₂ O ₃ ²⁻ =1	3014094393
Chloride ion electrode	8002-10C	0.4~35,000 mg/L Cl ⁻	2565A	S ₂ O ₃ ²⁻ , S ²⁻ , I ⁻ , Ag ⁺ , Hg ²⁺ =N/A SCN ⁻ =0.3 MnO ₄ ⁻ =0.1	3014094394
Chloride ion electrode (Combination type)*	6560-10C	0.4~35,000 mg/L Cl ⁻	—	Br ⁻ =0.03 NO ₃ ⁻ , F ⁻ , HCO ₃ ⁻ , SO ₄ ²⁻ , PO ₄ ³⁻ =1,000	3014093430
Sulfide ion electrode	8003-10C	0.3~32,000 mg/L S ²⁻	2060A-2565A	CN ⁻ =N/A S ₂ O ₃ ²⁻ =10 I ⁻ , F ⁻ , Cl ⁻ , PO ₄ ³⁻ , SO ₄ ²⁻ =1,000	3014094395
Iodide ion electrode	8004-10C	0.01~13,000 mg/L I ⁻	2060A-2565A	MnO ₄ ⁻ , S ²⁻ , CN ⁻ =N/A S ₂ O ₃ ²⁻ =10 NO ₂ ⁻ =100 Br ⁻ =1,000	3014094396
Bromide ion electrode	8005-10C	0.8~80,000 mg/L Br ⁻	2565A	S ₂ O ₃ ²⁻ , I ⁻ , S ²⁻ , CN ⁻ =N/A MnO ₄ ⁻ =1 Cl ⁻ , PO ₄ ³⁻ =100 F ⁻ , NO ₃ ⁻ , SO ₄ ²⁻ =1,000	3014094397
Copper ion electrode	8006-10C	0.06~6,400 mg/L Cu ²⁺	2565A	Fe ³⁺ =0.1 Ni ²⁺ , Na ⁺ =1,000	3014094398
Cadmium ion electrode	8007-10C	0.1~11,000 mg/L Cd ²⁺	2060A-2565A	Cu ²⁺ , Hg ²⁺ , Ag ⁺ =N/A Pb ²⁺ =0.1 Fe ³⁺ =1 Cr ³⁺ , Fe ³⁺ =100 Ni ²⁺ =1,000	3014094399
Lead ion electrode	8008-10C	2~20,000 mg/L Pb ²⁺	2565A	Cu ²⁺ , Hg ²⁺ , S ²⁻ , Ag ⁺ =N/A Fe ³⁺ =0.01 Cr ³⁺ =1 Cd ²⁺ =10 Ni ²⁺ , Mg ²⁺ , Zn ²⁺ =100 NH ₄ ⁺ , K ⁺ =1,000	3014094400
Thiocyanate ion electrode	8009-10C	0.6~5,800 mg/L SCN ⁻	2565A	CN ⁻ , I ⁻ , S ²⁻ , S ₂ O ₃ ²⁻ =N/A Br ⁻ =1 Cl ⁻ =100	3014094401
Fluoride ion electrode	8010-10C	0.02~19,000 mg/L F ⁻	2060A-2565A	Possible interference when multiply-charged ion	3014093439
Fluoride ion electrode (Combination type)*	6561-10C	0.02~19,000 mg/L F ⁻	—	(ex. Al ³⁺ , Fe ³⁺)coexisted and foamed the complex.	3014093431
Silver ion electrode	8011-10C	0.01~110,000 mg/L Ag ⁺	2565A	Hg ²⁺ =N/A Cu ²⁺ , Cd ²⁺ , Pb ²⁺ , Zn ²⁺ , Mg ²⁺ , Ca ²⁺ , Na ⁺ , K ⁺ =Over 1000	3014094402
Nitrate ion electrode	8201-10C	0.62~62,000 mg/L NO ₃ ⁻	2565A	ClO ₄ ⁻ =0.03 I ⁻ =0.1 Br ⁻ =2 NO ₂ ⁻ =3 Cl ⁻ =40 F ⁻ =200	3014094403
Nitrate ion electrode (Combination type)*	6581-10C	0.62~62,000 mg/L NO ₃ ⁻	—	CH ₃ COO ⁻ =300 SO ₄ ²⁻ =Over 1000	3014093432
Potassium ion electrode	8202-10C	0.04~39,000 mg/L K ⁺	2565A	Rb ⁺ =0.4 Cs ⁺ =3 NH ₄ ⁺ =70	3014094404
Potassium ion electrode (Combination type)*	6582-10C	0.04~39,000 mg/L K ⁺	—	Li ⁺ , Na ⁺ , Mg ²⁺ , Ca ²⁺ , Sr ²⁺ , Ba ²⁺ =Over 1000	3014093433
Calcium ion electrode	8203-10C	0.4~40,080 mg/L Ca ²⁺	2060A-2565A	Fe ³⁺ =0.1 Fe ²⁺ , Zn ²⁺ =1 Sr ²⁺ =50 Ni ²⁺ , Cu ²⁺ =70 Co ²⁺ =350	3014068839
Calcium ion electrode (Combination type)*	6583-10C	0.4~40,080 mg/L Ca ²⁺	—	Mn ²⁺ =500 Mg ²⁺ =1,000 Na ⁺ , K ⁺ , Ba ²⁺ , NH ₄ ⁺ =Over 1,000	3014093434
Ammonia electrode (Combination type)*	5002A-10C	0.1~1,000 mg/L NH ₃	—	—	3014093560

*1 The selection coefficient is a ratio of the limit concentration of coexisting ions (mol/L) to the ion concentration to be measured (mol/L); A value of 1000 means that the coexisting ions can be permitted up to 1000 times the ion measured and "N/A" means that chemical change occurs in the solid response membrane.

Ion Electrode Tip

Electrode name	Model	Part No.
Chloride ion tip	7660	3014093436
Fluoride ion tip	7661	3014093438
Nitrate ion tip	7681	3014068364
Potassium ion tip	7682	3014069795
Calcium ion tip	7683	3014068795
Ammonia electrode membrane (6pcs)	membrane (NH ₃)	3014067083

DO Electrode /DO Tip

Electrode	Cable length	Model	Specification	Temp. range (°C)	Part No.
Waterproof DO electrode	2m	9551-20D	Field immersible type	0~40	3014047090
Waterproof DO electrode	10m	9551-100D	Field immersible type	0~40	3014047091
DO electrode	1m	9520-10D	Laboratory use	0~45	3014046711
DO tip	—	5401	Replacement electrode tip for 9551	—	3014072770
DO tip	—	7541	Replacement electrode tip for 9520	—	3014074145

Accessories

Name	Remarks	Part No.	F-70	DS-70	D-70	ES-70	OM-70
Printer (for GLP/GMP compliance)	Cable sold separately, Plain paper	—					
Printer cable	1.5 m	3014030148					
Printer paper	20 rolls	3014030149	○	○	*1	○	○
Ink ribbon	5 pcs/set	3014030150					
AC adapter cable set.	AC adaptor 1.8 m, cable 1 m	—	○	○	○	○	○
Digital simulator X-51	pH, mV, ION, DO simulator (for periodic inspection of the electrode)	3014028368	○	—	○	—	○
Digital simulator X-52	Conductivity simulator (for periodic inspection of the electrode)	3014028370	*2	○	*2	○	—
USB cable	Cable to connect a meter and PC. 1 m	3200373941	○	○	—	—	—
LCD protection sheet	2 pcs/pack	3200382462	○	○	—	—	—
Protection cover	Protects the meter for F-70, DS-70 series	3200382441	○	○	—	—	—
Analog cable	Analog (alarm) output cable	3014030152	*3	*3	—	—	—
Serial cable	Cable to connect a meter and PC (Serial, 9 pins)	3014030151	○	○	*1	○	○
Electrode hook	With function for winding the cable	3200528475	—	—	○	○	○
DP-70S Electrode stand (adjustable type)	With holder for D/ES/OM-70 1 m	3200528474	—	—	○	○	○
FA-70S Electrode stand (adjustable type)	Free-standing type. Height 384 mm	3200382557	○	○	○	○	○
FA-70L Electrode stand (long type)	Free-standing type. Height 450~650 mm	3200382560	○	○	○	○	○

*1 Except D-71 *2 Conductivity measurement model: F-74/F-74BW/D-74 *3 Except F-71/F-74BW/DS-71



Standard Solutions

Name	Type	Specification	Remarks	Part No.
pH Standard Solution SET	101-S	pH4-9 Standard Solution	250 mL	3200043642
		pH7 Standard Solution	500 mL	
		Internal Solution for Reference Electrode	250 mL	
Oxalate standard solution	100-2	pH 1.68 (25°C)	500 mL	3200043639
Phthalate standard solution	100-4	pH 4.01 (25°C)	500 mL	3200043638
Phosphate standard equimolar solution	100-7	pH 6.86 (25°C)	500 mL	3200043637
Borate standard solution	100-9	pH 9.18 (25°C)	500 mL	3200043636
Carbonate standard solution	100-10	pH 10.02 (25°C)	500 mL	3200043635
Powder for ORP standard solution	160-51	For 250 mL (10 packets per set)	25°C: 89 mV	3200043618
Powder for ORP standard solution	160-22	For 250 mL (10 packets per set)	25 °C: 258 mV	3200043617
Internal Solution for Reference Electrode	300	3.33 mol/L KCl	250 mL	3200043640
Internal solution for NH ₃ electrodes	370	—	250 mL	3014067184

Electrode Cleaning Solution

- For removing inorganic sample residues from glass electrodes, and for cleaning liquid junctions

Name	Type	Volume (mL)	Part No.
Electrode cleaning solution	220	50 x 2 pcs	3014028653

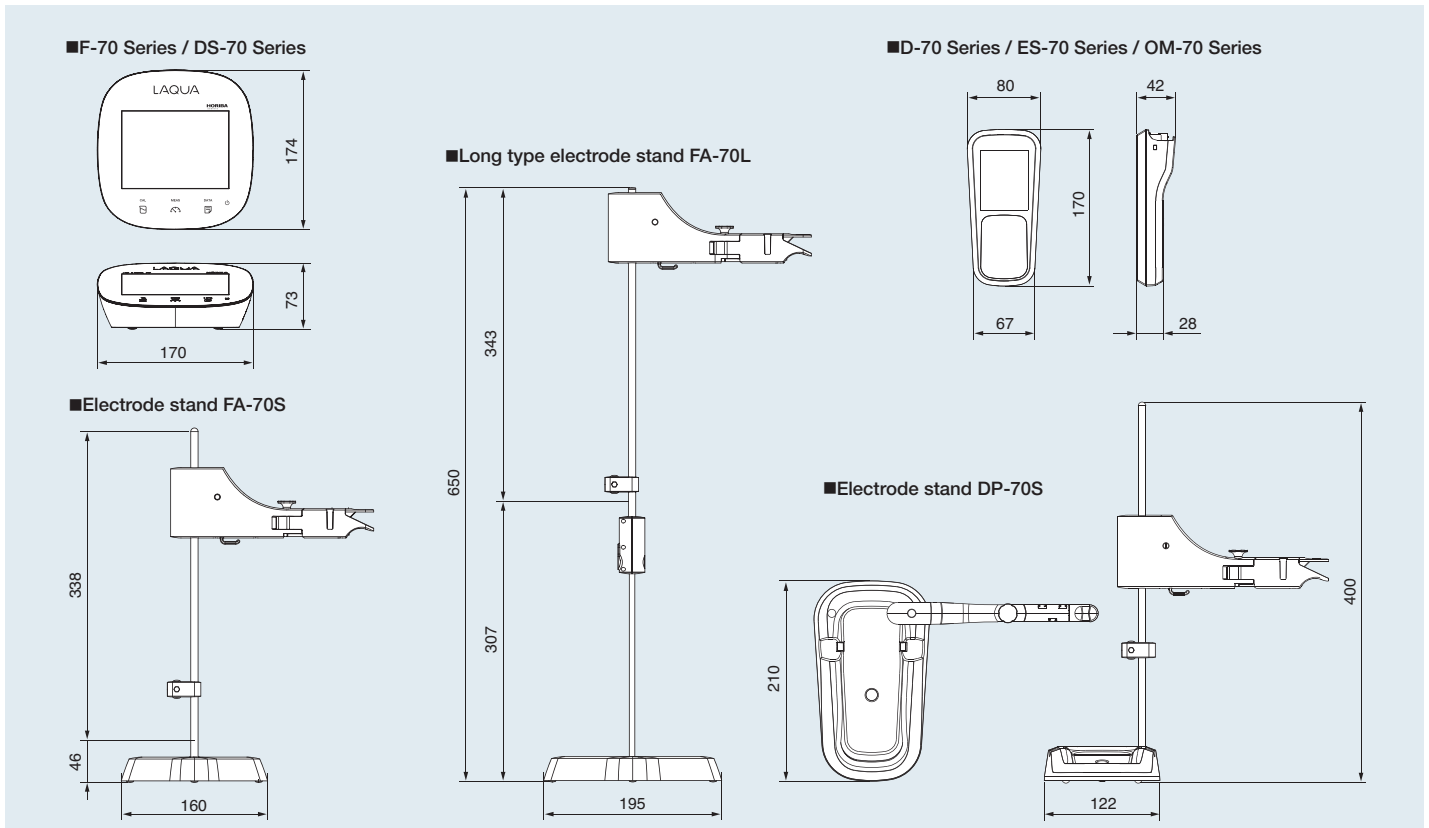
- For removing protein containing sample residues from glass electrodes, and for cleaning liquid junctions.

Name	Type	Volume (mL)	Part No.
Electrode cleaning solution	250	400	3200366771

- For 9630-10D (pH electrode for tap water or low conductivity sample)

Name	Type	Volume (mL)	Part No.
Electrode cleaning solution	230	Solution A 30 mL Solution B 100 mL	3200530494

Dimension Unit: mm



	F-71	F-72	F-73	F-74	F-74BW	DS-71	DS-72
pH	Measurement method	Glass electrode method				—	—
	Measurement range	pH 0.000~14.000				—	—
	Display range	pH -2.000~19.999	pH -2.000~20.000			pH -2.000~19.999	—
	Resolution	0.001 pH	0.01/0.001 pH			0.001 pH	—
	Auto range select	—	●	●	●	—	—
	Repeatability	±0.005 pH±1 digit	±0.001 pH±1 digit			±0.005 pH±1 digit	—
	pH calibration point	5	5			5	—
	Repeatability check	●	●	●	●	●	—
	Alarm limit of calibration	●	●	●	●	●	—
mV (ORP)	Periodical check	—	●	●	●	—	—
	Measurement range	±1999.9 mV				—	—
	Resolution	0.1 mV				—	—
Temperature	Repeatability	±0.1 mV±1 digit				—	—
	Measurement range	0.0~100.0°C (-30.0~130.0°C)				—	—
	Resolution	0.1°C				—	—
ION	Repeatability	±0.1°C±1 digit				—	—
	Measurement method	—	Ion electrode method			—	—
	Measurement range	—	0.00 µg/L~999 g/L (mol/L)			—	—
	Resolution	—	Valid numbers 3 digits			—	—
	Repeatability	—	±0.5%F.S.±1 digit			—	—
	Periodical check	—	●	●	●	—	—
	Calibration curve point	—	5	5	5	5	—
	Addition method measurement	—	●	●	●	—	—
	Measurement method	—	—	—	2 AC bipolar method		
Conductivity	Measurement range (Display range)	—	—	—	Cell constant 100 m ⁻¹ : 0.000 mS/m~19.99 S/m Cell constant 10 m ⁻¹ : 0.0 µS/m~1.999 S/m Cell constant 1000 m ⁻¹ : 0.000 mS/m~199.9 S/m		
	Resolution	—	—	—	0.05% of full scale		
	Repeatability	—	—	—	±0.5%F.S.±1 digit		
	Change unit	—	—	—	●	●	●
	Distilled water temperature conversion	—	—	—	●	●	●
	Periodical check	—	—	—	●	—	●
	JP/EP/USP/CP Pharmaceutical water application	—	—	—	●	—	●
Salinity	Measurement method	—	—	—	Conversion from conductivity value		
	Measurement range (Display range)	—	—	—	0.00~80.00 PPT (0.000%~8.000%)		
	Resolution	—	—	—	0.01 PPT (0.001%)		
	Salt concentration calibration	—	—	—	●	●	●
Resistivity	Measurement method	—	—	—	Conversion from conductivity value		
	Measurement range (Display range)	—	—	—	Cell constant 100 m ⁻¹ : 0.00 Ω·m~199.9 kΩ·m Cell constant 10 m ⁻¹ : 0.0 Ω·m~1.999 MΩ·m Cell constant 1000 m ⁻¹ : 0.000 Ω·m~19.99 kΩ·m		
	Resolution	—	—	—	0.05% F.S.		
	Repeatability	—	—	—	±0.5%F.S.±1 digit		
TDS	Measurement method	—	—	—	Conversion from conductivity value		
	Measurement range (Display range)	—	—	—	0.01 mg/L~1000 g/L	0.01 mg/L~100 g/L	0.01 mg/L~1000 g/L
	Resolution	—	—	—	0.01 mg/L		
Input/output	Input (number of channels)	1	1	2	2	2	1
	USB peripherals (Communication with PC) ¹	●	●	●	●	●	●
	USB host (USB memory)	—	●	●	●	—	●
	RS-232C (Printer/PC)	●	●	●	●	●	●
	Analog out put	—	●	●	●	—	●
Data	Memory number	999	2000	2000	2000	999	2000
	Interval memory	●	●	●	●	●	●
	ID input	●	●	●	●	●	●
	Data search	—	●	●	●	—	●
Display	Display	Custom LCD	Color graphic LCD with capacitive Touch Panel			Custom LCD	Color graphic LCD with capacitive Touch Panel
	Dual component display	—	—	●	●	●	—
	Multilanguage display	—	Japanese/English/Chinese/Korean			—	Japanese/English/Chinese/Korean
Function	Navigation function	—	●	●	●	—	●
	User guide	—	●	●	●	—	●
	Graph display	—	●	●	●	—	●
	Printer connectivity (GLP/GMP)	●	●	●	●	●	●
	Custom printing function	—	●	●	●	—	●
	Temperature compensation (Auto/manual)	●	●	●	●	●	●
	AutoHold function	●	●	●	●	●	●
	AutoHold setting	—	●	●	●	—	●
	Stability function (pH/ION)	—	●	●	●	—	●
	Register operator	—	●	●	●	—	●
	Security (password)	●	●	●	●	●	●
Version up function	●	●	●	●	●	●	
Ambient temperature	0~45°C						
Power	AC adaptor 100 ~ 240 V 50/60 Hz						
Dimensions	170 (W)×174 (D)×73 (H)mm (Excluding electrode stand and AC adaptor)						
Power consumption	Approx. 0.7 VA	Approx. 9.8 VA			Approx. 0.7 VA	Approx. 9.8 VA	
Mass of main unit	Approx. 500 g	Approx. 700 g			Approx. 500 g	Approx. 700 g	

¹ USB cable sold separately. Software can be downloaded from our web registration page.

pH Electrode Selection Guide

		3-in-1 ELECTRODES (ToupH)						
		PLASTIC	STANDARD ToupH	LONG ToupH	MICRO ToupH	SLEEVE ToupH	For TAP WATER	HF-PROOF
		9625-10D	9615S-10D	9680S-10D	9618S-10D	9681S-10D	9630-10D	9631-10D
Specification	Applicable temperature range (°C)	0-100	0-100	0-100	0-60	0-60	0-100	0-60
	Diameter (mm)	16	12	8	3	12	16	16
	Position of liquid junction (approx. mm)	15	13	21	6	26	15	20
	Length (mm)	150	151	251	151	151	150	155

pH-Sample Conditions

Aqueous Solution	Conductivity	Normal (over 100 mS/m)	●	●	●	●	●	●
		Low (approx. 10~100 mS/m)					○	●
		Very low (approx. 5~10 mS/m)					○	○
		High (approx. 5 S/m)	○	○	○		●	○
	Strong alkaline (pH 10-12)		○	○		○		
	Strong acidity (pH 0-2) * Except HF sample		●					●
	Quick heat change (within 50°C)	●					●	●
	High viscosity (approx. 5 Pa·S)					●		
Solid/Semisolid	Containing non-aqueous solvent		○	○	○	○		
		Suspension		○	○	○	●	
		Inside						
		Surface						

pH-Sample Conditions

Sample Containers	Microtube/plate (> 50 µL)	×	×	×	●	×	×	×
	NMR tube	×	×	×	×	×	×	×
	Ampule				●			
	Micro container (> 2 mL)			○	●			
	Tube			●				
	Beaker	●	●	○	○	○	●	●
	Large container (> 1 L)	○	○	●			○	○
	Petri dish							
Droplet	×	×	×	×	×	×	×	

pH-Typical Samples

Water	Pure/ion-exchange water (approx. 0.1 mS/m)							
	Distilled water (approx. 0.5 mS/m)		○					
	Tap/drinking water (approx. 10 mS/m)	○	○			○	●	
	Surface water		○			○	●	
	Pharmaceutical water		○			○		
	Environmental water/acid rain	○	○			○	○	
Chemical reagent/solvent	Caustic/strong acid (Except HF sample)		●			○		●
	Hydrofluoric acid							●
	Organic solvent	×					×	×
	KCl-reactive solution	×	×	×	×	×	×	×
	Surfactant		○			●		
	Water-based paint		○			●		
Pharmaceutical/biology sample	Dye/coloring agent					●		
	Protein-containing sample		○		○	●		
	Medicinal preparation				○	○		
	Enzyme solution			○	●			
	Tris buffer		●		○	○		
Food	Suspension		○			●		
	Agar medium							
	Jam		○			●		
	Meat/fish							
	Fruit/vegetable							
	Dough							
	Honey							
Beverage/seasoning	Cheese/butter							
	Yogurt	○	○			○	○	
	Beer	○	○			●	○	
	Milk		○			●		
Cosmetic/lotion	Carbonated drink/juice/sauce/soy sauce		○			●		
	Mayonnaise/ketchup		○			●		
	Beauty cream/mascara		○			●		
	Gel/soap/shampoo		○			●		
	Hairdye lotion		○			●		
Emulsified liquid		○			○			

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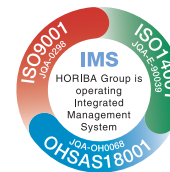
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