

Features:

- Combine the functions of F-72 and DS-72 models
- Dual channel and simultaneous measurements
 - Channel 1: pH, Ion, mV, ORP
 - Channel 2: Conductivity, Salinity, Resistivity and TDS
- Switchable single or dual channel display

F-74
Dual Channel



Channel 1: pH




Channel 2: Conductivity



Dual Channel


Ordering Information:

Meter Kit*	 <p>F-74A-S (3999960014)</p> <ul style="list-style-type: none"> • F-74 meter • electrode stand • protection cover • power adaptor with 6 plugs • data acquisition software in USB • 9615S-10D - refillable, glass-body pH electrode with integrated temperature sensor, 1m cable, BNC & phono jack • 3552-10D - Platinum/Platinum black, glass-body k=1.0 conductivity cell with integrated temperature sensor, 1m cable, BNC & phono jack • 502-S - pH 4.01, 7.00, 10.01, 3.33M KCl solutions (250ml each) • 503-S - 84µS/cm, 1413µS/cm, 12.88mS/cm & 111.8mS/cm conductivity standard solutions (250ml each)
Meter Kit with 21 CFR Part 11 Software	F-74A-S-CFR (3999960214)
Meter with Electrode Stand	<p>F-74G (3000347400)</p> <ul style="list-style-type: none"> • F-74 meter • electrode stand • protection cover • power adaptor with 6 plugs • data acquisition software in USB
pH Electrode	<p>9615S-10D (3200585428)</p> <ul style="list-style-type: none"> • refillable, glass-body pH electrode with integrated temperature sensor, 1m cable, BNC & phono jack
Conductivity Cell	<p>3552-10D (3014081545)</p> <ul style="list-style-type: none"> • Platinum/Platinum black, glass-body k=1.0 conductivity cell with integrated temperature sensor, 1m cable, BNC & phono jack
USA pH Buffer Set	<p>502-S (3999960016)</p> <ul style="list-style-type: none"> • pH 4.01, 7.00, 10.01, 3.33M KCl solutions (250ml each)
NIST pH Buffer Set	<p>501-S (3999960015)</p> <ul style="list-style-type: none"> • pH 4.01, 6.86, 9.18, 3.33M KCl solutions (250ml each)
Conductivity Standard Solutions Set	<p>503-S (3999960017)</p> <ul style="list-style-type: none"> • 84µS/cm, 1413µS/cm, 12.88mS/cm & 111.8mS/cm conductivity standard solutions (250ml each)





*Kit with 501-S is available upon request. Add 'N' suffix to the order code when ordering.

Models		F-74
		Dual Channel pH/ORP/Ion/EC/TDS/Res/Sal/Temp (°C)
pH Range	-2.000 to 20.000 pH	
Resolution	0.01 / 0.001 pH	
Accuracy	± 0.001 pH	
Calibration Points	Up to 5	
Buffer Options	USA, NIST, NIST2, China, Custom	
ORP Range	± 1999.9 mV	
Resolution	0.1 mV	
Accuracy	± 0.2 mV	
Ion Range	0.000 µg/L to 9999 g/L (mol/L)	
Resolution	4 significant digits	
Accuracy	± 0.3% of full scale	
Calibration Points	Up to 5	
EC Range	0.000µS/cm to 19.99mS/cm (k=0.1) 0.00 µS/cm to 199.9 mS/cm (k=1.0) 0.0 µS/cm to 1.999 S/cm (k=10.0)	
Resolution	0.05% of full scale	
Accuracy	±0.6% of full scale (±1.5% full scale > 18.0 mS/cm)	
Reference Temperature	15 to 30°C (adjustable)	
Temperature Coefficient	0.00 to 10.00% (adjustable)	
Cell Constants	0.1 / 1.0 / 10.0	
Calibration Points	4 (Auto / Manual)	
Measurement Units	Auto Ranging / Manual S/cm, S/m, Fix (mS/cm)	
TDS Range	0.01 mg/L to 1000 g/L	
Resolution	0.01 mg/L	
Accuracy	±0.1% of full scale	
TDS Curves	EN27888, Linear (0.40 to 1.0), 442, NaCl	
Resistivity Range	0.00 kΩ.cm to 199.9 MΩ•cm (k=0.1) 0.000 kΩ.cm to 19.99 MΩ•cm (k=1.0) 0.0 Ω.cm to 1.999 MΩ•cm (k=10.0)	
Resolution	0.05% of full scale	
Accuracy	±0.6% of full scale (±1.5% full scale > 1.80 MΩ•cm)	
Salinity Range	0.00 to 80.00 ppt / 0.000 to 8.000 %	
Resolution	0.01 ppt / 0.001%	
Accuracy	0.2% of full scale	
Salinity Curves	NaCl / Seawater	
Temperature Range	-30.0 °C to 130.0 °C	
Resolution	0.1 °C	
Accuracy	± 0.4 °C	
Navigation Function	Yes	
Memory	2000	
Auto Data-Logging	Yes	
Data Search	Yes	
Custom Printing	Yes	
Real Time Clock	Yes	
Date / Time Stamp	Yes	
Sample ID Input	Yes	
Operator ID Input	Yes	
Password Setting	Yes	
Auto Stable / Auto Hold	Yes	
Offset / Slope Display	Yes (independent acid and alkaline slopes depending on calibration)	
Calibration Alarm Limit	Yes	
Electrode Status	On screen display	
Diagnostic Messages	Yes	
Display	Touch screen color graphic LCD / dual channel display	
Languages	English / Japanese / Chinese / Korean / Vietnamese	
Inputs	Dual BNC, dual phono, DC socket	
Outputs	USB, RS232C, analog output	
Power Requirements	AC adaptor 100~240V, 50/60 Hz	
Electrode Stand	Stand alone	
Weight	700g	
Dimensions	170 (W) x 174 (D) x 73 (H) mm	



Metallic Electrode (For ORP Measurement)

Model	Operating Temperature Range (°C)	Electrode Material	Internal Solution	Applications
ORP Electrode 9300-10D Waterproof platinum 3-in-1 type  3014046710 Overall length: 150 mm Diameter of probe: 12 mm Connectors: BNC & phono jack	0-60	Pt / Glass	#300 (KCl)	Waterproof; Platinum on the flat tip allows measurement of small volume samples

Conductivity Cells (Submersible Type)

Model	Cell Constant	Measurement Range	Temp. Range (°C)	Cell Material	Thermistor	Minimum Sample Volume (ml)	Application
3551-10D  3014081712 Overall length: 175 mm Diameter of probe: 23 mm Connectors: BNC & phono jack	0.1 cm ⁻¹	0.1 µS/cm - 10 mS/cm	0 - 60	Pt-Pt black / Glass	Built-in	50	Low conductivity water (e.g., deionized, distilled)
	10 m ⁻¹	10 µS/m - 1 S/m					
3552-10D  3014081545 Overall length: 150 mm Diameter of probe: 12 mm Connectors: BNC & phono jack	1 cm ⁻¹	1 µS/cm - 100 mS/cm	0 - 100	Pt-Pt black / Glass	Built-in	15	General purpose use
	100 m ⁻¹	0.1 mS/m - 10 S/m					
3553-10D  3014081714 Overall length: 175 mm Width of probe: 28 mm Connectors: BNC & phono jack	10 cm ⁻¹	10 µS/cm - 1 S/cm	0 - 60	Pt-Pt black / Glass	Built-in	50	High conductivity water
	1000 m ⁻¹	1 mS/m - 100 S/m					
9382-10D  3014046709 Overall length: 150 mm Diameter of probe: 16 mm Connectors: BNC & phono jack	1 cm ⁻¹	1 µS/cm - 100 mS/cm	0 - 80	Ti-Pt black / Plastic	Built-in	20-30	General purpose use; Waterproof
	100 m ⁻¹	0.1 mS/m - 10 S/m					

Conductivity Cells (Flow Type)

Model	Cell Constant	Measurement Range	Temp. Range (°C)	Cell Material	Thermistor	Minimum Sample Volume (ml)	Application
3561-10D  3014082350 Overall length: 143 mm Diameter of probe: 18 mm Connectors: BNC & phono jack	0.1 cm ⁻¹	0.1 µS/cm - 10 mS/cm	0 - 60	Pt-Pt black / Glass	Built-in	10	Low conductivity water (e.g., deionized, distilled)
	10 m ⁻¹	10 µS/m - 1 S/m					
3562-10D  3014082350 Overall length: 205 mm Diameter of probe: 18 mm Connectors: BNC & phono jack	1 cm ⁻¹	1 µS/cm - 100 mS/cm	0 - 60	Pt-Pt black / Glass	Built-in	16	General purpose use
	100 m ⁻¹	0.1 mS/m - 10 S/m					
3573-10C  3014082590 Overall length: 222 mm Diameter of probe: 18 mm Connector: BNC	10 cm ⁻¹	10 µS/cm - 1 S/cm	0 - 60	Pt-Pt black / Glass	—	4	High conductivity water
	1000 m ⁻¹	1 mS/m - 100 S/m					
3574-10C  3014082592 Overall length: 136 mm Diameter of probe: 66 mm Connector: BNC	10 cm ⁻¹	10 µS/cm - 100 mS/cm	0 - 60	Pt-Pt black / Glass	—	0.25	Small volume sample (e.g., column chromatography)
	1000 m ⁻¹	1 mS/m - 10 S/m					



501-S NIST pH Buffer Solution Kit



502-S USA pH Buffer Solution Kit



503-S Conductivity Standard Solution Kit



ORP Powders



220

250



230

Cleaning Solutions

pH Buffer Solution Kits

Code	Part No.	Description	Volume
501-S	3999960015	NIST pH Buffer Solution Kit (pH 4.01, 6.86, 9.18 buffers & 3.33M KCl)	250ml each
502-S	3999960016	USA pH Buffer Solution Kit (pH 4.01, 7.00, 10.01 buffers & 3.33M KCl)	250ml each

pH Buffer Solutions

Code	Part No.	Description	Volume
500-2	3999960028	pH 1.68 Buffer Solution at 25°C	500ml
500-4	3999960029	pH 4.01 Buffer Solution at 25°C	500ml
500-686	3999960030	pH 6.86 Buffer Solution at 25°C	500ml
500-7	3999960031	pH 7.00 Buffer Solution at 25°C	500ml
500-9	3999960032	pH 9.18 Buffer Solution at 25°C	500ml
500-10	3999960033	pH 10.01 Buffer Solution at 25°C	500ml
500-12	3999960034	pH 12.46 Buffer Solution at 25°C	500ml



Conductivity Standard Solution Kit

Code	Part No.	Description	Volume
503-S	3999960017	Conductivity Standard Solution Kit (84µS/cm, 1413µS/cm, 12.88mS/cm & 111.8mS/cm)	250ml each

Conductivity Standard Solutions

Code	Part No.	Description	Volume
500-21	3999960035	84 µS/cm Conductivity Standard Solution	500ml
500-22	3999960036	1413 µS/cm Conductivity Standard Solution	500ml
500-23	3999960037	12.88 mS/cm Conductivity Standard Solution	500ml
500-24	3999960038	111.8 mS/cm Conductivity Standard Solution	500ml


ORP Powders


















Code	Part No.	Description	Volume
160-51	3200043618	89 mV at 25°C (for 250ml solution) 	10 sachets/pack
160-22	3200043617	258 mV at 25°C (for 250ml solution) 	10 sachets/pack

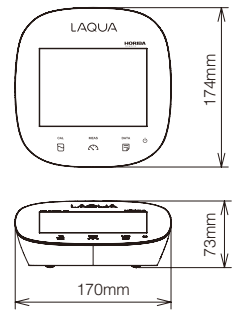
pH/ORP Electrode Filling Solutions

Code	Part No.	Description	Volume
525-3	3999960023	3.33M KCl	250ml
300	3200043640	3.33M KCl	250ml

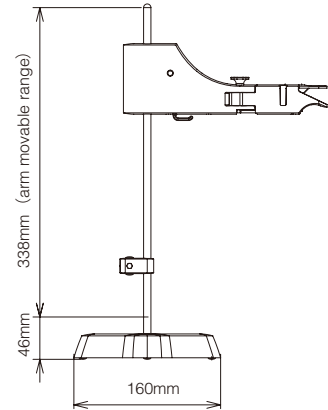
pH Electrode Cleaning Solutions

Code	Part No.	Description	Volume
220	3014028653	For removing inorganic residues from glass membrane and liquid junction 	2 x 50ml
230	3200530494	For removing inorganic and organic residues from glass membrane (30ml Solution A & 100ml Solution B)	30ml & 100ml
250	3200366771	For removing protein residues from glass membrane and liquid junction	400ml

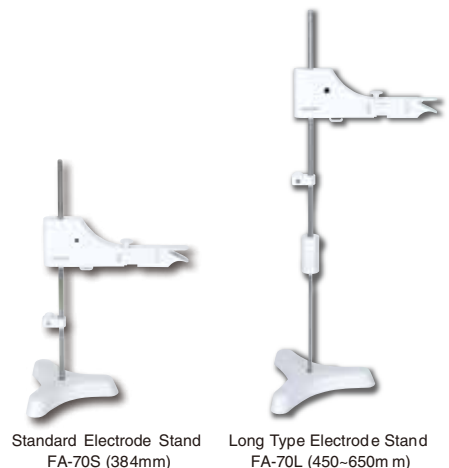
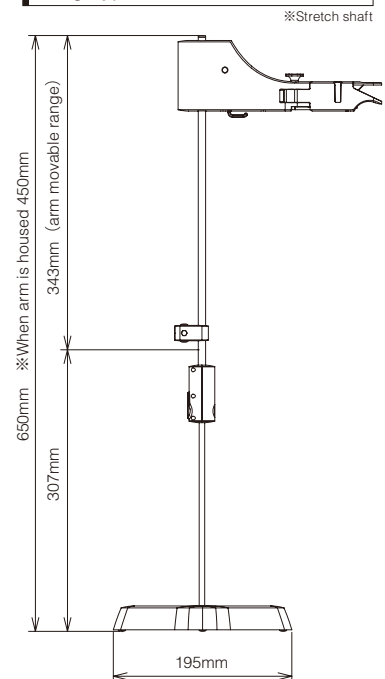
Accessories		
Code	Part No.	Description
 LAQUA-SW-21CFR11	3200707161	21 CFR Part 11 Software includes CD with PIN code, USB cable, and manual
 Printer  Printer cable  Ink ribbon  Printer paper	3014030147 (230v) 3014030146 (120v)	Printer (for GLP/GMP compliance) Cable sold separately, Plain paper
	3014030148	Printer cable (1.5 m)
	3014030149	Printer paper (20 rolls)
	3014030150	Ink ribbon (5 pcs/set)
 Universal AC adapter	3200647413	Multi-Voltage (100-240V) with 6 plugs, (US, UK, EU, ANZ, Korea and China) 1.8 m cable
 X-51  X-52	3014028368	Digital simulator X-51 (pH, mV, Ion, DO, temperature simulator)
	3014028370	Digital simulator X-52 (Conductivity, temperature simulator)
 LCD protection sheet  Protection cover sheet	3200382462	LCD protection sheet (2 pcs/pack)
	3200382441	Protection cover (Protects the meter for F-70, DS-70, 1000 series)
 USB cable  Serial cable	3200373941	USB cable (to connect meter and PC.)
	3014030152	Analog cable (Analog (alarm) output cable)
	3014030151	Serial cable (to connect meter and PC (Serial, 9 pins))
FA-70S	3200382557	Adjustable, free-standing electrode stand (Height: 384 mm) <i>image on the right</i>
FA-70L	3200382560	Long, free-standing electrode stand (Height: 450-650mm) <i>image on the right</i>
	3200373991	Arm for electrode stand FA-70A, FA-70S, & FA-70L
	3200373961	Electrode holders, 2pcs (for mounting electrode with round cap on electrode stand arm)
	3200382477	Electrode protection caps, 3pcs (for 9615S-10D, 9618S-10D, 9681S-10D pH electrode)
	3200043508	Electrode protection caps, 5pcs (for 9621-10D, 9625-10D, 9630-10D, 9631-10D, 9632-10D, 6367-10D, 6377-10D, 6252-10D, 6261-10C, 1066A-10C, 1076-10C, 2060-10T, 9300-10D, 9382-10D, 3552-10D pH electrode)
	3200382482	Electrode protection cap for long electrode (for 9680S-10D, 9480-10C pH Electrode)



Body • Standard Electrode Stand



Long Type Electrode Stand



With over 60 years of engineering excellence, HORIBA's diverse range of water quality analyzers and electrodes are ideal for everyday laboratory needs through to the most demanding of applications. Visit our website for a wealth of useful information and water quality measurement tips to help you obtain the best results in your work.



Benchtop Meters

Developed using extensive feedback from users, our new LAQUA meters deliver the best solution for water quality analysis. Our LAQUA website features an online 'Selection Guide' to enable you to find the perfect LAQUA meter and electrode for your need.



Handheld Meters

In the lab, in the field or anywhere you need it. LAQUA Handheld meters are designed for use with one hand and with an IP67 waterproof rating and shock-resistant casing. Meters can be used for long periods, even in dark places, making it ideal for field measurements in rivers and lakes.



Electrodes

Various electrodes to match any application. A wide range of products for both benchtop and portable systems are available, including easy and reliable standard models, application-focused models for small samples or large containers, and special electrodes for specific sample characteristics.



Pocket Meters

Analyzing water quality is simplified when using our LAQUAtwin range of meters. Designed to produce accurate and reliable results. Anyone, anywhere, at any time can measure samples easily with a LAQUAtwin meter. See just how good they are at our website.



Application Notes

LAQUAtwin pocket meters offer quick and convenient alternative to analyze important parameters with high accuracy. Several application notes are available at (<http://goo.gl/znwE6j>) detailing the use of LAQUAtwin and the results achieved for the respective applications. Additional application notes will be added when available.



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