

TOA DKK

mylana

P-40 series
Portable Water Quality Meter

NEW



MM-42DP / MM-41DP

pH

ORP

Conductivity

Optical DO※

HM-40P

pH

ORP

Ion

※For optical DO probes
to be launched around
the end of September

DKK-TOA CORPORATION

NEW Digital Probe



Automatically recognizes probe information
Multiple probe combinations are available
for 2ch type

pH

ORP

Conductivity

Optical dissolved oxygen※

※For optical DO probes to be launched
around the end of September

Digital Communication Transmission (RS-485 Transmission)



MM-41DP
1ch type

MM-42DP
2ch type



Easily replaceable electrode for pH and ORP probe

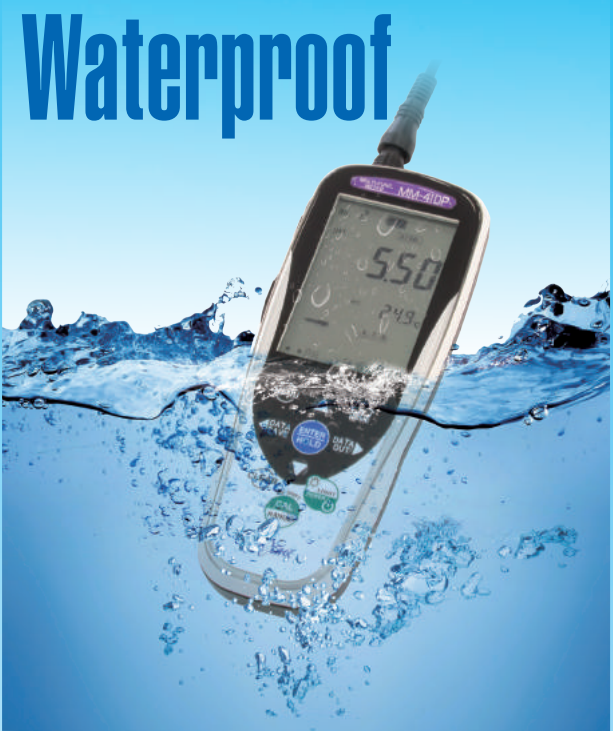
Loosen this cap nut

Replaceable

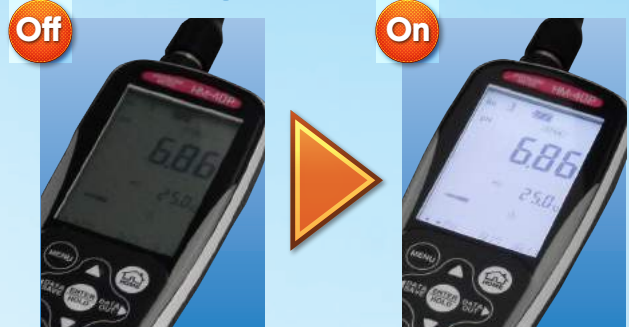
You can remove
the electrode

Lana

Portable
Slim design



Backlight

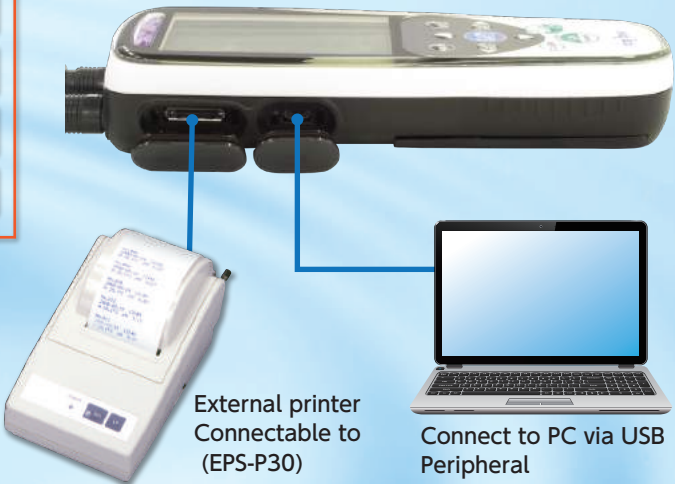


Memory Data Memory function

1500 Data memory available
Previous model: 1000 data (P30 series)

- Measurement time
- Measurement value
- Temperature

Expansion System extensibility (For MM-42DP/41DP)



Mylana is a brand of the P-40 series Portable Multi-parameter Water Quality Meter from DKK-TOA. In Hawaiian "Lana" means "floating, quiet water surface". It is our wish that Mylana Water Quality Meter be used as your trusted partner.

Lineup

Multi-parameter type (Digital probe connectable)

pH

ORP

Conductivity

Resistivity

Salinity
(NaCl, PSS)

TDS
(Total Dissolved
Solid)

DO
(Optical)

Portable Multi-parameter Water Quality Meter MM-42DP

2ch
type



Portable Multi-parameter Water Quality Meter MM-41DP

1ch
type



※Production of Optical type DO electrode will start around the end of September.

USB peripheral
(PC connectable)

External Printer

Backlight

Data memory
(1500 data)

Waterproof

USB Power
supply
(optional)

Versatile type

pH

ORP

Ion

Portable pH, Ion, ORP Meter HM-40P



Backlight

Data memory
(1500 data)

Waterproof

Battery life
(Approx.
2000 hours)

P-30 series Conductivity Meter for pure water and Membrane-type DO Meter also available

Portable Conductivity Meter CM-31P-W



Conductivity

Resistivity

Includes Conductivity cell for
pure water (CT-27111D)
and Flow cell (CEF-22A (PP))

Portable DO Meter DO-31P



Membrane-type DO

Includes Immersion
type DO electrode (OE-270AA)

Portable DO/pH Meter DM-32P



ch1

Membrane-type DO

ch2

pH

ORP

Includes Immersion type
DO electrode (OE-270AA)
pH Composite Electrode (GST-2729C)

◆Probe, Electrode

For MM-42DP/MM-41DP

Probe	Lead	Measuring range	Remark
pH probe MM4-PH	1m(standard)	pH0 to 14 0 to 100°C	Replacement pH-electrode ELP-072
	3m		
	5m		
	11m		
ORP probe MM4-ORP	1m(standard)	-2000 to 2000mV 0 to 100°C	Replacement ORP-electrode ELM-027
	5m		
	11m		
Conductivity probe MM4-EC	1m(standard)	0.1mS/m to 10S/m (Cell constant:250m ⁻¹) 0 to 80°C	—
	5m		
	11m		

MM-42DP/MM-41DP probe sets

Set name	Combination probe	Order code
MM-42DP Main unit	Main unit only	MM42DP-0-0
pH/ conductivity probe Set	MM-42DP(main unit)+MM4-PH(1m)+MM4-EC(1m)	MM42DP-0-1A
	MM-42DP(main unit)+MM4-PH(3m)+MM4-EC(5m)	MM42DP-0-1E
	MM-42DP(main unit)+MM4-PH(5m)+MM4-EC(5m)	MM42DP-0-1I
	MM-42DP(main unit)+MM4-PH(11m)+MM4-EC(11m)	MM42DP-0-1Q
MM-41DP Main unit	Main unit only	MM41DP-0-0
pH probe set	MM-41DP(main unit)+MM4-PH(1m)	MM41DP-0-1A
	MM-41DP(main unit)+MM4-PH(3m)	MM41DP-0-1E
	MM-41DP(main unit)+MM4-PH(5m)	MM41DP-0-1I
	MM-41DP(main unit)+MM4-PH(11m)	MM41DP-0-1Q
	MM-41DP(main unit)+MM4-ORP(1m)	MM41DP-0-2A
ORP probe set	MM-41DP(main unit)+MM4-ORP(5m)	MM41DP-0-2I
	MM-41DP(main unit)+MM4-ORP(11m)	MM41DP-0-2Q
	MM-41DP(main unit)+MM4-EC(1m)	MM41DP-0-3A
Electrical conductivity probe set	MM-41DP(main unit)+MM4-EC(5m)	MM41DP-0-3I
	MM-41DP(main unit)+MM4-EC(11m)	MM41DP-0-3Q

Product name	Code number
500mL of pH4.01 standard solution	143F191
500mL of pH6.86 standard solution	143F192
500mL of pH9.18 standard solution	143F193
Internal solution of reference electrode RE-4 50mL(3 sets)	0BG00011

HM-40P ion electrodes

Electrode	Ion exchange tip	Measurement range (optimum pH range)
Fluoride ion combination electrode	F-2021	F-200 (Solid membrane)
Chloride ion combination electrode	CL-2021	CL-200B (Solid membrane)
Cyanide ion combination electrode	CN-2021	CN-200B (Solid membrane)
Sodium ion combination electrode	NA-2011	NA-100B (glass membrane)
Potassium ion combination electrode	K-2031	K-300B (Liquid membrane)
Calcium ion combination electrode	CA-2031	CA-300 (Liquid membrane)
Nitrate ion combination electrode	N-2031	N-300 (Liquid membrane)
Ammonia electrode (membrane electrode)	AE-2041	—
Carbon dioxide electrode (membrane electrode)	CE-2041	—
Bromide ion combination electrode	BR-2021	BR-200 (Solid membrane)
Iodide ion combination electrode	I-2021	I-200 (Solid membrane)
Cadmium ion combination electrode	CD-2021	CD-200 (Solid membrane)
Copper ion combination electrode	CU-2021	CU-200 (Solid membrane)
Silver ion combination electrode	AG-2021	AG-200 (Solid membrane)
Sulfide ion combination electrode	S-2021	S-200 (Solid membrane)

Product name	Code number
Exchanged liquid junction for ion sensor (10p) (excluding AE/CE-2041)	0LF00001
F standard solution F-1000 500mL	143F391
F-Standard Buffer F-10+TISAB-11 500mL	143F393
F-Standard Buffer F-100+TISAB-11 500mL	143F392
Cl standard solution CL-1000 500mL	143A281
Na standard solution NA-1000 500mL	143E031
K standard solution K-1000 500mL	143B482
Ca standard solution CA-1000 500mL	143B481
NO ₃ standard solution NO3-1000 500mL	143C486
NO ₃ -N reference solution, NO3-N 500mL	143C487
NH ₄ standard solution NH4-1000 500mL	143A041
NH ₄ -N reference solution, NH4-N 500mL	143A042
Powder for calibration of carbon dioxide electrodes for CGS-111 1L (10 bags)	143D044
Br standard solution BR-1000 500mL	143C483
I standard solution I-1000 500mL	143H091
Cd standard solution CD-100 500mL	143B500
Cu standard solution CU-100 500mL	143D043
Ionic strength adjuster TISAB-01 For 500mL F ^{#2}	143A279
Ionic strength adjuster TISAB-11 For 500mL F ^{#2}	143A280

※2. 143A279 (TISAB-01): For ordinary samples. 143A280 (TISAB-11): for samples in which metallic ions (iron, aluminum, etc.) coexist.

Note 1) The ion electrode does not have waterproof function and temperature measurement function. The measurable solution temperature range is 0 to 50°C.
 Note 2) In addition to the electrode, standard solution, ionic strength adjuster, and reference electrode barrel solution are required for the ion measurement.
 Note 3) Measurement of ions may be difficult due to the properties of the sample such as coexisting ions. Please contact us in advance.
 Note 4) Standard solutions for cyan ion, silver ion, and sulfide ion are not sold. Prepare separately according to the instruction manual attached to the electrode.

For HM-40P

Electrode	Lead	Measuring range	Remark
pH combination electrode GST-2739C	1m(standard)	pH0 to 14 0 to 100°C	—
	3m		
	5m		
	11m		
"CAL MEMORY" GST-5841S	1m(standard)	pH0 to 14 0 to 100°C	For organic solvent
"CAL MEMORY" ELP-040	1m(standard)	pH2 to 12 0 to 50°C	For hydrofluoric acid bath ^{#1} Glass electrode tip replacement type Glass electrode tip 5082L
ORP combination electrode PST-2739C	1m(standard)	-2000 to 2000mV 0 to 100°C	—
	5m		
	11m		

※1. The glass electrode is eroded by hydrofluoric acid solution, but the replacement tip reduces the running cost.
 Approx. 1000 measurements are possible with 1% hydrofluoric acid solution (25°C for 1 minute).

HM-40P electrode sets

Set name	Combined electrode	Order code
HM-40P Main unit	Main unit only	HM40P-0-0
pH electrode sets	HM-40P (main unit) + GST-2739C (1m)	HM40P-0-1C
	HM-40P (main unit) + GST-2739C (3m)	HM40P-0-1E
	HM-40P (main unit) + GST-2739C (5m)	HM40P-0-1I
	HM-40P (main unit) + GST-2739C (11m)	HM40P-0-1Q
ORP electrode sets	HM-40P (main unit) + PST-2739C (1m)	HM40P-0-2A
	HM-40P (main unit) + PST-2739C (5m)	HM40P-0-2I
	HM-40P (main unit) + PST-2739C (11m)	HM40P-0-2Q

Product name	Code number
ORP-check solution (500mL of pH4.01 standard solution + quinhydrone powder)	143F196
10mL of ORP electrode abrasive	AO-001
0.01mol/kg 100mL EC-cell checking solution (4 sets) 140.8mS/m at 25°C	143A144
0.1mol/kg 250mL EC-cell checking solution (2 sets) 1282mS/m at 25°C	143A143

Product name	Code number
Ionic strength adjuster ISA-CL For 500mL Cl, Br, I, Ag	143A334
Ionic strength adjuster ISA-CN For 500mL CN	143A335
Ionic strength adjuster ISA-NA For 500mL Na	143A338
Ionic strength adjuster ISA-K For 500mL K	143A337
Ionic strength adjuster ISA-CA For 500mL Ca	143A333
Ionic strength adjuster ISA-NO For 500mL NO ₃	143A340
Ionic strength adjuster ISA-NH For 500mL NH ₄	143A339
Ionic strength adjuster ISA-CO For 500mL CO ₂	143D045
Ionic strength adjuster ISA-CU For 500mL Cu, Cd	143A336
Ionic strength modifier powder for ISA-S 100mL (10 bags) for S	143A332
Reference electrode internal solution RE-1 100mL	143F230
Reference electrode outer cylinder liquid RE-2 100mL	143F238
Reference electrode outer cylinder liquid RE-3 100mL	143F239
Ammonia electrode inner solution RE-NH4 50mL (3 ammonia electrodes)	0BG00005
Carbon dioxide electrode internal solution RE-11 For 500mL	143D042
Exchange membrane for ammonia electrodes (10 sheets)	AE-FILM
Diaphragm cartridges for carbon dioxide electrodes (4 cartridges)	CTC-211
Calibration cell for carbon dioxide electrode	CGC-202L
Calibration adapter (for CE-2041)	6791140K

◆Specification/Function

Product name	Portable Multi-parameter Water Quality Meter		Portable pH, ion and ORP meter	
Model name	MM-42DP (2ch) / MM-41DP (1ch)		HM-40P	
Measuring method	pH	Glass electrode method	pH	Glass electrode method
	ORP	Platinum electrode method	ORP	Platinum electrode method
	Conductivity	AC bipolar method	Ion	Ion electrode method
	Dissolved oxygen	Optical type	Temperature	Thermistor resistor
	Temperature	Thermistor resistor		
Display unit	Custom LCD (with backlight)		Custom LCD (with backlight)	
Measurement Items/Ranges	pH	pH0.000 to pH14.000	pH	pH0.00 to pH14.00
	mV (ORP)	-2000 to 2000mV	mV (ORP)	-2000 to 2000mV
	Conductivity	0.1mS/m to 10S/m	Ion	Depends on the sensor used
	Electrical resistivity	0.1Ω·m to 10kΩ·m (converted from electric conductivity)	Temperature	0.0 to 100.0°C (ion: by electrode)
	Salinity (NaCl)	Conversion from electrical conductivity		Ion: Depending on the electrode used
	Salinity (PSS: Practical salt)	Conversion from electrical conductivity		(no temperature measurement function)
	Total dissolved solids (TDS)	Conversion from electrical conductivity		
	Temperature	0.0 to 100.0°C		
Display range	pH	pH-2.000 to pH16.000	pH	pH-2.00 to pH16.00
	mV (ORP)	-2200 to 2200mV	mV (ORP)	-2200 to 2200mV
	Conductivity	0.000 to 2.000mS/m (0.00 to 20.00μS/cm) 0.00 to 20.00mS/m (0.0 to 200.0μS/cm) 0.0 to 200.0mS/m (0.000 to 2.000mS/cm) 0.000 to 2.000S/m (0.00 to 20.00mS/cm) 0.00 to 20.00S/m (0.0 to 200.0mS/cm) Switching between SI unit (S/m) and old unit (S/cm) (Automatic/Manual range switching)	Ion	0.0 to 19.9μg/L 20 to 199μg/L 0.20 to 1.99mg/L 2.0 to 19.9mg/L 20 to 199mg/L 0.20 to 1.99g/L 2.0 to 19.9g/L 20 to 199g/L 200 to 999g/L (Automatic range switching)
	Electrical resistivity	0.005 to 2.000 Ω·m (0.5 to 200.0Ω·cm) 0.00 to 20.00 Ω·m (0.000 to 2.000kΩ·cm) 0.0 to 200.0 Ω·m (0.00 to 20.00kΩ·cm) 0.000 to 2.000kΩ·m (0.0 to 200.0kΩ·cm) 0.00 to 20.00kΩ·m (0.000 to 2.000MΩ·cm) 0.0 to 200.0kΩ·m (0.00 to 20.00MΩ·cm) 0.000 to 2.000MΩ·m (0.0 to 200.0MΩ·cm) Switching between SI unit (Ω·m) and old unit (Ω·cm) (Automatic/Manual range switching)		
	Salt	0.00 to 4.04% (NaCl) 0.00 to 42.40psu (PSS)		
	Total dissolved solids (TDS)	0 to 99.99mg/L 0 to 999.9mg/L 0 to 9.999g/L 0 to 99.99g/L 0 to 999.9g/L (Automatic/Manual range switching)	Temperature	-5.0 to 110.0°C
	Temperature	-5.0 to 110.0°C		
Display resolution	pH	0.01pH/0.001pH	pH	0.01pH
	mV (ORP)	1mV	mV (ORP)	1mV
	Conductivity	0.05% FS	Ion	0.0μg/L to 199g/L (significant digits 2 1/2 digits) 200 to 999g/L (3 significant digits)
	Electrical resistivity	0.05% FS		
	Salt	0.01% (NaCl) 0.01psu (PSS)		
	Total dissolved solids (TDS)	0.01% FS	Temperature	0.1°C
	Temperature	0.1°C		
Repeatability (instrument body)	pH	Within ±0.006pH	pH	Within ±0.02pH
	mV (ORP)	±2mV	mV (ORP)	±2mV
	Conductivity	±0.5% FS	Ion	±0.5% FS
	Electrical resistivity	±0.5% FS	Temperature	Within ±0.2°C
	Salt	±0.5% FS		
	Total dissolved solids (TDS)	±0.5% FS		
	Temperature	Within ±0.2°C		
pH Temperature compensation range	ATC (Automatic temperature compensation): 0 to 100.0°C MTC (Manual temperature compensation): 0 to 100.0°C		ATC (Automatic temperature compensation): 0 to 100.0°C MTC (Manual temperature compensation): 0 to 100.0°C	
Electrical conductivity temperature compensation range	ATC (Automatic temperature compensation): 0 to 100.0°C MTC (Manual temperature compensation): 0 to 100.0°C ATC OFF (No temperature compensation)		—	

Product name	Portable Multi-parameter Water Quality Meter		Portable pH, ion and ORP meter
Model name	MM-42DP (2ch) / MM-41DP (1ch)		HM-40P
Setting of reference temperature of electrical conductivity	Fixed at 25℃		—
Temperature coefficient of electrical conductivity (straight line)	0 to 9.99%/℃		—
pH calibration	JIS pH standard solution, US standard solution maximum 5-point calibration or custom standard solution maximum 2-point calibration		JIS pH standard solution, US standard solution maximum 5-point calibration or custom standard solution maximum 2-point calibration
Temperature calibration	1-point calibration		1-point calibration
Ion calibration	—		Maximum 3-point calibration
Performance assurance temperature and humidity	0 to 45℃ 20 to 90% (no condensation) *0℃ to 40℃ if an optional external printer is used		0 to 45℃ 20 to 90% or less (no condensation)
Data memory	MM-42DP:Stores the measured data of ch1 and ch2 at the same time when the ch1500 data*data memory operations are performed.		1500 data
	MM-41DP:1500 data		
Auto-hold function	○ (Stable judgment value: Fixed)		○ (Stable judgment value: Fixed)
Watch function	○ (Always displayed during measurement)		○ (Always display valid during measurement)
Calibration history creation function	○ The latest amount is one (it is possible to store the latest 10 calibrated data including on the Probe side)		○ The latest one dose (two calibration data can be stored including the latest one on the 'CAL MEMO' pH/ion electrode side)
Interval measurement※1	○ (Setting interval: 1 second to 99 minutes and 59 seconds, or 5 minutes to 99 hours and 59 minutes)		○ (Setting interval: 1 second to 99 minutes and 59 seconds or 2 minutes to 99 hours and 59 minutes)
Auto power-off	○ (OFF/10 min./30 min./60 min./180 min./360 min./720 min.)		○ (OFF/10 min./30 min./60 min./180 min./360 min./720 min.)
Waterproof construction	○ IP67 (valid for connecting probes and masking external input/output) *1m, soak for 30 minutes		○ IP67 (disabled when electrodes are not connected) *1m, immersion allowed for 30 minutes
Printing function	○ Connect to an optional external printer EPS-P30 (plain print)		—
USB (Peripheral, Micro)	○ Insulation		—
Analog output (insulation) ※2	pH	pH0 to 14 → 500 to 1900mV	—
	mV (ORP)	-2000 to 2000mV → 200 to 2200mV	
	Electrical conductivity /resistivity	Each range 0 to full scale (2000digit) → 200 to 2200mV	
	Salinity (NaCl equivalent)	0.00 to 4.00% → 200 to 2200mV	
	Salinity (PSS-78 equivalent)	0.00 to 40.00psu → 200 to 2200mV	
	TDS	Each range 0 to full scale (9999digit) → 200 to 2200mV	
	Temperature	0 to 100℃ → 200 to 2200mV	
Power source	AA alkaline dry battery/two rechargeable nickel-metal hydride batteries or USB power supply (no charging function)		AA alkaline dry batteries/rechargeable nickel-hydrogen batteries 2 sets
Battery life (estimated) *When the backlight is off or the option is not connected	When pH probe is connected: Approx. 800 hours		Approx. 2000 hours
	Electrical conductivity at probe connection: Approx. 500 hours		
	pH-conductivity at probe connection: Approx. 400 hours		
Power consumption	0. 2VA (when battery is used), 0. 9VA (when USB power is supplied)		0. 1VA (when battery is used)
External dimensions (excluding projections)	Approx. 70 (width) × 35 (height) × 185 (depth) mm		Approx. 70 (width) × 39 (height) × 188 (depth) mm
Weight of main unit (including dry cell batteries)	MM-42DP: Approx. 300g	MM-41DP: approx. 290g	Approx. 300g

※1 It is suitable for simplified monitoring in a short period of time (Approx. half a day).

※2 The AC-USB adapter ASSY is recommended (USB-powered) because the life of the batteries is reduced to approx. 60 hours when the optional analogue outputs are connected.

◆Standard attachments

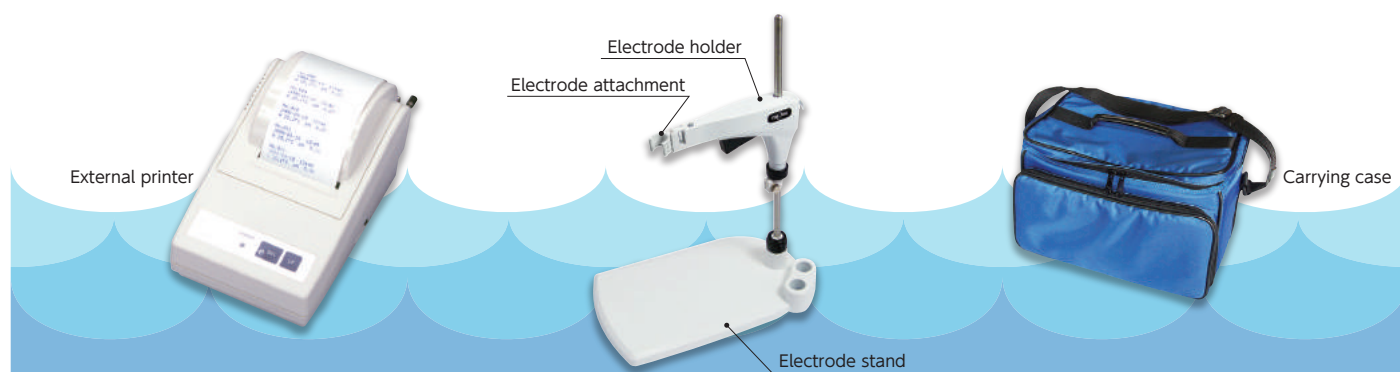
MM-42DP	MM-41DP	MM-41DP	HM-40P	HM-40P
pH/Electrical conductivity probe set	pH probe set	Electrical conductivity probe set	pH electrode sets	ORP electrode set
<p>pH probe MM4-PH</p> <p>Conductivity probe MM4-EC</p> <p>pH6. 86 standard solution 100mL</p> <p>pH4. 01 standard solution 100mL</p> <p>Reference electrode internal solution 50mL</p> <p>Polybeaker 50mL (3)</p> <p>Connector protective cap</p> <p>AA alkaline dry battery (2)</p> <p>Operation manual</p>	<p>pH probe MM4-PH</p> <p>pH6. 86 standard solution 100mL</p> <p>pH4. 01 standard solution 100mL</p> <p>Reference electrode internal solution 50mL</p> <p>Polybeaker 50mL (3)</p> <p>AA alkaline dry battery (2)</p> <p>Operation manual</p>	<p>Conductivity probe MM4-EC</p> <p>AA alkaline dry battery (2)</p> <p>Operation manual</p>	<p>pH Composite electrode GST-2739C</p> <p>pH6. 86 standard solution 100mL</p> <p>pH4. 01 standard solution 100mL</p> <p>Reference Electrode internal Solution 50mL</p> <p>Polybeaker 50mL (3)</p> <p>AA alkaline dry battery (2)</p> <p>Operation manual</p>	<p>ORP-Electrode PST-2739C</p> <p>Reference electrode internal solution 50mL</p> <p>Polybeaker 50mL (1)</p> <p>AA alkaline dry battery (2)</p> <p>Operation manual</p>

※ When purchasing only the main body, AA alkaline dry batteries and a manual are attached. (The MM-42DP also includes connector protective caps.)

※ The AA alkaline dry batteries are provided as samples.

◆Option

Product name	Code number	Note
Data collection software	GP-LOG	Save the measured data in the form of text on a personal computer using USB or RS-232C. (Commercially available USB cables (USB2. 0, Micro) are required separately.) Supported operating systems: Windows 10/8/7 v2. 1 and later, Compatible models: MM-42DP and MM-41DP
Analogue output cables ASSY	7585320K	Cables length 1. 8m. External device connection side terminal (3mmY terminal). Corresponding model: Analogue output cables for MM-42DP and MM-41DP *P30 series cannot be used.
External printer	EPS-P30	Ordinary paper printing, chart width approx. 60mm. Connection cable, printer paper (1 vol.), with ink ribbon (1 vol.). Supported models: MM-42DP and MM-41DP
External printer paper (20 volumes)	P000119	—
One ink ribbon for an external printer	ORD00001	—
Connection cable for external printer	118N061	If you have an external printer (EPS-G/EPS-R), The printer can be used with only this cable.
AC-USB adapter ASSY	7472510K	Cable length 2m. USB power supply. Supported models: MM-42DP and MM-41DP
Electrode holder	7430850K	—
Electrode stand	7430860K	Support, with stopper
Electrode attachment DP	0IB00007	Corresponding electrodes: GTS-2739C, a ELP-040, a PST-2739C, and various ion electrodes (excluding AE/CE-2041)
Electrode attachment G	0IB00004	For desktop sensors
Anchor (AN-21P)	0IC00001	For waterproof immersion type sensor, lead length 5m or longer. Anchors for submersion. Corresponding electrodes: GTS-2739C, a ELP-040, a PST-2739C, and various ion electrodes (excluding AE/CE-2041)
AN-21P ropes	0IZ00002	φ15US rope (12m). The auxiliary rope when the anchor is used.
Carrying case (with shoulder belt)	0DA00001	Attachments such as the main body, sensor, and standard solution can be stored and carried.
Soft case	SC-10P	This is a portable software case that can be stored with the main unit and sensor connected.



DKK-TOA CORPORATION



CAUTION

Please read the operation manual carefully before using products.

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Specifications and prices are subject to change without notice.

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