TOA DKK

mylana

P40 series
Handheld Water Quality Meter

NEW

MM-42DP／MM-41DP	pH	ORP	Conductivity	Optical DO
HM-40P	pH	ORP	Ion	

DKK-TOA CORPORATION

Digital Probe

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

pH | ORP | Conductivity | Optical dissolved oxygen

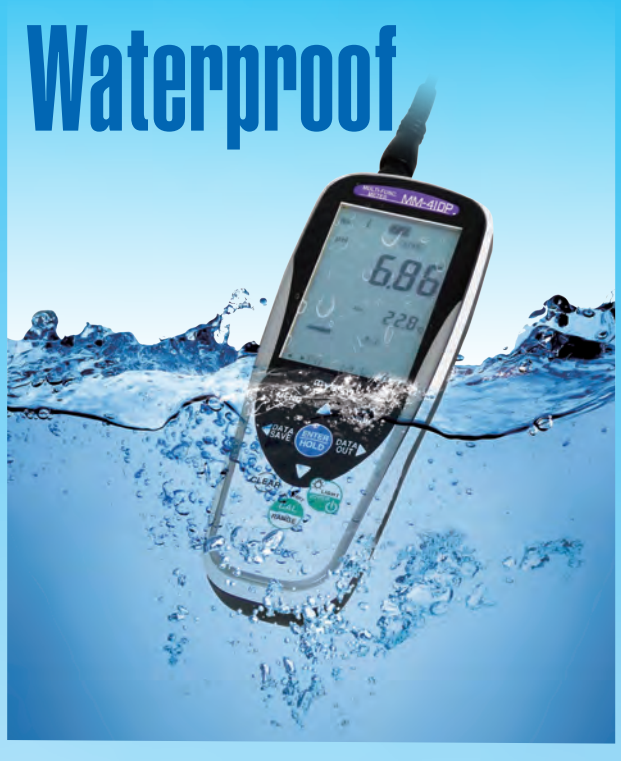
Digital Communication Transmission (RS-485 Transmission)

Easily replaceable electrode for pH and ORP probe

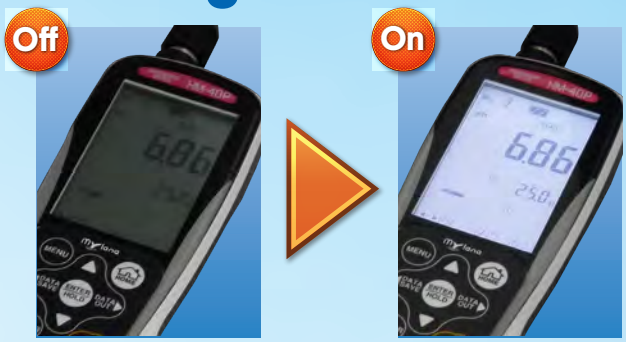
lana

Portable
Slim design

Waterproof



Backlight



Memory
Data Memory function

1500 Data memory available

- Measurement time
- Measurement value
- Temperature

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

Mylana is a brand of the P40 series Handheld Multi-function 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 a your trusted partner.

Line up

Multi-function type (Digital probe connectable)

pH | ORP | Conductivity | Resistivity | Salt (NaCl、PSS) | TDS (Total Dissolved Solid) | Optical DO

Handheld Multi-function Water Quality Meter

MM-42DP

2ch Type

pH/Conductivity probe set

pH/DO probe set

With a Conductivity probe and a DO probe
Combination allows automatic Salinity compensation

MM-41DP

1ch Type

pH probe set

ORP probe set

Conductivity Probe Set

DO Probe Set

USB(PC connectable) | External Printer | Backlight | Data Memory (1500 data) | Waterproof | USB power supply (optional)

Set name	Combination probe	Order code
MM-42DP (2ch)	Main unit only	MM42DP - 1 - 00B0
pH/Conductivity probe set	MM-42DP (main unit) + MM4-PH (1m) + MM4-EC (1m)	MM42DP - 1 - 1AB0
pH/DO probe set※	MM-42DP (main unit) + MM4-PH (1m) + MM4-DDO (3m)	MM42DP - 1 - 2AB0
		MM4DDO - 0 - E
MM-41DP (1ch)	Main unit only	MM41DP - 1 - 00B0
pHprobe set	MM-41DP (main unit) + MM4-PH (1m)	MM41DP - 1 - 1AB0
	MM-41DP (main unit) + MM4-PH (3m)	MM41DP - 1 - 1EB0
	MM-41DP (main unit) + MM4-PH (5m)	MM41DP - 1 - 1IB0
	MM-41DP (main unit) + MM4-PH (11m)	MM41DP - 1 - 1QB0
ORP probe set	MM-41DP (main unit) + MM4-ORP (1m)	MM41DP - 1 - 2AB0
	MM-41DP (main unit) + MM4-ORP (5m)	MM41DP - 1 - 2IB0
	MM-41DP (main unit) + MM4-ORP (11m)	MM41DP - 1 - 2QB0
Conductivity probe set	MM-41DP (main unit) + MM4-EC (1m)	MM41DP - 1 - 3AB0
	MM-41DP (main unit) + MM4-EC (5m)	MM41DP - 1 - 3IB0
	MM-41DP (main unit) + MM4-EC (11m)	MM41DP - 1 - 3QB0
DO probe set※	MM-41DP (main unit) + MM4-DDO (3m)	MM41DP - 1 - 0AB0
		MM4DDO - 0 - E

※ When you purchased DO probe set, please arrange the main unit and the electrode respectively.

Versatile type

pH | ORP | Ion

Handheld pH, Ion, ORP Meter
HM-40P

pH electrode set

ORP electrode set

Backlight	Data Memory (1500 data)	Waterproof	Battery life (Approx. 2000 hours)

Set name	Combined electrode	Order code
HM-40P	Main unit only	HM40P - 1 - 00B0
pH electrode set	HM-40P (main unit) + GST-2739C (1m)	HM40P - 1 - 1CB0
	HM-40P (main unit) + GST-2739C (3m)	HM40P - 1 - 1EB0
	HM-40P (main unit) + GST-2739C (5m)	HM40P - 1 - 1IB0
	HM-40P (main unit) + GST-2739C (11m)	HM40P - 1 - 1QB0
ORP electrode set	HM-40P (main unit) + PST-2739C (1m)	HM40P - 1 - 2AB0
	HM-40P (main unit) + PST-2739C (5m)	HM40P - 1 - 2IB0
	HM-40P (main unit) + PST-2739C (11m)	HM40P - 1 - 2QB0

P30 series Conductivity Meter for pure water and Membrane-type DO Meter also available

Handheld Conductivity Meter
CM-31P-W

Conductivity

Resistivity

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

Handheld DO Meter
DO-31P

Membrane-type DO

Includes Immersion type DO electrode (OE-270AA)

Handheld DO/pH Meter
DM-32P

ch1

Membrane-type DO

ch2

pH

ORP

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

Probes, electrodes

◆pH / ORP

For MM-42DP / MM-41DP

Probe	Lead length	Order code	Remar
pH probe MM4-PH (Waterproof)	1m (standard)	MM4PH - 1 - A0	Replacement pH combined electrode ELP-072
	3m	MM4PH - 1 - E0	
	5m	MM4PH - 0 - I0	
	11m	MM4PH - 1 - Q0	
ORP probe MM4-ORP (Waterproof)	1m (standard)	MM4ORP - 1 - A	Replacement ORP combined electrode ELM-027
	5m	MM4ORP - 1 - I	
	11m	MM4ORP - 1 - Q	

MM4-PH

MM4-ORP

For HM-40P

Electrode	Lead length	Order code	Remar
pH combined electrode GST-2739C (Waterproof)	1m (standard)	GST2739C - 1 - CN0	
	3m	GST2739C - 1 - EN0	
	5m	GST2739C - 1 - IN0	
	11m	GST2739C - 1 - QN0	
pH combined electrode GST-5841S	1m	GST5841S - 0 - AN0	For organic solvent
pH combined electrode ELP-040	1m	ELP040 - 0 - AN	For hydrofluoric acid bath※ Glass electrode chip replaceable Glass electrode chip 5082L
pH combined electrode GST-5821C	1m	GST5821C - 0 - AN0	General, Glass body
ORP combined electrode PST-2739C (Waterproof)	1m (standard)	PST2739C - 1 - AN	
	5m	PST2739C - 1 - IN	
	11m	PST2739C - 1 - QN	

GST-2739C

GST-5841S

ELP-040

PST-2739C

※The glass electrode is affected by fluorinated acid solution. However, because this product is a replaceable type glass electrode tip, a reduction in operating costs can be expected. In regards to measuring the 1% fluorinated acid solution (at 25℃ , for 1 min.), approximately 1000 measurements can be performed.

Product name	Order code
Powder reagent for phthalate pH4.01 standard solution 5 bags (each bag for 500 mL)	143F191
Powder reagent for phthalate pH6.86 standard solution 5 bags (each bag for 500 mL)	143F192
Powder reagent for phthalate pH9.18 standard solution 5 bags (each bag for 500 mL)	143F193
Reference electrode internal solution RE-4 50 mL (3 bottles)	0BG00011
ORP check solution (pH4.01 standard solution 500 mL + quinhydron powder)	143F196
Abrasive for ORP electrode 10 mL	AO-001

Reference electrode internal solution

◆Conductivity

For MM-42DP / MM-41DP

Probe	Lead length	Order code
Conductivity Probe MM4-EC (Waterproof)	1m (standard)	MM4EC - 1- A
	5m	MM4EC - 1 - I
	11m	MM4EC - 1 - Q

MM4-EC

Product name	Order code
Conductivity Cell Check Solution 0.1mol/kg 250 mL (2 bottles) 1282 mS/m at 25 ℃	143A143

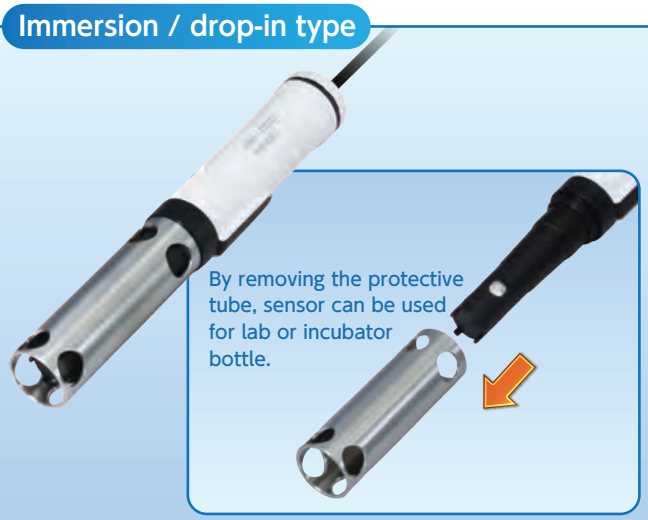
Conductivity Cell Check Solution

◆Dissolved Oxygen

For MM-42DP / MM-41DP

Probe	Lead length	Order code
Optical DO probe MM4-DDO (Waterproof)	1m	MM4DDO - 0 - A
	3m (standard)	MM4DDO - 0 - E
	5m	MM4DDO - 0 - I
	11m	MM4DDO - 0 - Q

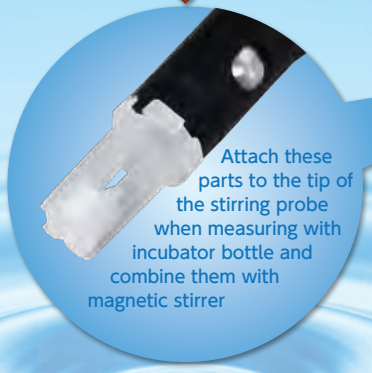
Immersion / drop-in type



For Lab / incubator bottle

Product name	Order code	Remar
Sodium sulfite 50g	143A030	Used for preparing zero solution
Replacement sensor cap	7595230K	
Stirrer attachment set	7609650K	Attachment A (Full length 25mm:100mL for incubator bottle compatible) Attachment B (Full length 50mm:200mL for incubator bottle compatible), Stirring
Stirrer	ST-7	For sample stirring

Replacement sensor cap

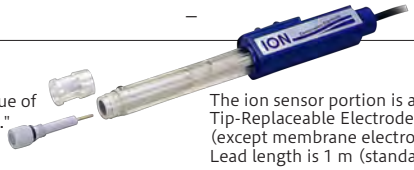


Please use incubator bottle tapered standard TS19/22 (100mL or 200mL capacity)

Ion For HM-40P

Electrode	Ion replacement chip	Measurement range (Optimal pH range)	Intereference of coexisting ion ※1 / Remar
Fluoride ion combined electrode F-2021	F-200 (Solid Membrane)	0.019～19,000mg/L F^- (pH5～6)	OH^-=10^1 HPO_4^{2-}, HCO_3^-=10^3(pH 7～8) Cl^-, Br^-, I^-, NO_3^-, SO_4^{2-}, $S_2O_3^{2-}$=10^5
Chloride ion combined electrode CL-2021	CL-200B (Solid Membrane)	1～35,000mg/L Cl^- (pH5～6)	S^{2-}=Non-coexisting CN^-, I^-=10^{-5} Br^-, $S_2O_3^{2-}$=10^{-2} NO_3^-, SO_4^{2-}, CO_3^{2-}, PO_4^{3-}, F^-=10^3
Cyanide ion combined electrode CN-2021	CN-200B (Solid Membrane)	0.003～26mg/L CN^- (pH12～13)	S^{2-}=Non-coexisting I^-=10^{-1} $S_2O_3^{2-}$=10^1 Br^-=10^3 NO^{3-}, SO_4^{2-}, PO_4^{3-}=10^4 CO_3^{2-}, Cl^-, F^-=10^5
Sodium ion combined electrode NA-2011	NA-100B (Glass Membrane)	2.3～23,000mg/L Na^+ (pH10～11)	Mg^{2+}, Ca^{2+}, Zn^{2+}, NH_4^+, K^+, Li^+=10^3
Potassium ion combined electrode K-2031	K-300B (Liquid Membrane)	0.39～3,900mg/L K^+ (pH5～6)	H^+=10^2 NH_4^+=3×10^2 Na^+=2×10^3 Li^+=10^4
Calcium ion combined electrode CA-2031	CA-300 (Liquid Membrane)	0.4～40,000mg/L Ca^{2+} (pH5～6)	Pb^{2+}, Zn^{2+}=10^1 Mn^{2+}=10^2 Cu^{2+}, Mg^{2+}, Cd^{2+}, Ba^{2+}, Fe^{2+}=10^3 Ni^{2+}=10^4
Nitrate ion combined electrode N-2031	N-300 (Liquid Membrane)	0.62～62,000mg/L NO_3^- (pH5～6)	I^-=10^{-3} Br^-, NO_2^-=10^0 Cl^-=10^1 CH_3COO^-, SO_4^{2-}, CO_3^{2-}, F^-=10^2
Ammonia electrode AE-2041 (Membrane electrode)	–	0.09～1,800mg/L NH_4^+ (pH12 or more)	Volatile amines
Carbon Dioxide electrode CE-2041 (Membrane electrode)	–	Dissolved gas 1.49～1,490mg/L	Dissolved gas:Volatile weak acid Atmosphere:Acidic gas Calibration cell (CGC-202L) and Calibration adapter (6791140K) is necessary.
Bromide ion combined electrode BR-2021	BR-200 (Solid Membrane)	0.8～80,000mg/L Br^- (pH5～6)	S^{2-}=Non-coexisting CN^-, I^-=10^{-4} $S_2O_3^{2-}$, SCN^-=10^0 Cl^-=10^2 NO_3^-, SO_4^{2-}, CO_3^{2-}, F^-=10^4
Iodide ion combined elecrrode I-2021	I-200 (Solid Membrane)	0.01～127,000mg/L I^- (pH5～6)	S^{2-}, Reductive material=Non-coexisting CN=10^0 $S_2O_3^{2-}$=10^1 SCN^-=10^3 Br^-=10^4 NO_3^-, CO_3^{2-}, PO_4^{3-}, Cl^-, F^-=10^5
Cadmium ion combined electrode CD-2021	CD-200 (Solid Membrane)	0.01～1,120mg/L Cd^{2+} (pH5～6)	Hg^{2+}, Ag^+, Cu^{2+}=Non-coexisting Pb^{2+}, Fe^{3+}=10^0 Cr^{3+}=10^2 Na^+, K^+, Mg^{2+}, Ca^{2+}, Zn^{2+}, Al^{3+}=10^5
Copper ion combined electrode CU-2021	CU-200 (Solid Membrane)	0.06～630mg/L Cu^{2+} (pH5～6)	Ag^+, Hg^{2+}=Non-coexisting Fe^{3+}=10^{-1} Al^{3+}=10^1 Cr^{3+}=10^2 Ni^{2+}=10^3 Na^+, Mg^{2+}, Ca^{2+}=10^4
Silver ion combined electrode AG-2021	AG-200 (Solid Membrane)	0.1～108,000mg/L Ag^+ (pH5～6)	Hg^{2+}=Non-coexisting Mg^{2+}=10^3 Ca^{2+}, Cu^{2+}, Pb^{2+}, Cd^{2+}, Zn^{2+}=10^4 Na^+, K^+=10^6
Sulfide ion combined electrode S-2021	S-200 (Solid Membrane)	0.3～32,000mg/L S^{2-} (pH13 or more)	–

※1. Interference of coexisting ion (selectivity coefficient for 0.1 mol/L ion concentration)
If an ion coexists in the solution, it can cause data errors when measuring the targeted ion.
"A selectivity coefficient of 10x means that if the solution contains a coexistent ion that is 10 times greater than the value of the targeted ion that is measured, an error occurs in which the value of the targeted ion equals the coexistent ion value."
"If the concentration level of the coexistent ion is high enough to affect the measured values, we recommend conducting pretreatment in order to prevent interference."



The ion sensor portion is a" Tip-Replaceable Electrode" (except membrane electrode) Lead length is 1 m (standard)

Ion sensor replacement liquid junction (10 pieces)	0LF00001	For all ion combination electrodes (except AE/CE-2041)
F Standard Solution F-1000 500mL	143F391	For F-2021 F:1000 mg/L
Cl Standard Solution CL-1000 500mL	143A281	For CL-2021 Cl:1000 mg/L
Na Standard Solution NA-1000 500mL	143E031	For NA-2011 Na:1000 mg/L
K Standard Solution K-1000 500mL	143B482	For K-2031 K:1000 mg/L
Ca Standard Solution CA-1000 500mL	143B481	For CA-2031 Ca:1000 mg/L
NO3 Standard Solution NO3-1000 500mL	143C486	For N-2031 NO_3:1000 mg/L
NO3-N Standard Solution NO3-N 500mL	143C487	For N-2031 NO_3-N:1000 mg/L
NH4 Standard Solution NH4-1000 500mL	143A041	For AE-2041 NH4:1000 mg/L
NH4-N Standard Solution NH4-N 500mL	143A042	For AE-2041 NH4-N:1000 mg/L
Carbon dioxide electrode calibration powder CGS-111 For 1 L (10 packs)	143D044	For CE-2041
Br Standard Solution BR-1000 500mL	143C483	For BR-2021 Br:1000 mg/L
IS tandard Solution I-1000 500mL	143H091	For I-2021 I:1000 mg/L
Cd Standard Solution CD-100 500mL	143B500	For CD-2021 Cd:100 mg/L
Cu Standard Solution CU-100 500mL	143D043	For CU-2021 Cu:100 mg/L
Ionic strength adjuster TISAB-01 500mL For F※2	143A279	For F-2021 For general sample
Ionic strength adjuster TISAB-11 500mL For F※2	143A280	For F-2021 For sample containing metal ion (iron, aluminum etc.)
Ionic strength adjuster ISA-CL 500 mL For Cl、Br、I、Ag	143A334	For AG/CL/BR/I-2021
Ionic strength adjuster ISA-CN 500 mL For CN	143A335	For CN-2021
Ionic strength adjuster ISA-NA 500 mL For Na	143A338	For NA-2011
Ionic strength adjuster ISA-K 500 mL For K	143A337	For K-2031
Ionic strength adjuster ISA-CA 500 mL For Ca	143A333	For CA-2031
Ionic strength adjuster ISA-NO 500 mL For NO_3	143A340	For N-2031
Ionic strength adjuster ISA-NH 500 mL For NH_4	143A339	For AE-2041
Ionic strength adjuster ISA-CO 500 mL For CO_2	143D045	For CE-2041
Ionic strength adjuster ISA-CU 500 mL For Cu、Cd	143A336	For CU/CD-2021
Ionic strength adjuster powder ISA-S For 100 mL (10 packs) For S	143A332	For S-2021
Reference electrode internal solution RE-1 100 mL	143F230	For the internal solutions of all ion combination electrodes (except AE/CE-2041) Reference external solution for CA-2031, I/S-2021
Reference electrode external solution RE-2 100 mL	143F238	Reference external solution for NA-2011,CL/BR/CN/CD/CU/AG/F-2021
Reference electrode external solution RE-3 100mL	143F239	Reference external solution for K/N-2031
Ammonia electrode internal solution RE-NH4 50 mL (3 bottles)	0BG00005	For AE-2041
Carbon dioxide electrode internal solution RE-11 500 mL	143D042	For CE-2041
Ammonia electrode replacement membrane (10 membranes)	AE-FILM	For AE-2041
Carbon dioxide electrode membrane cartridge (4 cartridges)	CTC-211	For CE-2041
Carbon dioxide electrode calibration cell	CGC-202L	For CE-2041
Calibration adapter For Carbon dioxide electrode	67911490K	For CE-2041

※2. 1143A279 (TISAB-01) : For general sample 143A280 (TISAB-11) : For sample containing metal ion (iron, aluminum etc.)

Note 1) The ion electrode does not have temperature measurement function. Measurable solution temperature range is 0-50 °C.
Note 2) The batch measurement method is primarily used to conduct ion measurements. This method is conducted after sampling, which uses beakers and other apparatuses. In addition to the electrode, standard solution, ion strength adjuster, reference electrode external solution, and Electrode Holder/Stand are necessary for ion measurement.
Note 3) Make sure to contact us before you conduct ion measurements, because when there are coexisting samples, it can be difficult to conduct ion measurements.
Note 4) We do not sell cyanide, silver, and sulfide ion standard solutions. Customers are suggested to prepare following the steps listed in the instruction manual.

Options

Product name	Order code	Remar
Data collection software	GP-LOG	Save the measured data in the form of text on a personal computer using USB. (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, MM-41DP
Analogue output cables ASSY	7585320K	Cables length 1.8 m. External device connection side terminal (3 mmY terminal). Compatible models: MM-42DP, MM-41DP (Analog Output Cable for P30-series cannot be used.)
External printer	EPS-P30	Plain paper printing. Chart width approx. 60mm. Include connection cable, printer paper (1 roll), and ink ribbon (1 piece) Compatible models: MM-42DP and MM-41DP
External printer paper	P000119	20 rolls, Plain paper
Ink ribbon for external printer	0RD00001	1 piece
Connection cable for external printer	118N061	If you already have 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. Compatible models: MM-42DP and MM-41DP
Electrode holder	7430850K	
Electrode stand	7430860K	With stand, stopper, strut
Electrode attachment MM	7596030K	Compatible probes: MM4-PH, MM4-ORP, MM4-EC, MM4-DDO
Electrode attachment DP	0IB00007	Compatible electrodes: GST-2739C, ELP-040, PST-2739C, and various ion electrodes (excluding AE/CE-2041)
Electrode attachment G	0IB00004	For desktop sensors
Stirrer	ST-7	For sample stirring
Anchor (MM)*	7596010K	Supports lead length 5m or more. Anchor for submersion of the probe. Compatible probes: MM4-PH, MM4-ORP, MM4-EC, MM4-DDO
Anchor (AN-21P)*	0IC00001	Supports lead length 5m or more. Anchor for submersion of the electrode. Compatible electrode: GST-2739C, PST-2739C
ϕ1SUS ropes	0IZ00002	The rope length is 12m. Auxiliary rope when the anchor is used. Both 7596010K and 0IC00001 anchors can be used.
Carrying case (with shoulder belt)	0DA00001	This portable soft case allows you to store the main unit when it is connected to a sensor.
Soft case	SC-10P	This is a portable soft case that can be stored with the main unit and sensor connected.

*Before using, prepare a wire rope such as our product "0IZ00002" in advance.

Specifications/Functions Table

◆Handheld Multi-function Water Quality Meter MM-42DP (2ch)/ MM-41DP (1ch)

Measurement method	pH	Glass electrode method
	ORP	Platinum electrode method
	Conductivity	AC 2-Electrode Method
	DO	Optical
	Temperature	Thermistor resistor
Display unit		Custom LCD with backlight
Measurement Item/Range	pH	pH0.000～pH14.000
	mV(ORP)	-2000～2000mV
	Conductivity	0.1mS/m～10S/m
	Resistivity	0.1 Ω•m to 10kΩ•m (converted from Conductivity)
	Salinity (NaCl, PSSs: Practical Salinity) TDS (total dissolved solid)	Conversion from Conductivity
	DO/Saturation	0.00～ 20.00mg/L or 0.0 to 200.0%
	Temperature	0.0～100.0℃ When using DO probes: 0.0 to 50.0˚C
Display Range	pH	pH-2.000～pH16.000
	mV(ORP)	-2200～2200mV
	Conductivity (manual/automatic range switching)	0.000～2.000mS/m (0.00～20.00μS/cm) 0.00～20.00mS/m (0.0～200.0μS/cm) 0.0～200.0mS/m (0.000～2.000mS/cm) 0.000～2.000S/m (0.00～20.00mS/cm) 0.00～20.00S/m (0.0～200.0mS/cm) Switchable between SI unit (S/m) and old unit (S/cm)
	Resistivity (manual/automatic range switching)	0.005～2.000 Ω·m (0.5～200.0Ω·cm) 0.00～20.00 Ω·m (0.000～2.000kΩ·cm) 0.0～200.0 Ω·m (0.00～20.00kΩ·cm) 0.000～2.000kΩ·m (0.0～200.0kΩ·cm) 0.00～20.00kΩ·m (0.000～2.000MΩ·cm) 0.0～200.0kΩ·m (0.00～20.00MΩ·cm) 0.000～2.000MΩ·m (0.0～200.0MΩ·cm) Switchable between SI unit (Ω•m) and old unit (Ω•cm)
	Salinity	0.00～4.04%(NaCl) 0.00～42.40psu(PSS)
	TDS (total dissolved solid) (manual/automatic range switching)	0～99.99 / 999.9 mg/L 0～9.999 / 99.99 / 999.9 g/L
	DO/Saturation	0.00～ 22.00mg/L or 0.0 to 220.0%
	Temperature	-5.0～110.0℃ When using DO probes:-5.0 to 55.0˚C
Repeatability (instrument body)	pH	±0.006pH
	mV(ORP)	±2mV
	Conductivity/Resistivity Salinity/TDS (total dissolved solid)	±0.5% FS
	DO/Saturation	When combined with 8 mg/L±0.1mg/L or 100%±1% * MM4-DDO
	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
Conductivity Temperature Compensation scope		ATC (Automatic Temperature Compensation): 0 to 100.0˚C MTC (manual Temperature Compensation): 0 to 100.0˚C OFF (no Temperature Compensation)
Conductivity Standard Temperature Setting		Fixed at 25˚C
Conductivity Temperature Coefficient (Linear)		0～10.00%/℃
DO Temperature Compensation range		ATC (Automatic Temperature Compensation): 0 to 50.0˚C
pH calibration		JIS pH standard solution, US standard solution up to 5-point calibration or custom-made standard solution up to 2-point calibration
Temperature Calibration		One-point calibration
Performance Guaranteed Temperature, Humidity		0 to 45˚C 20 to 90% (non-condensing) * 0 to 40˚C when the optional External Printer is used
Waterproof structure		IP67(1m, immersion allowed for 30 minutes) * Disabled when probes are not connected
Data Memory		MM-42DP: each ch 1500 data (measurement times, measurement values, Temperature) (When Data Memory is operated, the measured data of ch1 and ch2 are memorized simultaneously.) MM-41DP: 1500 data (measured time, measured value, Temperature)
Calibration History Creation Function		Main unit side: Last 1 time Probe side: pH is 10 batches including the newest, and DO is 8 batches including the newest.
Interval Measurement function ※1		Setting interval: 1 second to 99 minutes 59 seconds or 5 minutes to 99 hours 59 minutes can be arbitrarily set.
Print Function		Can be connected to optional External Printer EPS-P30 (Plain Paper Print)
Auto Hold Function		Stable judgment value: Fixed
Auto Power Off		OFF/10 min./30 min./60 min./180 min./360 min./720 min. settable

USB (peripheral, Micro)		1 port standerd equipment (isolated)
Analog output (insulate)※2	pH	pH0～14 → 500～1900mV
	mV(ORP)	-2000～2000mV → 200～2200mV
	Conductivity/Resistivity	Each range 0～FS(2000 digit)→ 200～2200 mV
	Salinity (NaCl equivalent)	0.00～4.00% → 200～2200mV
	Salinity (PSS-78 equivalent)	0.00～40.00psu → 200～2200mV
	TDS	Each range 0～FS(9999 digit)→ 200～2200 mV
	DO	0.00～20.00mg/L → 200～2200mV
	Saturation	0～200% → 200～2200mV
	Temperature	0～100℃ → 200～2200mV
Power supply		AA batteries/rechargeable nickel-metal hydride batteries 2 pcs or USB-powered (no recharging function)※2
Battery life (estimate) ✻Backlight turns off, option not connected		When a pH or ORP probe is connected: Approx.800 hours When a Conductivity probe is connected: Approx. 500 hours When an optical DO probe is connected: Approx. 60 hours ※2
Power consumption		0. 2VA (with battery 3V), 0. 9VA (with USB-powered)
Dimensions (projections not included)		Approx. 70 (W) × 35 (H) × 185 (D) mm
Main Unit Weight (including batteries)		MM-42DP: Approx. 300g　　MM-41DP: Approx. 290g

◆Handheld pH, Ion, ORP Meter HM-40P

JIS format (pH)		JIS Form I
Measurement method	pH	Glass electrode method
	ORP	Platinum electrode method
	Ion	Ion electrode method
	Temperature	Thermistor resistor
	Display unit	Custom LCD with backlight
Measurement Item/Range	pH	pH0.00～pH14.00
	mV(ORP)	-2000～2000mV
	Ion	Depending on the sensor used
	Temperature	0.0～100.0℃　Ion: Depends on the electrode used (Temperature measuring function is not available)
Display Range	pH	pH-2.00～pH16.00
	mV(ORP)	-2200～2200mV
	Ion(Automatic range switching)	0.0～19.9 / 20～199 μg / L
		0.20～1.99 / 2.0～19.9 / 20～199 mg / L
		0.20～1.99 / 2.0～19.9 / 20～199 / 200～999 g / L
	Temperature	-5.0～110.0℃
Repeatability (instrument body)	pH	±0.02pH
	mV(ORP)	±2mV
	Ion	±0.5% FS
	Temperature	Within ±0.2℃
pH Temperature Compensation Range		ATC (Automatic Temperature Compensation): 0 to 100.0℃ MTC (manual Temperature Compensation): 0 to 100.0℃
pH calibration		JIS pH standard solution, US standard solution up to 5-point calibration or custom-made standard solution up to 2-point calibration
Temperature Calibration		One-point calibration
Ion calibration		Up to 3-point calibration
Performance Guaranteed Temperature, Humidity		0 to 45℃ 20 to 90% or less (non-condensing)
Data Memory		1500 data (measurement time, measurement value, Temperature)
Waterproof structure		IP67(1m, immersion allowed for 30 minutes) * Disabled when electrodes are not connected
Calibration History Creation Function		Last 1 batch (When used with "Cal-Memo" pH/ionic electrodes, the last 2 calibrations can be saved, including those on the electrodes)
Interval Measurement function ※1		Setting interval: 1 second to 99 minutes 59 seconds or 2 minutes to 99 hours 59 minutes can be arbitrarily set.
Auto Hold Function		Stable judgment value: Fixed
Auto Power Off		OFF/10 min./30 min./60 min./180 min./360 min./720 min. settable
Power supply		Two AA batteries/rechargeable NiMH batteries
BBattery life (estimate) ✻Backlight turns off, option not connected		About 2,000 hours
Power consumption		0. 1VA (when using a battery 3V)
Dimensions (projections not included)		Approx. 70 (W) × 39 (H) × 188 (D) mm
Main Unit Weight (including batteries)		Approx. 300g

※1 It is effective for simplified monitoring in a short time (about half a day), etc.
※2 The use of AC-USB adapter ASSY (7472510K) is recommended for optional analogue-output connections and for continuous-measurement with DO probes because battery life is shortened (USB-powered).

Standard Accessories

MM-42DP

pH/Conductivity probe set

pH probe MM4-PH
Conductivity probe MM4-EC
pH6.86 standard solution 100 mL
pH4.01 standard solution 100 mL
Reference electrode internal solution 50 mL
Polybeaker 50 mL (3 pieces)
Connector protective cap
AA alkaline dry battery (2 pieces)
Operation manual

pH/DO probe set

pH probe MM4-PH
Conductivity probe MM4-EC
pH6.86 standard solution 100 mL
pH4.01 standard solution 100 mL
Reference electrode internal solution 50 mL
Polybeaker 50 mL (3 pieces)
Connector protective cap
AA alkaline dry battery (2 pieces)
Operation manual
Order the dissolved oxygen probe MM4-DDO separately.

MM-41DP

pH probe set

pH probe MM4-PH
pH6.86 standard solution 100 mL
pH4.01 standard solution 100 mL
Reference electrode internal solution 50 mL
Polybeaker 50 mL (3 pieces)
AA alkaline dry battery (2 pieces)
Operation manual

ORP probe set

ORP probe MM4-ORP
Reference electrode internal solution 50 mL
Polybeaker 50 mL (1 piece)
AA alkaline dry battery (2 pieces)
Operation manual

Conductivity probe set

Conductivity probe MM4-EC
AA alkaline dry battery (2 pieces)
Operation manual

HM-40P

pH electrode set

pH probe MM4-PH
pH6.86 standard solution 100 mL
pH4.01 standard solution 100 mL
Reference electrode internal solution 50 mL
Polybeaker 50 mL (3 pieces)
AA alkaline dry battery (2 pieces)
Operation manual

ORP electrode set

ORP probe MM4-ORP
Reference electrode internal solution 50 mL
Polybeaker 50 mL (1 piece)
AA alkaline dry battery (2 pieces)
Operation manual

∗If you are purchasing the main unit only, polybeaker 50mL(3 pieces), AA betteries and the operation manual will be included.
(Connector protective cap is also attached for MM-42DP.)
∗The default AA batteries are for testing.
∗When you purchased DO probe set, please arrange the main unit and the electrode respectively.

DKK-TOA CORPORATION

Overseas Sales Division:
DKK-TOA Corporation
29-10, 1-Chome, Takadanobaba, Shinjuku-ku, Tokyo 169-8648 Japan
Tel : +81-3-3202-0225 Fax : +81-3-3202-5685
E-mail : intsales@dkktoa.com

⚠ **CAUTION** Please read the operation manual carefully before using products.

https://www.toadkk.com/english

Specifications and prices are subject to change without notice.

Issued 09/2020