TOA DKK

SHORT FORM CATALOG

PRODUCTS

DKK-TOA CORPORATION

Creating the 21st Century Global Environment

DKK-TOA Corporation, a leading manufacturer of analytical instruments, would like to draw your attention to our highly reliable, excellent, value-added analyzers which meet your requirements in a wide range of fields from ambient analyzers, science/pharmaceutical/food meters to process controllers.

Process Analyzers

Analyzers and controllers made to enhance productivity and efficiency in a comprehensive range of production control and water treatment processes

Industrial pH Transmitter

Auto-Calibration pH Meter

Water Quality Analyzers/Systems

Environmental water quality analyzers designed for advanced water treatment process

Total Nitrogen/Phosphorus/COD Analyzer

Automatic COD Analyzer

Ambient Air Analyzers

Ambient air analyzers contributing to global environmental protection

Nitrogen Oxides Analyzer
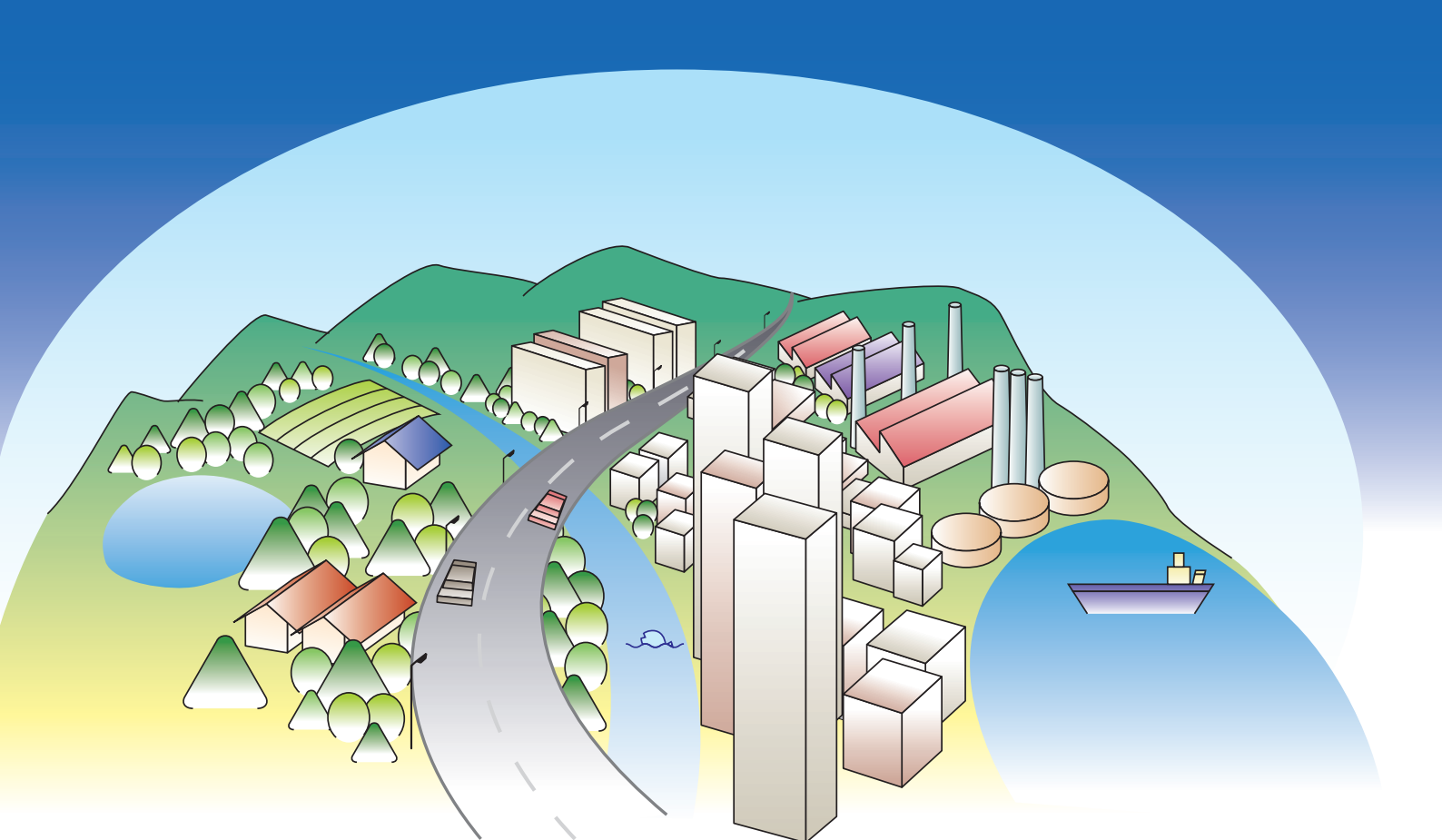
Analyzers for Water Treatment

Analyzers for water quality managements ranging from the source of water supply to the end of water distribution

Water Quality Analyzer for City Water

Water Purification System

Analytical Instruments

Highly reliable analyzers made for various environments from field use to laboratory use

Benchtop Water Quality Meter

Handheld Water Quality Meter

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Environmental/ Process Analyzers

Analytical Instruments

Process Analyzers   pH Meters   ORP Meters

Industrial pH Transmitter
HDM-135A (2-wire)
HDM-136A (4-wire)

- Easy-to-use pH analyzer for field installation in a compact and rigid aluminum enclosure
- Easier calibration done with standard solution
- Auto determination of electrode deterioration
- Alterable output range
- Automated self-diagnosis of fault (burn-out output)
- Meas. range:
  pH: pH−1 to pH14

Industrial ORP Transmitter
HDM-137A (2-wire)
HDM-138A (4-wire)

- Easy-to-use ORP analyzer for field installation in a compact and rigid aluminum enclosure
- Automatic check done with standard solution
- Auto-detection of electrode deterioration
- Alterable output range
- Automated self-diagnosis of fault (burn-out output)
- Meas. range:
  ORP: −2000 to +2000 mV

pH/ORP Transmitter
HBM-165H (2-wire)

- Available for both pH and ORP measurements
- Diecast aluminum enclosure, digital display and a wide range of other useful features
- One-touch auto calibration
- Self-diagnostic function
- Meas. range:
  pH: pH−1 to pH15
  ORP: −2000 to +2000 mV

Industrial pH/ORP Transmitter
HBM-160B
HBM-162B (4-wire)

- Robust die-cast aluminum enclosure
- Multi-function, field installation type
- Automatic diagnosis of the electrode status
- Display with LED backlight
- Meas. range:
  pH meter (HBM-160B) : pH-1 to pH15
  ORP meter (HBM-162B) : -2000 to +2000mV

Panel Mount pH/ORP Analyzer
HBM-100B
HBM-102B

- Compact DIN96 size
- Automatic diagnosis of the electrode status
- Display with automatic backlight
- Meas. range :
  pH meter (HBM-100B) : pH-1 to pH15
  ORP meter (HBM-102B) : -2000 to +2000mV

CALMEMO-pH Meter
HBM-100 (Panel type)
HBM-160D (Field installation type)

- Memory-built in pH electrode
- Preamp and memory are built-in the pH electrode, and data such as calibration value and calibration record can be saved
- For electrode holder, general-use, immersion type, flow type, flow-through type are available.

Intrinsically Safe pH/ORP Transmitter
SHBM-161
SHBM-163 (2-wire)

- Compact diecast aluminum enclosure
- ExiaICT4 (combined with a Zener Barrier) explosion-proof and IP65 conformed enclosure
- Easy calibration done with standard solution
- Auto-detection of electrodes deterioration
- Alterable output range
- Meas. range:
  SHBM-161 (pH) : pH−1 to pH15
  SHBM-163 (ORP) : −2000 to +2000 mV

Replaceable Tip pH/ORP Electrode
GSS-304B/314B (pH)
PSS-304B/314B (ORP)
ASS-304B/314B (ORP)

- Glass/Metal electrode chip and reference electrode liquid junction chip are easily replaceable
- KCl replenish-free type (304B type) for wastewater treatment and KCl replenish type (314B type) for high precision measurement are available
- Platinum electrode (PSS type) and a gold electrode (ASS type) are available for ORP electrodes
- Meas. range:
  pH: pH0 to pH14
  ORP: −2000 to 2000mV

Immersion Type Holder for Replaceable Tip Electrode
HC-G70 (KCl Replenish-Free/Refillable)
HC-G72 (KCl Refillable)

- HC-G70: Transparent PVC holder (heat resistance: 60℃) and semi-transparent PP holder (heat resistance: 80℃) available
- HC-G72: SUS316 holder (heat resistance: 80℃)
- Length: 0.5 to 3.0m
- KCl refillable type stores KCl inside the holder
- Mounting bracket/flange available

Drop-In Type Detector for Replaceable Tip Electrode
HC-G95 (KCl Replenish-Free)

- Two selections: throw-in type for deep tanks or drop-in type with a protection pipe
- Made of transparent PVC (heat resistance: 60℃)
- SUS protection pipe (maximum length: 5 m) and mounting bracket available

Flow-Through Type Holder for Replaceable Tip Electrodes
HC-G80 (KCl Replenish-Free/Refillable)
HC-G82 (KCl Replenish-Free/Refillable)

- KCl replenish-flee type
- HC-G80: Transparent holders made of PVC (heat resistance: 60℃) ; maximum pressure resistance: 0.3 MPa
- HC-G82: PP/SUS316 part (heat resistance: 80℃) and PVDF/SUS316 part (heat resistance: 100℃) ; maximum pressure resistance: 0.3MPa

Flow-Through Type Holders for Replaceable Tip Electrodes
HC-G80P/G82P
(KCl Refillable Type)

- Flow-through type holders for replaceable KCl-supplied electrodes
- HC-G80P: Transparent holders made from PVC (heat resistance: 60℃) ; maximum pressure resistance: 0.15 MPa
- HC-G82P: PP/SUS316 part (heat resistance: 80℃) and PVDF/SUS316 part (heat resistance: 100℃) ; maximum pressure resistance: 0.3MPa

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pH Meter with Auto Calibration

MAC-1600

- Automatic cleaning and 2-point calibration functions serve long-term reliable pH measurement with just little maintenance
- Lift-up type design incorporated with air jet cleaning allows for superior cleaning effect and stable measurement
- One converter can control two detectors

■ Meas. range:
　pH: pH−1 to pH15

Immersion Type pH/ORP Detector

HC-7 Series

- Ideal for pH/ORP measurements in tanks and open water applications
- Assemble electrodes available
　pH　:5600 type
　ORP:2600 type
- Mounting flanges for tanks available
　（50A, 100A, 150A）

Flow-Through Type pH/ORP Detector

HC-8 Series

- Designed for pH/ORP measurements in closed loop lines and environments where process pressure exists, such as pipes or sealed tanks and etc.
- Assemble electrodes available
　pH　:5610 type
　ORP:2610 type

pH/ORP Sensor with Ultrasonic Cleaner

UHC-7D/UHC-8D

- Detectors composed of holder and ultrasonic cleaner: Immersion type(UHC-7D) and flow-through type(UHC-8D)
- Intermittent irradiation of ultrasonic waves(burst oscillation method) to the electrode sensitive part prevents adhesion of dirt
- The electrode holder can be attached and detached with one touch, making maintenance work such as standard solution calibration easy

pH/ORP Sensor with Water Jet Cleaner

JHC-7C/JHC-8C

- Detectors composed of holder and water-jet cleaner: Immersion type（JHC-7C）and flow-through type（JHC-8C）
- By spraying water onto the tip of electrode, the water pressure washes fouling away
- One-touch detachable holder and easy maintenance
- Simple installation with a sensor, timer&electromagnetic valve integrated unit

Immersion Type pH/ORP Sensor with Brush Cleaner

BHC-7C

- Immersion type pH/ORP electrode holder with cleaning brush（BHC-7C）
- The swing movements wash the electrode tip and prevent it from fouling
- One-touch detachable holder and easy maintenance

Immersion Type Sensor with Chemical Cleaner

RHC-7C/RHC-7EC

- Immersion type electrode holder combined with chemical cleaning system
- By spraying mixed air&cleaning agents onto the electrode tip it dissolves fouling away
- Compatible with GSS series

Immersion Type Sensor with Pulse Air Jet Cleaner

PHCG-7D/95D PHC-7D

- The detector is composed of an immersion type holder for replaceable tip pH/ORP electrodes and the Pulse Air Jet Cleanser
- The pulse-jetted compressed air created by Pulse Air Jet Cleaner removes dirt on the electrode effectively with massive bubbles
- Drop-in type detector for deep tanks（PHCG-95D）available

pH Detector for Pure Water

HC-G65

- Measures the pH of low conductivity water such as pure water and boiler water（0.01mS/m or above）
- Low flow injection of sampling allows for accurate, stable measurement
- Low cost and easy replacement of glass electrode tip or liquid junction tip
- Beaker-stand is equipped (for standard calibration)

Electrode Holder with Lift up Type Jet Cleaner

LHC-7D

- A detector which can lift up from the sample water and remove fouling from the pH/ORP electrode effectively.
- Designed for long-term,continuous and highly reliable measurement.

pH Electrode for Bioprocess

ELP-005/006/007 ELP-045/046/047/048

- Suitable for bio-process tanks （fermentation tanks）. KCl non-refillable and leadless type. Steam sterilizable, strong glass membrane, lead-free safe design
- Two types available:Liquid junctions of both pressurized gel type products （ELP-005/006/007） and double junction type products （ELP-045/046/047/048）
- Various electrode lengths available according to various tank sizes

■ Meas. range:
　pH: pH0 to pH14

Environmental/Process Analyzers

Process Analyzers   Conductivity Analyzers   Resistivity Analyzers

Industrial Conductivity Transmitter

WDM-135 A (2-wire)
WDM-136 A (4-wire)

- Easy-to-use conductivity analyzer for field installation in a compact and rigid aluminum enclosure
- Wide measurement range, from ultra-pure water to wastewater
- Alterable output range
- Meas. range:
  Minimum : 0 to 0.2 μS/cm
  Maximum: 0 to 20 mS/cm

Industrial Conductivity Transmitter

WBM-160 (4-wire)

- Multi-function conductivity analyzer for field installation in a compact aluminum diecast enclosure
- Wide application range from ultra-pure water to wastewater
- 2-point contact signal, 2-channel output including temperature（RS-232 optional）
- Power supply: AC90 to 264V, 50/60Hz
- Meas. range:
  Minimum : 0 to 0.2 μS/cm
  Maximum: 0 to 20 mS/cm

Conductivity Transmitter

WBM-165H (2-wire)

- Aluminum diecast enclosure, digital display and a wide range of other useful features
- Wide application range from ultra-pure water to wastewater
- Meas. range:
  Minimum : 0 to 0.2 μS/cm
  Maximum: 0 to 20 mS/cm

Panel Type Conductivity Analyzer

WBM-100

- Compact DIN 96 size
- Temperature compensation computed by a microcomputer
- Cell constant value adjustable depends on customers' need
- Water temperature displayable
- Power supply: AC90 to 264V, 50/60Hz
- Meas. range:
  Minimum : 0 to 0.2 μS/cm
  Maximum: 0 to 20 mS/cm

Panel Type Conductivity Controller

WBM-210A (2-channel type)

- Compact DIN 96 size
- Conductivity meter with built-in microcomputer for various applications such as ultra-pure water production, boiler plants, foodstuff plants, etc.
- Two detectors connectable
- RS-232 equipped as standard specification
- Meas. range:
  Minimum : 0 to 0.2 μS/cm
  Maximum: 0 to 20 mS/cm

Conductivity Analyzer for Sanitary

WBM-121A/AK Cell

- Compact DIN 96 size
- Designed for sanitary conductivity analyzer for the food industry
- Applied in foodstuff plants and installed in pipes and tanks. Best suited for CIP (stationary cleaning) management, debubbling agent control and liquid level management
- Meas. range:
  0 to 300/3000 μS/cm (at 25℃)
  0 to 20/200 mS/cm (at 25℃) etc.

Intrinsically Safe Conductivity Transmitter

SWBM-161 (2-wire)
SA6 (Detector)

- Compact diecast aluminum enclosure
- ExiaICT4 (combined with a Zener Barrier) explosion-proof and IP65 conformed enclosure
- It can handle a wide measurement range from ultrapure water to factory wastewater.
- Detector supports a wide range applications
- Meas. range:
  Minimum : 0 to 0.2 μS/cm
  Maximum: 0 to 20 mS/cm

Panel Type Resistivity Analyzer

AQM-100A
AQM-210A (2-channel type)

- Compact DIN 96 size
- Best suited for water quality control in ultra-pure water production lines
- Two detectors connectable
- RS-232 equipped as standard specification（AQM-210A）
- Output: 2-channel, insulated, 4-20mA（AQM-210A）
- Meas. range:
  0.00 to 20.00 MΩ·cm

Resistivity Monitor for Ultra-Pure Water

AQM-250

- Compact DIN96 size
- Highly accurate measurement of ultra-pure water
- Can be used as a secondary reference standard for the calibration of general resistivity monitors
- 2-channel (2 detectors)・2 transmission output possible
- RS-232C equipped as standard specification
- Portable type (optional) is available
- Meas. range:
  0.00 to 20.00 MΩ·cm

Industrial Conductivity Detector

A5/A6 Series

- Hermetically sealed 2-electrode type detector featured with excellent heat-proofing and pressure tightness
- Pipeline-insertion/immersion/flow-through/throw-in/leadless, etc. type available
- Four types of cell constants available: 0.01/cm, 0.1/cm, 1/cm, 10/cm
- Meas. range:
  Minimum : 0 to 0.2 μS/cm
  Maximum: 0 to 20 mS/cm

Industrial Resistivity/ Conductivity Detector

AR4/AR5 Series

- Compact 2-electrode type (titanium) detector designed for ultra-pure water
- Pipeline insertion type, leadless type
- Two types of cell constants available: 0.01/cm, 0.1/cm
- Meas. range:
  0 to 20/200 MΩ·cm
  0 to 0.2/2 μS/cm

Conductivity Detector with Amplifier

AA-1 (For Standard)
AA-2 (For Ultra-Pure Water)

- Single-function (no indication) conductivity analyzer for field installation
- Easy installation for the one-unit amplifier and detector
- Output: DC 4-20mA, Power supply: AC 100V
- Meas. range:
  AA-1 (For Standard Pure Water)：
  0 to 2 μS/cm to 0 to 10000 μS/cm
  AA-2 (For Ultra-Pure Water)：
  0 to 0.2/0.5/1.0 μS/cm

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Process Analyzers Electromagnetic Conductivity Analyzers

Electrodeless Conductivity Analyzer

MDM-135A (2-wire)

- Electromagnetic conductivity analyzer for field installation in a compact and rigid aluminum enclosure
- Made for accurate measurements for high conductivity corrosive solutions (such as strong acid/alkali)
- Alterable output range
- Meas. range:
  Minimum : 0 to 2 mS/cm
  Maximum: 0 to 2000 mS/cm

Electrodeless Concentration Analyzer

MDM-137A (2-wire)

- Electromagnetic concentration analyzer for field installation in a compact and rigid aluminum enclosure
- Conductivity of NaCl, HCl, H_2SO_4, etc. are measured and converted to concentration（%）data automatically
- Assignable measurement range
- Examples of meas. range:
  NaCl:0 to 10 %, HCl: 30 to 40 %,
  H_2SO_4: 93 to 99.5 %, NaOH: 0 to 15 %

Electrodeless Conductivity Analyzer

MBM-160 (4-wire)

- Electromagnetic conductivity analyzer for field installation in a compact aluminum diecast enclosure
- Made for accurate measurements for high conductivity corrosive solutions (such as strong acid/alkali)
- 2-point contact signal, 2-channel output including temperature（RS-232 optional）
- Meas. range:
  Minimum : 0 to 2 mS/cm
  Maximum: 0 to 2000 mS/cm

Electrodeless Concentration Analyzer

MBM-162 (4-wire)

- Electromagnetic concentration analyzer for field installation in a compact aluminum diecast enclosure
- Conductivity of NaCl, HCl, H_2SO_4, etc. are measured and converted to concentration（%）data automatically
- 2-point contact signal, 2-channel output including temperature （RS-232 optional）
- Examples of meas. range:
  NaCl: 0 to 10 %, HCl: 30 to 40 %,
  H_2SO_4: 93 to 99.5 %, NaOH: 0 to 15 %

Panel Type Electrodeless Conductivity Analyzer

MBM-100A

- Compact DIN 96 size
- Accurate measurements for high conductivity corrosive solutions (such as strong acid/alkali）
- 2-point contact signal, 4 to 20mA output（RS-232 optional）
- Meas. range:
  Minimum : 0 to 2 mS/cm
  Maximum: 0 to 2000 mS/cm

Panel Type Electrodeless Concentration Analyzer

MBM-102A

- Compact DIN 96 size
- Conductivity of NaCl, HCl, H_2SO_4, etc. are measured and converted to concentration（%）data automatically
- Assignable measurement range
- 2-point contact signal, 4 to 20mA output（RS-232 optional）
- Examples of meas. range:
  NaCl: 0 to 10 %, HCl: 30 to 40 %,
  H_2SO_4: 93 to 99.5 %, NaOH: 0 to 15 %

Electrodeless Conductivity Detector

ME-6/ME-7/ME-11T Series
(High Sensitivity Type)

- Toroidal type teflon detector with excellent corrosion/heat/pressure resistance
- Accurate results for high conductivity corrosive solutions (such as strong acid/alkali）
- Types of detectors available: flow-through, immersion, pipeline insertion, etc.
- Meas. range:
  Minimum : 0 to 0.5 mS/cm
  Maximum: 0 to 2000 mS/cm

ME-100 Series
(Compact&Lightweight Type)

- Compact toroidal, heat resistant PVC type or Teflon detector with excellent corrosion resistance are available
- Accurate results for high conductivity corrosive solutions (such as strong acid/alkali）
- Types of detectors available: flow-through, immersion, pipeline insertion, drop-in, etc
- Meas. range:
  Minimum : 0 to 0.5 mS/cm
  Maximum: 0 to 2000 mS/cm

Process Analyzers — Dissolved Oxygen Analyzers

Process Analyzers (sidebar)

Industrial DO Analyzer
ODM-135A (2-wire)
ODM-136A (4-wire)

- Easy-to-use DO analyzer for field installation in a compact and rigid aluminum enclosure
- Easier procedure for calibration; auto determination of electrode deterioration
- Alterable output range
- Self-diagnostic function for failure (burn-out output)
- Meas. range:
  Minimum : 0 to 1 mg／L
  Maximum: 0 to 50 mg／L

Industrial DO Analyzer
OBM-162A (4-wire)

- Small, multi-function in an aluminum diecasting enclosure for DO measurements in fields
- Equipped with membrane-broken detecting system（particular parts code exists）
- Simultaneously output of DO measurement data and water temperature by analog signal（RS-232 optional）
- One-touch calibration and various self-diagnostic functions
- Meas. range:
  Minimum : 0 to 1 mg／L
  Maximum: 0 to 50 mg／L

Panel Type DO Controller
OBM-102A

- Panel type DO analyzer in a compact DIN 96 size
- One-touch calibration and various self-diagnostic functions
- 2-point contacts signal, 4-20 mA output（RS-232 optional）
- Meas. range:
  Minimum : 0 to 1 mg／L
  Maximum: 0 to 50 mg／L

Industrial DO Transmitter
OBM-165H
(2-wire/Low Concentration)
OBM-167H
(2-wire)

- Robust design in an aluminum diecast enclosure for low-concentration DO measurements in fields
- Meas. range:
  OBM-165H : 0.0 to 2000 μg/L
  OBM-165H : 0.0 to 50.00 mg/L

Immersion/Drop-In Type DO Holder
OC-711/OC-950

- Lightweight PVC holder; length of immersion type holder: 0.3-3.5m; length of protection pipe for drop-in type holder: 2-6m
- Electrode: polarograph type 7533L（for standard use）or 7536L（for human waste）

Detector with Water Jet Cleaner
JOC-711C/JOC-950C

- Cleaning electrode contamination by jetting water or air onto the electrode
- Immersion type (JOC-711C) and drop-in type (JOC-950C)
- Electrode: polarograph type 7533L（for standard use）or 7536L（for human waste）

DO Electrode for Bioprocess
ELD-011/012/013/015

- Multiple selections: bio-process （fermentation tanks）type, leadless type, steam sterilizable type, lead-free safe design
- Easy maintenance by cartridge electrodes（working&counter）
- Various electrode lengths available according to various tank sizes

Industrial DO Transmitter (Low-Concentration)
ODM-110A (4-wire)

- Easy-to-use low-concentration DO analyzer for field installation in a compact and rigid aluminum case
- Simplified calibration procedure; auto detection of electrode deterioration
- Alterable output range
- Automated self-diagnosis of fault （burn-out output）
- Meas. range:
  Minimum : 0 to 20 μg/L
  Maximum: 0 to 2000 μg/L

DO Transmitter (Low-Concentration)
OBM-300 (4-wire)

- Multi-functional low-concentration DO analyzer for field installation in a compact diecast aluminum case
- 3 ranges (automatically switched), 2-point regulated output
- Alterable output range
- One-touch calibration and various self-diagnostic functions
- Meas. range:
  Minimum : 0 to 20 μg/L
  Maximum: 0 to 999.9 μg/L

Panel Type DO Transmitter (Low-Concentration)
OBM-100H

- Panel type low-concentration DO analyzer in a compact DIN 96 size
- Two-point regulated output, 4-20 mA output, RS-232 output
- One-touch calibration and various self-diagnostic functions
- Meas. range:
  Minimum : 0 to 20 μg/L
  Maximum: 0 to 1000 μg/L

DO Detector for Pure Water (Low-Concentration)
OC-64

- Suitable for low-concentration DO measurement（pure water in semiconductor factories, boiler water in power plants）
- Micro-flow（100 mL／min）with special flow cell
- Electrode: polarograph type 7561L（Ag electrode）or 7563L（Au electrode）
- Lead wire: ELW-32

Process Auto Analyzer
XAT-300 Series

- Process analyzer for automating analytical techniques such as atomic absorption and etc.
- Suitable for automating chemical analysis processes such as distillation, heat treatment, etc.
- Example applications:
- Silica measurement
- Alkalinity
- Total chrome
- Total cyanide by distillation / absorption spectrophotometry
- Phenols by distillation / absorption spectrophotometry

Process Analyzers

Compact City-Water Analyzer
MWB4-70

- B4 size compact analyzer excellent in reliability, durability and maintainability
- Enables continuously measurement of turbidity, color, residual chlorine, pH, conductivity, temperature and pressure without reagents
- Equipped with interactive easy-to-use color touch panel

City-Water Absorption Photometer
COL-1600

- Continuous monitoring of three items of UV absorbance, color, and turbidity in clean water
- Measurement method is 3-wavelength absorption spectrophotometry
- Automatic cleaning washes cells
- Function of coefficient-based conversion to COD/TOC is provided as standard.

■ Meas. range:
  (Supply Water)   (Raw Water)
  UV : 0 to 0.5 Abs   0 to 2.5 Abs
  color : 0 to 5/10   0 to 400
  turbidity : 0 to 2/4   0 to 200

Residual Chlorine Analyzer
CLF-1600

- Measures residual chlorine (total or free) happened in the water chlorination process
- Continuously measurement with polarographic method
- 1/5 reagent requirement of existing models
- RS-485 equipped as standard specification; compatible with Modbus communication system
- Freely mountable on walls, racks, etc. for the compact lightweight design

■ Meas. range:
  0 to 0.5/1.0 to 0 to 5/10 mg/L (ppm)
  (2-range)

Reagentless Free Chlorine Analyzer
CLF-1610

- Measures free residual chlorine of clean water continuously with the reagentless polarographic method
- RS-485 equipped as standard specification; compatible with Modbus communication system
- Freely mountable on walls, racks, etc. for the compact lightweight design

■ Meas. range:
  0 to 1/2, 0 to 1/3, 0 to 2/3 mg/L (ppm)
  (2-range)

Immersion Type Free Chlorine Analyzer
CWM-160E/CLR-169

- Simply dip the detector into tanks such as drinking water and standing water, free available chlorine can be measured by polarographic method easily and continuously.
- Continuous cleaning with polishing beads ensures long-term and stable measurements
- Compact, lightweight design allows for easy installation and relocation

■ Meas. range:
  0 to 1/2,0 to 1/3,0 to 2/3 mg/L (ppm)
  (2-range)

Reagentless Free Chlorine Analyzer
CD-36D

- Measures free residual chlorine of chlorinated samples from purification/food processing/ semiconductor plants and pool without reagent
- Continuous measurement by polarographic method

■ Meas. range:
  CD-36D: 0 to 2 mg/L (ppm)
  CD-38D: 0 to 100 mg/L (ppm)

Residual Chlorine Meter Transmitter
CLBM-50

- Ultracompact DIN 48 size
- Reagentless model
- Auto-cleaning by polishing beads and micro-vibrating electrode
- Low power consumption of 5VA
- Power supply: AC100 to 230V

■ Meas. range:
  0 to 3 mg/L

Reagentless Residual Chlorine Analyzer (For sewage effluent)
CLF-1620

CLF-1620A

CLF-1620B
CLF-1620C

- Used to measure residual chlorine or halogen in sanitizing facilities such as sewage treatment plants
- Continuous or intermittent measurement by non-reagent polarographic method

■ Measurement items
  〈Used in sewage treatment plants and other pre-discharge sanitization facilities〉
  CLF-1620A (residual chlorometer): 0 to 3 mg/L
  〈Used in sanitizing equipment for discharged water in rainy weather〉
  CLF-1620B (residual chlorometer): 0 to 5mg/L
  〈For Simplified Discharge of Sewage〉
  CLF-1620C (residual halogen meter): 0 to 5mg/L

Automated Ammoniac Nitrogen Analyzer
XIC-3000

- Ion Chromatograph used in the analyzer room can be online to measure ammonia at extremely low concentration.
- Stable long-term operation is possible by using a hollow fiber filter for sample filtration as a pretreatment and performing automatic reverse cleaning.
- The use of reagents that do not fall under poisons or dramatics reduces environmental impact

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Analyzers for Water & Wastewater Treatment

Colorimeter/Turbidity Meter

COL-110

- Color and turbidity can be measured simultaneously by dual wavelength with just one meter
- Equipped with interactive easy-to-use color touch panel

■ Meas. range:
Color: 0 to 10/20/30 (DEG)
Turbidity: 0 to 2/4/5/10 (mg/L; ppm)

Turbidity Analyzer

TUF-1600

- Suitable for water purification process (including river water, etc.)
- Surface scattering light method employed; 1 range/2 ranges/3 ranges available
- Reduces flow volume of sample water to 1/2 of existing models
- RS-485 equipped as standard specification; compatible with Modbus communication system
- Freely mountable on walls, racks, etc. for the compact lightweight design

■ Meas. range:
0 to 2 to 0 to 2000 (1 to 3 ranges) (mg/L, ppm, FTU, NTU)

High Sensitivity Turbidity Analyzer

TUH-1600

- Highly-sensitive turbidity analyzer suitable for water purification process
- Surface scattering light method employed; 1 range/2 ranges/3 ranges available
- RS-485 equipped as standard specification; compatible with Modbus communication system
- Freely mountable on walls, racks, etc. for the compact lightweight design

■ Meas. range:
0 to 0.2 to 0 to 2.0 (1 to 3 ranges) (NTU)

Turbidity Analyzer

TUF-1690

- Low-range turbidimeter for city water
- 90 degree light scattering method (Single, Dual, Three ranges available)
- RS-485 equipped as standard specification, compatible with Modbus communication system
- Compact and light-weight with self-supporting stand

■ Meas. range:
0 to 2/5/10 (mg/L, ppm, FTU, NTU)

Chloride Demand Analyzer

CLD-7M

- Measures chloride demand of water and estimates chlorine injection level; best suited for feed forward control
- Polarography using eccentrically Rotating micro electrode

Alkalinity Analyzer

ALF-1600

- Continuous measurement of alkalinity data in water purification process by coulometric titration method
- Requires only 1/4 reagent volume of existing model
- RS-485 equipped as standard specification; compatible with Modbus communication system
- Freely mountable on walls, racks, etc. for the compact lightweight design

■ Meas. range:
0 to 50/100 mg/L (ppm) (2-range)

Sand Filter

FS-3

- The cleaning process done by two filters alternately allows for continuous supply of sample

■ Filtration rate:
1 to 6 L/min
(varies from sample turbidity)

Suspended Solids Concentration Analyzer

SSD-1610
(For Low Concentration)

SSD-1620
(For Medium Concentration)

- Compact and piston automated analyzer
- Types of detectors available: immersion, drop-in and pipe insertion
- Long-life optical model and high reliability
- RS-485 interface equipped as standard specification; compatible with Modbus communication system

■ Meas. range:
SSD-1610: 0 to 30/500/1000 mg/L
SSD-1620: 0 to 5000/10000/20000 mg/L
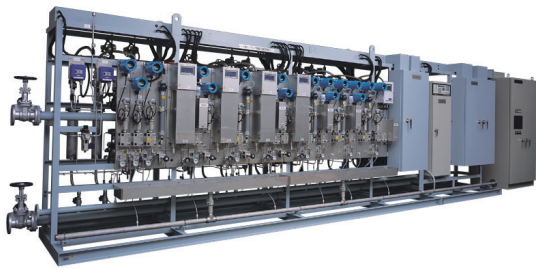(three-range, manual switching)

SSF-1600

- Continuous optical measurements of SS and MLSS by using infrared scattering method
- Safe and simple maintenance attainable with the small, lightweight stainless detector

■ Meas. range:
0 to 1000/3000 to
0 to 10000/20000/30000 mg/L
(two-range or three-range)

Analyzers for Boiler Water Applications

Boiler Sampling System
BSC

- A complete sampling system composed with cooler, pressure reducer, valves, flowmeter and thermostat chambers
- Enables sampling for analysis from the boiler
- Consistent manufacturing from analyzer to sampler

■ Sample condition :
  Maximum temperature : 600 ℃
  Maximum pressure   : 30 MPa
  Maximum flow rate   : 3 L/min

Hydrazine Transmitter
HYM-300

- Continuous measurement of hydrazine concentration in boiler water
- Stabilization determination function during calibration
- Best suited for monitoring of residual hydrazine concentration

■ Meas. range :
  0 to 999.9 μg/L

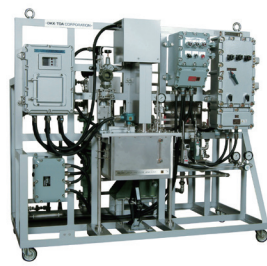# Analyzers for Oil Refineries

Boiling Point Analyzer
BPM-2000

- Designed for oil refinery
- Automatic fractional distillate analyzer of batch distillation type enables distillation test of petroleum products such as kerosene, diesel oil, gasoline and etc.
- Adopts high resolution liquid level detecting sensor
- Newly-developed FA computer embedded with large-sized, color touch panel
- Explosion-proof TIIS fd2G4 certified

■ Meas. range:
  0 to 400 ℃

Vapor Pressure Analyzer
DVP-03

- Designed for oil refinery
- Measures vapor pressure of petroleum products like gasoline
- Vapor pressure is measured by measuring static pressure of the sample that is jetting out from the nozzle at the constant temperature
- Measurement result attained via Reid method for vapor pressure

■ Meas. range:
  0.01 to 1 MPa Abs
  0 to 0.15 MPa Abs

Sulfur Content Analyzer
SCA-200

- Designed for oil refinery
- Batch and continuous measurement of sulfur concentration of petroleum products like light and heavy oil
- Best suited for product and quality control of petroleum products
- Eliminates RI regulation process and enhances safety by using the compact and X-ray tube

■ Meas. range:
  0 to 0.1 wt%
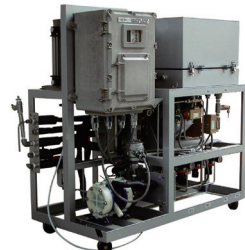 0 to 5 wt%

Process Colour Meter
COL-330

- Measures color of oil products and coloration out of mixed heavy oil from heat converters, etc.
- Compact onboard spectroscope allows for a broad range of wavelength measurement
- Saybolt color, ASTM color, APHA color measurable
- Explosion-proof TIIS ExdⅡBT4 certified

Explosion Loop Sample Cooler
SCU-02

- Adopts environmental friendly Freon replacement gas
- Automatic temperature adjustment
- Safety apparatus equipped such as overload relay and current overload breaker
- Explosion-proof TIIS ExdⅡBT4 certified

Environmental/Process Analyzers

Water Quality Analyzers/Systems

Automatic Total Nitrogen & Phosphorus COD Analyzer
NPW-400

- Measuring based on official measuring method
- Multiple-wavelength detector enables measurement of total nitrogen, total phosphorus and COD simultaneously
- Space-saving design attained by eliminating back piping
- Drip-proof construction
- Meas. range:
  Total nitrogen: 0 to 2 mg/L to 50 mg/L
  Total phosphorus: 0 to 0.5mg/L to 20 mg/L
  COD (UV method) : 0 to 2 Abs

Automatic COD Analyzer
CODR-400

- Measuring based on official measuring method
- Can be selected between the acid method and the alkaline method
- Reduced reagent usage to 1/20 of the specified measurement method
- Reagent replacement and waste liquid treatment once a month
- Meets requirements for 2-stream and 2-range
- Meas. range:
  0 to 20 mg/L to 0 to 2000 mg/L

COD-203A

- Measures COD of river water, lake water and effluent
- Meas. method: 100℃ digestion with $KMnO_4$ acidified by sulphuric acid or 100℃ digestion with alkaline $KMnO_4$
- Capability of 2 flow paths measurement(optional)
- Meas. range:
  0 to 20 mg/L to 0 to 2000 mg/L

Organic Pollution Monitor (UV Meter)
OPM-1630

- The monitor measures organic pollutant concentration of sample by detecting the absorbance of ultra violet ray（254nm）
- No cell window and free from fouling for the contact-free measuring method
- With energy-saving lamp it reduces electricity cost significantly
- Meas. range:
  Absorbance: 0 to 0.5/1.0/2.0/2.5 Abs

OPM-1610

- The monitor measures organic pollutant concentration of sample by detecting the absorbance of ultra violet ray（254nm）
- Stable measurement realized with the UV absorptiomatric method
- With energy-saving lamp it reduces electricity cost significantly
- Meas. range:
  Absorbance: 0 to 2.5 Abs

Hexavalent Chromium Monitor
CRM-1600

- Automated intermittent monitoring unit; Spectrometric Method using 1,5-Diphenylcarbazide
- Stuck of the electromagnetic valve has been improved with rotating measurement cell
- Designed for discharged wastewater of plating factory, river water quality and related fields
- Meas. range:
  0 to 0.5/1.0 mg/L (2-range)

Oil Film Detector

ODL-1600

- Oil film is detected by measuring differences of the amount of laser reflectance of oil and water
- With improvements on light source scanning and signal processing, influences occurred in broad water surfaces such as fluctuation, waviness and suspended solids have been reduced effectively
- Contact-free and easy maintenance
- Meas. object range:
  0.3 to 4 m

SODL-1600
(Explosion-Proof Model)

- Robust aluminum pressure resistance explosion-proof model
- Oil film is detected by measuring differences of the amount of laser reflectance of oil and water
- With improvements on light source scanning and signal processing, influences occurred in broad water surfaces such as fluctuation, waviness and suspended solids have been reduced effectively
- Contact-free and easy maintenance
- Meas. object range:
  0.3 to 3 m

ODL-1610A
(Long-Distance Model)

- Enables oil film detection even if the surface of sample is 10m away from the detecting cell
- Ideal for difficult conditions such as turbulent water and places where is difficult to setup near-water detectors
- Contact-free and easy maintenance
- Meas. object range:
  0.3 to 10 m

OF-1600

- Oil film is detected by measuring differences of the amount of LED reflectance of oil and water
- Small and lightweight design
- Contact-free and easy maintenance
- Meas. object range:
  About 0.5 m

Water Quality Analyzers/Systems

Water Quality Analyzers/Systems

Simplified Fluoride Ion Monitor
FBM-160 (Field Installation Type)
FBM-100A (Panel Type)

- Continuous monitoring of fluoride ion concentration by an ion electrode sensor with the alarm function (non-ionized fluoride is not detectable)
- Monitors the effluent treatment processes and final effluent from semiconductor factories, etc.
- Water-jet cleaning function available
- Meas. range:
  0.1 to 10/0.2 to 20/1 to 100/ 10 to 1000 mg/L

Fluoride Ion Monitor
FMS-4

- Simple measurement with just an ion electrode
- Enables continuous fluoride ion measurement of discharged industrial wastewater
- By adding ionic strength adjustment solution part of nonionic fluoride is measurable
- Automatic cleaning and calibration function ensures stable measurement
- Easy-to-use touch panel
- Meas. range:
  0.1 to 10/0.2 to 20/1 to 100/ 10 to 1000 mg/L

Simplified Cyanide Ion Monitor
CNBM-160 (Field Installation Type)
CNBM-100A (Panel Type)

- One-touch calibration done with standard solution
- Auto-detection of electrode deterioration
- Automatic detection of electrode error during the measurement
- Meas. range:
  0.00 to 9.99 mg/L

Cyanide Ion Monitor
CNMS-4

- Simple measurement with just an ion electrode
- Enables continuous cyanide ion measurements in discharged industrial wastewater and river
- Automatic cleaning and calibration function ensures stable measurement
- Easy-to-use touch panel
- Built-in 2L or external 10L lockable waste fluid tank available
- Meas. range:
  0.03 to 2/0.05 to 5 mg/L

Ammonium Ion Monitor
NHMS-4

- Simple measurement with just an ion electrode
- Enables continuous ammonium ion measurements in discharged industrial wastewater, river and water purification plants
- Automatic cleaning and calibration function ensures stable measurement
- Easy-to-use touch panel
- Low-concentration calibration function available
- Meas. range:
  0.05 to 5/0.1 to 10/1 to 100 mg/L

Automatic Online Analyzer for Total Manganese
HMA-TMN

- Low waste solution (only 1.1L/month at 4H measurement interval)
- Low reagent consumption(No need for reagent change for 1 month).
- Auto range with automatic dilution has two measurement ranges (0.1 to 5, 0.5 to 20mg/L) which can be switched automatically
- Automatic backwashing sample filter, cleaning with each cycle and calibration
- 5.7 inch color LCD touch panel
- Meas. range:
  0.1 to 20mg/L

Automatic Online Analyzer for Chromium 6+
HMA-CR6

- Low waste solution (only 1.1L/month (at 4H measurement interval)
- Low reagent consumption(No need for reagent change for 1 month)
- Auto range with automatic dilution has two measurement ranges (0.01 to 2, 0.04 to 5mg/L) which can be changed
- Automatic backwashing sample filter, cleaning with each cycle and calibration
- 5.7 inch color LCD touch panel
- Meas. range:
  0.04 to 5 mg/L

Automatic Online Analyzer for Total Chromium
HMA-TCR

- Low waste solution (only 1.1L/month at 4H measurement interval)
- Low reagent consumption(No need for reagent change for 1 month)
- Auto range with automatic dilution has two measurement ranges (0.04 to 2, 0.1 to 5mg/L) which can be switched automatically
- Automatic backwashing sample filter, cleaning with each cycle and calibration
- 5.7 inch color LCD touch panel
- Meas. range:
  0.1 to 10mg/L

Automatic Online Analyzer for Total Copper
HMA-TCU

- Low waste solution (only 1.1L/month at 4H measurement interval)
- Low reagent consumption(No need for reagent change for 1 month)
- Auto range with automatic dilution has two measurement ranges (0.1 to 3, 0.5 to 10mg/L) which can be switched automatically
- Automatic backwashing sample filter, cleaning with each cycle and calibration
- 5.7 inch color LCD touch panel
- Meas. range:
  0.1 to 10mg/L

Automatic Online Analyzer for Total Nickel
HMA-TNI

- Low waste solution (only 1.1L/month at 4H measurement interval)
- Low reagent consumption(No need for reagent change for 1 month)
- Auto range with automatic dilution HMA-TNI has two measurement ranges (0.1 to 3, 0.4 to 10mg/L) which can be switched automatically
- Automatic backwashing sample filter, cleaning with each cycle and calibration
- 5.7 inch color LCD touch panel
- Meas. range:
  0.1 to 10mg/L

Water Quality Analyzers/Systems

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Environmental/Process Analyzers

Ambient Air Analyzers

PM Monitor
FPM-377C

- Equipment according to microparticulate matter (PM2.5) measurement in the "Environmental Monitoring Manual (6th Edition)" of the Ministry of the Environment
- Beta-ray Absorption Type Source14C Adopted
- Built-in dehumidifier with heater method
- Fragmenter employs VSC Cyclone
- Prepare an outdoor installation type or an indoor installation type
- Meas. range:
  0 to 500 μg/m^3
  0 to 1000 μg/m^3
  0 to 5000 μg/m^3
  with auto/manual switching

Nitrogen Oxides Analyzer
GLN-390

- Adopted PMT to cool down cathodes in less noises
- To Simplify dust checking and filter replacement with a mounted dust filter
- Increased maintainability in less cost
- Data collection and remote control via Lan
- Meas. range :
  0 to 0.1, 0 to 0.2, 0 to 0.5, 0 to 1.0, 0 to 2.0 ppm

Sulfur Dioxide Analyzer
GFS-390

- Adopt the ultraviolet fluorescence
- Stable measurement for a small amount of SO$_2$
- A dust filter is mounted
- Data collection and remote control via LAN
- Meas. range :
  0 to 0.05, 0 to 0.1, 0 to 0.2, 0 to 0.5, 0 to 1.0 ppm

Ozone Analyzer
GUX-390

- Adopted ultraviolet absorption method
- Data collection and remote control via Lan
- Superior data processing capabilities with CF card
- Meas. range :
  0 to 0.1, 0 to 0.2, 0 to 0.5, 0 to 1.0 ppm

Carbon Monoxide Analyzer
GFC-390

- Gas Filter Correlation Method
- Stable measurement for a small amount of CO
- High-sensitivity measurement in 5-ppm range
- High-resistance to vibration with the semiconductor infrared detector
- Meas. range :
  0 to 5, 0 to 10, 0 to 20, 0 to 50, 0 to 100 ppm

Ozone Generator
OZ-200

- Ozone generator for dynamic calibration of atmospheric ozone measuring device and atmospheric ozone measuring device
- Pulse lighting Xe lamp UV irradiation system enables short warm-up time, low temperature effect, and highly stable ozone generation
- Built-in zero gas generator using ambient air as raw material, no cylinder for zero gas is required
- Linearity test is possible easily by 5 division function

Calibration Gas Generator
CGS-12

- A gas preparation device for calibration of a flow ratio mixing system for the purpose of using calibration of an atmospheric sulfur dioxide analyzer, a nitrogen oxide analyzer, and a carbon monoxide analyzer.
- A zero gas generator is built in, and purifies to zero gas by absorbing the air in the atmosphere
- Concentration of span gas (calibration gas) can be arbitrarily set between 1/100 and 1/10,000 of the component gas

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Emission Gas Analyzers

Volatile Organic Compounds (VOC) Analyzer

GHT-200

- Stable and reliable FID method is adopted
- Air purification device built-in
- Various data management function installed

■ Meas. range:
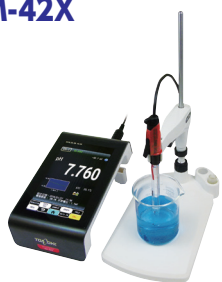0 to 10/20/50/100/200/1000/2000/5000/10000ppmC

GIV-200

- Catalytic Oxidation/NDIR method is adopted
- Hydrogen and supporting air unnecessary
- Stable carbon conversion sensitivity
- Portable model (compact, light weight, can be carried with one hand)

■ Meas. range:
0 to 2000ppmC, 0 to 5000ppmC

Laboratory Analyzers

pH Meter

HM-42X

- Large Color LCD and Touch Panel
- Automatically recognizes PC, Turntable, Printer
- USB standard equipment
- Data memory function（2000 data each channel）
■ Meas. items:
  pH
  ORP（electrode sold separately）
  ion（electrode sold separately）

HM-41X

- Large customized LCD Display DC（4 AA batteries）/USB power supply
- Battery life approx. 2500 hours PC communication with USB connection
- Data memory（1000 data）
- External printer connectable（optional）
■ Meas. items:
  pH
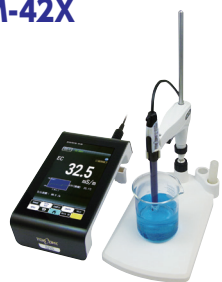 ORP（electrode sold separately）

HM-40X

- For international sales only
- Large, clear customized LCD Display
- Operated by batteries
■ Meas. items:
  pH

Electrical Conductivity Meter

CM-42X

- Large Color LCD and Touch Panel
- Built-in pure water temperature compensation
- Compliant with USP<645> requirements
- Automatically recognizes PC, Turntable, Printer
■ Meas. items:
  electric conductivity, resistivity, salinity,concentration,TDS

CM-41X

- Large LCD Display
- DC（4 AA batteries）/USB power supply
- Battery Life Approx.1000 hours
- PC communication with USB connection
- Data memory（1000 data）
- External printer connectable（optional）
■ Meas. items:
  electric conductivity, resistivity, salinity,concentration,TDS

Multi-Water Quality Meter
(pH/ORP/Ion/Conductivity/DO)

MM-43X

- Large Color LCD and Touch panel
- Each channel can be connected to pH/ORP/Ion/DO/Conductivity cell
- 2 ports of automatic recognition connector installed
- Automatically recognizes PC, Turntable, Printer
- USB standard equipment
- Data memory function (2000 data each channel)
■ Meas. items:
  pH, ORP, electric conductivity, resistivity, salinity, ion, temperature, DO, saturation, TDS

Laboratory Analyzers

Automatic Titrator
AUT-801

- Equipped with various functions to support titration analysis
- Reduced titration time with an operation similar to manual analysis (semi-automatic mode)
- Manual detection of the end point is possible. (Set point detection function)
- Simultaneous titration and display for 2 series (dual system)
- Equipped with validation support function
- Can be connected to turntable TTT-710, automatic sampling device, etc.

Acidity/Salt/Potentiometric Titrator
TA-70/TS-70/TP-70

- Simplified system and specified titrators series
- Electrodes for trace amount titration available
- Turntable connectable
- Data management with external-connected printer (optional)

Automatic Burette
ABT-511

- Precising dispensing system (stable quantitation and speed)
- Titration burette (manual titration) supported
- GLP compliance
- Sampling mode loaded (measure/dilution)
- RS-232C equipped as standard specification

Sugar Analyzer
SU-300

- Simple pretreatment
- Simultaneous measurement of 5 kinds of sugar and ethanol, or 7 kinds of sugar alcohol
- Pulse amperometric method employed
- Automatic analysis and calculation without PC
- Front operation and easy maintenance

Salt Analyzer
SAT-500

- Simple operation-just inject the sample into electrolyte in dedicated beaker
- Rapid measurement - approx. 25 seconds from measurement start to data output for a standard 1% NaCl standard solution
- Capable of stable measurements without effect from artificial colorings
- Meas. range: 0.0000 to 49.99 %

Simplified COD Meter
COD-60A

- The integrated oxidation & titration design and the sequence control function simplified operations
- Smaller waste solution (lower than 10mL per measurement)
- Real time display of sequence and titration curve
- Meas. range: 0 to 20.0/40.0/100/200/400/1000 mg/L

ATP Analyzer
AF-100

- Enables bacteria and cell measurements in 50 sec.
- Highly sensitive measurement at 1 to 1000 cells/mL level
- Enables direct measurement of membrane filter
- Compliant to sanitary management by swap test
- Useful functions such as ATP concentration and cell converted value available
- Automatic reagent dispenser is optional(DF-10 sold separately)

Ion Chromatograph
ICA-7000

Ion removal device system

Chemical suppressor system

- All-in-one, compact design the same size for the 2ch system as well
- Excellent extensibility due to unitized configuration
- Support for both suppressor and non-suppressor systems
- Low range measurement for high sensitivity analysis has been added

- Use of new pumps to prevent air contamination Improved stability of liquid feeding
- Device control and data processing by USB communication
- High sensitivity analysis with chemical suppressor system

- Compatible with ion chromatography and post-column method (Cyan/Bromic acid analysis (Water test method))
- Support for continuous measurement of multiple samples

Ion Analyzer
IA-300

- 6 cations or 7 anions simultaneous measurement
- Simple and easy-to-use for any user
- Results automatically analyzed and calculated internally
- Displayable and printable results
- Suppressor method available for anion measurements
- Meas. items:
  Anions: PO_4^{3-}, F^-, Cl^-, NO_2^-, Br^-, NO_3^-, SO_4^{2-}
  Cations: Li^+, Na^+, NH_4^+, K^+, Mg^{2+}, Ca^{2+}

Analytical Instruments

Portable/Handheld Meters

Handheld Multi-function Water Quality Meter

MM-42DP (2ch type) /MM-41DP (1ch type)

- ● NEW Digital Probe
  Automatically recognizes probe information Multiple probe combinations are available for 2ch type
- ● Easily replaceable electrode for pH and ORP probe
- ● Slim design
- ● Display with backlight
- ● Waterproof design(IP67: 1m depth up to 30mins)
- ● Data storage up to 1500 points
- ● Connect to PC via USB Peripheral
- ● External printer connectable (EPS-P30)

■ Meas. items:
pH, ORP, electric conductivity, resistivity, salinity(NaCl, PSS), TDS, DO(Optical)

Handheld pH/Ion/ORP Meter

HM-40P

- ● Slim design
- ● Display with backlight
- ● Power-saving design; rechargeable battery adaptable
- ● Waterproof design(IP67: 1m depth up to 30mins)
- ● Data storage up to 1500 points

■ Meas. items:
pH, ORP, ion

Handheld Conductivity Meter

CM-31P-W(For Pure Water)

- ● Highly accurate measurement in pure water attainable with the pure water temperature compensation function
- ● Comes with special flow cell CEF-22A (made of PP)
- ● Power-saving design; rechargeable battery adaptable
- ● Waterproof design (IP67: 1m depth, up to 30mins)

■ Meas. range
(when using a standard cell):
0.1 mS/m to 10 S/m
0.1 Ω·m to 10k Ω·m
Salinity: 0 to 4.00%
0 to 80℃

Handheld DO Meter

DO-31P

- ● DO electrodes for incubator bottles and stirring-free DO electrodes available
- ● Power-saving design; rechargeable battery adaptable
- ● Waterproof design(IP67: 1m depth, up to 30mins)
- ● Data storage up to 1000 points

■ Meas. range:
0 to 20.00 mg/L (0-50.0 mg/L)*
0 to 200% (0 to 500%)*
*When the high-concentration membrane is used(optional)
0 to 50℃

Handheld DO/pH Meter

DM-32P

- ● 2-channel type, simultaneous measurement and display of DO/ pH
- ● Power-saving design; rechargeable battery adaptable
- ● Waterproof design (IP67: 1m depth, up to 30mins)
- ● Data storage up to 1000 points
- ● PC and external printer connectable

■ Meas. items: pH, ORP, DO, temperature (ORP electrodes sold separately)

Handheld Multi-parameter Water Quality Meter

WQC-40

- ● pH, electric conductivity, turbidity, temperature, salinity, TDS, sea water specific gravity, DO, ORP, ion, water depth, Simultaneous measurement of up to 9 items
- ● Measurement at a depth of 100m is possible
- ● Standard sensor module diameter is 45mm
- ● Modbus compatible
- ● Data memory function(9999data)

＊Suspended solids cannot be measured

Simplified Handheld Multi-Parameter Water Quality Meter

WQC-30

- ● Simultaneous measurement of pH, electric conductivity, turbidity, temperature, salinity（DO measurement possible as option）
- ● Suitable for water quality management of river/lake or factory/construction effluent
- ● Reliability of low range turbidity measurement improved
- ● Energy-saving design, rechargeable batteries can be used Water-proof (IP67 rated)

＊Suspended solids cannot be measured

Handheld Turbidity Meter

TB-31

- ● Immersion type of sensor which is convenient for turbidity measurement in fields
- ● Reliability of low-concentration measurement has been improved
- ● Power-saving design; rechargeable battery adaptable
- ● Waterproof design（IP67: 1m, dipable for up to 30mins）

■ Meas. range:
0.0 to 80.0 NTU（mg/L）
0 to 800 NTU（mg/L）
Switchable modes: auto/manual
＊Suspended solids cannot be measured

Portable/Handheld Meters

Handheld Residual Chlorine Meter
RC-31P

- Polarographic method enables easy and reagentless measurement of residual chlorine in tap water, pool, etc. in a low running cost
- Supported two measuring methods; throw-in style and water intake style
- Waterproof design（IP67: 1m depth, up to 30mins）
- Meas. range:
  0 to 2.00 mg/L
  0 to 45 ℃

Low Concentration DO Meter
DO-32A

- Measurable from μg/L（ppb）to 20mg/L（ppm）
- Auto-range function ensures continuous measurement
- Small and easy-operated flow cell equipped
- AC/DC 2-way power supply
- Meas. range:
  0 to 19.99 μ/199.9 μ/1.999 m/19.99 mg/L（four-range）
  0 to 45 ℃

Portable Dissolved Hydrogen Meter
DH-35A

- Fast response with membrane polarographic electrode
- Highly sensitive measurement at μg/L level
- Atmospheric calibration method and hydrogen standard gas not required
- AC/DC batteries 2-way power supply
- Equipped with flow cell and analogue output cable
- Meas. range:
  0.0 ppb to 10.00 ppm

Handheld Residual Chlorine Meter
RC-37P

- Measures diluted sodium hypochloric acid concentration without reagent
- Polishing beads cleaning method allows for stable measurement
- Waterproof design（IP67: 1m depthup to 30mins）
- Meas. range:
  20 to 300 mg/L
  5 to 40 ℃

Handy Dissolved Ozone Meter
OZ-21P

- Simple, reagentless measurement of concentration of ozone stream water produced by ozone water generator
- Waterproof design (IP67: 1m depth up to 30mins)
- Polishing beads cleaning method allows for stable measurement
- External printer connectable
- Meas. range:
  0 to 2.00 mg/L
  5 to 40 ℃

Portable Ozone Meter
OZ-20/30

- Portable, easy calibration, continuous measurement capability
- Two types available: OZ-20（for liquid phase）and OZ-30（for gas phase）
- Easy measurement, simply by placing electrode in the atmosphere
- AC/DC 2-way power source
- Optional flow cell for dissolved ozone
- Meas. range:
  1.5 to 19.99 mg/L（for liquid）
  1 to 100 g/m^3（for air）

Handheld Surface Salinity Meter
SSM-21P

- Compliant with PSPC
- Ideal for surface salinity measurements of paints used in ship coatings
- Simple operation（just attach the cell to the meter and inject pure water into the cell）
- Meas. range:
  0 to 199.9 mg/m^2, 0 to 1999 mg/m^2
  0 to 199.9 μS/cm, 0 to 1.999 mS/cm
  0 to 50 ℃

Handheld Carbon Dioxide Meter
CGP-31

- Enables measurement of CO_2 in both liquid phase and gas phase
- Wide measurement range（0.1 to 100%）
- Membrane electrode allows for reliable measurement
- Power-saving design; rechargeable battery adaptable
- Waterproof design（IP67: 1m depth up to 30mins）
- Meas. range :
  Liquid phase: 1.49 to 1490 mg/L
  Gas phase: 0.1 to 100 %

Portable Electrodeless Concentration Meter
MDM-25A
(Including a PVC Sensor)

- Concentration of acid and alkali measurable
- High concentration range measurable by electromagnetic method
- Analog output enables easy continuous measurement
- Switchable concentration and conductivity rate
- Easy maintenance requires no daily calibration
- Meas. range（conductivity rate）:
  0 to 200 S/m