

# HORIBA

Protecting water around the world.  
A new standard for measuring drinking water.



Modular Water Supply Quality Monitor

# GX-100

# GX-100<sup>\*</sup> Modular Water Supply Quality Monitor

"Towards future water quality management",  
a new drinking water measurement solution  
that opens that door.

A new water quality monitor from HORIBA, featuring easily removable sensor modules, a feature not seen before. Introducing the Modular Water Supply Quality Monitor GX-100.

The GX-100 is capable of measuring seven essential parameters that need to be controlled under drinking water regulations: turbidity, color, pH, conductivity, free residual chlorine, water pressure, and water temperature. \*GX: Global transformation (X)



A water quality monitor that reduces on-site work time and allows for continuous and stable measurements.

**IM** : Interface Module (display unit)  
Measurement values can be displayed.  
Also, possible to communicate with mobile devices and PCs.

**SM** : Sensor Module (equipped with various sensors)  
Sensors are installed inside the module.  
Calibration data and settings are stored internally.



**PPM** : Pre Processing Module  
Performing zero calibration, switching the flow path during drainage operations. Also measures water temperature, water pressure, and flow rate (reference value).

**module-1.2.3**  
The sensor module includes sensors for turbidity/color, free residual chlorine, conductivity/pH.

\*Measurement parameters can be customized partially as needed. Please inquire for more details.

# Innovation × Efficiency

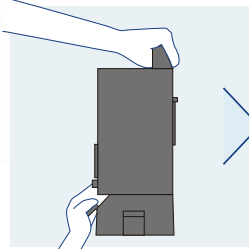
The sensor module contributes to the efficiency of on-site work!

Easily detachable in just two simple steps!  
No specialized tools required.



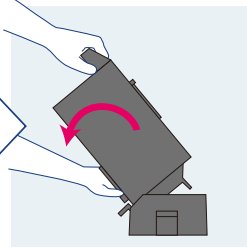
### step-01

Pull the lever towards yourself to unlock



### step-02

Tilt the sensor module towards yourself for removal



A mechanism\* has been invented to securely maintain the flow path although attachment and detachment are simple!  
You can easily replace the sensor module without the need for specialized tools. \*Patent pending

Communication is possible with your own device, via USB.  
With the dedicated app\*, calibration can be performed, even from your office!



USB communication

Windows PCs or Tablets



\*Dedicated app: HORIBA GX  
We offer apps for Windows and iOS.  
Please inquire for more details.

By preparing spare sensor modules, you can simply replace them with maintenance-ready ones on site!

\*Free residual chlorine can only be calibrated on site.



Replace with spare sensor module

## Post-purchase Application

### On-site

Bring spare sensor modules to the site.



Spares are pre-maintained.

Check the values stored in the interface module.



Use mobile device for Bluetooth communication.

On site, just replace with a spare sensor module.



No cleaning or calibration required on site!\*

\*1 Free residual chlorine requires calibration on site.

### Off-site

Take the used sensor module back.



Perform calibration using the dedicated app and calibration kit.



The dedicated app is compatible with Windows PCs etc.

Can be used as a replacement for a separate site!





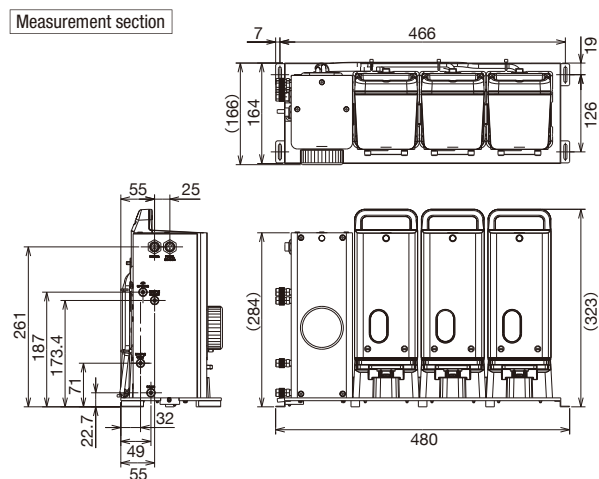
## GX-100 Specifications

Product name		Modular Water Supply Quality Monitor
Model		GX-100
Measurement items		Turbidity, color, free residual chlorine, pH, conductivity, water pressure, water temperature *Flow rate can also be selected and displayed (reference value).
Display method		i) Display of each component by LCD on the interface module ii) PC display and operation is also possible via USB connection (*) iii) Display and operation on mobile devices is also possible via Bluetooth connection (*) *A dedicated app is required. Up to eight items (including flow rate) can be displayed simultaneously.
Turbidity	Measurement method	90° scattered light method
	Measurement range	0.00 to 10.00 degree, NTU
	Repeatability	±2.5% F.S.
	Calibration method	Polystyrene latex standard solution or Formazin standard solution
Color	Measurement method	Transmitted light absorbance method
	Measurement range	0.0 to 20.0 degree, PtCo, TCU
	Repeatability	±5.0% F.S.
	Calibration method	Color standard solution
Free residual chlorine	Measurement method	Polarographic method
	Measurement range	0.00 to 5.00 mg/L
	Repeatability	±2.5% F.S.
	Calibration method	DPD colorimetric method
pH	Measurement method	Glass electrode method
	Measurement range	pH 0.00 to 14.00
	Repeatability	±0.1 pH
	Calibration method	pH standard solution (NIST standard/USA standard)
Conductivity	Measurement method	AC 2 electrode method
	Measurement range	0 to 5000 µS/cm, 0.0 to 500.0 mS/m
	Repeatability	±2.0% F.S.
	Calibration method	KCL standard solution
Water temperature	Measurement method	Thermistor method
	Measurement range	0.0 to 50.0 °C
	Repeatability	±0.5 °C
	Calibration method	Standard thermometer
Water pressure	Measurement method	Semiconductor detection method
	Measurement range	0.000 to 1.000 Mpa, 0 to 10 bar
	Repeatability	±1.0% F.S.
	Calibration method	Reference pressure gauge
Cleaning method	Turbidity, color	Continuous cleaning of cell window with wiper
	Free residual chlorine	Continuous cleaning with beads
Sample water conditions		Temperature: 0 to 40 °C, Pressure: 0.1 to 0.75 Mpa, Conductivity: 100 µS/cm or more, Amount introduced into the analysis section (flow): 80 to 100 mL/min
Communication		Interface: RS-485 communication (Modbus protocol), Communication speed: 19200 bps (2400 to 230400 bps)
Data memory		The measured values of the measurement items are stored in the SD card in the interface module. Memory interval: 1 second (about 99 days), 1 minute (about 99 days), 1 hour (about 1 year)
Power supply		DC 24 V ±10%
Power consumption		75 W
Mass		Measurement unit: approx. 10 kg Interface module: approx. 1 kg
External dimensions		Measurement section: 480 (W)×166 (D)×323 (H) Interface module: 155 (W)×119 (D)×155 (H) (unit: mm)
Ambient temperature and humidity		Ambient temperature: 0 to 40 °C, Ambient humidity: 85% or less (no condensation)
Function		Liquid leak detection function
Automatic zero calibration	Measurement items	Turbidity, color, free residual chlorine
	Calibration method	Filtered water sample
	Calibration start method	Calibration starts with an internal timer and Modbus communication
	Calibration period	1 to 9999 hours (arbitrary setting)
	Calibration time	20 minutes
Automatic drainage	Start method	Drainage starts with an internal timer and Modbus communication
	Drainage period	1 to 9999 hours (arbitrary setting)
	Drain count	1 to 9 times (arbitrary setting)
	Drain time	9 to 45 minutes

## Option

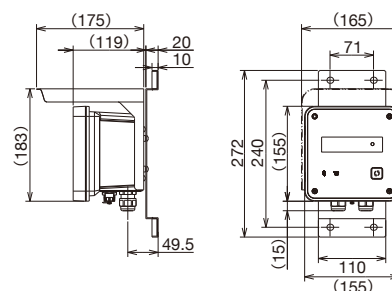
Name	Overview
Panel mount	The interface module is available in wall-mount, pole-mount, and panel-mount options. The standard set is available for selection between wall-mount or pole-mount options.
Roof	Outdoor installation of the interface module on roof. Only wall-mount and pole-mount options are available for installation.
Dummy SM	A dummy module to replace the sensor module when it is removed for situations such as maintenance. No sensor functionality.

## External dimensions of the GX-100 (unit: mm)



## Interface module

Wall-mount type (including roof)



The HORIBA Group adopts IMS (Integrated Management System) which integrates Quality Management System ISO9001, Environmental Management System ISO14001, and Occupational Health and Safety Management System ISO45001. We have now integrated Business Continuity Management System ISO22301 in order to provide our products and services in a stable manner, even in emergencies.



Please read the operation manual before using this product to assure safe and proper handling of the product.

●The specifications, appearance or other aspects of products in this catalog are subject to change without notice. ●Please contact us with enquiries concerning further details on the products in this catalog. ●The color of the actual products may differ from the color pictured in this catalog due to printing limitations. ●It is strictly forbidden to copy the content of this catalog in part or in full. ●The screen displays shown on products in this catalog have been inserted into the photographs through compositing. ●All brand names, product names and service names in this catalog are trademarks or registered trademarks of their respective companies.

HORIBA Advanced Techno, Co., Ltd.

Japan

### Head Office

2 Miyahogashi-cho, Kisshoin, Minami-ku, Kyoto, 601-8551, Japan  
Phone: 81 (75) 321-7184 Fax: 81 (75) 321-7291  
www.horiba.com/water-liquid/



Worldwide locations of HORIBA