### General Specifications (GS)

- **Model**: FX1002/FX1004/FX1006/FX1008/FX1010/FX1012
- **Section**: IM 04L21B01-03EN
- **Manual Title**: Manual No.
  - FXA120 DAQSTANDARD for FX1000 Hardware Configurator
  - IM 04L21B01-64EN

#### Options

- **Input**: 2ch, 4ch, 6ch, 8ch
  - **FX1002**: 2ch, Shortest measurement interval: 125 ms
  - **FX1004**: 4ch, Shortest measurement interval: 125 ms
  - **FX1006**: 6ch, Shortest measurement interval: 1 s
  - **FX1008**: 8ch, Shortest measurement interval: 1 s

#### Outdoor Environment

- **Protection grade**: IP65
- **Working temperature**: -20 °C to 55 °C
- **Humidity**: 95% non-condensing
- **Vibration**: 0.1 g, 30 to 1000 Hz

#### Protection and Functional Assurance

- **Category**: IEC 61010-1, 3rd ed.
  - **Safety class**: I (without protection system) or II (with protection system)
  - **Protection grade**: IP65

#### Operational Environment

- **Temperature**: 0 °C to 40 °C
- **Humidity**: 85% non-condensing

### 1. Safety Precautions

- **Warning**: Always consult your supplier in case your instrument has option /S# (where '#' is a specified number).

#### 1.1. Safety Precautions

- **Protective Ground Terminal**: To prevent overheating, install the FX in a well-ventilated location. For the panel mounting, take special note that if you mount the FX in a location that has minimal mechanical vibrations.

- **CAUTION**: Do not bring magnets or instruments that produce electromagnetic fields close to the FX.

- **CAUTION**: Never touch the protective grounding terminal. You may cause a short circuit or damage the instrument or property and indicate pre-failure.

- **CAUTION**: If you bring magnets or instruments that produce electromagnetic fields close to the panel, turn on or off the FX.

- **CAUTION**: Do not operate the instrument in the presence of flammable gases and equipment for the product and control system or designing or installing separate protection and/or safety circuits for fool-proof design and fail-safe design of the product.

### 2. Installation

- **Exemption from Responsibility**: YOKOGAWA assumes no liability for any part of loss or damage, direct or indirect, caused by the user or any unpredictable defect of the product.

#### 2.1. Installation Location

- **Exemption from Responsibility**: This is a Class A product. Operation of this instrument in a residential area may cause radio interference, in which case the user is required to take appropriate measures to correct the interference.

#### 2.2. Exemption from Responsibility

- **Exemption from Responsibility**: This instrument conforms to IEC safety class I (protected with terminal for protective ground) (IP65) when mounted on a panel with a protective ground wire (C2, C3, C4, or /C7 option) or the USB interface (/USB1 option.)

#### 2.3. Exemption from Responsibility

- **Exemption from Responsibility**: The protection grade of the FX is IP65, so you must be aware that some areas inside the instrument have high voltages. The FX must be used in a location before making External Connections. Connect the protective ground before connecting to the instrument.

#### 2.4. Exemption from Responsibility

- **Exemption from Responsibility**: The FX is designed to be installed in an instrumentation panel. The FX is designed to be installed in an instrumentation panel in a level location so that it is not slanted to the left or the right (how much it is slanted to the left or right). Do not install the FX in the following places.

#### 2.5. Exemption from Responsibility

- **Exemption from Responsibility**: Do not install the FX in the presence of electromagnetic fields.

#### 2.6. Exemption from Responsibility

- **Exemption from Responsibility**: Do not install the FX in any environment whose temperature or humidity is too low or too high.

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To prevent electric shock while wiring, make sure that the power supply is turned off.

To avoid applying tension directly to the terminals, fix all cables connected to the FX may damage the cables or the FX terminals.

To prevent electric shock, attach the terminal cover after wiring and make sure not to touch the terminals.

Precautions to Be Taken While Wiring
Take the following precautions when wiring the input signal cables.

When using a screw terminal, we recommend that you use a crimp-on lug with an insulation sleeve (designed for mm screws).

Take measures to prevent noise from entering the measurement circuit.

- Move the measurement wiring away from the power cable (power supply) and ground circuit.
- Ideally, the object being measured should not generate noise. However, if this is unavoidable, isolate the measurement circuit from the object. Also, ground the object being measured.

Shield wires should be used to minimize the noise caused by electromagnetic induction.

- Connect the shield to the ground terminal of the FX as necessary (make sure you are not grounding at two points).
- To minimize noise caused by electromagnetic induction, twist the measurement circuit wires at short, equal intervals.
- Do not short the transmitter power supply output terminal or apply external voltage to it. Doing so may damage the instrument.

When using the transmitter power supply output terminal, do not use current that is equal to or greater than the maximum output current (5 mA DC). Doing so may damage the instrument.

Precautions for DCA input
For DCA input, example: for 4 to 20 mA input, use a shunt resistor of 208 Ω ± 0.1%.

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Connecting to the Power Measurement Terminal (PWR1, PWR5)
Max. rated voltage: 300V, Max. rated current: 1A (PWR1) or 5A (PWR5),
Measurement category: CAT II

Single-phase two-wire system
Power supply

Single-phase three-wire system
For a single-phase three-wire system, connect wires to the terminal block as follows.

Three-phase three-wire system
Power supply

Power supply

Note
Do not disconnect the supply voltage. The measurements may have adverse effects on
the measurement accuracy.

4. Protection of Environment

Control of Pollution Caused by the Product

This is an explanation for the product based on “Control of pollution caused by
Electronic Information Products” in the People’s Republic of China.

Proper Disposal of This Product

This is an explanation of how to dispose of this product based on
Waste Electrical and Electronic Equipment (WEEE). Directive. This directive is only valid in the EU.

How to Dispose of the Batteries

This is an explanation about the new EU Battery Directive (DIRECTIVE 2006/96/EC).

YOKOGAWA
Hogawa Imo Corporation

Installing the DAQSTANDARD

To install the DAQSTANDARD, an appropriate license number (117-00000-5819)
needs to be entered.

2. Double-click the downloaded file to extract the files.
3. Double-click Install.exe.
4. The installation program starts automatically. Follow the instructions on the
screen to proceed with the installation.

The table below indicates what languages the user’s manuals and software are installed in.

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<th>Language</th>
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<th>Software</th>
<th>Hardware Configuration</th>
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</table>

Note

- Before installing the software, check that your PC is not infected by a virus.
- Before starting installation, make sure that all the resident programs are exited.
- To re-install the software, first uninstall it, then re-install it.

The DAQSTANDARD user’s manual is installed with DAQSTANDARD. To view it,
on the Help menu, click User’s Manual. Or, from the Start menu, select [Programs] -
[DAQSTANDARD]. You can view the user’s manual on Adobe Reader versions 7.0 and later.

System Requirements

OS

- Windows 7 Professional, SP1 32-bit and 64-bit editions
- Windows 8.1 32-bit and 64-bit editions
- Windows 10 Home, 32-64 bit editions

CPU and Memory

- Pentium 4, 3 GHz or faster Intel x86 or x86 processor; 2 GB or
more of memory

Hard Disk

- A free space of 100 MB or more (more space may be required,
leaving the amount of data stored).

Interface

- Port: Ethernet supported

Communication

- Through an Ethernet connection, you must have an Ethernet card
configured for IP address assignment, and a TCP/IP protocol
driver is also required.

Printer

- A printer supported by Windows is required.

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The FX has three modes.

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<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
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<td>Operation mode</td>
<td>A mode for performing measurements.</td>
</tr>
<tr>
<td>Setting mode</td>
<td>A mode for configuring settings, such as the input range and the measurement method. Most settings can be changed when memory sampling is in progress.</td>
</tr>
<tr>
<td>Basic setting mode</td>
<td>A mode for configuring basic settings, such as the scan interval and the measured data save method. You cannot switch to this mode when memory sampling is in progress.</td>
</tr>
</tbody>
</table>

Basic setting mode

- **View**
  - Environment
  - Input, Alarm
  - Security, Media save

- **Communication**
  - Service port
  - Host settings
  - DNS settings
  - Keepalive, Timeout

- **Math**
  - Report
  - Input

- **Report**
  - Basic settings
  - Report settings

- **Communication (Ethernet)**
  - IP-address
  - Host settings
  - DNS settings
  - Keepalive, Timeout

- **E-Mail**
  - Recipients
  - POP3 settings
  - Alarm settings

- **Status relay**

- **Display**
  - Trend/Save interval
  - Trend
  - Bar graph
  - LCD

- **Network**
  - Switch, Relay
  - Hysteresis

- **Keylock**
  - Key action, Media

- **Key action, Media**
  - Admin settings
  - User settings
  - Authority of user

- **A/D, Memory**
  - Burnout, RJC

- **Load settings**
  - File/Initialize
  - Initialize
  - Media eject

- **File**
  - CF/SD
  - USB

- **Alarm**

- **Menu**
  - Basic settings
  - Command settings
  - Modbus server settings

- **Modbus client**
  - SNTP client
  - FTP client

- **FTP connection**
  - FTP transfer file

- **Modbus master**

- **Recipients**

- **Basic settings**

- **End**

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**Revisions**

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