OM-DAQXL is an 8 or 16 channel analog input portable data logger with a 7 inch resistive touch color display. All inputs are programmable and can be configured for millivolts, volts, milliamps, thermocouple, RTD, thermistor, strain gauge, or frequency. All the menus, selections, and configurations can be done from the display touch screen. The unit also has 4 digital inputs, 4 digital outputs, 4 alarm outputs, one USB host port and one USB device port. The unit also has 3 LEDs for different indications (Power, Alarm and Logging).

The OM-DAQXL comes complete with protective rubber boot, rechargeable lithium ion battery, 32 GB SD card, one plastic stylus, 1 GB USB thumb drive, 1.8 m (6') USB cable, 1.8 m (6') digital I/O cable, alarm/excitation terminal block, universal AC adaptor, screwdriver, quick start guide, set of 5 PTFE insulated Type K thermocouples, set of 5 ferrites to install on the thermocouple inputs (for noise reduction) and crimp-on ground lug. The unit can be wall mounted using the provided keyhole mount or operated on a bench using the tilt stand. The USB Wi-Fi Dongle will come in a separate package for ‘-EW’ Models.
Home Screen
The home screen is the main screen of the data logger's user interface. It is divided into 3 distinct sections as shown below.

**Status/Information Display:**
This status bar provides information such as Battery Charge percentage, System Clock (displays current Time & Date), Lock/Unlock data logger, status of the 4 Alarm Outputs, and Logging Mode indication.

**Data Display Area:**
This is the area where different inputs (up to 4 Channels) are displayed vs. time. The data is displayed in 4 different ways: Waveform, Waveform & Table, Table only, and Digital. In the Digital view, each channel name and number are displayed along with the value.

**Navigation Toolbar:**
This toolbar provides access to all the functions and menus of the data logger. You can extend or retract the toolbar by pressing the Tool button. The following flow chart shows all the functionalities of the buttons of the toolbar.
**Standalone Operation**

The OM-DAQXL’s touch screen user interface (UI) makes configuring the data logger for operation straightforward and simple. Recorded data files can easily be reviewed and analyzed on the OM-DAQXL. For data analysis on a computer, simply transfer the data file from the SD card or USB thumb drive to the PC and open the selected data file into Excel® or other data analysis software.

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**Toolbar Flowchart**

- **Log Data**: Depending on current state, starts logging or arms data logger.
- **Annotate**: Pauses display and allows annotation on the display using the stylus.
- **Screenshot**: Immediately takes a screenshot.
- **Views**: Select data view or Toggle slide show.
- **Display Channel**: Select channel group or Assign channels to groups.
- **Add Channel**: Shows a tabular list of all currently configured channels.
- **Channel List**: Allows access to all stored data files for reviewing or copying.
- **Stored Files**: Select the type of settings you wish to change.
- **Settings**: Provides access to context appropriate help screens.
- **Help**: Access to assignment of channels to 4 groups.
- **Channel Groups**: Configure a new channels input type setting.
- **Data Ranges**: Configure a new channels range settings.
- **Input Type**: Trigger Settings
- **Alarm Settings**: Data Session Settings
- **Device Settings**:
Back view, OM-DAQXL

ALARM, EXTERNAL TRIGGER & 24V EXCITATION TERMINAL

DIGITAL I/O

12V DC INPUT

network port only available for -EW models

Ethernet Port

USB HOST PORT

USB DEVICE PORT

power switch

Shell ground terminal

LCD display

status LEDs

home button

KICK STAND

FCC LABEL

PRODUCT INFO LABEL

BATTERY DOOR

ANALOG INPUT TERMINALS

SD CARD SLOT

Top view, OM-DAQXL

Bottom view, OM-DAQXL

Front view, OM-DAQXL

Back view, OM-DAQXL

Left side view, OM-DAQXL

Right side view, OM-DAQXL

ALARM, EXTERNAL TRIGGER & 24V EXCITATION TERMINAL

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Right side view, OM-DAQXL
Specifications

Screen: 7 inch, TFT, resistive touch comes with plastic stylus
Rubber Boot: Black

Analog Input Type: Thermocouple, thermistor, RTD, strain gauge, DC voltage, DC current

Digital Input Type: Pulse/Frequency


<table>
<thead>
<tr>
<th>T/C Type</th>
<th>Range (°C)</th>
<th>Range (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>-200 to 1100°C</td>
<td>-328 to 2012°F</td>
</tr>
<tr>
<td>K</td>
<td>-200 to 1370°C</td>
<td>-328 to 2300°F</td>
</tr>
<tr>
<td>T</td>
<td>-200 to 400°C</td>
<td>-328 to 752°F</td>
</tr>
<tr>
<td>E</td>
<td>-200 to 1000°C</td>
<td>-328 to 1832°F</td>
</tr>
<tr>
<td>R</td>
<td>0 to 1760°C</td>
<td>32 to 3200°F</td>
</tr>
<tr>
<td>S</td>
<td>0 to 1760°C</td>
<td>32 to 3200°F</td>
</tr>
<tr>
<td>B</td>
<td>500 to 1820°C</td>
<td>932 to 3308°F</td>
</tr>
<tr>
<td>C</td>
<td>0 to 2315°C</td>
<td>32 to 4200°F</td>
</tr>
<tr>
<td>N</td>
<td>-100 to 1300°C</td>
<td>-148 to 2372°F</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T/C Type</th>
<th>Measurement Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>±(0.15% of reading + 1.1°C)</td>
</tr>
<tr>
<td>K</td>
<td>±(0.15% of reading + 1.7°C)</td>
</tr>
<tr>
<td>T</td>
<td>±(0.15% of reading + 2.0°C)</td>
</tr>
</tbody>
</table>

Frequency/Pulse Input: 0 to 250 KHz
Frequency Accuracy: ±2 Hz
Strain Gauge Type: 100Ω full bridge, 350 Ω full bridge
Strain Gauge Excitation: 5V, 10V
Sampling Rate: 125 s/sec (Max) to 1 s/hour (Min)

<table>
<thead>
<tr>
<th>Voltage Range</th>
<th>Measurement Range</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 mV</td>
<td>-50 to 50 mV</td>
<td>±0.1% of FS</td>
</tr>
<tr>
<td>100 mV</td>
<td>-100 to 100 mV</td>
<td>±0.1% of FS</td>
</tr>
<tr>
<td>1V</td>
<td>-1.00 to 1.00V</td>
<td>±0.1% of FS</td>
</tr>
<tr>
<td>5V</td>
<td>-5.00 to 5.00V</td>
<td>±0.1% of FS</td>
</tr>
<tr>
<td>10V</td>
<td>-10.00 to 10.00V</td>
<td>±0.1% of FS</td>
</tr>
<tr>
<td>20V</td>
<td>-20.00 to 20.00V</td>
<td>±0.1% of FS</td>
</tr>
<tr>
<td>50V</td>
<td>-50.00 to 50.00V</td>
<td>±0.1% of FS</td>
</tr>
</tbody>
</table>

DC Current Input

<table>
<thead>
<tr>
<th>Current Range</th>
<th>Measurement Range</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 mA</td>
<td>-20 to 20 mA</td>
<td>±0.1% of FS</td>
</tr>
</tbody>
</table>

Alarm Output: 4, Open collector, 30V @ 500 mA
Alarms per Channel: Two
Alarm Types: High, low, windows in, windows out, open sensor
Alarm Latching: Settable in alarm menu
On Alarm Event: Map to 4 alarm outputs, take screen shot, sound buzzer
Logging Conditions: On command or based on trigger conditions
Start and Stop Trigger Conditions: Timer, date and time, weekday and time, alarm output, external trigger
Memory:
  - Internal: 1 GB
  - SD Card: 32 GB
  - USB Drive: 32 GB
USB Ports: One host and one device
Ethernet*: 10/100 Base-T, TCP/IP
USB Wi-Fi Dongle*: 802.11 b/g/n, USB 2.0 interface, up to 150 Mbps, WEP and WPA/WPA2 encryption schemes
Only available on -EW models.
Battery: Rechargeable lithium-ion; 7.2V @ 4.8 Ah
Battery Life: 4 to 8 hours based on display setting
DC Adaptor: 12 Vdc @ 5A
Operating Environment: 0 to 50°C (32 to 122°F), 0 to 95% RH non-condensing
General Dimensions: 28.6 L x 15.24 H x 6.35 cm D (9 x 6 x 2.5")
Note: Measurement accuracy is at room temperature after 30 minutes of warm-up.
<table>
<thead>
<tr>
<th>Country Code</th>
<th>AC Power Cord Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>North America</td>
</tr>
<tr>
<td>UK</td>
<td>UK</td>
</tr>
<tr>
<td>EU</td>
<td>Europe</td>
</tr>
<tr>
<td>CN</td>
<td>China</td>
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<tr>
<td>JP</td>
<td>Japan</td>
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<tr>
<td>KR</td>
<td>Korea</td>
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<tr>
<td>SEA</td>
<td>Southeast Asia</td>
</tr>
<tr>
<td>SAA</td>
<td>Australia</td>
</tr>
<tr>
<td>SN</td>
<td>Singapore</td>
</tr>
<tr>
<td>BR</td>
<td>Brazil</td>
</tr>
<tr>
<td>MX</td>
<td>Mexico</td>
</tr>
</tbody>
</table>

**To Order**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM-DAQXL-1-*</td>
<td>8-channel touch screen data logger with USB host/device</td>
</tr>
<tr>
<td>OM-DAQXL-2-*</td>
<td>16-channel touch screen data logger with USB host/device</td>
</tr>
<tr>
<td>OM-DAQXL-1-EW-*</td>
<td>8-channel data logger with USB host/device, Ethernet and Wi-Fi</td>
</tr>
<tr>
<td>OM-DAQXL-2-EW-*</td>
<td>16-channel data logger with USB host/device, Ethernet and Wi-Fi</td>
</tr>
</tbody>
</table>

* Insert country code.

Comes complete with hard carrying case, protective rubber boot, 32 GB SD card, 1 GB USB thumb drive, 1.8 m (6') USB cable, 1.8 m (6') digital I/O cable, alarm/excitation terminal block, universal AC adaptor, screwdriver, quick start guide, set of 5 PTFE insulated Type K thermocouples and crimp-on ground lug. USB Wi-Fi dongle will come in a separate package for -EW models.

**Ordering Example**: OM-DAQXL-1-NA, 8-channel touch screen data logger with USB host/device.

**Accessories**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OM-DAQXL-RB</td>
<td>Spare rubber boot</td>
</tr>
<tr>
<td>SD32GB</td>
<td>Spare 32 GB SD card</td>
</tr>
<tr>
<td>OM-DAQXL-USB</td>
<td>Spare USB cable, 1.8 m (6')</td>
</tr>
<tr>
<td>OM-DAQXL-CABLE6</td>
<td>Spare digital I/O cable, 1.8 m (6')</td>
</tr>
<tr>
<td>OM-DAQXL-TB8</td>
<td>Spare alarm/excitation terminal block</td>
</tr>
<tr>
<td>5TC-TT-K-20-36</td>
<td>Spare set of 5 Type K thermocouples with stripped leads</td>
</tr>
<tr>
<td>PT-USB-1</td>
<td>Spare 1 GB thumb drive</td>
</tr>
<tr>
<td>OM-DAQXL-RF</td>
<td>Spare ferrite for thermocouple input</td>
</tr>
<tr>
<td>OM-DAQXL-ADAPTOR-*</td>
<td>Spare 12 Vdc, 5A power adaptor</td>
</tr>
<tr>
<td>OM-DAQXL-BATTERY</td>
<td>Spare rechargeable battery pack</td>
</tr>
<tr>
<td>OM-DAQXL-STYLUS</td>
<td>Spare stylus</td>
</tr>
<tr>
<td>USB-WIFI</td>
<td>USB Wi-Fi Dongle certified for US, EU and Canada</td>
</tr>
<tr>
<td>USB-WIFI-AP</td>
<td>USB Wi-Fi Dongle certified for US, Japan and China</td>
</tr>
</tbody>
</table>

* Insert country code

-EW models are compatible with USB Wi-Fi dongles that support Windows Embedded Compact 7.0.