

# Optical Character Recognition Sensor FQ2-CH

CSM\_FQ2-CH\_DS\_E\_6\_1

## New OCR Method to Quickly Read Characters without Dictionary Registration



- High reading capability even for damaged or inclined characters.
- Handles matrix dot printers, stamping, and other main types of printing.

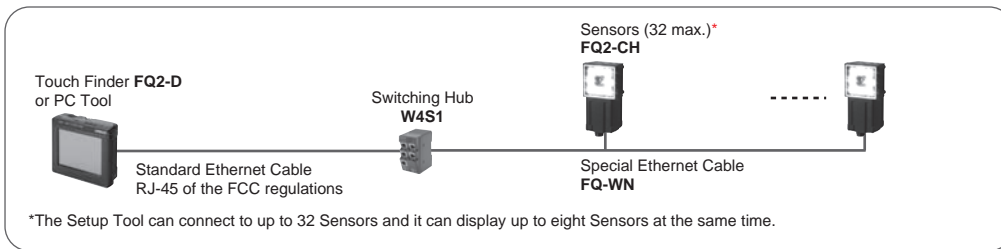


Be sure to read "Safety Precautions" on page 7.

For the most recent information on models that have been certified for safety standards, refer to your OMRON website.

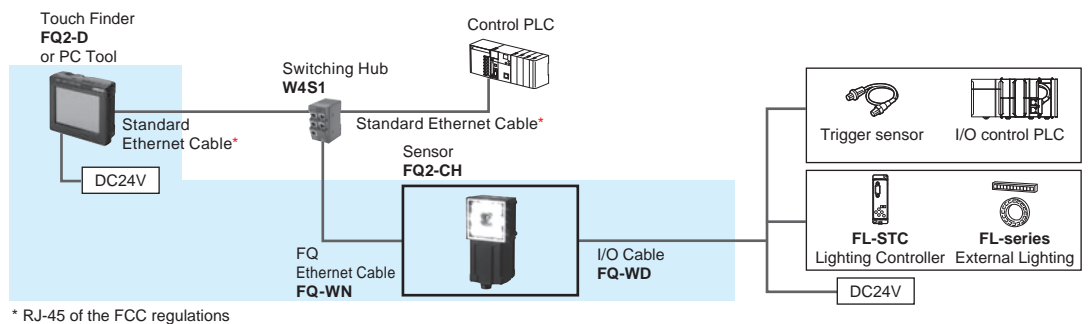
## System Configuration

Up to 32 Sensors can be set up and monitored from a single Touch Finder or PC Tool.  
However, I/O type and wiring method vary depending on the Sensor, so select the necessary devices.



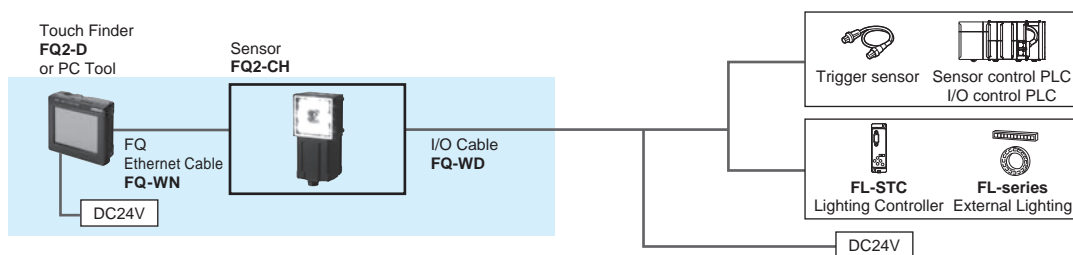
**Note:** If you register as a member after purchasing a Sensor, you can download free setup software that runs on a PC and can be used in place of Touch Finder. Refer to the member registration sheet for details.

### Ethernet (EtherNet/IP, No-protocol, or PLC Link) Connection

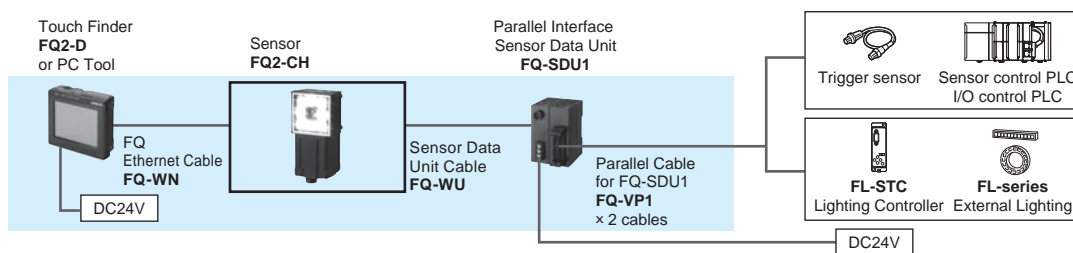


**Parallel Interface Connection**

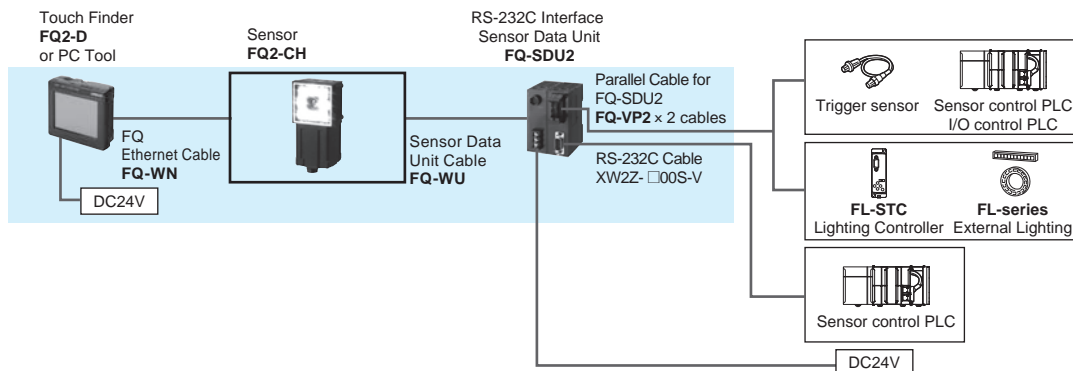
■ Connection with Standard Parallel Interface of the Sensor



■ Connection through a Parallel Interface Sensor Data Unit



**RS-232C Serial Connection**







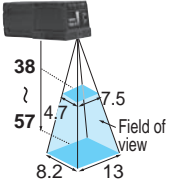
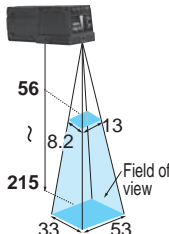
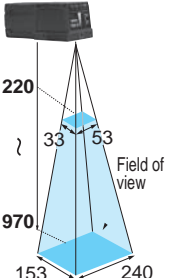
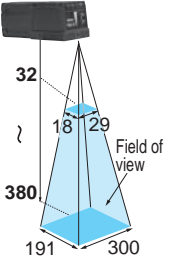
## Ordering Information

### Sensor

| Field of view              | Number of pixels | Color          |                | Field of view/<br>Installation distance |
|----------------------------|------------------|----------------|----------------|-----------------------------------------|
|                            |                  | NPN            | PNP            |                                         |
| Narrow View                | 350,000 pixels   | FQ2-CH10010F-M | FQ2-CH15010F-M | Refer to figure 1                       |
| Standard View              |                  | FQ2-CH10050F-M | FQ2-CH15050F-M | Refer to figure 2                       |
| Wide View (Long-distance)  |                  | FQ2-CH10100F-M | FQ2-CH15100F-M | Refer to figure 3                       |
| Wide View (Short-distance) |                  | FQ2-CH10100N-M | FQ2-CH15100N-M | Refer to figure 4                       |

### Field of view/Installation distance

(Unit: mm)


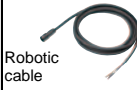
| Field of view       | Narrow View                                                                                       | Standard View                                                                                     | Wide View (Long-distance)                                                                           | Wide View (Short-distance)                                                                           |
|---------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| Appearance          |                  |                  |                   |                   |
| 350,000 pixels Type | <p>Figure 1</p>  | <p>Figure 2</p>  | <p>Figure 3</p>  | <p>Figure 4</p>  |

### Touch Finder



| Type            | Appearance                                                                          | Model               |
|-----------------|-------------------------------------------------------------------------------------|---------------------|
| DC power supply |  | FQ2-D30             |
| AC/DC/battery   |                                                                                     | FQ2-D31 (See note.) |

Note: AC Adapter and Battery are sold separately.


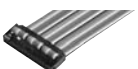


### Cables

| Type                                                                 | Appearance                                                                          | Cable length | Model    |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------|----------|
| FQ Ethernet Cables<br>(connect Sensor to Touch Finder, Sensor to PC) |  | 2m           | FQ-WN002 |
|                                                                      |                                                                                     | 5m           | FQ-WN005 |
|                                                                      |                                                                                     | 10m          | FQ-WN010 |
|                                                                      |                                                                                     | 20m          | FQ-WN020 |
| I/O Cables                                                           |  | 2m           | FQ-WD002 |
|                                                                      |                                                                                     | 5m           | FQ-WD005 |
|                                                                      |                                                                                     | 10m          | FQ-WD010 |
|                                                                      |                                                                                     | 20m          | FQ-WD020 |

### Sensor Data Unit










| Type               | Appearance                                                                            | Output type | Model    |
|--------------------|---------------------------------------------------------------------------------------|-------------|----------|
| Parallel Interface |  | NPN         | FQ-SDU10 |
|                    |                                                                                       | PNP         | FQ-SDU15 |
| RS-232C Interface  |  | NPN         | FQ-SDU20 |
|                    |                                                                                       | PNP         | FQ-SDU25 |

### Cables for Sensor Data Unit



| Type                        | Appearance                                                                            | Cable length | Model       |
|-----------------------------|---------------------------------------------------------------------------------------|--------------|-------------|
| Sensor Data Unit Cable      |  | 2m           | FQ-WU002    |
|                             |                                                                                       | 5m           | FQ-WU005    |
|                             |                                                                                       | 10m          | FQ-WU010    |
|                             |                                                                                       | 20m          | FQ-WU020    |
| Parallel Cable for FQ-SDU1* |  | 2m           | FQ-VP1002   |
|                             |                                                                                       | 5m           | FQ-VP1005   |
|                             |                                                                                       | 10m          | FQ-VP1010   |
| Parallel Cable for FQ-SDU2* |  | 2m           | FQ-VP2002   |
|                             |                                                                                       | 5m           | FQ-VP2005   |
|                             |                                                                                       | 10m          | FQ-VP2010   |
| RS-232C Cable for FQ-SDU2   |  | 2m           | XW2Z-200S-V |
|                             |                                                                                       | 5m           | XW2Z-500S-V |

\*When using FQ-SDU□□, 2 Cables are required for all I/O signals.

## Accessories

| Application      | Appearance                                                                        | Name                                           | Model     |
|------------------|-----------------------------------------------------------------------------------|------------------------------------------------|-----------|
| For Sensor       |  | Mounting Bracket *1                            | FQ-XL     |
|                  |  | Mounting Bracket for high-precision sensing *2 | FQ-XL2    |
|                  |  | Polarizing Filter Attachment *1                | FQ-XF1    |
| For Touch Finder |  | Panel Mounting Adapter                         | FQ-XPM    |
|                  |  | AC Adapter (for AC/DC/battery model) *3        | FQ-A□     |
|                  |  | Battery (for AC/DC/battery model)              | FQ-BAT1   |
|                  |  | Touch Pen *4                                   | FQ-XT     |
|                  |  | Strap                                          | FQ-XH     |
|                  |  | SD Card (2 GB)                                 | HMC-SD291 |

## Industrial Switching Hubs (Recommended)

| Appearance                                                                        | Number of ports | Failure detection | Current consumption | Model    |
|-----------------------------------------------------------------------------------|-----------------|-------------------|---------------------|----------|
|  | 3               | None              | 0.08 A              | W4S1-03B |
|  | 5               | None              | 0.12 A              | W4S1-05B |
|                                                                                   |                 | Supported         |                     | W4S1-05C |

\*1 Included with Integrated Sensor.

\*2 A mounting Bracket with improved resistance to vibrations and other external stresses that cause displacement of the optical axis and field of view.

\*3 AC Adapters for Touch Finder with DC / AC / Battery Power Supply. Select the model for the country in which the Touch Finder will be used.

| Plug Type | Voltage    | Certified standards | Model  |
|-----------|------------|---------------------|--------|
| A         | 125 V max. | PSE                 | FQ-AC1 |
|           |            | UL/CSA              | FQ-AC2 |
|           | 250 V max. | CCC mark            | FQ-AC3 |
| C         | 250 V max. | ---                 | FQ-AC4 |
| BF        | 250 V max. | ---                 | FQ-AC5 |
| O         | 250 V max. | ---                 | FQ-AC6 |

\*4 Enclosed with Touch Finder.

# Ratings and Performance

## Sensor

| Item                             |                                     | Optical Character Recognition Sensor                                                                                                                                                                                                                                                                                                     |
|----------------------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                            | NPN                                 | FQ2-CH10□□□□-M                                                                                                                                                                                                                                                                                                                           |
|                                  | PNP                                 | FQ2-CH15□□□□-M                                                                                                                                                                                                                                                                                                                           |
| Field of view                    |                                     | Refer to Ordering Information on p.19. (Tolerance (field of view): ±10% max.)                                                                                                                                                                                                                                                            |
| Installation distance            |                                     |                                                                                                                                                                                                                                                                                                                                          |
| Main functions                   | Inspection items                    | OCR<br>· Alphabet A to Z<br>· Number 0 to 9<br>· Symbol ' - . : /<br>Model dictionary                                                                                                                                                                                                                                                    |
|                                  | Image filter                        | Weak smoothing, Strong smoothing, Dilate, Erosion, Median, Extract edges, Extract horizontal edges, Extract vertical edges, Enhance edges, Background suppression                                                                                                                                                                        |
|                                  | Verification function               | Supported                                                                                                                                                                                                                                                                                                                                |
|                                  | Retry function                      | Normal retry, Exposure retry, Scene retry, Trigger retry                                                                                                                                                                                                                                                                                 |
|                                  | Number of simultaneous measurements | 32                                                                                                                                                                                                                                                                                                                                       |
|                                  | Position compensation               | Supported (360° Model position compensation, Edge position compensation)                                                                                                                                                                                                                                                                 |
|                                  | Number of registered scenes         | 32                                                                                                                                                                                                                                                                                                                                       |
| Image input                      | Image processing method             | Monochrome                                                                                                                                                                                                                                                                                                                               |
|                                  | Image filter                        | High dynamic range (HDR) and polarizing filter (attachment)                                                                                                                                                                                                                                                                              |
|                                  | Image elements                      | 1/3-inch Monochrome CMOS                                                                                                                                                                                                                                                                                                                 |
|                                  | Shutter                             | Built-in lighting ON: 1/250 to 1/50,000 s<br>Built-in lighting OFF: 1/1 to 1/50,000 s                                                                                                                                                                                                                                                    |
|                                  | Processing resolution               | 752 × 480                                                                                                                                                                                                                                                                                                                                |
|                                  | Partial input function              | Supported horizontally only.                                                                                                                                                                                                                                                                                                             |
| Lighting                         | Lighting method                     | Pulse                                                                                                                                                                                                                                                                                                                                    |
|                                  | Lighting color                      | White                                                                                                                                                                                                                                                                                                                                    |
| Data logging                     | Measurement data                    | In Sensor: 1,000 items (If a Touch Finder is used, results can be saved up to the capacity of an SD card.)                                                                                                                                                                                                                               |
|                                  | Images                              | In Sensor: 20 images (If a Touch Finder is used, images can be saved up to the capacity of an SD card.)                                                                                                                                                                                                                                  |
| Auxiliary function               |                                     | Math (arithmetic, calculation functions, trigonometric functions, and logic functions)                                                                                                                                                                                                                                                   |
| Measurement trigger              |                                     | External trigger (single or continuous)<br>Communications trigger (Ethernet TCP no-protocol, Ethernet UDP no-protocol, Ethernet FINS/TCP no-protocol, EtherNet/IP, PLC Link, or PROFINET)                                                                                                                                                |
| I/O specifications               | Input signals                       | 7 signals<br>• Single measurement input (TRIG)<br>• Control command input (IN0 to IN5)                                                                                                                                                                                                                                                   |
|                                  | Output signals                      | 3 signals<br>• Control output (BUSY)<br>• Overall judgement output (OR)<br>• Error output (ERROR)<br><b>Note:</b> The assignments of the three output signals (OUT0 to OUT2) can be changed to the individual judgements of the inspection items, the image input ready output (READY), or the external lighting timing output (STGOUT). |
|                                  | Ethernet specifications             | 100Base-TX/10Base-T                                                                                                                                                                                                                                                                                                                      |
|                                  | Communications                      | Ethernet TCP no-protocol, Ethernet UDP no-protocol, Ethernet FINS/TCP no-protocol, EtherNet/IP, PLC Link, or PROFINET                                                                                                                                                                                                                    |
|                                  | I/O expansion                       | Possible by connecting FQ-SDU1_ Sensor Data Unit. 11 inputs and 24 outputs                                                                                                                                                                                                                                                               |
|                                  | RS-232C                             | Possible by connecting FQ-SDU2_ Sensor Data Unit. 8 inputs and 7 outputs                                                                                                                                                                                                                                                                 |
| Ratings                          | Power supply voltage                | 21.6 to 26.4 VDC (including ripple)                                                                                                                                                                                                                                                                                                      |
|                                  | Current consumption                 | 2.4 A max.                                                                                                                                                                                                                                                                                                                               |
| Environmental immunity           | Ambient temperature range           | Operating: 0 to 40°C, Storage: -25 to 65°C (with no icing or condensation)                                                                                                                                                                                                                                                               |
|                                  | Ambient humidity range              | Operating and storage: 35% to 85% (with no condensation)                                                                                                                                                                                                                                                                                 |
|                                  | Ambient atmosphere                  | No corrosive gas                                                                                                                                                                                                                                                                                                                         |
|                                  | Vibration resistance (destruction)  | 10 to 150 Hz, single amplitude: 0.35 mm, X/Y/Z directions<br>8 min each, 10 times                                                                                                                                                                                                                                                        |
|                                  | Shock resistance (destruction)      | 150 m/s <sup>2</sup> 3 times each in 6 direction (up, down, right, left, forward, and backward)                                                                                                                                                                                                                                          |
|                                  | Degree of protection                | IEC 60529 IP67 (Except when Polarizing Filter Attachment is mounted or connector cap is removed.)                                                                                                                                                                                                                                        |
| Materials                        |                                     | Sensor: PBT, PC, SUS, Mounting Bracket: PBT, Polarizing Filter Attachment: PBT, PC<br>Ethernet connector: Oil-resistance vinyl compound, I/O connector: Lead-free heat-resistant PVC                                                                                                                                                     |
| Weight                           |                                     | Narrow View/Standard View: Approx. 160 g Wide View: Approx. 150 g                                                                                                                                                                                                                                                                        |
| Accessories included with sensor |                                     | Mounting Bracket (FQ-XL) (1), Polarizing Filter Attachment (FQ-XF1) (1), Instruction Manual, Member Registration Sheet                                                                                                                                                                                                                   |
| LED class                        |                                     | Risk Group 2 (IEC62471)                                                                                                                                                                                                                                                                                                                  |
| Applicable standards             |                                     | EN 61326-1:2006 and IEC61010-1                                                                                                                                                                                                                                                                                                           |

## Touch Finder

| Item                                   | Model                              | Type                                                                       | Model with DC power supply                                                                                             | Model with AC/DC/battery power supply                                                                                                                                                                            |
|----------------------------------------|------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                        |                                    |                                                                            | FQ2-D30                                                                                                                | FQ2-D31                                                                                                                                                                                                          |
| Number of connectable Sensor           |                                    |                                                                            | Number of sensors that can be recognized (switched): 32 max. number of sensor that can be displayed on monitor: 8 max. |                                                                                                                                                                                                                  |
| Main functions                         | Types of measurement displays      |                                                                            | Last result display, Last NG display, trend monitor, histograms                                                        |                                                                                                                                                                                                                  |
|                                        | Types of display images            |                                                                            | Through, frozen, zoom-in, and zoom-out images                                                                          |                                                                                                                                                                                                                  |
|                                        | Data logging                       |                                                                            | Measurement results, measured images                                                                                   |                                                                                                                                                                                                                  |
|                                        | Menu language                      |                                                                            | English, German, French, Italian, Spanish, Traditional Chinese, Simplified Chinese, Korean, Japanese                   |                                                                                                                                                                                                                  |
| Indications                            | LCD                                | Display device                                                             | 3.5-inch TFT color LCD                                                                                                 |                                                                                                                                                                                                                  |
|                                        |                                    | Pixels                                                                     | 320 × 240                                                                                                              |                                                                                                                                                                                                                  |
|                                        |                                    | Display colors                                                             | 16.7 million                                                                                                           |                                                                                                                                                                                                                  |
|                                        | Backlight                          | Life expectancy *1                                                         | 50,000 hours at 25°C                                                                                                   |                                                                                                                                                                                                                  |
|                                        |                                    | Brightness adjustment                                                      | Provided                                                                                                               |                                                                                                                                                                                                                  |
|                                        | Screen saver                       | Provided                                                                   |                                                                                                                        |                                                                                                                                                                                                                  |
| Operation interface                    | Touch screen                       | Method                                                                     | Resistance film                                                                                                        |                                                                                                                                                                                                                  |
|                                        |                                    | Life expectancy *2                                                         | 1,000,000 touch operations                                                                                             |                                                                                                                                                                                                                  |
| External interface                     | Ethernet                           |                                                                            | 100BASE-TX/10BASE-T                                                                                                    |                                                                                                                                                                                                                  |
|                                        | SD card                            |                                                                            | SDHC-compliant, Class 4 or higher recommended                                                                          |                                                                                                                                                                                                                  |
| Ratings                                | Power supply voltage               |                                                                            | DC power connection: 21.6 to 26.4 VDC (including ripple)                                                               | DC power connection: 21.6 to 26.4 VDC (including ripple)<br>AC adapter (manufactured by Sino-American Japan Co., Ltd) connection: 100 to 240 VAC, 50/60 Hz<br>Battery connection: FQ-BAT1 Battery (1cell, 3.7 V) |
|                                        | Continuous operation on Battery *3 |                                                                            | ---                                                                                                                    | 1.5 h                                                                                                                                                                                                            |
|                                        | Power consumption                  |                                                                            | DC power connection: 0.2 A max.                                                                                        | DC power connection: 0.2 A max.<br>Charging battery: 0.4 A max.                                                                                                                                                  |
| Environmental immunity                 | Ambient temperature range          |                                                                            | Operating: 0 to 50°C<br>Storage: -25 to 65°C<br>(with no icing or condensation)                                        | Operating: 0 to 50°C when mounted to DIN Track or panel<br>Operation on Battery: 0 to 40°C<br>Storage: -25 to 65°C<br>(with no icing or condensation)                                                            |
|                                        | Ambient humidity range             |                                                                            | Operating and storage: 35% to 85% (with no condensation)                                                               |                                                                                                                                                                                                                  |
|                                        | Ambient atmosphere                 |                                                                            | No corrosive gas                                                                                                       |                                                                                                                                                                                                                  |
|                                        | Vibration resistance (destruction) |                                                                            | 10 to 150 Hz, single amplitude: 0.35 mm, X/Y/Z directions<br>8 min each, 10 times                                      |                                                                                                                                                                                                                  |
|                                        | Shock resistance (destruction)     |                                                                            | 150 m/s <sup>2</sup> 3 times each in 6 direction (up, down, right, left, forward, and backward)                        |                                                                                                                                                                                                                  |
| Degree of protection                   |                                    | IEC 60529 IP20 (when SD card cover, connector cap, or harness is attached) |                                                                                                                        |                                                                                                                                                                                                                  |
| Weight                                 |                                    |                                                                            | Approx. 270 g (without Battery and hand strap attached)                                                                |                                                                                                                                                                                                                  |
| Materials                              |                                    |                                                                            | Case: ABS                                                                                                              |                                                                                                                                                                                                                  |
| Accessories included with Touch Finder |                                    |                                                                            | Touch Pen (FQ-XT), Instruction Manual                                                                                  |                                                                                                                                                                                                                  |

\*1 This is a guideline for the time required for the brightness to diminish to half the initial brightness at room temperature and humidity. The life of the backlight is greatly affected by the ambient temperature and humidity and will be shorter at lower or higher temperatures.

\*2 This value is only a guideline. No guarantee is implied. The value will be affected by operating conditions.

\*3 This value is only a guideline. No guarantee is implied. The value will be affected by the operating environment and operating conditions.

## Sensor Data Units

| Item                                       |                                    |                | Parallel Interface                                                                                              | RS-232C Interface                                                                      |
|--------------------------------------------|------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
|                                            | Model                              |                | FQ-SDU10                                                                                                        | FQ-SDU20                                                                               |
|                                            | NPN                                |                | FQ-SDU15                                                                                                        | FQ-SDU25                                                                               |
|                                            | PNP                                |                |                                                                                                                 |                                                                                        |
| I/O specifications                         | Parallel I/O                       | Connector 1    | 16 outputs (D0 to D15)                                                                                          | 6 inputs (IN0 to IN5)                                                                  |
|                                            |                                    | Connector 2    | 11 inputs (TRIG, RESET, IN0 to IN7, and DSA)<br>8 outputs (GATE, ACK, RUN, BUSY, OR, ERROR, STGOUT, and SHTOUT) | 2 inputs (TRIG and RESET)<br>7 outputs (ACK, RUN, BUSY, OR, ERROR, STGOUT, and SHTOUT) |
|                                            | RS-232C                            |                | ---                                                                                                             | 1 channel, 115,200 bps max.                                                            |
|                                            | Sensor interface                   |                | FQ2-S3 connected with FQ-WU□□□ : OMRON interface<br>*Number of connected Sensors: 1                             |                                                                                        |
| Ratings                                    | Power supply voltage               |                | 21.6 to 26.4 VDC (including ripple)                                                                             |                                                                                        |
|                                            | Insulation resistance              |                | Between all DC external terminals and case: 0.5 MΩ min (at 250 VDC)                                             |                                                                                        |
|                                            | Current consumption                |                | 2.5 A max. : FQ2-CH1□□□□□-M and FQ-SDU□□<br>0.1 A max. : FQ-SDU□□ only                                          |                                                                                        |
| Environmental immunity                     | Ambient temperature range          |                | Operating: 0 to 50°C, Storage: -20 to 65°C (with no icing or condensation)                                      |                                                                                        |
|                                            | Ambient humidity range             |                | Operating and storage: 35% to 85% (with no condensation)                                                        |                                                                                        |
|                                            | Ambient atmosphere                 |                | No corrosive gas                                                                                                |                                                                                        |
|                                            | Vibration resistance (destruction) |                | 10 to 150 Hz, single amplitude: 0.35 mm, X/Y/Z directions, 8 min each, 10 times                                 |                                                                                        |
|                                            | Shock resistance (destruction)     |                | 150 m/s <sup>2</sup> 3 times each in 6 directions (up, down, right, left, forward, and backward)                |                                                                                        |
| Degree of protection                       |                                    | IEC 60529 IP20 |                                                                                                                 |                                                                                        |
| Materials                                  |                                    |                | Case: PC + ABS, PC                                                                                              |                                                                                        |
| Weight                                     |                                    |                | Approx. 150 g                                                                                                   |                                                                                        |
| Accessories included with Sensor Data Unit |                                    |                | Instruction Manual                                                                                              |                                                                                        |

## Battery

| Item                              | Model | FQ-BAT1                                                                      |
|-----------------------------------|-------|------------------------------------------------------------------------------|
| Battery type                      |       | Secondary lithium ion battery                                                |
| Nominal capacity                  |       | 1,800 mAh                                                                    |
| Rated voltage                     |       | 3.7 V                                                                        |
| Ambient temperature range         |       | Operating: 0 to 40°C<br>Storage: -25 to 65°C (with no icing or condensation) |
| Ambient humidity range            |       | Operating and storage: 35% to 85% (with no condensation)                     |
| Charging method                   |       | Charged in Touch Finder (FQ2-D31). AC adapter (FQ-AC□) is required.          |
| Charging time *1                  |       | 2 h                                                                          |
| Usage time *1                     |       | 1.5 h                                                                        |
| Battery backup life (See note 2.) |       | 300 charging cycles                                                          |
| Weight                            |       | 50 g max.                                                                    |

\*1 This value is only a guideline. No guarantee is implied. The value will be affected by operating conditions

\*2 This is a guideline for the time required for the capacity of the Battery to be reduced to 60% of the initial capacity. No guarantee is implied. The value will be affected by the operating environment and operating conditions.

## System Requirements for PC tool for FQ

The following Personal Computer system is required to use the software.

|         |                                                                                                                                                     |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| OS      | Microsoft Windows XP Home Edition/Professional SP2 or higher (32-bit version)<br>Microsoft Windows 7 Home Premium or higher (32-bit/64-bit version) |
| CPU     | Core 2 Duo 1.06 GHz or the equivalent or higher                                                                                                     |
| RAM     | 1GB min.                                                                                                                                            |
| HDD     | 500 MB min. available space *                                                                                                                       |
| Monitor | 1,024 × 768 dots min.                                                                                                                               |

\* Available space is also required separately for data logging.

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## Safety Precautions

 **WARNING**

This product is not designed or rated for ensuring safety of persons either directly or indirectly.

Do not use it for such purposes.



- For details, including precautions for correct use, refer to the "Smart Camera FQ2-S/CH Series User's Manual" (Cat. No. Z337) on your OMRON website.
- For technical information and product FAQs, refer to the "Technical Guide" at your OMRON website.

# Dimensions

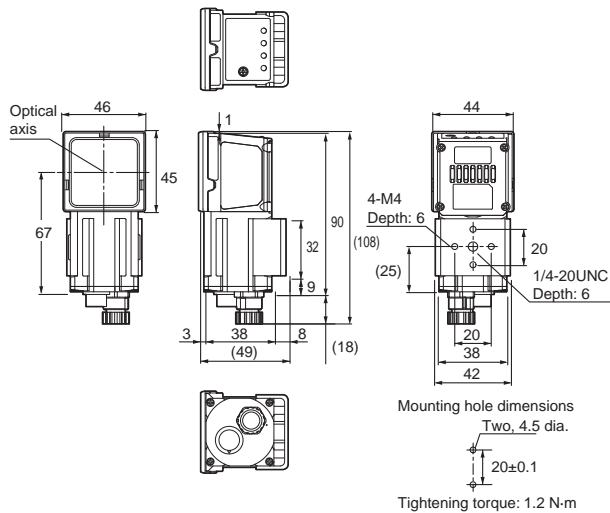
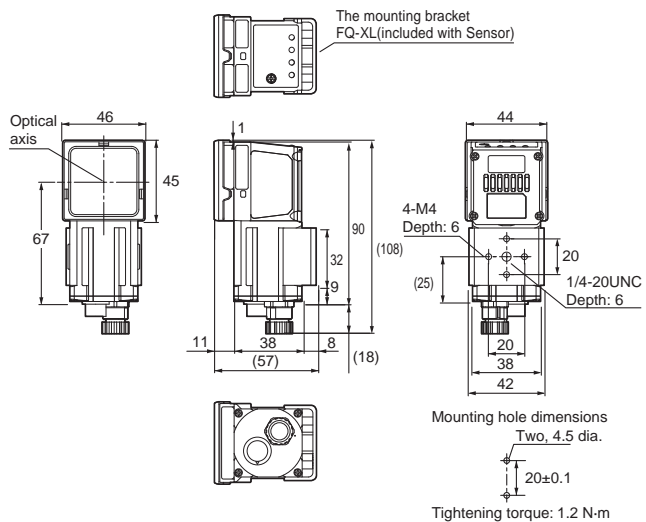
## Sensor

### Integrated Sensor

Narrow View  
FQ2-CH□□□10F-M

Standard View  
FQ2-CH□□□50F-M

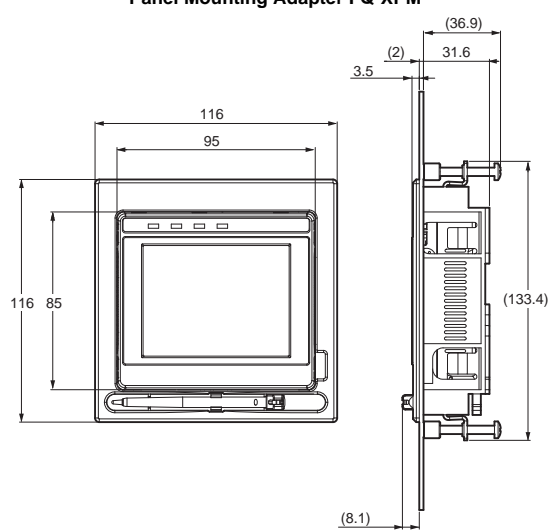
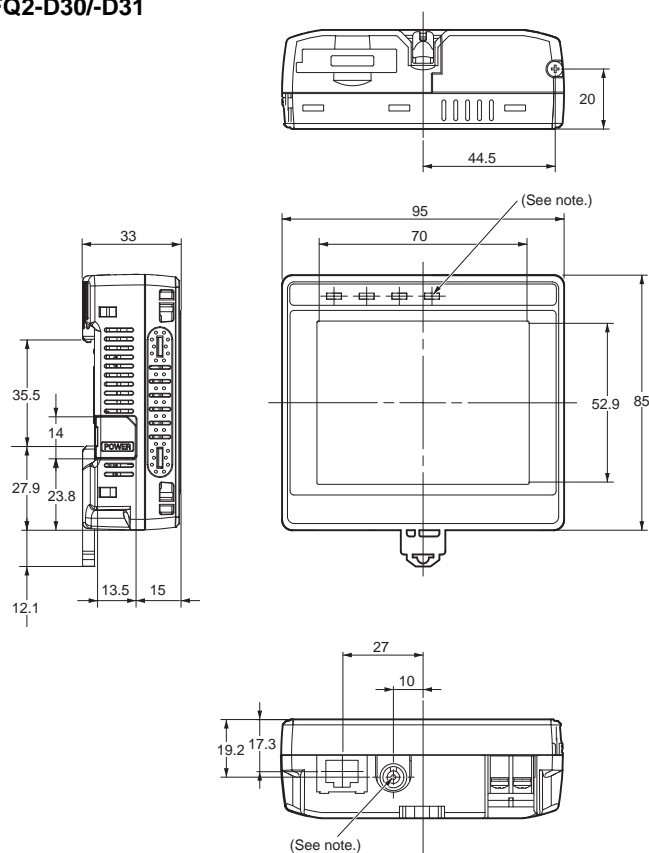
Wide View  
FQ2-CH□□□100□-M



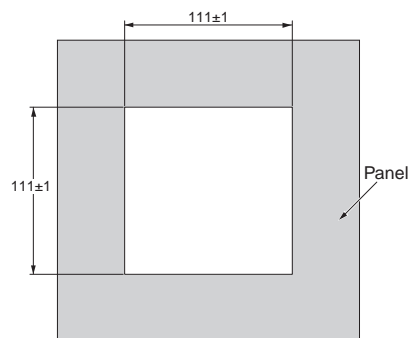
## Touch Finder

FQ2-D30/-D31

Panel Mounting Adapter FQ-XPM



Panel Cutout Dimensions



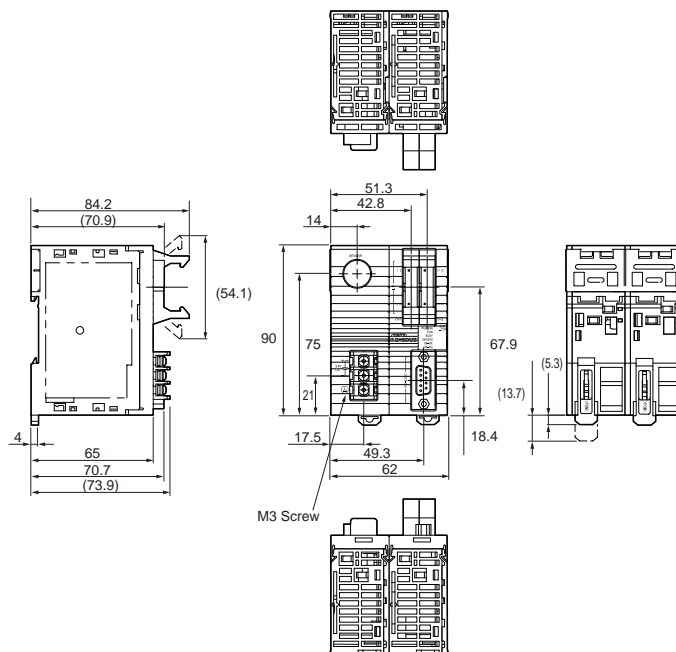
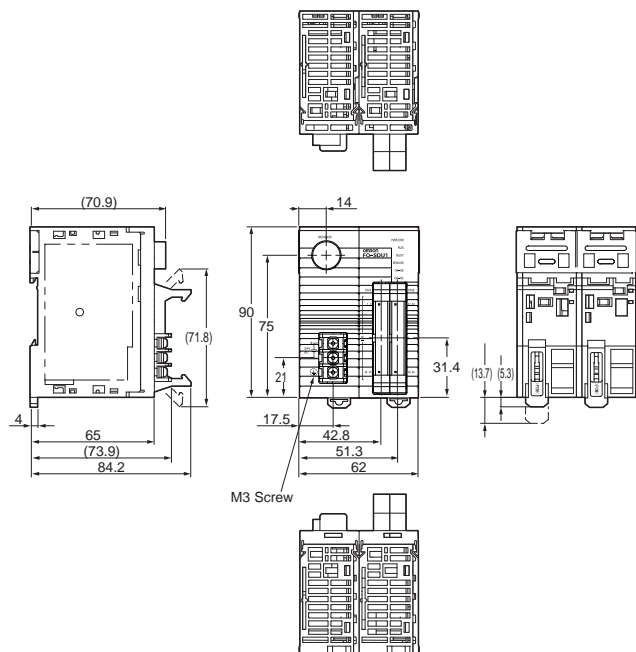
Note: Provided with FQ2-D31 only.



Sensor Data Unit

FQ-SDU10/-SDU15

FQ-SDU20/-SDU25



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