# Confocal Fiber Displacement Sensor Sensor Head
## ZW-SQ Series

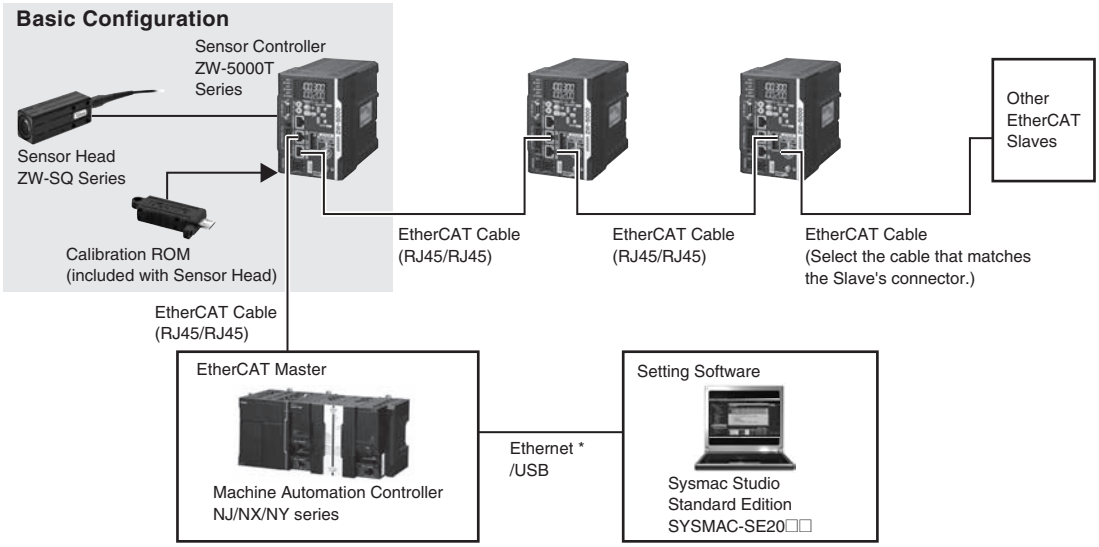
## Ultra-compact and Ultra-lightweight
## Stable Measurements for Any Material

- The slim design measures only 24 × 24 mm. It weighs only 105 g.
- Measuring shiny objects with an inclination of ±8°
- The sensor head has no electronic parts to eliminate problems of electronic and magnetic noise.
- Sampling rate as fast as 80 μs

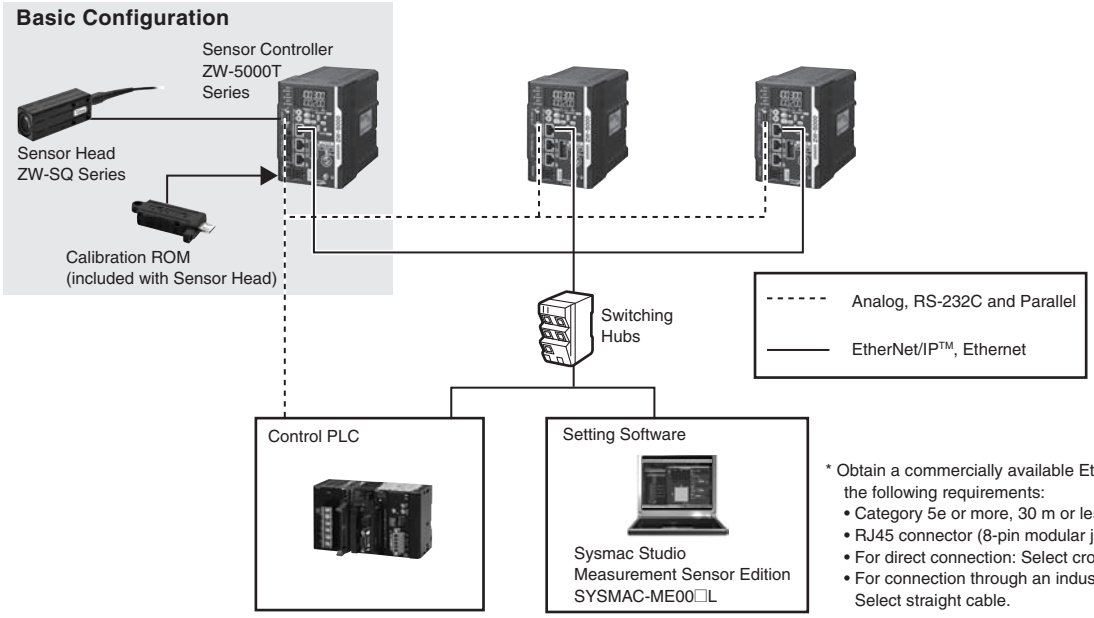
**Note:** Angle characteristic and sampling rate differ among models. Please ask OMRON sales representative for details.

## System Configuration

### EtherCAT connections




### Analog, EtherNet/IP, Ethernet, RS-232C and Parallel connections



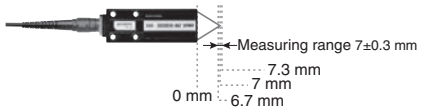
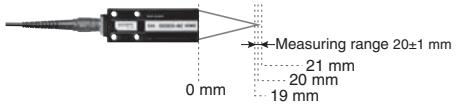
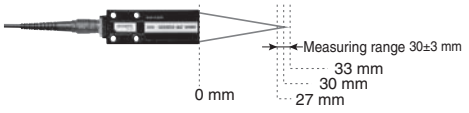
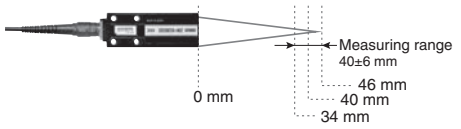

* Obtain a commercially available Ethernet cable satisfying the following requirements:
- Category 5e or more, 30 m or less
- RJ45 connector (8-pin modular jack)
- For direct connection: Select cross cable.
- For connection through an industrial switching hub: Select straight cable.

# ZW-SQ Series

# Order Information

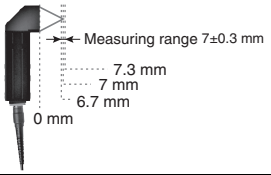
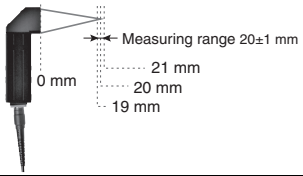
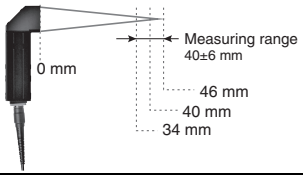
## ●Sensor Head

### Square straight type

| Appearance | Measuring range | Spot diameter | Static resolution * | Model |
|---|---|---|---|---|
|  |  | 18 μm dia. | 0.25 μm | **ZW-SQ5007 2M**<br>**ZW-SQ5007 0.3M** |
| |  | 40 μm dia. | 0.25 μm | **ZW-SQ5020 2M**<br>**ZW-SQ5020 0.3M** |
| |  | 60 μm dia. | 0.25 μm | **ZW-SQ5030 2M**<br>**ZW-SQ5030 0.3M** |
| |  | 80 μm dia. | 0.25 μm | **ZW-SQ5040 2M**<br>**ZW-SQ5040 0.3M** |

* Values when the sensor controller ZW-5000T is used.

### Square Right-angle type

| Appearance | Measuring range | Spot diameter | Static resolution * | Model |
|---|---|---|---|---|
|  |  | 18 μm dia. | 0.25 μm | **ZW-SQR5007 2M**<br>**ZW-SQR5007 0.3M** |
| |  | 40 μm dia. | 0.25 μm | **ZW-SQR5020 2M**<br>**ZW-SQR5020 0.3M** |
| |  | 80 μm dia. | 0.25 μm | **ZW-SQR5040 2M**<br>**ZW-SQR5040 0.3M** |

* Values when the sensor controller ZW-5000T is used.

## ●Sensor Controller with EtherCAT

| Appearance | Power supply | Output type | Model |
|---|---|---|---|
|  | 24VDC | NPN/PNP | **ZW-5000T** |

## ●Cable

| Appearance | Item | Cable length | Model |
|---|---|---|---|
|  | Extension Fiber Cable (from Sensor Head to Sensor Controller), (Fiber Adapter ZW-XFC2 is included) | 2 m | **ZW-XF5002R** |
| | | 5 m | **ZW-XF5005R** |
| | | 10 m | **ZW-XF5010R** |
| | | 20 m | **ZW-XF5020R** |
| | | 30 m | **ZW-XF5030R** |
|  | Fiber Adapter (used between Sensor Head pre-wired cable and Extension Fiber Cable) | - | **ZW-XFC2** |

**Note:** Extension Fiber Cable ZW-XF50□□R can be used with the firmware version 2.100 or later. If you have an old version sensor controller, register as a Sysmac member and download the latest firmware and tools to update your sensor controller. Refer to the Sysmac member registration sheet that is enclosed with the sensor controller for details on member registration and firmware download.

## ●Common cables

| Appearance | Item | Cable length | Model |
|---|---|---|---|
|  | Parallel caable for ZW-5000T<br>32-pole (included with Sensor Controller ZW-5000T) | 2 m | **ZW-XCP2E** |
|  | RS-232C Cable for personal computer | 2 m | **ZW-XRS2** |
|  | RS-232C Cable for PLC/programmable terminal | 2 m | **ZW-XPT2** |

## ●Recommended EtherCAT Communications Cables

Use Straight STP (shielded twisted-pair) cable of category 5 or higher with double shielding (braiding and aluminum foil tape) for EtherCAT.

## ●Cable with Connectors

| Item | Appearance | Recommended manufacturer | Cable length (m) * | Model |
|---|---|---|---|---|
| Rugged type<br>Cable with Connectors on Both Ends (RJ45/RJ45)<br>Wire Gauge and Number of Pairs: AWG22, 2-pair Cable |  | OMRON | 0.3 | **XS5W-T421-AMD-K** |
| | | | 0.5 | **XS5W-T421-BMD-K** |
| | | | 1 | **XS5W-T421-CMD-K** |
| | | | 2 | **XS5W-T421-DMD-K** |
| | | | 5 | **XS5W-T421-GMD-K** |
| | | | 10 | **XS5W-T421-JMD-K** |
| Rugged type<br>Cable with Connectors on Both Ends (M12 Straight/RJ45)<br>Wire Gauge and Number of Pairs: AWG22, 2-pair Cable |  | OMRON | 0.3 | **XS5W-T421-AMC-K** |
| | | | 0.5 | **XS5W-T421-BMC-K** |
| | | | 1 | **XS5W-T421-CMC-K** |
| | | | 2 | **XS5W-T421-DMC-K** |
| | | | 5 | **XS5W-T421-GMC-K** |
| | | | 10 | **XS5W-T421-JMC-K** |
| Rugged type<br>Cable with Connectors on Both Ends (M12 Right-angle/RJ45)<br>Wire Gauge and Number of Pairs: AWG22, 2-pair Cable |  | OMRON | 0.3 | **XS5W-T422-AMC-K** |
| | | | 0.5 | **XS5W-T422-BMC-K** |
| | | | 1 | **XS5W-T422-CMC-K** |
| | | | 2 | **XS5W-T422-DMC-K** |
| | | | 5 | **XS5W-T422-GMC-K** |
| | | | 10 | **XS5W-T422-JMC-K** |

**Note:** For details, refer to Cat.No.G019.
* Rugged type cables length 0.3, 0.5, 1, 2, 3, 5, 10 and 15m are available.

## ●Cables / Connectors

### Wire Gauge and Number of Pairs: AWG24, 4-pair Cable

| Item | Appearance | Recommended manufacturer | Model |
|---|---|---|---|
| Cables | — | Kuramo Electric Co. | KETH-SB * |
| RJ45 Connectors | — | Panduit Corporation | MPS588-C * |

* We recommend to use above cable and connector together.

### Wire Gauge and Number of Pairs: AWG22, 2-pair Cable

| Item | Appearance | Recommended manufacturer | Model |
|---|---|---|---|
| Cables | — | Kuramo Electric Co. | KETH-PSB-OMR * |
| | — | JMACS Japan Co.,Ltd. | PNET/B * |
| RJ45 Assembly Connector |  | OMRON | XS6G-T421-1 * |

**Note:** Connect both ends of cable shielded wires to the connector hoods.
* We recommend to use above cable and connector together.

## ●Industrial switching hubs for Ethernet

| Appearance | Number of ports | Current consumption | Model |
|---|---|---|---|
|  | 5 | 0.07A | **W4S1-05D** |

**Note:** Industrial switching hubs are cannot be used for EtherCAT.

## ●EtherCAT junction slaves

| Appearance | Number of ports | Power supply voltage | Current consumption | Model |
|---|---|---|---|---|
|  | 3 | 20.4 to 28.8 VDC<br>(24 VDC 15 to 20%) | 0.08A | **GX-JC03** |
|  | 6 | | 0.17A | **GX-JC06** |

**Note:** **1.** Please do not connect EtherCAT junction slave with OMRON position control unit, Model CJ1W-NC□81/□82.
**2.** EtherCAT junction slaves cannot be used for EtherNet/IP™ and Ethernet.

## ●Automation Software Sysmac Studio

The Sysmac Studio is the software that provides an integrated environment for setting, programming, debugging and maintenance of machine automation controllers including the NJ/NX-series CPU Units, NY-series Industrial PC, EtherCAT Slave, and the HMI.
For details, refer to your local OMRON website and *Sysmac Studio Catalog* (Cat. No. P138).

## ●Fiber Cleaner

| Item | Recommended manufacturer | Model | Applicable Model | Contacts |
|---|---|---|---|---|
| | | | ZW-5000 | |
| Fiber Connector Cleaner *1 | OMRON | ZW-XCL | Yes | OMRON |
| OPTIPOP R1 | NTT Advanced Technology Corporation | ATC-RE-01 | Yes (Sensor Head only) | *2 |

*1. Place orders in units of boxes (contacting 10 units).
*2. Contacts
[Request for an Estimate]
http://www.ntt-at.com/product/optical_cleaner/Distributors.html
[Request for Information]
NTT Advanced Technology Corporation
Muza Kawasaki Central Tower, 1310 Omiya-cho Saiwai-ku, Kawasaki-shi, Kanagawa, 212-0014, Japan
TEL: +81 44 589 5894
http://www.ntt-at.com/product/optical_cleaner/

# Specifications

## ●Sensor Head

| Item | | ZW-SQ5007 | ZW-SQ5020 | ZW-SQ5030 | ZW-SQ5040 | ZW-SQR5007 | ZW-SQR5020 | ZW-SQR5040 |
|---|---|---|---|---|---|---|---|---|
| **Sensor Controller** | | ZW-5000□ | | | | | | |
| **Sensor Head** | | Square straight type | | | | Square Right-angle type | | |
| **Measuring center distance** | | 7 mm | 20 mm | 30 mm | 40 mm | 7 mm | 20 mm | 40 mm |
| **Measuring range** | | ±0.3 mm | ±1 mm | ±3 mm | ±6 mm | ±0.3 mm | ±1 mm | ±6 mm |
| **Static resolution *1** | | 0.25 μm | | | | | | |
| **Linearity *2** | | ±0.8 μm | ±1.2 μm | ±4.5 μm | ±7.0 μm | ±1.1 μm | ±1.6 μm | ±9.3 μm |
| **Spot diameter *3** | **Near** | 20 μm dia. | 45 μm dia. | 70 μm dia. | 90 μm dia. | 20 μm dia. | 45 μm dia. | 90 μm dia. |
| | **Center** | 18 μm dia. | 40 μm dia. | 60 μm dia. | 80 μm dia | 18 μm dia. | 40 μm dia. | 80 μm dia |
| | **Far** | 20 μm dia. | 45 μm dia. | 70 μm dia. | 90 μm dia | 20 μm dia. | 45 μm dia. | 90 μm dia |
| **Measuring cycle *4** | | 80 μs to 1600 μs | | | | | | |
| **Operating ambient illumination** | | Illumination on object surface 10,000 lx or less: incandescent light | | | | | | |
| **Ambient temperature range** | | Operating: 0 to 50°C, Storage: –15 to 60°C (with no icing or condensation) | | | | | | |
| **Ambient humidity range** | | Operating and storage: 35% to 85%RH (with no condensation) | | | | | | |
| **Degree of protection** | | IP40 (IEC60529) | | | | | | |
| **Vibration resistance (destructive)** | | 10 to 150 Hz, 0.35 mm single amplitude, 80 min each in X, Y, and Z directions | | | | | | |
| **Shock resistance (destructive)** | | 150 m/s² 3 times each in six directions (up/down, left/right, forward/backward) | | | | | | |
| **Temperature characteristic *5** | | 0.6 μm/ °C | 1.5 μm/ °C | 2.8 μm/ °C | 4.8 μm/ °C | 0.6 μm/ °C | 1.5 μm/ °C | 4.8 μm/ °C |
| **LED Safety** | | Risk Group 1 (IEC62471) | | | | | | |
| **Materials** | | Case: aluminum die-cast<br>Fiber cable sheat: PVC<br>Calibration ROM: PC | | | | | | |
| **Fiber cable length** | | 0.3 m, 2 m (Flex-resistant cable) | | | | | | |
| **Fiber cable minimum bending radius** | | 20 mm | | | | | | |
| **Insulation resistance (Calibration ROM)** | | Between case and all terminals: 20 MΩ (by 250 V megger) | | | | | | |
| **Dielectric strength (Calibration ROM)** | | Between case and all terminals: 1,000 VAC, 50/60 Hz, 1 min | | | | | | |
| **Weight** | | Fiber cable length 0.3 m Approx. 100g<br>Fiber cable length 2 m Approx. 105g | | | | Fiber cable length 0.3 m Approx. 125g<br>Fiber cable length 2 m Approx. 130g | | |
| **Accessories included with sensor head** | | Calibration ROM fixing screws (M2 × 5mm) ×1, Fiber protection cap × 1, Strap × 1, Instruction Manual, Precautions | | | | | | |

*1. Capacity value when OMRON standard mirror surface target is measured at the measurement center distance as the average of 16,384 times
The value when the sensor controller ZW-5000T is connected
*2. Material setting for the OMRON standard mirror surface target: Error from an ideal straight line when measuring on mirror surface
*3. Capacity value defined by 1/e2 (13.5%) of the peak optical intensity of the measurement wavelength.
*4. When an extension fiber cable of 5 m or longer is connected, the setting rage of the measurement cycle (exposure time) changes. For details, refer to *Setting Measurement Cycle* in the *ZW-8000/7000/5000 User's Manual* (Cat. No. Z362).
*5. Capacity value of temperature characteristic at the measurement center distance when fastened with an aluminum jig between the Sensor Head and the target and the Sensor Head and the Sensor Controller are set in the same temperature environment.

## ●Sensor Controller

| Item | Model | | | ZW-5000T |
|---|---|---|---|---|
| Input/output type | | | | NPN/PNP dual type |
| Number of connected sensor heads | | | | 1 |
| Sensor head compatibility | | | | ZW-SQ50□□/SQR50□□ |
| LED Safety | | | | Risk Group 1 (IEC62471) |
| Segment Display | Main display | | | 11-segment white display, 6 digits |
| | Sub-display | | | 11-segment green display, 6 digits |
| Display | Status indicators | | | HIGH (orange), PASS (green), LOW (orange), STABILITY (green), ZERO (green), ENABLE (green), THRESHOLD-H (orange), THRESHOLD-L (orange), RUN (green) |
| | EtherCAT indicator | | | ECAT RUN (green), L/A IN (Link/Activity IN) (green), L/A OUT (Link/Activity OUT) (green), ECAT ERR (red) |
| External I/F | Ethernet | | | 100BASE-TX/10BASE-T, Non-procedure (TCP/UDP), EtherNet/IP |
| | EtherCAT | | | EtherCAT exclusive protocol 100BASE-TX |
| | RS-232C | | | Max. 115,200 bps |
| | Analog output terminal block | Analog voltage output (OUT V) | | -10 V to +10 V, output impedance: 100 Ω |
| | | Analog current output (OUT A) | | 4 mA to 20 mA, max. load resistance: 300 Ω |
| | 32-pole expansion connector | Judgment output (HIGH/PASS/LOW) | | Transistor output system<br>Output voltage: 21.6 to 30 VDC<br>Load current: 50 mA or less<br>Residual voltage when turning ON: 2 V or less<br>Leakage voltage when turning OFF: 0.1 mA or less |
| | | Busy output (BUSY) | | |
| | | Alarm output (ALARM) | | |
| | | Enable output (ENABLE) | | |
| | | Sync flag output (SYNFLG) | | |
| | | Trigger busy output (TRIGBUSY) | | |
| | | Logging state output (LOGSTAT) | | |
| | | Logging error output (LOGERR) | | |
| | | Stability output (STABILITY) | | |
| | | Task state output (TASKSTAT) | | |
| | | LIGHT OFF input (LIGHT OFF) | | DC input system<br>Input voltage: 24 VDC ± 10% (21.6 to 26.4 VDC)<br>Input current: 7 mA Type. (24 VDC)<br>ON voltage/ON current: 19 V/3 mA or less<br>ON voltage/ON current: 5 V/1 mA or less |
| | | Zero reset input (ZERO) | | |
| | | Timing input (TIMING) | | |
| | | Reset input (RESET) | | |
| | | Sync input (SYNC) | | |
| | | Trigger input (TRIG) | | |
| | | Logging input (LOGGING) | | |
| | | Bank | Currently selected bank output (BANK_OUT 1 to 3) | Transistor output system<br>Output voltage: 21.6 to 30 VDC<br>Load current: 50 mA or less<br>Residual voltage when turning ON: 2 V or less<br>Leakage voltage when turning OFF: 0.1 mA or less |
| | | | Bank Selection input (BANK_SEL 1 to 3) | DC input system<br>Input voltage: 24 VDC ± 10% (21.6 to 26.4 VDC)<br>Input current: 7 mA Type. (24 VDC)<br>ON voltage/ON current: 19 V/3 mA or more<br>OFF voltage/OFF current: 5 V/1 mA or less |
| Main functions | Exposure time | | | Automatic/Fixed |
| | Measuring cycle *1 | | | 80 μs to 1600 μs |
| | Material setting | | | Standard/Mirror/Rough surfaces |
| | Measurement item | | | Height/Thickness of transparent object/Calculation |
| | Filtering | | | Median/Average/Differentiation/High pass/Low pass/Band pass |
| | Output | | | Scaling/Different holds/Zero reset/Logging for a measured value/ Keep, Clamp |
| | Display | | | Measured value/Threshold value/Analog output voltage or current value/Judgment result/ Resolution/Light power/Internal logging condition/Peak amount of received light |
| | Number of configurable banks | | | Max. 8 banks (NORMAL mode)<br>Max. 32 banks (JUDGMENT mode) |
| | Task process | | | Multi-task (up to 4 tasks per bank) |
| | System | | | Save/Initialization/Display measured information/Communication settings/ Sensor head calibration/Key-lock/Zero reset memory/Timing input |
| Rating | Power supply voltage | | | 21.6 to 26.4 VDC (including ripple) |
| | Current consumption | | | 800 mA max. |
| | Insulation resistance | | | Across all lead wires and FG terminal: 20 MΩ (by 250 VDC) |
| | Dielectric strength | | | Between all lead wires and FG terminal: 500 VAC, 50/60 Hz, 1 minute |
| Environmental resistance | Degree of protection | | | IP20 (IEC60529) |
| | Vibration resistance (destructive) | | | 10 to 55 Hz (half amplitude 0.35 mm), 50 mins in each of X/Y/Z directions |
| | Shock resistance (destructive) | | | 150 m/s$^2$, 6 direction, 3 times each (up/down, left/right, forward/backward) |
| | Ambient temperature range | | | Operation: 0 to 40°C, Storage: -15 to +60°C (No freezing and condensation) |
| | Ambient humidity range | | | Operation/storage: 35 to 85%RH (No condensation) |
| Grounding | | | | D-type grounding (grounding resistance of 100 Ω or less)<br>Note: For conventional Class D grounding |
| Material | | | | Chassis: PC |
| Weight | | | | Approx. 900g (main unit only), Approx. 150 g (Parallel cable) |
| Accessories | | | | Parallel cable × 1 (ZW-XCP2E)<br>10 Fiber cleaners × 1 (ZW-XCL)<br>Fiber adapter cap × 1, Strap × 1<br>Instruction Manual, Member registration sheet, Precautions |

**Note:** The Export Trade Control Order compatible Sensor Controller (ZW-5000T) is available.
When using this Sensor Controller, the minimum resolution is 0.25 μm regardless of the connected Sensor Head and setting conditions.

*1. When an extension fiber cable of 5 m or longer is connected, the setting rage of the measurement cycle (exposure time) changes. For details, refer to *Setting Measurement Cycle* in the *ZW-8000/7000/5000 User's Manual* (Cat. No. Z362).

## ●EtherCAT Communications Specifications

| Item | Specification |
|---|---|
| **Communications standard** | IEC61158 Type12 |
| **Physical layer** | 100BASE-TX(IEEE802.3) |
| **Connectors** | RJ45 × 2<br>ECAT IN: EtherCAT input<br>ECAT OUT: EtherCAT output |
| **Communications media** | Category 5 or higher (cable with double, aluminum tape and braided shielding) is recommended. |
| **Communications distance** | Distance between nodes: 100 m max. |
| **Process data** | Variable PDO mapping |
| **Mailbox (CoE)** | Emergency messages, SDO requests, SDO responses, and SDO information |
| **Distributed clock** | Synchronization in DC mode. |
| **LED display** | L/A IN (Link/Activity IN) × 1, AL/A OUT (Link/Activity OUT) × 1, AECAT RUN × 1, AECAT ERR × 1 |

## ●Automation Software Sysmac Studio

| Item | Operating environment *3 |
|---|---|
| **Operating system (OS) *1** | Windows 7 SP1 (32-bit/64-bit version)/Windows 8.1 (32-bit/64-bit version)/<br>Windows 10(32-bit/64-bit version)/Windows 11 (64-bit version) |
| **CPU** | Windows computers with Intel® Celeron® processor 540 (1.8 GHz) or faster CPU.<br>Intel® Core™ i5 M520 processor (2.4 GHz) or equivalent or faster recommended. |
| **Main memory** | 2 GB min.<br>4 GB min. recommended |
| **Hard disk** | Minimum 4.6 GB of Hard disk space is required to install. *2 |
| **Display** | XGA 1024 × 768, 16 million colors.<br>WXGA 1280 × 800 dots or higher resolution is recommended. |
| **Disk drive** | DVD-ROM drive |
| **Communications ports** | USB port corresponded to USB 2.0, or Ethernet port *4 |
| **Supported languages** | Japanese, English, German, French, Italian, Spanish, simplified Chinese, traditional Chinese, Korean |

*1. Note about Sysmac Studio compatible operating systems: The required system and hard disk capacity differs according to the system environment.
*2. Separate logging memory is required to use the file logging function.
*3. Describes System Requirements and notes of Sysmac Studio Measurement Sensor Edition.
For detail of System Requirements and notes of Sysmac Studio Measurement Sensor Edition, refer to Sysmac Studio Version 1 Operation Manual.
*4. For information on how to connect a personal computer with the sensor controller or other hardware and information on required cables, refer to manuals for each hardware.

## ●Version Information

### Sensor Head/Cable, Sensor Controller, and Sysmac Studio

The applicable version of the Sensor Controller varies depending on the Sensor Head or Cable. The versions are listed below.
Use the latest version of Sysmac Studio Standard Edition/Measurement Sensor Edition.

| Sensor head/Cable | | ZW Series | Version of Sensor Controller | Corresponding version of Sysmac Studio Standard Edition/Measurement Sensor Edition |
|---|---|---|---|---|
| Type | Model | | | |
| Square straight type | ZW-SQ50□□ □M | ZW-5000T | Version 2.110 or later | Version 1.18 or higher |
| Square Right-angle type | ZW-SQR50□□ □M | | | |
| Extension Fiber Cable | ZW-XF50□□R | | Version 2.100 or later | |

**Note:** Refer to the *Firmware Update in the ZW-8000/7000/5000 User's Manual* (Cat. No. Z362) for how to update the Sensor Controller.

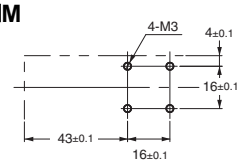
# External Dimensions

(Unit: mm)

## Sensor Head

### Square straight type

**ZW-SQ5007 ☐M/-SQ5020 ☐M/-SQ5030 ☐M/-SQ5040 ☐M**



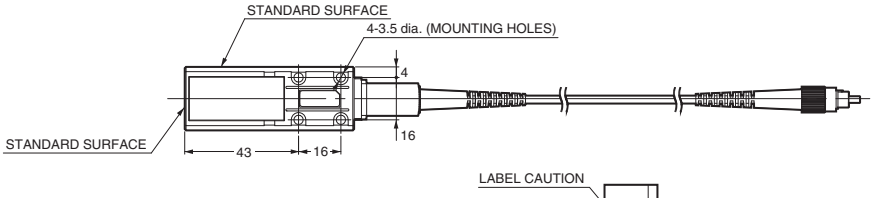

**MOUNTING SCREW HOLES**

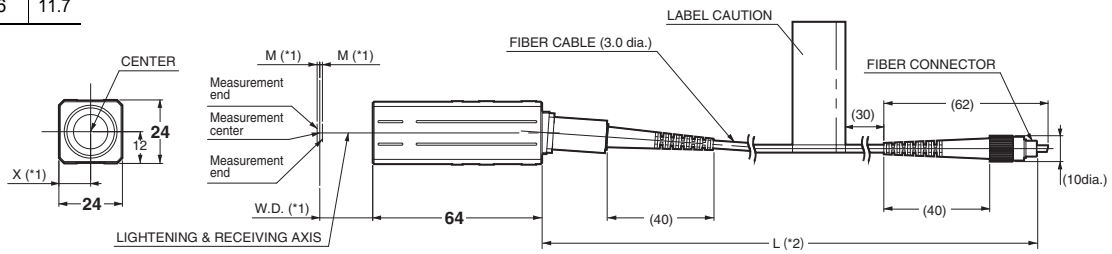
*1.

| Type | W.D. | M | X |
|---|---|---|---|
| ZW-SQ5007 | 7 | 0.3 | 12 |
| ZW-SQ5020 | 20 | 1 | 11.8 |
| ZW-SQ5030 | 30 | 3 | 11.7 |
| ZW-SQ5040 | 40 | 6 | 11.7 |

*2.

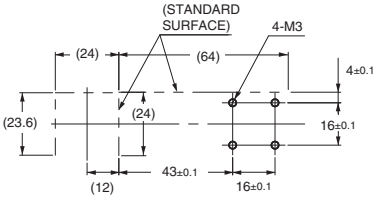
| Length | L |
|---|---|
| 0.3 m | 300+40/0 |
| 2 m | 2000+40/0 |




### Square Right-angle type

**ZW-SQR5007 ☐M/-SQR5020 ☐M/-SQR5040 ☐M**



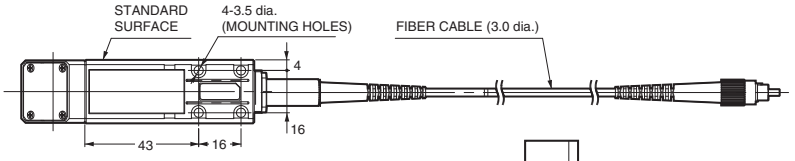

**MOUNTING SCREW HOLES**

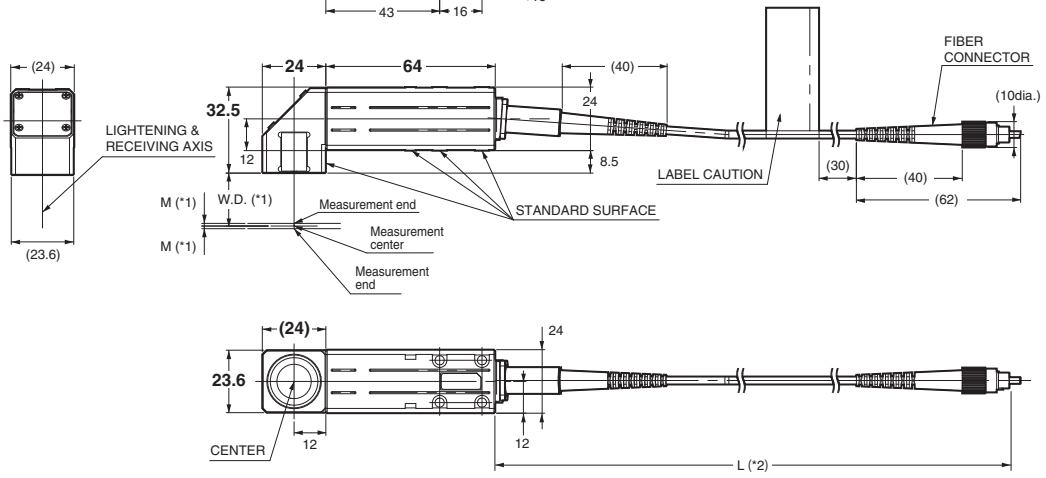
*1.

| Type | W.D. | M |
|---|---|---|
| ZW-SQR5007 | 7 | 0.3 |
| ZW-SQR5020 | 20 | 1 |
| ZW-SQR5040 | 40 | 6 |

*2.

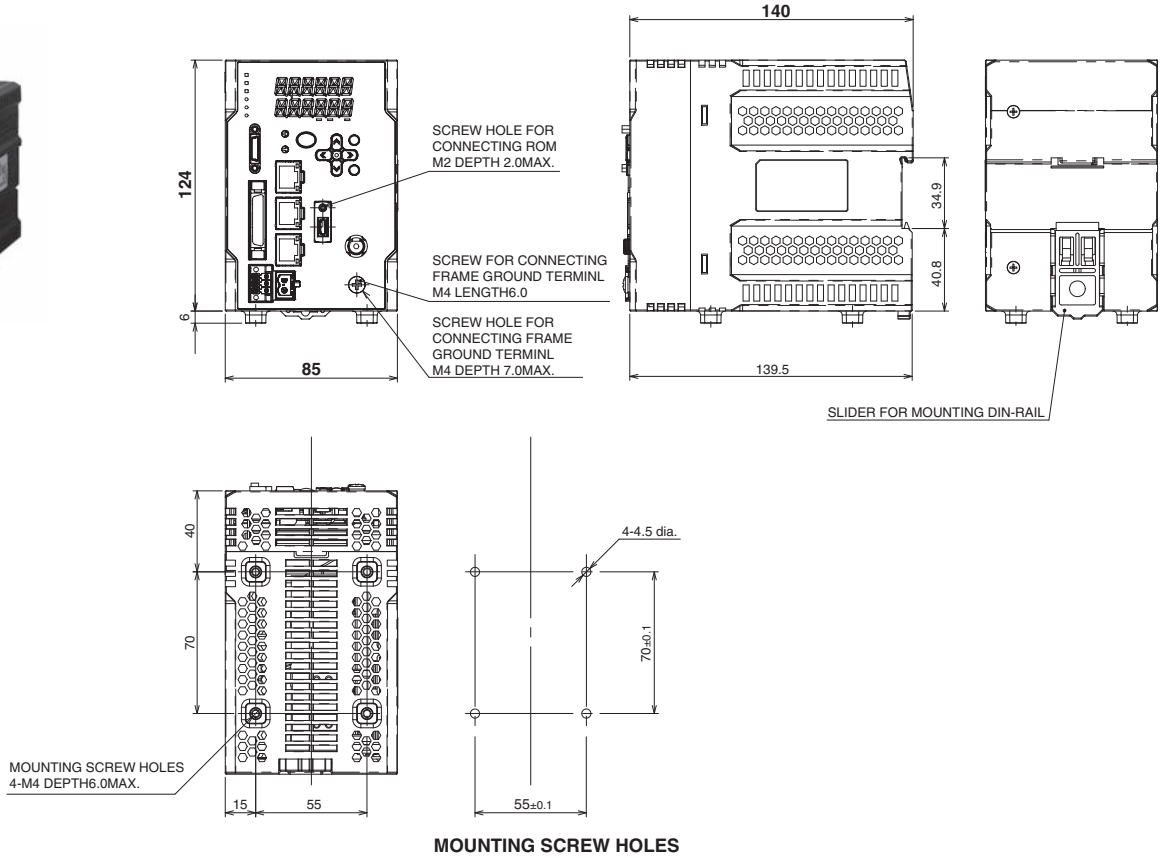
| Length | L |
|---|---|
| 0.3 m | 300+40/0 |
| 2 m | 2000+40/0 |



## Sensor Controller

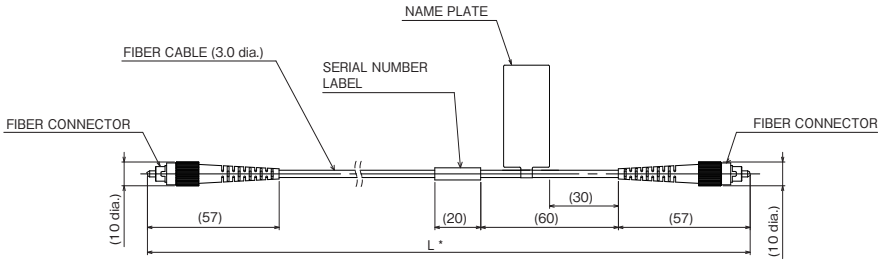
**ZW-5000T**

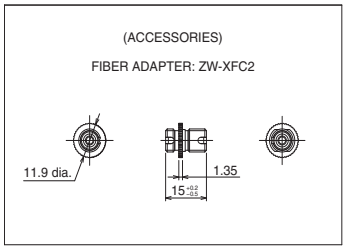



**MOUNTING SCREW HOLES**

## Extension Fiber Cable

**ZW-XF5002R/XF5005R/XF5010R/XF5020R/XF5030R**




* The following table lists cable lengths per models.

| Type | Specification | L |
|---|---|---|
| ZW-XF5002R | 2m | 2000+200/0 |
| ZW-XF5005R | 5m | 5000+200/0 |
| ZW-XF5010R | 10m | 10000+200/0 |
| ZW-XF5020R | 20m | 20000+500/0 |
| ZW-XF5030R | 30m | 30000+500/0 |

## Related Manuals

| Man.No. | Model number | Manual |
|---|---|---|
| Z362 | ZW-800□/700□/500□ | Displacement Sensor ZW-8000/7000/5000 User's Manual |
| Z363 | ZW-800□/700□/500□ | Displacement Sensor ZW-8000/7000/5000 User's Manual for Communications Settings |
| W504 | SYSMAC-SE2 | Sysmac Studio Version 1 Operation Manual |

· Angle characteristic, linearity, sampling period and spot diameter given in the cover differ among models. Please ask Omron sales representative for details.

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