

NO: PH-218
DATE: October 2018

PRODUCT: ZW-C_E
TYPE: Discontinuation Notice

Discontinuation Notice of Confocal Fiber Displacement Sensor model ZW-C, ZW-S, ZW-XF series and ZW-SW101.

Product Discontinuation

Controller with EtherCAT

Model ZW-C series

Sensor Head

Model ZW-S series

Cable

Model ZW-XF series

Setting Software

Model ZW-SW101 series



Recommended Replacement

Controller with EtherCAT

Model ZW-5000 series

or No recommended replacement

Sensor Head

Model ZW-SQ series

(There will be released in April, 2018.)

or No recommended replacement

Cable

Model ZW-XF50 series

No recommended replacement

[Final order entry date]

The end of March, 2019

[Date of The Last Shipping]

The end of June, 2019

[Scheduled date of maintenance close]

The end of March, 2024

[Caution on recommended replacement]

The specification of recommended replacement models are equal to product discontinuation models mostly.

Please be careful because it's different from mounting dimension of a controller of recommended replacement models and product discontinuation models in the outward form.

[Difference from discontinued product]

Recommended replacement Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
ZW-5000 series	**	--	*	--	**	**	*
ZW-SQ series	**	--	**	--	**	**	*
ZW-XF50 series	**	--	**	--	**	**	*

- ** : Compatible
- * : The change is a little/Almost compatible
- : Not compatible
- : No corresponding specification

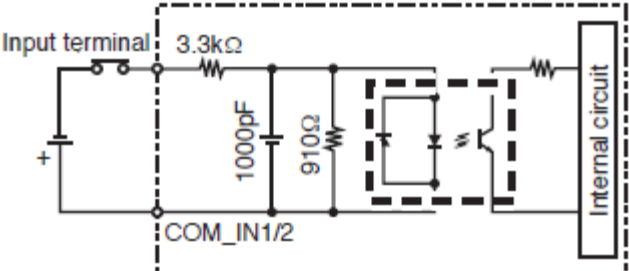
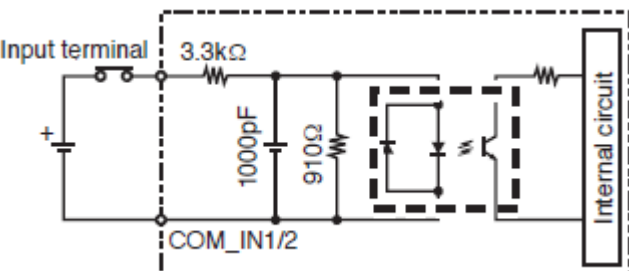
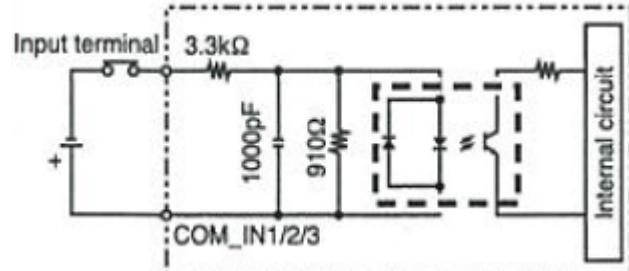
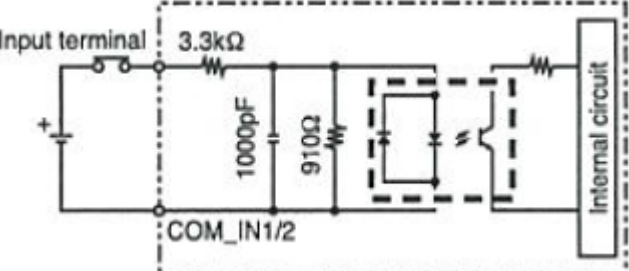
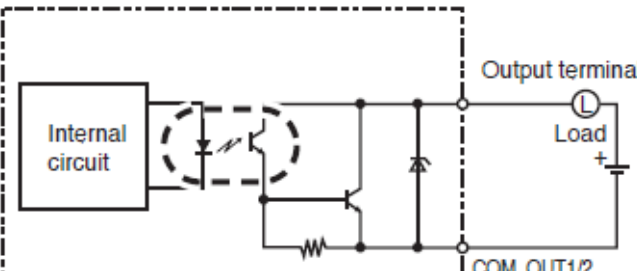
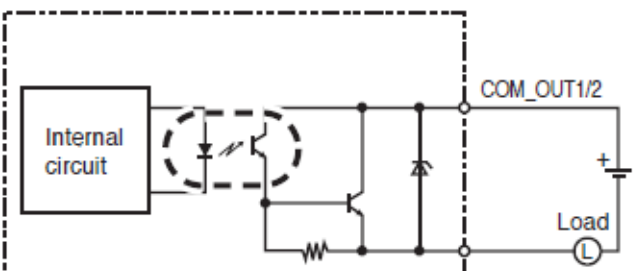
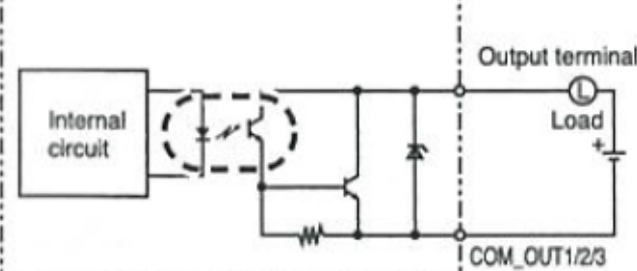
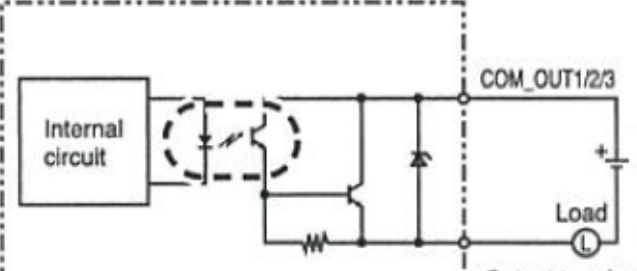
[Product Discontinuation and recommended replacement]

Product discontinuation	Recommended replacement
ZW-XFC	ZW-XFC2
ZW-XF30R	ZW-XF5030R
ZW-XF20R	ZW-XF5020R
ZW-XF10R	ZW-XF5010R
ZW-XF05R	ZW-XF5005R
ZW-XF02R	ZW-XF5002R
ZW-SW101	No recommended replacement
ZW-SR40 2M	ZW-SQR5040 2M
ZW-SR40 0.3M	ZW-SQR5040 0.3M
ZW-SR20 2M	ZW-SQR5020 2M
ZW-SR20 0.3M	ZW-SQR5020 0.3M
ZW-SR07 2M	ZW-SQR5007 2M
ZW-SR07 0.3M	ZW-SQR5007 0.3M
ZW-S40 2M	ZW-SQ5040 2M
ZW-S40 0.3M	ZW-SQ5040 0.3M
ZW-S30 2M	ZW-SQ5030 2M
ZW-S30 0.3M	ZW-SQ5030 0.3M
ZW-S20 5M	No recommended replacement
ZW-S20 2M	ZW-SQ5020 2M
ZW-S20 0.3M	ZW-SQ5020 0.3M
ZW-S07 2M	ZW-SQ5007 2M
ZW-S07 0.3M	ZW-SQ5007 0.3M
ZW-CE15T	ZW-5000T
ZW-CE15	ZW-5000
ZW-CE10T	ZW-5000T
ZW-CE10	ZW-5000
ZW-C15T	ZW-5000T
ZW-C15AT	No recommended replacement
ZW-C15A	No recommended replacement
ZW-C15	ZW-5000
ZW-C10T	ZW-5000T
ZW-C10AT	No recommended replacement
ZW-C10A	No recommended replacement
ZW-C10	ZW-5000

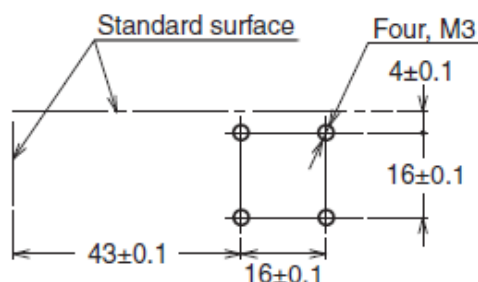
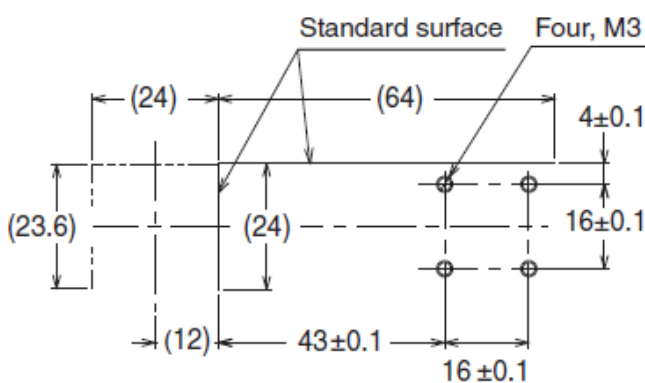
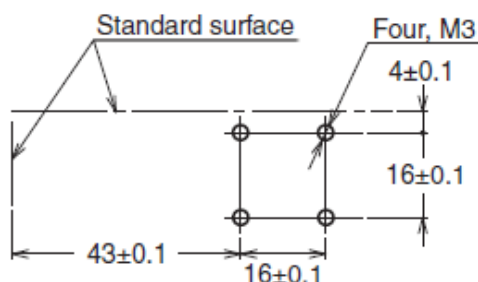
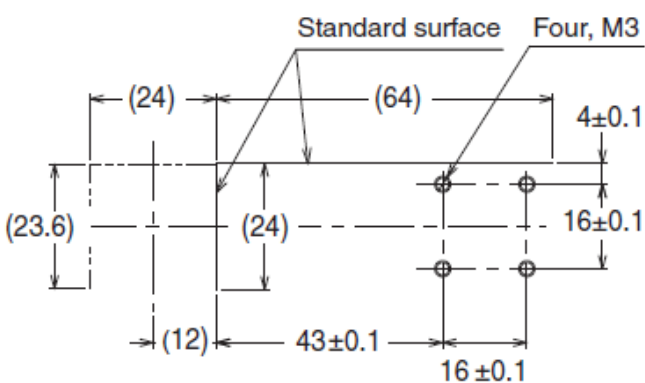
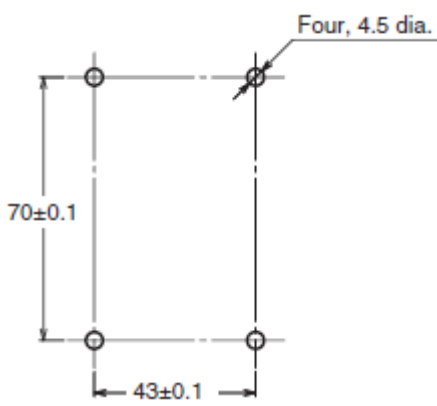
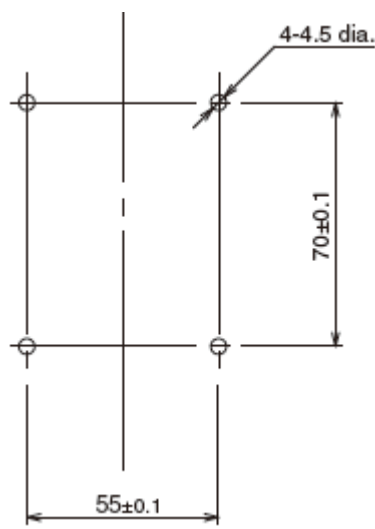
[Body color]

Product discontinuation Model ZW-C/ZW-S/ZW-XF series	Recommendable replacement Model ZW-5000/ZW-SQ/ZW-XF50 series
<p>Sensor head ZW-S series Sensor head ; Black Fiber cable ; Black</p> <p>Controller ZW-C series Case ; Black</p> <p>Sensor Head - Controller Extension Fiber Cable ZW-XF series Fiber cable ; Black</p>	<p>ZW-SQ series Sensor head ; Black Fiber cable ; Black</p> <p>ZW-5000 series Case ; Black</p> <p>Sensor Head - Controller Extension Fiber Cable ZW-XF50 series Fiber cable ; Black</p>

[Wire connection]

<p>Product discontinuation Model ZW-C/ZW-S/ZW-XF series</p>	<p>Recommendable replacement Model ZW-5000/ZW-SQ/ZW-XF50 series</p>
<p>Input circuit</p> <p>ZW-C*10* (NPN)</p>  <p>ZW-C*15* (PNP)</p> 	<p>Input circuit</p> <p>ZW-5000* NPN</p>  <p>PNP</p> 
<p>Output circuit</p> <p>ZW-C*10* (NPN)</p>  <p>ZW-C*15* (PNP)</p> 	<p>Output circuit</p> <p>NPN</p>  <p>PNP</p> 

[Mounting dimensions]

<p>Product discontinuation Model ZW-C/ZW-S/ZW-XF series</p>	<p>Recommendable replacement Model ZW-5000/ZW-SQ/ZW-XF50 series</p>
<p>Sensor head ZW-S*</p>  <p>Standard surface Four, M3 4 ± 0.1 16 ± 0.1 43 ± 0.1 16 ± 0.1</p> <p>ZW-SR*</p>  <p>Standard surface Four, M3 4 ± 0.1 16 ± 0.1 43 ± 0.1 16 ± 0.1 (24) (64) (23.6) (24) (12)</p>	<p>Sensor head ZW-SQ*</p>  <p>Standard surface Four, M3 4 ± 0.1 16 ± 0.1 43 ± 0.1 16 ± 0.1</p> <p>ZW-SQ*</p>  <p>Standard surface Four, M3 4 ± 0.1 16 ± 0.1 43 ± 0.1 16 ± 0.1 (24) (64) (23.6) (24) (12)</p>
<p>Controller ZW-C*</p>  <p>Four, 4.5 dia. 70 ± 0.1 43 ± 0.1</p>	<p>Controller ZW-5000*</p>  <p>4-4.5 dia. 70 ± 0.1 55 ± 0.1</p>

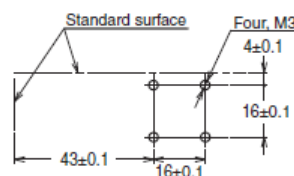
[Dimensions]

Product discontinuation
Model ZW-C/ZW-S/ZW-XF series

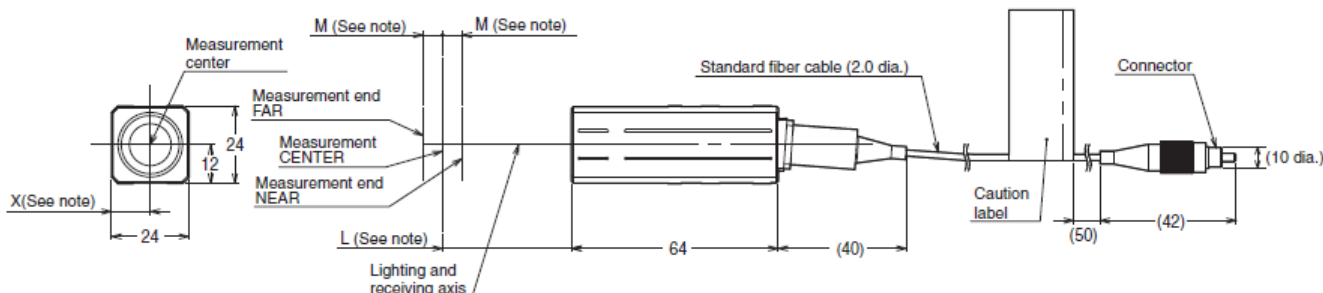
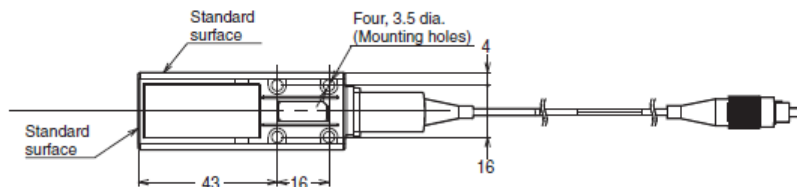
Sensor head
ZW-S*

Note

Model	L	M	X
ZW-S07	7	0.3	12
ZW-S20	20	1	11.8
ZW-S30	30	3	11.7
ZW-S40	40	6	11.7



Mounting hole dimensions

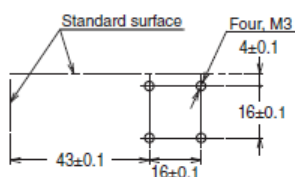


Recommendable replacement
Model ZW-5000/ZW-SQ/ZW-XF50 series

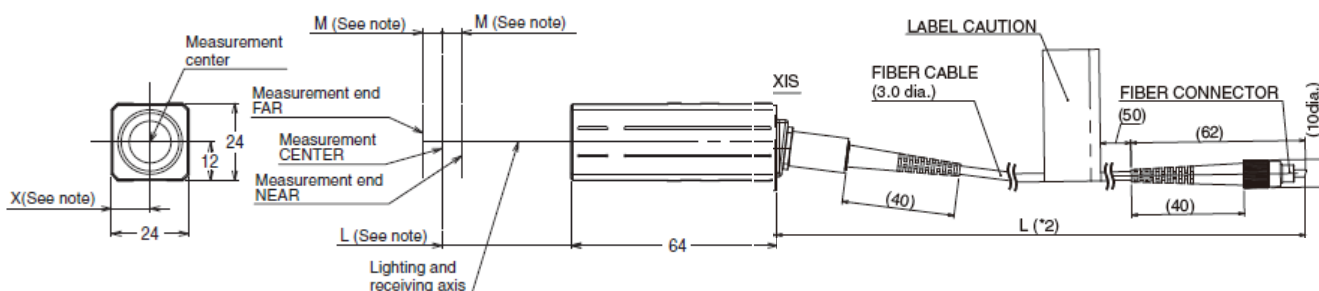
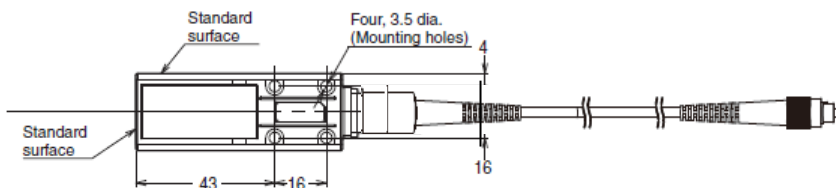
ZW-SQ50*

Note

Model	L	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



Mounting hole dimensions

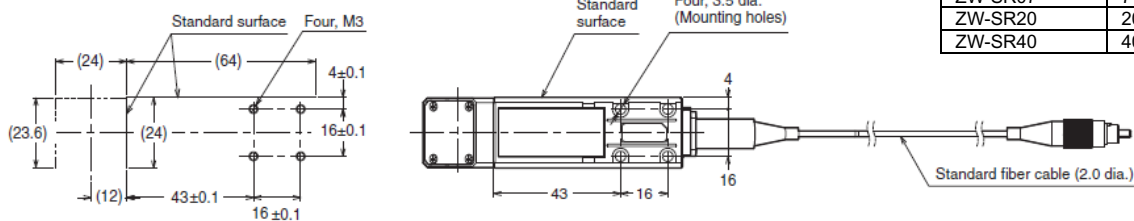


Product discontinuation
Model ZW-C/ZW-S/ZW-XF series

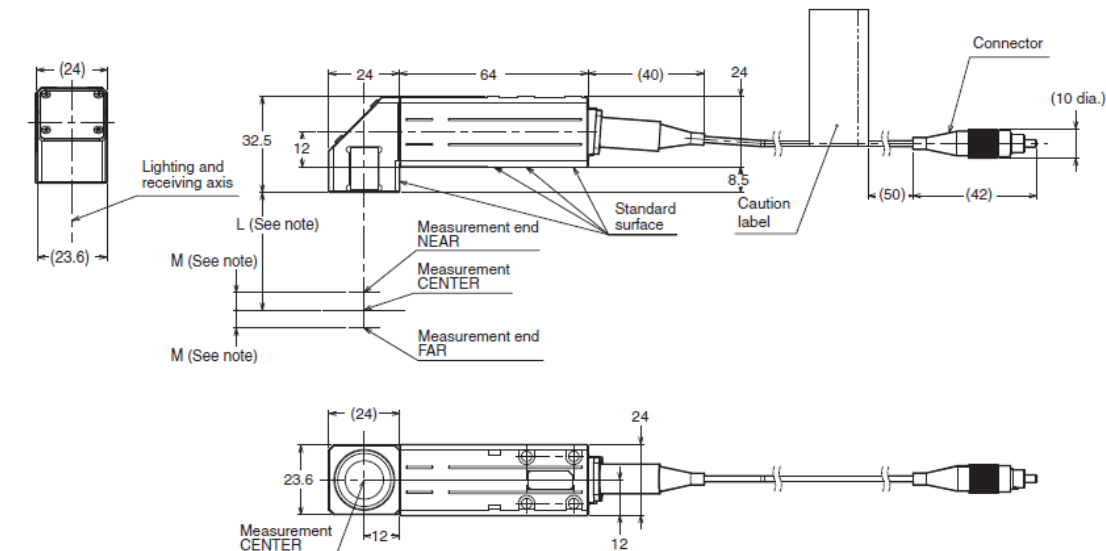
Sensor head
ZW-SR*

Note

Model	L	M
ZW-SR07	7	0.3
ZW-SR20	20	1
ZW-SR40	40	6



Mounting hole dimensions

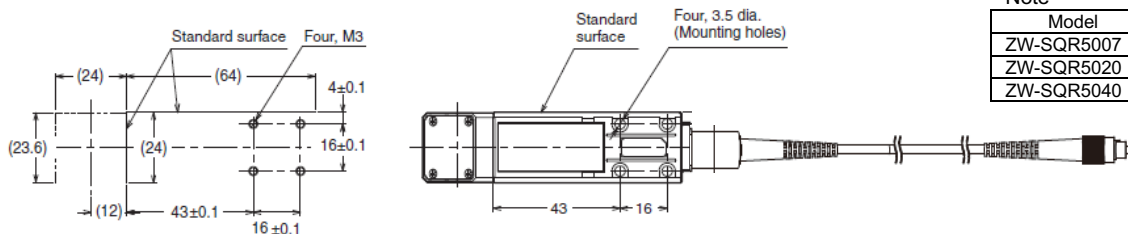


Recommendable replacement
Model ZW-5000/ZW-SQ/ZW-XF50 series

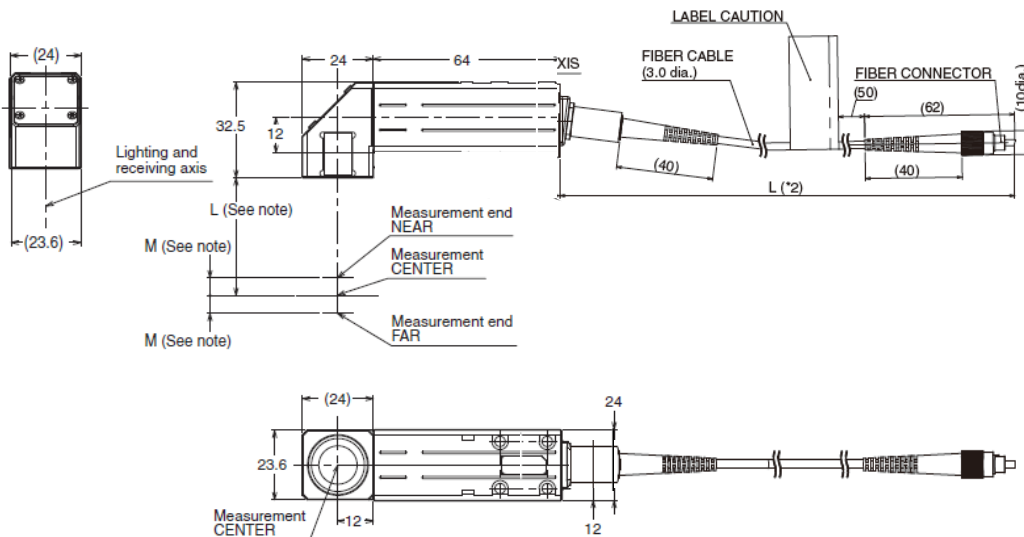
ZW-SQR50*

Note

Model	L	M
ZW-SQR5007	7	0.3
ZW-SQR5020	20	1
ZW-SQR5040	40	6

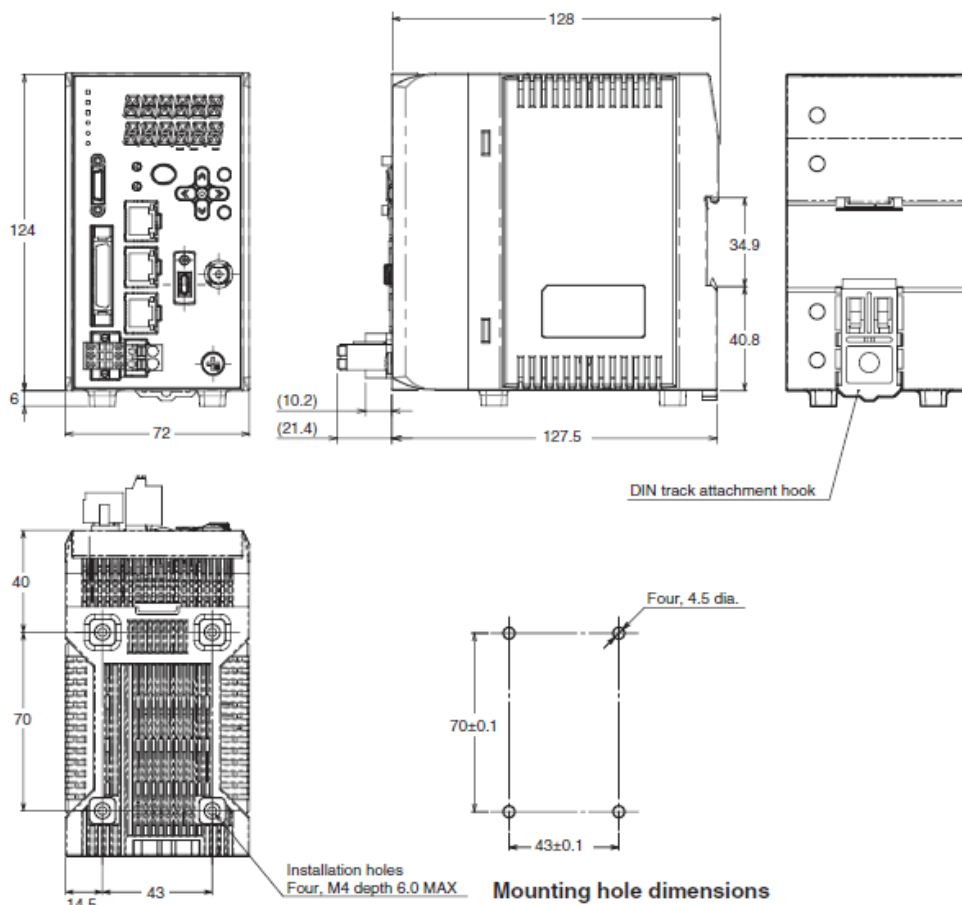


Mounting hole dimensions



Product discontinuation
Model ZW-C/ZW-S/ZW-XF series

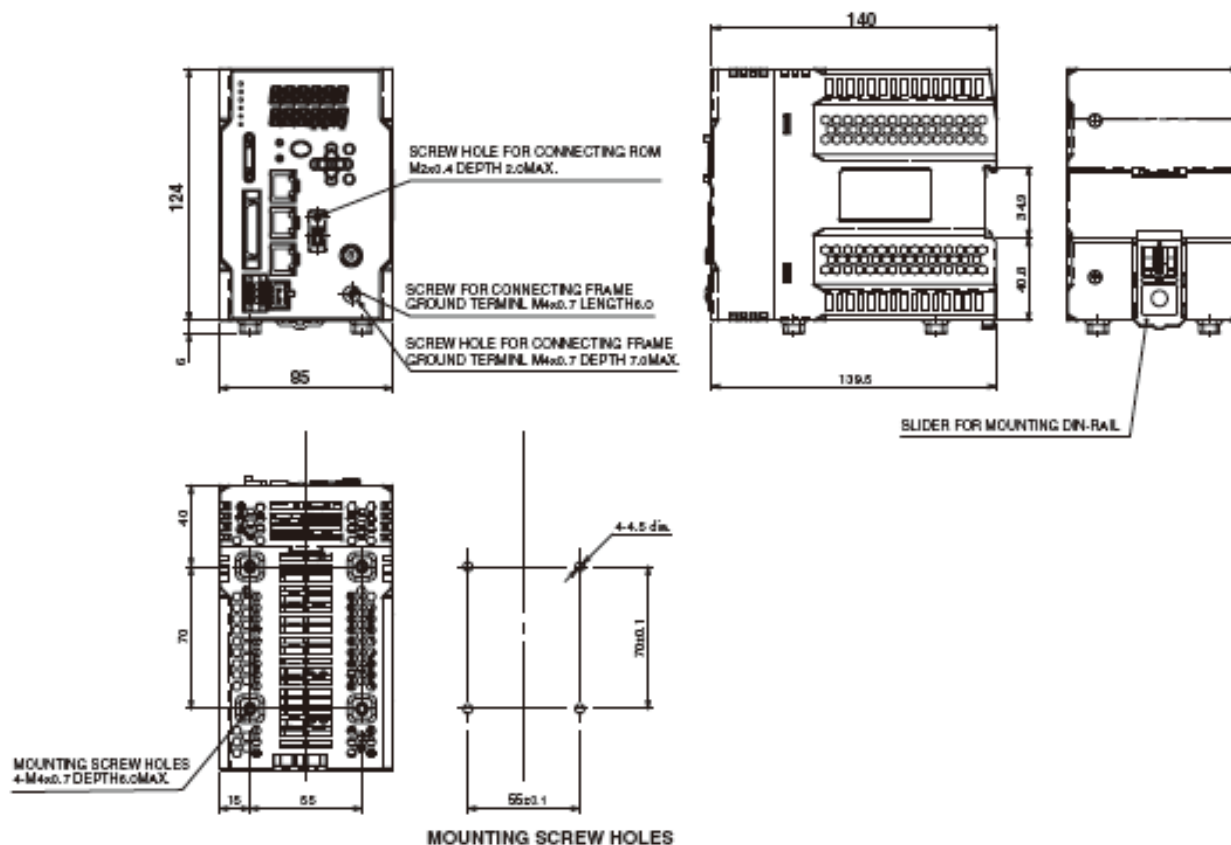
Controller
ZW-C*



Recommendable replacement
Model ZW-5000/ZW-SQ/ZW-XF50 series

Recommendable replacement
Model ZW-5000/ZW-SQ/ZW-XF50 series

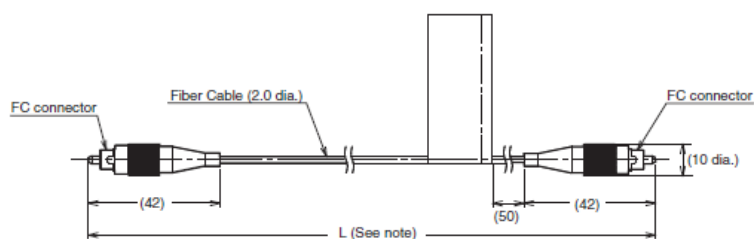
Controller
ZW-5000*



生産終了商品
形ZW-C/ZW-S/ZW-XFシリーズ

Sensor Head - Controller Extension Fiber Cable

ZW-XF**R

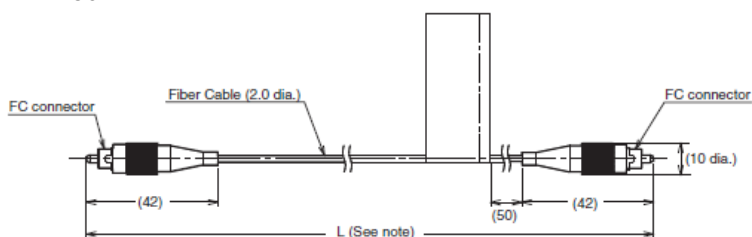


Note

Model	Cable length	L
ZW-XF02R	2m	2000±20
ZW-XF05R	5m	5000±50
ZW-XF10R	10m	10000±100
ZW-XF20R	20m	20000±200
ZW-XF30R	30m	30000±300

Recommendable replacement
Model ZW-5000/ZW-SQ/ZW-XF50 series

ZW-XF50**R



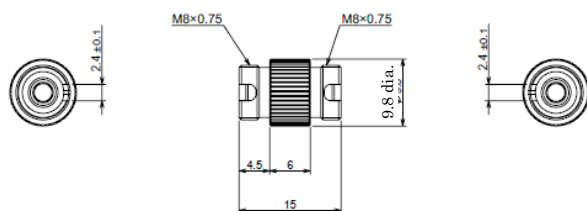
Note

Model	Cable length	L
ZW-XF5002R	2m	2000±20
ZW-XF5005R	5m	5000±50
ZW-XF5010R	10m	10000±100
ZW-XF5020R	20m	20000±200
ZW-XF5030R	30m	30000±300

Product discontinuation
Model ZW-C/ZW-S/ZW-XF series

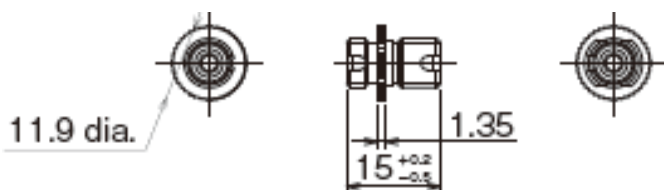
Fiber adapter

ZW-XFC



Recommendable replacement
Model ZW-5000/ZW-SQ/ZW-XF50 series

ZW-XFC2



[Characteristics]

Sensor head

Item	Product discontinuation Model ZW-C/ZW-S/ZW-XF series				Recommendable replacement Model ZW-5000/ZW-SQ/ZW-XF50 series				
	ZW-S07	ZW-S20	ZW-S30	ZW-S40	ZW-SQ5007	ZW-SQ5020	ZW-SQ5030	ZW-SQ5040	
Measuring center distance	7mm	20mm	30mm	40mm	7mm	20mm	30mm	40mm	
Measuring range	±0.3mm	±1mm	±3mm	±6mm	±0.3mm	±1mm	±3mm	±6mm	
Static resolution	0.25µm.	0.25µm	0.25µm	0.25µm	0.25µm	0.25µm	0.25µm	0.25µm	
Linearity	±0.08µm.	±1.2µm.	±4.5µm.	±7.0µm.	±0.08µm.	±1.2µm.	±4.5µm.	±7.0µm.	
Spot diameter	Near	20µm.	45µm.	70µm.	90µm.	20µm.	45µm.	70µm.	90µm.
	Center	18µm.	40µm.	60µm.	80µm.	18µm.	40µm.	60µm.	80µm.
	Far	20µm.	45µm.	70µm.	90µm.	20µm.	45µm.	70µm.	90µm.
Measuring cycle	500µs to 10ms				80µs to 1600µs				
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% (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/s ² 3 times each in six directions (up/down, left/right, forward/backward)								
Temperature characteristic	0.6µm/°C	1.5µm/°C	2.8µm/°C	4.8µm/°C	0.6µm/°C	1.5µm/°C	2.8µm/°C	4.8µm /°C	
Materials	Case: aluminum die-cast Fiber cable sheat: PVC 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	Approx. 105 g (Chassis, fiber cable total)								
Accessories included with sensor head	Instruction sheet, Fixing screw (M2) for Calibration ROM, Precautions for correct use								

Sensor head

Item	Product discontinuation Model ZW-C/ZW-S/ZW-XF series			Recommendable replacement Model ZW-5000/ZW-SQ/ZW-XF50 series			
	ZW-SR07	ZW-SR20	ZW-SR40	ZW-SQR5007	ZW-SQR5020	ZW-SQR5040	
Measuring center distance	7mm	20mm	40mm	7mm	20mm	40mm	
Measuring range	±0.3mm	±1mm	±6mm	±0.3mm	±1mm	±6mm	
Static resolution	0.25µm.	0.25µm.	0.25µm.	0.25µm.	0.25µm.	0.25µm.	
Linearity	±1.1µm.	±1.6µm.	±9.3µm.	±1.1µm.	±1.6µm.	±9.3µm.	
Spot diameter	Near	20µm.	45µm.	90µm.	20µm.	45µm.	90µm.
	Center	18µm.	40µm.	80µm.	18µm.	40µm.	80µm.
	Far	20µm.	45µm.	90µm.	20µm.	45µm.	90µm.
Measuring cycle	500µs to 10ms			80µs to 1600µs			
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% (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/s ² 3 times each in six directions (up/down, left/right, forward/backward)						
Temperature characteristic	0.6µm/°C	1.5µm/°C	4.8µm/°C	0.6µm/°C	1.5µm/°C	4.8µm /°C	
Materials	Case: aluminum die-cast Fiber cable sheat: PVC 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	Approx. 105 g (Chassis, fiber cable total)						
Accessories included with sensor head	Instruction sheet, Fixing screw (M2) for Calibration ROM, Precautions for correct use						

Controller

Product discontinuation
Model ZW-C/ZW-S/ZW-XF series

Item	ZW-CE10T		ZW-CE15T	
Input/Output type	NPN		PNP	
Number of connected Sensor Heads	1 per Controller			
Sensor Head compatibility	Available			
Light source for measurement	White LED			
Segment display	Main display	11-segment red display, 6 digits		
	Sub-display	11-segment green display, 6 digits		
LED display	Status indicators	HIGH (orange), PASS (green), LOW (orange), STABILITY (green), ZERO (green), ENABLE (green), THRESHOLD-H (orange), THRESHOLD-L (orange), RUN (green)		
	EtherCAT indicators	L/A IN(Link Activity IN)(green), L/O OUT(Link Activity OUT)(green), ECAT RUN(green), ECAT ERR(red)		
External interface	Ethernet	100BASE-TX, 10BASE-T, No-protocol Communications (TCP/UDP), EtherNet/IP™		
	EtherCAT	EtherCAT-specific protocol 100BASE-TX		
	RS-232C	115,200 bps max.		
	Analog output terminal block	Analog voltage output (OUT1V)	-10 V to +10 V, output impedance: 100 Ω	
		Analog current output (OUT1A)	4 mA to 20 mA, maximum load resistance: 300Ω	
	32-pole extension connector	Judgment output (HIGH1/PASS1/LOW1)	Transistor output system	
			Output voltage: 21.6 to 30 VDC	
			Load current: 50 mA or less	
			Residual voltage when turning ON: 1.2 V or less	
		LED OFF input (LED OFF1)	DC input system	
Input voltage: 24 VDC -10% (21.6 to 26.4 VDC)				
Input current: 7 mA Typ. (24 VDC)				
RESET output (RESET1)	Voltage/Current when turning ON: 19 V/3 mA or more			
	Voltage/Current when turning OFF:5 V/1 mA or less			
Bank	Selected bank output (BANK_OUT 1 to 3)	Transistor output system		
	Selected bank input (BANK_SEL 1 to 3)	DC input system		
Main functions	Exposure time	Auto/Manual		
	Measuring cycle	500 μs to 10 ms		
	Material setting	Standard/Mirror/Diffusion surfaces		
	Measurement item	Height/Thickness/Calculation		
	Filtering	Median/Average/Differentiation/High pass/Low pass/Band pass		
	Outputs	Scaling/Different holds/Zero reset/Logging for a measured value		
	Display	Measured value/Threshold value/Analog output voltage or current value/Judgment result/Resolution/Exposure time		
	Number of configurable banks	Max. 8 banks		
	Task process	Multi-task (up to 4 tasks per bank)		
	System	Save/Initialization/Display measurement information/Communication settings/Sensor Head calibration/Key-lock/Trigger-key input		
Ratings	Power supply voltage	21.6 to 26.4 VDC (including ripple)		
	Current consumption	600 mA max.		
	Insulation resistance	Across all lead wires and controller case: 20 MΩ(by 250 V megger)		
Environmental	Dialectic strength	Across all lead wires and controller case: 1,000 VAC, 50/60 Hz, 1 min.		
	Degree of protection	IP20(IEC60529)		
	Vibration resistance (destructive)	10 to 55 Hz, 0.35-mm single amplitude, 50 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)		
	Ambient temperature	Operating: 0 to 40°C Storage:-15 to 60°C (with no icing or condensation)		
Ambient humidity	Operating and storage: 35% to 85% (with no condensation)			
Grounding	D-type grounding (Grounding resistance of 100 Ω or less) Note: For conventional Class D grounding			
Materials	Case: PC			
Weight	Approx. 750 g (main unit only), Approx. 150 g (Parallel Cable)			
Accessories included with controller	Instruction sheet, Member registration sheet, Parallel cable ZW-XCP2E			

Note: Controllers with binary outputs are also available (ZW-C10T/-C15T). Please contact your OMRON sales representative for details.

**Recommendable replacement
Model ZW-5000/ZW-SQ/ZW-XF50 series**

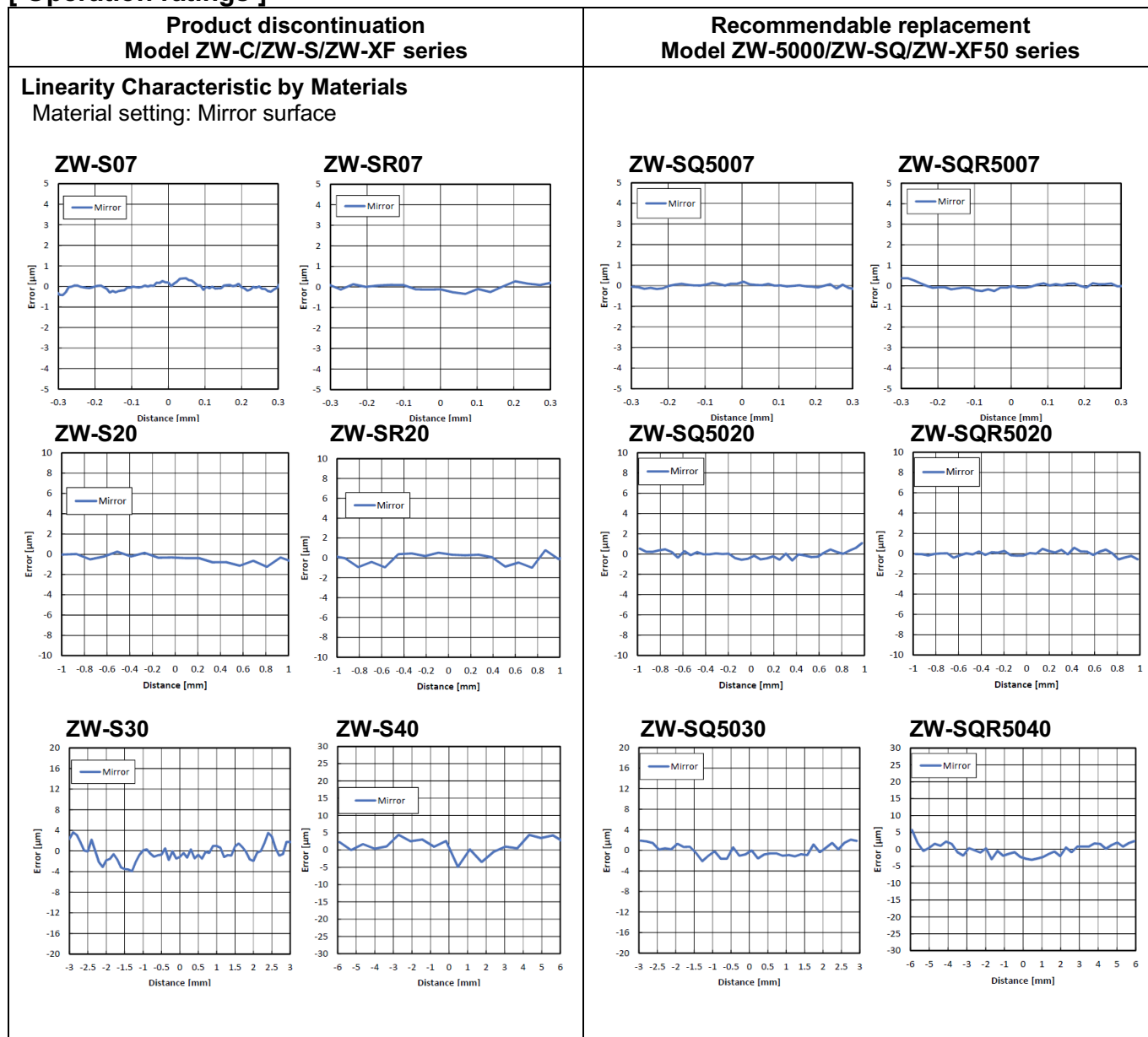
Item		Specifications	
		ZW-5000T	
Input/output type		NPN/PNP dual type	
Number of connected sensor heads		1	
Sensor head compatibility		ZW-S*50**	
Light source for measurement		White LED	
LED Safety		Risk Group 3 (IEC62471)	
Segment Display	Main display	11-segment white display, 6 digits	
	Sub-display	11-segment green display, 6 digits	
LED 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 Output voltage: 21.6 to 30 VDC Load current: 50 mA or less Residual voltage when turning ON: 2 V or less 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)	
		Zero reset input (ZERO)	
	Bank	Timing input (TIMING)	DC input system Input voltage: 24 VDC ± 10% (21.6 to 26.4 VDC)
		Reset input (RESET)	Input current: 7 mA Type. (24 VDC)
		Sync input (SYNC)	ON voltage/ON current: 19 V/3 mA or less
Trigger input (TRIG)		ON voltage/ON current: 5 V/1 mA or less	
Logging input (LOGGING)			
Currently selected bank output (BANK_OUT 1 to 3)		Transistor output system Output voltage: 21.6 to 30 VDC Load current: 50 mA or less Residual voltage when turning ON: 2 V or less Leakage voltage when turning OFF: 0.1 mA or less	
Bank Selection input (BANK_SEL 1 to 3)	DC input system Input voltage: 24 VDC ± 10% (21.6 to 26.4 VDC) Input current: 7 mA Type. (24 VDC) ON voltage/ON current: 19 V/3 mA or more 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	
	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	
	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) Note: For conventional Class D grounding	
Material		Chassis: PC	
Weight		Approx. 900g (main unit only), Approx. 150 g (Parallel cable)	
Accessories		Parallel cable (ZW-XCP2E) 10 Fiber cleaners (ZW-XCL) Fiber adapter cap, Strap × 1 Instruction Manual, Member registration sheet	

Note: The Export Trade Control Order compatible Controller (ZW-5000T) is available.

When using this 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 range of the measurement cycle (exposure time) changes.

[Operation ratings]



Specifications and prices in this product news are as of the issue date and are subject to change without notice. Only main changes in specifications are described in this document. Please be sure to read the relevant catalogs, datasheets, product specifications, instructions, and manuals for precautions and necessary information when using products.