

OMRON

Product Discontinuation Notices

July 4, 2011

Displacement & Measurement Sensors

No. 2011187E

Discontinuation Notice of Profile Measuring Sensor. Z5[][] series

Product Discontinuation

X

Sensor head

Z500-SW[] Series

Z550-SW[] Series

Z510-SW[] Series

Z5FP-SL[] Series

Controller

Z500-MC[] Series

Z550-MC[] Series

Z510-WC[] Series

Z5FP-MC[] Series

Sensor Extension Cable

Z519-SC[] Series

Z309-SC[] Series

Console

Z300-KP Series

ROM Module for Version UP

Z500-PCB[] Series

Recommended Replacement



Sensor head

ZG2-WDS[] Series

No recommended replacement

Controller

ZG2-WDC[] Series

No recommended replacement

Sensor Extension Cable

ZG2-XC[]CR Series

No recommended replacement

No recommended replacement

Discontinuation date: The end of March, 2012

Caution on recommended replacement

the Z510 series and Z5FP series are no recommended replacement . Z500 series and Z550 series would like to go over the ZG2 series.

Sensor head and controller are not compatible.

Please be change in sets with sensor head and controller.

OMRON Corporation

Industrial Automation Company

Difference from discontinued product

Model	Body Color	Dimen sions	Wire connection	Mounting Dimensions	Charact eristics	Operation ratings	Operation methods
ZG2-WDS8	**	**	-	**	*	*	-
ZG2-WDS22	**	**	-	**	*	*	-
ZG2-WDS70	**	**	-	**	*	*	-
ZG2-WDS3V	**	*	-		*	*	-
ZG2-WDC11/11A	*						
ZG2-WDC41/41A	*						
ZG2-XC[]CR	*	*	*	*	-	_	-

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

Product Discontinuation and recommended replacement

Product disc	ontinuation	Recommended	replacement
Model	Product code	Model	Product code
Z500-SW2	Z5007003M	ZG2-WDS3V	ZG21019G
Z500-SW6	Z5007006D	ZG2-WDS8	ZG21005G
Z500-SW17	Z5007001C	ZG2-WDS22	ZG21007C
Z510-SW2	Z5107001G	-	-
Z510-SW2T	Z5107006H	-	-
Z510-SW6	Z5107002E	-	-
Z510-SW17	Z5107003C	-	-
Z550-SW70	Z5501001R	ZG2-WDS70	ZG21009M
Z5FP-SL1	Z5FP1000F	-	-
Z500-MC10	Z5501003E	ZG2-WDC11	ZG21001D
Z500-MC10E	Z5007004H	ZG2-WDC11	ZG21001D
Z510-WC10	Z5107004A	-	-
Z510-WC10E	Z5107007FA	-	-
Z510-WC11	Z5107005M	-	-
Z510-WC15E	Z5107008D	-	-
Z550-MC10(NPN)	Z5501003E	ZG2-WDC11(NPN)	ZG21001D
Z550-MC15(PNP)	Z5501004C	ZG2-WDC41(PNP)	ZG2 1003M
Z5FP-MC10	Z5FP1001D	-	-
Z5FP-MC15	Z5501005A	-	-
Z519-SC1R	Z5197001H	ZG2-XC3CR ZG2-XC8CR	ZG2 1011A ZG2 1012M
Z309-SC1R	Z3091005H	ZG2-XC6CR ZG2-XC15CR	ZG2 1012M ZG2 1013H
Z500-PCBE	Z5007005F	-	-

Body color

Product discontinuation Z5[][]series

Recommended replacement ZG2 series

Z500 series



ZG2 series



Z550 series



Z510 series

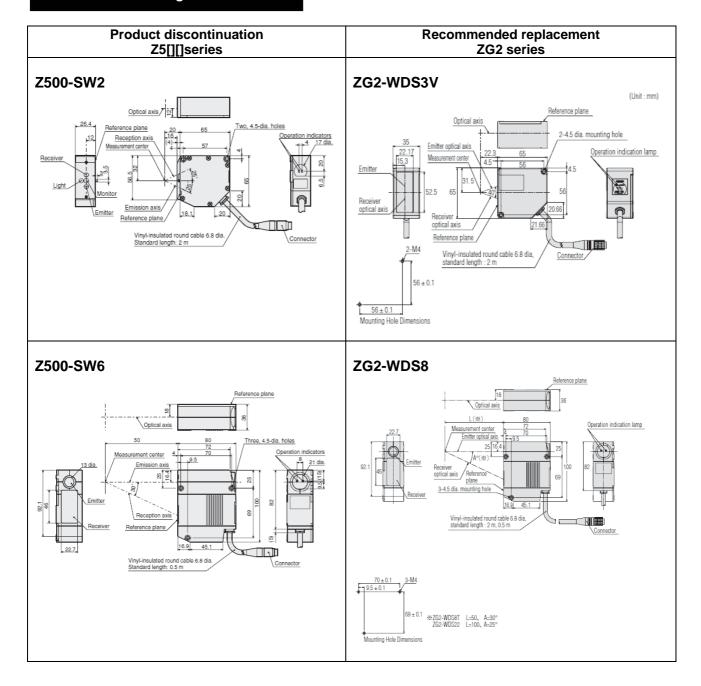


No recommended replacement

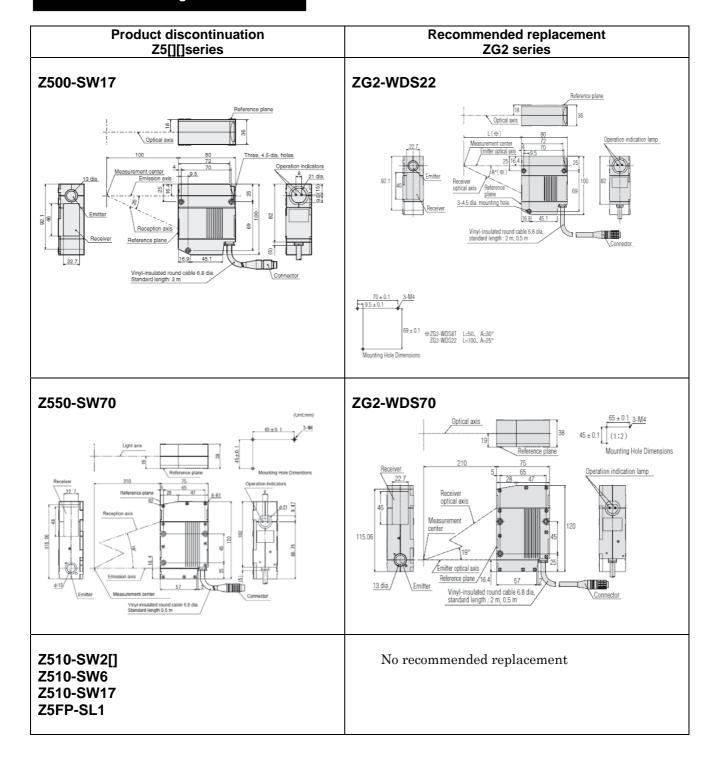
Z5FP series



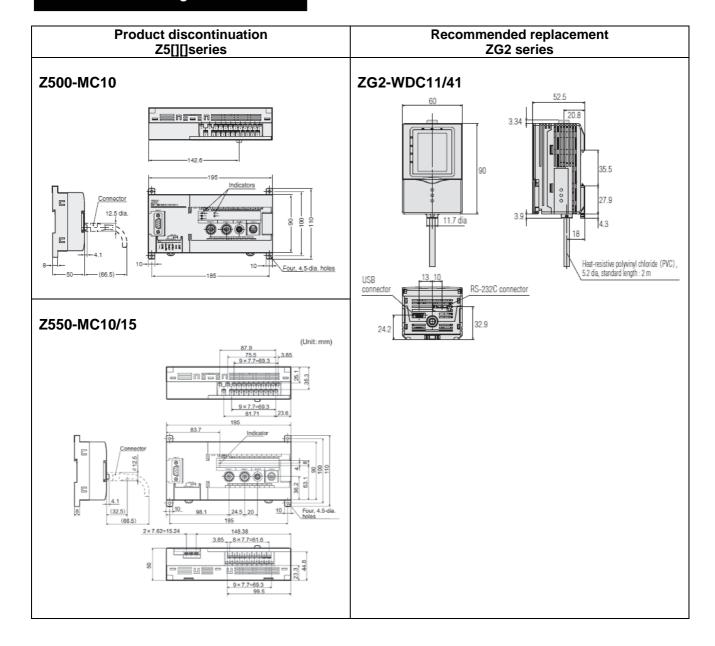
Dimensions/ Mounting dimensions



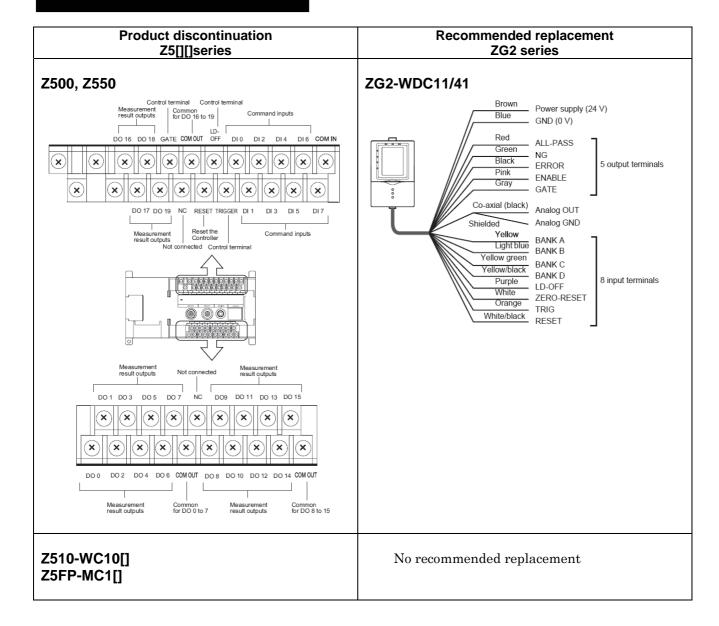
Dimensions/ Mounting dimensions



Dimensions/ Mounting dimensions



Wire Connection



model Item		Sensor Z	r Z500-SW2 Sensor ZG2-WDS3V		2-WDS3V	
	Optical system		Mirror reflection	Diffuse reflection	Mirror reflection	
Measurement of	Measurement center distance (height direction)		20mm	10.6 mm	22.3 mm	
Measurem	ent range	±0.8	mm	±0.4 mm	±0.5 mm	
	eight direction	0.25 μm (See r		0.25		
V	Vidth direction	126		5μm (3 mm		
Linearity (heig		±0.1 %F.S.	±0.1 %F.S.	±0.1 %		
Temperature of		0.01 %		0.08 %F		
	Туре	Visible-light sem		Visible semico		
Light	Wavelength	650		650		
source	Output	1 m		1 m		
	Laser class	Clas	ss 2	Clas	s 2	
Beam : (at measurei dista	ment center	20 μm × 4	mm TYP.	25 μm × 4	mm TYP.	
LED inc	LED indicator		Lit while laser is ON.		LED indicator STAND BY: Turns ON when laser emission is ready (green) LD_ON: Turns ON when laser is emitted (green)	
	Ambient operating illumination		Illumination at light-receiving surface: 3,000 lx max., incandescent light		Illumination on received light surface 7000 lx max. (incandescent light)	
	Ambient temperature	Ambient temperatu 0 to +50 °C, Storag (with no icing or co	ge: -15 to +60 °C	Operating: 0 to 50°C Storage: -15 to +60°C (with no icing or condensation)		
Environmental performance	Ambient humidity	Ambient humidity C storage: 35 to 85 % (with no condensat	RH	Operating and storage: 35% to 85%RH (with no condensation)		
	Degree of protection	IEC I	P64	IEC I	P67	
	Vibration resistance (durability)	Vibration resistance 10 to 150 Hz (single amplitude: 0.35 mm) for 80 min. each in X, Y, and Z directions		10 to 150 Hz (at a s 0.35 mm) for 80 min X, Y, and Z directio	nutes each in the	
Material		Unit: Die-cast aluminum Cable sheathing: Heat-resistant chlorinated vinyl Connector: zinc alloy and brass		Case: aluminum die-cast, Front cover: glass Cable sheath: heat-resistant PVC, Connector: Zinc alloy and brass		
Cable		21		0.5 m, 2 m (fle		
Minimum ber		68 r		68 mm		
Wei Access		Approx. 600 g 3 ferrite cores, laser warning labels (English)		Approx. 300 g Laser warning labels (English Label), ferrite core (1 p'ce), Instruction Sheet		

model Item		Sensor Z	500-SW6	Sensor ZO	92-WDS8
		Diffuse reflection	Mirror reflection	Diffuse reflection	Mirror reflection
	Optical system Measurement center distance				
(height di		50mm	44mm	50 mm	44 mm
Measureme		±5 mm	±4 mm	±3 mm	±2 mm
	Height direction	<u> </u>		1 μ	m
	Width direction	126		13µm (8 mr	n / 631 pix)
Linearity (heig	ht direction)	±0.1 %		±0.1 %	
Temperature c	haracteristics	0.01 %F		0.03 %F	
	Туре	Visible-light sem		Visible semico	
Light source -	Wavelength	658		658	
Light course	Output	15 n		5 m	
_	Laser class	Class	s 3B	Class	s 2M
Beam s (at measuren distar	nent center	30 µm × 24	mm TYP.	30 μm × 24	mm TYP.
LED indicator		Lit while laser is ON.		LED indicator STAND BY: Turns ON when laser emission is ready (green) LD_ON: Turns ON when laser is emitted (green)	
Ambient operating illumination		Illumination at light-receiving surface: 3,000 lx max.,		Illumination on received light surface 7000 lx max. (incandescent light)	
	Ambient temperature	incandescent light Ambient temperature Operating: 0 to +50 °C, Storage: -15 to +60 °C (with no icing or condensation)		Operating: 0 to 50°C Storage: -15 to +60°C (with no icing or condensation)	
Environmental performance	Ambient humidity	Ambient humidity storage: 35 to 85 (with no condensations)	Operating and % RH		
	Degree of protection	IEC IP66		IEC I	
Vibration resistance (durability)		Vibration resistance 10 to 150 Hz (single amplitude: 0.35 mm) for 80 min. each in X, Y, and Z directions		10 to 150 Hz (at a single-amplitude of 0.35 mm) for 80 minutes each in the X, Y, and Z directions	
Material		Unit: Die-cast aluminum Cable sheathing: Heat-resistant chlorinated vinyl Connector: zinc alloy and brass Case: aluminum die-cast, Front cover: glass Cable sheath: heat-resista Connector: Zinc alloy and		e-cast, -resistant PVC, by and brass	
Cable le		0.5		0.5 m, 2 m (flo	
Minimum ben		68 r		68 r	
Weig Access		Approx. 700 g 3 ferrite cores, laser warning labels (English)		Approx. 500 g Laser warning labels (English Label), ferrite core (1 p'ce), Instruction Sheet	

model Item		Sensor Z5	00-SW17	Sensor ZG	2-WDS22
Optical system		Diffuse reflection	Mirror reflection	Diffuse reflection	Mirror reflection
Measurement center distance (height direction)		100 mm	94 mm	100 mm	94 mm
Measureme		±20 mm	±16 mm	±12 mm	±10 mm
	eight direction	1 µ		2.5	
V	Vidth direction	126		35μm (22 m	
Linearity (heig		±0.1 %		±0.1 %	
Temperature c		0.01 %I		0.02 %F	
Limbt	Type	Visible-light sem		Visible semico	
Light	Wavelength	658		658	
source	Output	15 r		5 m	
Doom o	Laser class	Class	S 3B	Class	5 ZIVI
Beam s (at measurer distar	ment center	60 μm × 45	mm TYP.	60 µm × 45	mm TYP.
LED indicator		Lit while laser is ON.		LED indicator STAND BY: Turns ON when laser emission is ready (green) LD_ON: Turns ON when laser is emitted (green)	
	Ambient operating illumination	Illumination at light-receiving surface: 3,000 lx max., incandescent light		Illumination on received light surface 7000 lx max. (incandescent light)	
	Ambient temperature	Ambient temperature Operating: 0 to +50 °C, Storage: -15 to +60 °C (with no icing or condensation)		Operating: 0 to 50°C Storage: -15 to +60°C (with no icing or condensation)	
Environmental performance	Ambient humidity	Ambient humidity Operating and storage: 35 to 85 % RH (with no condensation)		Operating and storage: 35% to 85%RH (with no condensation)	
	Degree of protection	IEC I	P66	IEC I	P66
Vibration resistand (durability		Vibration resistance 10 to 150 Hz (single amplitude: 0.35 mm) for 80 min. each in X, Y, and Z directions		10 to 150 Hz (at a single-amplitude of 0.35 mm) for 80 minutes each in the X, Y, and Z directions	
Material		Unit: Die-cast aluminum Cable sheathing: Heat-resistant chlorinated vinyl Case: alumini Front cover: g Cable sheath		Case: aluminum die Front cover: glass Cable sheath: heat-I Connector: Zinc allo	resistant PVC, y and brass
Cable le		2 ו		0.5 m, 2 m (flo	
Minimum ben		68 r		68 r	
Weig Access	_	Approx 3 ferrite cores, las (English)		Approx. Laser warning labe ferrite core (1 pce),	ls (English Label),

	odel em	Sensor Z550-SW70	Sensor ZG2-WDS70
	system	Diffuse reflection	Diffuse reflection
	center distance direction)	210 mm	210 mm
	Height direction	±30 mm	±48 mm
range	Width direction	70 mm	70 mm typ.
	Height direction	10 μm	6 μm
Resolution	Width direction	0.1 mm	111µm
Linearity (he	ight direction)	±0.5%F.S.	±0.1 %F.S.
	characteristics	0.01 %F.S./°C	0.02 %F.S./°C
·	Туре	Visible semiconductor laser	Visible semiconductor laser
Light course	Wavelength	658 nm	658 nm
Light source	Output	15 mW	5 mW
	Laser class	Class 3B	Class 2M
(at measure	shape ement center ance)	120 μm × 75 mm TYP.	120 μm × 75 mm TYP.
LED indicator		Lit while laser is ON.	LED indicator STAND BY: Turns ON when laser emission is ready (green) LD_ON: Turns ON when laser is emitted (green)
	Ambient operating illumination	Illumination at light-receiving surface: 3,000 lx max., incandescent light	Illumination on received light surface 7000 lx max. (incandescent light)
	Ambient temperature	Ambient temperature Operating: 0 to +50 °C, Storage: -15 to +60 °C (with no icing or condensation)	Operating: 0 to 50°C Storage: -15 to +60°C (with no icing or condensation)
Environmental performance	Ambient humidity	Ambient humidity Operating and storage: 35 to 85 % RH (with no condensation)	Operating and storage: 35% to 85%RH (with no condensation)
	Degree of protection	IEC IP66	IEC IP66
Vibration resistance (durability)		Vibration resistance 10 to 150 Hz (single amplitude: 0.35 mm) for 8 min. each in X, Y, and Z directions	10 to 150 Hz (at a single-amplitude of 0.35 mm) for 80 minutes each in the X, Y, and Z directions
Material		Unit: aluminum die-cast Cable sheathing: Heat-resistant PVC Connector: zinc alloy and brass	Case: aluminum die-cast, Front cover: glass Cable sheath: heat-resistant PVC, Connector: Zinc alloy and brass
	length	0.5 m	0.5 m, 2 m (flexible cable)
	ending radius	68 mm	68 mm
We	eight	Approx. 550 g	Approx. 650 g
Accessories		CLASS 3B Warning label	Laser warning labels (English Label), ferrite core (1 pce), Instruction Sheet

Itam Innut/Outnut Tuna	Z500-MC10E	Z500-MC15E	ZG2-WDC11/11A	ZG2-WDC41/41A
Item Input/Output Type	NPN	PNP	NPN	PNP
Number of Sensors	2		1	
that can be mounted	16 00000		16 bank	
Number of scenes	16 scene Automatic (The light intensity tracking		то рапк	
Light intensity tracking function	range can be speci Fixed (Select from Multiple (The light i be specified)	fied)/ 31 stages)/ ntensity range can	MULTI/HS MULTI/AUTO/FIXED	
Measurement item	Select from the following Height, Step: 2 pts, Edge position, With Peak/Bottom, Defin	Step: 3 pts, n, Edge center,	Height/2-point step/ 3-point step/Edge position/ Edge width/Angle/	
Results output	Judgment output →RS-232C, Termin Measurement value →RS-232C, Analog	e output g output	Judgment (ALLPAS Analog output Trigger auxiliary out RS-232C	•
Terminal block	21 output points: D	SET, D10 to D17 O0 to DO19, GATE	I/O signal wire, Seria Parallel output	al I/O,
Power supply voltage		26.4 VDC		26.4 VDC
Current consumption		Sensors connected)	0.8 A	max.
Insulation resistance	20 MΩ min. between all DC external terminals and GR terminal (100 VDC Megger) (with internal surge absorber removed)		Across all lead wires and Controller case: 20 M Ω (by 250 V DC Megger)	
Dielectric strength	1000 VAC, 50/60 Hz between all DC external terminals and GR terminal (with internal surge absorber removed)		Across all lead wires and Controller case, 1000 V AC, 50/60 Hz, 1 min	
Vibration resistance	10 to 150 Hz (double amplitude: 0.1 mm) for 8 min. each in X, Y, and Z directions		Vibration frequency: 10 to 150 Hz Single-amplitude: 0.35 mm Acceleration: 50 m/s ² 10 times for 8 minutes	
Shock resistance	200 m/s ² , 3 times e		150 m/s ² 3 times each in 6 directions (up/down, left/right, forward/backward)	
Ambient temperature	Operating: 0 to +50 Storage: -15 to +60 (with no icing or co	O°C	Operating: 0 to +50°C Storage: -15 to +60°C (with no icing or condensation)	
Ambient humidity	Operating and stora (with no condensat	age: 35 to 85 %RH	Operating and stora	ge: 35% to 85%
Degree of protection		(in-panel)	IP20 (IE	C60529)
Material	Unit: ABS		Case: Polycarbonat Cable sheath: heat-resistant P\	,
Weight (including packaging)	Approx. 1300 g (Unit: Approx. 700 g)		Approx. 300 g (when packaged: ap	prox. 450 g)
Accessories	2 manuals, 1 resistor (250 Ω, 1/2 W)		ZG2-WDC_1: ferrite core (large Insure Lock (1 po ZG2-WDC_1A: ferrite core (large ferrite core (sma Insure Lock (1 po Instruction Sheet (CD-ROM), USB	es), Instruction Sheet e) (1 pcs), II) (2 pcs), cs), t, setup software

	odel em	Sensor Z550-SW70	Sensor ZG2-WDS70	
	system	Diffuse reflection	Diffuse reflection	
Measurement	center distance direction)	210 mm	210 mm	
	Height direction	±30 mm	±48 mm	
range	Width direction	70 mm	70 mm typ.	
Decelution	Height direction	10 μm	6 μm	
Resolution	Width direction	0.1 mm	111µm	
Linearity (he	ight direction)	±0.5%F.S.	±0.1 %F.S.	
Temperature	characteristics	0.1 %F.S./°C	0.02 %F.S./°C	
	Type	Visible semiconductor laser	Visible semiconductor laser	
Light source	Wavelength	658 nm	658 nm	
Light source	Output	15 mW	5 mW	
	Laser class	Class 3B	Class 2M	
(at measure	shape ement center ance)	120 μm × 75 mm TYP.	120 μm × 75 mm TYP.	
LED indicator		Lit while laser is ON.	LED indicator STAND BY: Turns ON when laser emission is ready (green) LD_ON: Turns ON when laser is emitted (green)	
	Ambient operating illumination	Illumination at light-receiving surface: 3,000 lx max., incandescent light	Illumination on received light surface 7000 lx max. (incandescent light)	
	Ambient temperature	Ambient temperature Operating: 0 to +50 °C, Storage: -15 to +60 °C (with no icing or condensation)	Operating: 0 to 50°C Storage: -15 to +60°C (with no icing or condensation)	
Environmental performance	Ambient humidity	Ambient humidity Operating and storage: 35 to 85 % RH (with no condensation)	Operating and storage: 35% to 85%RH (with no condensation)	
	Degree of protection	IEC IP66	IEC IP66	
Vibration resistance (durability)		Vibration resistance 10 to 150 Hz (single amplitude: 0.35 mm) for 8 min. each in X, Y, and Z directions	10 to 150 Hz (at a single-amplitude of 0.35 mm) for 80 minutes each in the X, Y, and Z directions	
Material		Unit: aluminum die-cast Cable sheathing: Heat-resistant PVC Connector: zinc and brass	Case: aluminum die-cast, Front cover: glass Cable sheath: heat-resistant PVC, Connector: Zinc alloy and brass	
	length	0.5 m	0.5 m, 2 m (flexible cable)	
	ending radius	68 mm	68 mm	
We	ight	Approx. 550 g	Approx. 650 g	
Accessories		CLASS 3B Warning label	Laser warning labels (English Label), ferrite core (1 pce), Instruction Sheet	

Item Input/Output	Z550-MC10	Z550-MC15	ZG2-WDC11/11A	ZG2-WDC41/41A
Туре	NPN	PNP	NPN	PNP
Number of Sensors	2		1	
that can be mounted				
Number of scenes	16 scene		16 bank	
Light intensity tracking function	Multi-sensitivity adju range or sampling in precedence), fixed s automatic sensitivity	terval takes ensitivity,	MULTI/HS MULTI/AU	TO/FIXED
Measurement item	Height, Step: 2 pts, position, Width, Edg Peak/Bottom, Cross Inclination, Roughne	e center, -sectional area, ess, User-defined	Height/2-point step/3-point step/Edge position/Edge width/Angle/	
Results output	Terminal block: Judo Analog: Measureme Measurement result profile data	nt result RS-232C: , judgment result,	Judgment (ALLPASS/ output Trigger auxiliar RS-232C	
Terminal block	21 output points: DOC	SET, DI0 to DI7 to DO19 and GATE	I/O signal wire, Serial	•
Power supply voltage	21.6 to 20		21.6 to 2	
Current consumption	1 A max. (with 2 Se	,	0.8 A	max.
Insulation resistance	Between the group of external DC terminals and the ground terminal: 20 MΩ max. (at 100 V DC) (when the built-in surge absorber is removed)		Across all lead wires and Controller case: $20~\text{M}\Omega$ (by 250 V Megger)	
Dielectric strength	Between the group of terminals and the group 1000 V AC at 50/60 H surge absorber is rer	ound terminal: Iz (when the built-in	Across all lead wires and Controller case, 1000 V AC, 50/60 Hz, 1 min	
Vibration resistance	10 to 150 Hz (double mm) for 8 min. each directions	e amplitude: 0.1	Vibration frequency: 1 Single-amplitude: 0.35 Acceleration: 50 m/s ²	5 mm 10 times for 8 minutes
Shock resistance	200 m/s ² , 3 times ea		150 m/s ² 3 times each in 6 directions (up/down, left/right, forward/backward)	
Ambient temperature	Operating: 0 to +50 Storage: -15 to +60 (with no icing or con	°C densation)	Operating: 0 to +50°C Storage: -15 to +60°C (with no icing or conde	
Ambient humidity	Operating and stora (with no condensation	on)	Operating and storage	e: 35% to 85%
Degree of protection	IEC IP20 (in-panel)	IP20 (IE	
Material	Unit: ABS		Case: Polycarbonate (heat-resistant PVC Ca	
Weight	Approx. 700 g		Approx. 300 g	
(including packaging)	Approx. 700 g		(when packaged: appr	rox. 450 g)
Accessories	2 manuals, 1 resisto	r (250 Ω, 1/2 W)	ZG2-WDC_1: ferrite core (large) (1 pcs), Instruction ZG2-WDC_1A:	(1 pcs), Insure Lock Sheet (1 pcs), ferrite core ure Lock (1 pcs), setup software

Product discontinuation Z5[][]series	Recommended replacement ZG2 series
Z5FP-SL1	No recommended replacement
Z510-SW[]	No recommended replacement
Z510-WC10[]	No recommended replacement
Z5FP-MC1[]	No recommended replacement

Operation methods

The operation method is different.

Please refer to the catalog and the manual to the details.