



Product Discontinuation Notices

Displacement & Measurement Sensors

July 4, 2011

No. 2011187E

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



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.

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-XC0CR ZG2-XC15CR	ZG2 1012M ZG2 1013H
Z500-PCBE	Z5007005F	_	_

Body color Product discontinuation Recommended replacement ZG2 series Z5[][]series Z500 series ZG2 series TIMITICE P 0 Z550 series AARACCEREEL Z510 series No recommended replacement i TILLILLILL 0 **Z5FP** series 0

Dimensions/ Mounting dimensions



Dimensions/ Mounting dimensions



Dimensions/ Mounting dimensions



Wire Connection



model		Sensor Z	500-SW2	Sensor ZG	2-WDS3V
Ite		Diffuse reflection Mirror reflection			
	Optical system Measurement center distance		Mirror reliection	Diffuse reflection	Mirror reflection
(height d	irection)	5.2mm	20mm	10.6 mm	22.3 mm
Measurem	0	±0.8		±0.4 mm	±0.5 mm
	eight direction	0.25 µm (See i	,	0.25	
V	lidth direction	126		5µm (3 mm	
Linearity (heig		±0.1 %F.S.	±0.1 %F.S.	±0.1 %	
Temperature c		0.01 %		0.08 %F	
	Туре	Visible-light sem		Visible semico	
-	Wavelength	650		650	
source	Output	1 m		1 m	
	Laser class	Clas	ss 2	Clas	s 2
Beam s (at measurer distar	ment center	20 µm × 4	mm TYP.	25 µm × 4	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 C storage: 35 to 85 % (with no condensat	Dperating and RH	Operating and storage: 35% to 85%RH (with no condensation)	
	Degree of protection	IEC I		IEC II	
	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 mir X, Y, and Z directio	nutes each in the
Material		Unit: Die-cast aluminumCase: aluminum die-cast,Cable sheathing:Front cover: glassHeat-resistant chlorinated vinylCable sheath: heat-resistant FConnector: zinc alloy and brassConnector: Zinc alloy and brass		e-cast, resistant PVC, by and brass	
Cable		21		0.5 m, 2 m (fle	
Minimum ber		68 r		68 n	
Wei	ght	Approx	. 600 g	Approx.	
Accessories		3 ferrite cores, lase (English)	er warning labels	Laser warning label ferrite core (1 p'ce),	

model		Sensor Z	500-SW6	Sensor Z0	G2-WDS8	
Iter		Diffuse reflection Mirror reflection				
	Optical system		wirror reflection	Diffuse reflection	Mirror reflection	
	Measurement center distance (height direction)		44mm	50 mm	44 mm	
Measurem	,	±5 mm	±4 mm	±3 mm	±2 mm	
	Height direction					
	Width direction	126			1 μm 13μm (8 mm / 631 pix)	
Linearity (heig		±0.1 %		±0.1 %		
Temperature c		0.01 %		0.03 %F		
	Type	Visible-light sem		Visible semico		
	Wavelength	658		658		
Light source	Output	15 r		5 m		
	Laser class	Class		Class		
Beam s		01005		01030		
(at measurer 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 at light-receiving surface: 3,000 lx max.,		Illumination on received light surface 7000 lx max.	
	illumination	incandescent light		(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 storage: 35 to 85 ((with no condensa	Operating and % RH	Operating and storage: 35% to 85%RH (with no condensation)		
	Degree of protection	IEC I	P66	IEC IP66		
	Vibration Vibration resistance 10 to 150 Hz resistance (single amplitude: 0.35 mm) for 80 (durability) min. each in X, Y, and Z directions		0.35 mm) for 80	10 to 150 Hz (at a s 0.35 mm) for 80 mi X, Y, and Z directio	nutes each in the	
Material		Unit: Die-cast alur Cable sheathing: Heat-resistant Connector: zinc al	ninum chlorinated vinyl loy and brass	Case: aluminum die-cast, Front cover: glass Cable sheath: heat-resistant PVC, Connector: Zinc alloy and brass		
Cable I		0.5		0.5 m, 2 m (fl		
Minimum ber		68 r		68 r		
Wei	ght	Approx		Approx.		
Access	ories	3 ferrite cores, laser warning labels (English) Laser warning labels (English) Laser warning labels (English)				

model		Sensor Z5	500-SW17	Sensor ZG	2-WDS22
Iter					
Optical system		Diffuse reflection	Mirror reflection	Diffuse reflection	Mirror reflection
Measurement center distance (height direction)		100 mm	94 mm	100 mm	94 mm
Measurem	ent range	±20 mm	±16 mm	±12 mm	±10 mm
Resolution H	eight direction	1 µ	im	2.5	μm
V	Vidth direction	126	pix	35µm (22 m	m / 631 pix)
Linearity (heig	ht direction)	±0.1 %	%F.S.	±0.1 %	6F.S.
Temperature c	haracteristics	0.01 %	=.S./°C	0.02 %F	F.S./°C
	Туре	Visible-light sem	iconductor laser	Visible semico	nductor laser
Light	Wavelength	658	nm	658	nm
source	Output	15 r	nW	5 m	νW
	Laser class	Class	s 3B	Class	s 2M
Beam s at measurer) distar	nent center	60 µm × 45	5 mm TYP.	60 µm × 45	imm 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		t-receiving	Illumination on recei	ved light surface
operating		surface: 3,000 lx max.,		7000 lx max.	
illumination				(incandescent light)	
	Ambient temperature	Ambient temperat 0 to +50 °C, Stora (with no icing or c	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 storage: 35 to 85 (with no condensa	Operating and % RH	Operating and storage: 35% to 85%RH (with no condensation)	
	Degree of protection	IEC		IEC IP66	
	Vibration resistance (durability)	(single amplitude: 0.35 mm) for 80		10 to 150 Hz (at a si 0.35 mm) for 80 min Y, and Z directions	
Material		Unit: Die-cast alur Cable sheathing: Heat-resistant Connector: zinc a	ninum chlorinated vinyl loy and brass	Case: aluminum die-cast, Front cover: glass Cable sheath: heat-resistant PVC, Connector: Zinc alloy and brass	
Cable I		2		0.5 m, 2 m (fl	
Minimum ber		68 r		68 r	
Weig		Approx	. 800 g	Approx.	
Access	ories	3 ferrite cores, las (English)	er warning labels	Laser warning labe ferrite core (1 pce),	

model Item		Sensor Z550-SW70	Sensor ZG2-WDS70	
	em I system	Diffuse reflection	Diffuse reflection	
	center distance			
	direction)	210 mm	210 mm	
Measurement	Height direction	±30 mm	±48 mm	
range	Width direction	70 mm	70 mm typ.	
Desolution	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	0.01 %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 ir	ndicator	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	
	eight ssories	Approx. 550 g CLASS 3B Warning label	Approx. 650 g Laser warning labels (English Label), ferrite core (1 pce), Instruction Sheet	

Item Input/Output Type	Z500-MC10E	Z500-MC15E	ZG2-WDC11/11A	ZG2-WDC41/41A
	NPN	PNP	NPN	PNP
Number of Sensors that can be mounted	2			1
Number of scenes	10		16 4	ank
Number of scenes	16 scene Automatic (The light intensity tracking		16 bank	
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 MUL	TI/AUTO/FIXED
Measurement item	Select from the follo Height, Step: 2 pts, Edge position, With Peak/Bottom, Defir	, Step: 3 pts, n, Edge center,	Height/2-point step/ 3-point step/Edge po Edge width/Angle/	osition/
Results output	Judgment output →RS-232C, Termin Measurement value →RS-232C, Analog	e output	Judgment (ALLPAS Analog output Trigger auxiliary out RS-232C	
Terminal block		IGGER, LD-OFF, SET, D10 to D17 O0 to DO19, GATE	I/O signal wire, Seria Parallel output	al I/O,
Power supply voltage	21.6 to 2	26.4 VDC	21.6 to 2	26.4 VDC
Current consumption	1 A max. (with 2 S	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 each in 6 directions		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° (Operating: 0 to +50°C Storage: -15 to +60°C (with no icing or condensation)	
Ambient humidity	Operating and stor (with no condensat	age: 35 to 85 %RH	Operating and stora	
Degree of protection	IEC IP20	(in-panel)	,	C60529)
Material	Unit: ABS			e (PC), /C Cable length 2 m
Weight (including packaging)	Approx. 1300 g (Unit: Approx. 700 g)		Approx. 300 g (when packaged: ap	oprox. 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	e) (1 pcs), II) (2 pcs), cs), t, setup software

model		Sensor Z550-SW70	Sensor ZG2-WDS70
	em		
	system	Diffuse reflection	Diffuse reflection
	center distance direction)	210 mm	210 mm
Measurement	0	±30 mm	±48 mm
range	Width direction	70 mm	70 mm typ.
Resolution	Height direction	10 µm	6 µm
	Width direction	0.1 mm	111µm
	ight direction)	±0.5%F.S.	±0.1 %F.S.
Temperature	characteristics	0.1 %F.S./°C	0.02 %F.S./°C
	Туре	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 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
Acces	ssories	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			
that can be mounted			401	
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, adjustment	MULTI/HS MULTI/AU	TO/FIXED
Measurement item	Height, Step: 2 pts, 5 position, Width, Edg Peak/Bottom, Cross Inclination, Roughne	e center, -sectional area, ess, User-defined	Height/2-point step/3- position/Edge width/A	
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	ET, 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 terminals and the gr 20 MΩ max. (at 100 built-in surge absorb	ound terminal: V DC) (when the er is removed)	Across all lead wires and Controller case: 20 $M\Omega$ (by 250 V Megger)	
Dielectric strength	Between the group of external DC terminals and the ground terminal: 1000 V AC at 50/60 Hz (when the built-in surge absorber is removed)		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: 10 to 150 Hz Single-amplitude: 0.35 mm Acceleration: 50 m/s ² 10 times for 8 minute	
Shock resistance	200 m/s ² , 3 times ea	ch in 6 directions	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	Operating: 0 to +50°C Storage: -15 to +60°C (with no icing or conde	
Ambient humidity	Operating and stora (with no condensation		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 (including packaging)	Approx. 700 g		Approx. 300 g (when packaged: app	rox. 450 g)
Accessories	2 manuals, 1 resisto	r (250 Ω, 1/2 W)	(1 pcs), Instruction ZG2-WDC_1A:	(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.