

# Catalogue

Ultra Precision Sensing Solutions

### **CONVENTIONAL TYPE**

- High response frequency
- Housing sizes from 3mm to 30mm
- Strong resistance to electromagnetic interference
- Multiple sizes available



Series			M8				M12				M18			M30	
Model Name	2. Non (J8) 3. Emb (J8M) 4. Ultra	-Buried edded a-short		ed	1. Plug-in proximity switch (J12) 2. Non-Buried Proximity Switch (J12) 3. Embedded proximity switch (J12M) 4. AC Plastic Cylindrical Proximity Switch (J12M)		1. Plug-in proximity switch (J18) 2. Non-Buried Proximity Switch (J18) 3. Embedded proximity switch (J18M) 4. 3-Wire DC Proximity Switch (J18)			1. Plug-in proximity switch (J30) 2. Non-Buried Proximity Switch (J30) 3. Embedded proximity switch (J30M)					
Product Model	J8	J8	J8M	J8D	J12	J12	J12M	J12M	J18	J18	J18M	J18	J30	J30	J30M
Detection Distance	2/4/0	5mm	1/2	2/3mm	4m	ım	2mm	1/2/3mm	8n	nm	5mm	5/8/12mm	15m	m	10mm
Form Factor		M8*45 M8*18 M12*1*50 M8*45 M18*1*55 M18*55 M30*1.5*55						55							
Operating Temp		-25°C~+70°C													
Response time		0.5ms													
Protection level								IP6	7						

### **EXTRA DISTANCES SERIES**



- · Long distance
- Three times the conventional detection distance
- Meet the requirements of -25°C~+70°C low temperature environment
- Sizes from M8 to M30

Product Model	J6.5MT	J8MT	J12MT	J12T	J18T	J18MT	J30T
Installation method	Flush/Non-flush			Non-	Flush	Flush	Non-Flush
Detection distance	2/3mm, 4/6mm			8/12mm	16/20mm	8/12mm	25/40mm
Working temperature				-25°C~+70°C			
Specifications	D6.5*45	M8*45	5 12*50 M12*50 M18*55			8*55	M30*38*12
Protection level				I	P67		

### **ANALOG SERIES**

- Linear detection
- Detection range from 0 to 40mm optional
- Provides 4-20mA/0-10V output
- A variety of dimensions are available



#### I. M12, M18, M30, B40 Analog Inductive Proximity Sensor Series

Product number	WJ12C		WJ18C		WJ30C		WJ40C				
Installation method	Flush	Non-Flush	Flush	Non- Flush	Flush	Non- Flush	Flush	Non- Flush	Plug-In		
Detection distance	0.1- 3mm	0.1-4mm / 1-4mm	1-4mm / 0.1-5mm	0.1-8mm / 1-7mm	5-10mm	0.1- 13mm / 7-14mm	5-15mm	10-30mm	5- 10mm/5 - 20mm		
Product specifications	M12*50	M12*50 / M12*68	M18*79 / M18*55		МЗ	0*78	M40*40*118		*65 / 40*118		
	Current output: 4- 20mA/400Ω Max.										
Load Resistance	Voltage output: 0-10VDC/≤2KΩ										
	Current + voltage dual output: 0-20mA/400Ω; 0-10VDC/≤2KΩ										
Protection level	IP67										

#### II. High Quality Analog Output Proximity Inductive Sensor

Housing size	M30+61.5	M30+69.5					
Mounting	Flush	Non-Flush					
SN[mm]	1-10mm	1.6-15mm					
Output	0-10V , 4	0-10V , 4-20mA					
Ambient temp.	-25°C ~ 70°C						
Protection degree	IP67						

### **FULL INOX SERIES**

- Food environment use, resistance to weak acid and weak base
- Withstand pressure up to 100BAR
- Protection level IP68



#### I. M8, M12, M18, M30 All Metal Proximity Sensors (Flush/Non-Flush)

Product Model	J8MQS	J8QS	J12MQS	J12QS	J18MQS	J18QS	J30MQS	J30QS		
Installation method	Flush	Non-Flush	Flush	Non-Flush	Flush	Non- flush	Flush	Non-flush		
Detection distance	1mm/2mm	2mm/15mm	2mm/4mm	4mm	5mm/8mm	8mm	10mm	15mm		
Working temperature		-25℃~+70℃								
Specifications	M8*1*45	M8*1*60	M12*1*50 / M12*1*68		M18*1*79 /	M18*1*55		.5*55 / 1.5*78		
Operating Voltage	10-36VDC / 90-250VAC									
Protection level		IP67								

#### II. M12 DC 10-36V Inductive Sensor Switch with Full Metal Housing

Housing size	M12*60/M12*65					
Mounting	Flush / Non-Flush					
SN	2mm / 4mm					
Power supply	10-36V DC					
Ambient temp.	-25 ~ +70°C					
Protection degree	IP67					

### **HIGH-TEMPERATURE SERIES**

- It can be used continuously at -25°C~120 °C, -25°C~150°C, -25°C~230°C
- Even in harsh environment, also has long time stability
- Multiple sizes available, Teflon line length can be customized



#### I. M8, M12, M18, M30 High Temperature Proximity Sensors Series (Flush/Non-Flush)

Product Model	J80	GW	J12GW	J18GW	J30GWM	J30GWN	J3	0GW
Installation method	Flush	Non-	Flush	Flush/Non- Flush	Flush			Non- Flush
Detection distance	1mm	2mm	1mm	1mm/5mm /8mm	10r	nm	1mm	5/8mm, 15mm
Working temperature	- 40~150°C /- 40~180°C	- 25~120°C /- 25~150°C /- 40~180°C	- 40~120°C	- 25°C~+230 °C/- 40~120°C~ 180°C~230 °C	- 25°C~+23 0°C	40~120°C~230°C/- 25°C~+230°C		-
Specifications M8*1*45		M12*1*50	M18*1*55/ M18*55	N	I30*1*55/M3	0*1.5*55		

#### II. M30 High Temperature Proximity Sensor Series (Shielded/Unshielded)

Size	J30∗55mm / J30∗78mm					
Mounting	Shielded/Unshielded					
Sensing Distance SN [mm]	10mm/15mm					
Operating Temperature	-25 °C -+70 °C, -25 °C -+120 °C, -25 °C -+150 °C					

### **LOW FORM**

- It can be used continuously at -25 to 70°C (Standard type),
   -40 to 70°C (Low temperature type), -10 to 120°C
   (High temperature type)
- With high reliability, short circuit, polarity reverse connection protection



#### I. M30 Low Temperature Proximity Sensor Series

Size	J30*55mm/J30*78mm
Mounting	Shielded/Unshielded
Sensing Distance SN[mm]	10mm/15mm
Operating Temperature	-40 °C -+80 °C

#### II. -50°C M8, M12, M18, M30 Non-Flush/Flush Low Temp. Inductive Proximity Sensor Series

Product Model	J8DW/J8GW/J12W/J12DW/J30DW/J30GW
Installation method	Non-Flush/Flush
Detection distance	2mm/4mm/8mm/8 -16mm/15mm/10 - 22mm
Working temperature	-50°C~+70°C
Specifications	M8*1*45/M18*1*55/M3 0*1*55

### **WELD-IMMUNE SERIES**

- Can withstand metal spatter, slag, combustion residue and welding current up to 25 kA magnetic field
- Anti-electromagnetic
- · Surface protection, PTFE coating



#### M8, M12, M18, M30 x 1.5 (Embedded / Non-embedded)

Model No.	M8	M12	M18	M30 x 1.5		
Size	8x49mm	12 x 61 mm	18 x 65 mm	30 x 65 mm		
Structure	M8x1	M12x1	M18x1	M30x1.5		
Install	Embedded/Non-flush					
Scope	1.5 mm	2 mm	4 mm	10 mm		

### **WELD-IMMUNE SERIES**

- Suitable for pressure environment
- Withstand pressure up to 500bar
- Stainless steel induction surface, protection grade IP68



Housing Material	Stainless steel (1.4301), Coated, PTFE	Brass, Coated, PTFE			
Sensing surface material	PBT/PTFE	Ceramic, PTFE coated	PTFE		
Ambient temperature	-2	570°C			
Protection level	IP67				

## RECTANGULAR HOUSING SERIES

- Available in 5mmx5mm, 8mmx8mm, 17mmx17mm, 40mmx40mm multiple sizes
- Specification 40mmx40mm rotatable detection surface



Product Model	Y8S	Y8X	Υ9	Y10S	Y10X	Y17/ Y17A	Y18	Y18A	Y25	BF40	BF40-C	BFT40	BFT80
Installation	Non-flush							Buried/ Non- Buried					
Detection distance	:	2.5mm		2.5mm	n/4mm	5mm/8mm	4mm	5mm/8mm	10/15 mm	15/4 0mm	15/20/30 mm	15/20/ 25mm	40/50 mm
Supply voltage		1036VDC											
Ambient temperature		-2570℃											
Protection level		IP67											

### **ANNULAR**

- Suitable for non-metal, metal material small object parts, counting, etc
- The annular inner hole diameter is 5.5/6.5/10.5/15.5/ 22.5mm optional
- Inductive detection of metal, capacitive detection of non-metal, more extensive applications
- Metal, rubber, plastic, wood and other materials can be detected
- Pulse width adjustment, delay and other functions are optional
- Normally open normally closed and NPN/PNP output mode can be selected
- Detection distance and other special requirements can be customized



Product Model	T6/T6C/T10/T10C/T15/T15C/T21/T21C
Installation method	Non-Flush
Detection distance	6mm/10mm/15mm/21mm
Working temperature	-25°C~+70°C
Specifications	60*35-20
Operating Voltage	10-36V DC
Protection level	IP67
Sensing surface material	PBT
Shell Material	PBT

### **FIBER OPTIC SENSOR**

- Made of integrated PTFE shell with high pressure resistance and corrosion resistance
- Voltage: 10-30V DC/20-250V AC can be customized
- Applicable to the surface pressure of the ocean and underwater pressure, corrosive liquid working environment



- I. ∮ Series Fiber Optic Sensor
- II. MG Series diffuse reflection / Through-beam high temperature resistant,
- III. High Temperature Resistant Optical Fiber Sensor,
- IV. M, M3, M4, M6 Series Fiber Optic Sensor

Туре	Minimum Bend (Radius)	Detection Distance (mm)	Length	Temperature	Product Model
		Diffuse Reflective			
250°C Diamond	R25	150	1m	<b>250</b> ℃	MG-11-10
105°C M4 Thread	R25	160	2m	105℃	MG-420H
105°C M6 Thread	R25	230	2m	105℃	MG-620H
200°C M4 Thread	R25	190	1m	<b>200</b> °C	MG-410FP
200°C M4 Thread	R25	180	2m	<b>200</b> °C	MG-420FP
200°C M6 Thread	R25	190	1m	<b>200</b> °C	MG-610FP
200°C M6 Thread	R25	180	2m	<b>200</b> °C	MG-620FP
350°C M4 Thread	R25	190	1m	<b>350</b> °C	MG-410

350°C M4 Thread	R25	180	2m	<b>350</b> °C	MG-420
350°C M6 Thread	R25	190	1m	350°C	MG-610
350°C M6 Thread	R25	180	2m	350°C	MG-620
350°C M4 Thread	R25	190	1m	350°C	MG-82C
350°C M4 Thread	R25	190	1m	350°C	MG-83C
350°C M6 Thread	R25	180	2m	350°C	MG-D61-S
350°C M6 Thread	R25	180	2m	<b>350</b> ℃	MG-D61
350°C M4 Thread	R25	180	2m	<b>350</b> ℃	MG-D73-S
350°C M4 Thread	R25	180	2m	350°C	MG-D73

### **EDDY CURRENT SENSOR**

### **EDDY CURRENT SENSOR**

- The highest resolution can reach 0.03um
- The highest linear accuracy is 0.15%FS
- Wide operating temperature range -60°C... + 185 °C
- IP68 protection degree
- Single channel dual channels are optional
- Output mode optional: 0-10V, 0-5V, ±5V, 0-20mA,
   4-20mA, USB, CAN



Model	MG-WJ18A	MG-WJ18B	MG-WJ18C	MG-WJ18D		
Installation type	Flush	Non-Flush	Non-Flush Flush: For WJ12	Non-Flush		
Sensing distance	14mm	07mm	720mm			
Wiring diagram	PNP					
Connect φ5 Dingqing extrusion line 2M				Built-in binding posts		

### **SQUARE SERIES**

- General purpose FS23 series and long distance FS50 series.
- Excellent resistance to ambient light and electromagnetic interference.
- Through beam type, retro reflective type, diffuse reflection type and background suppression type.
- Suitable for high speed, tiny parts detection laser series.
- Equipped with relay output products, easy to light.



### **CYLINDRICAL SERIES**

- M8, M12, M18 and M30 are available in multiple sizes.
- · Plastic case and metal case.
- Standard thread design, easy installation.
- Equipped with environmental pollution resistant products, strong penetration.



#### I. M18 Laser Photoelectric Sensor (Through beam/ Retro-reflective/Diffuse-reflective) Series

Shape		Cylindrical radia	ıl	Cylindrical axial			
Sensing method	Through- beam	Retro- reflective	Diffuse- reflective	Coaxial retro- reflective	Retro- reflective	Diffuse- reflective	Through- beam
Sensing distance	15000 mm / 20000 mm	3000 mm (Sensing dista nce (min.): 10 0mm)	100 mm/300 mm/700 mm	500 mm (Sensing dista nce (min.): 10 0mm)	2000 mm / 40 00 mm (Sensing dista nce (min.): 10 0mm)	100mm / 300 mm / 1000 m m	15000 mm / 20000 mm
Thread size		M18					
Degree of protection (IP)		IP67/IP69K					

Thread Size	M18X1.5
Detection distance	Diffuse Reflective: Sn=300mm
Detecting spot size	< 4mm
Protection class	IP 67
Operating ambient temp.	-5°C−+50°C

Size	M18*73mm			M12*60mm				
Reflection mode	Retro reflection	Diffuse	Through Beam	Retro reflection	Diffuse	Through Beam		
Sensing Distance SN[m]	2m adjustable	0.7/1m adjustable	15m	1m adjustable	0.1/0.2/0.3 m adjustabl e	5m		
Light source		Infrared light(880nm)						
Operating Temp.		0-55°C						
Protection Degree		IP67						
Sensing Object Size		20*500px White board						

### **FORK SERIES**

- A variety of slot width optional, 5mm, 30mm, 50mm, 80mm.
- High repetition accuracy.
- The minimum detected object is 0.3mm.



#### I. UT45 & UT 95 Series Ultra Small Slot Photoelectric Sensor

Detection distance	5mm (slot width)
Standard detection object	Opaque objects above 1.2×0.8mm
Ambient temperature	During working: $-25 \sim +55^{\circ}$ C
Ambient temperature	During storage: -30 ~ +80°C
Repeat accuracy	0.03mm or less

#### II. ST Series Photoelectric Sensor

Technical Parameters for Model No. ST676 and ST671-YX						
Sensing distance(all series)	5mm (slot width)					
Standard detection object	Opaque object 2x0.8mm					
Hysteresis distance	0.025mm					
Ambient temperature	During operation: 25~ +55°C during storage: -30 - +80					

#### III. FU7, FU15A & FU30 Photoelectric Sensor

Model	FU7	FU15A	FU30
Reflection type		Opposed beam	
Sensing distance	7mm	15mm	30mm
Ambient temperature		-25-+55°C	
Protection class		IP65	

### **FIBER OPTIC SENSOR**

- m3 to m6, compact size, flexible installation.
- Bending resistance, chemical resistance, high temperature resistance variety, strong environmental applicability.
- Amplifiers are available at 4 speeds (200, 500, 1000, 5000) μs.
- Double digital font panel, quick operation.



Diameter		М3	M4			М6	
Reflection mode	Diff	use	Through Beam	Diffuse	Through Beam	Throug h Beam	Diffuse
Sensing Distance SN [mm]	0-60mm / 0- 80mm	40mm	0- 1000mm/1000mm	40mm	1m	0- 1000m m / 1mm	0- 100mm
Optical fiber material			Р	lastic			
Minimum detection o bject	φ0.1		φ0.05	φ0.1	φ0.5		φ0.1
Pipe material		Stainless steel Nickel-plate brass					ated
Optical fiber type	Head of optic al fiber	Fiber pigtail		Head of opt	tical fiber		
Fiber length [m]				1m			
Fiber core size	Core 0.5, out er diameter 1 .0	Bending radi us: R15; Fiber Core Distribution: Coaxial	Core 0.5, outer dia meter 1.0; Core 1.0, outer dia meter 2.2	Bending radius: R15; Fiber Core Distribution: Coaxial	Core 1.0, outer diameter 2.2		er 2.2
Output			PN	P/NPN		•	

### **BACKGROUND SUPPRESSION**

- Not affected by the product color, from the darkest black to the lightest white can be detected
- No background interference, not affected by the product Angle, strong background suppression effect



I. Model Nos. D61, D62, D66, L61, L62-BG Series Background Suppression Photoelectric Sensor

Detection method	Light source	Detection range	NPN Type	PNP Type
Distance detection laser	Laser	120mm	L61-BG	L61P-BG
		300mm	L62-BG	L62P-BG
	Red LED	100mm	D61-BG	D61P-BG
		300mm	D62-BG	D62P-BG
		500mm	D66-BG	D66P-BG

Project/Type	Outlet				
Model	L61-BG	L61-BG	D61-BG	D62-BG	D66-BG
NPN output	Laser spot 2mm	Laser spot 2mm	Minimum spot size: 1mm	Light spot 8- 12mm	Collimated spot 8mm
Detection distance	10-120mm	30-300mm	5-100mm	10-600mm (BG function within 250mm)	10-1500mm (BG function within 500mm)
Ambient temperature	-25°C~+55°C				
Protection level	IP50				

#### II. FG30 Series TOF Photoelectric Sensor

Туре		2-point teaching type		
Project Model	NPN	FG30N		
	PNP	FG30P		
	RS485	FG30		
Detection dis	stance range	50 ~ 2000, 50 ~ 4000 setting distance (white paper, black paper 200×200mm)		
Light spot diamete	r (reference value)	4*2cm(1m);12*6cm(2.5m); 14*7cm(4m)		
Ambient illumination	Illuminance of the light receiving surface	Sunlight: 10,000lx or less		
Ambient temperature range		Operating: -20 $\sim$ +55°C, Storage: -40 $\sim$ +70°C (no freezing, no condensation)		

#### III. FG40 Series TOF Photoelectric Sensor

Laser light source	Laser diode 650nm, ≤1mW; in compliance with GB7247.1-2001, Class    laser eye safety requirements		
Laser Class	CLASS-		
Ranging frequency	1000Hz adjustable		
Working distance	0.05m-4m		
Dimensions (length, width, height)	33mm x20mm x11mm		
Protection level	IP65		
Operating temperature	-20C-+75°C		
Ambient light resistance	>50klux		

#### IV. HWCJ-50M Infrared Photoelectric Switch

Model	HWCJ-50M		
Range	0.05 ~ 50m ( 90% reflectivity), 0.05 ~ 13m ( 10% reflectivity)		
Ambient light resistance	100K Lux		
Measuring laser wavelength	905 nm (invisible light)		
Measuring laser levels	Class 3R		
Measuring laser field of view	8mm diameter @2m		
Protection level	IP65		
Dimensions (L x W x H)	48 x 32 x 21mm		
Operating temperature	-20°C~+55°C		

### **SUBMINIATURE**

Ultra small reflection, through-beam products, used in small space occasions. Sensitivity can be adjusted by pressing a button





Detection Distance	150mm	300mm	150mm	300mm
Minimum Detectable Object	Opaque object: 1mm			
Light Source (Emission Wavelength)	Infrared LED (680nm)			
Power Supply Voltage	12~24V DC Pulsed (P-P) ±10% max.			
Ambient Temperature	Operation: -25~+55°C Storage: -30~+70°C (No freezing or condensation)			

### **COLOR SENSOR**

Color resolution, mixing distinction, defective product distinction, color difference alarm, multi-color recognition, long-distance color distinction, tiny object distinction, color calibration, etc.



#### Color Mark Sensor Switch Contrast Detection Sn=28mm

Size	51*61*25mm		
Function	Contrast detection		
Sensing Distance SN [mm]	28mm		
Spot size	3mm@28mm		
Focus point	28mm+/-3mm		
Operating temperature	-10-55°C		