

SensIVA®

Focusing on industrial safety protection
And automated sensors

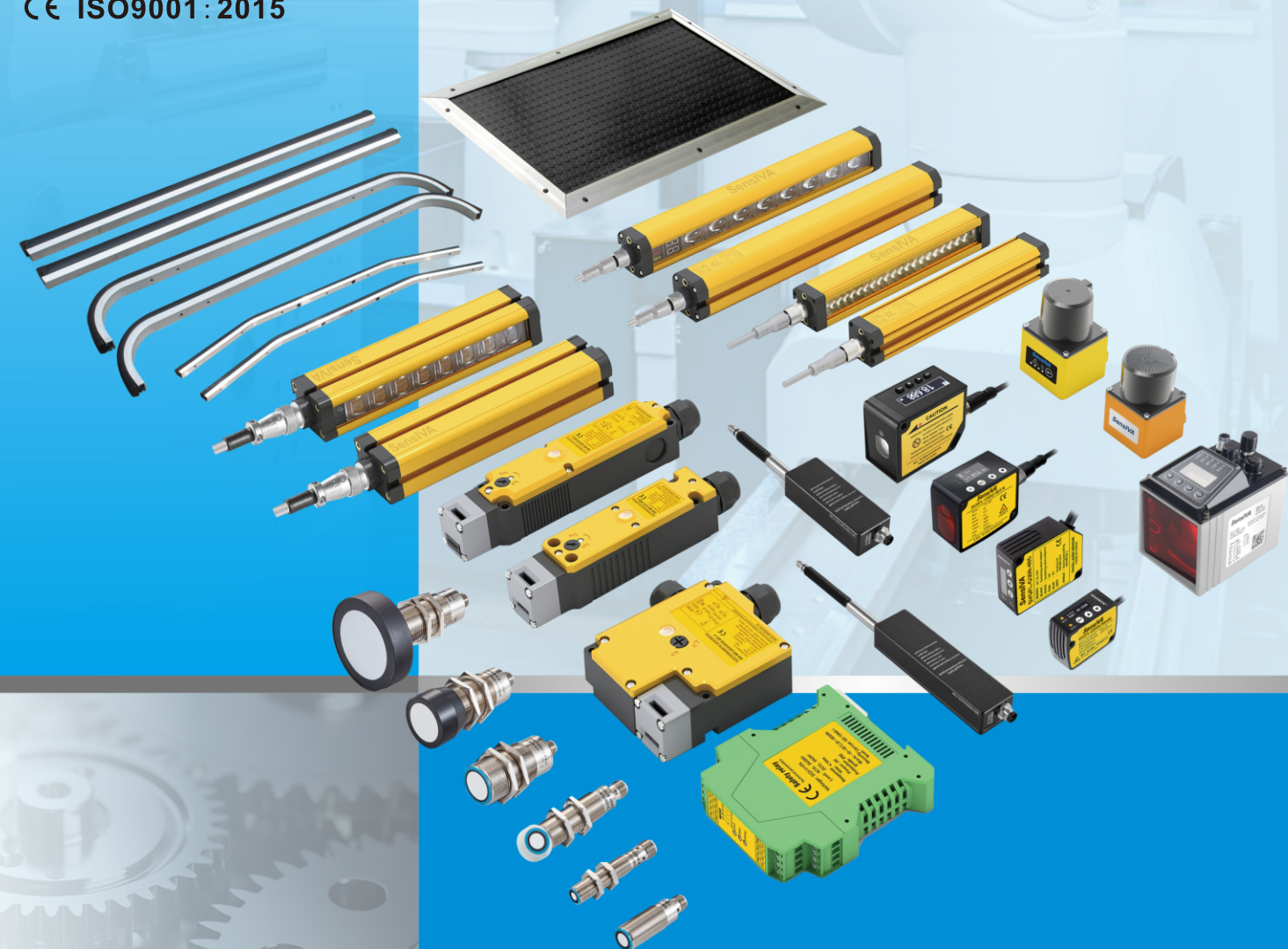
Product Overview



CE ISO9001:2015



Industrial intelligent control solutions



SensIVA®

Specifications may change without further notice

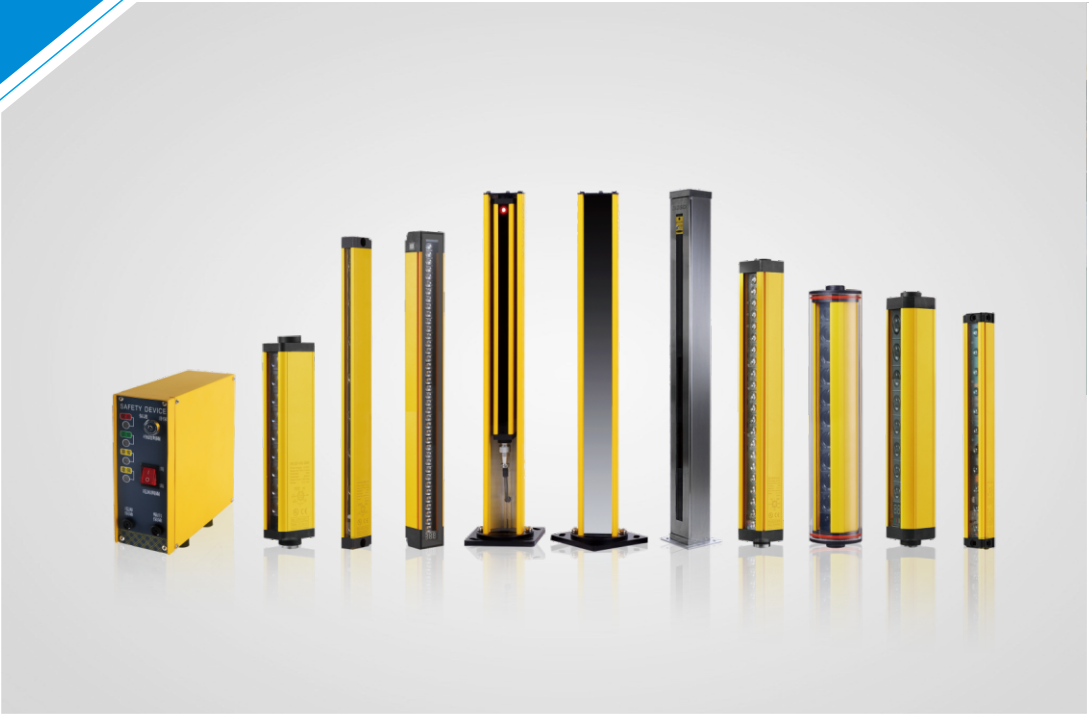
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Welcome to call SensIVA to request the latest product information.
SensIVA reserves the right to modify all product parameters and the final interpretation.

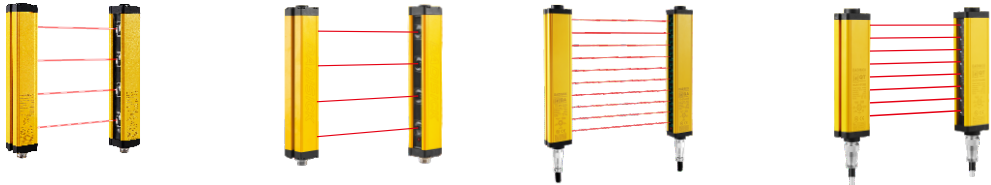
2026 Ver1.2

Industrial intelligent control solutions

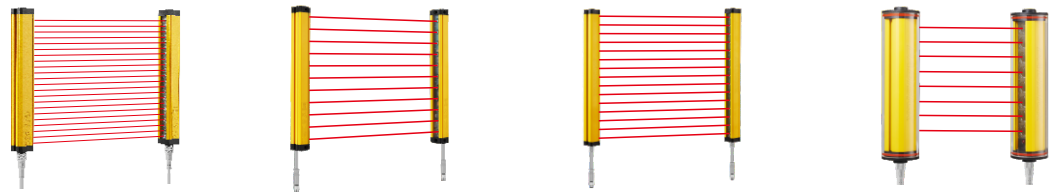


- Adopting line synchronization mode for safe and reliable performance
- Provide various size measurements such as fingers, palms, arms, etc
- Multiple external dimensions, protection heights, and detection methods are available for selection
- Can be quickly customized according to various non-standard needs of customers

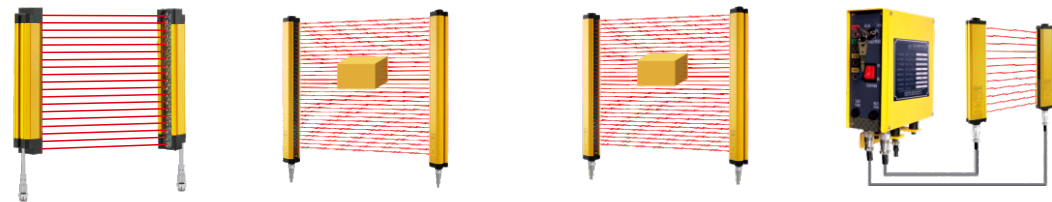
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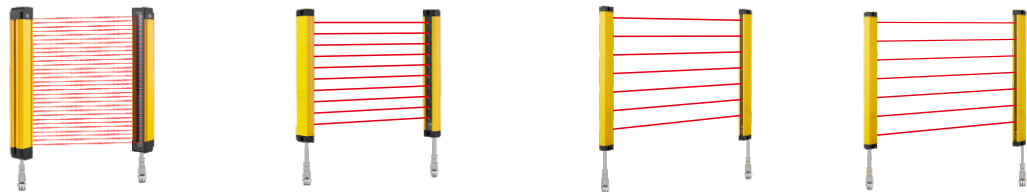
Model	SVQC series	SVQE series	SVQA series	SVQT series
Cross-sectional area	30x30mm	30x30mm	35x51mm	35x51mm
Number of optical axes	4~32axes	4~72axes	4~32axes	4~72axes
Protection height	50~3800mm	100~3800mm	50~3400mm	100~2840mm
Protection distance	0.3~3mm	0.3~3mm	0.3~3mm	0.3~3mm
Beam pitch	10/14/20/25/30/40/80/200mm	10/20/40/80/200mm	10/14/20/25/30/40/80/200mm	10/20/40/80mm
working voltage	24V DC ±10%	24V DC ±10%	24V DC ±10%	24V DC ±10%
Output mode	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP
Synchronization type	Line synchronization	Line synchronization	Line synchronization	Line synchronization
response time	≤15ms	≤15ms	≤15ms	≤15ms
Protection level	IP65	IP65	IP65	IP65



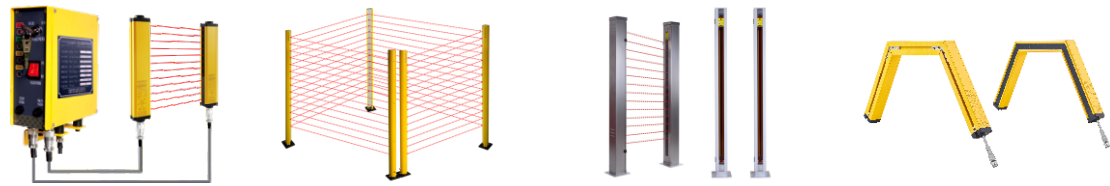
Model	SVQCE series	SVFT series	SVKT series	SVQRF series
Cross-sectional area	30x30mm	25x23mm	29.3x29.3mm	φ50mm
Number of optical axes	4~72axes	4~200axes	4~200axes	4~32axes
Protection height	90~2840mm	70~7960mm	70~7960mm	50~2480mm
Protection distance	0.3~3mm	0.3~3mm	0.3~3mm	0.3~3mm
Beam pitch	10/20/30/40mm	10/14/20/40mm	10/14/20/40mm	10/14/20/25/30/40/80mm
working voltage	24V DC ±10%	24V DC ±10%	24V DC ±10%	24V DC ±10%
Output mode	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP
Synchronization type	Line synchronization	Optical synchronization	Optical synchronization	Line synchronization
response time	≤15ms	≤15ms	≤15ms	≤15ms
Protection level	IP65	IP65	IP65	Ip68



Model	SVQO series	SVQL series	SVQM series	SVQS series
Cross-sectional area	30x28mm	36x36mm	36x36mm	35x51mm
Number of optical axes	4~72axes	4~496axes	4~400axes	4~32axes
Protection height	90~2130mm	60~4054.5mm	60~4990mm	50~2480mm
Protection distance	0.3~3mm	0.3~3mm	0.3~3mm	0.3~3mm
Beam pitch	10/20/30mm	1.25/2.5/5/10/20/40/80mm	2.5/5/10/20/40/80mmmm	10/14/20/25/30/40/80mm
working voltage	24V DC ±10%	24V DC ±10%	24V DC ±10%	24V DC ±10%
Output mode	NPN/PNP	NPN/PNP/RS485 /232/Analog output	NPN/PNP/RS485 /232/Analog output	NPN/PNP
Synchronization type	Line synchronization	Line synchronization	Line synchronization	Line synchronization
response time	≤15ms	≤15ms	≤15ms	≤15ms
Protection level	IP65	IP65	IP65	IP65



Model	SVQT4 series	SVQZ series	SVQB series	SVQBT series
Cross-sectional area	30x30mm	17.2x30mm	30x15mm	30x15mm
Number of optical axes	4~319axes	4~32axes	4~32axes	4~200axes
Protection height	90~5970mm	50~2480mm	100~1240mm	70~7960mm
Protection distance	0.3~3mm	0.3~3mm	0.3~3mm	0.3~3mm
Beam pitch	7.5/15/30mm	10/14/20/25/30/40/80mm	20/40mm	10/20/40mm
working voltage	24V DC ±10%	24V DC ±10%	24V DC ±10%	24V DC ±10%
Output mode	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP
Synchronization type	Line synchronization	Line synchronization	Line synchronization	Optical synchronization
response time	≤15ms	≤15ms	≤15ms	≤15ms
Protection level	IP65	IP65	IP65	IP65



Model	SVQV series	SVQSA series	SVQLV series Vehicle separation light curtain	Customized collection
Cross-sectional area	35x51mm	35x51mm	35x51mm	
Number of optical axes	4~72axes	4~72axes	4~72axes	
Protection height	100~5680mm	120~2840mm	50~1420mm	
Protection distance	0.3~3mm	0.3~3mm	0.3~3mm	
Beam pitch	10/20/40/80mm	40/80mm	10/14/20/25/30/40/80/200mm	Customization requires contacting customer service
working voltage	24V DC ±10%	24V DC ±10%	24V DC ±10%	
Output mode	NPN/PNP	NPN/PNP	NPN/PNP	
Synchronization type	Line synchronization	Line synchronization	Line synchronization	
response time	≤15ms	≤15ms	≤15ms	
Protection level	IP65	IP65	IP65	



- Can provide very high resolution for angles, distances, and speeds
- Not affected by light, can perform detection tasks 24/7
- Good concealment and strong anti-interference ability
- Small size, light weight, and wide application range

Product Overview ▶



model	SVLD-05D/SVLD-20D	SVLD-05HN/P SVLD-10HN/P	SVLDS2030B5-5S
measuring range	0.05-5m/0.05-20m	0.05-5m/0.05-10m	0.1-20m
Size (LxWxH)	50x50x76mm	50x50x76.3mm	80x85x102mm
Output method	NPN/PNP	NPN/PNP	Ethernet output
Scanning angle range	270°	270°	300°
Scanning frequency	15Hz/30Hz	15Hz/30Hz	25Hz
Angle resolution	0.1°/0.3°	0.1°/0.3°	0.5°
Power supply voltage	DC 9 V~28 V	DC 9 V~28 V	DC 10V~30 V
Power dissipation	2W	2W	3.4W
Protection level	IP65	IP65	IP67
Weight	150g	150g	600g



- Compact and lightweight in appearance, easy to install, with diverse contact configurations and locking functions, it is the lowest cost solution;
- Adapted to multiple operation keys, it provides various choices as a installation method on protective doors, making it widely applicable.

Product Overview ▶



model	SVOX-W2	SVOX-W3	SVOX-W5	SVOX-D2/D3
Rated voltage	24V DC	24V DC	10-115V AC/DC	10-115V AC/DC
Usage category	AC15/DC13	AC15/DC13	AC15/DC13	AC15
Tensile strength during locking	1300N	1300N	1300N	/
Rated working voltage	240V/30V	240V/30V	240V/30V/250V	400V
Rated working current	3A/2.3A	3A/2.3A	3A/2.3A/2.7A	3A/2.3A/2.7A
Contact material	Silver alloy gold plating	Silver alloy gold plating	Silver alloy gold plating	Silver alloy gold plating
Forced detachment of action force	≥80N	≥60N	≥60N	≥60N
Allow operating frequency	Maximum of 20 operations per minute	Maximum of 20 operations per minute	Maximum of 20 operations per minute	Maximum of 20 operations per minute
Protection level	IP67	IP67	IP67	IP67
service life	Mechanical over 1 million times Electrical appliances over 150000 times	Mechanical over 1 million times Electrical appliances over 150000 times	Mechanical over 1 million times Electrical appliances over 150000 times	Mechanical over 1 million times Electrical appliances over 150000 times

*Note: There are 11 types of insert keys available, which can be used in different scenarios with safety door handles.

Safety door switch/Safety door bolt

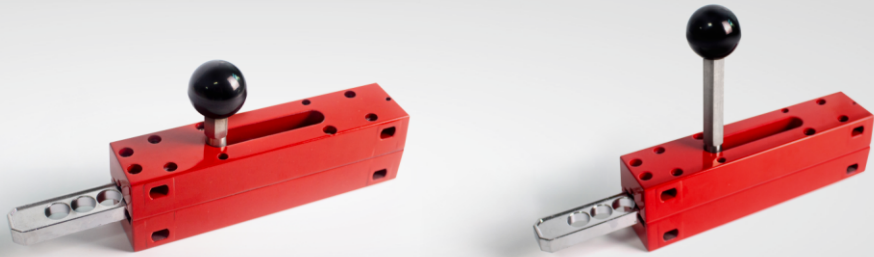
SVOX-D6
Product Overview

Explanation of the difference between standard and high-performance models		
	Standard type	High functional type
Safe output channel	●	●
AUX output channel	●	●
Secure input channel	●	●
Lock input channel	●	●
EDM		●
Reset		●

model	SVOX-D6	
Rated voltage	DC24V±15%	
Safety output	NPN*2/PNP*2	
Locking retention force	≥2000N	
Operating frequency	1HZ	
Cascade Link	Up to 20 units	
OSSD output type	Transistor output	
Insertion deviation of lock bolt	≤2mm	
Rated power	4.6W(no-load)	
Protection level	Ip65	
Mechanical durability	>1 million times (door operation speed 1m/s)	
Material	Nylon/Zinc Alloy/Stainless Steel	

Safety door
bolt

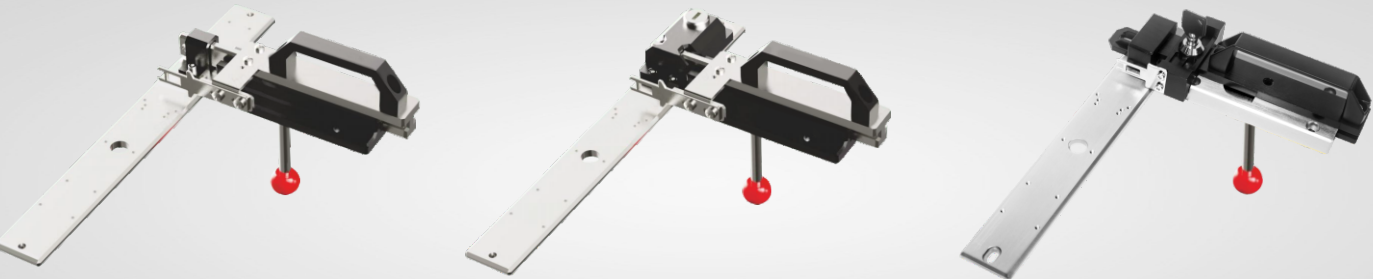
Can be used with SVOX-W2,
SVOX-W3, SVOX-W5, SVOX-D2/D3



SVOXSL-A-1

SVOXSL-A-2

Mechanical life	1x10 ⁶ per/cycle	Installation method	Left or right side	Sliding handle material	Zinc alloy
Installation position	Door or fence	Base material	Zinc alloy	Handle material	Stainless steel
Ball head material	Plastic	weight	0.6kg		



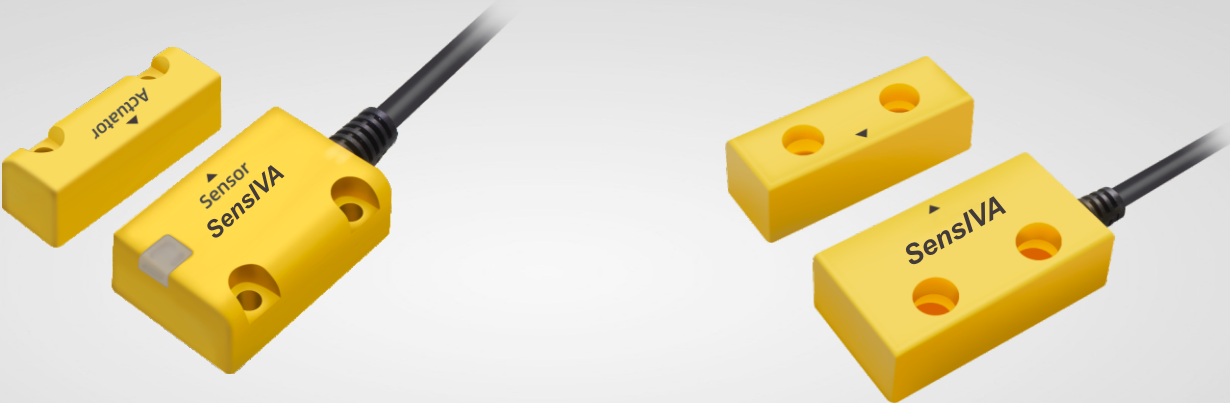
SVOXSL-B-1

SVOXSL-B-2

SVOXSL-B-3

Mechanical life	1x10 ⁶ per/cycle	Installation method	Left or right side	Sliding handle material	Aluminum alloy
Installation position	Door or fence	Base material	Aluminum alloy	Handle material	Stainless steel
Ball head material	Plastic	weight	SVOXSL-B-1(0.95kg)/SVOXSL-B-2(1.05kg)/SVOXSL-B-3(1.05kg)		

Non contact safety switch



SVOX-R1 series

SVOX-C1 series

- Non contact zero wear detection, impact and vibration resistance, long service life
- Provide universal encoding and unique encoding options
- Using encoding actuators to prevent human tampering and provide effective protection
- Can support cascading use of 30 door switches
- Three sides can be sensed, suitable for L-shaped (vertical) installation

Product Overview ▶

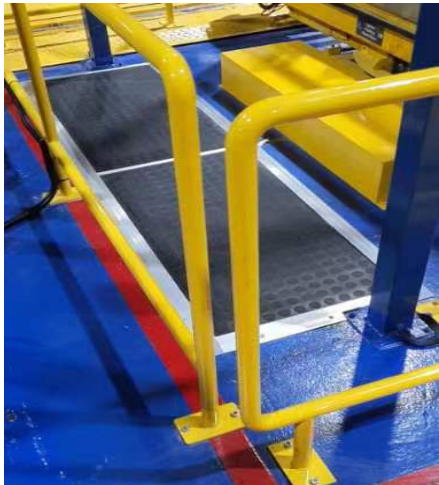
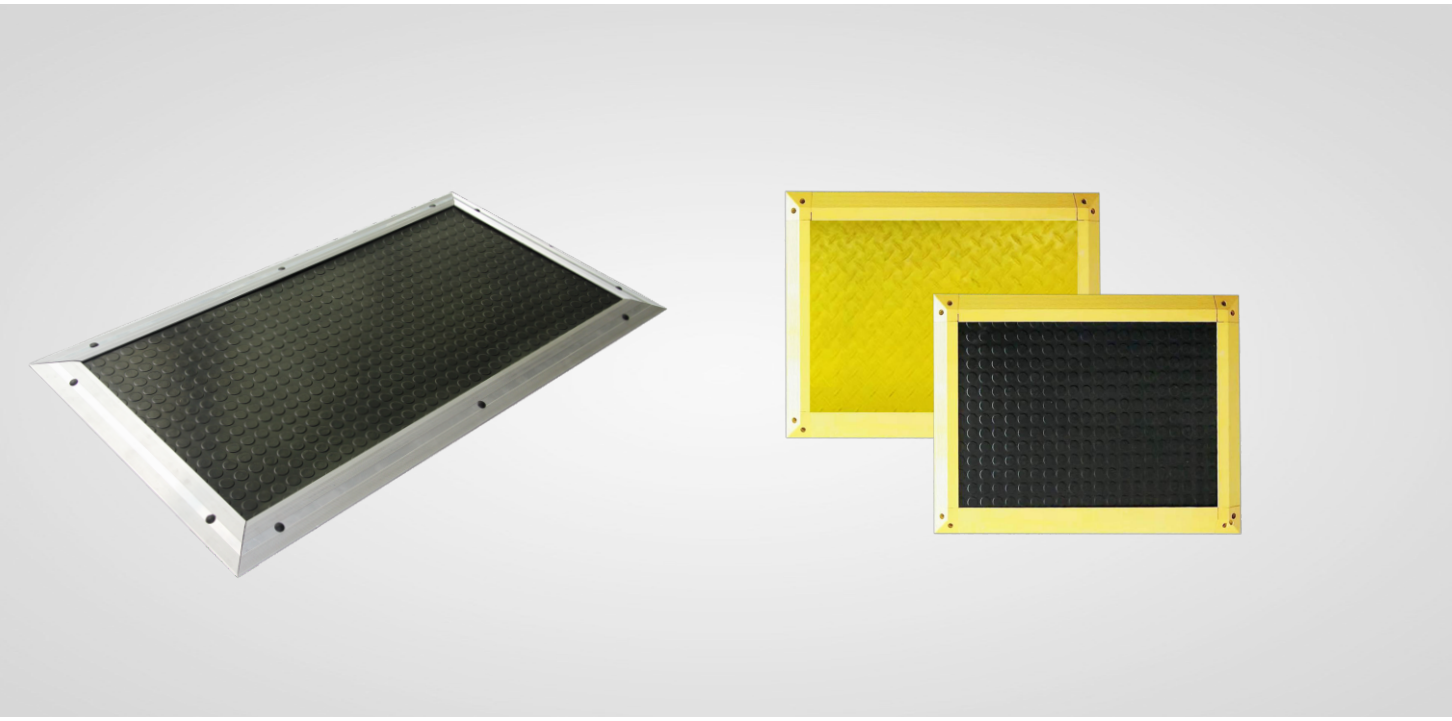
SVOX-R1 series
technical parameters ▶



SVOX-C1 series
technical parameters ▶



Characteristic				
Universal coding type	SVOX-R1-FN-S-P1	SVOX-R1-FP-S-P1	SVOX-R1-EN-S-P1	SVOX-R1-EP-S-P1
Unique encoding type	SVOX-R1-FN-D-P1	SVOX-R1-FP-D-P1	SVOX-R1-EN-D-P1	SVOX-R1-EP-D-P1
Type of output	NPN	PNP	NPN	PNP
Cascade	Do not support cascading		support cascading	
Technical Parameter				
Horizontal conductivity distance	0-10mm	Protection grade		IP67(EN60947-5-1)
Horizontal disconnection distance	> 25mm	Encoding level	Universal coding	Low level coded (ISO 14119)
Vertical conduction distance	0-6mm		Unique code	High level coded (ISO 14119)
Vertical disconnection distance	> 15mm	Interlocking type		Type 4(ISO14119)
Repeatability	0.5mm	Operating frequency		1Hz
Working voltage	24VDC	Working temperature		-10℃--+55℃
Working current	30mA	Relative humidity		5%-95%
Safe output current	150mA	Material Science		Thermoplastic PBT
Auxiliary output current	50mA	Cascade		Support cascading model selection
Response time	60ms	Diagnostic output		support
		Connection method		Direct outgoing line, with a length of 3 meters
Security level				
Safety level standards	ISO13849-1 , IEC/EN60947-5-3			
Security classification	Class 3 switch in accordance with ISO13849-1; Dual channel interlock is suitable for Class 3 or Class 4 systems			
Output				
Safe output	2个N.C.REEDS			
Entry cable	Direct outgoing line (A); Outgoing line with aviation plug (B)			
Technical Parameter				
Working distance	Conduction Min:8mm; to break off. Max:17mm			
Typical tolerance	Refer to the alignment diagram			
Output current (maximum)	200mA			
Response time	5ms			
Protection level	IP67 (customizable IP69K)			
Operating frequency	1Hz			
Working temperature	-10~+55℃			
Relative humidity	5%-95%			
Material Science	UL certified thermoplastic			



- High triggering sensitivity, providing safety protection for people weighing over 20 kilograms
- Flexible laying area, customizable safety carpet protection systems of different sizes or shapes according to user requirements
- Different models can be selected to adapt to different working conditions and environmental conditions



model	SVDT11	SVDT15	SVDT14
Detection method	Pressure sensing method	Pressure sensing method	Pressure sensing method
Maximum allowable load	<200kg/cm ²	Impact load<800kg/cm ²	Impact load<700kg/cm ²
Mechanical lifespan	> 3,000,000 time	> 3,000,000 time	> 1,000,000 time
size	Standard size/custom size	Standard size/custom size	Standard size/custom size
Surface protective materials	PVC	NBR rubber	NBR rubber
response time	13ms	13ms	< 30ms
ambient temperature	-20°C~+55°C	-35°C~+65°C	-10°C~+60°C
Protection level	Ip65	Ip65	Ip65
Applicable occasions	Suitable for general working conditions Unable to withstand vehicle crushing and heavy object impact	Suitable for special or heavy working conditions Can withstand limited light vehicle crushing Impact from a heavy object weighing not more than 2KG	Suitable for mixed areas of people small cars, and vehicles safety protection

*Note: Unconventional sizes or splicing sizes can be customized according to customer needs.



The safety contact is a rubber strip pressure-sensitive sensor. Used to detect the danger of moving parts squeezing or shearing people. It is a close proximity safety protection device for automatic equipment that meets the highest safety protection requirements and is used to ensure the safety of personnel in hazardous areas who may face dangerous situations such as pinching, squeezing, and collision.

model	SVDB-PSE series
Detection method	Pressure sensing method
Maximum induction angle	< 90°
Trigger force	≥25N-250N
Mechanical lifespan	> 3,000,000次
Surface protection material	EPDM rubber Cr rubber
ambient temperature	-20 ° C~55 ° C
Protection level	IP65
response time	13ms

model	SVDB series
Detection method	Pressure sensing method
Color/Material	Black EPDM
Withstand voltage	≤24V
Withstand current	<1A
Blind spot range	Unilateral 20-30mm
ambient temperature	-20 ° C~80 ° C
Signal mode	NO
Standard wiring harness	Length: 50cm, customizable, wire diameter: 3.5mm



Safety relay

PLe Cat.4 EN/ISO13849 SIL3 IEC61508 CE

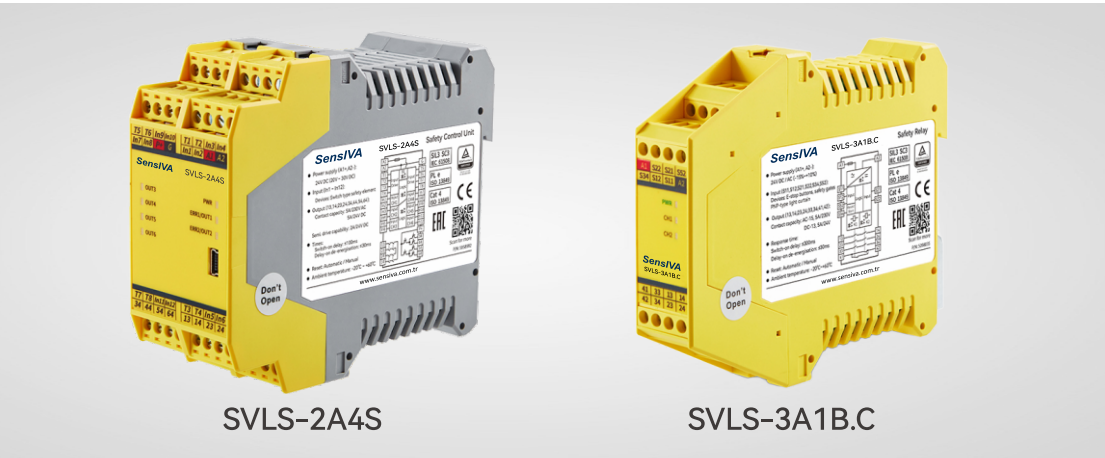
Suitable for monitoring

- Emergency stop button
- Safety switch
- Safety door lock
- Safety light curtain
- Safety scanner
- Safety sensors
- Safety edge
- Safety carpet
- Thumb switch

General parameters	
Output fuse (external)	5A gL/gG
Release response time	< 30ms(From input to output)
Input component tail end detection resistance	1kΩ~10kΩ
Electrical lifespan	80000 times
working temperature	-25°C~85°C
Protection level	Housing IP30, terminal IP20, recommended for installation in Cabinet or shell Ip54
Installation method	Standard 35mm DIN rail/spring clip
size (QSRN)	114.5mmx100.5mmx22.5mm

General parameters	
size (SVLS-A/SVTer-A)	112mmx99.5mmx22.6mm
Weight	172g
source	
Power supply	24V DC
Voltage tolerance	+10%~20%
Power dissipation	2.9W
output	
Relay safety output	3NO+1NC
Transistor signal output	< 500mA 24VDC

Safety relay



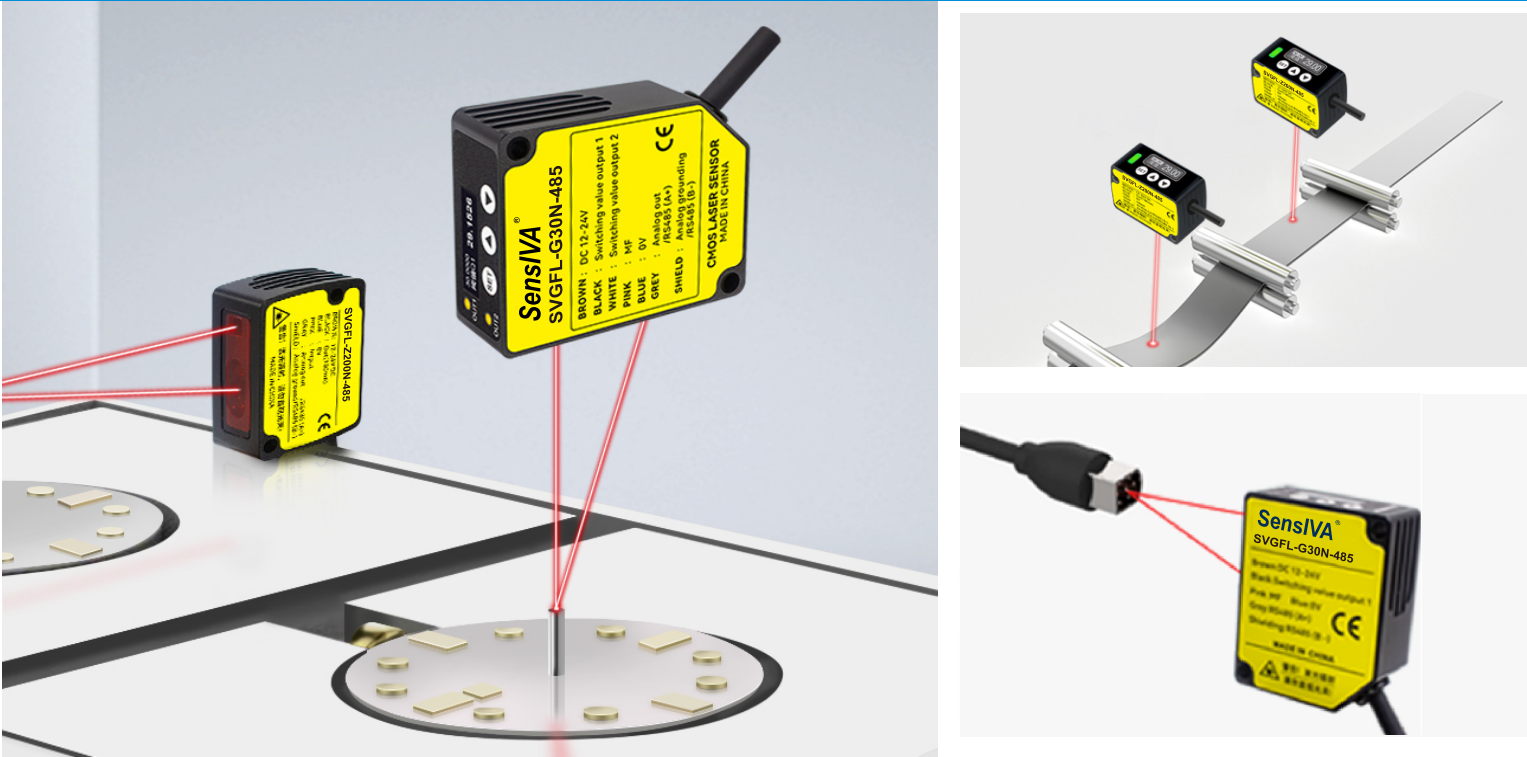
SVLS-2A4S is a multifunctional intelligent safety relay that supports multiple switch type safety element inputs (such as emergency stop button, safety door, two hand button, etc.). It can support up to 6 safety element inputs, 2 relay safety outputs, and 4 semiconductor outputs. It can use group software to set safety control logic and meet various on-site application needs

Power characteristics		Power characteristics	
Input current	s10mA(24V DC)	Size	20V~30V DC
Wire resistance	<150	Supply voltage	≤110mA(24V DC)
Input channel	6	Current loss(LS-2A4S)	114.5mmx99.0mmx45mm
protection grade	Ip20	Current loss(LS-3A1B.C)	114.5mmx99.0mmx22.5mm
Relay output characteristics		Semiconductor output characteristics	
Number of contacts	2NO	Number of contacts	4NO
Contact material	AgSnO ₂	Contact fuse protection	5A fast, 3A slow
Contact fuse protection	10A fast, 6A slow	Switching capacity	2A/24VDC
Switching capacity	5A/230V AC:5A/24VDC		
Control logic		Time characteristics	
Support control logic	"AND" or "CAN"	Suction buffer time	<100ms
Customize delay setting time according to customer needs	0.1~99s	Release buffer time	<30ms
		Recovery time	Emergency stop operation: ≤ 30ms Power failure: ≤ 1000ms

SVLS series、SVTer-A、SVQSRN safety certification

safety certification	
Performance Level (PL): PLe Safety Category (Cat.): Cat. 4 Task duration (Tm): 20 years Diagnostic coverage rate (DC/DCw): 99% Safety Integrity Level (SIL): SIL3 Hardware Failure Tolerance (HFT): 1 Safety Failure Factor (SFF): 99% Probability of Hazardous Failure (PFH): 1.86E-9/h Stop Category: 0/1	Compliant with EN ISO13849 standard Compliant with EN ISO13849 standard Compliant with EN ISO13849 standard Compliant with EN ISO13849 and IEC61508, IEC62061 standards Compliant with the standard IEC61508 IEC62061 Compliant with the standard IEC61508 IEC62061 Meets the standard IEC61508 IEC62061 and the standard EN 60204-1

Laser displacement sensor



Laser displacement sensors can accurately non-contact measure the position, displacement, and other changes of the measured object, mainly used for detecting objects; The measurement of geometric quantities such as displacement, thickness, vibration, distance, and diameter of a body is widely used.



model	SVGFL-Z30N SVGFL-Z30NM SVGFL-Z30N-485	SVGFL-Z50N SVGFL-Z50NM SVGFL-Z50N-485	SVGFL-Z100N SVGFL-Z100NM SVGFL-Z100N-485	SVGFL-Z200N SVGFL-Z200NM SVGFL-Z200N-485
Measure center distance	30mm	50mm	100mm	200mm
measuring range	±5mm	±15mm	±35mm	±80mm
Repetitive accuracy	10μm	30μm	70μm	200μm
supply voltage	12-24VDC+10%,	12-24VDC+10%,	12-24VDC+10%,	12-24VDC+10%,
Consumption current	Below 40mA, below 60mA	Below 40mA, below 60mA	Below 40mA, below 60mA	Below 40mA, below 60mA
Linear type	±0.1%FS	±0.1%FS	±0.1%FS	±0.2%FS
Temperature characteristic	0.03%F.S./°C	0.03%F.S./°C	0.03%F.S./°C	0.03%F.S./°C
Beam diameter	aboutφ50μm	aboutφ70μm	aboutφ120μm	aboutφ300μm
Shell material	Aluminum casting front cover plate; acrylic based	Aluminum casting front cover plate; acrylic based	Aluminum casting front cover plate; acrylic based	Aluminum casting front cover plate; acrylic based
Ambient temperature	-10°C~+50°C	-10°C~+50°C	-10°C~+50°C	-10°C~+50°C
Output	Switching quantity, 485 communication, analog quantity (0-5V 4-20mA)			

Laser displacement sensor



model	SVGFL-Z400N SVGFL-Z400NM SVGFL-Z400N-485	SVGFL-Z235N SVGFL-Z235NM SVGFL-Z235N-RS485	SVGFL-G30(P)M SVGFL-G30(P)M-485	SVGFL-G50(P)M SVGFL-G50(P)M-485
Measure center distance	400mm	235mm	30mm	50mm
measuring range	±200mm	35-435mm	±4mm	±10mm
Repetitive accuracy	400µm/800µm	10µm	/	/
supply voltage	12-24VDC+10%,	12-24VDC+10%,	12-24VDC+10%,	12-24VDC+10%,
Consumption current	Below 40mA, below 60mA	Below 40mA, below 60mA	Below 40mA, below 60mA	Below 40mA, below 60mA
Linear type	±0.2%FS	±0.2%FS	±0.1%FS	±0.1%FS
Temperature characteristic	0.03%FS./°C	0.03%FS./°C	0.08%FS./°C	0.08%FS./°C
Beam diameter	about ϕ500µm	about ϕ500µm	/	/
Shell material	Aluminum casting front cover plate; acrylic based	Aluminum casting front cover plate; acrylic based	Shell: PBT Lens: PMMA	Shell: PBT Lens: PMMA
Ambient temperature	-10°C~+50°C	-10°C~+50°C	-10°C~+45°C	-10°C~+45°C
Output	Switching quantity, 485 communication, analog quantity (0-5V 4-20mA)			

Laser ranging sensor



- Phase based distance measurement with high accuracy and fast speed;
 - High precision laser displacement sensor
- Equipped with a built-in screen and menu, it can be set up without connecting to a computer;
 - Ip67 protective metal die cast body, capable of adapting to various environments

SVGFL-Y Laser ranging sensor ▶



model	SVGFL-G85(P)M SVGFL-G85(P)M-485	SVGFL-G120(P)M SVGFL-G120(P)M-485	SVGFL-G250(P)M SVGFL-G250(P)M-485
Measure center distance	85mm	120mm	250mm
Measuring range	±20mm	±60mm	±150mm
Resolving power	10µm	30µm	75µm
Supply voltage	12-24VDC+10%,	12-24VDC+10%,	12-24VDC+10%,
Consumption current	Below 40mA, below 60mA	Below 40mA, below 60mA	Below 40mA, below 60mA
Linear type	±0.2%FS	±0.2%FS	±0.2%FS
Temperature characteristic	0.08%FS./°C	0.08%FS./°C	0.08%FS./°C
Shell material	Shell: PBT Lens: PMMA	Shell: PBT Lens: PMMA	Shell: PBT Lens: PMMA
Ambient temperature	-10°C~+45°C	-10°C~+45°C	-10°C~+45°C
Output	Switching quantity, 485 communication, analog quantity (0-5V 4-20mA)		



model	SVGFL-Y01IU-485-N SVGFL-Y01IU-485-P	SVGFL-Y02IU-485-N SVGFL-Y02IU-485-P	SVGFL-Y05IU-485-N SVGFL-Y05IU-485-P
Measure distance	0.1-1m	0.1-2m	0.1-5m
Resolving power	1mm	1mm	1mm
Supply voltage	12-24V DC	12-24V DC	12-24V DC
Consumption current	≤50mA	≤50mA	≤50mA
Control output	NPN/PNP	NPN/PNP	NPN/PNP
Reaction time	50-200ms	50-200ms	50-200ms
Protective structure	Ip67	Ip67	Ip67
working temperature	-10°C~+45°C	-10°C~+45°C	-10°C~+45°C
Use elevation	Below 2000m	Below 2000m	Below 2000m
Weight	Approximately 150g	Approximately 150g	Approximately 150g
Output	Switching quantity, 485 communication, analog quantity (0-5V 4-20mA)		

Laser ranging sensor



model	SVGFL-Y10IU-485-N SVGFL-Y10IU-485-P	SVGFL-Y20IU-485-N SVGFL-Y20IU-485-P	SVGFL-Y50IU-485-N SVGFL-Y50IU-485-P
Measure distance	0.1-10m	0.1-20m	0.1-50m
Resolving power	1mm	1mm	1mm
Supply voltage	12-24V DC	12-24V DC	12-24V DC
Consumption current	≤50mA	≤50mA	≤50mA
Control output	NPN/PNP	NPN/PNP	NPN/PNP
Reaction time	50-200ms	50-200ms	50-200ms
Protective structure	Ip67	Ip67	Ip67
working temperature	-10°C~+45°C	-10°C~+45°C	-10°C~+45°C
Use elevation	Below 2000m	Below 2000m	Below 2000m
Weight	Approximately 150g	Approximately 150g	Approximately 150g
Output	Switching quantity, 485 communication, analog quantity (0-5V 4-20mA)		

SVDA-Y & SVDB-Y Laser ranging sensor ▶



model	Measure distance	Voltage/current output	Voltage output error	Current output error	Output mode	Measurement frequency
SVDA-Y10	0.2-10m	/	/	/	RS485/232 + NPN	1-40HZ
SVDA-Y20	0.2-20m					
SVDA-Y30	0.2-30m					
SVDA-Y50	0.2-50m					
SVDA-Y100	0.2-100m					

model	Measure distance	Voltage/current output	Voltage output error	Current output error	Output mode	Measurement frequency
SVDB-Y10	0.2-10m	Can be set to 0-5V/ 0-10V/ 4-20m A/ 0-20mA/ 0-24mA output	0.2%+0.5mV	0.2%+0.005mA	Digital quantity + Switching quantity + Analog quantity	1-40HZ
SVDB-Y20	0.2-20m					
SVDB-Y30	0.2-30m					
SVDB-Y50	0.2-50m					
SVDB-Y100	0.2-100m					

communication interface	RS232/RS485(Switchable)
Measurement frequency	1Hz-40Hz
Laser type	Class II,660±15nm,≤1mW
Measurement resolution	1mm
Spot size	@1m Ø6mm;@10m Ø8mm;@20m Ø12mm;@30m Ø16mm;
Power supply	DC15 ~ 30V
Storage temperature and humidity	-20°C ~ 60°C, 20% ~ 85%RH
Body size	88.45x40x59.3mm(Including connecting seat)

Laser ranging sensor



Long distance
laser rangefinder

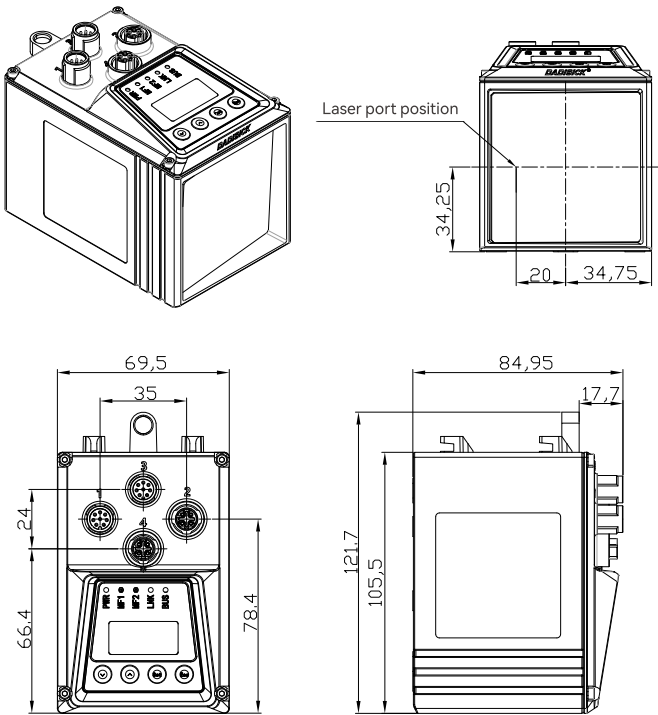
SVDS series

SensIVA's new long-range laser rangefinder SVDS series can achieve high-precision fixed-point measurement within 200 meters, with a ranging accuracy of up to 2mm; The DS series is equipped with an intuitive operation panel and status prompts for convenient and quick installation and layout. Unlike conventional phase rangefinders, this product can support measurement frequencies up to 1000Hz, making it particularly suitable for precise positioning and measurement of high-speed moving objects. It is an essential sensor for automated warehousing, logistics, or driving systems.

Product Overview ▶

Essential information			
Product Name	Long distance laser rangefinder Ld100		
model	SVDS-80	SVDS-120	SVDS-200
Measurement characteristics			
Measurement range	80m	120m	200m
Typical values of spot size	100mm (@80m)	150mm (@120m)	240mm (@200m)
Measurement accuracy	±2mm		
Repetitive accuracy	1 mm		
Measurement frequency	1000Hz		
Measurement resolution	0.1mm		
Maximum moving speed	15m/s		
Photoelectric characteristic			
supply voltage	DC 9V...30V		
Working current	0.2 A/12V DC		
Laser light source	Red laser (visible light)		
power waste	2.4W(MAX)		
other			
Data transmission interface	SSI, Ethernet100BASE-TX0.2 A/12V DC		
display	OLED screen (128 * 64 pixels)		
network interface	M12/4-core/D-type female straight head		
Power/SSD interface	M12/8-core/A-type male straight head		
Ability to resist environmental light	≤100,000 lx		
Protection level	Ip65		
size	123*69.5*90(mm)		
weight	600g (excluding wires)		

Product size ▶



Contact displacement sensor

Grating displacement sensor



SVGFJ grating displacement sensor

Performance characteristics

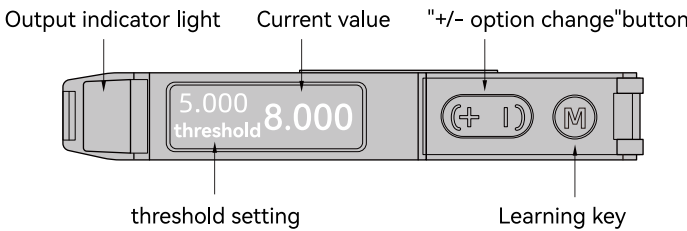
- Working temperature: -10~40 °C
 - Humidity: ≤ 80% RH
 - Absolute measurement (using grating absolute encoding)
 - Waterproof: IP65
- Port output description: RS485

model	measuring range (mm)	Full process accuracy	resolution	d (mm)	f (mm)	Waterproof grade
SVGFJ-HA	0-12.7	≤10μm	5μm	68.2	36	IP65
SVGFJ-KA		±2μm	1μm			
SVGFJ-WA		≤2μm	0.5μm			
SVGFJ-GWA		≤1.4μm	0.2μm			
SVGFJ-HB	0-25.4	≤10μm	5μm	99.1	55	
SVGFJ-KB		±3μm	1μm			
SVGFJ-WB		≤3μm	0.5μm			
SVGFJ-GWB		≤1.8μm	0.2μm			

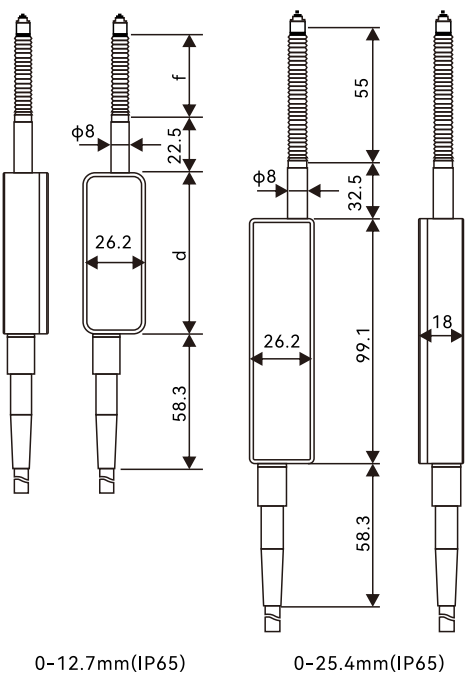
H represents percentage, K represents thousand, W represents ten thousand, and SVGW represents high-precision ten thousand A represents a measurement range of 12.7mm, B represents a measurement range of 25.4mm

Controller model: SVGFJ-01

Controller output description:
IO output
485 output
Analog output (0-5V/4-20mA)

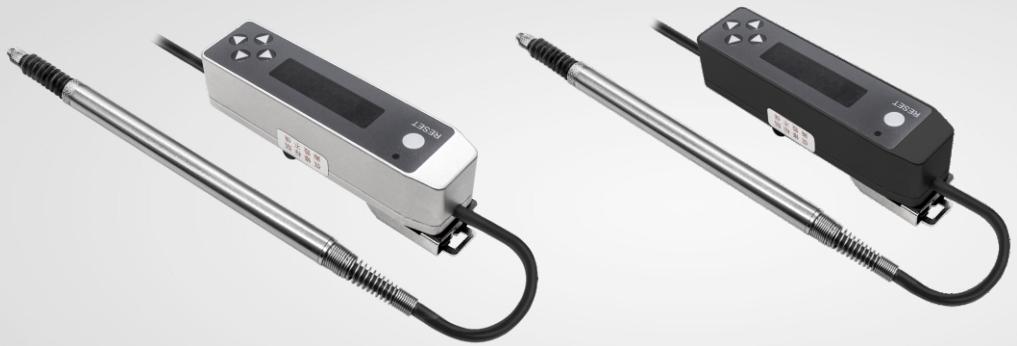


Product size



Contact displacement sensor

Digital integrated displacement sensor



SVGFK (thousandth)

SVGFW (Ten Thousand Bit)

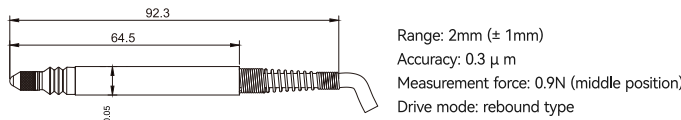
Performance characteristics

- Working temperature: -10~40 °C
- Humidity: ≤ 80% RH
- Absolute measurement (using grating absolute encoding)
- Waterproof: IP65
- Comes with upper and lower tolerance outputs (PNP)

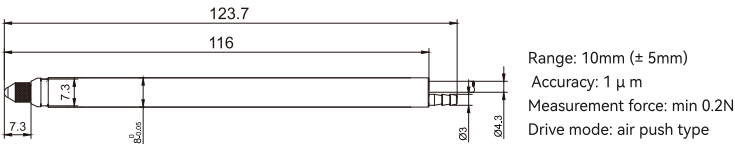
Port output description: RS485
I/O: 2PNP

Inductive displacement model size

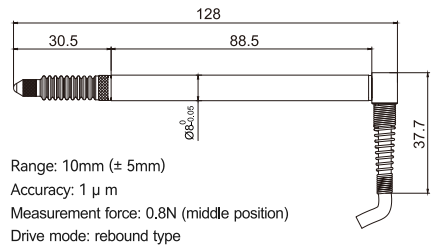
- SVGFK/W-022mm rebound sensor



- SVGFK/W-1010mm air push sensor

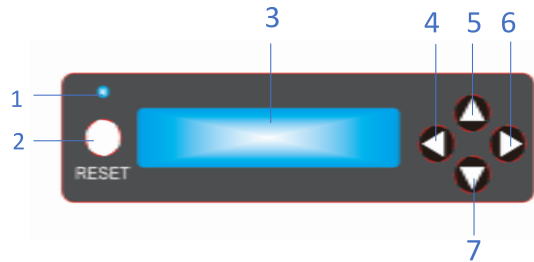


- SVGFK/W-055mm rebound sensor (side outlet)

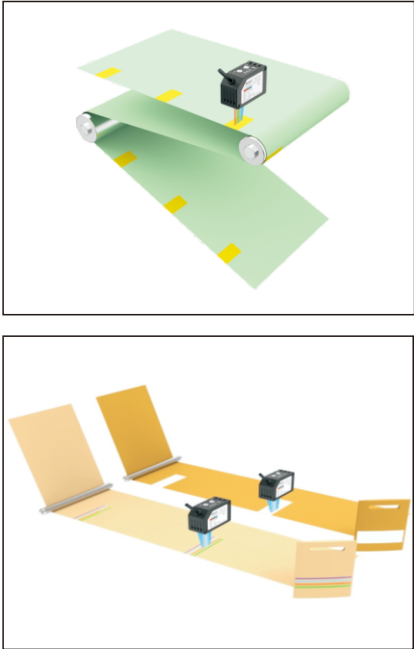


product type	SVGFK series	SVGFW series
Percentile	Thousandth	Ten thousand positions
Can be paired with sensor range	Rebound 2mm/5mm/10mm/ Pneumatic 10mm, spring type, etc	
resolving power	0.1um	
Repetitive accuracy	< 1um	
Supply voltage	DC12V	
working temperature	-10~60°C	
Storage temperature	-20~70°C	
Product size	90x23x21(mm)	
Line length	2m+1m (output line 1m)	
Installation form	Standard DIN rail	
remarks	Need to match sensors with other ranges, communicate with sales in advance	

Panel Description



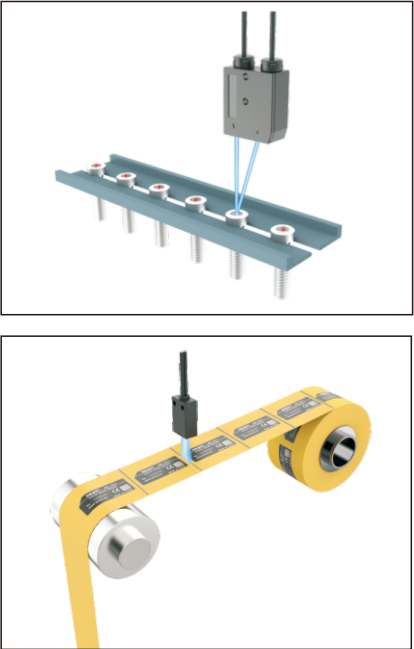
- Status light: displays the detection status
- RESET button: Sensor data reset/upper and lower tolerance and correction value settings save/measurement function switch
- Data Window: Display measured or set values (unit: um)
- Left arrow key: Set the digit to move left/activate the out of tolerance buzzer alarm
- Up key: Up tolerance setting mode/tolerance increment, increasing by 1 each time
- Right arrow key: Set digital shift to the right/disable out of tolerance buzzer alarm
- Down key: Lower tolerance setting mode/Decrease tolerance by 1 each time



- The size is 1.5 * 7 linear spot, suitable for detection in different application environments;
- The detection distance is 28mm, which is 2-3 times the detection distance of similar color code sensors;
- High anti shake performance by adjusting accuracy to eliminate the impact of shake on the detected object;
- Accurate identification and stable and reliable detection of object edges or critical positions of two different colors;
- Equipped with two detection modes of color and color code, the performance is greatly superior to ordinary color codes;
- Two point setup, simple and convenient, compact in size, suitable for installation in different spaces.

Integrated Color code sensor

Type		NPN	PNP
Model		SVGS-101N	SVGS-101P
Detection distance		18-28mm	
Supply voltage		24V DC± 10% pulsation P-P below 10%	
Power Consumption		Power below 850mW (power supply voltage 24V, current consumption below 35mA)	
Mode switching input	Color code mode	Low (ON) 0-0.6V DC Outflow current below 0.5mA Input impedance of approximately 10k Ω	Low (OFF) 0-0.6V DC or open
	Color mode	High (OFF) 12 to+24V DC or open	High (ON) 12~+24V DC Outflow current below 3mA Input impedance of approximately 10k Ω
Output		NPN open collector transistor · Maximum inflow current 50mA · Applied voltage below 30V DC (between output and 0V) · Remaining voltage below 1.5V (when inflow current is 50mA)*	PNP open collector transistor · Maximum inflow current 50mA · Applied voltage below 30V DC (between output and+V) · Remaining voltage below 1.5V (when the outflow current is 50mA)*
Output operation	Color code mode	ON during color code detection	
	Color mode	ON when consistent	
Short circuit protection		Equipped with (automatic recovery)	
Reaction time		Belows 200µs	
Ambient temperature		-10~+55 °C, no freezing, no condensation	
Environmental humidity		35 to 85% RH, no condensation	
Projection element		Composite LED: red/green/blue (Projection peak wavelength: 640nm/525nm/470nm)	
Material quality		Shell: PBT/Operation panel: PC/Operation buttons: Silicone/Lens: PC	
Cable		0.2mm ² 4-core rubber cable, standard length 2m Brown: +V/Black: Output/Pink: Mode transition Input/Blue: 0V	
Weight		Approximately 104g	



- Accurate identification of subtle color differences;
- 4 channel design, saving space and cost;
- Accurately recognize over 1000 colors;
- Suitable for detecting self luminous objects.

Digital RGB color sensor

model	SVGS-C1	SVGS-C1P
Light source	Red LED, green LED, blue LED	Red LED, green LED, blue LED
Reaction time	200µs(HPS)/1ms(FINE)	200µs(HPS)/1ms(FINE)
Ambient temperature	-10°C~+55°C	-10°C~+55°C
Error value adjustment	Number display value setting	Number display value setting
Differential recognition mode	C mode/C+I mode/I mode	C mode/C+I mode/I mode
Control output	NPN/PNP	NPN/PNP
Source	12-24V DC	12-24V DC
Output	NPN/PNP	NPN/PNP
Mode weight	Approximately 170g	Approximately 170g

Type	Small and adjustable	Small adjustable side view	Long inspection distance	Short inspection distance	Small light spot	Regional beam points, reflective type		
Model	GB-C10	GB-C11	GB-C40	GB-C41	GB-C42	GB-C12	GB-C15	
Exterior								
	Detection distance	10-30mm	3-15mm	70± 20mm	16± 4mm	60± 10mm	5-20mm	5-10mm
	Minimum light spot diameter	Φ0.9-3.5mm	Φ0.9-1.5mm	Φ6mm	Φ1mm	Φ2mm	-	1.5*7mm
	Minimum bending diameter	R25mm		R15mm			R25mm	R25mm
Protection level	IP40		IP67			-	-	
ambient temperature	-40~+70 °C, no condensation							

Ultrasonic sensor



Ultrasonic sensors have shown excellent performance in non-contact positioning and distance measurement applications. Not affected by color and shape, Not limited by the material of the tested target, it is widely used in industrial control automation scenarios

model	SVCSB12-120	SVCSB12-200	SVCSB18-300	SVCSB18-500	SVCSB18-1000	SVCSC18-1000	SVCSC30-2500
Detection scope	20-120mm	20-200mm	30-300mm	50-500mm	60-1000mm	60-1000mm	150-2500mm
Blind spot	20mm	20mm	30mm	50mm	60mm	150mm	150mm
resolving power	0.1mm	0.1mm	0.1mm	0.15mm	0.17mm	0.2-0.5mm	0.2-0.5mm
Repetitive accuracy	±0.15%	±0.15%	±0.15%	±0.15%	±0.15%	±0.15%	±0.15%
Launch Exit	Straight head	Straight head	Straight head/ elbow	Straight head/ elbow	Straight head/ elbow	Straight head/ elbow	Straight head/ flange

model	SVCSB30-2000	SVCSB30-4000	SVCSB30-6000	SVCSR-2000	SVCSR-3000	SVCSDB
Detection scope	100-2000mm	200-4000mm	350-6000mm	100-2000mm	150-3000mm	150-3000mm
Blind spot	100mm	200mm	350mm	100mm	150mm	5mm
resolving power	0.17-0.5mm	0.17-1.5mm	0.17-2.5mm	0.17mm	0.17mm	/
Repetitive accuracy	±0.15%	±0.15%	±0.15%	/	/	/
Launch Exit	Straight head	Straight head	Straight head	plastic	plastic	Groove type

- Supports standard Modbus communication protocol
- Provide 485 communication and switch output

model	SVCSDA12-40	SVCSDA18-60	SVCSDA30-100
Detection scope	20-40mm	20-60mm	30-100mm
Launch Exit	Straight head	Straight head	Straight head

Photoelectric sensor



- Provide multiple models, thin, square, cylindrical, transparent, and background
- Free switching between light in action (L.on) and shading action (D.on)
- The metal shell is sturdy and durable, while the plastic shell is economical and easy to install
- Short circuit protection and reverse polarity protection function
- The maximum switching frequency can reach 5000Hz

cylindrical Photoelectric sensor

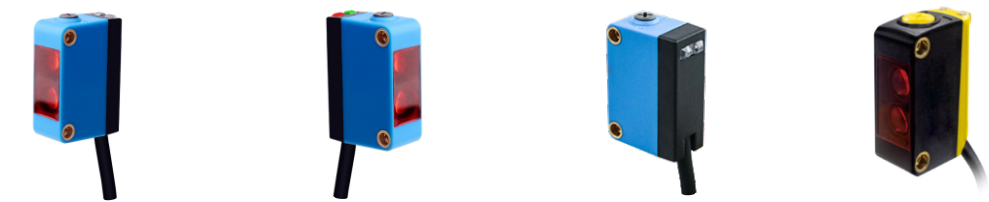
model	SVG M03-04N/P	SVG M04-07N/P	SVG M05-13N/P	SVG M06-20N/P	SVG M08-20N/P
Installation method	diffuse reflection	diffuse reflection	diffuse reflection	diffuse reflection	diffuse reflection
Sensing distance	04cm	07cm	13cm	20cm	20cm
response time	Below 5ms	Below 5ms	Below 5ms	Below 5ms	Below 5ms
working voltage	10~24V DC±10	10~24V DC±10	10~24V DC±10	10~24V DC±10	10~24V DC±10
Control output	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP
Flare Type	Invisible red light	Invisible red light	Invisible red light	Invisible red light	Invisible red light

cylindrical Photoelectric sensor

model	SVG M12-40N/P	SVG M18-100N/P	SVG M12-500N/P	SVG M18-1500N/P	SVG M18-300N/P	SVG M18-10N/P	SVG M18-40N/P
Installation method	diffuse reflection	diffuse reflection	Contra ejaulation	Contra ejaulation	Specular reflection	diffuse reflection	diffuse reflection
Sensing distance	30cm	30/50/100cm	200/500cm	500/1500cm	200/300cm	10cm	40m
Response time	< 0.8ms	< 0.8ms	< 0.8ms	< 0.8ms	< 0.8ms	< 0.8ms	< 0.8ms
Working voltage	10-30V DC	10-30V DC	10-30V DC	10-30V DC	10-30V DC	10-30V DC	10-30V DC
Control output	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP
Entry cable	2M/4-core cable	2M/4-core cable	2M/4-core cable	2M/4-core cable	2M/4-core cable	2M/4-core cable	2M/4-core cable

Photoelectric sensor

Background suppression type Photoelectric sensor



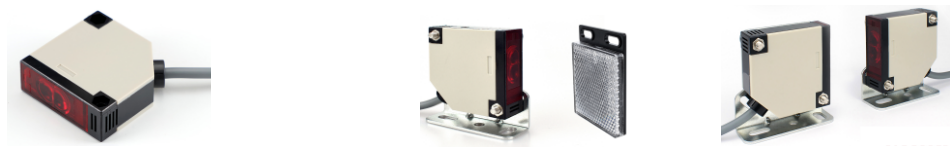
model	SVGB43-10N/P	SVGB43-30N/P	SVGFL43-30N/P	SVGB45-30N-ZAA
Installation method	Diffuse reflection photoelectric sensor	Diffuse reflection photoelectric sensor	Diffuse reflection photoelectric senso	Diffuse reflection photoelectric senso
Detection distance	30-100mm(Adjustable)	30-300mm(Adjustable)	30-300mm(Adjustable)	25-300mm(Adjustable)
response time	5ms	5ms	5ms	1ms
working voltage	10-30V DC	10-30V DC	10-30V DC	10-30V DC
Protection level	IP65	Ip65	Ip65	Ip65
light source	Visible LED red light	Visible LED red light	Visible LED red light	Visible LED red light

Background suppression type Photoelectric sensor



model	SVGB41-30N/P	SVGB42-20N/P	SVGB43-100N/P-ZAA
Installation method	diffuse reflection	diffuse reflection	diffuse reflection
Detection distance	1-30cm	1-20cm	3-15cm
Response time	≤0.5ms	< 2ms	< 2ms
Working voltage	10-30V DC	10-30V DC	10-30V DC
Control output	NPN/PNP	NPN/PNP	NPN/PNP
Protection level	IP67	IP65	IP64

Universal square Photoelectric sensor



model	SVGFB18-50N-ZAA	SVGFB18-150N-ZAA	SVGFB18-400N-ZCA	SVGFB18-1500N-ZBA
Installation method	diffuse reflection	diffuse reflection	Specular reflection	Contra ejaculation
Sensing distance	50cm	150cm	400cm	1500cm
Response time	1ms	1ms	1ms	1ms
Working voltage	10-30V DC	10-30V DC	10-30V DC	10-30V DC
Control output	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP
Light source	Red LED 623nm	2M/3-core cable	2M/3-core cable	2M/3-core cable

Photoelectric sensor

Universal square Photoelectric sensor



model	SVGF21-150	SVGF20-30N-ZAA	SVGF20-500N-ZBA	SVGF20-20N-ZCA	SVGF20-20N-ZCA	SVGF20-20N-ZCA
Installation method	Contra ejaculation	diffuse reflection	Contra ejaculation	Specular reflection	Specular reflection	Specular reflection
Sensing distance	150cm	30cm	150cm	20cm φ10mm/20cm	200cm φ50mm/2m	300cm φ90mm/3m
Response time	< 1ms	1ms	1ms	1ms	1ms	1ms
Working voltage	12-24V DC	10-30V DC	10-30V DC	10-30V DC	10-30V DC	10-30V DC
Control output	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP
Light source	InfraredLED(940nm)	Red LED (623nm)	Red LED (623nm)	Red LED (623nm)	Red LED (623nm)	Red LED (623nm)

Flat shape Photoelectric sensor



model	GP30-40N/P	GP31-40N/P
Installation method	diffuse reflection	diffuse reflection
Detection surface	front	side
Detection distance	40mm(White paper)	40mm(White paper)
Response time	< 1ms	< 1ms
Working voltage	12-24V DC	12-24V DC
Control output	NPN/PNP	NPN/PNP
Light source	Infrared LED (940nm)	Infrared LED (940nm)

Micro type Photoelectric sensor



model	SVGSB-12N/P	SVGFS51N/P	SVGFP13-D03N/P-ZAA	SVGFP13-D30N/P-ZBA	SVGFP13-L30N/P-ZAA
Installation method	Diffuse reflection, background suppression function	Contra ejaculation	Front detection	Frontal shooting	Side shooting
Detection distance	0.2-15cm	200cm	0.2-3cm	30cm/50cm	30cm/50cm
Response time	≤0.6ms	1ms	< 1ms	< 1ms	< 1ms
Working voltage	12-24V DC	12-24V DC	12-24V DC	12-24V DC	12-24V DC
Control output	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP	NPN/PNP
Protection level	Ip64	IP65	IP64	Ip64	Ip64