

■ Product features

Easy to set up and adjust distance.

Short-circuit protection, reverse polarity protection.

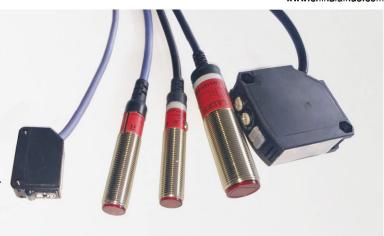
Cable and connector connection optional.

Stainless steel housing, strong and durable. Plastic housing, economical and easy to install

Light on/dark on conversion function.

Built-in power supply, AC, DC or AC/DC universal Power supply.

Relay output, capacity up t0 250VAC*3A.



■ Model specification

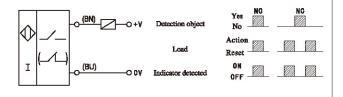
Standard detected object Spot diameter (typical) Spot diameter (typical) Spot diameter (typical) Spot diameter (typical) Smdistance, diameter 8mm Opaque objects Supply Voltage (V) Supply Voltage (V) Movement differential Light source (light emitting wavelength) Control output Supply Voltage (V) DC12-24V ± 10% ripple wave (P-P) Max10% Sensing distance max 5% Light source (light emitting wavelength) Control output 200mA (receive light ON cover light ON switch can transfer) Current consumption Prover reverse connection Output reverse connection Output reverse connection Output reverse connection Output short circuit protection Response time Sensitivity adjustment Residual voltage LED Display Action reset each max 1ms Single coil and single direction of rotation Residual voltage Working: - 10~+ 55° C, Keeping: -20~+ 70° C (NO icing NO condensation) Withstand voltage 1.5mm amplitude at frequency of 10 to 55Hz/for 1min.) In each of X,Y,Z directions for 2 hours Texture IEC standard IP67, intracompany standard :oil resistant, temperature Resistance PBT Methyl acrylic resin						
Specification PNP	specification	Menuting	Output	Through-beam type	Retro-reflective type	Diffuse-reflective type
PNP LRS300P=200018A LRS300P=200018A LRS300P=200018A LRS300P=200018C LRS300P=50014C LRS300D=50014C LRS300D=50014C LRS300D=50014C LRS300D=50014C LRS300D=50018C LRS300D=500			NPN	LRS300P-2000014A	LRS300F-600014A	LRS300D-50014A
Polygable (30cm) PNP			PNP	LRS300P-2000018A	LRS300F-600018A	LRS300D-50018A
Company Seming distance		pluggable	NPN	LRS300P-2000014C	LRS300F-600014C	LRS300D-50014C
Standard detected object Spot diameter(typical) Spot diameter(typical) Spot diameter(typical) Sm distance,diameter 8mm Opaque objects Supply Voltage (V) Movement differential Light source (light emitting wavelength) Current consumption Protective circuit Response time Sensitivity adjustment Residual voltage LED Display Morking: Description Morking: 10 + 55° C, Keeping: Morking: Protection class Methyl acrylic resin			PNP	LRS300P-2000018C	LRS300F-600018C	LRS300D-50018C
Spot diameter(typical) 3m distance,diameter7mm 300mmdistance,diameter1mm Minimum detectable objects (ypical) Supply Voltage (V) DC12-24V ± 10% ripple wave (P-P) Max10% Movement differential Light source (light emitting wavelength) Control output 200mA (receive light ON cover light ON switch can transfer) Current consumption 35mA Max (emitter 15mA Max, receiver 20mA Max) Power reverse connection Output reverse connectio	Sensing distance			20m	6m	50cm(The white paper 300X300mm)
Minimum detectable objects (typical) 3mdistance, diameter 8mm Opaque objects 300mm distance, diameter 0.5mm Stainless steel pin gauge Supply Voltage (V) DC12-24V ± 10% ripple wave (P-P) Max10% Sensing distance max 5% Lens objects (typical) 300mm distance, diameter 0.5mm Stainless steel pin gauge 300mm distance, diameter 0.5mm Stainless steel pin gauge 300mm distance, diameter 0.5mm Stainless steel pin gauge 300mm distance, diameter 0.5mm Stainless steel pin gauge 300mm distance, diameter 0.5mm Stainless steel pin gauge 300mm distance, diameter 0.5mm Stainless steel pin gauge 300mm distance, diameter 0.5mm Stainless steel pin gauge 300mm distance, diameter 0.5mm Stainless steel pin gauge 300mm distance (P-P) Max10% Sensing distance max 5% Lens objects for class 1 FDA class 2 Power reverse connection Or over light ON cover light ON cove	Standard detected object			φ 12mm Min Opaque objects	φ 75mm Min Opaque objects	1
Stainless steel pin gauge Supply Voltage (V) DC12-24V ± 10% ripple wave (P-P) Max10% Movement differential / Sensing distance max 5% Light source (light emitting wavelength) Control output 200mA (receive light ON cover light ON switch can transfer) Current consumption Protective circuit Power reverse connection Output reverse connection Prevent mutual interference, Power reverse connection, Output short circuit protection Response time action reset each max 1ms action reset each max 0.5ms Single coll and single direction of rotation Residual voltage LED Display Departing Temperature Working: -10~+55° C, Keeping: -20~+70° C (NO icing NO condensation) Withstand voltage 1.5mm amplitude at frequency of 10 to 55Hz/for 1min.) in each of X,Y,Z directions for 2 hours Texture Housing Protection class Methyl acrylic resin	Spot diameter(typical)			3m distance,diameter7mm 300mmdistance,diameter		300mmdistance,diameter1mm
Sensing distance max 5%	Minimum detectable objects(typical)			3mdistance,diameter 8mm Opaque objects		300mm distance,diameter 0.5mm Stainless steel pin gauge
Light source (light emitting wavelength) Control output 200mA (receive light ON cover light ON switch can transfer) Current consumption 35mA Max (emitter 15mA Max, receiver 20mA Max) Protective circuit Protective circuit Prover reverse connection Output reverse connection Output short circuit protection Response time action reset each max 1ms Single coil and single direction of rotation Residual voltage Action Yellow LED, Stability indicating green LED Operating Temperature Working: - 10~ + 55° C, Keeping: - 20~ + 70° C (NO icing NO condensation) Withstand voltage AC1,000V 50/60Hz 1min between the whole and shell 1.5mm amplitude at frequency of 10 to 55Hz/for 1min.) in each of X,Y,Z directions for 2 hours Pet tens Housing Pet mitting wavelength) Protection class Response time Action reset each max 1ms Action reset each max 0.5ms Single coil and single direction of rotation Max 2V LED Display Action Yellow LED, Stability indicating green LED Operating Temperature Working: - 10~ + 55° C, Keeping: - 20~ + 70° C (NO icing NO condensation) Withstand voltage AC1,000V 50/60Hz 1min between the whole and shell 1.5mm amplitude at frequency of 10 to 55Hz/for 1min.) in each of X,Y,Z directions for 2 hours Texture IEC standard IP67, intracompany standard: oil resistant, temperature Resistance PBT Methyl acrylic resin	Supply Voltage (V)			DC12-24V ± 10% ripple wave (P-P) Max10%		
Control output 200mA (receive light ON cover light ON switch can transfer) Current consumption 35mA Max (emitter 15mA Max, receiver 20mA Max) Power reverse connection Output reverse connection, Output short circuit protection Response time action reset each max 1ms action reset each max 0.5ms Sensitivity adjustment Single coil and single direction of rotation Residual voltage Max 2V LED Display action Yellow LED, Stability indicating green LED Operating Temperature Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation) Withstand voltage AC1,000V 50/60Hz 1min between the whole and shell 1.5mm amplitude at frequency of 10 to 55Hz(for 1min.) in each of X,Y,Z directions for 2 hours Texture Housing PBT Methyl acrylic resin	Movement differential				/ Sensing distance max 5%	
Current consumption 35mA Max (emitter 15mA Max, receiver 20mA Max) Protective circuit Protective circuit Protective circuit Prover reverse connection Output reverse connection, Output reverse connection, Output short circuit protection Response time action reset each max 1ms action reset each max 0.5ms Single coil and single direction of rotation Residual voltage LED Display action Yellow LED , Stability indicating green LED Operating Temperature Working: -10~+55° C, Keeping: -20~+70° C (NO icing NO condensation) Withstand voltage AC1,000V 50/60Hz 1min between the whole and shell 1.5mm amplitude at frequency of 10 to 55Hz(for 1min.) in each of X,Y,Z directions for 2 hours Texture IEC standard IP67, intracompany standard :oil resistant, temperature Resistance PBT Methyl acrylic resin	Light source (light emitting wavelength)			red LD (655nm), JIS class 1 IEC class 1 FDA class2		
Protective circuit Protective circuit Prover reverse connection Output reverse connection, Output short circuit protection Response time action reset each max 1ms Single coll and single direction of rotation Residual voltage Max 2V LED Display action Yellow LED , Stability indicating green LED Operating Temperature Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation) Withstand voltage AC1,000V 50/60Hz 1min between the whole and shell Vibration Texture IEC standard IP67, intracompany standard: oil resistant, temperature Resistance PBT Methyl acrylic resin	Control output			200mA (receive light ON cover light ON switch can transfer)		
Protective circuit Output reverse connection Output reverse connection Output reverse connection, Output short circuit protection Response time action reset each max 1ms Single coil and single direction of rotation Residual voltage LED Display Operating Temperature Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation) Withstand voltage Vibration Texture IEC standard IP67, intracompany standard: oil resistant, temperature Resistance Protection class Protection Class Protection Petrotection, Output short circuit protection, Output short circuit protection, Output short circuit protection, Output short circuit protection, Output short circuit protection Output reverse connection, Output short circuit protection action reset each max 1ms Action reset each max 0.5ms Single coil and single direction of rotation Max 2V LED Display Action Yellow LED, Stability indicating green LED Operating Temperature Working: - 10~ + 55° C, Keeping: - 20~ + 70° C (NO icing NO condensation) AC1,000V 50/60Hz 1min between the whole and shell 1.5mm amplitude at frequency of 10 to 55Hz(for 1min.) in each of X,Y,Z directions for 2 hours Fexture IEC standard IP67, intracompany standard: oil resistant, temperature Resistance PBT Methyl acrylic resin	Current consumption			35mA Max (emitter 15mA Max, receiver 20mA Max)	Max 30mA	
Sensitivity adjustment Residual voltage Max 2V LED Display Operating Temperature Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation) Withstand voltage Vibration Texture Protection class Single coil and single direction of rotation Max 2V Action Yellow LED ,Stability indicating green LED Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation) Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation) Action Yellow LED ,Stability indicating green LED Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation) Action Yellow LED ,Stability indicating green LED Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation) Action Yellow LED ,Stability indicating green LED C NO icing NO condensation) In each of X,Y,Z directions for 2 hours IEC standard IP67, intracompany standard : oil resistant, temperature Resistance PBT Methyl acrylic resin	Protective circuit			Output reverse connection		
Residual voltage LED Display Action Yellow LED ,Stability indicating green LED Operating Temperature Working: - 10~ + 55° C, Keeping: - 20~ + 70° C (NO icing NO condensation) Withstand voltage AC1,000V 50/60Hz 1min between the whole and shell 1.5mm amplitude at frequency of 10 to 55Hz(for 1min.) in each of X,Y,Z directions for 2 hours Texture IEC standard IP67,intracompany standard :oil resistant,temperature Resistance PBT Protection class Methyl acrylic resin	Response time			action reset	reset each max 1ms action reset each max 0.5ms	
Action Yellow LED ,Stability indicating green LED Operating Temperature Working: - 10~ + 55° C, Keeping: - 20~ + 70° C (NO icing NO condensation) Withstand voltage AC1,000V 50/60Hz 1min between the whole and shell 1.5mm amplitude at frequency of 10 to 55Hz(for 1min.) in each of X,Y,Z directions for 2 hours Texture IEC standard IP67,intracompany standard :oil resistant,temperature Resistance Housing PBT Protection class Methyl acrylic resin	Sensitivity adjustment			Single coil and single direction of rotation		
Operating Temperature Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation) Withstand voltage AC1,000V 50/60Hz 1min between the whole and shell 1.5mm amplitude at frequency of 10 to 55Hz(for 1min.) in each of X,Y,Z directions for 2 hours Texture IEC standard IP67,intracompany standard :oil resistant,temperature Resistance PBT Lens face Methyl acrylic resin	Residual voltage			Max 2V		
Withstand voltage AC1,000V 50/60Hz 1min between the whole and shell 1.5mm amplitude at frequency of 10 to 55Hz(for 1min.) in each of X,Y,Z directions for 2 hours Texture IEC standard IP67,intracompany standard :oil resistant,temperature Resistance PBT Lens face Methyl acrylic resin	LED Display			action Yellow LED ,Stability indicating green LED		
Vibration 1.5mm amplitude at frequency of 10 to 55Hz(for 1min.) in each of X,Y,Z directions for 2 hours Texture IEC standard IP67,intracompany standard :oil resistant,temperature Resistance Housing PBT Lens face Methyl acrylic resin	Operating Temperature			Working: - 10~ + 55° C, Keeping: -20~ + 70° C (NO icing NO condensation)		
Texture IEC standard IP67,intracompany standard :oil resistant,temperature Resistance Protection class Housing PBT Lens face Methyl acrylic resin	Withstand voltage			AC1,000V 50/60Hz 1min between the whole and shell		
Protection class Housing PBT Lens face Methyl acrylic resin	Vibration			1.5mm amplitude at frequency of 10 to 55Hz(for 1min.) in each of X,Y,Z directions for 2 hours		
Protection class Lens face Methyl acrylic resin	Texture			IEC standard IP67, intracompany standard : oil resistant, temperature Resistance		
face Methyl acrylic resin	Protection class Lens		Housing	PBT		
Authentication CCC CE				Methyl acrylic resin		
	Authentication			CCC CE		



Output mode and electrical characteristics

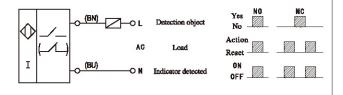
DC two-wire system NO or NC

The load must be connected in series in the sensor to work, there is a polarity and short circuit protection function; in the open circuit state, there is a very small leakage current; in the closed circuit, the switching element has a smaller voltage drop.



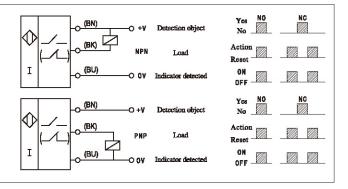
AC two-wire system NO or NC

The load must be connected in series in the sensor, in the closed circuit, the switching element has a smaller voltage drop.



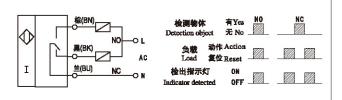
DC three-wire system(N,P type) NO or NC

These switches are connected to the load and power supply separately; the polarity, short circuit and overload protection function, and the residual current can be ignored.



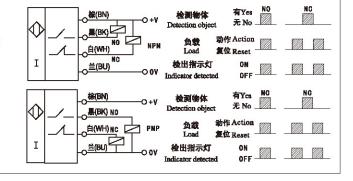
AC three-wire system NO+NC

The switches can provide two groups of output NO and NC $\,$



DC four-wire system(N,P type)NO plus NC

The switches can provide two groups of output NO and NC



AC/DC five wire(relay output)NO+NC

These switches can provide to often open, closed two group relay output.

