

# TECHNICAL DATA SHEET

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## Inductive Proximity Switches Cylindrical Proximity Sensors **Metal face Series**

### Contents

- Functional Description
- Application Scenarios
- Technical Parameters
- Size Parameters
- Wiring Diagram



Figure can vary

## Proximity sensors: solutions for multiple scenarios

Proximity sensors are widely used in many fields due to their non-contact detection, high accuracy and fast response.

### Inductive series for oil-resistant and corrosion-resistant machine tool industry

Many times we are faced with harsh operating environments, compact installation spaces, and conditions with both movement and corrosion during use, such as the machine tool manufacturing industry, which has such diverse needs - the number of materials, processes and molds involved is huge and varied. During the production process, cutting fluids and abrasives are required to process workpieces, so various sensor solutions that are not affected by harsh environmental conditions are required. dadisick's product series, which uses different manufacturing processes, can even provide fully suitable sensor solutions for high-speed applications or applications involving corrosive coolants and lubricants.



### All-metal integrated housing anti-washing series



Due to the stainless steel integrated housing, this series of sensors not only has good impact resistance, but also can withstand the corrosion of detergents and solvents. It can be used in environments that require frequent high-pressure washing, and can achieve long-term sealing that meets the IP69K protection level. At the same time, it is compatible with the installation method of conventional sensors, which can be replaced and replaced conveniently and practically. It includes a variety of models with a diameter of 8mm...30mm, all with direct cable output and M12 standard connector. Operating distance 2...8mm.

### Low-temperature -40°C inductive series for wind power generation

Wind power generation has become one of the world's recognized main clean energy generation methods because it does not require the use of fuel and does not produce radiation or air pollution. Different sensors are used in the operation of the variable pitch yaw generator reducer of the wind turbine to detect the correction of the control movement and rotation process. Most of the installation locations of wind turbines are in places with severe temperature changes such as mountains, oceans and plateaus, which require higher temperature environments for sensors. Our low-temperature -40°C product series launched for this use environment is perfectly adapted to the application here.



### Solutions for high-temperature series long-distance products in steelmaking and rolling



Steelmaking and rolling equipment produces complex oil, gas and water erosion and flushing sensors for various raw materials under high temperature of oil and gas in a high-temperature 2000° radiation environment, which puts higher requirements on the stability of sensors. In the position control detection of multiple processes of steel billets, coils and wires, DADISICK has a variety of series of products with high temperature resistance of 250°C, DC two-wire, AC 250V, etc., which are widely used in this complex environment to ensure normal production.

## Anti-welding slag adhesion, high temperature resistance and anti-interference series

Whether it is stamping, welding, painting, or assembly processes in automobile manufacturing, long distance, anti-welding slag adhesion, strong current magnetic field interference, or high temperature environment, DADISICK sensors can be used for fixtures, molds and other equipment. Reliable performance and perfect solutions bring a smooth production process to automobile manufacturing. In the welding of various high-current welding machines, the strong magnetic field interference generated by the current and the high-temperature heat conduction generated by the arc will affect the sensors in the fixture molds. Reliable performance products must be selected to ensure normal operation.



## All-metal integrated housing anti-washing series

A large number of intelligent warehousing and logistics facilities, such as AGV trolleys and rail-to-rail stackers, are equipped with our sensors to realize the control of rotating positioning and lifting devices, etc., providing very stable and durable high-reliability products. Under the high requirements of small installation space and long detection distance, this series of products is the best choice for customers with strict cost control. Choosing this series of products is the best choice for customers with strict cost control.

## High-pressure 1000Bar hydraulic cylinder series

The stable and reliable hydraulic cylinder telescopic more often uses DADISICK's inductive proximity sensors with a high pressure resistance of up to 1000Bar to achieve the control of the origin. Ceramic chips are used as high-voltage products at the induction level and stainless steel integrated housings are used to achieve high-pressure resistant applications. DC10-30V two-wire and three-wire products are also provided.



## Analog output series for position correction and control devices



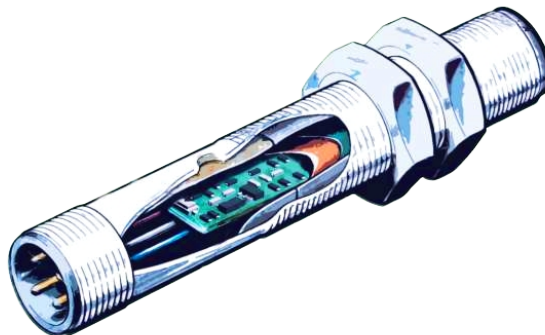
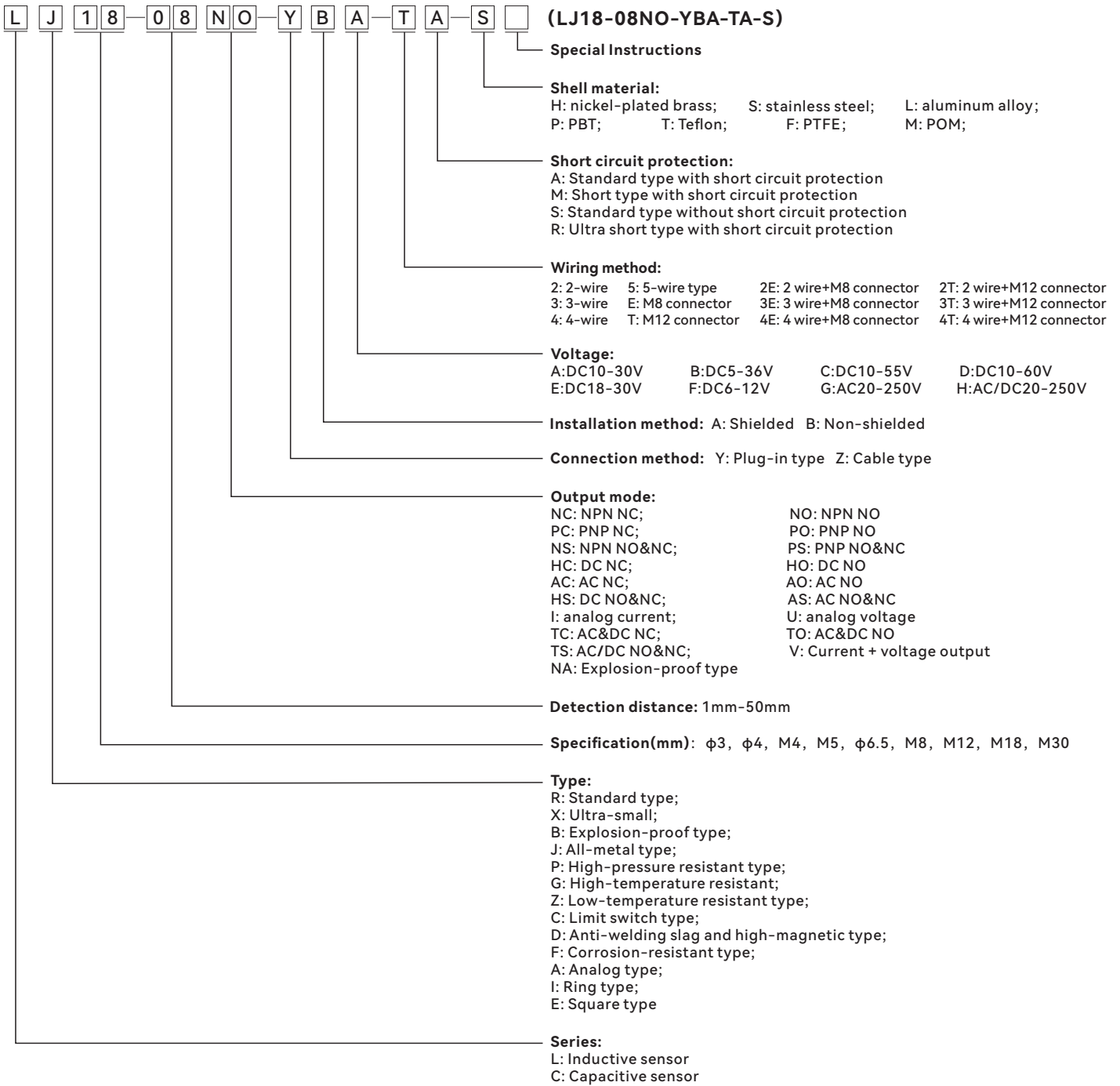
In detecting the offset position of the controlled parts of the fixture, analog output proximity sensors are often used in wire reel correction, and the size of the offset is controlled by the size of the detection distance. This use can be installed and tested in a very small position space. We have successfully provided stable and accurate products for many parts manufacturers and wire rope winding equipment, including 0-10V voltage output and 4-20mA current output and current + voltage output products. The detectable distance can be adjusted between 0-50mm.

## Shoemaking, textile and papermaking machinery series products

Whichever manufacturer of shoemaking machines, textile machines and papermaking machines has long equipped the mechanical equipment they produce with more automated operation technologies, these control technologies are also equipped with high-quality sensors to achieve their control conditions. They require products with higher switching frequency accuracy and better stability, and they need a variety of products with unconventional dimensions. We tailor new outer shell dimensions for them one by one to meet their needs.



# Proximity Sensor Model Specifications



## Metal face Series

### Proximity sensors

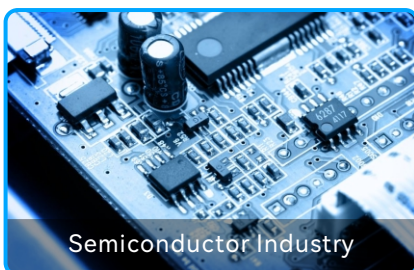
This series features 0.8-1.5mm thick stainless steel metal surface is suitable for harsh environments such as collision and pollution.

### Features:

- Features: 0.8-1.5mm thick stainless steel sensing face, design for fierce application
- Size:  $\phi 6.5$ , M8, M12, M18, M30
- Sensing distance: 1-13mm
- Operating Voltage: 10-30VDC, 20-250VDC, AC/DC
- Current: 200mA-400mA
- Frequency: 150-2000HZ
- Certificate: CE, ROHS

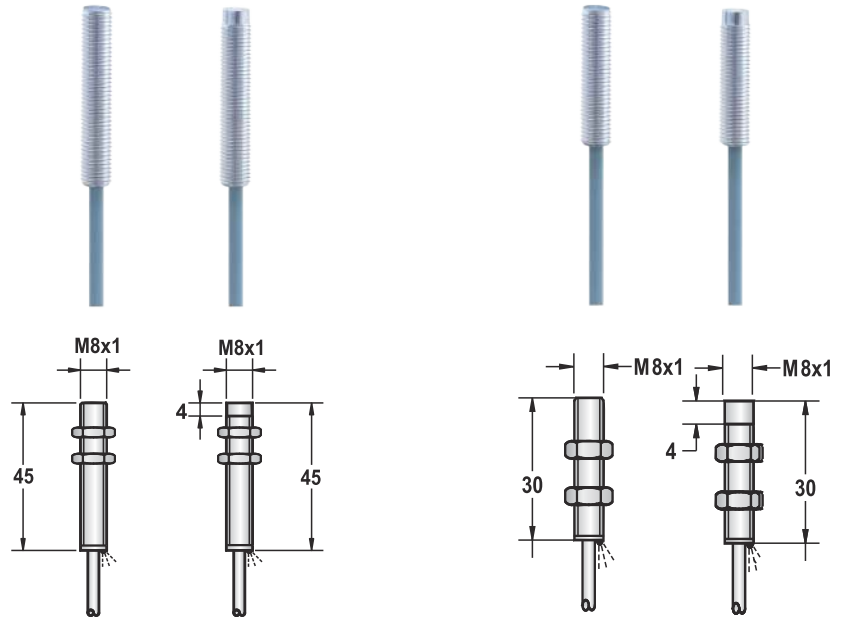


## Application Industry



# Product Parameters

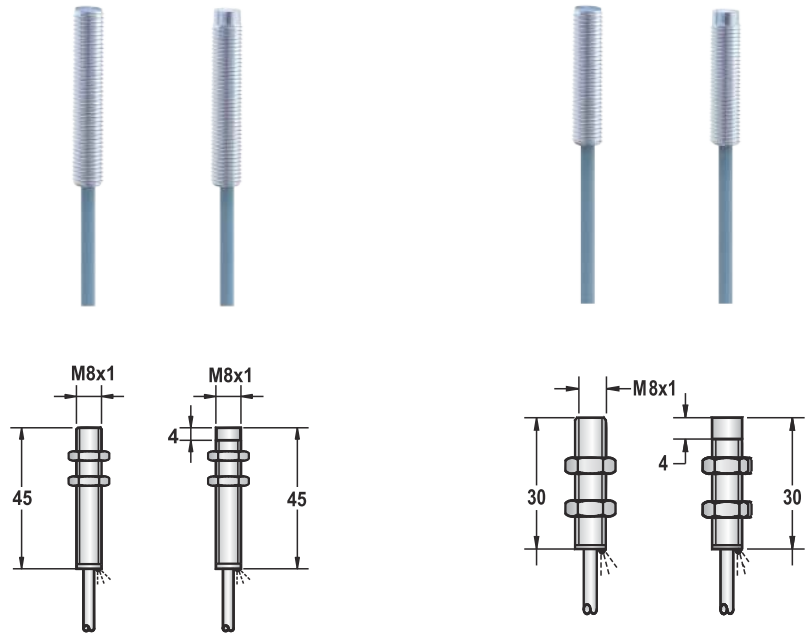
## Metal face Series



Size category	M 8		M 8	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	1mm	2mm	1mm	2mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	1KHZ		1KHZ	
Response time	0.1ms/0.1ms		0.1ms/0.1ms	
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 3 φ 3x0.15		2m oil-proof PVC cable 3 φ 3x0.15	
Product Model				
DC 3 line 10-30V NPN NO	LJ08-01NO-ZAA-3A-S	LJ08-02NO-ZBA-3A-S	LJ08-01NO-ZAA-3M-S	LJ08-02NO-ZBA-3M-S
DC 3 line 10-30V NPN NC	LJ08-01NC-ZAA-3A-S	LJ08-02NC-ZBA-3A-S	LJ08-01NC-ZAA-3M-S	LJ08-02NC-ZBA-3M-S
DC 3 line 10-30V PNP NO	LJ08-01PO-ZAA-3A-S	LJ08-02PO-ZBA-3A-S	LJ08-01PO-ZAA-3M-S	LJ08-02PO-ZBA-3M-S
DC 3 line 10-30V PNP NC	LJ08-01PC-ZAA-3A-S	LJ08-02PC-ZBA-3A-S	LJ08-01PC-ZAA-3M-S	LJ08-02PC-ZBA-3M-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ08-01HO-ZAD-2A-S	LJ08-02HO-ZBD-2A-S	LJ08-01HO-ZAD-2M-S	LJ08-02HO-ZBD-2M-S
DC 2 line 10-60V NC	LJ08-01HC-ZAD-2A-S	LJ08-02HC-ZBD-2A-S	LJ08-01HC-ZAD-2M-S	LJ08-02HC-ZBD-2M-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

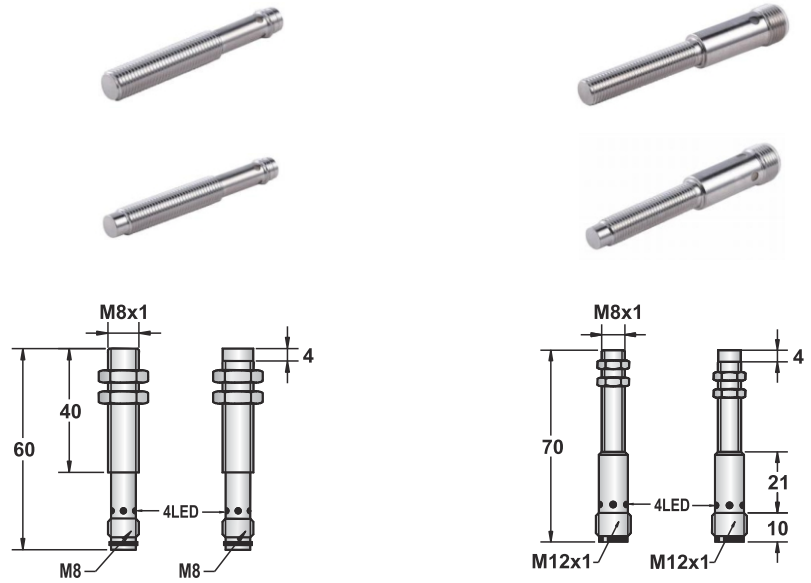
## Metal face Series



Size category	M 8		M 8	
	● Shielded	○ Non-shielded	●	○
Sn: mm	2mm	3.5mm	2mm	3.5mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	700HZ	500HZ	700HZ	500HZ
Response time	0.1ms	0.2ms	0.1ms	0.2ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 3φ 3x0.15		2m oil-proof PVC cable 3φ 3x0.15	
Product Model				
DC 3 line 10-30V NPN NO	LJ08-02NO-ZAA-3A-S	LJ08-3.5NO-ZBA-3A-S	LJ08-02NO-ZAA-3M-S	LJ08-3.5NO-ZBA-3M-S
DC 3 line 10-30V NPN NC	LJ08-02NC-ZAA-3A-S	LJ08-3.5NC-ZBA-3A-S	LJ08-02NC-ZAA-3M-S	LJ08-3.5NC-ZBA-3M-S
DC 3 line 10-30V PNP NO	LJ08-02PO-ZAA-3A-S	LJ08-3.5PO-ZBA-3A-S	LJ08-02PO-ZAA-3M-S	LJ08-3.5PO-ZBA-3M-S
DC 3 line 10-30V PNP NC	LJ08-02PC-ZAA-3A-S	LJ08-3.5PC-ZBA-3A-S	LJ08-02PC-ZAA-3M-S	LJ08-3.5PC-ZBA-3M-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ08-02HO-ZAD-2A-S	LJ08-3.5HO-ZBD-2A-S	LJ08-02HO-ZAD-2M-S	LJ08-3.5HO-ZBD-2M-S
DC 2 line 10-60V NC	LJ08-02HC-ZAD-2A-S	LJ08-3.5HC-ZBD-2A-S	LJ08-02HC-ZAD-2M-S	LJ08-3.5HC-ZBD-2M-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

Metal face Series

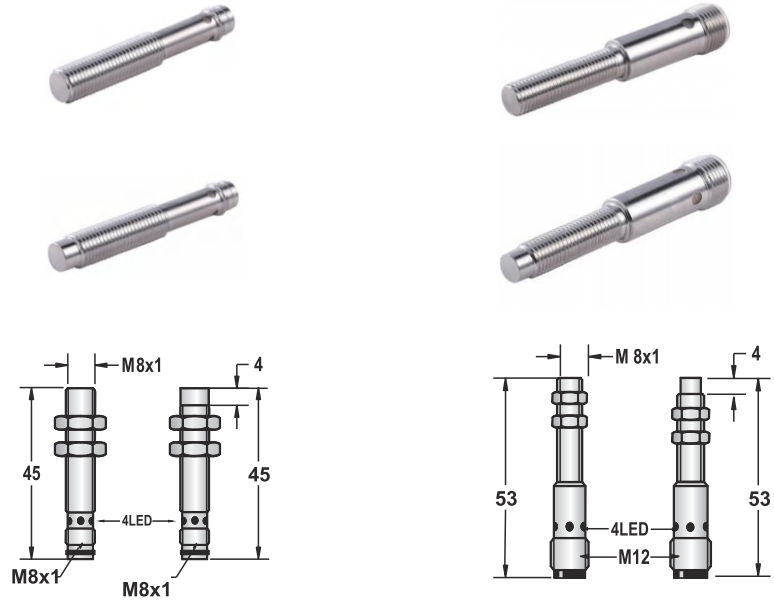


Size category	M 8		M 8	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	1mm	2mm	1mm	2mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	1KHZ		1KHZ	
Response time	0.1ms/0.1ms		0.1ms/0.1ms	
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	M8 Connector		M12 Connector	
Product Model				
DC 3 line 10-30V NPN NO	LJ08-01NO-YAA-EA-S	LJ08-02NO-YBA-EA-S	LJ08-01NO-YAA-TA-S	LJ08-02NO-YBA-TA-S
DC 3 line 10-30V NPN NC	LJ08-01NC-YAA-EA-S	LJ08-02NC-YBA-EA-S	LJ08-01NC-YAA-TA-S	LJ08-02NC-YBA-TA-S
DC 3 line 10-30V PNP NO	LJ08-01PO-YAA-EA-S	LJ08-02PO-YBA-EA-S	LJ08-01PO-YAA-TA-S	LJ08-02PO-YBA-TA-S
DC 3 line 10-30V PNP NC	LJ08-01PC-YAA-EA-S	LJ08-02PC-YBA-EA-S	LJ08-01PC-YAA-TA-S	LJ08-02PC-YBA-TA-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ08-01HO-YAD-EA-S	LJ08-02HO-YBD-EA-S	LJ08-01HO-YAD-TA-S	LJ08-02HO-YBD-TA-S
DC 2 line 10-60V NC	LJ08-01HC-YAD-EA-S	LJ08-02HC-YBD-EA-S	LJ08-01HC-YAD-TA-S	LJ08-02HC-YBD-TA-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				



# Product Parameters

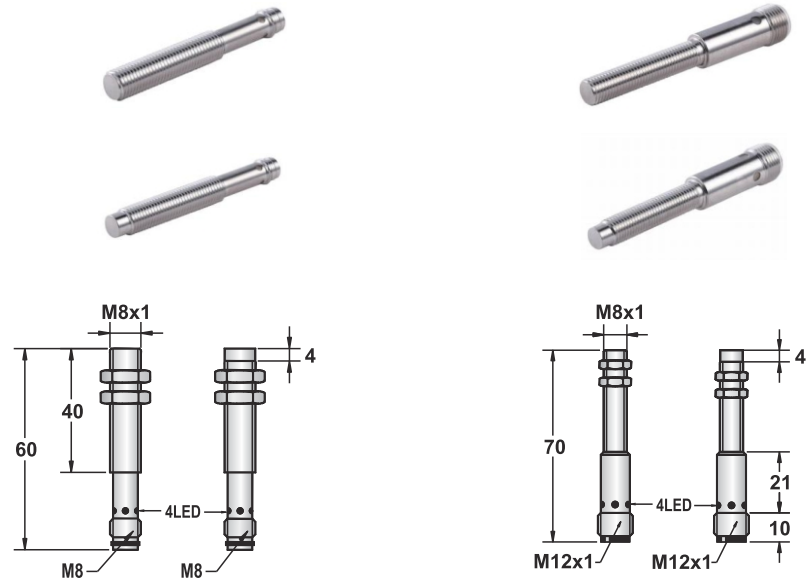
Metal face Series



Size category	M 8		M 8	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	1mm	2mm	1mm	2mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	1KHZ		1KHZ	
Response time	0.1ms/0.1ms		0.1ms/0.1ms	
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	M8 Connector		M12 Connector	
Product Model				
DC 3 line 10-30V NPN NO	LJ08-01NO-YAA-EM-S	LJ08-02NO-YBA-EM-S	LJ08-01NO-YAA-TM-S	LJ08-02NO-YBA-TM-S
DC 3 line 10-30V NPN NC	LJ08-01NC-YAA-EM-S	LJ08-02NC-YBA-EM-S	LJ08-01NC-YAA-TM-S	LJ08-02NC-YBA-TM-S
DC 3 line 10-30V PNP NO	LJ08-01PO-YAA-EM-S	LJ08-02PO-YBA-EM-S	LJ08-01PO-YAA-TM-S	LJ08-02PO-YBA-TM-S
DC 3 line 10-30V PNP NC	LJ08-01PC-YAA-EM-S	LJ08-02PC-YBA-EM-S	LJ08-01PC-YAA-TM-S	LJ08-02PC-YBA-TM-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)	LJ08-01HO-YAA-EM-S	LJ08-02HO-YBA-EM-S		
DC 2 line 10-60V NO	LJ08-01HC-YAA-EM-S	LJ08-02HC-YBA-EM-S		
DC 2 line 10-60V NC				
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

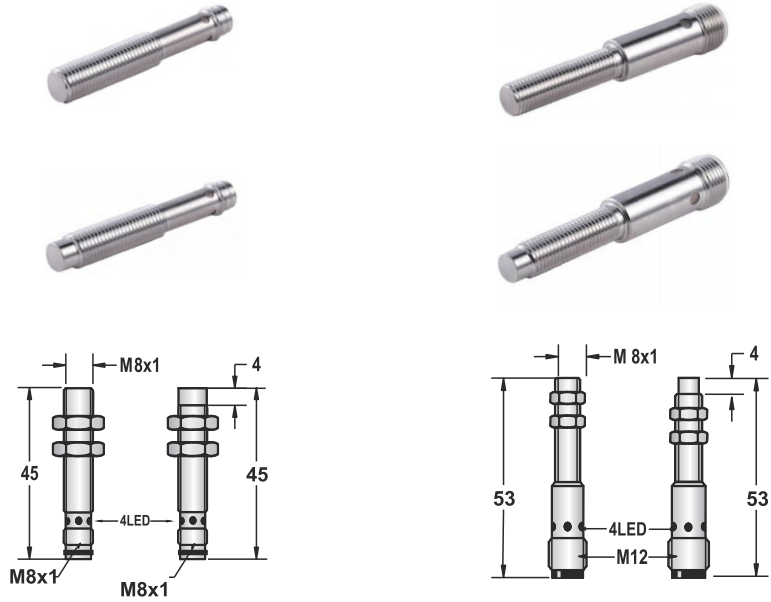
## Metal face Series



Size category	M 8		M 8	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	2mm	3.5mm	2mm	3.5mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	700HZ	500HZ	700HZ	500HZ
Response time	0.1ms	0.2ms	0.1ms	0.2ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	M8 Connector		M12 Connector	
Product Model				
DC 3 line 10-30V NPN NO	LJ08-02NO-YAA-EA-S	LJ08-3.5NO-YBA-EA-S	LJ08-02NO-YAA-TA-S	LJ08-3.5NO-YBA-TA-S
DC 3 line 10-30V NPN NC	LJ08-02NC-YAA-EA-S	LJ08-3.5NC-YBA-EA-S	LJ08-02NC-YAA-TA-S	LJ08-3.5NC-YBA-TA-S
DC 3 line 10-30V PNP NO	LJ08-02PO-YAA-EA-S	LJ08-3.5PO-YBA-EA-S	LJ08-02PO-YAA-TA-S	LJ08-3.5PO-YBA-TA-S
DC 3 line 10-30V PNP NC	LJ08-02PC-YAA-EA-S	LJ08-3.5PC-YBA-EA-S	LJ08-02PC-YAA-TA-S	LJ08-3.5PC-YBA-TA-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ08-02HO-YAD-EA-S	LJ08-3.5HO-YBD-EA-S	LJ08-02HO-YAD-TA-S	LJ08-3.5HO-YBD-TA-S
DC 2 line 10-60V NC	LJ08-02HC-YAD-EA-S	LJ08-3.5HC-YBD-EA-S	LJ08-02HC-YAD-TA-S	LJ08-3.5HC-YBD-TA-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

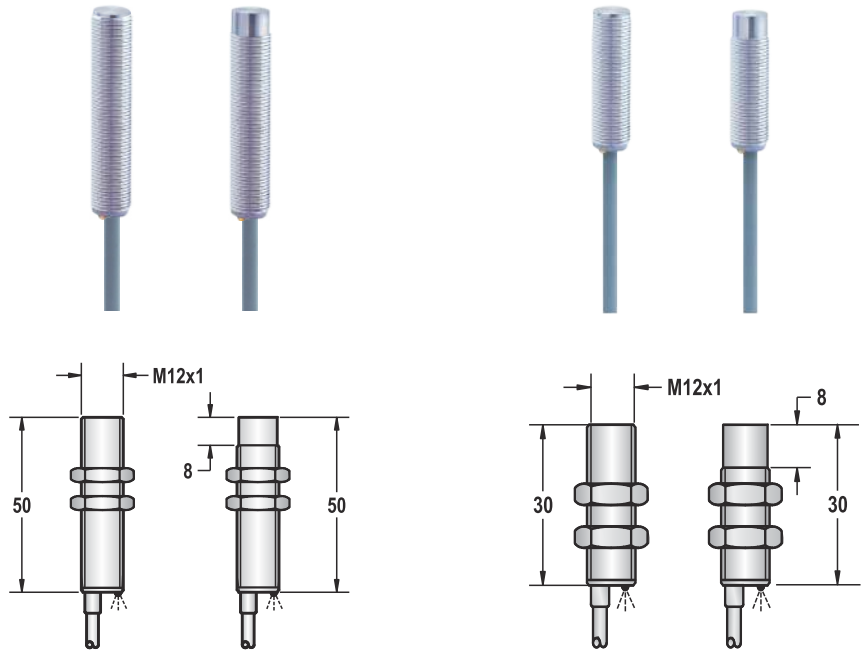
Metal face Series



Size category	M 8		M 8	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	2mm	3.5mm	2mm	3.5mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	700HZ	500HZ	700HZ	500HZ
Response time	0.1ms	0.2ms	0.1ms	0.2ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	M8 Connector		M12 Connector	
Product Model				
DC 3 line 10-30V NPN NO	LJ08-02NO-YAA-EM-S	LJ08-3.5NO-YBA-EM-S	LJ08-02NO-YAA-TM-S	LJ08-3.5NO-YBA-TM-S
DC 3 line 10-30V NPN NC	LJ08-02NC-YAA-EM-S	LJ08-3.5NC-YBA-EM-S	LJ08-02NC-YAA-TM-S	LJ08-3.5NC-YBA-TM-S
DC 3 line 10-30V PNP NO	LJ08-02PO-YAA-EM-S	LJ08-3.5PO-YBA-EM-S	LJ08-02PO-YAA-TM-S	LJ08-3.5PO-YBA-TM-S
DC 3 line 10-30V PNP NC	LJ08-02PC-YAA-EM-S	LJ08-3.5PC-YBA-EM-S	LJ08-02PC-YAA-TM-S	LJ08-3.5PC-YBA-TM-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO				
DC 2 line 10-60V NC				
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

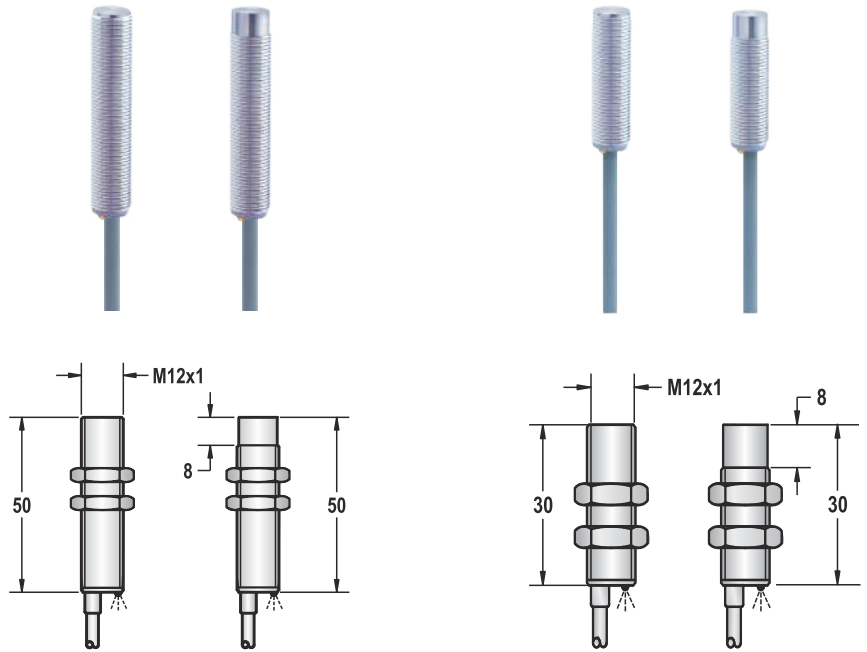
Metal face Series



Size category	M 12		M 12	
	● Shielded	○ Non-shielded	●	○
Sn: mm	2mm	4mm	2mm	4mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	2KHZ	1KHZ	2KHZ	1KHZ
Response time	0.1ms	0.2ms	0.1ms	0.2ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 4 φ 3x0.15		2m oil-proof PVC cable 4 φ 3x0.15	
Product Model				
DC 3 line 10-30V NPN NO	LJ12-02NO-ZAA-3A-S	LJ12-04NO-ZBA-3A-S	LJ12-02NO-ZAA-3M-S	LJ12-04NO-ZBA-3M-S
DC 3 line 10-30V NPN NC	LJ12-02NC-ZAA-3A-S	LJ12-04NC-ZBA-3A-S	LJ12-02NC-ZAA-3M-S	LJ12-04NC-ZBA-3M-S
DC 3 line 10-30V PNP NO	LJ12-02PO-ZAA-3A-S	LJ12-04PO-ZBA-3A-S	LJ12-02PO-ZAA-3M-S	LJ12-04PO-ZBA-3M-S
DC 3 line 10-30V PNP NC	LJ12-02PC-ZAA-3A-S	LJ12-04PC-ZBA-3A-S	LJ12-02PC-ZAA-3M-S	LJ12-04PC-ZBA-3M-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ12-02HO-ZAD-2A-S	LJ12-04HO-ZBD-2A-S	LJ12-02HO-ZAD-2M-S	LJ12-04HO-ZBD-2M-S
DC 2 line 10-60V NC	LJ12-02HC-ZAD-2A-S	LJ12-04HC-ZBD-2A-S	LJ12-02HC-ZAD-2M-S	LJ12-04HC-ZBD-2M-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

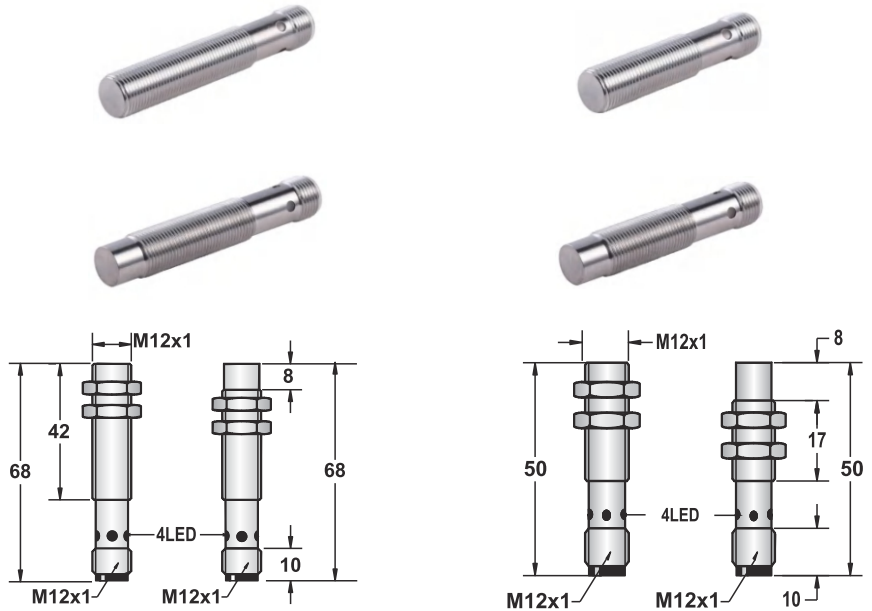
Metal face Series



Size category	M 12		M 12	
	● Shielded	○ Non-shielded	● Shielded	○ Non-shielded
Sn: mm	4 mm	6 mm	4 mm	6 mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	1KHZ	500HZ	1KHZ	500HZ
Response time	0.2ms	0.5ms	0.2ms	0.5ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 4 φ 3x0.15		2m oil-proof PVC cable 4 φ 3x0.15	
Product Model				
DC 3 line 10-30V NPN NO	LJ12-04NO-ZAA-3A-S	LJ12-06NO-ZBA-3A-S	LJ12-04NO-ZAA-3M-S	LJ12-06NO-ZBA-3M-S
DC 3 line 10-30V NPN NC	LJ12-04NC-ZAA-3A-S	LJ12-06NC-ZBA-3A-S	LJ12-04NC-ZAA-3M-S	LJ12-06NC-ZBA-3M-S
DC 3 line 10-30V PNP NO	LJ12-04PO-ZAA-3A-S	LJ12-06PO-ZBA-3A-S	LJ12-04PO-ZAA-3M-S	LJ12-06PO-ZBA-3M-S
DC 3 line 10-30V PNP NC	LJ12-04PC-ZAA-3A-S	LJ12-06PC-ZBA-3A-S	LJ12-04PC-ZAA-3M-S	LJ12-06PC-ZBA-3M-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ12-04HO-ZAD-2A-S	LJ12-06HO-ZBD-2A-S	LJ12-04HO-ZAD-2M-S	LJ12-06HO-ZBD-2M-S
DC 2 line 10-60V NC	LJ12-04HC-ZAD-2A-S	LJ12-06HC-ZBD-2A-S	LJ12-04HC-ZAD-2M-S	LJ12-06HC-ZBD-2M-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

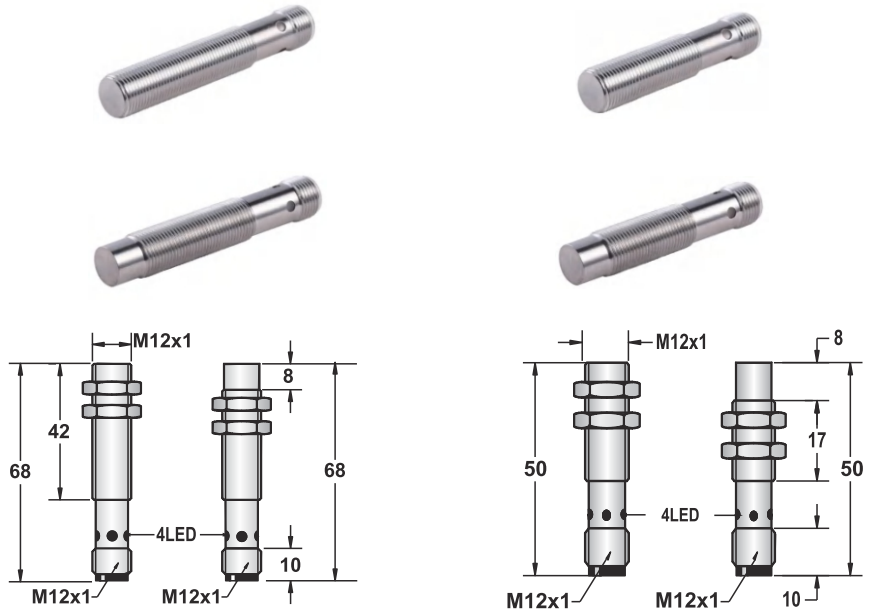
Metal face Series



Size category	M 12		M 12	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	2mm	4mm	2mm	4mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	2KHZ	1KHZ	2KHZ	1KHZ
Response time	0.1ms	0.2ms	0.1ms	0.2ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	M12 Connector		M12 Connector	
Product Model				
DC 3 line 10-30V NPN NO	LJ12-02NO-YAA-TA-S	LJ12-04NO-YBA-TA-S	LJ12-02NO-YAA-TM-S	LJ12-04NO-YBA-TM-S
DC 3 line 10-30V NPN NC	LJ12-02NC-YAA-TA-S	LJ12-04NC-YBA-TA-S	LJ12-02NC-YAA-TM-S	LJ12-04NC-YBA-TM-S
DC 3 line 10-30V PNP NO	LJ12-02PO-YAA-TA-S	LJ12-04PO-YBA-TA-S	LJ12-02PO-YAA-TM-S	LJ12-04PO-YBA-TM-S
DC 3 line 10-30V PNP NC	LJ12-02PC-YAA-TA-S	LJ12-04PC-YBA-TA-S	LJ12-02PC-YAA-TM-S	LJ12-04PC-YBA-TM-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ12-02HO-YAD-TA-S	LJ12-04HO-YBD-TA-S	LJ12-02HO-YAD-TM-S	LJ12-04HO-YBD-TM-S
DC 2 line 10-60V NC	LJ12-02HC-YAD-TA-S	LJ12-04HC-YBD-TA-S	LJ12-02HC-YAD-TM-S	LJ12-04HC-YBD-TM-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

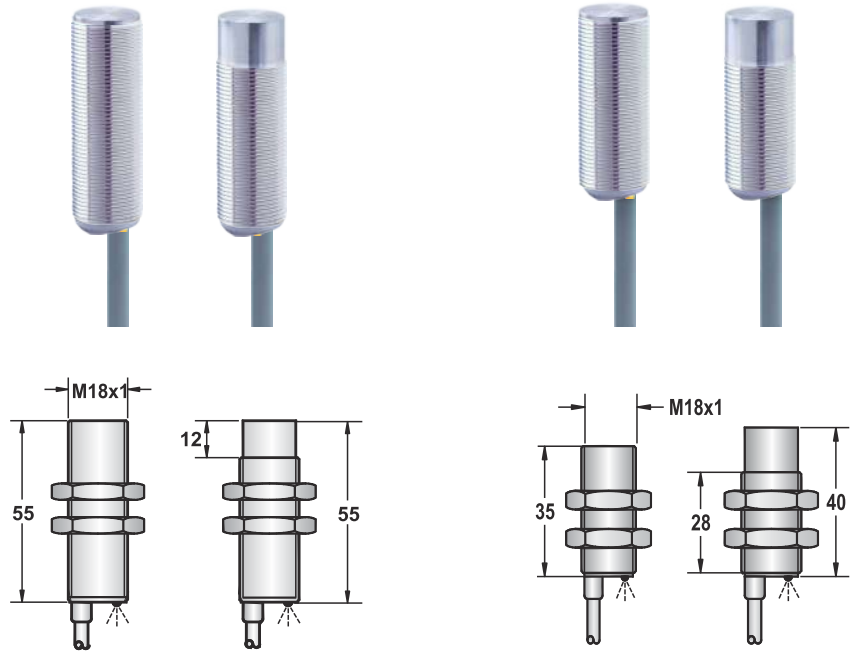
Metal face Series



Size category	M 12		M 12	
	● Shielded	○ Non-shielded	●	○
Sn: mm	4 mm	6 mm	4 mm	6 mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	1KHZ	500HZ	1KHZ	500HZ
Response time	0.2ms	0.5ms	0.2ms	0.5ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	M12 Connector		M12 Connector	
Product Model				
DC 3 line 10-30V NPN NO	LJ12-04NO-YAA-TA-S	LJ12-06NO-YBA-TA-S	LJ12-04NO-YAA-TM-S	LJ12-06NO-YBA-TM-S
DC 3 line 10-30V NPN NC	LJ12-04NC-YAA-TA-S	LJ12-06NC-YBA-TA-S	LJ12-04NC-YAA-TM-S	LJ12-06NC-YBA-TM-S
DC 3 line 10-30V PNP NO	LJ12-04PO-YAA-TA-S	LJ12-06PO-YBA-TA-S	LJ12-04PO-YAA-TM-S	LJ12-06PO-YBA-TM-S
DC 3 line 10-30V PNP NC	LJ12-04PC-YAA-TA-S	LJ12-06PC-YBA-TA-S	LJ12-04PC-YAA-TM-S	LJ12-06PC-YBA-TM-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ12-04HO-YAD-TA-S	LJ12-06HO-YBD-TA-S	LJ12-04HO-YAD-TM-S	LJ12-06HO-YBD-TM-S
DC 2 line 10-60V NC	LJ12-04HC-YAD-TA-S	LJ12-06HC-YBD-TA-S	LJ12-04HC-YAD-TM-S	LJ12-06HC-YBD-TM-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

## Metal face Series

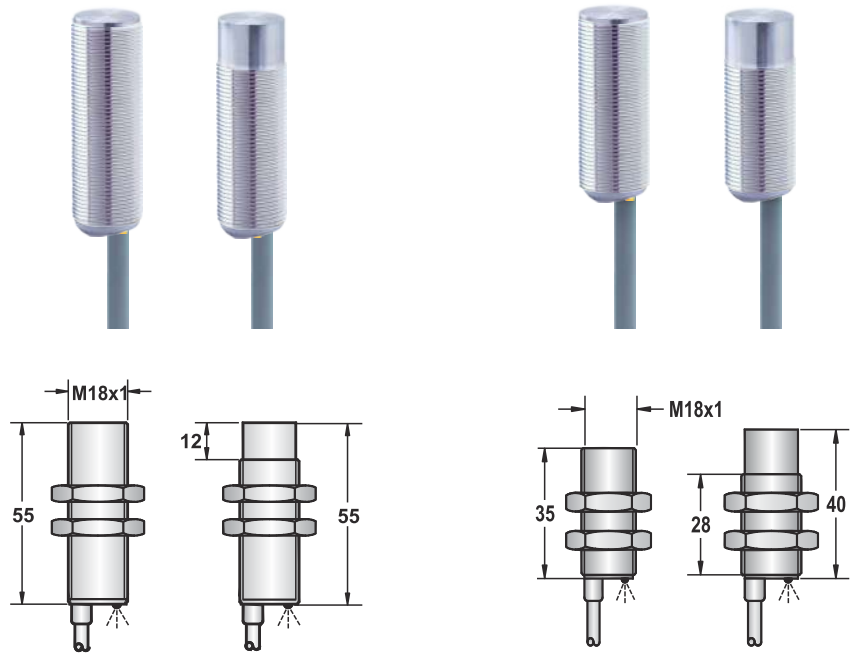


Size category	M 18		M 18	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	5 mm	8 mm	5 mm	8 mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	1KHZ	500HZ	1KHZ	500HZ
Response time	0.2ms	0.5ms	0.2ms	0.5ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 5.0 φ 3x0.34		2m oil-proof PVC cable 5.0 φ 3x0.34	
Product Model				
DC 3 line 10-30V NPN NO	LJ18-05NO-ZAA-3A-S	LJ18-08NO-ZBA-3A-S	LJ18-05NO-ZAA-3M-S	LJ18-08NO-ZBA-3M-S
DC 3 line 10-30V NPN NC	LJ18-05NC-ZAA-3A-S	LJ18-08NC-ZBA-3A-S	LJ18-05NC-ZAA-3M-S	LJ18-08NC-ZBA-3M-S
DC 3 line 10-30V PNP NO	LJ18-05PO-ZAA-3A-S	LJ18-08PO-ZBA-3A-S	LJ18-05PO-ZAA-3M-S	LJ18-08PO-ZBA-3M-S
DC 3 line 10-30V PNP NC	LJ18-05PC-ZAA-3A-S	LJ18-08PC-ZBA-3A-S	LJ18-05PC-ZAA-3M-S	LJ18-08PC-ZBA-3M-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ18-05HO-ZAD-2A-S	LJ18-08HO-ZBD-2A-S	LJ18-05HO-ZAD-2M-S	LJ18-08HO-ZBD-2M-S
DC 2 line 10-60V NC	LJ18-05HC-ZAD-2A-S	LJ18-08HC-ZBD-2A-S	LJ18-05HC-ZAD-2M-S	LJ18-08HC-ZBD-2M-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				



# Product Parameters

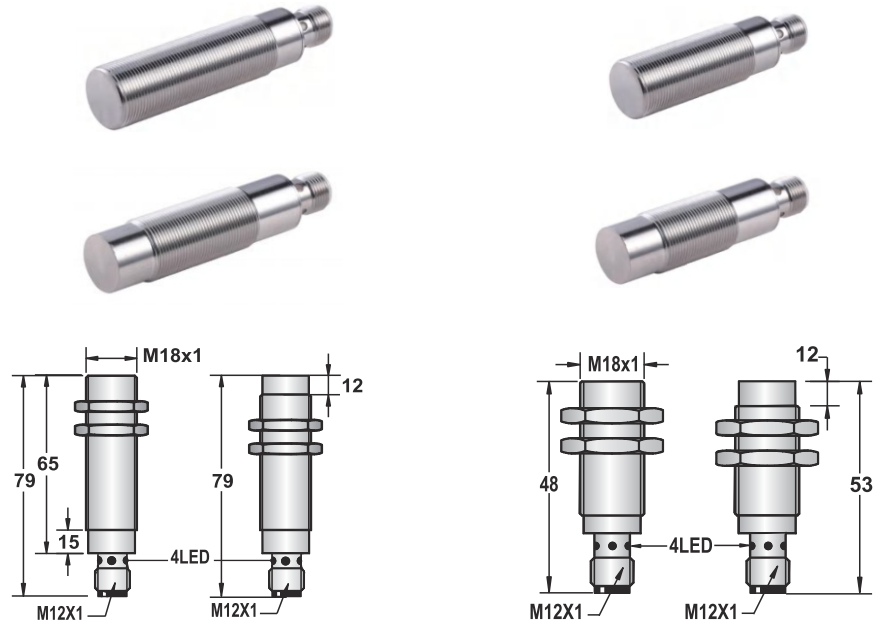
## Metal face Series



Size category	M 18		M 18	
	● Shielded	○ Non-shielded	● Shielded	○ Non-shielded
Sn: mm	8 mm	10mm	8 mm	10mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC		10-30VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	500HZ	300HZ	500HZ	300HZ
Response time	0.5ms	1ms	0.5ms	1ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 5.0 φ 3x0.34		2m oil-proof PVC cable 5.0 φ 3x0.34/4x0.25	
Product Model				
DC 3 line 10-30V NPN NO	LJ18-05NO-ZAA-3A-S	LJ18-08NO-ZBA-3A-S	LJ18-05NO-ZAA-3M-S	LJ18-08NO-ZBA-3M-S
DC 3 line 10-30V NPN NC	LJ18-05NC-ZAA-3A-S	LJ18-08NC-ZBA-3A-S	LJ18-05NC-ZAA-3M-S	LJ18-08NC-ZBA-3M-S
DC 3 line 10-30V PNP NO	LJ18-05PO-ZAA-3A-S	LJ18-08PO-ZBA-3A-S	LJ18-05PO-ZAA-3M-S	LJ18-08PO-ZBA-3M-S
DC 3 line 10-30V PNP NC	LJ18-05PC-ZAA-3A-S	LJ18-08PC-ZBA-3A-S	LJ18-05PC-ZAA-3M-S	LJ18-08PC-ZBA-3M-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO				
DC 2 line 10-60V NC				
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

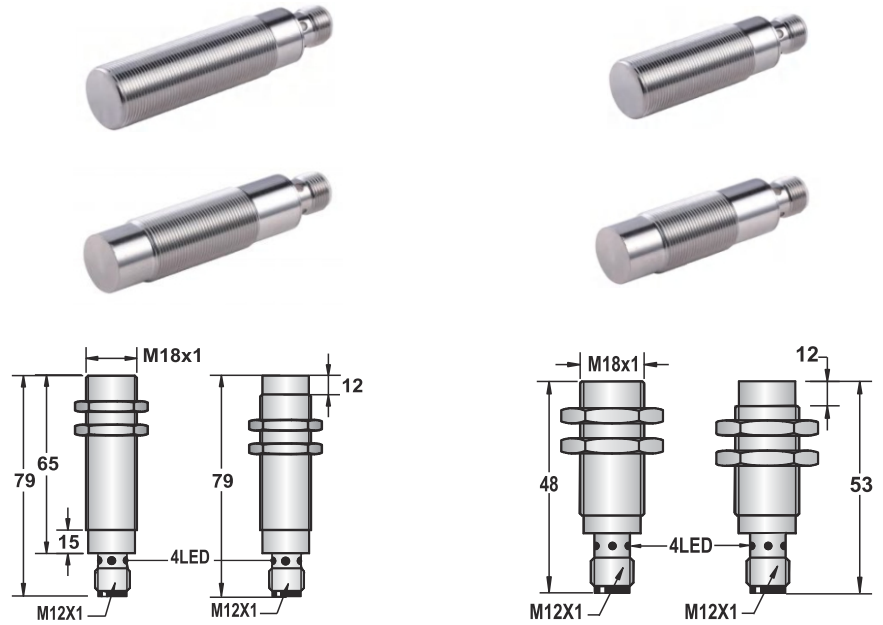
Metal face Series



Size category	M 18		M 18	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	5 mm	8 mm	5 mm	8 mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	1KHZ	500HZ	500HZ	300HZ
Response time	0.2ms	0.5ms	0.2ms	0.5ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	M12 Connector		M12 Connector	
Product Model				
DC 3 line 10-30V NPN NO	LJ18-05NO-YAA-TA-S	LJ18-08NO-YBA-TA-S	LJ18-05NO-YAA-TM-S	LJ18-08NO-YBA-TM-S
DC 3 line 10-30V NPN NC	LJ18-05NC-YAA-TA-S	LJ18-08NC-YBA-TA-S	LJ18-05NC-YAA-TM-S	LJ18-08NC-YBA-TM-S
DC 3 line 10-30V PNP NO	LJ18-05PO-YAA-TA-S	LJ18-08PO-YBA-TA-S	LJ18-05PO-YAA-TM-S	LJ18-08PO-YBA-TM-S
DC 3 line 10-30V PNP NC	LJ18-05PC-YAA-TA-S	LJ18-08PC-YBA-TA-S	LJ18-05PC-YAA-TM-S	LJ18-08PC-YBA-TM-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ18-05HO-YAD-TA-S	LJ18-08HO-YBD-TA-S	LJ18-05HO-YAD-TM-S	LJ18-08HO-YBD-TM-S
DC 2 line 10-60V NC	LJ18-05HC-YAD-TA-S	LJ18-08HC-YBD-TA-S	LJ18-05HC-YAD-TM-S	LJ18-08HC-YBD-TM-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

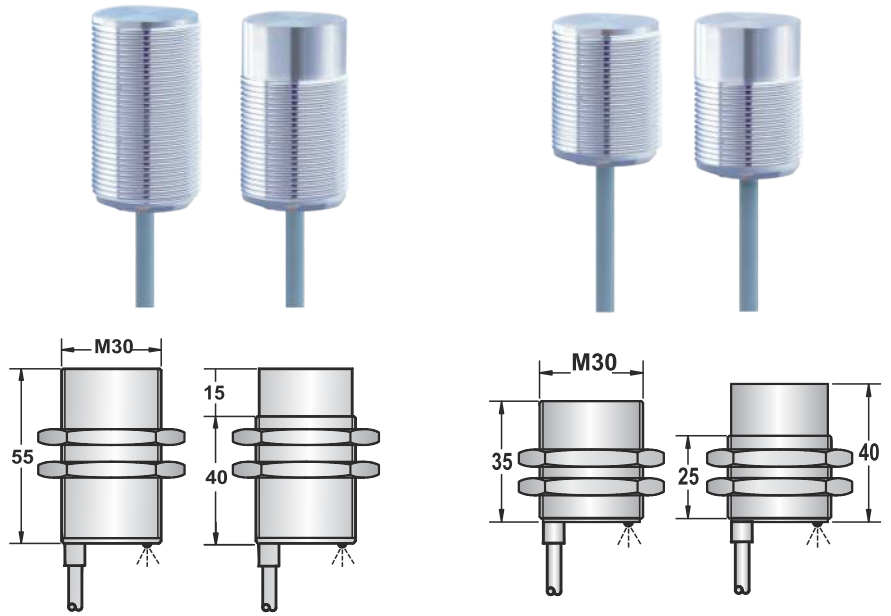
Metal face Series



Size category	M 18		M 18	
	● Shielded	○ Non-shielded	●	○
Sn: mm	8 mm	10mm	8 mm	10mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC		10-30VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	500HZ	300HZ	500HZ	300HZ
Response time	0.5ms	1ms	0.5ms	1ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	M12 Connector		M12 Connector	
Product Model				
DC 3 line 10-30V NPN NO	LJ18-08NO-YAA-TA-S	LJ18-10NO-YBA-TA-S	LJ18-08NO-YAA-TM-S	LJ18-10NO-YBA-TM-S
DC 3 line 10-30V NPN NC	LJ18-08NC-YAA-TA-S	LJ18-10NC-YBA-TA-S	LJ18-08NC-YAA-TM-S	LJ18-10NC-YBA-TM-S
DC 3 line 10-30V PNP NO	LJ18-08PO-YAA-TA-S	LJ18-10PO-YBA-TA-S	LJ18-08PO-YAA-TM-S	LJ18-10PO-YBA-TM-S
DC 3 line 10-30V PNP NC	LJ18-08PC-YAA-TA-S	LJ18-10PC-YBA-TA-S	LJ18-08PC-YAA-TM-S	LJ18-10PC-YBA-TM-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO				
DC 2 line 10-60V NC				
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

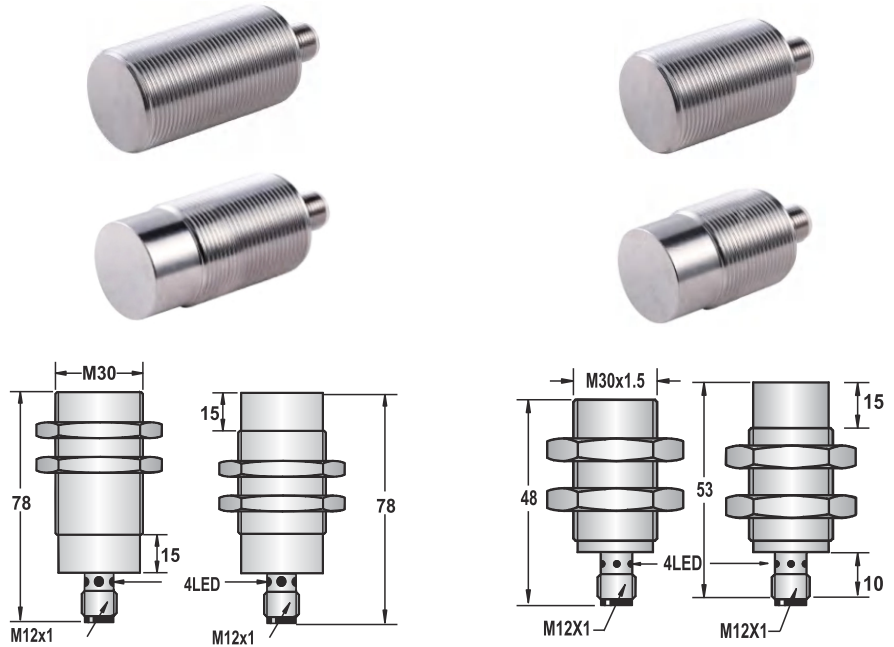
## Metal face Series



Size category	M 30		M 30	
	● Shielded	○ Non-shielded	●	○
Sn: mm	10mm	13mm	10mm	13mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	300HZ	150HZ	300HZ	150HZ
Response time	0.5ms	1ms	0.5ms	1ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 5.0 φ 3x0.34		2m oil-proof PVC cable 5.0 φ 3x0.34	
Product Model				
DC 3 line 10-30V NPN NO	LJ30-10NO-ZAA-3A-S	LJ30-13NO-ZBA-3A-S	LJ30-10NO-ZAA-3M-S	LJ30-13NO-ZBA-3M-S
DC 3 line 10-30V NPN NC	LJ30-10NC-ZAA-3A-S	LJ30-13NC-ZBA-3A-S	LJ30-10NC-ZAA-3M-S	LJ30-13NC-ZBA-3M-S
DC 3 line 10-30V PNP NO	LJ30-10PO-ZAA-3A-S	LJ30-13PO-ZBA-3A-S	LJ30-10PO-ZAA-3M-S	LJ30-13PO-ZBA-3M-S
DC 3 line 10-30V PNP NC	LJ30-10PC-ZAA-3A-S	LJ30-13PC-ZBA-3A-S	LJ30-10PC-ZAA-3M-S	LJ30-13PC-ZBA-3M-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ30-10HO-ZAD-2A-S	LJ30-13HO-ZBD-2A-S	LJ30-10HO-ZAD-2M-S	LJ30-13HO-ZBD-2M-S
DC 2 line 10-60V NC	LJ30-10HC-ZAD-2A-S	LJ30-13HC-ZBD-2A-S	LJ30-10HC-ZAD-2M-S	LJ30-13HC-ZBD-2M-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

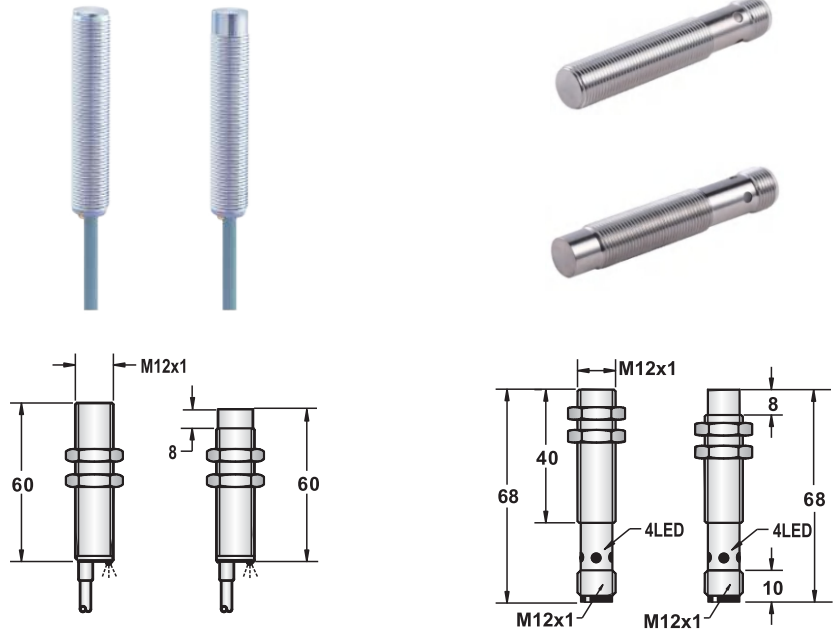
## Metal face Series



Size category	M 30		M 30	
	● Shielded	○ Non-shielded	● Shielded	○ Non-shielded
Sn: mm	10mm	13mm	10mm	13mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC/10-60VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	300HZ	150HZ	300HZ	150HZ
Response time	0.5ms	1ms	0.5ms	1ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	M12 Connector		M12 Connector	
Product Model				
DC 3 line 10-30V NPN NO	LJ30-10NO-YAA-TA-S	LJ30-13NO-YBA-TA-S	LJ30-10NO-YAA-TM-S	LJ30-13NO-YBA-TM-S
DC 3 line 10-30V NPN NC	LJ30-10NC-YAA-TA-S	LJ30-13NC-YBA-TA-S	LJ30-10NC-YAA-TM-S	LJ30-13NC-YBA-TM-S
DC 3 line 10-30V PNP NO	LJ30-10PO-YAA-TA-S	LJ30-13PO-YBA-TA-S	LJ30-10PO-YAA-TM-S	LJ30-13PO-YBA-TM-S
DC 3 line 10-30V PNP NC	LJ30-10PC-YAA-TA-S	LJ30-13PC-YBA-TA-S	LJ30-10PC-YAA-TM-S	LJ30-13PC-YBA-TM-S
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ30-10HO-YAD-TA-S	LJ30-13HO-YBD-TA-S	LJ30-10HO-YAD-TM-S	LJ30-13HO-YBD-TM-S
DC 2 line 10-60V NC	LJ30-10HC-YAD-TA-S	LJ30-13HC-YBD-TA-S	LJ30-10HC-YAD-TM-S	LJ30-13HC-YBD-TM-S
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
DC 3 line 5-36V NPN NO				
DC 3 line 5-36V NPN NC				
DC 3 line 5-36V PNP NO				
DC 3 line 5-36V PNP NC				
DC 4 line 5-36V Convertible PNP (NO&NC)				
DC 4 line 5-36V Convertible NPN (NO&NC)				

# Product Parameters

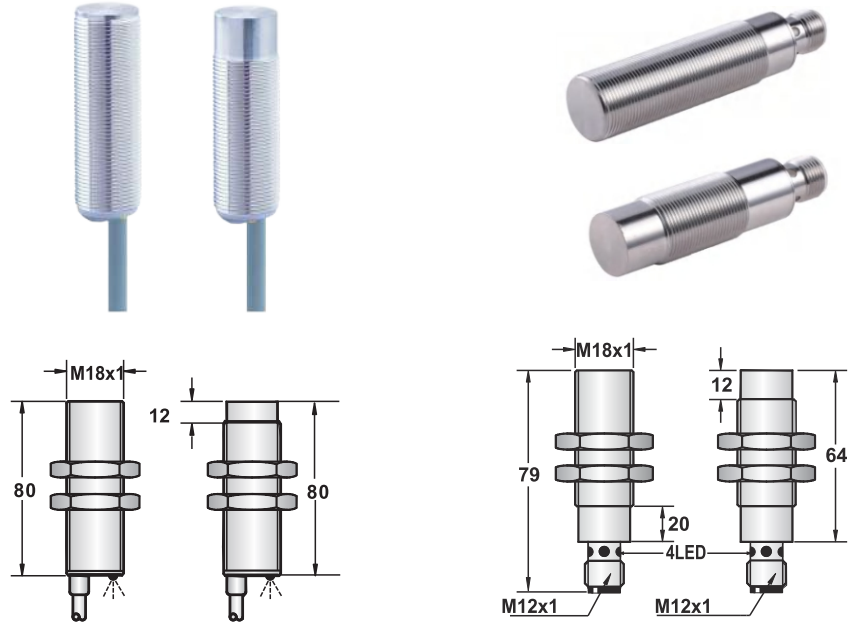
Metal face Series



Size category	M 12		M 12	
	● Shielded	○ Non-shielded	●	○
Sn: mm	2mm	4 mm	2mm	4 mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	20-250VAC		20-250VAC	
No-load current	<1.8mA		<1.8mA	
Maximum load current	400mA		400mA	
Leakage current	<1.8mA		<1.8mA	
Surge current	5A(20ms)		5A(20ms)	
Minimum load current	5mA		5mA	
Voltage drop	<8VAC AT 400mA		<8VAC AT 400mA	
Switching frequency	<25HZ		<25HZ	
Response time	10ms/10ms		10ms/10ms	
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection	NO		NO	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 4 φ 3x0.34/4x0.25		M12 Connector	
Product Model				
AC 20-250V NO	LJ12-02AO-ZAG-3S-S	LJ12-04AO-ZBG-3S-S	LJ12-02AO-YAG-TS-S	LJ12-04AO-YBG-TS-S
AC 20-250V NC	LJ12-02AC-ZAG-3S-S	LJ12-04AC-ZBG-3S-S	LJ12-02AC-YAG-TS-S	LJ12-04AC-YBG-TS-S

# Product Parameters

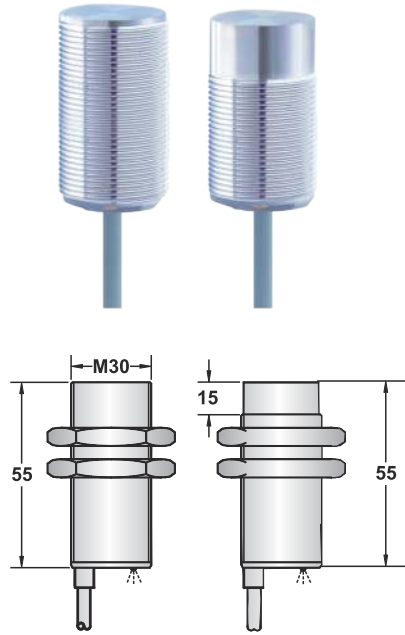
Metal face Series



Size category	M18		M18	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	5 mm	8 mm	5 mm	8 mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	20-250VAC		20-250VAC	
No-load current	<1.8mA		<1.8mA	
Maximum load current	400mA		400mA	
Leakage current	<1.8mA		<1.8mA	
Surge current	5A(20ms)		5A(20ms)	
Minimum load current	5mA		5mA	
Voltage drop	<8VAC AT 400mA		<8VAC AT 400mA	
Switching frequency	<25HZ		<25HZ	
Response time	10ms/10ms		10ms/10ms	
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection	NO		NO	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 4 φ 3x0.34/4x0.25		M12 Connector	
Product Model				
AC 20-250V NO	LJ18-05AO-ZAG-3S-S	LJ18-08AO-ZBG-3S-S	LJ18-05AO-YAG-TS-S	LJ18-08AO-YBG-TS-S
AC 20-250V NC	LJ18-05AC-ZAG-3S-S	LJ18-08AC-ZBG-3S-S	LJ18-05AC-YAG-TS-S	LJ18-08AC-YBG-TS-S

# Product Parameters

Metal face Series



## Size category

## M 30

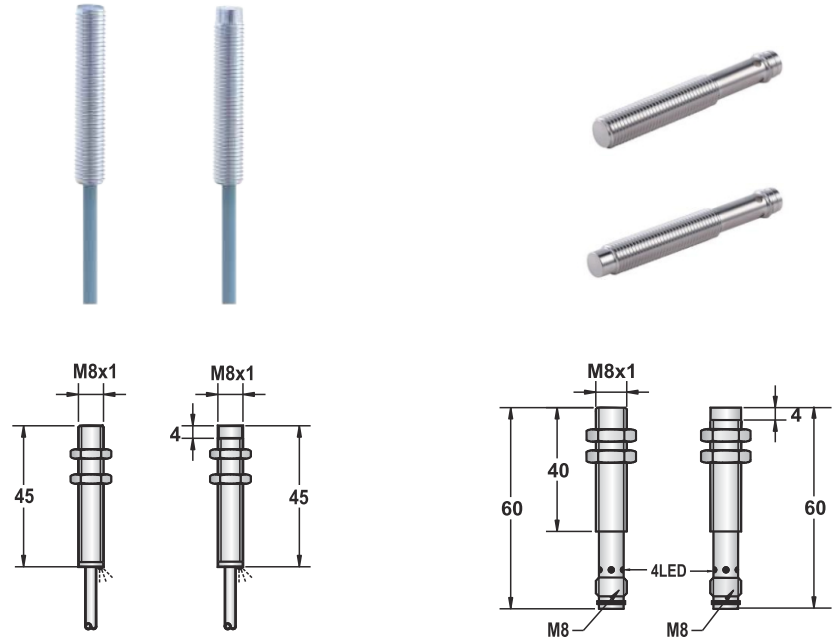
● Shielded    ○ Non-shielded	●    ○
Sn: mm	10 mm    13mm
Shell material	Stainless steel
● LED display    ○ No LED display	●
Operating voltage	20-250VAC
No-load current	<1.8mA
Maximum load current	400mA
Leakage current	<1.8mA
Surge current	5A(20ms)
Minimum load current	5mA
Voltage drop	<8VAC AT 400mA
Switching frequency	<25HZ
Response time	10ms
Switching hysteresis	<15%(Sr)
Repeat accuracy	<1.0%(Sr)
Protection level	IP67
Operating temperature	-25°C - +70°C
Temperature drift	<10%(Sr)
Short circuit protection	NO
Sensing surface material	Stainless steel
Connection method	2m oil-proof PVC cable 5.0 φ 3x0.34
Product Model	
AC 20-250V NO	LJ30-10AO-ZAG-3M-S    LJ30-13AO-ZBG-3S-S
AC 20-250V NC	LJ30-10AC-ZAG-3M-S    LJ30-13AC-ZBG-3S-S



## Product Parameters

### Metal face Series

Special detection type  
(only detects iron, not iron)



#### Size category

#### M 8

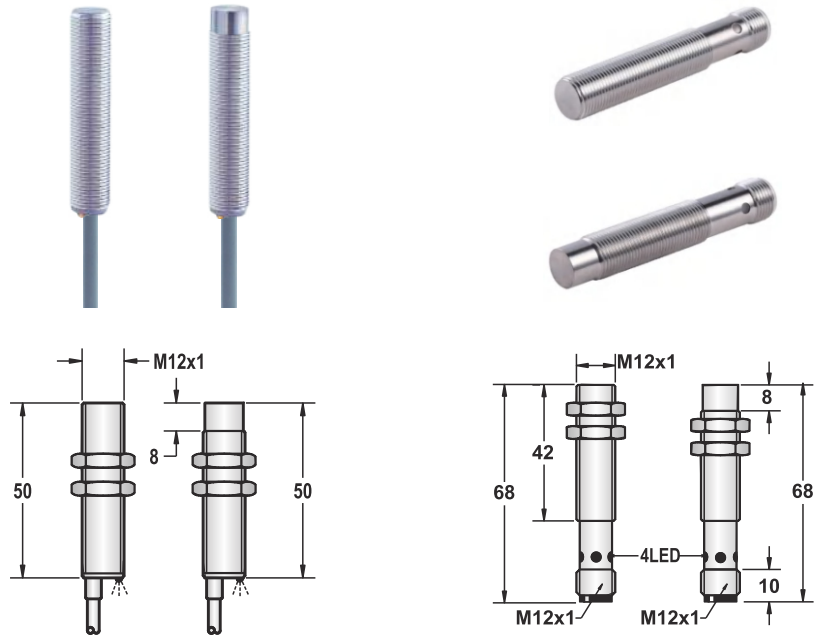
#### M 8

	● Shielded ○ Non-shielded		● Shielded ○ Non-shielded		● Shielded ○ Non-shielded	
	Sn: mm		1mm	2mm	1mm	2mm
Shell material	Stainless steel				Stainless steel	
● LED display ○ No LED display	●					
Operating voltage	10-30VDC				10-30VDC	
Allowable pulsating voltage	<10%				<10%	
No-load current	<10mA				<10mA	
Maximum load current	200mA				200mA	
Leakage current	<0.01mA				<0.01mA	
Voltage drop	<1.5V				<1.5V	
Switching frequency	1KHZ				1KHZ	
Response time	0.1ms				0.1ms	
Switching hysteresis	<15%(Sr)				<15%(Sr)	
Repeat accuracy	<1.0%(Sr)				<1.0%(Sr)	
Protection level	IP67				IP67	
Operating temperature	-25°C - +70°C				-25°C - +70°C	
Temperature drift	<10%(Sr)				<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes				Yes	
Overload protection current	220mA				220mA	
Sensing surface material	Stainless steel				Stainless steel	
Connection method	2m oil-proof PVC cable 3 φ 3x0.15				M8 Connector	
Series models that detect iron only						
DC 3 line 10-30V NPN NO	LJ08-01NO-ZAA-3A-SFE	LJ08-02NO-ZBA-3A-SFE	LJ08-01NO-YAA-EA-SFE	LJ08-02NO-YBA-EA-SFE		
DC 3 line 10-30V NPN NC	LJ08-01NC-ZAA-3A-SFE	LJ08-02NC-ZBA-3A-SFE	LJ08-01NC-YAA-EA-SFE	LJ08-02NC-YBA-EA-SFE		
DC 3 line 10-30V PNP NO	LJ08-01PO-ZAA-3A-SFE	LJ08-02PO-ZBA-3A-SFE	LJ08-01PO-YAA-EA-SFE	LJ08-02PO-YBA-EA-SFE		
DC 3 line 10-30V PNP NC	LJ08-01PC-ZAA-3A-SFE	LJ08-02PC-ZBA-3A-SFE	LJ08-01PC-YAA-EA-SFE	LJ08-02PC-YBA-EA-SFE		
Series models that do not detect iron						
DC 3 line 10-30V NPN NO	LJ08-01NO-ZAA-3A-SNE	LJ08-02NO-ZBA-3A-SNF	LJ08-01NO-YAA-EA-SNF	LJ08-02NO-YBA-EA-SNF		
DC 3 line 10-30V NPN NC	LJ08-01NC-ZAA-3A-SNE	LJ08-02NC-ZBA-3A-SNF	LJ08-01NC-YAA-EA-SNF	LJ08-02NC-YBA-EA-SNF		
DC 3 line 10-30V PNP NO	LJ08-01PO-ZAA-3A-SNE	LJ08-02PO-ZBA-3A-SNF	LJ08-01PO-YAA-EA-SNF	LJ08-02PO-YBA-EA-SNF		
DC 3 line 10-30V PNP NC	LJ08-01PC-ZAA-3A-SNE	LJ08-02PC-ZBA-3A-SNF	LJ08-01PC-YAA-EA-SNF	LJ08-02PC-YBA-EA-SNF		

## Product Parameters

### Metal face Series

Special detection type  
(only detects iron, not iron)

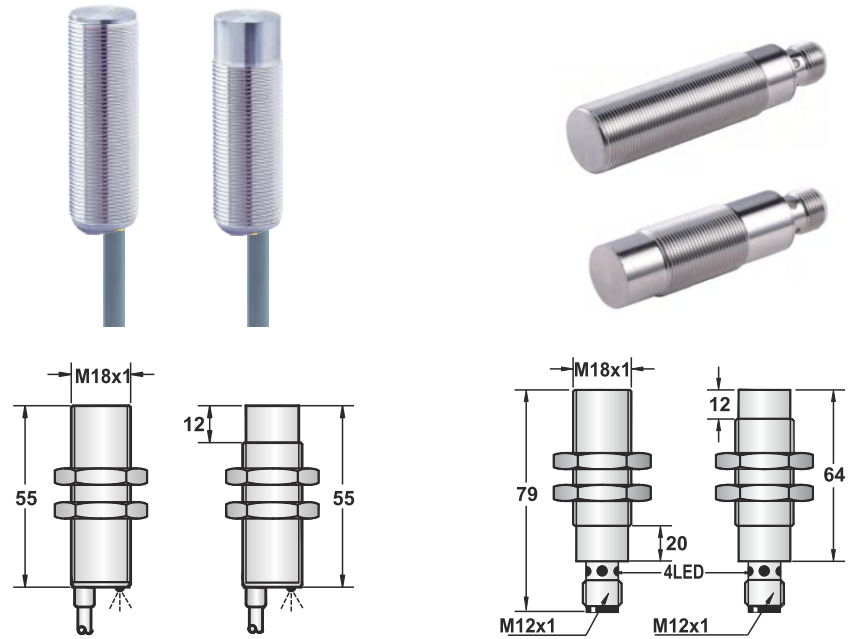


Size category	M 12		M 12	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	2 mm	4 mm	2 mm	4 mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC		10-30VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	2KHZ	1KHZ	2KHZ	1KHZ
Response time	0.1ms	0.2ms	0.1ms	0.2ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 4 φ 3x0.15		M12 Connector	
Series models that detect iron only				
DC 3 line 10-30V NPN NO	LJ12-02NO-ZAA-3A-SFE	LJ12-04NO-ZBA-3A-SFE	LJ12-02NO-YAA-EA-SFE	LJ12-04NO-YBA-EA-SFE
DC 3 line 10-30V NPN NC	LJ12-02NC-ZAA-3A-SFE	LJ12-04NC-ZBA-3A-SFE	LJ12-02NC-YAA-EA-SFE	LJ12-04NC-YBA-EA-SFE
DC 3 line 10-30V PNP NO	LJ12-02PO-ZAA-3A-SFE	LJ12-04PO-ZBA-3A-SFE	LJ12-02PO-YAA-EA-SFE	LJ12-04PO-YBA-EA-SFE
DC 3 line 10-30V PNP NC	LJ12-02PC-ZAA-3A-SFE	LJ12-04PC-ZBA-3A-SFE	LJ12-02PC-YAA-EA-SFE	LJ12-04PC-YBA-EA-SFE
Series models that do not detect iron				
DC 3 line 10-30V NPN NO	LJ12-02NO-ZAA-3A-SNE	LJ12-04NO-ZBA-3A-SNF	LJ12-02NO-YAA-EA-SNF	LJ12-04NO-YBA-EA-SNF
DC 3 line 10-30V NPN NC	LJ12-02NC-ZAA-3A-SNE	LJ12-04NC-ZBA-3A-SNF	LJ12-02NC-YAA-EA-SNF	LJ12-04NC-YBA-EA-SNF
DC 3 line 10-30V PNP NO	LJ12-02PO-ZAA-3A-SNE	LJ12-04PO-ZBA-3A-SNF	LJ12-02PO-YAA-EA-SNF	LJ12-04PO-YBA-EA-SNF
DC 3 line 10-30V PNP NC	LJ12-02PC-ZAA-3A-SNE	LJ12-04PC-ZBA-3A-SNF	LJ12-02PC-YAA-EA-SNF	LJ12-04PC-YBA-EA-SNF

# Product Parameters

## Metal face Series

Special detection type  
(only detects iron, not iron)

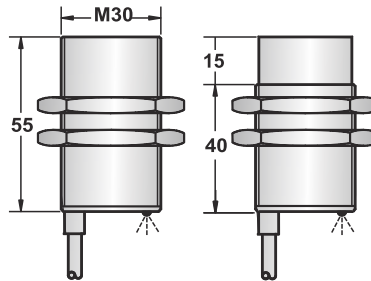


Size category	M 18		M 18	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	5 mm	8 mm	5 mm	8 mm
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	●		●	
Operating voltage	10-30VDC		10-30VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	1KHZ	500HZ	1KHZ	500HZ
Response time	0.2ms	0.5ms	0.2ms	0.5ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<1.0%(Sr)	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel		Stainless steel	
Connection method	2m oil-proof PVC cable 5.0 φ 3x0.34		M12 Connector	
Series models that detect iron only				
DC 3 line 10-30V NPN NO	LJ18-05NO-ZAA-3A-SFE	LJ18-08NO-ZBA-3A-SFE	LJ18-05NO-YAA-EA-SFE	LJ18-08NO-YBA-EA-SFE
DC 3 line 10-30V NPN NC	LJ18-05NC-ZAA-3A-SFE	LJ18-08NC-ZBA-3A-SFE	LJ18-05NC-YAA-EA-SFE	LJ18-08NC-YBA-EA-SFE
DC 3 line 10-30V PNP NO	LJ18-05PO-ZAA-3A-SFE	LJ18-08PO-ZBA-3A-SFE	LJ18-05PO-YAA-EA-SFE	LJ18-08PO-YBA-EA-SFE
DC 3 line 10-30V PNP NC	LJ18-05PC-ZAA-3A-SFE	LJ18-08PC-ZBA-3A-SFE	LJ18-05PC-YAA-EA-SFE	LJ18-08PC-YBA-EA-SFE
Series models that do not detect iron				
DC 3 line 10-30V NPN NO	LJ18-05NO-ZAA-3A-SNE	LJ18-08NO-ZBA-3A-SNF	LJ18-05NO-YAA-EA-SNF	LJ18-08NO-YBA-EA-SNF
DC 3 line 10-30V NPN NC	LJ18-05NC-ZAA-3A-SNE	LJ18-08NC-ZBA-3A-SNF	LJ18-05NC-YAA-EA-SNF	LJ18-08NC-YBA-EA-SNF
DC 3 line 10-30V PNP NO	LJ18-05PO-ZAA-3A-SNE	LJ18-08PO-ZBA-3A-SNF	LJ18-05PO-YAA-EA-SNF	LJ18-08PO-YBA-EA-SNF
DC 3 line 10-30V PNP NC	LJ18-05PC-ZAA-3A-SNE	LJ18-08PC-ZBA-3A-SNF	LJ18-05PC-YAA-EA-SNF	LJ18-08PC-YBA-EA-SNF

## Product Parameters

### Metal face Series

Special detection type  
(only detects iron, not iron)



#### Size category

#### M 30

● Shielded ○ Non-shielded

Sn: mm

● 10 mm ○ 13 mm

Shell material

Stainless steel

● LED display ○ No LED display

●

Operating voltage

10-30VDC

Allowable pulsating voltage

<10%

No-load current

<10mA

Maximum load current

200mA

Leakage current

<0.01mA

Voltage drop

<1.5V

Switching frequency

300HZ | 150HZ

Response time

0.5ms | 1ms

Switching hysteresis

<15%(Sr)

Repeat accuracy

<1.0%(Sr)

Protection level

IP67

Operating temperature

-25°C - +70°C

Temperature drift

<10%(Sr)

Short circuit protection/reverse polarity protection

Yes

Overload protection current

220mA

Sensing surface material

Stainless steel

Connection method

2m oil-proof PVC cable 5.0 φ 3x0.34

Series models that detect iron only

DC 3 line 10-30V NPN NO

LJ30-10NO-ZAA-EA-SFE

LJ30-13NO-ZBA-EA-SFE

DC 3 line 10-30V NPN NC

LJ30-10NC-ZAA-EA-SFE

LJ30-13NC-ZBA-EA-SFE

DC 3 line 10-30V PNP NO

LJ30-10PO-ZAA-EA-SFE

LJ30-13PO-ZBA-EA-SFE

DC 3 line 10-30V PNP NC

LJ30-10PC-ZAA-EA-SFE

LJ30-13PC-ZBA-EA-SFE

Series models that do not detect iron

DC 3 line 10-30V NPN NO

LJ30-10NO-ZAA-EA-SNF

LJ30-13NO-ZBA-EA-SNF

DC 3 line 10-30V NPN NC

LJ30-10NC-ZAA-EA-SNF

LJ30-13NC-ZBA-EA-SNF

DC 3 line 10-30V PNP NO

LJ30-10PO-ZAA-EA-SNF

LJ30-13PO-ZBA-EA-SNF

DC 3 line 10-30V PNP NC

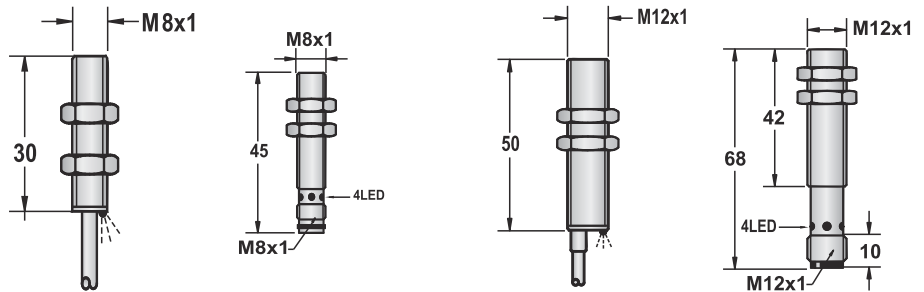
LJ30-10PC-ZAA-EA-SNF

LJ30-13PC-ZBA-EA-SNF

## Product Parameters

### Metal face Series

Teflon coating anti-welding slag type



#### Size category

#### M 8

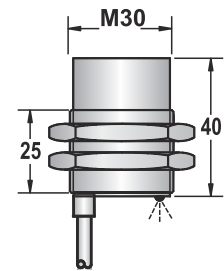
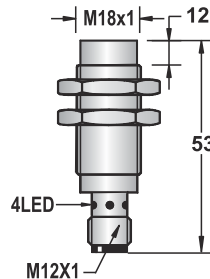
#### M12

	M 8		M12	
	● Shielded	○ Non-shielded	●	●
Sn: mm	2mm	2mm	2mm	4mm
Shell material	Stainless steel Teflon coating		Stainless steel Teflon coating	
● LED display	●		●	
Operating voltage	10-30VDC/10-60VDC		10-30VDC	
Allowable pulsating voltage	<10%		<10%	
No-load current	<10mA		<10mA	
Maximum load current	200mA		200mA	
Leakage current	<0.01mA		<0.01mA	
Voltage drop	<1.5V		<1.5V	
Switching frequency	700HZ		1KHZ	1KHZ
Response time	0.1ms		0.1ms	0.2ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0%(Sr)		<0.04mm	
Protection level	IP67		IP67	
Operating temperature	-25°C - +70°C		-25°C - +70°C	
Temperature drift	<10%(Sr)		<10%(Sr)	
Short circuit protection/reverse polarity protection	Yes		Yes	
Overload protection current	220mA		220mA	
Sensing surface material	Stainless steel Teflon coating		Stainless steel Teflon coating	
Connection method	2m oil-proof PVC cable / M8 Connector 3.0 φ 3x0.15		2m oil-proof PVC cable / M12 Connector 4.0 φ 3x0.15	
<b>Product Model</b>				
DC 3 line 10-30V NPN NO	LJ08-02NO-ZAA-3A-T	LJ08-02NO-YAA-EA-T	LJ12-04NO-ZAA-3A-T	LJ12-04NO-YAA-TA-T
DC 3 line 10-30V NPN NC	LJ08-02NC-ZAA-3A-T	LJ08-02NC-YAA-EA-T	LJ12-04NC-ZAA-3A-T	LJ12-04NC-YAA-TA-T
DC 3 line 10-30V PNP NO	LJ08-02PO-ZAA-3A-T	LJ08-02PO-YAA-EA-T	LJ12-04PO-ZAA-3A-T	LJ12-04PO-YAA-TA-T
DC 3 line 10-30V PNP NC	LJ08-02PC-ZAA-3A-T	LJ08-02PC-YAA-EA-T	LJ12-04PC-ZAA-3A-T	LJ12-04PC-YAA-TA-T
DC 4 line 10-30V Convertible PNP (NO&NC)				
DC 4 line 10-30V Convertible NPN (NO&NC)				
DC 2 line 10-60V NO	LJ08-02HO-ZAD-2A-T	LJ08-02HO-YAD-EA-T	LJ12-04HO-ZAD-2A-T	LJ12-04HO-YAD-TA-T
DC 2 line 10-60V NC	LJ08-02HC-ZAD-2A-T	LJ08-02HC-YAD-EA-T	LJ12-04HC-ZAD-2A-T	LJ12-04HC-YAD-TA-T
DC 3 line 10-55V NPN NO				
DC 3 line 10-55V NPN NC				
DC 3 line 10-55V PNP NO				
DC 3 line 10-55V PNP NC				
AC 3 line 20-250V NO				
AC 3 line 20-250V NC				
AC 4 line 20-250V Convertible (NO&NC)				
AC/DC 3 line 20-250V NO				
AC/DC 3 line 20-250V NC				
AC/DC 4 line 20-250V Convertible (NO&NC)				

## Product Parameters

### Metal face Series

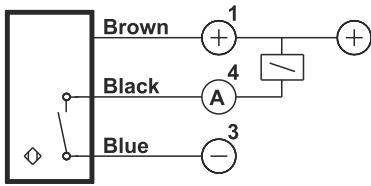
Teflon coating anti-welding slag type



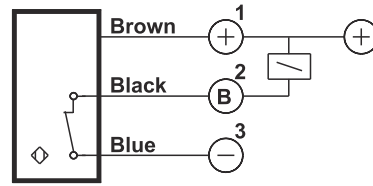
Size category	M 18	M 30
● Shielded ○ Non-shielded	●	●
Sn: mm	8 mm	10 mm
Shell material	Stainless steel Teflon coating	Stainless steel Teflon coating
● LED display ○ No LED display	●	●
Operating voltage	10-30VDC/10-60VDC	10-30VDC
Allowable pulsating voltage	<10%	<10%
No-load current	<10mA	<10mA
Maximum load current	200mA	200mA
Leakage current	<0.01mA	<0.01mA
Voltage drop	<1.5V	<1.5V
Switching frequency	500HZ	500HZ
Response time	0.5ms	0.5ms
Switching hysteresis	<15%(Sr)	<15%(Sr)
Repeat accuracy	<1.0%(Sr)	<0.04mm
Protection level	IP67	IP67
Operating temperature	-25°C - +70°C	-25°C - +70°C
Temperature drift	<10%(Sr)	<10%(Sr)
Short circuit protection/reverse polarity protection	Yes	Yes
Overload protection current	220mA	220mA
Sensing surface material	Stainless steel Teflon coating	Stainless steel Teflon coating
Connection method	M12 Connector	2m oil-proof PVC cable 4.0 φ 3x0.15
Product Model		
DC 3 line 10-30V NPN NO	LJ18-08NO-YAA-TM-T	LJ30-10NO-ZAA-3M-T
DC 3 line 10-30V NPN NC	LJ18-08NC-YAA-TM-T	LJ30-10NC-ZAA-3M-T
DC 3 line 10-30V PNP NO	LJ18-08PO-YAA-TM-T	LJ30-10PO-ZAA-3M-T
DC 3 line 10-30V PNP NC	LJ18-08PC-YAA-TM-T	LJ30-10PC-ZAA-3M-T
DC 4 line 10-30V Convertible PNP (NO&NC)		
DC 4 line 10-30V Convertible NPN (NO&NC)		
DC 2 line 10-60V NO	LJ18-08HO-YAD-TM-T	LJ30-10HO-ZAD-2M-T
DC 2 line 10-60V NC	LJ18-08HC-YAD-TM-T	LJ30-10HC-ZAD-2M-T
DC 3 line 10-55V NPN NO		
DC 3 line 10-55V NPN NC		
DC 3 line 10-55V PNP NO		
DC 3 line 10-55V PNP NC		
AC 3 line 20-250V NO		
AC 3 line 20-250V NC		
AC 4 line 20-250V Convertible (NO&NC)		
AC/DC 3 line 20-250V NO		
AC/DC 3 line 20-250V NC		
AC/DC 4 line 20-250V Convertible (NO&NC)		

# Wiring Diagram

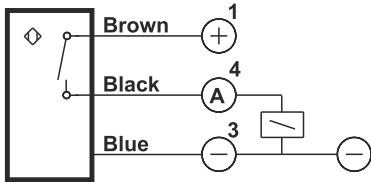
**DC NPN NO**



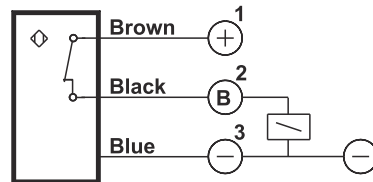
**DC NPN NC**



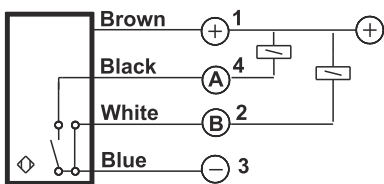
**DC PNP NO**



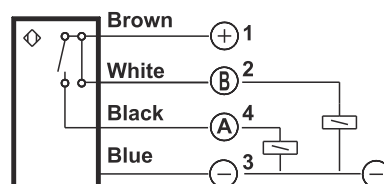
**DC PNP NC**



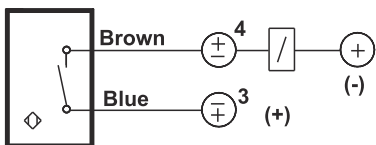
**DC NPN NO&NC**



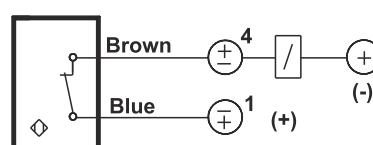
**DC PNP NO&NC**



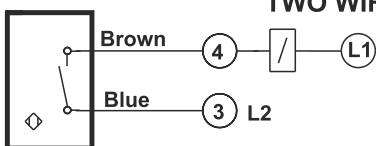
**DC 2 wire NO**



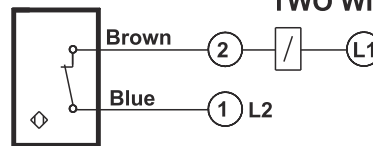
**DC 2 wire NC**



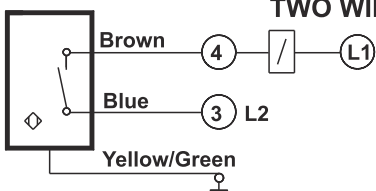
**Plastic housing AC/DC 20-250V or AC 20-250V TWO WIRE-NO**



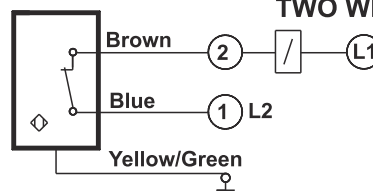
**Plastic housing AC/DC 20-250V or AC 20-250V TWO WIRE-NC**



**Metal housing AC/DC 20-250V or AC 20-250V TWO WIRE-NO**

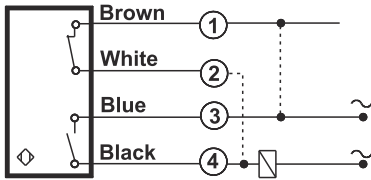


**Metal housing AC/DC 20-250V or AC 20-250V TWO WIRE-NC**

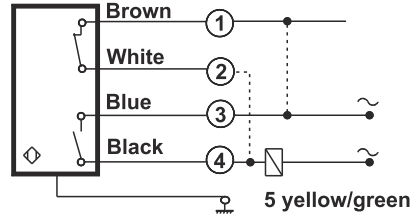


# Wiring Diagram

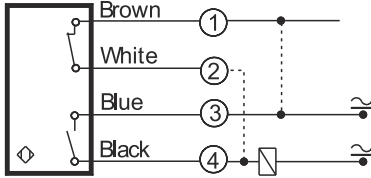
**Plastic housing** AC 20-250V  
NO,NC Changeable



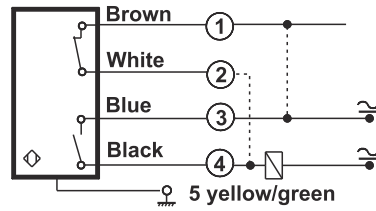
**Metal housing** AC 20-250V  
NO,NC Changeable



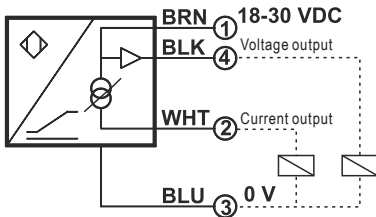
**Plastic housing** AC 20-250V  
NO,NC Changeable



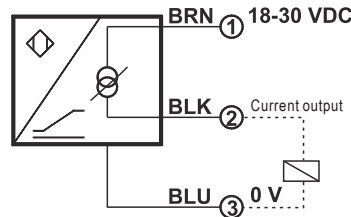
**Metal housing** AC 20-250V  
NO,NC Changeable



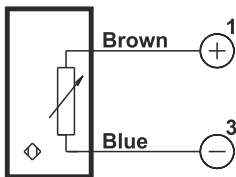
**Analog (current + voltage output type)**



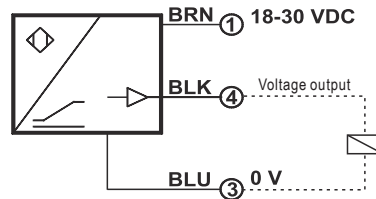
**Analog (current output type)**



**Riot-proof DC 6-12V**

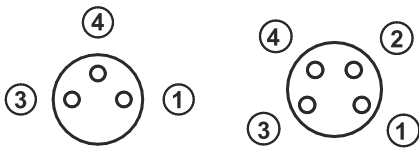


**Analog (voltage output type)**

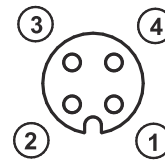


## Connector Diagram

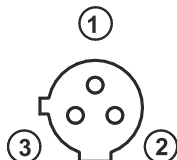
Used for M8 DC  
M8



Used for M12 DC  
M12



Used for M12 AC  
M12



Used for M18 M30 DC or AC

