

TECHNICAL DATA SHEET

Inductive Proximity Switches Proximity Sensors **AC Type**

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



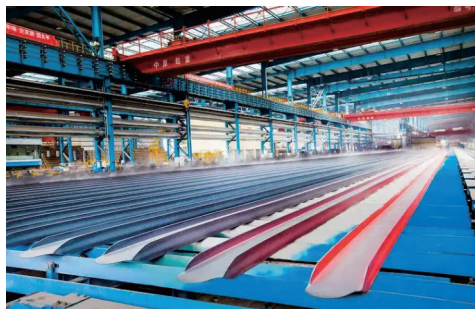
Due to the stainless steel integrated housing, this series of sensors not only has good impact resistance, but also can withstand the corrosion of detergents and solvents. It can be used in environments that require frequent high-pressure washing, and can achieve long-term sealing that meets the IP69K 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.

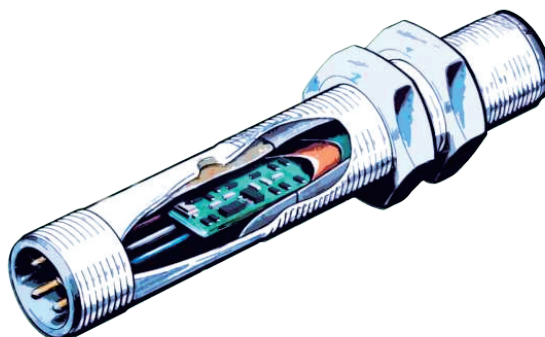
Shoemaking, textile and papermaking machinery series products

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

EL	R	1	2	0	2	A	O	Z	A	G	3	S	H		(ELR12-02AO-ZAG-3S-H)
															Special Instructions
															Shell material: H: nickel-plated brass; S: stainless steel; L: aluminum alloy; P: PBT; T: Teflon; F: PTFE; M: POM;
															Short circuit protection: A: Standard type with short circuit protection M: Short type with short circuit protection S: Standard type without short circuit protection R: Ultra short type with short circuit protection
															Wiring method: 2: 2-wire 5: 5-wire type 2E: 2 wire+M8 connector 2T: 2 wire+M12 connector 3: 3-wire E: M8 connector 3E: 3 wire+M8 connector 3T: 3 wire+M12 connector 4: 4-wire T: M12 connector 4E: 4 wire+M8 connector 4T: 4 wire+M12 connector
															Voltage: A:DC10-30V B:DC5-36V C:DC10-55V D:DC10-60V E:DC18-30V F:DC6-12V G:AC20-250V H:AC/DC20-250V
															Installation method: A: Shielded B: Non-shielded
															Connection method: Y: Plug-in type Z: Cable type
															Output mode: NC: NPN NC; NO: NPN NO PC: PNP NC; PO: PNP NO NS: NPN NO&NC; PS: PNP NO&NC HC: DC NC; HO: DC NO AC: AC NC; AO: AC NO HS: DC NO&NC; AS: AC NO&NC I: analog current; U: analog voltage TC: AC&DC NC; TO: AC&DC NO TS: AC/DC NO&NC; V: Current + voltage output NA: Explosion-proof type
															Detection distance: 1mm-50mm
															Specification(mm): $\phi 3$, $\phi 4$, M4, M5, $\phi 6.5$, M8, M12, M18, M30
															Type: R: Standard type; X: Ultra-small; B: Explosion-proof type; J: All-metal type; P: High-pressure resistant type; G: High-temperature resistant; Z: Low-temperature resistant type; C: Limit switch type; D: Anti-welding slag and high-magnetic type; F: Corrosion-resistant type; A: Analog type; I: Ring type; E: Square type
															Series: EL: Inductive sensor EC: Capacitive sensor



AC Series

Proximity sensors

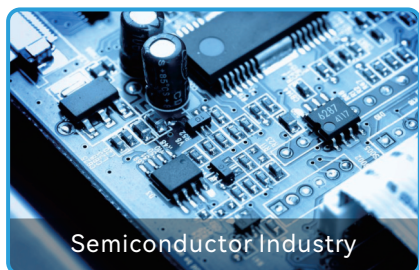
This series features ultra-compact size, long detection distance, and ultra-high precision. It is ideal for small-sized precision instruments and equipment.

Features:

- Features: wide range, long sensing distance, high accuracy
- Sensing distance: 1-50mm
- Frequency: 2-3 KHZ
- Certificates: CE, ROHS

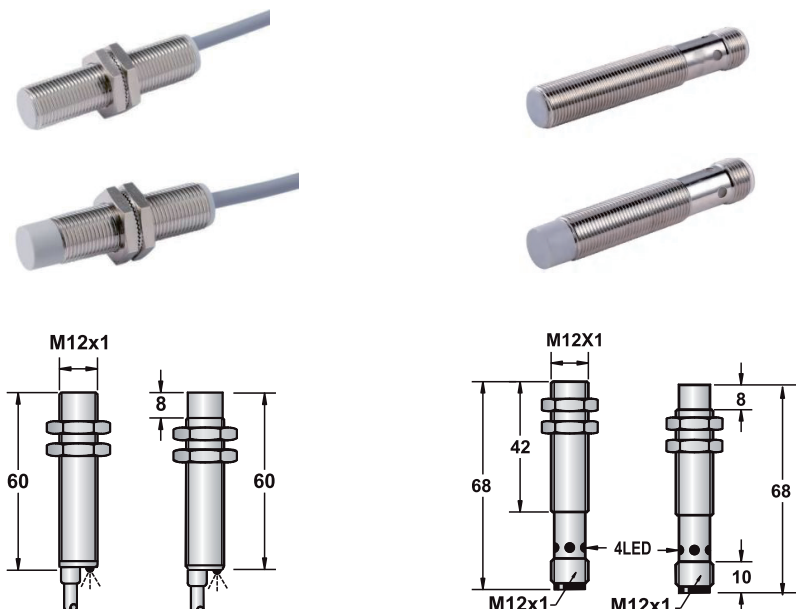


Application Industry



Product Parameters

AC Type M12 Series



Size category

M12

M12

● Shielded ○ Non-shielded

Sn: mm

2 mm

4 mm

2 mm

4 mm

Shell material

Nickel-plated brass

Nickel-plated brass

● 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

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

PBT

PBT

Connection method

2m oil-proof PVC cable
4 φ 3x0.34

M12 Connectors

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

ELR12-02AO-ZAG-3S-H

ELR12-04AO-ZBG-3S-H

ELR12-02AO-YAG-TS-H

ELR12-04AO-YBG-TS-H

AC 3 wire 20-250V NC

ELR12-02AC-ZAG-3S-H

ELR12-04AC-ZBG-3S-H

ELR12-02AC-YAG-TS-H

ELR12-04AC-YBG-TS-H

AC 4 wire 20-250V Convertible (NO&NC)

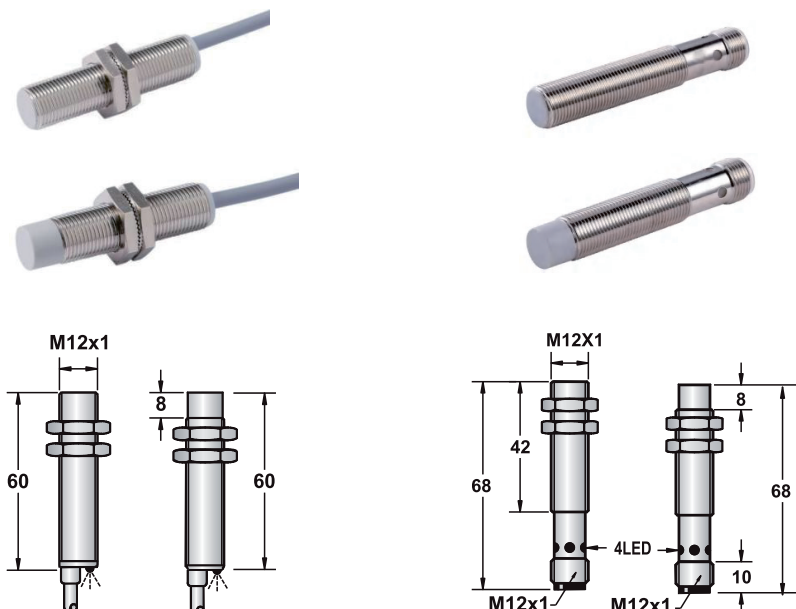
AC/DC 3 wire 20-250V NO

AC/DC 3 wire 20-250V NC

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

AC Type M12 Series



Size category

M12

M12

● Shielded ○ Non-shielded

Sn: mm

4 mm

8 mm

4 mm

8 mm

Shell material

Nickel-plated brass

Nickel-plated brass

● 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

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

PBT

PBT

Connection method

2m oil-proof PVC cable
4 φ 3x0.34

M12 Connectors

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

ELR12-04AO-ZAG-3S-H

ELR12-08AO-ZBG-3S-H

ELR12-04AO-YAG-TS-H

ELR12-08AO-YBG-TS-H

AC 3 wire 20-250V NC

ELR12-04AC-ZAG-3S-H

ELR12-08AC-ZBG-3S-H

ELR12-04AC-YAG-TS-H

ELR12-08AC-YBG-TS-H

AC 4 wire 20-250V Convertible (NO&NC)

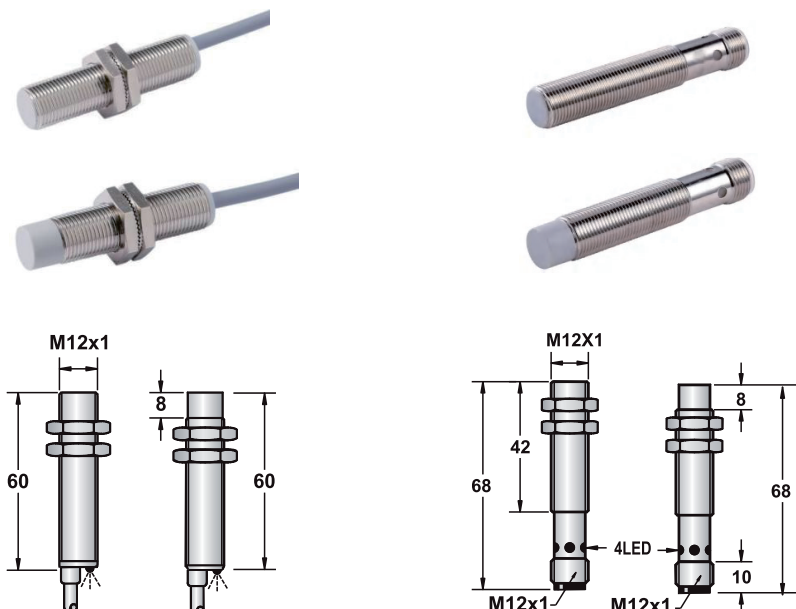
AC/DC 3 wire 20-250V NO

AC/DC 3 wire 20-250V NC

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

DC/AC Type M12 Series



Size category

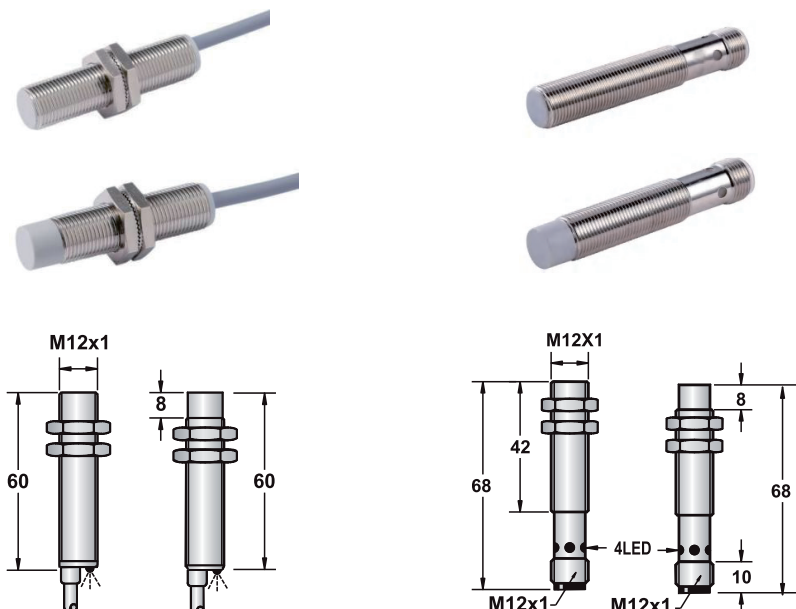
M12

M12

● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	2 mm	4 mm	2 mm	4 mm
Shell material	Nickel-plated brass		Nickel-plated brass	
● LED display ○ No LED display	●		●	
Operating voltage	20-250VAC / 20-250VDC		20-250VAC / 20-250VDC	
No-load current	<2.5mA		<2.5mA	
Maximum load current	100mA		100mA	
Leakage current	<2.5mA		<2.5mA	
Surge current	2.2A for 20ms		2.2A for 20ms	
Minimum load current	5mA		5mA	
Voltage drop	<10VAC; 8VDC		<10VAC; 8VDC	
Switching frequency	25HZ AC;40HZ DC		25HZ AC;40HZ DC	
Response time	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	PBT		PBT	
Connection method	2m oil-proof PVC cable 4 ϕ 3x0.34		M12 Connectors	
Product Model				
DC 3 wire 10-30V NPN NO				
DC 3 wire 10-30V NPN NC				
DC 3 wire 10-30V PNP NO				
DC 3 wire 10-30V PNP NC				
DC 4 wire 10-30V Convertible PNP (NO&NC)				
DC 4 wire 10-30V Convertible NPN (NO&NC)				
DC 2 wire 10-60V NO				
DC 2 wire 10-60V NC				
DC 3 wire 10-55V NPN NO				
DC 3 wire 10-55V NPN NC				
DC 3 wire 10-55V PNP NO				
DC 3 wire 10-55V PNP NC				
AC 3 wire 20-250V NO				
AC 3 wire 20-250V NC				
AC 4 wire 20-250V Convertible (NO&NC)				
AC/DC 3 wire 20-250V NO	ELR12-02TO-ZAH-3A-H	ELR12-04TO-ZBH-3A-H	ELR12-02TO-YAH-TA-H	ELR12-04TO-YBH-TA-H
AC/DC 3 wire 20-250V NC	ELR12-02TC-ZAH-3A-H	ELR12-04TC-ZBH-3A-H	ELR12-02TC-YAH-TA-H	ELR12-04TC-YBH-TA-H
AC/DC 4 wire 20-250V Convertible (NO&NC)				

Product Parameters

DC/AC Type
M12 Series



Size category

M12

M12

● Shielded ○ Non-shielded ◐ Semi-shielded

Sn: mm

4 mm 8 mm

4 mm 8 mm

Shell material

Nickel-plated brass

Nickel-plated brass

● LED display ○ No LED display

Operating voltage

20-250VAC / 20-250VDC

20-250VAC / 20-250VDC

No-load current

<2.5mA

<2.5mA

Maximum load current

100mA

100mA

Leakage current

<2.5mA

<2.5mA

Surge current

2.2A for 20ms

2.2A for 20ms

Minimum load current

5mA

5mA

Voltage drop

<10VAC; 8VDC

<10VAC; 8VDC

Switching frequency

25HZ AC; 40HZ DC

25HZ AC; 40HZ DC

Response time

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

PBT

PBT

Connection method

2m oil-proof PVC cable
4 φ 3x0.34

M12 Connectors

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

AC 3 wire 20-250V NC

AC 4 wire 20-250V Convertible (NO&NC)

AC/DC 3 wire 20-250V NO

ELR12-04TO-ZAH-3A-H

ELR12-08TC-ZBH-3A-H

ELR12-04TO-YAH-TA-H

ELR12-08TO-YBH-TA-H

AC/DC 3 wire 20-250V NC

ELR12-04TC-ZAH-3A-H

ELR12-08TC-ZBH-3A-H

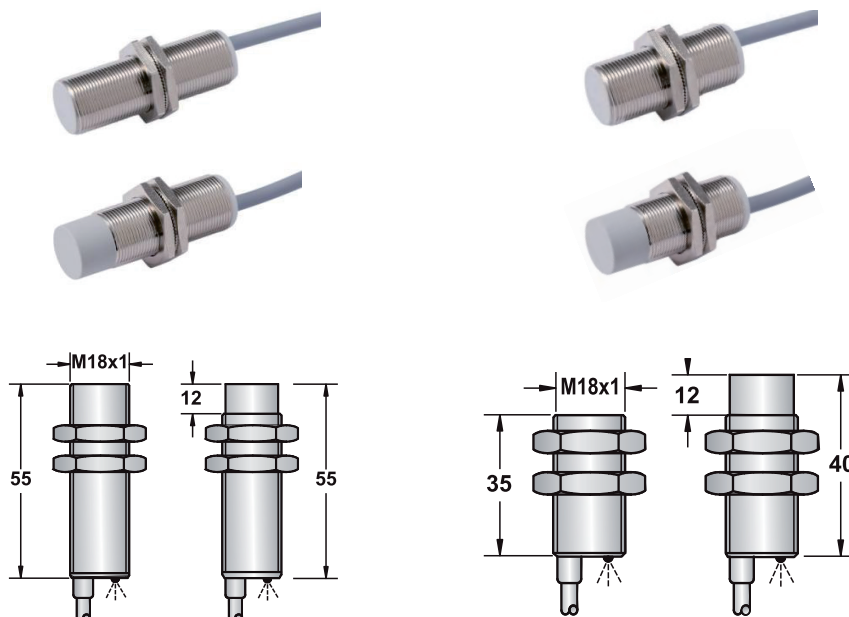
ELR12-04TC-YAH-TA-H

ELR12-08TC-YBH-TA-H

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

AC Type M18 Series



Size category

M 18

M 18

● Shielded ○ Non-shielded

Sn: mm

5 mm

8 mm

5 mm

8 mm

Shell material

Nickel-plated brass

Nickel-plated brass

● 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

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

PBT

PBT

Connection method

2m oil-proof PVC cable
5 φ 3x0.34

2m oil-proof PVC cable
5 φ 3x0.34 / 5 φ 4x0.25

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

ELR18-05AO-ZAG-3S-H

ELR18-08AO-ZBG-3S-H

ELR18-05AO-ZAG-3M-H

ELR18-08AO-ZBG-3M-H

AC 3 wire 20-250V NC

ELR18-05AC-ZAG-3S-H

ELR18-08AC-ZBG-3S-H

ELR18-05AC-ZAG-3M-H

ELR18-08AC-ZBG-3M-H

AC 4 wire 20-250V Convertible (NO&NC)

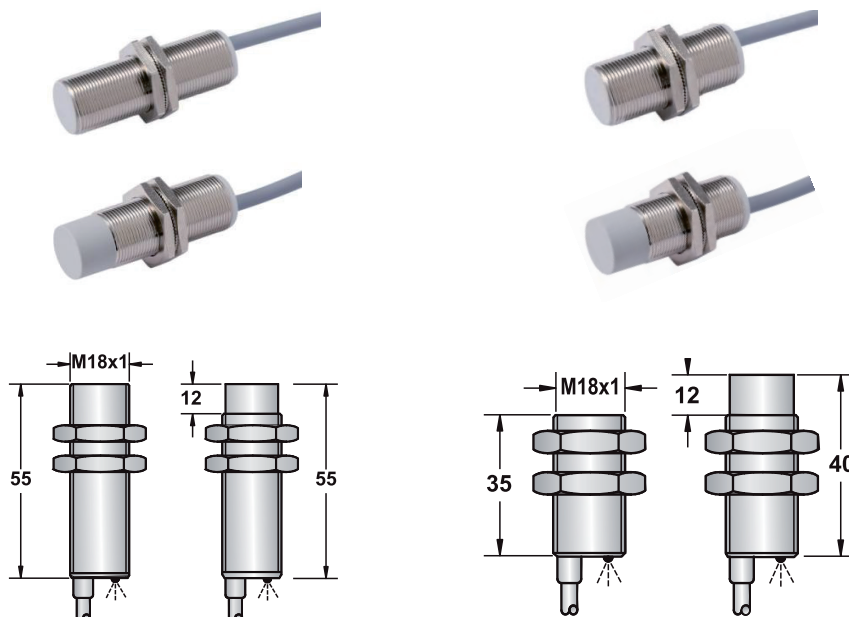
AC/DC 3 wire 20-250V NO

AC/DC 3 wire 20-250V NC

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

AC Type M18 Series



Size category

M 18

M 18

● Shielded ○ Non-shielded

●

○

●

○

Sn: mm

8 mm

16 mm

8 mm

16 mm

Shell material

Nickel-plated brass

Nickel-plated brass

● 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

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

PBT

PBT

Connection method

2m oil-proof PVC cable
5 φ 3x0.34 / 5 φ 4x0.25

2m oil-proof PVC cable
5 φ 3x0.34 / 5 φ 4x0.25

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

ELR18-08AO-ZAG-3S-H

ELR18-16AO-ZBG-3S-H

ELR18-08AO-ZAG-3M-H

ELR18-16AO-ZBG-3M-H

AC 3 wire 20-250V NC

ELR18-08AC-ZAG-3S-H

ELR18-16AC-ZBG-3S-H

ELR18-08AC-ZAG-3M-H

ELR18-16AC-ZBG-3M-H

AC 4 wire 20-250V Convertible (NO&NC)

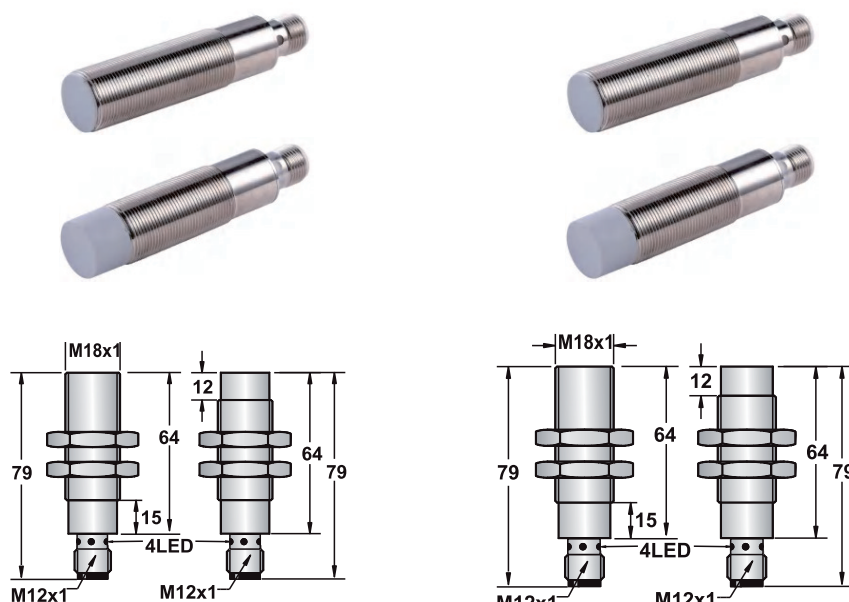
AC/DC 3 wire 20-250V NO

AC/DC 3 wire 20-250V NC

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

AC Type M18 Series



Size category

M 18

M 18

● Shielded ○ Non-shielded

Sn: mm

5 mm

8 mm

8 mm

16 mm

Shell material

Nickel-plated brass

Nickel-plated brass

● 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

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

PBT

PBT

Connection method

M12 Connectors

M12 Connectors

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

ELR18-05AO-YAG-TS-H

ELR18-08AO-YBG-TS-H

ELR18-08AO-YAG-TS-H

ELR18-16AO-YBG-TS-H

AC 3 wire 20-250V NC

ELR18-05AC-YAG-TS-H

ELR18-08AC-YBG-TS-H

ELR18-08AC-YAG-TS-H

ELR18-16AC-YBG-TS-H

AC 4 wire 20-250V Convertible (NO&NC)

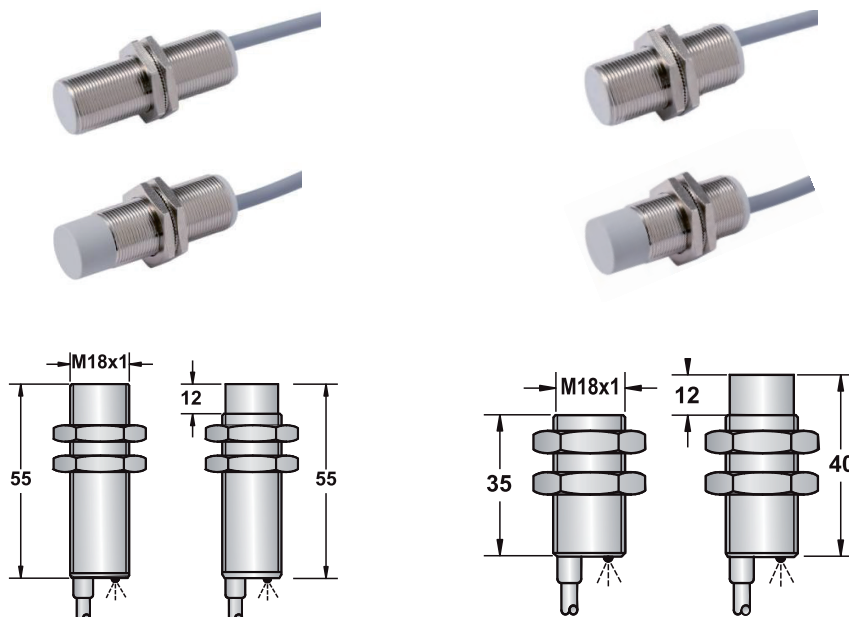
AC/DC 3 wire 20-250V NO

AC/DC 3 wire 20-250V NC

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

DC/AC Type M18 Series



Size category

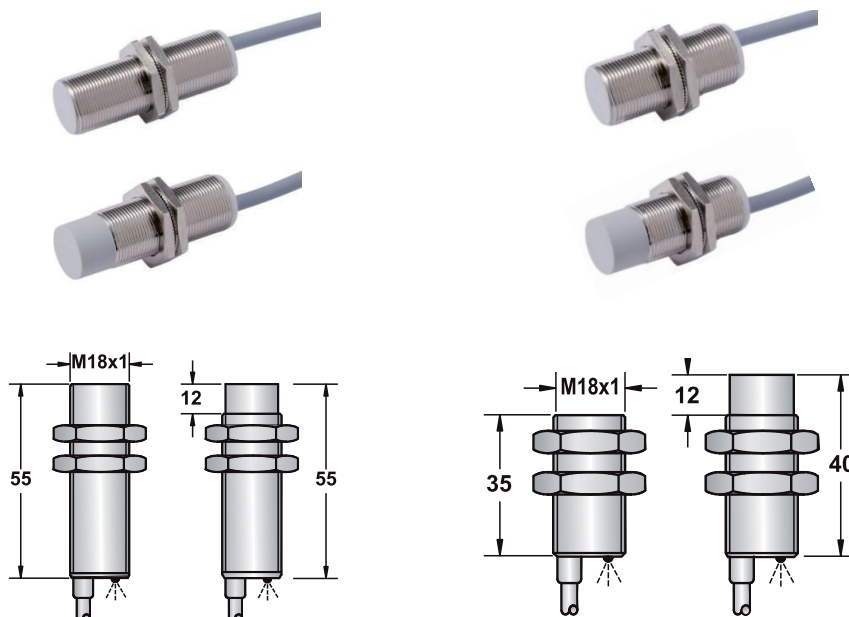
M 18

M 18

● Shielded ○ Non-shielded	● 5 mm	○ 8 mm	● 5 mm	○ 8 mm
Sn: mm	5 mm	8 mm	5 mm	8 mm
Shell material	Nickel-plated brass		Nickel-plated brass	
● LED display ○ No LED display	●		●	
Operating voltage	20-250VAC / 20-250VDC		20-250VAC / 20-250VDC	
No-load current	<2.5mA		<2.5mA	
Maximum load current	200mA		200mA	
Leakage current	<2.5mA		<2.5mA	
Surge current	2.2A for 20ms		2.2A for 20ms	
Minimum load current	5mA		5mA	
Voltage drop	<10VAC; 8VDC		<10VAC; 8VDC	
Switching frequency	25HZ AC;40HZ DC		25HZ AC;40HZ DC	
Response time	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	Yes		Yes	
Sensing surface material	PBT		PBT	
Connection method	2m oil-proof PVC cable 5 φ 3x0.34 / 5 φ 4x0.25		2m oil-proof PVC cable 5 φ 3x0.34 / 5 φ 4x0.25	
Product Model				
DC 3 wire 10-30V NPN NO				
DC 3 wire 10-30V NPN NC				
DC 3 wire 10-30V PNP NO				
DC 3 wire 10-30V PNP NC				
DC 4 wire 10-30V Convertible PNP (NO&NC)				
DC 4 wire 10-30V Convertible NPN (NO&NC)				
DC 2 wire 10-60V NO				
DC 2 wire 10-60V NC				
DC 3 wire 10-55V NPN NO				
DC 3 wire 10-55V NPN NC				
DC 3 wire 10-55V PNP NO				
DC 3 wire 10-55V PNP NC				
AC 3 wire 20-250V NO				
AC 3 wire 20-250V NC				
AC 4 wire 20-250V Convertible (NO&NC)				
AC/DC 3 wire 20-250V NO	ELR18-05TO-ZAH-3A-H	ELR18-08TO-ZBH-3A-H	ELR18-05TO-ZAH-3M-H	ELR18-08TO-ZBH-3M-H
AC/DC 3 wire 20-250V NC	ELR18-05TC-ZAH-3A-H	ELR18-08TC-ZBH-3A-H	ELR18-05TC-ZAH-3M-H	ELR18-08TC-ZBH-3M-H
AC/DC 4 wire 20-250V Convertible (NO&NC)				

Product Parameters

DC/AC Type M18 Series



Size category

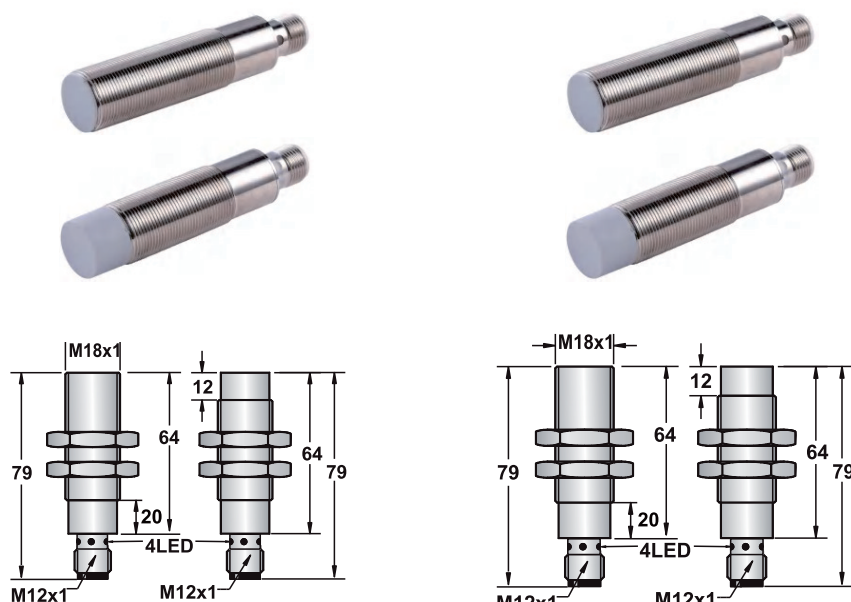
M 18

M 18

● Shielded ○ Non-shielded	● 8 mm	○ 16 mm	● 8 mm	○ 16 mm
Sn: mm	8 mm	16 mm	8 mm	16 mm
Shell material	Nickel-plated brass		Nickel-plated brass	
● LED display ○ No LED display	●		●	
Operating voltage	20-250VAC / 20-250VDC		20-250VAC / 20-250VDC	
No-load current	<2.5mA		<2.5mA	
Maximum load current	200mA		200mA	
Leakage current	<2.5mA		<2.5mA	
Surge current	2.2A for 20ms		2.2A for 20ms	
Minimum load current	5mA		5mA	
Voltage drop	<10VAC; 8VDC		<10VAC; 8VDC	
Switching frequency	25HZ AC;40HZ DC		25HZ AC;40HZ DC	
Response time	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	Yes		Yes	
Sensing surface material	PBT		PBT	
Connection method	2m oil-proof PVC cable 5 φ 3x0.34 / 5 φ 4x0.25		2m oil-proof PVC cable 5 φ 3x0.34 / 5 φ 4x0.25	
Product Model				
DC 3 wire 10-30V NPN NO				
DC 3 wire 10-30V NPN NC				
DC 3 wire 10-30V PNP NO				
DC 3 wire 10-30V PNP NC				
DC 4 wire 10-30V Convertible PNP (NO&NC)				
DC 4 wire 10-30V Convertible NPN (NO&NC)				
DC 2 wire 10-60V NO				
DC 2 wire 10-60V NC				
DC 3 wire 10-55V NPN NO				
DC 3 wire 10-55V NPN NC				
DC 3 wire 10-55V PNP NO				
DC 3 wire 10-55V PNP NC				
AC 3 wire 20-250V NO				
AC 3 wire 20-250V NC				
AC 4 wire 20-250V Convertible (NO&NC)				
AC/DC 3 wire 20-250V NO	ELR18-08TO-ZAH-3A-H	ELR18-16TO-ZBH-3A-H	ELR18-08TO-ZAH-3M-H	ELR18-16TO-ZBH-3M-H
AC/DC 3 wire 20-250V NC	ELR18-08TC-ZAH-3A-H	ELR18-16TC-ZBH-3A-H	ELR18-08TC-ZAH-3M-H	ELR18-16TC-ZBH-3M-H
AC/DC 4 wire 20-250V Convertible (NO&NC)				

Product Parameters

DC/AC Type M18 Series



Size category

M 18

M 18

● Shielded ○ Non-shielded

● 5 mm ○ 8 mm

● 8 mm ○ 16 mm

Sn: mm

Shell material

Nickel-plated brass

Nickel-plated brass

● LED display ○ No LED display

Operating voltage

20-250VAC / 20-250VDC

20-250VAC / 20-250VDC

No-load current

<2.5mA

<2.5mA

Maximum load current

200mA

200mA

Leakage current

<2.5mA

<2.5mA

Surge current

2.2A for 20ms

2.2A for 20ms

Minimum load current

5mA

5mA

Voltage drop

<10VAC; 8VDC

<10VAC; 8VDC

Switching frequency

25HZ AC; 40HZ DC

25HZ AC; 40HZ DC

Response time

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

Yes

Yes

Sensing surface material

PBT

PBT

Connection method

M12 Connectors

M12 Connectors

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

AC 3 wire 20-250V NC

AC 4 wire 20-250V Convertible (NO&NC)

AC/DC 3 wire 20-250V NO

ELR18-05TO-YAH-TA-H

ELR18-08TO-YBH-TA-H

ELR18-08TO-YAH-TA-H

ELR18-16TO-YBH-TA-H

AC/DC 3 wire 20-250V NC

ELR18-05TC-YAH-TA-H

ELR18-08TC-YBH-TA-H

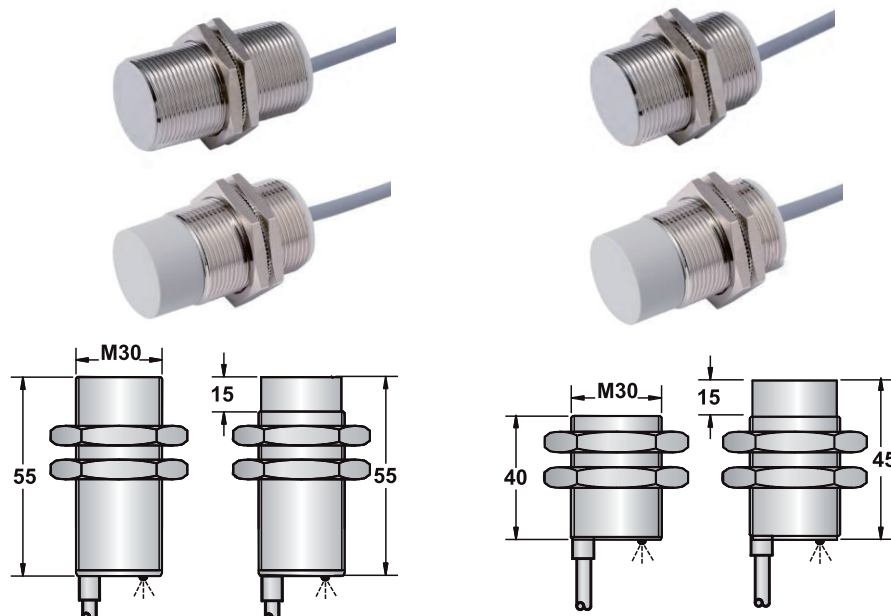
ELR18-08TC-YAH-TA-H

ELR18-16TC-YBH-TA-H

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

AC Type M30 Series



Size category

M 30

M 30

● Shielded ○ Non-shielded

● 10 mm ○ 15 mm

● 10 mm ○ 15 mm

Sn: mm

Nickel-plated brass

Nickel-plated brass

Shell material

● LED display ○ No LED display

Operating voltage

No-load current

Maximum load current

Leakage current

Surge current

Minimum load current

Voltage drop

Switching frequency

Response time

Switching hysteresis

Repeat accuracy

Protection level

Operating temperature

Temperature drift

Short circuit protection

Sensing surface material

Connection method

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

AC 3 wire 20-250V NC

AC 4 wire 20-250V Convertible (NO&NC)

AC/DC 3 wire 20-250V NO

AC/DC 3 wire 20-250V NC

AC/DC 4 wire 20-250V Convertible (NO&NC)

20-250VAC

<1.8mA

400mA

<1.8mA

5A(20ms)

5mA

<8VAC at 400MA

<25HZ

10ms

<15%(Sr)

<1.0%(Sr)

IP67

-25C° - +70C°

<10%(Sr)

No

PBT

2m oil-proof PVC cable

5 φ 3x0.34 / 5 φ 4x0.25

20-250VAC

<1.8mA

400mA

<1.8mA

5A(20ms)

5mA

<8VAC at 400MA

<25HZ

10ms

<15%(Sr)

<1.0%(Sr)

IP67

-25C° - +70C°

<10%(Sr)

No

PBT

2m oil-proof PVC cable

5 φ 3x0.34 / 5 φ 4x0.25

ELR30-10AO-ZAG-3S-H

ELR30-15AO-ZBG-3S-H

ELR30-10AO-ZAG-3M-H

ELR30-15AO-ZBG-3M-H

ELR30-10AC-ZAG-3S-H

ELR30-15AC-ZBG-3S-H

ELR30-10AC-ZAG-3M-H

ELR30-15AC-ZBG-3M-H

ELR30-10AS-ZAG-4S-H

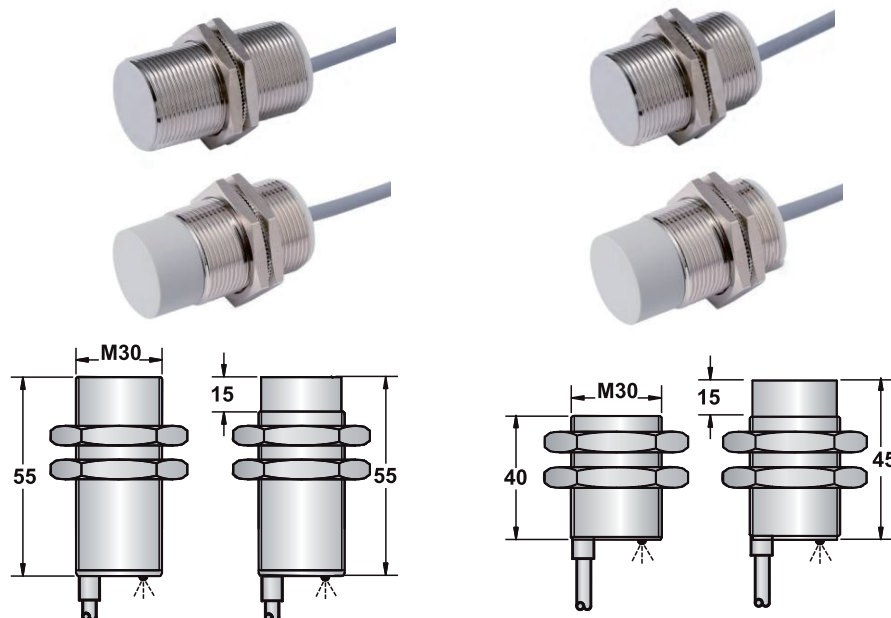
ELR30-15AS-ZBG-4S-H

ELR30-10AS-ZAG-4M-H

ELR30-15AS-ZBG-4M-H

Product Parameters

AC Type M30 Series



Size category

M 30

M 30

● Shielded ○ Non-shielded

● ○

● ○

Sn: mm

16 mm 25 mm

16 mm 25 mm

Shell material

Nickel-plated brass

Nickel-plated brass

● 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

Switching hysteresis

<15%(Sr)

<15%(Sr)

Repeat accuracy

<1.0%(Sr)

<1.0%(Sr)

Protection level

IP67

IP67

Operating temperature

-25C° - +70C°

-25C° - +70C°

Temperature drift

<10%(Sr)

<10%(Sr)

Short circuit protection

No

No

Sensing surface material

PBT

PBT

Connection method

2m oil-proof PVC cable
5 φ 3x0.34 / 5 φ 4x0.25

2m oil-proof PVC cable
5 φ 3x0.34 / 5 φ 4x0.25

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

ELR30-16AO-ZAG-3S-H

ELR30-25AO-ZBG-3S-H

ELR30-16AO-ZAG-3M-H

ELR30-25AO-ZBG-3M-H

AC 3 wire 20-250V NC

ELR30-16AC-ZAG-3S-H

ELR30-25AC-ZBG-3S-H

ELR30-16AC-ZAG-3M-H

ELR30-25AC-ZBG-3M-H

AC 4 wire 20-250V Convertible (NO&NC)

ELR30-16AS-ZAG-4S-H

ELR30-25AS-ZBG-4S-H

ELR30-16AS-ZAG-4M-H

ELR30-25AS-ZBG-4M-H

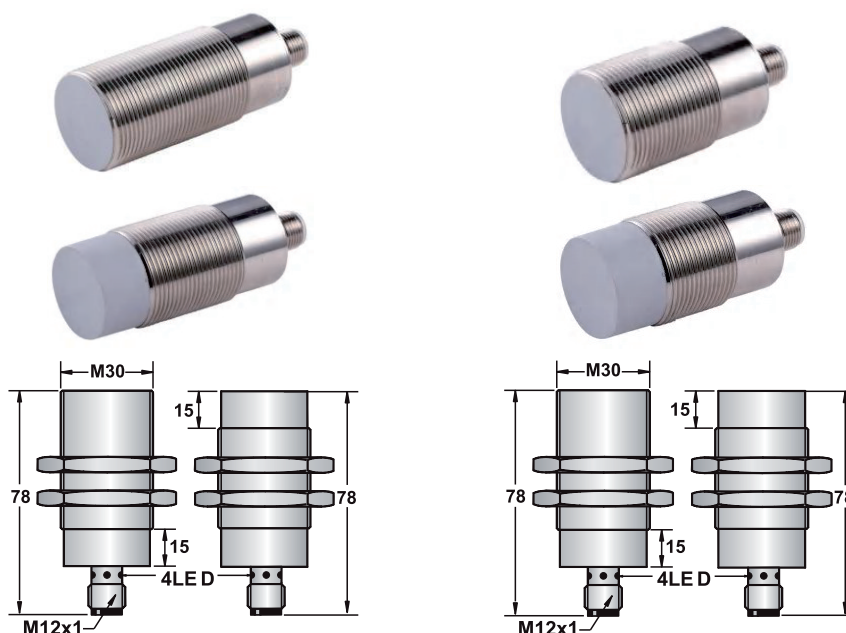
AC/DC 3 wire 20-250V NO

AC/DC 3 wire 20-250V NC

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

AC Type M30 Series



Size category

M 30

M 30

● Shielded ○ Non-shielded

● ○

● ○

Sn: mm

10 mm 15 mm

16 mm 25 mm

Shell material

Nickel-plated brass

Nickel-plated brass

● 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

Switching hysteresis

<15%(Sr)

<15%(Sr)

Repeat accuracy

<1.0%(Sr)

<1.0%(Sr)

Protection level

IP67

IP67

Operating temperature

-25C° - +70C°

-25C° - +70C°

Temperature drift

<10%(Sr)

<10%(Sr)

Short circuit protection

No

No

Sensing surface material

PBT

PBT

Connection method

M12 Connectors

M12 Connectors

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

ELR30-10AO-YAG-TS-H

ELR30-15AO-YBG-TS-H

ELR30-16AO-YAG-TS-H

ELR30-25AO-YBG-TS-H

AC 3 wire 20-250V NC

ELR30-10AC-YAG-TS-H

ELR30-15AC-YBG-TS-H

ELR30-16AC-YAG-TS-H

ELR30-25AC-YBG-TS-H

AC 4 wire 20-250V Convertible (NO&NC)

ELR30-10AS-YAG-TS-H

ELR30-15AS-YBG-TS-H

ELR30-16AS-YAG-TS-H

ELR30-25AS-YBG-TS-H

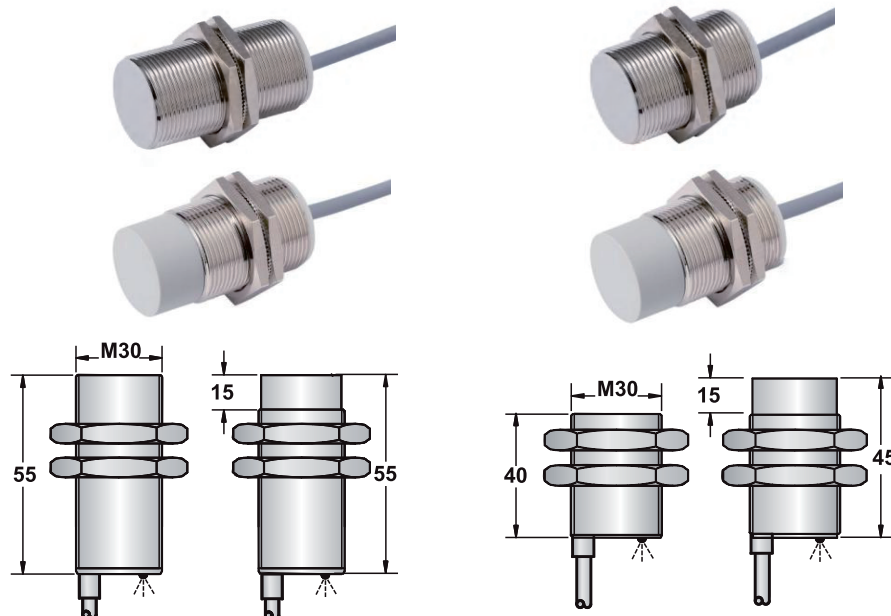
AC/DC 3 wire 20-250V NO

AC/DC 3 wire 20-250V NC

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

DC/AC Type M30 Series



Size category

M 30

M 30

● Shielded ○ Non-shielded

● 10 mm ○ 15 mm

● 10 mm ○ 15 mm

Sn: mm

Nickel-plated brass

Nickel-plated brass

Shell material

● LED display ○ No LED display

Operating voltage

20-250VAC / 20-250VDC

20-250VAC / 20-250VDC

No-load current

<2.5mA

<2.5mA

Maximum load current

200mA

200mA

Leakage current

<2.5mA

<2.5mA

Surge current

2.2A for 20ms

2.2A for 20ms

Minimum load current

5mA

5mA

Voltage drop

<10VAC; 8VDC

<10VAC; 8VDC

Switching frequency

25HZ AC; 40HZ DC

25HZ AC; 40HZ DC

Response time

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

Yes

Yes

Sensing surface material

PBT

PBT

Connection method

2m oil-proof PVC cable
5 φ 3x0.34 / 5 φ 4x0.25

2m oil-proof PVC cable
5 φ 3x0.34 / 5 φ 4x0.25

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

AC 3 wire 20-250V NC

AC 4 wire 20-250V Convertible (NO&NC)

AC/DC 3 wire 20-250V NO

ELR30-10TO-ZAH-3A-H

ELR30-15TO-ZBH-3A-H

ELR30-10TO-ZAH-3M-H

ELR30-15TO-ZBH-3M-H

AC/DC 3 wire 20-250V NC

ELR30-10TC-ZAH-3A-H

ELR30-15TC-ZBH-3A-H

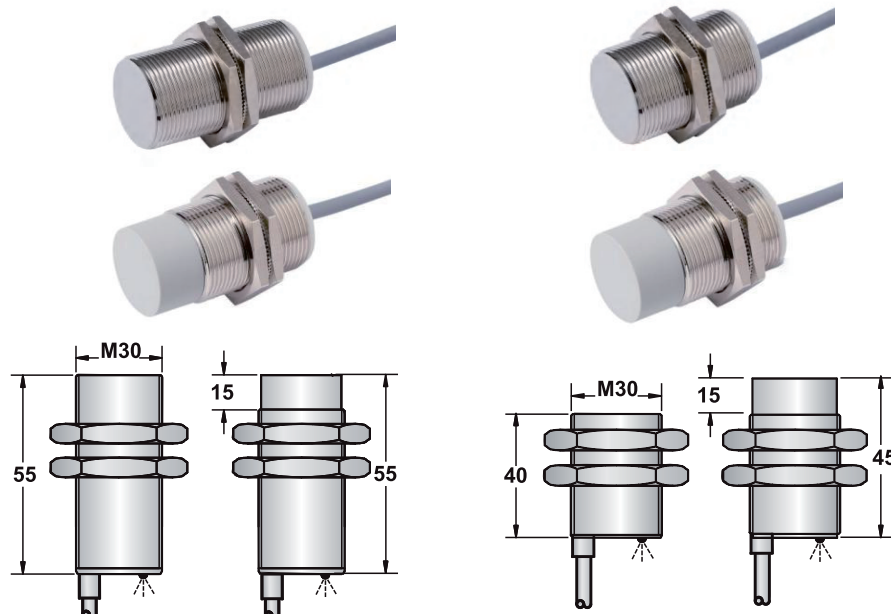
ELR30-10TC-ZAH-3M-H

ELR30-15TC-ZBH-3M-H

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

DC/AC Type M30 Series



Size category

M 30

M 30

● Shielded ○ Non-shielded

● 16 mm ○ 25 mm

● 16 mm ○ 25 mm

Sn: mm

Nickel-plated brass

Nickel-plated brass

Shell material

● LED display ○ No LED display

Operating voltage

20-250VAC / 20-250VDC

20-250VAC / 20-250VDC

No-load current

<2.5mA

<2.5mA

Maximum load current

200mA

200mA

Leakage current

<2.5mA

<2.5mA

Surge current

2.2A for 20ms

2.2A for 20ms

Minimum load current

5mA

5mA

Voltage drop

<10VAC; 8VDC

<10VAC; 8VDC

Switching frequency

25HZ AC; 40HZ DC

25HZ AC; 40HZ DC

Response time

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

Yes

Yes

Sensing surface material

PBT

PBT

Connection method

2m oil-proof PVC cable
5 φ 3x0.34 / 5 φ 4x0.25

2m oil-proof PVC cable
5 φ 3x0.34 / 5 φ 4x0.25

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

AC 3 wire 20-250V NC

AC 4 wire 20-250V Convertible (NO&NC)

AC/DC 3 wire 20-250V NO

ELR30-16TO-ZAH-3A-H

ELR30-25TO-ZBH-3A-H

ELR30-16TO-ZAH-3M-H

ELR30-25TO-ZBH-3M-H

AC/DC 3 wire 20-250V NC

ELR30-16TC-ZAH-3A-H

ELR30-25TC-ZBH-3A-H

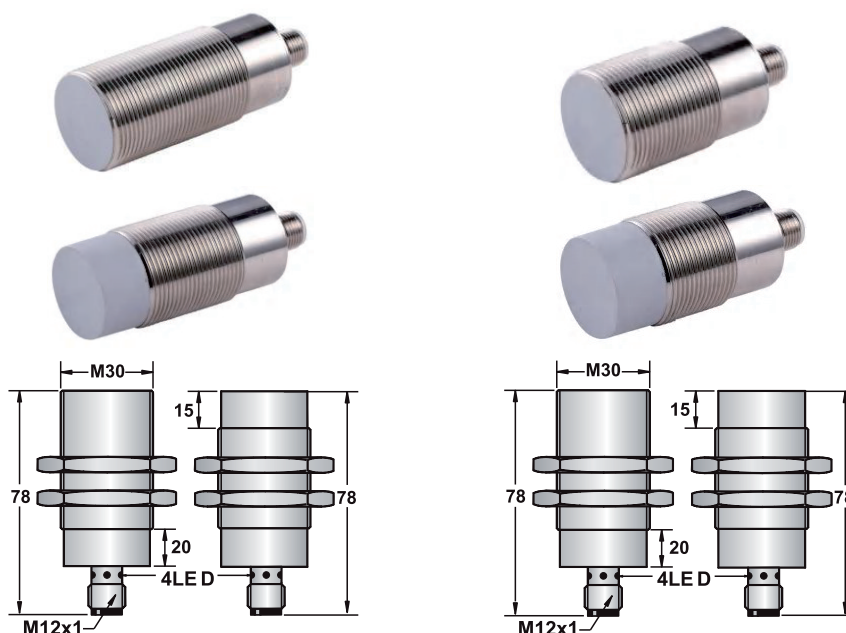
ELR30-16TC-ZAH-3M-H

ELR30-25TC-ZBH-3M-H

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

DC/AC Type M30 Series



Size category

M 30

M 30

● Shielded ○ Non-shielded

● 10 mm ○ 15 mm

● 16 mm ○ 25 mm

Sn: mm

Nickel-plated brass

Nickel-plated brass

● LED display ○ No LED display

Operating voltage

20-250VAC / 20-250VDC

20-250VAC / 20-250VDC

No-load current

<2.5mA

<2.5mA

Maximum load current

200mA

200mA

Leakage current

<2.5mA

<2.5mA

Surge current

2.2A for 20ms

2.2A for 20ms

Minimum load current

5mA

5mA

Voltage drop

<10VAC; 8VDC

<10VAC; 8VDC

Switching frequency

25HZ AC; 40HZ DC

25HZ AC; 40HZ DC

Response time

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

Yes

Yes

Sensing surface material

PBT

PBT

Connection method

M12 Connectors

M12 Connectors

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

AC 3 wire 20-250V NC

AC 4 wire 20-250V Convertible (NO&NC)

AC/DC 3 wire 20-250V NO

ELR30-10TO-YAH-TA-H

ELR30-15TO-YBH-TA-H

ELR30-16TO-YAH-TA-H

ELR30-25TO-YBH-TA-H

AC/DC 3 wire 20-250V NC

ELR30-10TC-YAH-TA-H

ELR30-15TC-YBH-TA-H

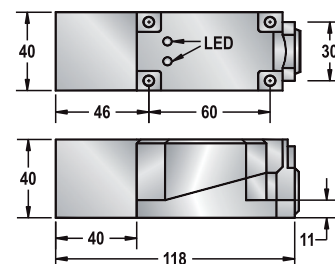
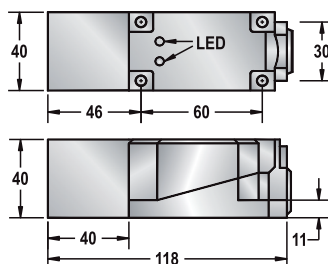
ELR30-16TC-YAH-TA-H

ELR30-25TC-YBH-TA-H

AC/DC 4 wire 20-250V Convertible (NO&NC)

Product Parameters

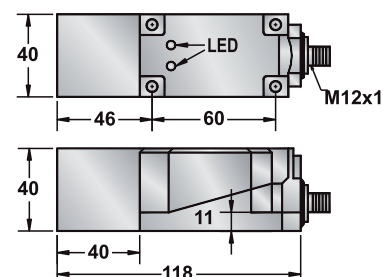
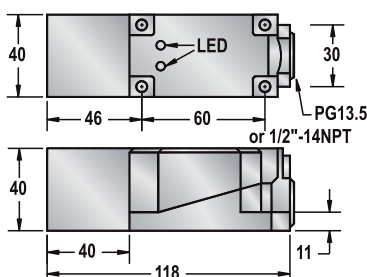
AC Type Square Series



Size category	40*40	40*40
● Shielded ○ Non-shielded	●	○
Sn: mm	15 mm	20 mm
Shell material	PBT	PBT
● LED display ○ No LED display	●	●
Operating voltage	20-250VAC	20-250VAC
No-load current	<2.5mA	<2.5mA
Maximum load current	400mA	400mA
Leakage current	2.5mA	2.5mA
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
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	-	-
Connection method	Quick Connectors	Quick Connectors
Product Model		
DC 3 wire 10-30V NPN NO		
DC 3 wire 10-30V NPN NC		
DC 3 wire 10-30V PNP NO		
DC 3 wire 10-30V PNP NC		
DC 4 wire 10-30V Convertible PNP (NO&NC)		
DC 4 wire 10-30V Convertible NPN (NO&NC)		
DC 2 wire 10-60V NO		
DC 2 wire 10-60V NC		
DC 3 wire 10-55V NPN NO		
DC 3 wire 10-55V NPN NC		
DC 3 wire 10-55V PNP NO		
DC 3 wire 10-55V PNP NC		
AC 3 wire 20-250V NO	ELE40-15AO-ZAG-3S-P	ELE40-20AO-ZBG-3S-P
AC 3 wire 20-250V NC	ELE40-15AC-ZAG-3S-P	ELE40-20AC-ZBG-3S-P
AC 4 wire 20-250V Convertible (NO&NC)	ELE40-15AS-ZAG-4S-P	ELE40-20AS-ZBG-4S-P
AC/DC 3 wire 20-250V NO		
AC/DC 3 wire 20-250V NC		
AC/DC 4 wire 20-250V Convertible (NO&NC)		

Product Parameters

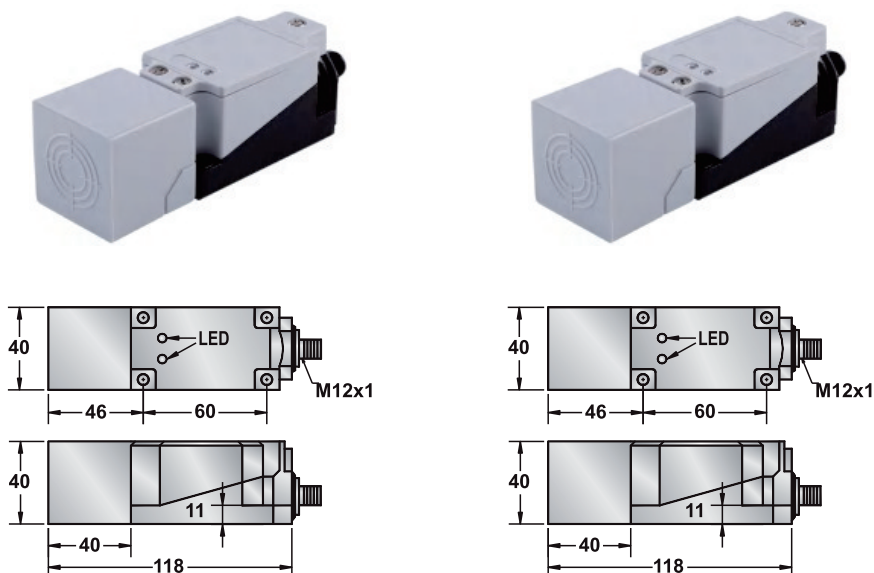
AC Type Square Series



Size category	40*40	40*40
● Shielded ○ Non-shielded	○	○
Sn: mm	30 mm	15 mm
Shell material	PBT	PBT
● ELED display ○ No ELED display	●	●
Operating voltage	20-250VAC	20-250VAC
No-load current	<2.5mA	<2.5mA
Maximum load current	400mA	400mA
Leakage current	2.5mA	2.5mA
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
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	-	-
Connection method	Quick Connectors	M12 Connectors
Product Model		
DC 3 wire 10-30V NPN NO		
DC 3 wire 10-30V NPN NC		
DC 3 wire 10-30V PNP NO		
DC 3 wire 10-30V PNP NC		
DC 4 wire 10-30V Convertible PNP (NO&NC)		
DC 4 wire 10-30V Convertible NPN (NO&NC)		
DC 2 wire 10-60V NO		
DC 2 wire 10-60V NC		
DC 3 wire 10-55V NPN NO		
DC 3 wire 10-55V NPN NC		
DC 3 wire 10-55V PNP NO		
DC 3 wire 10-55V PNP NC		
AC 3 wire 20-250V NO	ELE40-30AO-ZBG-3S-P	ELE40-15AO-YBG-TS-P
AC 3 wire 20-250V NC	ELE40-30AC-ZBG-3S-P	ELE40-15AC-YBG-TS-P
AC 4 wire 20-250V Convertible (NO&NC)	ELE40-30AS-ZBG-4S-P	ELE40-15AS-YBG-TS-P
AC/DC 3 wire 20-250V NO		
AC/DC 3 wire 20-250V NC		
AC/DC 4 wire 20-250V Convertible (NO&NC)		

Product Parameters

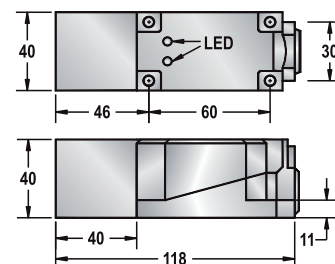
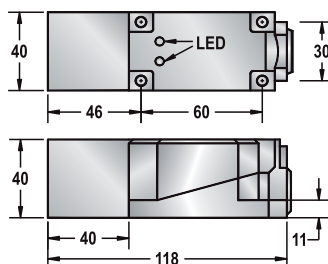
AC Type Square Series



Size category	40*40	40*40
● Shielded ○ Non-shielded	●	●
Sn: mm	20 mm	30 mm
Shell material	PBT	PBT
● ELED display ○ No ELED display	●	●
Operating voltage	20-250VAC	20-250VAC
No-load current	<2.5mA	<2.5mA
Maximum load current	400mA	400mA
Leakage current	2.5mA	2.5mA
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
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	-	-
Connection method	M12 Connectors	M12 Connectors
Product Model		
DC 3 wire 10-30V NPN NO		
DC 3 wire 10-30V NPN NC		
DC 3 wire 10-30V PNP NO		
DC 3 wire 10-30V PNP NC		
DC 4 wire 10-30V Convertible PNP (NO&NC)		
DC 4 wire 10-30V Convertible NPN (NO&NC)		
DC 2 wire 10-60V NO		
DC 2 wire 10-60V NC		
DC 3 wire 10-55V NPN NO		
DC 3 wire 10-55V NPN NC		
DC 3 wire 10-55V PNP NO		
DC 3 wire 10-55V PNP NC		
AC 3 wire 20-250V NO	ELE40-20AO-YAG-TS-P	ELE40-30AO-YAG-TS-P
AC 3 wire 20-250V NC	ELE40-20AC-YAG-TS-P	ELE40-30AC-YAG-TS-P
AC 4 wire 20-250V Convertible (NO&NC)	ELE40-20AS-YAG-TS-P	ELE40-30AS-YAG-TS-P
AC/DC 3 wire 20-250V NO		
AC/DC 3 wire 20-250V NC		
AC/DC 4 wire 20-250V Convertible (NO&NC)		

Product Parameters

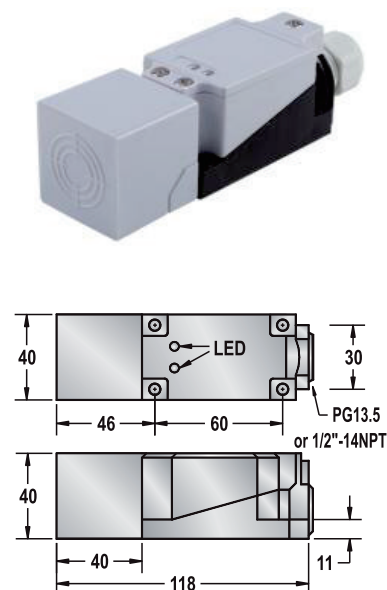
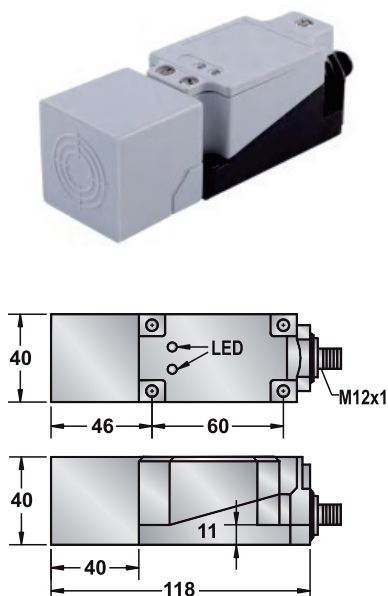
DC/AC Type Square Series



Size category	40*40	40*40
● Shielded ○ Non-shielded	●	○
Sn: mm	15 mm	20 mm
Shell material	PBT	PBT
● ELED display ○ No ELED display	●	●
Operating voltage	20-250VAC / 20-250VDC	20-250VAC / 20-250VDC
No-load current	<2.5mA	<2.5mA
Maximum load current	200mA	200mA
Leakage current	<2.5mA	<2.5mA
Surge current	2.2A for 20ms	2.2A for 20ms
Minimum load current	5mA	5mA
Voltage drop	<10VAC; 8VDC	<10VAC; 8VDC
Switching frequency	25HZ AC; 40HZ DC	25HZ AC; 40HZ DC
Response time	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	Yes	Yes
Sensing surface material	PBT	PBT
Connection method	Quick Connectors	Quick Connectors
Product Model		
DC 3 wire 10-30V NPN NO		
DC 3 wire 10-30V NPN NC		
DC 3 wire 10-30V PNP NO		
DC 3 wire 10-30V PNP NC		
DC 4 wire 10-30V Convertible PNP (NO&NC)		
DC 4 wire 10-30V Convertible NPN (NO&NC)		
DC 2 wire 10-60V NO		
DC 2 wire 10-60V NC		
DC 3 wire 10-55V NPN NO		
DC 3 wire 10-55V NPN NC		
DC 3 wire 10-55V PNP NO		
DC 3 wire 10-55V PNP NC		
AC 3 wire 20-250V NO		
AC 3 wire 20-250V NC		
AC 4 wire 20-250V Convertible (NO&NC)		
AC/DC 3 wire 20-250V NO	ELE40-15TO-ZAH-3A-P	ELE40-20TO-ZBH-3A-P
AC/DC 3 wire 20-250V NC	ELE40-15TC-ZAH-3A-P	ELE40-20TC-ZBH-3A-P
AC/DC 4 wire 20-250V Convertible (NO&NC)		ELE40-20TS-ZBH-4A-P

Product Parameters

DC/AC Type Square Series



Size category

40*40
40*40

● Shielded ○ Non-shielded

●

○

Sn: mm

15 mm

30 mm

Shell material

PBT

PBT

● ELED display ○ No ELED display

●

●

Operating voltage

20-250 VAC; 20-250 VDC

20-250 VAC; 20-250 VDC

No-load current

<2.5mA

<2.5mA

Maximum load current

200mA

200mA

Leakage current

<2.5mA

<2.5mA

Surge current

2.2A for 20ms

2.2A for 20ms

Minimum load current

5mA

5mA

Voltage drop

<10VAC; 8VDC

<10VAC; 8VDC

Switching frequency

25HZ AC; 40HZ DC

25HZ AC; 40HZ DC

Response time

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

Yes

Yes

Sensing surface material

PBT

PBT

Connection method

M12 Connectors

Quick Connectors

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

AC 3 wire 20-250V NC

AC 4 wire 20-250V Convertible (NO&NC)

AC/DC 3 wire 20-250V NO

ELE40-15TO-YAH-3A-P

ELE40-30TO-ZBH-3A-P

AC/DC 3 wire 20-250V NC

ELE40-15TC-YAH-3A-P

ELE40-30TC-ZBH-3A-P

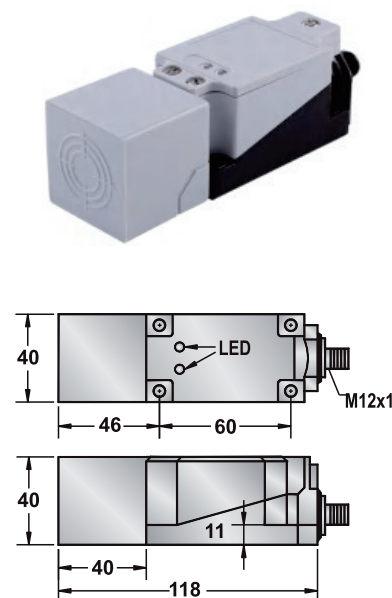
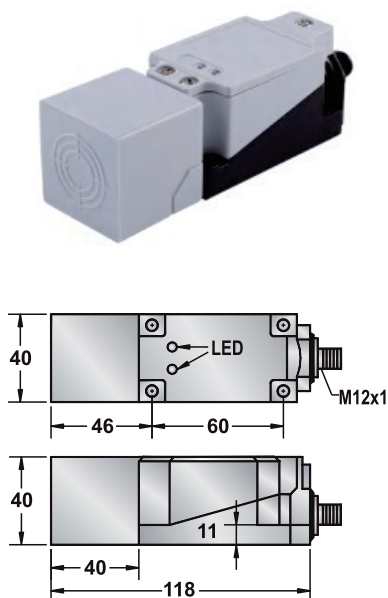
AC/DC 4 wire 20-250V Convertible (NO&NC)

ELE40-15TS-YAH-4A-P

ELE40-30TS-ZBH-4A-P

Product Parameters

DC/AC Type Square Series



Size category

40*40
40*40

● Shielded ○ Non-shielded

○

○

Sn: mm

20 mm

30 mm

Shell material

PBT

PBT

● ELED display ○ No ELED display

●

●

Operating voltage

20-250 VAC; 20-250 VDC

20-250 VAC; 20-250 VDC

No-load current

<2.5mA

<2.5mA

Maximum load current

200mA

200mA

Leakage current

<2.5mA

<2.5mA

Surge current

2.2A for 20ms

2.2A for 20ms

Minimum load current

5mA

5mA

Voltage drop

<10VAC; 8VDC

<10VAC; 8VDC

Switching frequency

25HZ AC; 40HZ DC

25HZ AC; 40HZ DC

Response time

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

Yes

Yes

Sensing surface material

PBT

PBT

Connection method

M12 Connectors

M12 Connectors

Product Model

DC 3 wire 10-30V NPN NO

DC 3 wire 10-30V NPN NC

DC 3 wire 10-30V PNP NO

DC 3 wire 10-30V PNP NC

DC 4 wire 10-30V Convertible PNP (NO&NC)

DC 4 wire 10-30V Convertible NPN (NO&NC)

DC 2 wire 10-60V NO

DC 2 wire 10-60V NC

DC 3 wire 10-55V NPN NO

DC 3 wire 10-55V NPN NC

DC 3 wire 10-55V PNP NO

DC 3 wire 10-55V PNP NC

AC 3 wire 20-250V NO

AC 3 wire 20-250V NC

AC 4 wire 20-250V Convertible (NO&NC)

AC/DC 3 wire 20-250V NO

AC/DC 3 wire 20-250V NC

AC/DC 4 wire 20-250V Convertible (NO&NC)

ELE40-20TO-YBH-TA-P

ELE40-20TC-YBH-TA-P

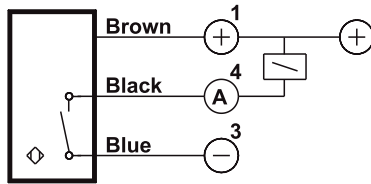
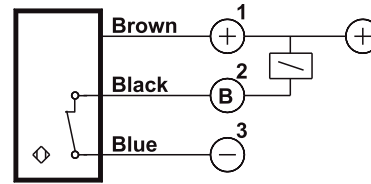
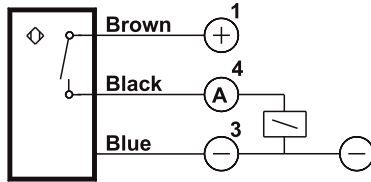
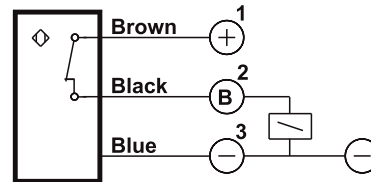
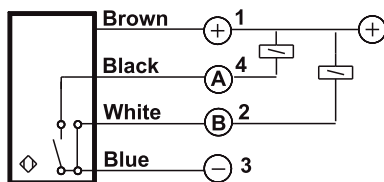
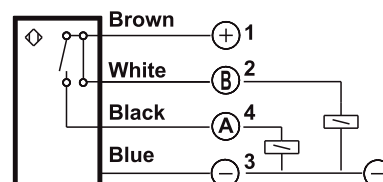
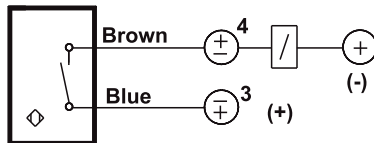
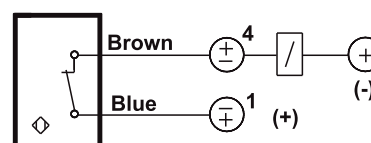
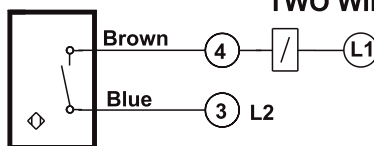
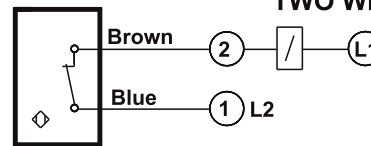
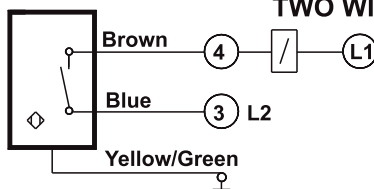
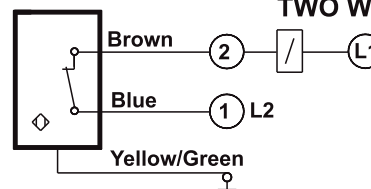
ELE40-20TS-YBH-TA-P

ELE40-30TO-YBH-TA-P

ELE40-30TC-YBH-TA-P

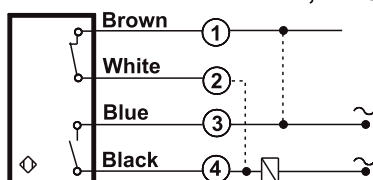
ELE40-30TS-YBH-TA-P

Wiring Diagram

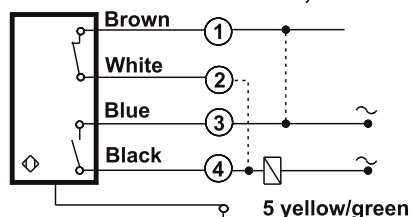
DC NPN NO

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

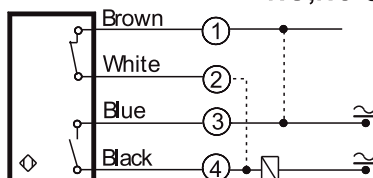
Plastic housing **AC 20-250V**
NO,NC Changeable



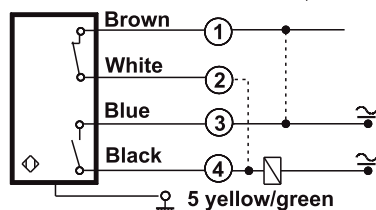
Metal housing **AC 20-250V**
NO,NC Changeable



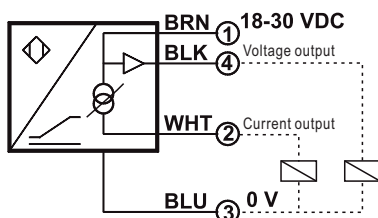
Plastic housing **AC 20-250V**
NO,NC Changeable



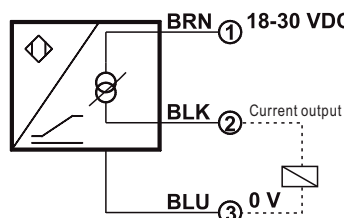
Metal housing **AC 20-250V**
NO,NC Changeable



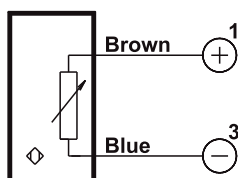
Analog (current + voltage output type)



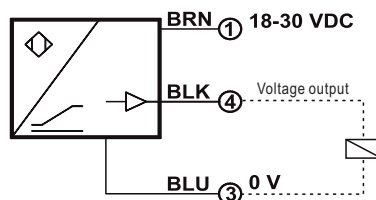
Analog (current output type)



Riot-proof DC 6-12V

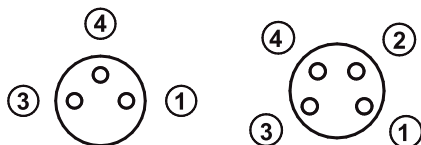


Analog (voltage output type)

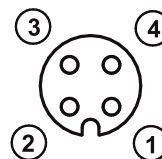


Connector Diagram

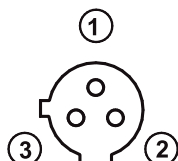
Used for M8 DC
M8



Used for M12 DC
M12



Used for M12 AC
M12



Used for M18 M30 DC or AC

