

TECHNICAL DATA SHEET

Inductive Proximity Switches Proximity Sensors **Explosion-proof 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



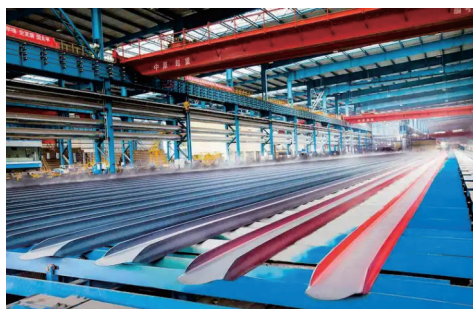
Due to the stainless steel integrated housing, this series of sensors not only has good impact resistance, but also can withstand the corrosion of detergents and solvents. It can be used in environments that require frequent high-pressure washing, and can achieve long-term sealing that meets the IP69K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



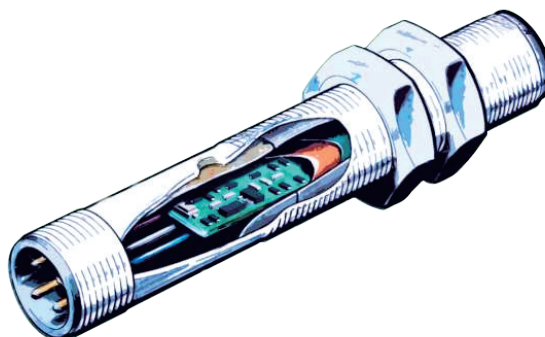
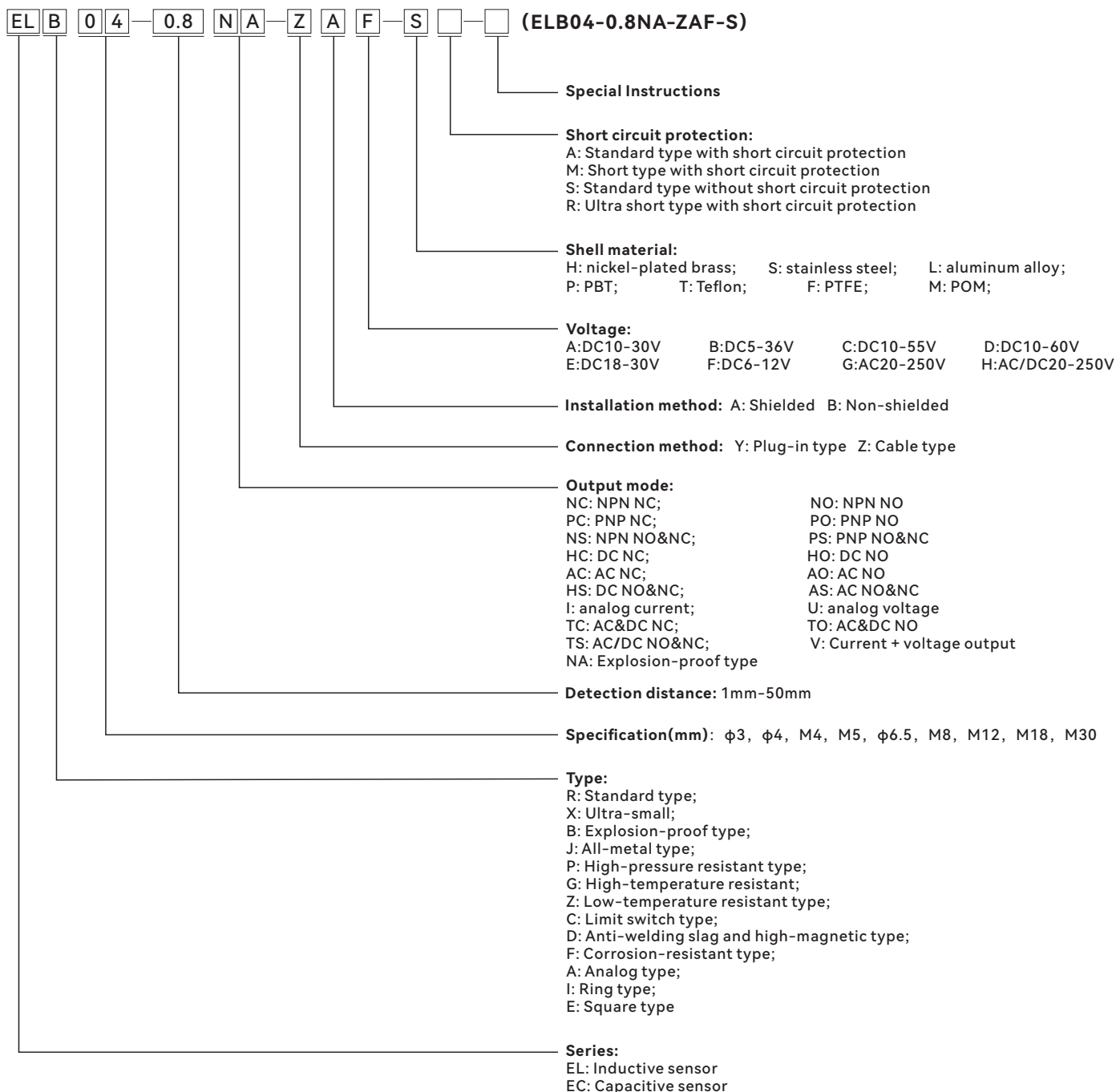
In detecting the offset position of the controlled parts of the fixture, analog output proximity sensors are often used in wire reel correction, and the size of the offset is controlled by the size of the detection distance. This use can be installed and tested in a very small position space. We have 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



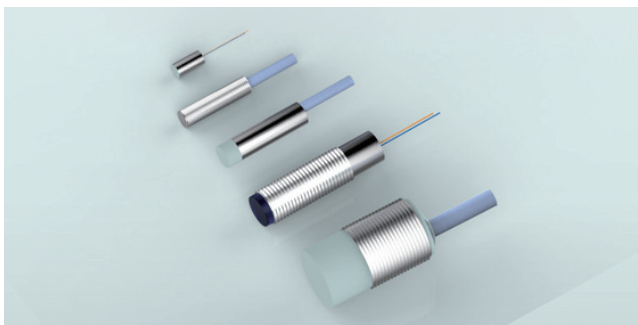
Explosion-proof Series

Proximity sensors

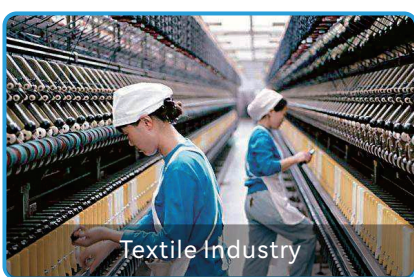
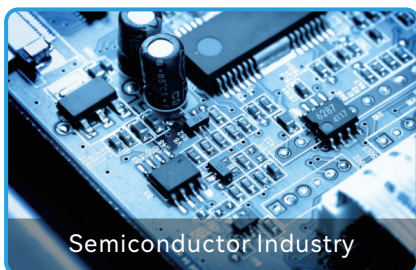
This series features reliable operation, easy installation and use, high performance-price ratio, stable performance and high explosion-proof grade.

Features:

- Features: reliable function, easy install, high cost-performance, stable function
- Size: $\phi 4$, M5, $\phi 6.5$, M8, M10, M12, M18, M30
- Sensing Distance: 0.8-30mm
- Operating Voltage: 6-12VDC
- Certificate: CE, ROHS



Application Industry



Product Parameters

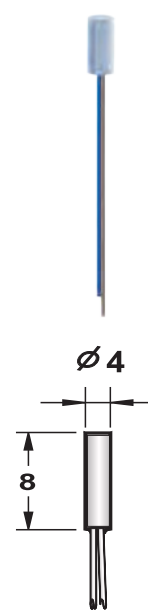
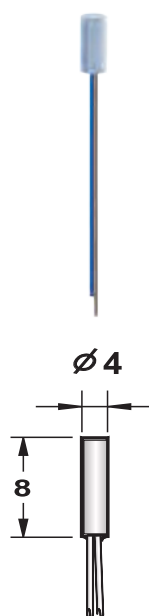
Explosion-proof



Size category	φ4	φ4
● Shielded ○ Non-shielded	●	●
Sn: mm	0.8 mm	1mm
Shell material	Stainless steel	Stainless steel
● LED display ○ No LED display	○	○
Working voltage	6-12VDC	6-12VDC
Allowable pulsating voltage	-	-
No-load current	>2.2mA(OFF) <1.1mA(ON)	>2.2mA(OFF) <1.1mA(ON)
Switching frequency	2KHZ	2KHZ
Response time	0.05ms/0.05ms	0.05ms/0.05ms
Switching hysteresis	<15%(Sr)	<15%(Sr)
Repeat accuracy	<1.0% (Sr)	<1.0% (Sr)
Protection level	IP67	IP67
Working temperature	-25 °C - +70 °C	-25 °C - +70 °C
Temperature drift	<1%(Sr)	<1%(Sr)
Short circuit protection/reverse polarity protection	-	-
Overload protection current	-	-
Delay	<10ms	<10ms
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)	RFI>3V/m / EFT>1KV / ESD>4KV (contact)
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2
Sensing surface material	PBT	PBT
Connection method	2m oil-proof PVC cable 2.7 φ 2x0.15	2m oil-proof PVC cable 2.7 φ 2x0.15
Product Model		
DC 2 wire 6-12V NAMUR	ELB04-0.8NA-ZAF-S	ELB04-01NA-ZAF-S

Product Parameters

Explosion-proof



Size category	$\phi 4$	$\phi 4$
● Shielded ○ Non-shielded	●	●
Sn: mm	0.8 mm	1mm
Shell material	Stainless steel	Stainless steel
● LED display ○ No LED display	○	○
Working voltage	6-12VDC	6-12VDC
Allowable pulsating voltage	-	-
No-load current	>2.2mA(OFF) <1.1mA(ON)	>2.2mA(OFF) <1.1mA(ON)
Switching frequency	2KHZ	2KHZ
Response time	0.05ms/0.05ms	0.05ms/0.05ms
Switching hysteresis	<15%(Sr)	<15%(Sr)
Repeat accuracy	<1.0% (Sr)	<1.0% (Sr)
Protection level	IP67	IP67
Working temperature	-25 °C - +70 °C	-25 °C - +70 °C
Temperature drift	<1%(Sr)	<1%(Sr)
Short circuit protection/reverse polarity protection	-	-
Overload protection current	-	-
Delay	<10ms	<10ms
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)	RFI>3V/m / EFT>1KV / ESD>4KV (contact)
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2
Sensing surface material	PBT	PBT
Connection method	2m oil-proof PVC cable 2x0.15	2m oil-proof PVC cable 2x0.15
Product Model		
DC 2 wire 6-12V NAMUR	ELB04-0.8NA-ZAF-SM	ELB04-01NA-ZAF-SM

Product Parameters

Explosion-proof



Size category	M5		M5	
● Shielded ○ Non-shielded	●		●	
Sn: mm	0.8 mm		1mm	
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	○		○	
Working voltage	6-12VDC		6-12VDC	
Allowable pulsating voltage	-		-	
No-load current	>2.2mA(OFF)	<1.1mA(ON)	>2.2mA(OFF)	<1.1mA(ON)
Switching frequency	2KHZ		2KHZ	
Response time	0.05ms/0.05ms		0.05ms/0.05ms	
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0% (Sr)		<1.0% (Sr)	
Protection level	IP67		IP67	
Working temperature	-25 °C - +70 °C		-25 °C - +70 °C	
Temperature drift	<1%(Sr)		<1%(Sr)	
Short circuit protection/reverse polarity protection	-		-	
Overload protection current	-		-	
Delay	<10ms		<10ms	
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)		RFI>3V/m / EFT>1KV / ESD>4KV (contact)	
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2		IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
Sensing surface material	PBT		PBT	
Connection method	2m oil-proof PVC cable 2.7 φ 2x0.15		2m oil-proof PVC cable 2.7 φ 2x0.15	
Product Model				
DC 2 wire 6-12V NAMUR	ELB05-0.8NA-ZAF-S		ELB05-01NA-ZAF-S	

Product Parameters

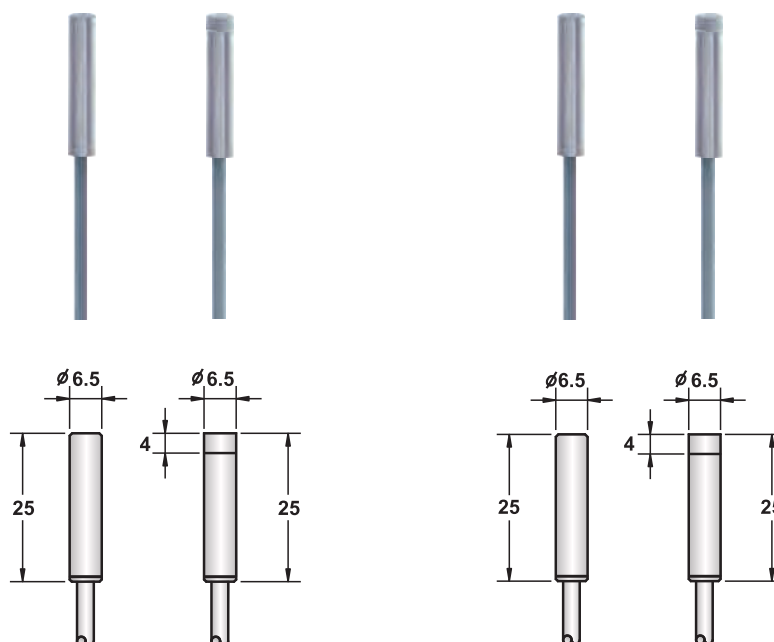
Explosion-proof



Size category	M5		M5	
● Shielded ○ Non-shielded	●		●	
Sn: mm	0.8 mm		1mm	
Shell material	Stainless steel		Stainless steel	
● LED display ○ No LED display	○		○	
Working voltage	6-12VDC		6-12VDC	
Allowable pulsating voltage	-		-	
No-load current	>2.2mA(OFF)	<1.1mA(ON)	>2.2mA(OFF)	<1.1mA(ON)
Switching frequency	2KHZ		2KHZ	
Response time	0.05ms/0.05ms		0.05ms/0.05ms	
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0% (Sr)		<1.0% (Sr)	
Protection level	IP67		IP67	
Working temperature	-25 °C - +70 °C		-25 °C - +70 °C	
Temperature drift	<1%(Sr)		<1%(Sr)	
Short circuit protection/reverse polarity protection	-		-	
Overload protection current	-		-	
Delay	<10ms		<10ms	
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)		RFI>3V/m / EFT>1KV / ESD>4KV (contact)	
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2		IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
Sensing surface material	PBT		PBT	
Connection method	2m oil-proof PVC cable 2.7 φ 2x0.15		2m oil-proof PVC cable 2.7 φ 2x0.15	
Product Model				
DC 2 wire 6-12V NAMUR	ELB05-0.8NA-ZAF-SM		ELB05-01NA-ZAF-SM	

Product Parameters

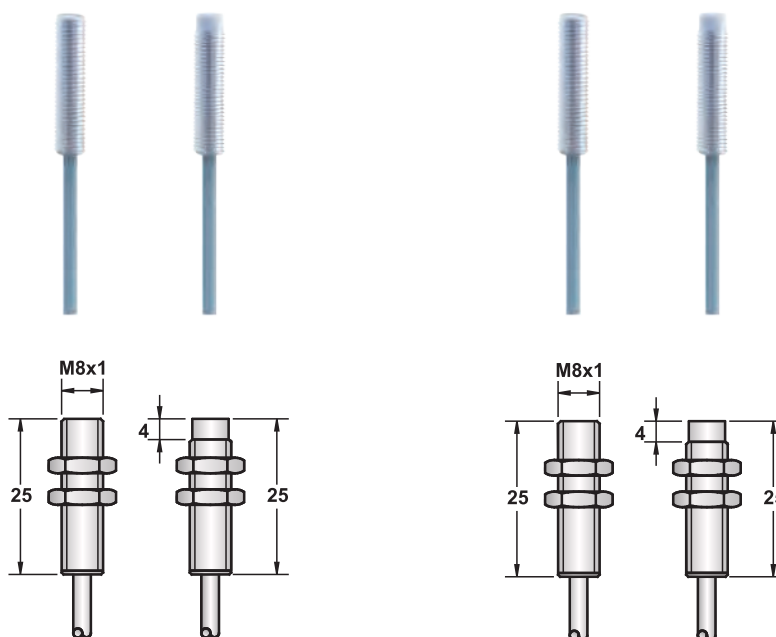
Explosion-proof



Size category	Ø6.5		Ø6.5	
● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	1mm	2mm	2mm	4 mm
Shell material	Stainless steel / Nickel-plated brass		Stainless steel / Nickel-plated brass	
● LED display ○ No LED display	○		○	
Working voltage	6-12VDC		6-12VDC	
Allowable pulsating voltage	-		-	
No-load current	>2.2mA(OFF)	<1.1mA(ON)	>2.2mA(OFF)	<1.1mA(ON)
Switching frequency	2KHZ	1KHZ	2KHZ	1KHZ
Response time	0.05ms	0.1ms	0.05ms	0.1ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0% (Sr)		<1.0% (Sr)	
Protection level	IP67		IP67	
Working temperature	-25 °C - +70 °C		-25 °C - +70 °C	
Temperature drift	<1%(Sr)		<1%(Sr)	
Short circuit protection/reverse polarity protection	-		-	
Overload protection current	-		-	
Delay	<10ms		<10ms	
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)		RFI>3V/m / EFT>1KV / ESD>4KV (contact)	
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2		IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
Sensing surface material	PBT		PBT	
Connection method	2m oil-proof PVC cable 3 φ 2x0.15		2m oil-proof PVC cable 3 φ 2x0.15	
Product Model				
DC 2 wire 6-12V NAMUR	ELB6.5-01NA-ZAF-H	ELB6.5-02NA-ZBF-H	ELB6.5-02NA-ZAF-H	ELB6.5-04NA-ZBF-H

Product Parameters

Explosion-proof



Size category

M 8

M 8

● Shielded ○ Non-shielded

Sn: mm

Shell material

● LED display ○ No LED display

Working voltage

Allowable pulsating voltage

No-load current

Switching frequency

Response time

Switching hysteresis

Repeat accuracy

Protection level

Working temperature

Temperature drift

Short circuit protection/reverse polarity protection

Overload protection current

Delay

EMC

Overload protection current

Sensing surface material

Connection method

Product Model

DC 2 wire 6-12V NAMUR

1mm

2mm

Nickel-plated brass

○

6-12VDC

-

>2.2mA(OFF)

<1.1mA(ON)

2KHZ

1KHZ

0.05ms

0.1ms

<15%(Sr)

<1.0% (Sr)

IP67

-25 °C - +70 °C

<1%(Sr)

-

-

<10ms

RFI>3V/m / EFT>1KV / ESD>4KV (contact)

IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2

PBT

2m oil-proof PVC cable
3 φ 2x0.15

2mm

4 mm

Nickel-plated brass

○

6-12VDC

-

>2.2mA(OFF)

<1.1mA(ON)

2KHZ

1KHZ

0.05ms

0.1ms

<15%(Sr)

<1.0% (Sr)

IP67

-25 °C - +70 °C

<1%(Sr)

-

-

<10ms

RFI>3V/m / EFT>1KV / ESD>4KV (contact)

IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2

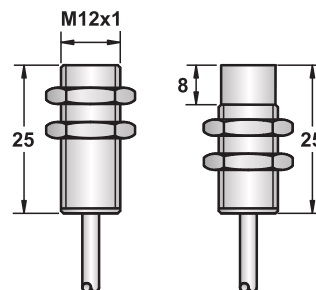
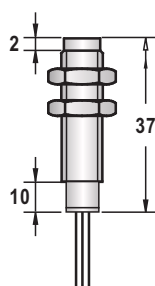
PBT

2m oil-proof PVC cable
3 φ 2x0.15

ELB08-01NA-ZAF-H | ELB08-02NA-ZBF-H | ELB08-02NA-ZAF-H | ELB08-04NA-ZBF-H

Product Parameters

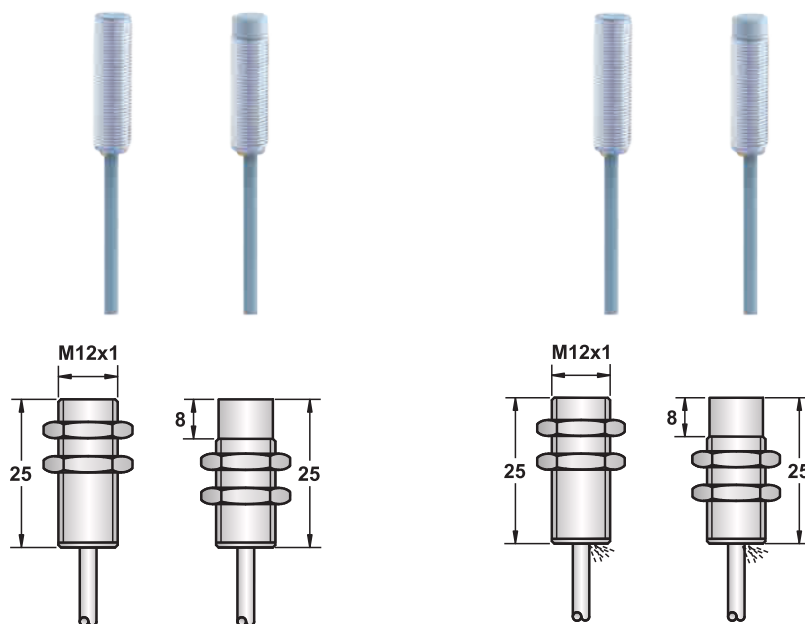
Explosion-proof



Size category		M 10		M 12	
● Shielded	○ Non-shielded	○		●	○
Sn: mm		3 mm		2mm	4 mm
Shell material		Nickel-plated brass		Stainless steel / Nickel-plated brass	
● LED display	○ No LED display	○		○	
Working voltage		6-12VDC		6-12VDC	
Allowable pulsating voltage		-		-	
No-load current		>2.2mA(OFF)	<1.1mA(ON)	>2.2mA(OFF)	<1.1mA(ON)
Switching frequency		5KHZ		5KHZ	
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	
Working temperature		-25 °C - +70 °C		-25 °C - +70 °C	
Temperature drift		<1%(Sr)		<1%(Sr)	
Short circuit protection/reverse polarity protection		-		-	
Overload protection current		-		-	
Delay		<10ms		<10ms	
EMC		RFI>3V/m / EFT>1KV / ESD>4KV (contact)		RFI>3V/m / EFT>1KV / ESD>4KV (contact)	
Overload protection current		IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2		IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
Sensing surface material		PBT		PBT	
Connection method		2m oil-proof PVC cable 4 ϕ 2x0.34		2m oil-proof PVC cable 4 ϕ 2x0.34	
Product Model					
DC 2 wire 6-12V NAMUR		ELB10-03NA-ZAF-H-LED ELB10-03NA-ZBF-H		ELB12-02NA-ZAF-H ELB12-04NA-ZBF-H	

Product ParameterH

Explosion-proof



Size category

M 12

M 12

● Hshielded ○ Non-Hshielded

●

○

●

○

Sn: mm

4 mm

8 mm

2mm

4 mm

Hshell material

HtainleHH Hsteel / Nickel-plated braHH

HtainleHH Hsteel / Nickel-plated braHH

● LED diHplay ○ No LED diHplay

○

○

Working voltage

6-12VDC

6-12VDC

Allowable pulHating voltage

-

-

No-load current

>2.2mA(OFF)

<1.1mA(ON)

<1.1mA(OFF)

>2.2mA(ON)

Hwitching frequency

5KHZ

1KHZ

0.5KHZ

ReHponHe time

0.1ms

0.2ms

0.1ms

0.2ms

Hwitching hyHtereHiH

<15%(Sr)

<15%(Sr)

Repeat accuracy

<1.0% (Sr)

<1.0% (Sr)

Protection level

IP67

IP67

Working temperature

-25 °C - +70 °C

-25 °C - +70 °C

Temperature drift

<1%(Sr)

<1%(Sr)

Hhort circuit protection/reverHe polarity protection

-

-

Overload protection current

-

-

Delay

<10ms

<10ms

EMC

RFI>3V/m / EFT>1KV / ESD>4KV (contact)

RFI>3V/m / EFT>1KV / ESD>4KV (contact)

Overload protection current

IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2

IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2

HenHing Hurface material

PBT

PBT

Connection method

2m oil-proof PVC cable
4 φ 2x0.342m oil-proof PVC cable
4 φ 2x0.34

Product Model

DC 2 wire 6-12V NAMUR

ELB12-04NA-ZAF-H

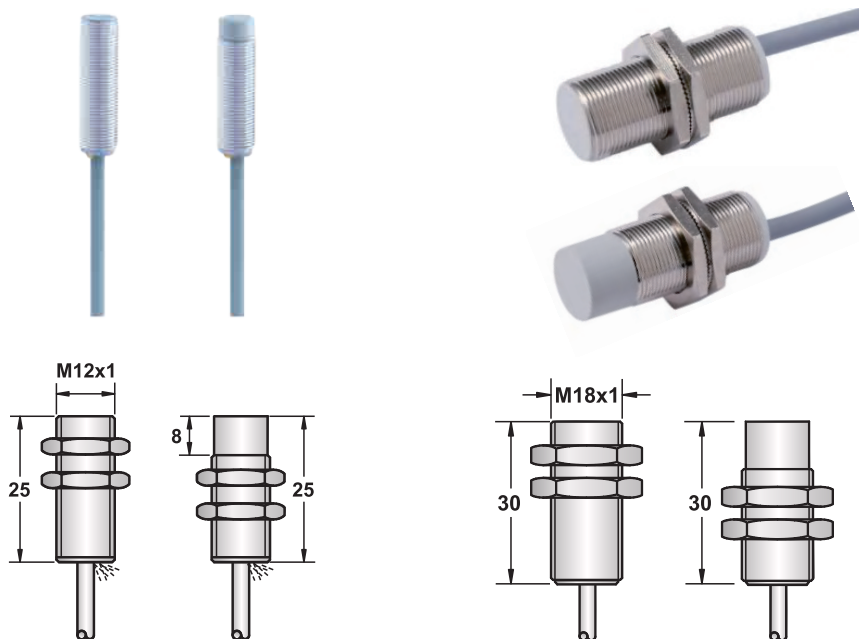
ELB12-08NA-ZBF-H

ELB12-02NA-ZAF-H-LED

ELB12-04NA-ZBF-H-LED

Product Parameters

Explosion-proof



Size category

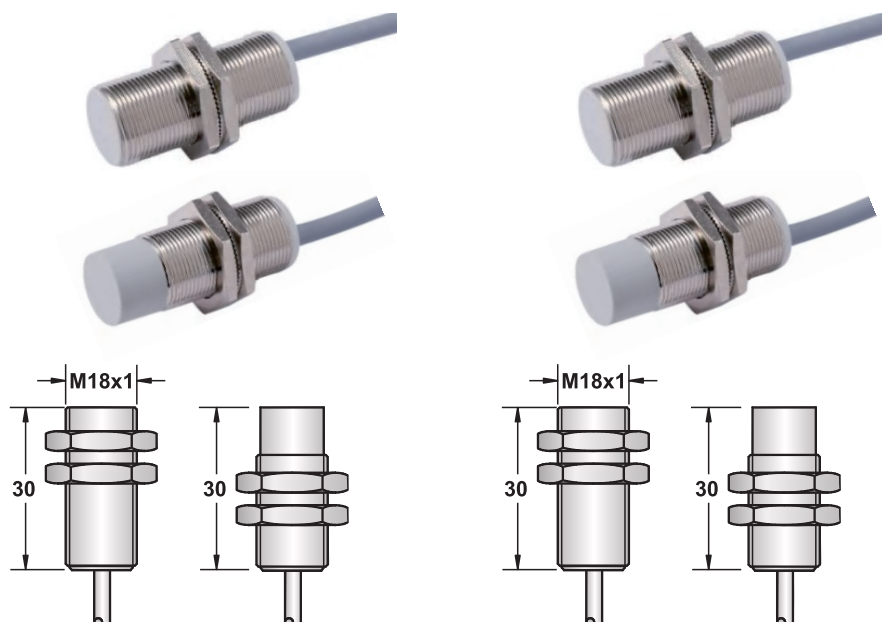
M 12

M18

● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	4 mm	8 mm	5 mm	8 mm
Shell material	Stainless steel / Nickel-plated brass		Stainless steel / Nickel-plated brass	
● LED display ○ No LED display	●		○	
Working voltage	6-12VDC		6-12VDC	
Allowable pulsating voltage	-		-	
No-load current	<1.1mA(OFF)	>2.2mA(ON)	>2.2mA(OFF)	<1.1mA(ON)
Switching frequency	1KHZ	0.5KHZ	500HZ	300HZ
Response time	0.1ms	0.2ms	0.2ms	0.5ms
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0% (Sr)		<1.0% (Sr)	
Protection level	IP67		IP67	
Working temperature	-25℃ - +70℃		-25℃ - +70℃	
Temperature drift	<1%(Sr)		<1%(Sr)	
Short circuit protection/reverse polarity protection	-		-	
Overload protection current	-		-	
Delay	<10ms		<10ms	
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)		RFI>3V/m / EFT>1KV / ESD>4KV (contact)	
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2		IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
Sensing surface material	PBT		PBT	
Connection method	2m oil-proof PVC cable 4 ϕ 2x0.34		2m oil-proof PVC cable 5. 0 ϕ 2x0.34	
Product Model				
DC 2 wire 6-12V NAMUR	ELB12-04NA-ZAF-H-LED	ELB12-08NA-ZBF-H-LED	ELB18-05NA-ZAF-H	ELB18-08NA-ZBF-H

Product Parameters

Explosion-proof



Size category

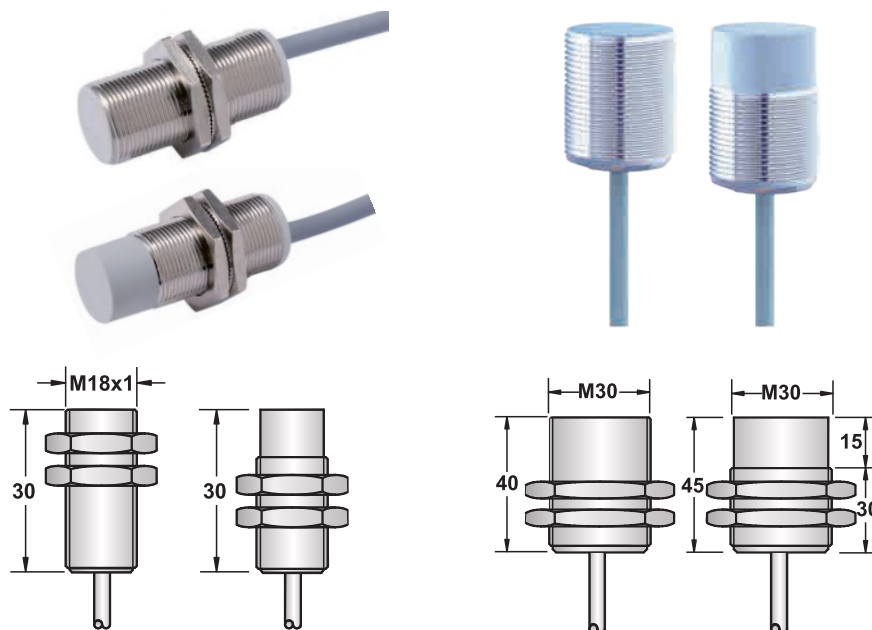
M18

M18

● Shielded ○ Non-shielded	● ○	● ○
Sn: mm	8 mm 16 mm	5 mm 8 mm
Shell material	Stainless steel / Nickel-plated brass	
● LED display ○ No LED display	○ ●	
Working voltage	6-12VDC	
Allowable pulsating voltage	-	
No-load current	>2.2mA(OFF)	<1.1mA(ON)
Switching frequency	500HZ	300HZ
Response time	0.2ms	0.5ms
Switching hysteresis	<15%(Sr)	
Repeat accuracy	<1.0% (Sr)	
Protection level	IP67	
Working temperature	-25 °C - +70 °C	
Temperature drift	<1%(Sr)	
Short circuit protection/reverse polarity protection	-	
Overload protection current	-	
Delay	<10ms	
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)	
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
Sensing surface material	PBT	
Connection method	2m oil-proof PVC cable 5. 0 φ 2x0.34	
Product Model	ELB18-08NA-ZAF-H ELB18-16NA-ZBF-H ELB18-05NA-ZAF-H-LED ELB18-08NA-ZBF-H-LED	

Product Parameters

Explosion-proof



Size category

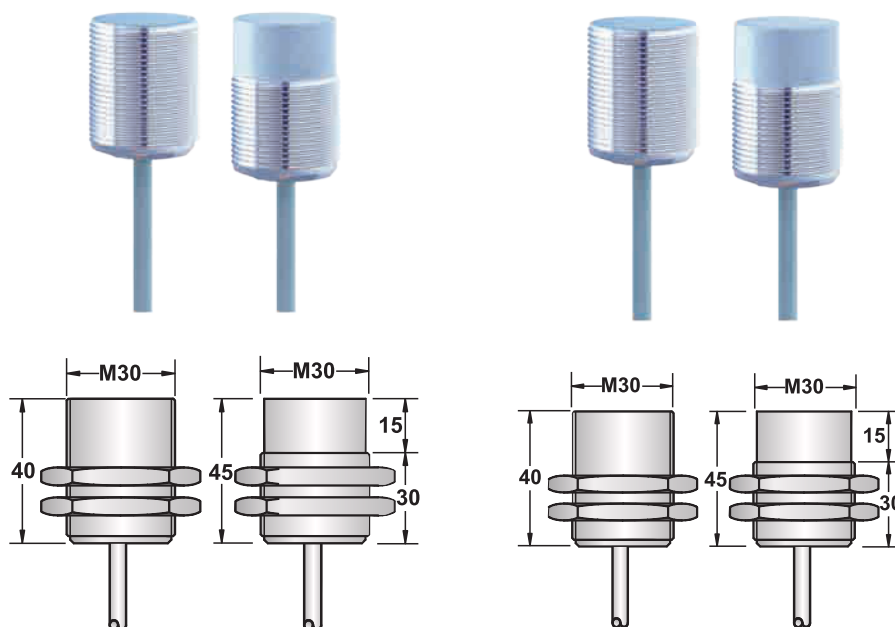
M18

M 30

● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	8 mm	16 mm	10 mm	15 mm
Shell material	Stainless steel / Nickel-plated brass		Stainless steel / Nickel-plated brass	
● LED display ○ No LED display	○		○	
Working voltage	6-12VDC		6-12VDC	
Allowable pulsating voltage	-		-	
No-load current	<1.1mA(OFF) >2.2mA(ON)		>2.2mA(OFF) <1.1mA(ON)	
Switching frequency	500HZ 300HZ		300HZ 100HZ	
Response time	0.2ms 0.5ms		0.5ms 1ms	
Switching hysteresis	<15%(Sr)		<15%(Sr)	
Repeat accuracy	<1.0% (Sr)		<1.0% (Sr)	
Protection level	IP67		IP67	
Working temperature	-25 °C - +70 °C		-25 °C - +70 °C	
Temperature drift	<1%(Sr)		<1%(Sr)	
Short circuit protection/reverse polarity protection	-		-	
Overload protection current	-		-	
Delay	<10ms		<10ms	
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)		RFI>3V/m / EFT>1KV / ESD>4KV (contact)	
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2		IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
Sensing surface material	PBT		PBT	
Connection method	2m oil-proof PVC cable 5. 0 φ 2x0.34		2m oil-proof PVC cable 5. 0 φ 2x0.34	
Product Model				
DC 2 wire 6-12V NAMUR	ELB18-08NA-ZAF-H-LED	ELB18-16NA-ZBF-H-LED	ELB30-10NA-ZAF-H	ELB30-15NA-ZBF-H

Product Parameters

Explosion-proof



Size category

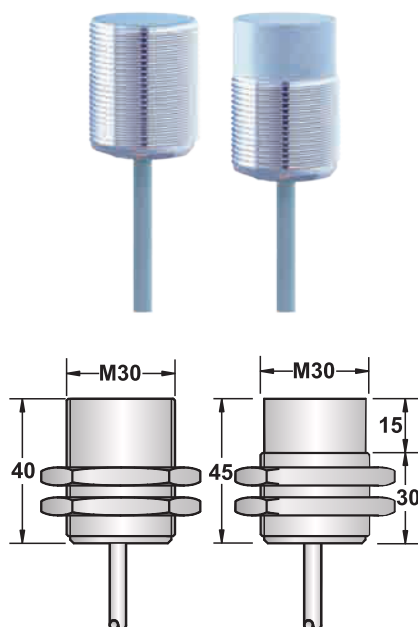
M 30

M 30

● Shielded ○ Non-shielded	●	○	●	○
Sn: mm	16 mm	25 mm	10 mm	15 mm
Shell material	Stainless steel / Nickel-plated brass		Stainless steel / Nickel-plated brass	
● LED display ○ No LED display	○		●	
Working voltage	6-12VDC		6-12VDC	
Allowable pulsating voltage	-		-	
No-load current	>2.2mA(OFF)	<1.1mA(ON)	<1.1mA(OFF)	>2.2mA(ON)
Switching frequency	300HZ	100HZ	300HZ	100HZ
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	
Working temperature	-25 °C - +70 °C		-25 °C - +70 °C	
Temperature drift	<1%(Sr)		<1%(Sr)	
Short circuit protection/reverse polarity protection	-		-	
Overload protection current	-		-	
Delay	<10ms		<10ms	
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)		RFI>3V/m / EFT>1KV / ESD>4KV (contact)	
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2		IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2	
Sensing surface material	PBT		PBT	
Connection method	2m oil-proof PVC cable 5. 0 φ 2x0.34		2m oil-proof PVC cable 5. 0 φ 2x0.34	
Product Model				
DC 2 wire 6-12V NAMUR	ELB30-16NA-ZAF-H	ELB30-25NA-ZBF-H	ELB30-10NA-ZAF-H-LED	ELB30-15NA-ZBF-H-LED

Product Parameters

Explosion-proof



Size category

M 30

● Shielded ○ Non-shielded

Sn: mm

16 mm

25 mm

Shell material

Stainless steel / Nickel-plated brass

● LED display ○ No LED display

Working voltage

6-12VDC

Allowable pulsating voltage

-

No-load current

>2.2mA(OFF)

<1.1mA(ON)

Switching frequency

300HZ

100HZ

Response time

0.5ms

1ms

Switching hysteresis

<15%(Sr)

Repeat accuracy

<1.0% (Sr)

Protection level

IP67

Working temperature

-25 °C - +70 °C

Temperature drift

<1%(Sr)

Short circuit protection/reverse polarity protection

-

Overload protection current

-

Delay

<10ms

EMC

RFI>3V/m / EFT>1KV / ESD>4KV (contact)

Overload protection current

IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2

Sensing surface material

PBT

Connection method

2m oil-proof PVC cable
5.0 φ 2x0.34

Product Model

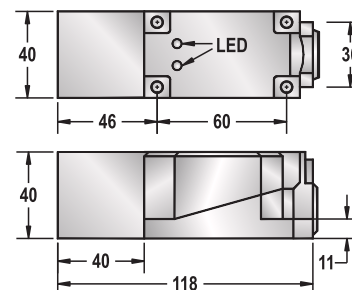
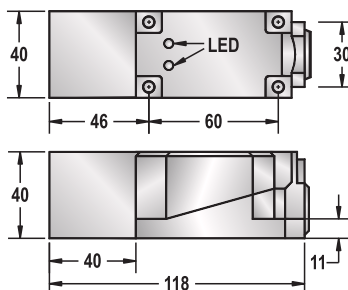
DC 2 wire 6-12V NAMUR

ELB30-16NA-ZAF-H-LED

ELB30-25NA-ZBF-H-LED

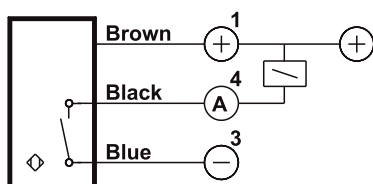
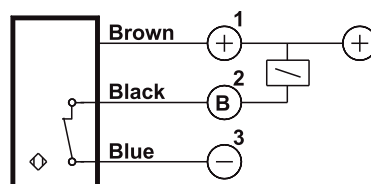
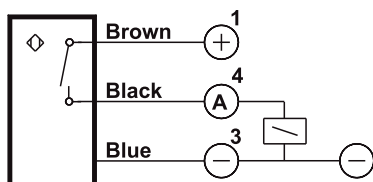
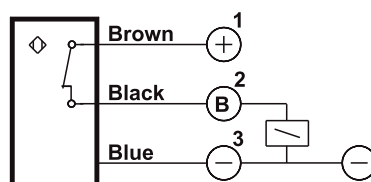
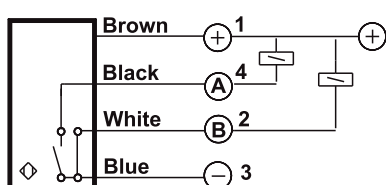
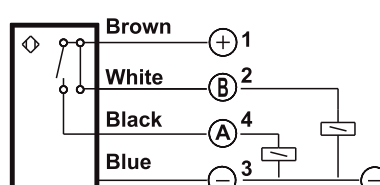
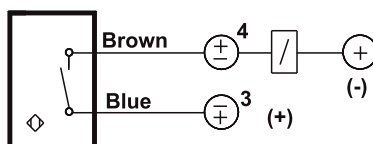
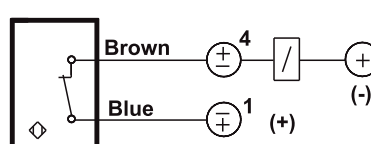
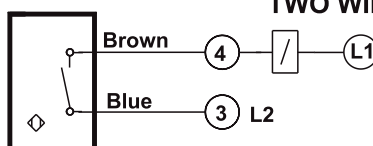
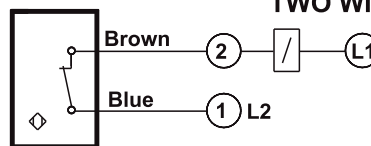
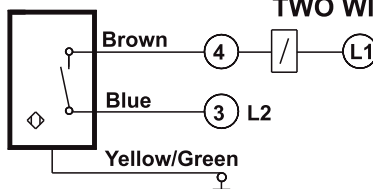
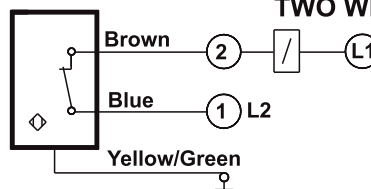
Product Parameters

Explosion-proof



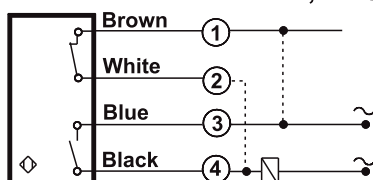
Size category	40x40				40x40			
● Shielded ○ Non-shielded	●				○			
Sn: mm	15 mm				30 mm			
Shell material	PBT				PBT			
● LED display ○ No LED display	○ ●				○ ●			
Working voltage	6-12VDC				6-12VDC			
Allowable pulsating voltage	-				-			
No-load current	>2.2mA(ON)	<1.1mA(OFF)	<1.1mA(OFF)	>2.2mA(ON)	>2.2mA(ON)	<1.1mA(OFF)	<1.1mA(OFF)	>2.2mA(ON)
Switching frequency	100HZ				100HZ			
Response time	1ms				1ms			
Switching hysteresis	<15%(Sr)				<15%(Sr)			
Repeat accuracy	<1.0% (Sr)				<1.0% (Sr)			
Protection level	IP67				IP67			
Working temperature	-25℃ - +70℃				-25℃ - +70℃			
Temperature drift	<1%(Sr)				<1%(Sr)			
Short circuit protection/reverse polarity protection	-				-			
Overload protection current	-				-			
Delay	<10ms				<10ms			
EMC	RFI>3V/m / EFT>1KV / ESD>4KV (contact)				RFI>3V/m / EFT>1KV / ESD>4KV (contact)			
Overload protection current	IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2				IEC 60947-5-2,Part 7.4.1 / IEC 60947-5-2,Part 7.4.2			
Sensing surface material	PBT				PBT			
Connection method	Quick Connectors				Quick Connectors			
Product Model								
DC 2 wire 6-12V NAMUR	ELE40-15NA-ZAF-P		ELE40-15NA-ZAF-P-ELED		ELE40-30NA-ZBF-P		ELE40-30NA-ZBF-P-ELED	

Wiring Diagram

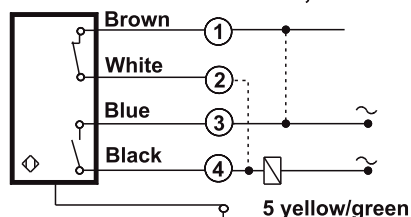
DC NPN NO

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

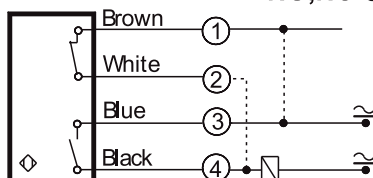
Plastic housing **AC 20-250V**
NO,NC Changeable



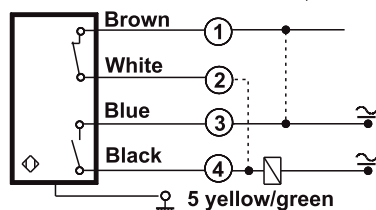
Metal housing **AC 20-250V**
NO,NC Changeable



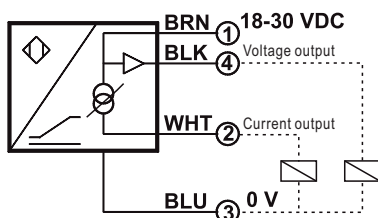
Plastic housing **AC 20-250V**
NO,NC Changeable



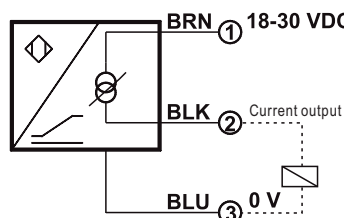
Metal housing **AC 20-250V**
NO,NC Changeable



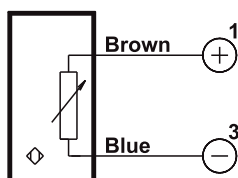
Analog (current + voltage output type)



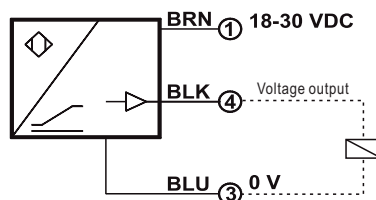
Analog (current output type)



Riot-proof DC 6-12V

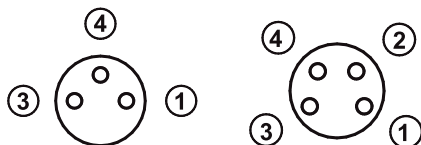


Analog (voltage output type)

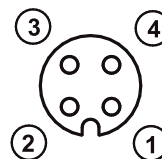


Connector Diagram

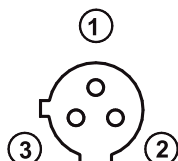
Used for M8 DC
M8



Used for M12 DC
M12



Used for M12 AC
M12



Used for M18 M30 DC or AC

