

- BG** Инструкция за монтаж и експлоатация
- ENG** Instruction for installation and use
- RO** Instrucțiune de instalare și utilizare
- SRB** Uputstvo za ugradnju i upotrebu
- HR** Uputstvo za ugradnju i upotrebu
- BIH** Uputstvo za ugradnju i upotrebu
- HU** Szerelési és kezelési utasítás
- SLO** Navodilo za vgradnjo in uporabo
- GR** Οδηγιοσ για την εγκατασταςη και τη χρηση
- MK** Упатство за вградување и употреба
- SK** Návod na montáž a používanie
- PL** Instrukcja instalacji i użytkowania
- P** Instrução para instalação e uso
- IT** Istruzioni per l'installazione e l'uso



- BG** Капацитивен датчик
- ENG** Capacitive sensors
- RO** Senzori capacitivi
- SRB** Kapacitivni senzor
- HR** Kapacitivni senzor
- BIH** Kapacitivni senzor
- HU** Kapacitív érzékelő
- SLO** Kapacitivni senzor
- GR** Χωρητικοί αισθητήρες
- MK** Капацитивни сензори
- SK** Kapacitný senzor
- PL** Czujniki pojemnościowe
- P** Sensores capacitivos
- IT** Sensori capacitivi



EL-CM18



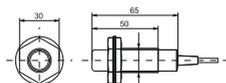
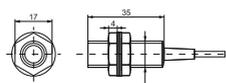
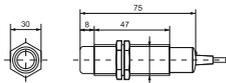
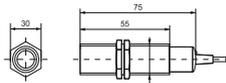
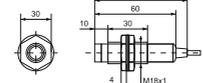
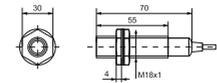
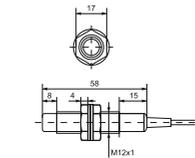
EL-CM24



EL-SM12



EL-XM24



Type	Start distance (mm)	Power supply voltage	Type of transition	Type of contact	Output load
EL-CM12-3004NA	0~4	6~36 VDC	NPN	NO	200 mA
EL-CM12-3004NB	0~4	6~36 VDC	NPN	NC	200 mA
EL-CM12-3004PA	0~4	6~36 VDC	PNP	NO	200 mA
EL-CM12-3004PB	0~4	6~36 VDC	PNP	NC	200 mA
EL-CM18-3008NA	0~8	6~36 VDC	NPN	NO	200 mA
EL-CM18-3008NB	0~8	6~36 VDC	NPN	NC	200 mA
EL-CM18-3008PA	0~8	6~36 VDC	PNP	NO	200 mA
EL-CM18-3008PB	0~8	6~36 VDC	PNP	NC	200 mA
EL-CM18-2008A	0~8	6~36 VDC	SCR	NO	300 mA
EL-CM24-3012NA	8	6~36 VDC	NPN	NO	200 mA
EL-CM24-3012NB	8	6~36 VDC	NPN	NC	200 mA
EL-CM24-3012PA	8	6~36 VDC	PNP	NO	200 mA
EL-CM24-3012PB	8	6~36 VDC	PNP	NC	200 mA
EL-CM24-2012A	8	90~250 VAC	SCR	NO	300 mA
EL-SM12-3110NA	10	6~36 VDC	NPN	NO	200 mA
EL-SM12-3110NB	10	6~36 VDC	NPN	NC	200 mA
EL-SM18-3110PA	10	6~36 VDC	PNP	NO	200 mA
EL-SM18-3110PB	10	6~36 VDC	PNP	NC	200 mA
EL-XM18-305PMI	5	6~36 VDC	inductive	NO	100 mA
EL-XM18-305PMU	5	6~36 VDC	inductive	NC	100 mA
EL-XM24-308PMI	8	6~36 VDC	inductive	NO	300 mA
EL-XM24-308PMU	8	6~36 VDC	inductive	NC	300 mA

Note: Sensor of Hall

Note: MI - current type; MU - voltage type

BG - В интерес на вашата безопасност, монтирането и настройването да се извършват само от специалист! **EN** - For your safety, installation and tuning are performed only by a specialist! **ВН** - Za vašu sigurnost, ugradnju i tuning vrši samo stručnjak! **GR** - Για την ασφάλειά σας, η εγκατάσταση και η τοποθέτηση γίνονται μόνο από ειδικούς! **D** - Zu Ihrer Sicherheit werden Installation und Wartung nur von einem Fachmann durchgeführt! **RO** - Pentru siguranța dvs., instalarea și reglarea sunt efectuate numai de către un specialist! **SK** - Pre vašu bezpečnosť, inštalácia a ladenie vykonáva iba špecialista! **SLO** - Za vašo varnost, namestitve in nastavitve opravlja samo strokovnjak! **SRB** - Za vašu sigurnost, instalacija i podешаванье изводе само специјалиста! **HU** - Az Ön biztonságá érdekében a telepítést és a hangolást csak szakember végezheti! **HR** - Za vašu sigurnost, instalacije i ugađanje izvodi samo stručna osoba! **MK** - За ваша безбедност, инсталација и подесување се изведува само од специјалист! **PL** - Ze względów bezpieczeństwa instalację i strojenie wykonuje tylko specjalista! **P** - Para sua segurança, a instalação e o ajuste são realizados apenas por um especialista! **IT** - Per la tua sicurezza, l'installazione e la messa a punto vengono eseguite solo da uno specialista!

■ About proximity switch

- Honorable consumers, thanks for selecting and using the sensor of our company. When using the products of our company, please refer to the instruction first in order to avoid unnecessary losses caused by misoperation. Because
 - the product is improved unceasingly, the sensor of you get may be different from the drawing in the instruction.
- Uses: It is suitable for controlling the limit machine tool, detecting, counting, velocity measurement, liquid level, signal and automatic line for locating sending signal, etc. It is also widely used in machinery, mine metallurgy, plastics, textile, chemical industry, light industry, tobacco, electric power, railway and war industry and so on departments

Model explanation of proximity switch.

L		M 18		- 30		05		N		A		□	
switch category		out ward appearance code		working voltage		etection distance		output form		output state		subsidiary functions	
L	inductance type	M □ cylinder type	30	6-36 VDC	01	1mm	N	three-wire DC.NPN output	A	NO	T	with aviation socket	
C	capacitance type		310	5-24 VDC			L	two-wire DC output	B	NC		Y	water proof oil proof
S	Hall type		320	12-60 VDC	05	5mm	□	AC two-wire output	C	NO+NC	I	special requirement	
A	safety explosion-proof type	20	90-250 VAC	10	10mm	W	AC three-wire output	MI	Mimic voltage	H		high temp resistane	
X	mimic Linear type	210	24-250 VAC			J	Relay contact output	MI	Mimic current				
H	reed type	T □ angular column type and plane installation type	220	380VAC			NP	NPN+PNP double output					
R	ring type		4	12-240VDC 24-240VAC									

For example: LM18-3005NA

The above indicates inductance type proximity switch. M18 indicates cylinder type whose diameter is 18mm. 30 indicates DC6-36V 05 indicates that the detecting distance is 5mm and N indicates NPN negative logic. A is NO output.

■ Setting operating distance (Sn)

- Please set the operating distance of the switch within 80% of standard operating distance to protect the switch from being affected by temperature and voltage.
- When detecting other metals, the switch has different operating distances (Diagram 1).
- When the switch is used for measuring operating frequency or used in other high-speed places, please set the operating distance of the switch within 1/2 of standard operating distance. At this position, the switch can reach max operating frequency.
- please refer to the instruction manual of capacitive proximity switch for setting its operating distance.

Ratio of inducing different materials

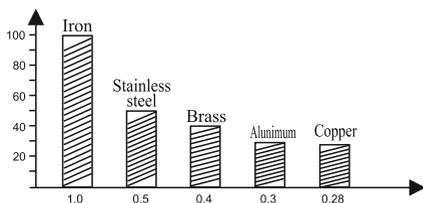
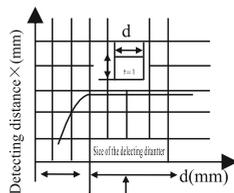


Diagram 1

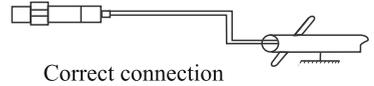
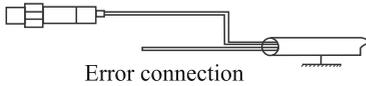
Effect that the size of the detecting object to the detecting distance



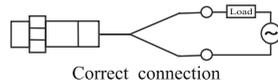
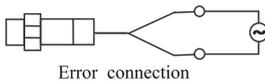
Standard detecting object Diagram 2

■ Points for attention when using the switch

- DC power supply must use insulated transformer. Please do not use autotransformer..
- It is strictly forbidden to connect on live line. Wire must be connected strictly according to the color code on the connection diagram.
- If there is an electric line of force, and when the power line passes near the switch lead, the metal pipe should be covered on the switch lead and grounded to protect the switch from misoperation and damaging.



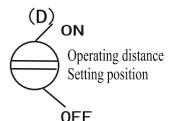
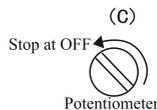
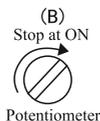
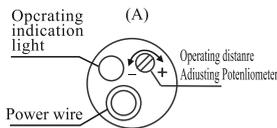
- AC proximity switch generally is not suitable for connecting in parallel and series. We suggest you to use relay in parallel and series.
- AC switch, DC two-line system switch must pass load to connect with power supply. If directly connect the switch with power supply, the switch will be damaged.



- The length of the leading wire of the proximity switch should be below 200m for fear that voltage drop is too big.
- Instruction for capacitance proximity switch.

The capacitance proximity switch can be used to check metal, as well as plastics, glass, water, oil and so on substances. Because the conductivity, water absorption and volume of all kinds of detecting objects are different, the corresponding detecting distances are different, too. The max detecting distance is available to the ground metal.

- Different detecting objects and detecting distances
- In order to avoid misoperation, the capacitance proximity switch is not suitable for installing near high frequency electric field, such as near high frequency welder, supersonic generator and so on. The operating distance of the capacitance proximity switch generally can be adjusted to adapt different detecting objects. Therefore, when installing, it should be adjusted. please refer to the following steps for the adjustment method:



A. When the supersonic generator is rotated to the right, the detecting distance will enlarge and when it is rotated to the left, it will lessen. The adjustment revolution is 10 circles

B. Under without detecting object the potentiometer should be rotated slowly to the right do not stop until in the position of ON of the proximity switch.

C. When closing to the detecting object, the potentiometer should be rotated to the left; do not stop until in the position of OFF of the proximity switch.

D. Adjust the potentiometer between ON and OFF. At this time, the adjustment of operating distance is end.

■ Installation demand

When installing the proximity switch, please install it larger than the diameter in the diagram if there is metal around of when the switch is placed opposite of parallel, so that the reliable operation will not be affected.

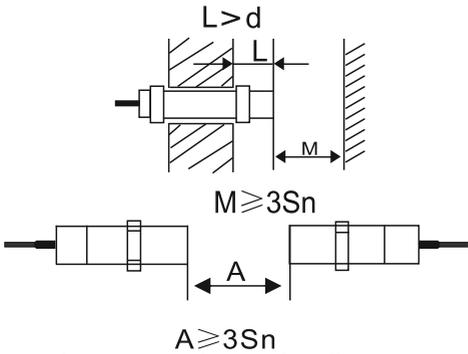
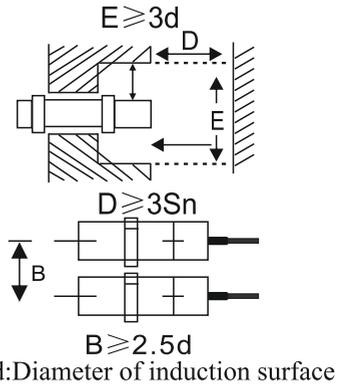
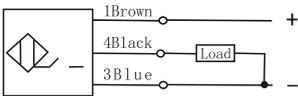


Diagram: Rated operating distance

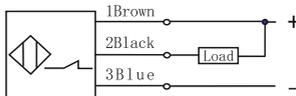


■ Diagram of connection mode

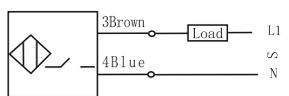
1、PNP NO type



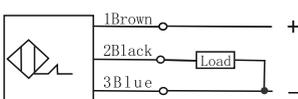
5、NPN NC type



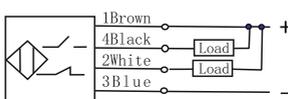
9、AC two-wire NO type



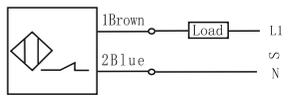
2、PNP NC type



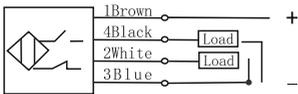
6、NPN NO+NC type



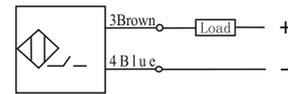
10、DC two-wire NC type



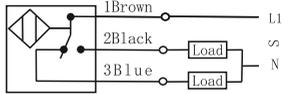
3、PNP NO+NC type



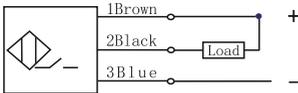
7、DC two-wire NO type



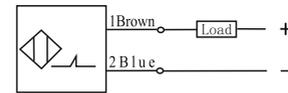
11、AC three-wire type



4、NPN NO type



8、DC two-wire NC type



12、Five-wire relay output type

