

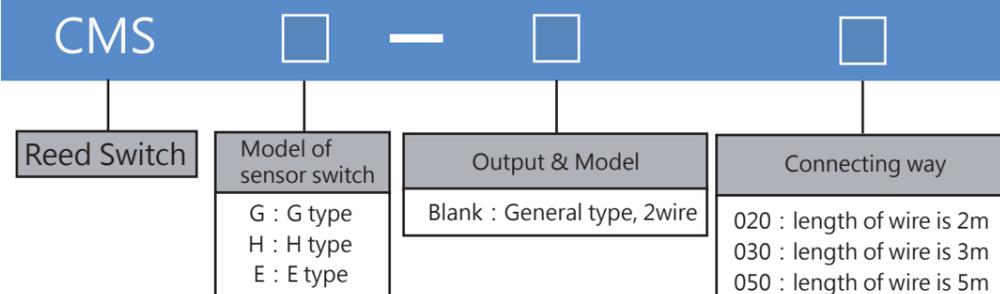
### Precautions

1. Do Not use the product in the places surrounded by explosive gas because it has no anti-explosion design.
2. Do Not use the product in the places surrounded by magnetic field. Otherwise, it may cause a malfunction or attenuate magnetism of the magnet fixed in the cylinder.
3. Do Not use the product in humid or aquatic places.
4. Do Not use the product in the places surrounded by oil or chemical substances.
5. External impact may cause a malfunction.
6. Voltage impulse may cause damage to internal electrical components.
7. Voltage impulse absorbing components shall be installed if the product directly drives relays or solenoid valves.
8. If a relay is used as a switch for power supply, an additional capacitance shall be connected between V+ and ground so as to suppress inrush current. (The capacitance is recommended to be greater than 100  $\mu$ F under 50 Volt.)

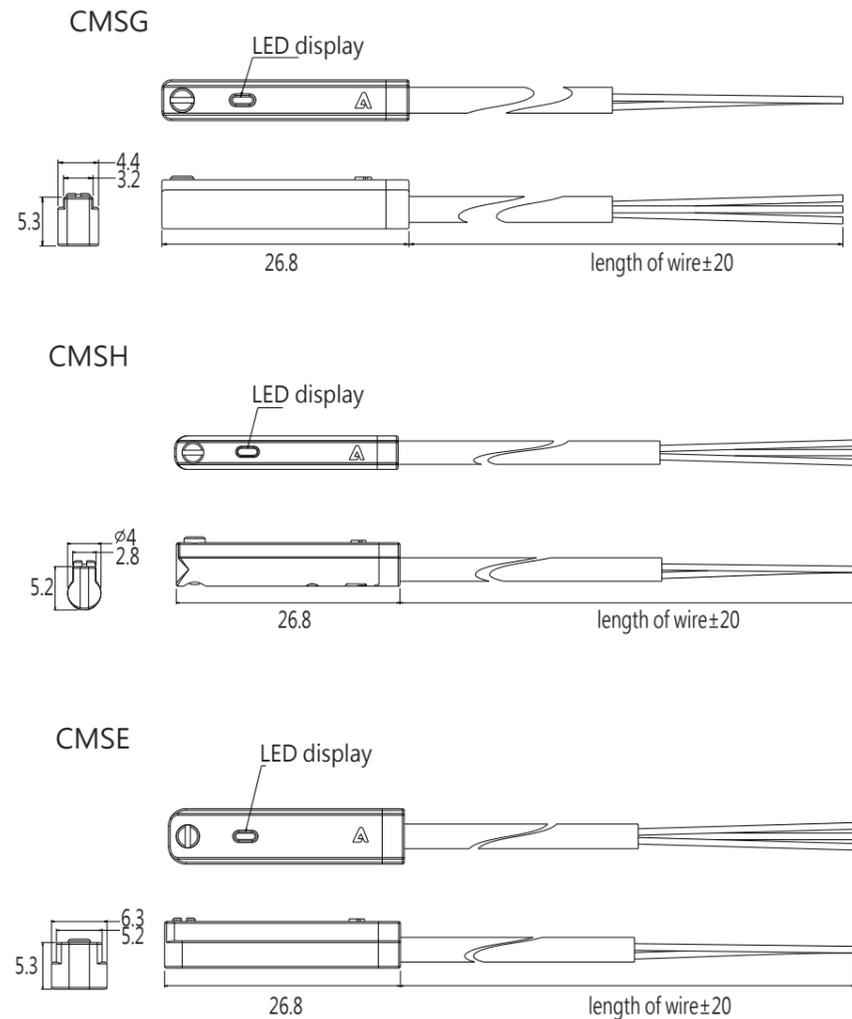
### Specifications

Model	two wire general type	two wire high temp. type
Operating voltage	5~240V AC/DC	
Max. Switching current	100mA	
Switching capacity	Max. 10 W	
Current consumption	No	
Voltage drop	2.5V Max. @100mADC	No
Leakage current	No	
Max. Switching Freq.	200 Hz	
Temperature range	-10~70 °C	-10~125 °C
Enclosure classification	IP65	
Protection circuit	No	

### Ordering code



### Dimension



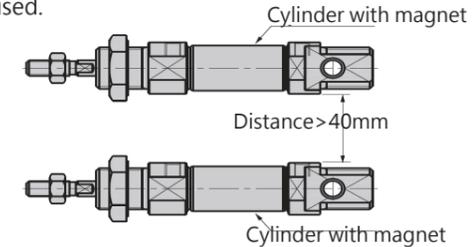
### How to correctly select switch

#### 1. Confirmation of specification

Load current, voltage, temperature and impact performance beyond the scope of specification in product sample are not allowed to be used to avoid poor action or damage of magnetic switch.

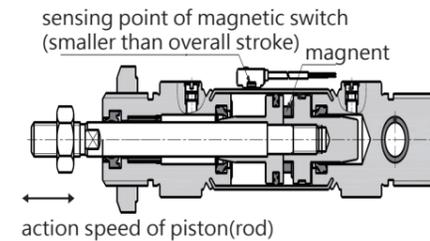
#### 2. Confirmation of distance

The distance between two cylinders shall be longer than 40mm to prevent wrong action caused by magnetic interference between two magnetic switches when the cylinders with magnet are horizontally used.



#### 3. Confirmation of action speed of the cylinder

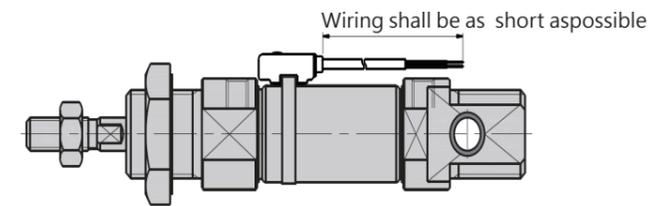
Magnetic switch is set in the middle position of the stroke. What shall be noticed is that no drive load action exists if the speed of piston is too fast and the action duration of magnetic switch becomes shorter under the situation the load is driven by electrical signal sent by magnetic switch when piston passes through. If the speed of piston is higher than the maximum allowable, speed, magnetic switch with time-extending function shall be selected.



#### 4. Confirmation of the length of wiring

Magnetic switch with contact

If the wiring that ends in load is too long, the service life will be shortened when the suddenly added current is increased as the switch is supplied with power.



#### 5. Confirmation of internal voltage drop of magnetic switch

Magnetic switch with contact

Switch with indicator

1. When switches are connected in series, as there is internal resistance in led, pay attention to the raising of the voltage drop (when n switches are connected in series, the voltage drop is n times of the voltage of one switch). If the switch is used under the specified voltage, all magnetic can work normally, but load may not act. What must be affirmed is that the load voltage shall be above the lowest operating voltage, which shall meet the following formula:

internal voltage drop of power voltage switch > loaded lowest operating voltage.

## Attention

- 1.Never directly use the load produced by overvoltage  
Magnetic switch with contact  
Switch with contact protection circuit or contact protection box shall be used in the situation that drive relay occurs overvoltage load
- 2.Situation that uses interlock circuit  
Machinery type protection function is set to prevent faults. Machinery signal is turned into switch signal through sensor, which is used together with magnetic switch signal and forms dual interlock mode, whose credibility is higher.  
Maintenance and examination shall be carried out termly to make sure the action of interlock circuit is normal.

## Additional and adjustment of sensor switch

- 1.To avoid machinery damage  
Switch shall not fall down or impact or bear over great impact(switch with contact shall be smaller than  $300\text{m/s}^2$ )when it is installed.Though the nomenclature of the switch is not damaged,its inside may be damaged and occur wrong action.
- 2.The wire of the switch shall not move with the action of cylinder  
The wire is easy to be broken,and if the force is added to the inside of the switch, the internal components of the switch may be damaged;therefore,the wire of the switch is absolutely not allowed to move with the action of cylinder.
- 3.Clamping torque shall be within the allowable scope when the switch is installed.If the clamping torque is excessively high,the installed screw,accessories and switches may be damaged.If the clamping torque is insufficient,the additional position of the switch may shift.
- 4.Switch shall be installed in the middle position of the action scope  
Action scope refers to the scope of the switch connection.Adjust the additional position of the magnetic switch as the piston is stopped in the center of the action scope.If the switch is installed near the two terminals of the action scope, which is the limit of the one-off the switch,the action of the switch is not steady.

## Wiring of sensor switch

- 1.Wire can not bear the repeated bend force and stretching force to prevent breakage.
- 2.Make sure that the power is supplied after connecting the load:for two-line type switch,the current will burn the switch instantly when the power is supplied if the load is not connected.
- 3.No poor insulation(joint with other circuit,poor earthing and terminal connection) in wire is allowed to prevent the damage to switch caused by the current passing through the switch.
- 4.It is not allowed to make a wiring with a parallel power line and high voltage line or use one wiring pipe to prevent wrong action of the magnetic switch caused by interference of control circuit.
- 5.Short circuit is not allowed in the load of the switch
- 6.Please notice that never make a wrong wiring  
Magnetic switch with contact  
DC24V switch with indicator has polarity. brown line or No. 1 terminal is "+", and blue line or No.2 terminal is "-"

## Maintenance and service of sensor switch

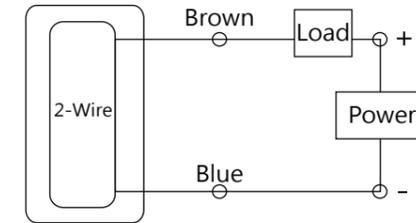
- Regularly maintain and examine the following point to prevent wrong action of the switch
- 1.The switch shall be adjusted to the right additional position to fasten the small screw when the installed small screw for tightening the switch is loose or the additional position shifts.
  - 2.To examine whether the wire has damage.The damage to wire will cause poor insulation.If there is damage,the switch shall be changed or the wire shall be repaired.

## Connection method

### A.2 wire reed switch type connection

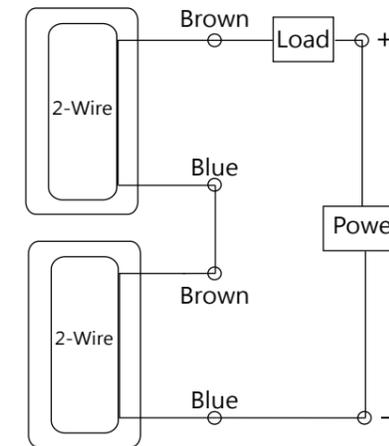
#### 1.General connection:

When connecting 2 wire switch,load must be connected in series with the sensor to prevent damage.Connect the brown wire in series with load with positive(+) and the blue wire to negative(-) of DC power source,otherwise the LED will not light.



#### 2.Series connection(And):

When 2 wire switches in series(AND) use,the voltage drop will be added up. (Typical V drop about 2.5V per switch)when series too many switches,excessive voltage drop will cause non-operation of the load.



#### 3.Parallel connection(OR):

When 2 wire switch in parallel(OR) use,the current flow to the switch will be shared when switches all in active.When connection too many switches in parallel use,possible concurrent operation will cause dim or off LED due to lower current distribution.The quantity of switches in parallel due to the current of load.

