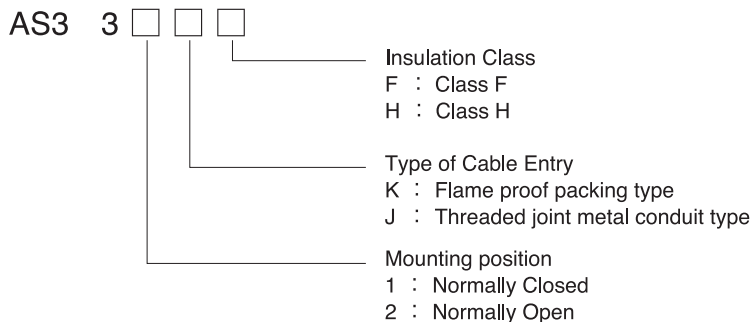


Explosion-proof (Exd IIBT4) Pilot solenoid valve (For YS series)	AS331/332 K/J F/H
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Thank you for selecting KONAN product.
Before installation and use of the products, please read this Service Instructions for proper handling.

CAUTION Safety instructions



Model No.	AS331KF / AS331JF	AS331KH / AS331JH	AS332KF / AS332JF	AS332KH / AS332JH
Construction	Explosion-proof type (Exd IIBT4)			
Rating	Continuous			
Voltage	AC100V 50/60Hz, AC110V 50/60Hz, AC120V 60Hz AC200V 50/60Hz, AC220V 50/60Hz, AC240V 60Hz DC24V, DC100V, DC120V			
Ambient temperature	55°C	60°C	40°C	60°C
Acceptance No.	TC16743	TC16744 (China) Please contact us. (Korea) 11-AV4B0-0196	TC16745	TC16746 (Korea) 13-AV4B0-0492
Installing series	2 port	YS301, YS201, YS211		YS302, YS202, YS212
	3 port	YS333, YS334, YS336 YS203, YS204 YS321, YS322		

Safety

Reference data : • JIS B9702 : Machine safety - Principles of risk assessment
• JIS B8370 : General provisions for pneumatic systems.

WARNING Following information has been obtained as a result of the risk assessment implemented on our product. Read this information carefully because it is important to ensure operating the system without trouble or accidents and prevent risks and damages to people using the product as well as those who are working around it.

1. Installation of solenoid valve

Only personnel with sufficient knowledge must implement installation and maintenance of the solenoid valve. (We provide training courses for the handling of explosion-proof devices. Contact our Sales Department for more information.)

2. Maintenance of solenoid valve

Before starting the maintenance, make sure to confirm that the system has returned to the safe place or it has been locked mechanically.

3. Location of solenoid valve

Using under the following conditions requires consulting us because such use calls for sufficient measures for safety.

- 1) Operating conditions exceed the limit of specifications.
- 2) Significant risks are nuclear power related facilities, vehicles or medical equipment, among others.

instructions for use

CAUTION Transportation

- 1) Avoid handling the product roughly although it is packed for transportation. It could damage or distort the solenoid valve, resulting in malfunction during operation.
- 2) Polyethylene plugs are used at the pipe connection ports in order to prevent contamination with dirt, dust or others during transportation or storing before installation.
- 3) Do not pull the lead wires of solenoid or hold them to suspend the solenoid during transportation. It could damage the lead wires, which could cause failure of operation or short-circuit.

CAUTION Storing

- 1) Location of installation
Move the product to the place of installation just before connecting pipes.
If it is stored at the place for some time, do not unpack the product and take care to protect it from the weather, dust or others.
- 2) Storing place
Do not unpack the solenoid valve when storing it as a spare component for more than one year.
The packing could be stuck after storing for an extended period of time.
It is recommended to practice a run-in or other adequate measures before starting normal operation.
In some cases they could be irreversibly damaged by aging, shrinkage, deformation or others.
You should consult us when using the product after storing it for a long time.

CAUTION Environment of installation

- 1) Vibration or impact
Since the solenoid valve is a considerably complicated device, any excessive impacts or vibration could cause malfunction, loosen locked sections or the valve with which the diaphragm was equipped shifts. When installing the solenoid valve, try to align the direction in which the acceleration becomes larger against the vibration or impacts, with the direction in which the solenoid valve can withstand effectively with the vibration.
- 2) Atmosphere
Care must be taken also on the atmosphere at the installation place.
It should be avoided places being exposed to sea breezes, corrosive gas, chemicals, sea water, steam, or the likes.

• For questions please contact the nearest Konan branch office.

Konan Electric Co., Ltd.		URL= https://www.konan-em.com/
Tokyo Branch Shiba-Sanesu-Wakamatsu Bldg. 7-8, Shiba 4-chome, Minatoku, Tokyo 108-0014, Japan Phone: 03-3454-1711 Fax: 03-3454-8699	Seibu Branch Momiji Hiroshima Hikarimachi Bldg. 12-20, Hikarimachi 1-chome, Higashiku, Hiroshima 732-0052, Japan Phone: 082-568-0071 Fax: 082-568-0072	
Osaka Branch Hankyu Terminal Bldg. 1-4, Shibata 1-chome, Kitaku, Osaka 530-0012, Japan Phone: 06-6373-6701 Fax: 06-6373-6740	International Operation Division 4-97, Uedahigashimachi, Nishinomiya, Hyogo 663-8133, Japan Phone: 0798-48-5931 Fax: 0798-40-6659	

3) Ambient temperature

Sufficient attention should be paid not only on the ambient temperatures but also temperatures of flowing air. When the cylinder is placed in environment of high temperatures, even if the solenoid is installed at a cold place, air exhausted from the cylinder could damage the packing, etc. of solenoid valve when the air flows through the solenoid valve, and resulting thermal expansion of internal parts could cripple its operation.

4) Temperature of fluid

Please note that there is not freezing enough at the time of 5°C or less in temperature of the fluid.

⚠ WARNING Caution for high temperatures

If you use the solenoid valve in the excited condition or continue to apply the power continually for a long period of time, the coil temperature will rise so much that the solenoid section cannot be touched with bare hand. Be careful not to touch such section accidentally. It is normal, however, for the solenoid valve. You can continue the operation carefree.

* In the event when the coil is burnt after operating beyond the allowable voltage range, for example, smoke or smell of burning insulating materials will arise.

⚠ CAUTION Wiring work

1) Applied voltage

Check once more the nameplate in order to apply the specified rated voltage.

Inadequate voltage could burn the coil or cause operational trouble.

It should also be checked if the voltage regulation is within the tolerance.

Using the product beyond the specified range could cause troubles such as the seizure of solenoid or others.

The allowable voltage range means that the product can be used in the range without problem with respect to momentary operations. It does not mean that it can be used always in this range.

2) Polarity of coil

The coil used on the product has no polarity.

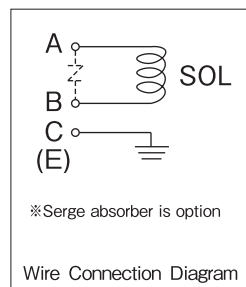
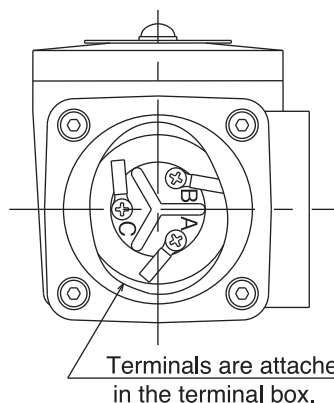
3) Cable specification

Please confirm whether to agree with the size of the cable that the size of the cable that tries to be connected displays in the product.

The size of the cable must use the one of 100°C or more in permissible temperature.

4) Wiring

Remove the cover of terminal box, please wire as following wire connection diagram.



5) Location of conduit tube

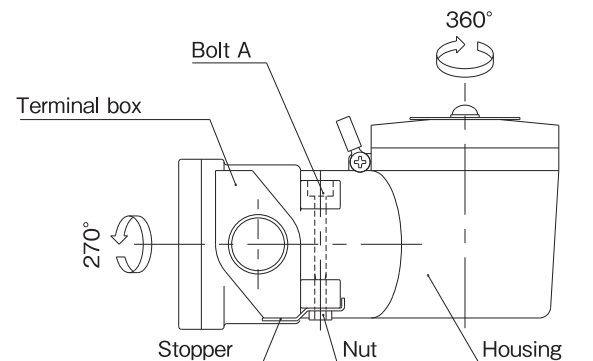
① The housing can be rotated as it is. The rotation angle is 360°.

② The terminal box can be rotated by 270° by loosening the bolt A.

③ Since a nut with a stopper is loosened together with a bolt "A", tighten it again after turning the terminal box.

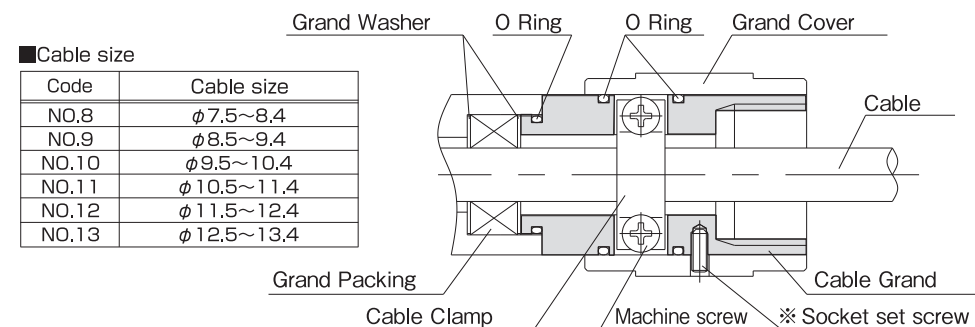
④ Don't rotate the terminal box without loosening bolt A.

⑤ After the rotation, please make bolt A and nut with stopper tight.



⑥ Flame-proof packing type

Before wiring, remove the socket set screws first.



⑦ Threaded joint metal conduit type

The conduit entry size of the cable is G1/2 (*1). Use a suitable cable gland which obtained certification of the flameproof enclosure (d).

(*1) The size of explosion-proof type for China is 1/2NPT.

⚠ WARNING Maintenance

Operating conditions of solenoid valve widely depending on users.

It also depends on users whether it is necessary to employ the preventive maintenance or conventional (posterior) maintenance. Methods of maintenance also vary naturally depending on the circumstances of use or criticality of facilities. From these reasons we propose the replacement cycle from the viewpoint of preventive maintenance.

(Note.1)

Moreover, it will resolve internal based on the factory explosion-proof electricity equipment guide for the explosion-proof equipment, and the one by train and train our being taken of this product be the exchanges such as checks and parts.

I will recommend the exchange by the final product besides.

Please consult about training and training separately.

Hereafter, the content (note 1) is based on the condition.

1) Refer to the instruction manual concerning the maintenance and inspection.

2) Please confirm the power supply has fallen before it maintains it.

3) Neither water nor dust, etc. must enter in the housing and the terminal box while maintaining it.

Moreover, the wound must not adhere on the bonded surface for the explosion-proof performance maintenance.

4) Please tighten loosened bolts uniform and strongly after it maintains it.

CAUTION: Please tighten the detent tool firmly with the nut.