CKD

SM－12075－A

INSTRUCTION MANUAL

DRAIN SENSOR
DBS1006

- Please read this instruction manual carefully before using this product, particularly the section describing safety.
- Retain this instruction manual with the product for further consultation whenever necessary.

AUG-07
CKD Corporation

Table of Contents

INTRODUCTION

Thank you very much for purchasing our drain sensor, DBS series.
This manual explains basic points of installation, operation, etc. to have our drain sensor perform at their best. Be sure to read this manual before using your dryer.
Keep this booklet handy for quick reference.
Please be advised in advance that there may be some discrepancies between products and contents of this book due to improvement of specification after printing.

Safety instructions

This manual is intended for personnel who are familiar with basic knowledge about electricity, compressed air, fluid, piping, and refrigerant. CKD shall not be held responsible for troubles or accidents that result from installation, operation or repairs made by personnel who are not qualified or trained for the above subjects.
Improper handling may cause the machine not to be operated at its maximum performance level or lead to accidents or personal injury.
Always confirm the machine specification and operate the machine in the correct manner designated by CKD.
This machine is equipped with various safety and other protective devices.
However, improper handling of the machine may cause personal injury and/or damage to the machine. Read this operation manual carefully and fully comprehend its contents before operation.
Read the contents of the following warning labels, as well as cautions stated in the operation manual, and follow the instructions contented therein.
Keep this operation manual near the machine where all concerned personnel have easy access to it.

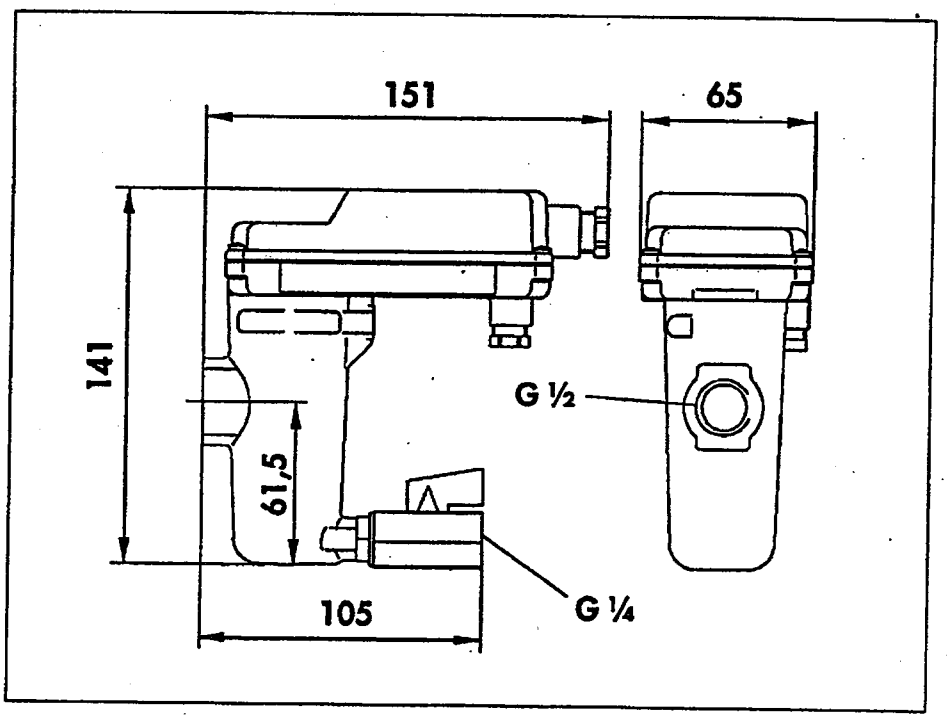
This machine is designed for industrial use. Always carefully handle the machine in the correct manner.

1. PRODUCT

1-1.Specifications

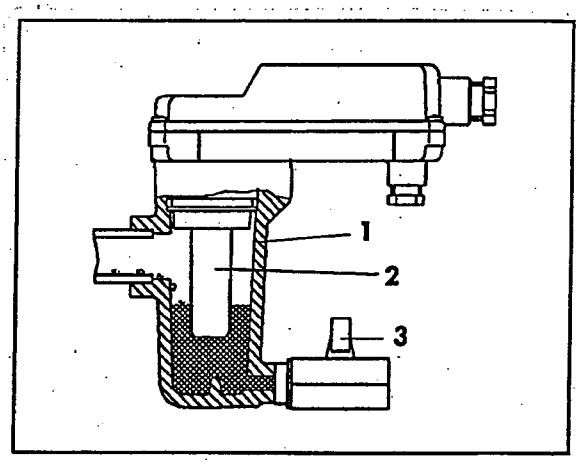
Item \ Model coding		DBS1006-15-AC200V
Port size	Drain inlet	G1/2
	Drain outlet	G1/4
Working conditions	Working fluid	Drain in the compressed air
	Ambient temperature ℃	1 to 60
	Working pressure gauge MPa	0 to 1.6
Electrical spec.	Power supply	Single phase AC200V 50/60Hz
	Max. power consumption	2.0VA
Alarm contact capacity		<AC250V/<0.5A >DC12V/>50mA
Protection structure		IP65
Mass kg		0.65

1.2 External dimensions



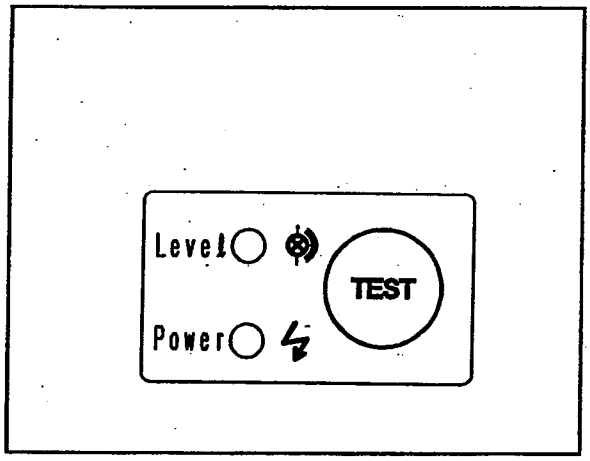
1-3. Functional explanation

Drain collects in a container (1).
And if the inside of a container (1) is filled, alarm sound is emitted, red LED lights up, and an alarm signal (alarm mode comes out.
A drain cock (3) is usually fastened.
Drain which collected from the drain cock (3) is made to discharge manually at the time of alarm mode. If discharge finishes, alarm mode returns to the state of end origin.
Since this article is not a drain discharger, it does not carry out drain discharge automatically. This is product which detect the existence of drain.



1-4. Electric functional explanation

- In the state of usual [power supply is on.], green LED is on.
- When invasion of drain is detected, alarm sound is emitted, red LED lights up, and an alarm signal (alarm mode) comes out.
- If a test button is pushed in usual state, it changes alarm mode and red LED lights up.
- If a test button is pushed in alarm mode, it changes usual mode and red LED puts out.



2. CAUTIONS

2-1 Cautions for safety

(1) Do not exceed max. working pressure 1.6MPa.

Be sure to perform maintenance and repair, where it is in a non-pressure state and the power is turned off.

(2) Install by the piping material according to a working pressure.

Tube fitting should pipe firmly. Outlet pipe should pipe certainly so that splash starts neither people nor a thing.

(3) Inlet piping part should pipe by installing using a spanner.

Spanner dimension : 32mm

(4) Those who are experienced and knowledgeable need to perform electric wiring.

(5) Do not use it at a place with a possibility of freezing.

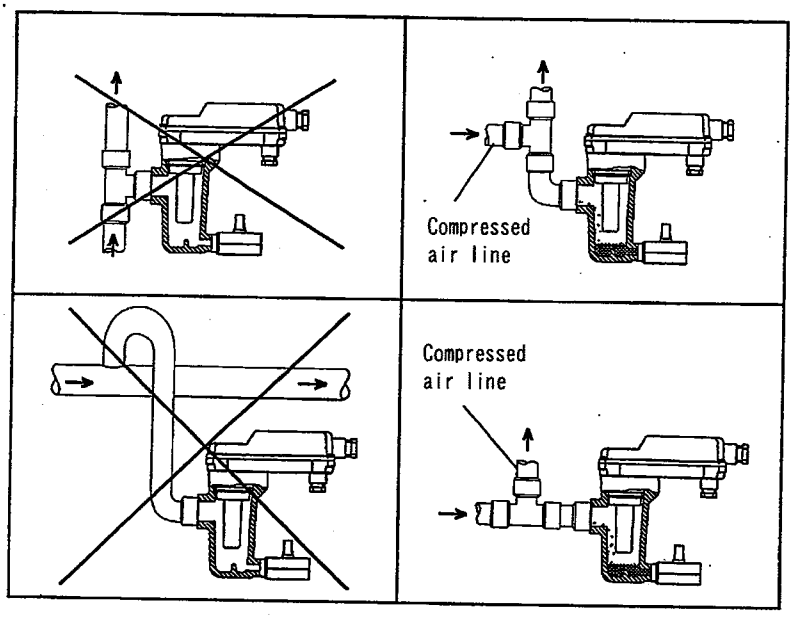
(6) Drain sensor works, only when electricity is supplied.

(7) Use at dangerous places (atmosphere with the possibility of explosion etc.) cannot be performed.

(8) Use only pure replacement parts.

3. INSTALLATION

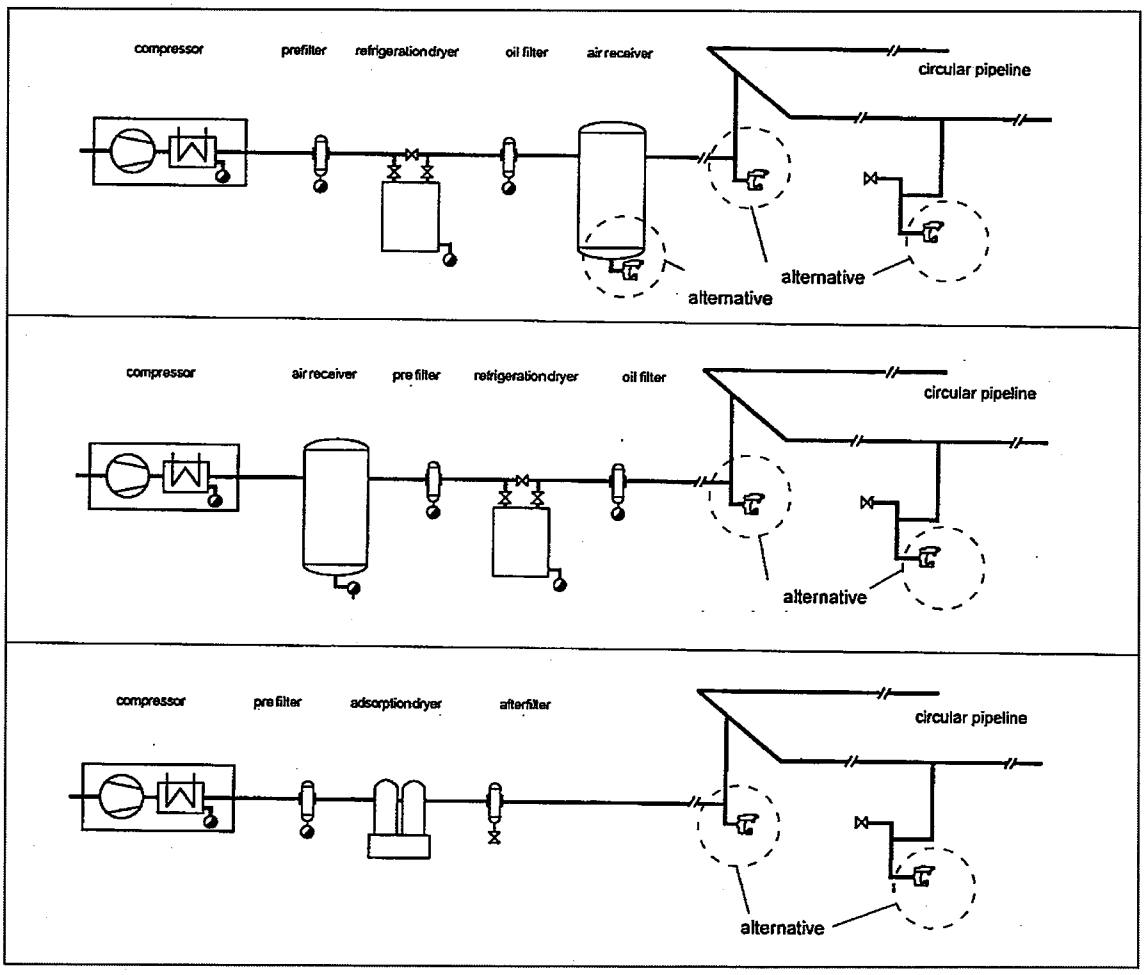
3-1 Piping



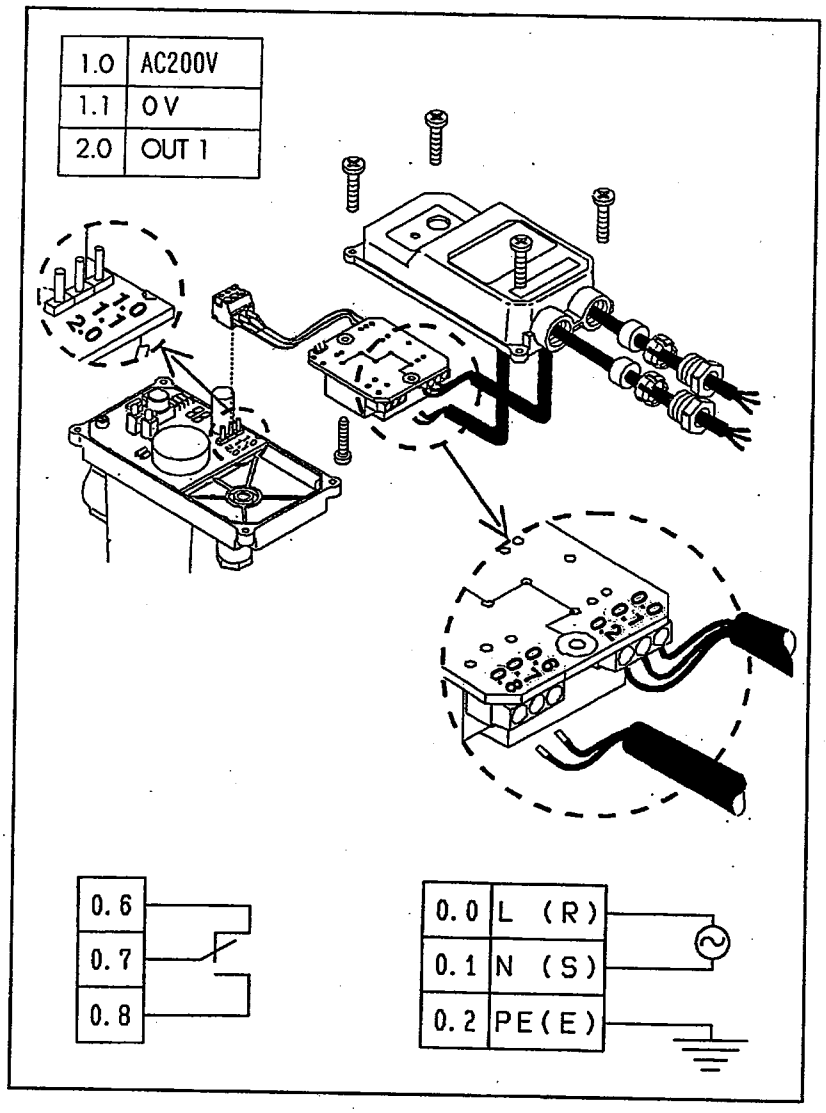
Give inlet piping as 1/2 or more.

Install by using tee piping etc..

An example is shown below.



3-2 Wiring



- Lift off cover removing the 4 screws.
- Take power supply board out of the cover after removing the screw.
- Guide cables for poer supply and potential-free contact through screwed cable fittings.
- Power supply line is connected. (0.0, 0.1, 0.2)
- Non-voltage point of contact is connected.(0.6, 0.7, 0.8)
- After pulling cable, power supply pipe is fastened firmly.
- Screw power supply board with screw into cover.
- Plug ribbon cable into control PCB.
- Put on top of cover and tighten the 4screws.

Note

- Power supply board is in a reverse position(upside down) in the cover.
- Cable should use 0.75mm^2 and ϕ 5.8 to 8.5mm of outsides.

4. MAINTENANCE

4－1 Troubleshooting

	Causes	Disposal
LED does not light up.	・ The power supply has fallen. ・ The defect of a power supply board. ・ The defect of a control base	・ Check power supply. ・ Check voltage 0.0-0.1-0.2 of power supply board terminal(※). ・ Check ribbon cable and wire connection.
It does not become alarm mode even if it pushes a test button.	・ The defect of a control base	・ Check base.

(※)Check voltage

0.0-0.1	AC200V
0.0-0.2	AC200V
0.1-0.2	AC200V