

# FLOW SWITCH

## MANUAL

Revision No. 001 (2022)

## DFS SERIES



 **DONG SUNG SENSORS Co., Ltd.**

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※ Please **READ** carefully  
and  
make sure you **UNDERSTAND** this manual  
for safely usage.

- This manual describes how to install, adjust and inspect DFS series product.
- Keep this manual in an easily accessible, immediately.
- The specification of product mentioned in this manual may not be satisfied by the condition of your environment. Please check and consider carefully before using.
- The contents of this manual could be changed any time due to improvement of product. It will be updated quarterly.
- Please contact Dong Sung Sensors sales office department via email or phone for further questions.

## WARRANTY & DISCLAIMER

1. Dong Sung Sensors warrants the product against defects in materials and workmanship under normal use for a period of ONE(1) YEAR form the date of purchase.
2. Dong Sung shall not be responsible for the following.
  - 1) Damage arising from improper use or inspection and failure to follow manual instructions.
  - 2) Repair is done by the person who is not from Dong Sung.
  - 3) Improper parts are used and replaced.
  - 4) Damage is occurred by device or machine not from Dong Sung.
  - 5) Do not include fire, earthquake, tsunami, lightning, war, radioactive pollution, acts of Government, compliance with law, regulation and order.
3. The warranty only covers the damage of products. The secondary and third kind disasters are not covered by Dong Sung Sensors.
4. This Limited Warranty applies only to Dong Sung products, that must be identified by "DSS" mark on to them.

## Unpacking

- Our unit has been thoroughly inspected and packed at the factory to prevent damage during shipment.
- Thus, please unpack carefully and visually check the product's exterior for damage.
- Do not place in piles.

## FRAGILE

- Please carry the sensor very carefully.  
Sensor may not work properly if you drop or damage on it.
- Do not remove the Sensor discretion.  
This may cause damage and malfunction.

## 1. INTRODUCTION

DFS series are designed to detect and control the flow of liquid in the system.

## 2. FEATURES

- Widely available with narrow space in complicated environment.
- Stable contact output.
- Compact design.
- Semi-permanent product's life span.
- Easy installation (simple socket mount.)

## 3. OPERATION PRINCIPLE

As liquid flows along the pipeline, liquid pushes the paddle that send signals to the system, telling it to handle the flow.

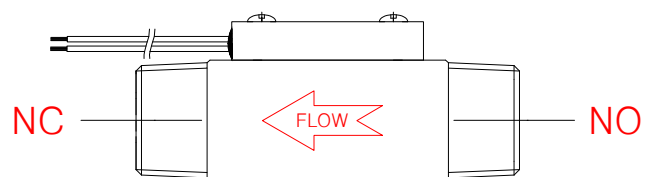
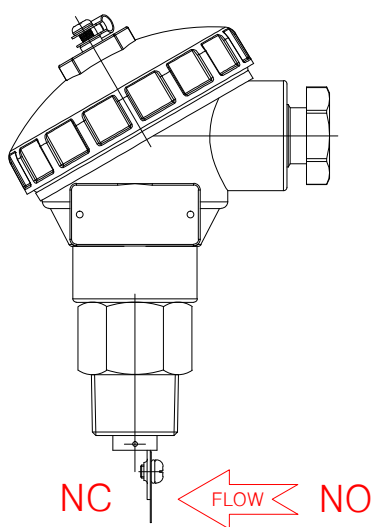
## 4. Specification

- Measure Object: Liquid only
- Output Signal: Reed Switch Contact (S.P.S.T)
- Switch Rating: AC 220V, 0.2A, 50VA
- Contact life-span:  $2 \times 10^5$  cycle.
- Operating Condition:
  - Temp: Max 140°C
  - Humidity: Max 80%RH
  - Pressure: Max 20Kgf/cm<sup>2</sup>
- Mounting: Socket Mount Type

## 5. Installation

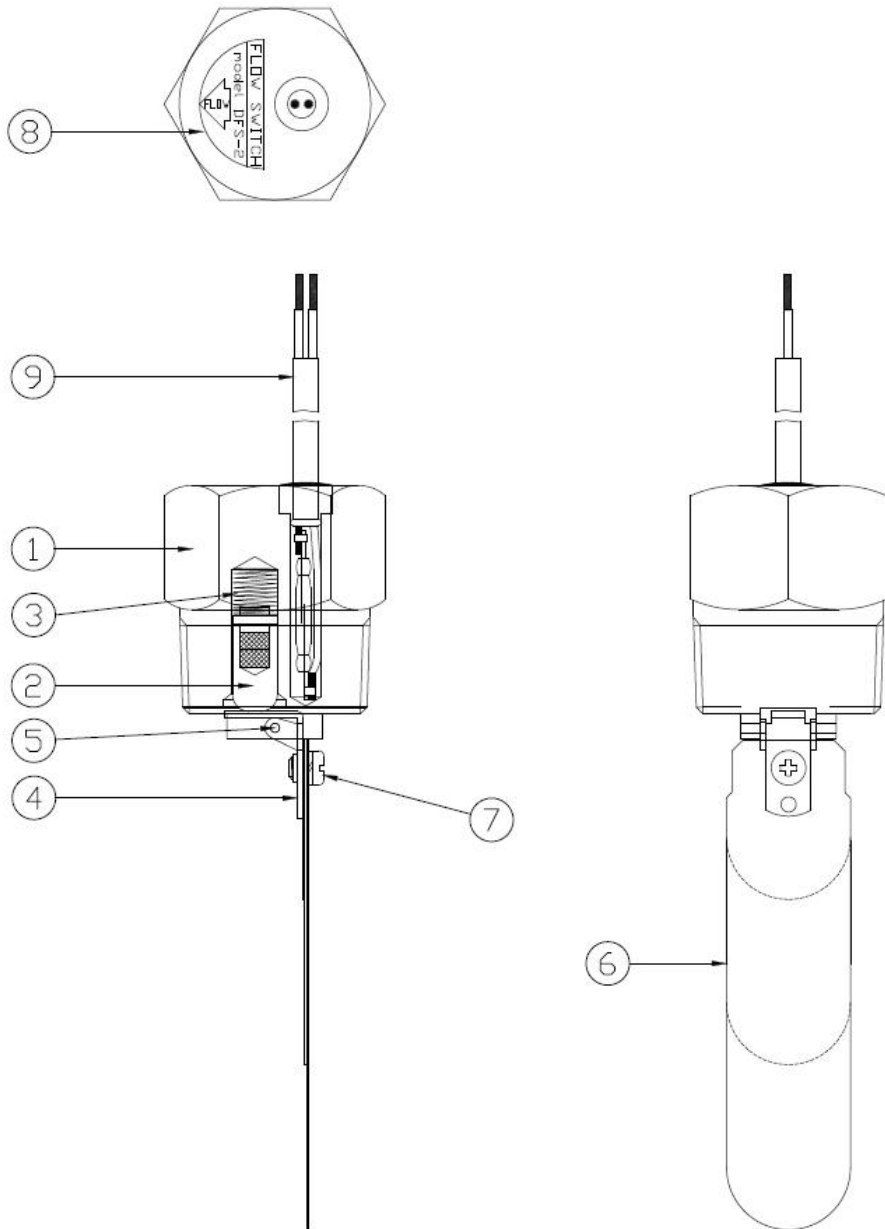
Caution in installation,

1. Check if the paddle combined well with paddle shift.  
Tighten the screw if not.
2. The length of socket screw must be longer than  $15\pm 1$ mm.
3. Secure the space of five times of inner diameter of installing.
4. Match the arrow mark on housing cover with flow direction.
5. Sensor must be installed perpendicularly on horizontal pipeline.
6. To adjust setting valve, do not touch anything except spring screw.
7. Please be aware that separate terminals are provided  
110V / 220V AC





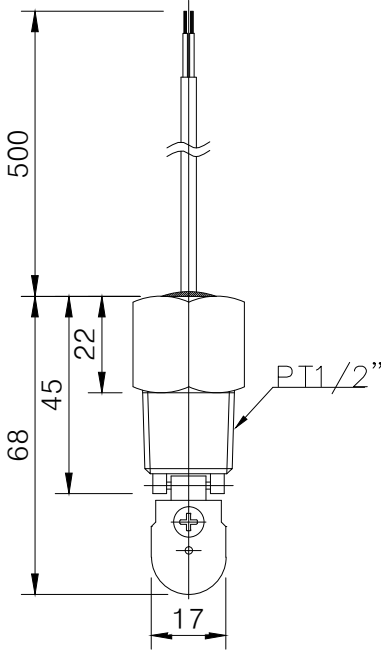
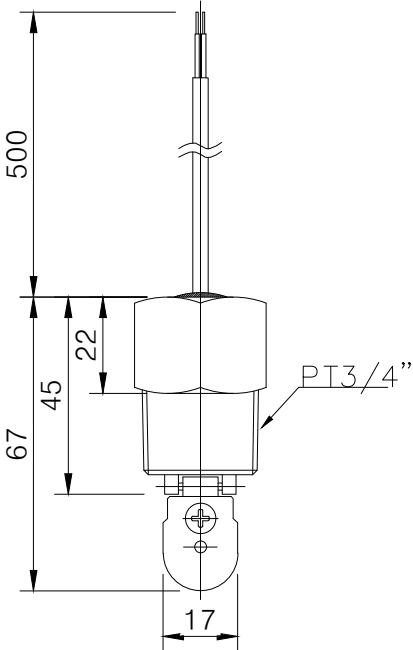
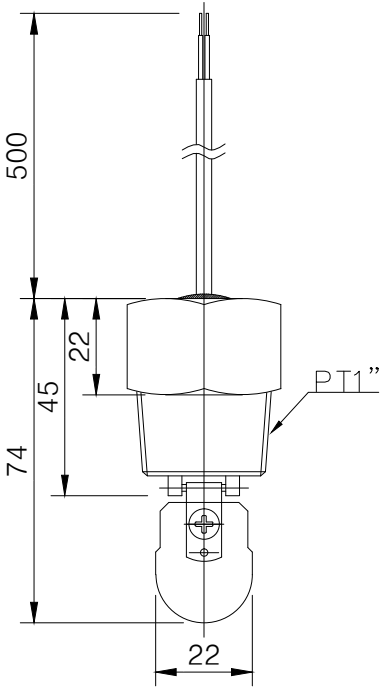
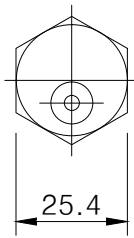
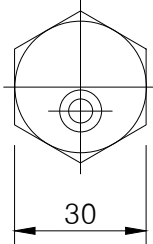
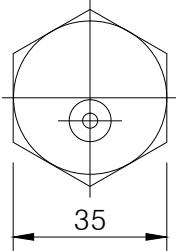
## 6. Part Name



No.	Part Name		
1	Body	6	Paddle Plate
2	Magnet Housing	7	Screw Bolt
3	Spring	8	Name Plate
4	Lever	9	Lead Wire
5	Spring Pin		

# 7. Dimensions

► Sensor

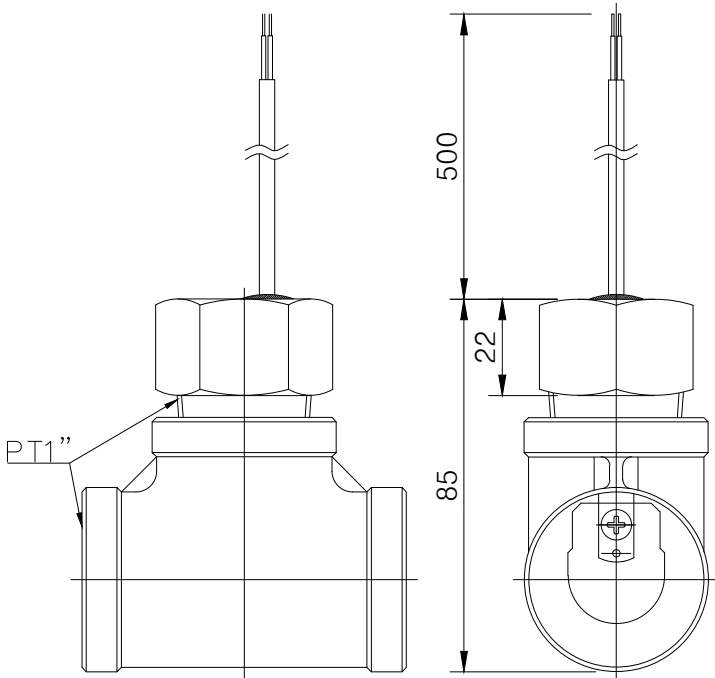


DFS-2-1SR  
DFS-2-1BR

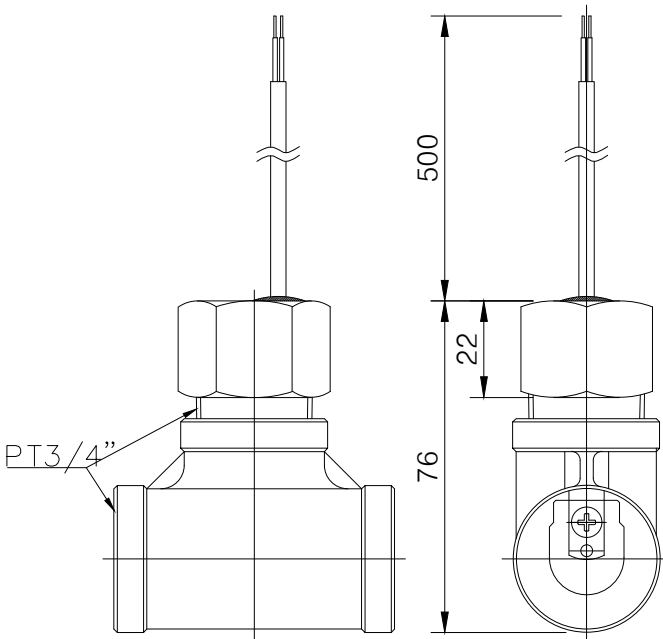
DFS-2-3/4SR  
DFS-2-3/4BR

DFS-2-1/2SR  
DFS-2-1/2BR  
DFS-2-1/2PB

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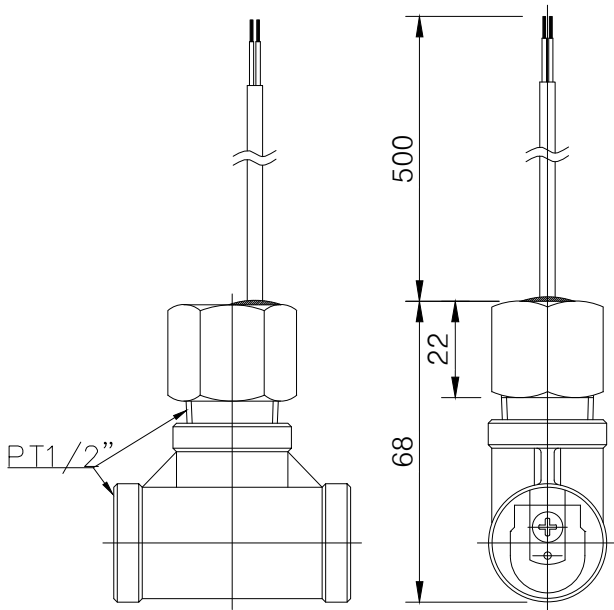


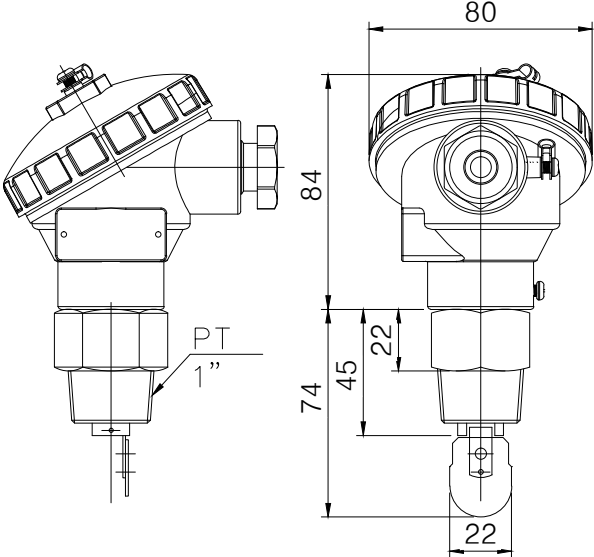
DFS-2-1SRT  
DFS-2-1BRT



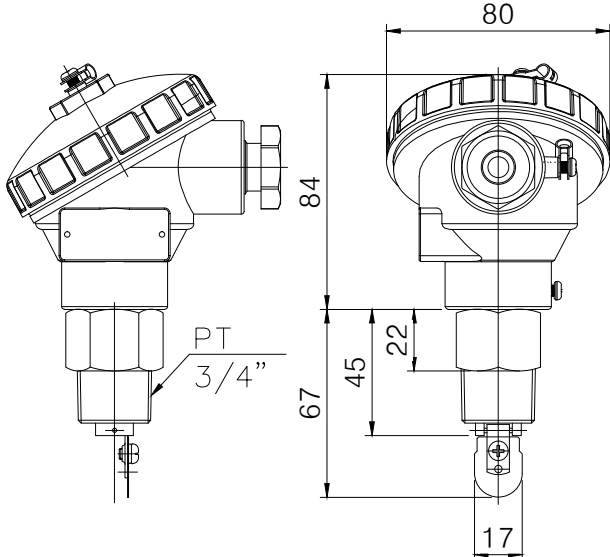
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DFS-2-3/4BRT

DFS-2-1/2SRT  
DFS-2-1/2BRT



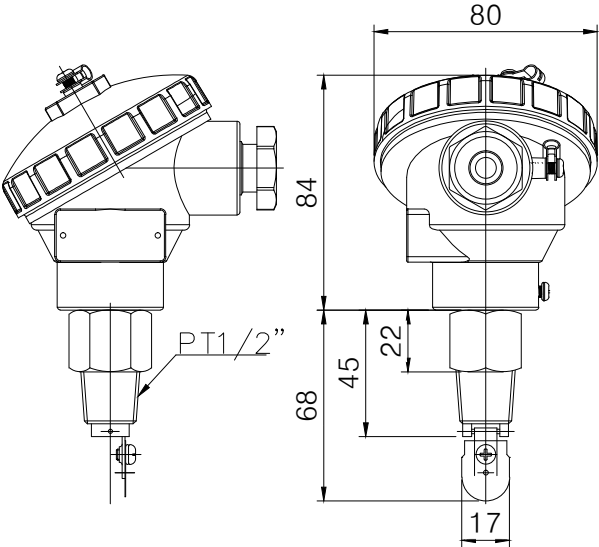


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DFS-2-1BRH

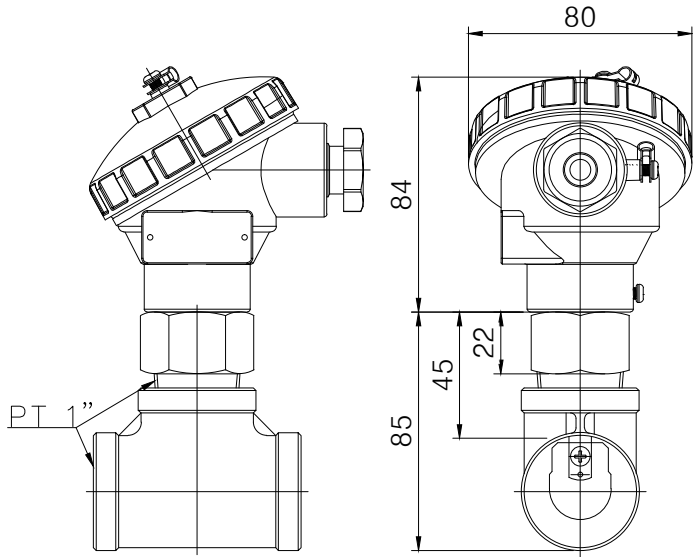


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DFS-2-3/4BRH

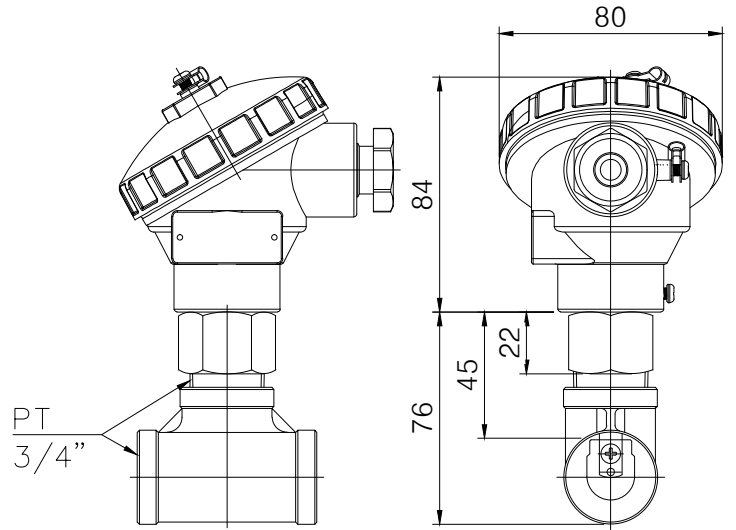
DFS-2-1/2SRT  
DFS-2-1/2BRT



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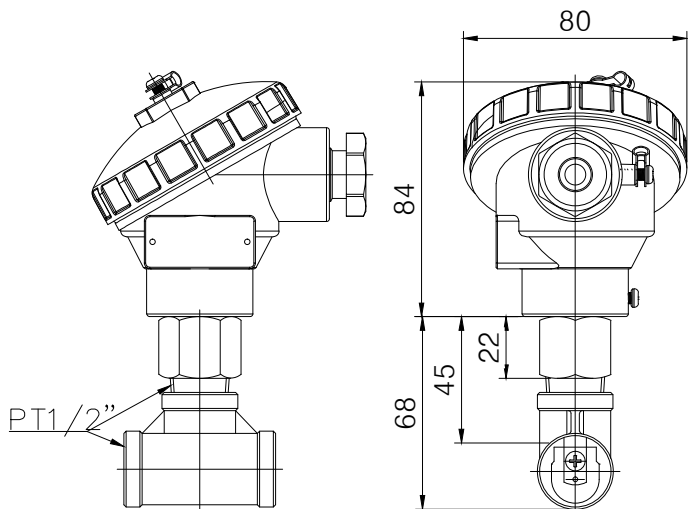


DFS-2-1SRHT  
DFS-2-1BRHT

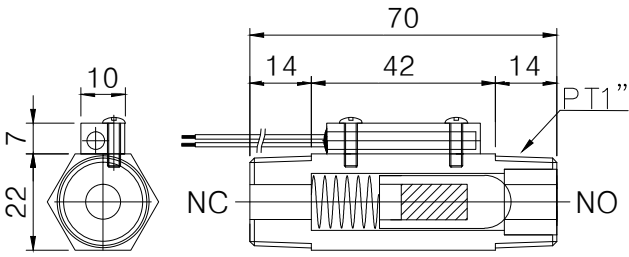
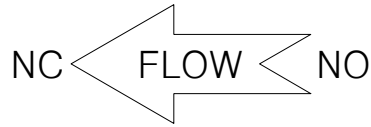


DFS-2-3/4SRHT  
DFS-2-3/4BRHT

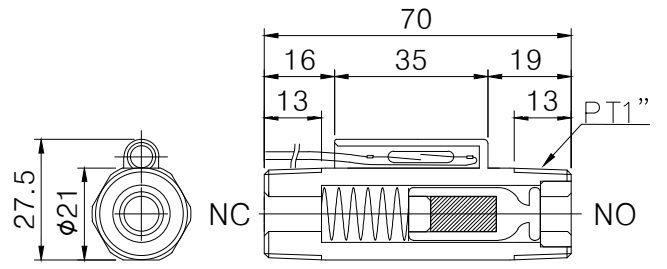
DFS-2-1/2SRHT  
DFS-2-1/2BRHT



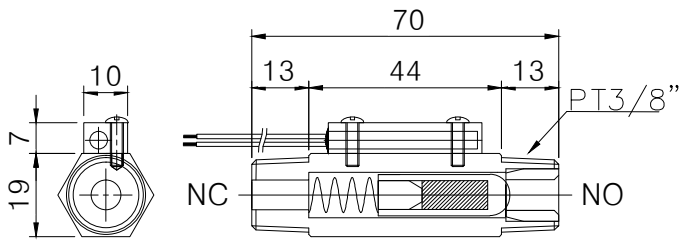
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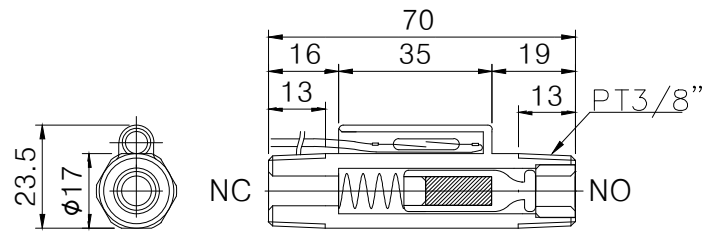
DFS-6-1SR



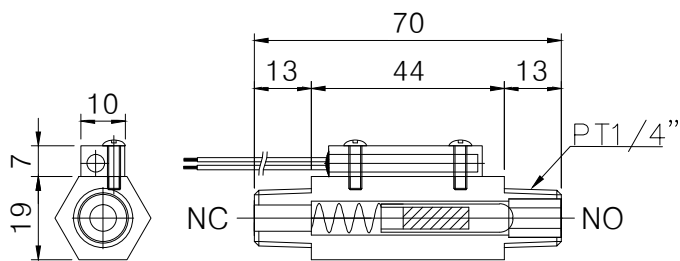
DFS-6-1PC



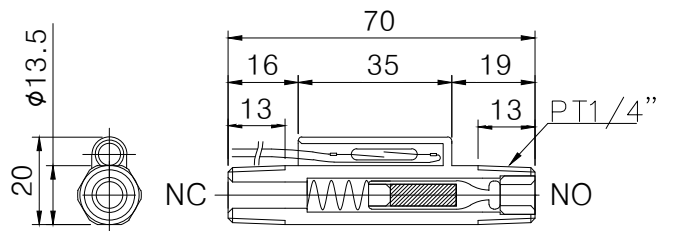
DFS-6-3/8SR



DFS-6-3/8PC



DFS-6-1/4SR



DFS-6-1/4PC

## 7. maintenance

- Check the combined status between paddle and paddle bracket, and please fasten tight bolt.

For any inquiries, please contact us via email.