

GE-512 Differential Pressure Switch

The Differential Pressure Switch is a new type flow switch, when the water flow (differential pressure) in system rises up or falls down to one set value, it will output a warning or sent switch-off signal to automatic control system. And it could also be used to indicate the status of pump or water filter.

It could avoid the shortcomings of annual inspection or changing target flow switch for water chiller unit so it could be applied widely in the water protection, status feedback of pump and by-pass control of differential pressure in evaporator and condenser in medium and large sized water chiller unit.

Features

Type	GE-512
Max Voltage	250VAC
Max Current	10A/3A
Output	On or Off in Option (SPDT)
△P1 Setpoint	
△P1 Return Pressure	
Max Stactic Pressure	10 bar
Max Differential Press	5 bar
Work Medium	Water or Gas
Work Temperature	-20~93 C Degree
Windage	±1%
Protection Grade	IP54
Cable	0.75mm ² ×2; 2000mm
Connector	1/4" SAE (7/16"-20UNF)

Accessory and Optional Device

- Nut 2pcs, Fig 1
 - 1/4"SAE Connector 2pcs, Fig 1
 - 1/4"SAE—G1/2" Connector 2pcs, Fig1
- 注: Standard Equip is 2 pcs Nut, others is optional Equip



Fig 1 Nut

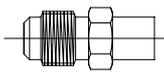


Fig 2 1/4"SAE Connector

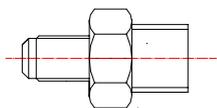


Fig 3 1/4"SAE - G1/2"

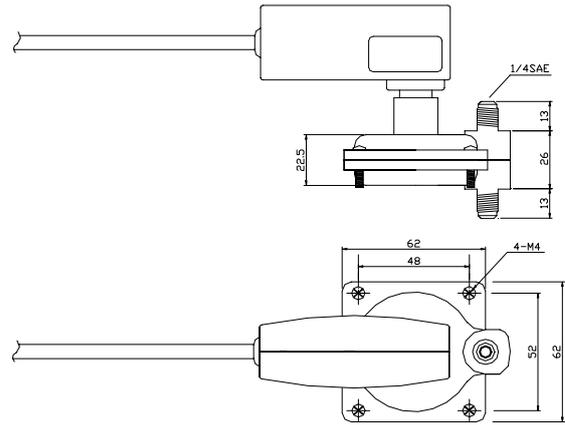


Fig 4 Outside View of GE-512 Position

It is very important for the install position of switch. Suitable position is of advantage to the accuracy of DP Switch. The connector should be close with the Water Inlet of Heater Exchanger or Pump or Water Filter, making the Water Input as the position of measure pressure. As Fig 5.

In view of the Low Temperature, to avoid the frost crack of connect pipe, if necessary, should consider the Keep Warm of switch and pipe.



In any crisc, not try to open the cooper body

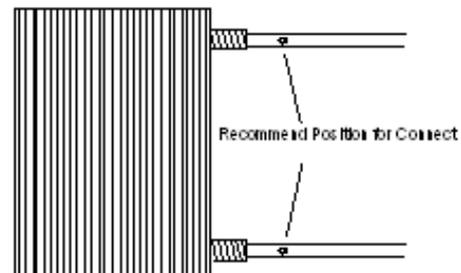


Fig 5 Position for Connect

Install

- 1、 Make Holder for Switch, Fig6。

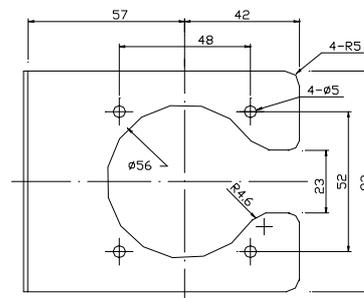


Fig 6 Fixed Holder for DP Switch

- 2、 Drill in pipeline, Fig 5。
- 3、 Put the switch on the holder, make the 1/4" copper pipe to connect the switch with 1/4"SAE connector.

- 4、 Install the switch on the holder vertically, the junction box should stand right above of cooper body; if need horizontal or inversion installation, please decler, Fig8 is 3 ways to Installation
- 5、 The port with "+" mark should connect with High Pressure Terminal(Water Input), the port with "-" mark should connect with Low Pressure Terminal(Water Output).
- 6、 Connect Pipe should be solid connected with 1/4"SAE Port,using 15mm rubber insulated board and insulated pipe to keep heat, or use heating wire to keep warm by wrapping evenly.
- 7、 Install Process.

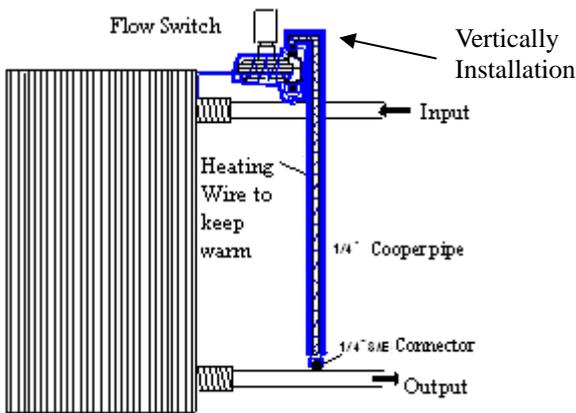


Fig 7 Installation Sketch Map

8. To measure the Low Pressure drop or Straight Pipe, need to add orifice plate or balance valve to produce pressure drop in the pipe. A.YITE GROUP could supply adapter for low pressure drop or straight pipe, as Fig 8

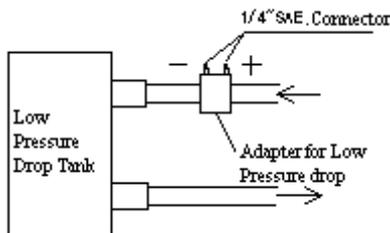


Fig 8 Sketch Map for Low Pressure Drop System

Wire Connection

- 1、 At first, should make sure, no mistake about the output. If not decler beforehand, this flow switch will have 2 cable, connecting with Output N.O.; If need Output N.C, just open the connection box, change the wire from N.O to N.C. For the reliable, please decler your demand to A.YITE GROUP before produce. Fig 9 The wiring Diagram of connection box.

- 2、 Connet output with control loop, Max Current forResistive Loading is 10A, Inductive loading is 3A

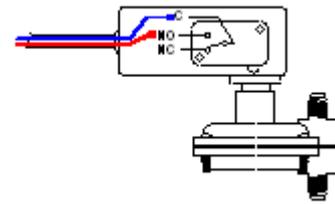


Fig 9 The Wiring Diagram of Conncion Box

Modify and Test about Chiler

- 1、 Before test and modify, must make sure Air Removal and Fill Full Water, preventing cavitation.
- 2、 When pump working, differential pressure switch can not reset, please check the water system resistance out of chiller, if too big, actual flow is small than 80% rated flow. If cavitation, the unit can not work normally, it is normal phenomenon, because the flow is not enough.
- 3、 If other question, please contact with the Engineer of [A.YITE GROUP](http://www.ayite.net). Email: support@ayite.net