

A11D 系列低温断路控制器

1. 应用

A11D 系列低温断路控制器工作于单刀双掷模式。典型应用包括：低温条件下用于保护热交换器、表冷器以及液体工作管路为避免过冷或结冰。该控制器结构紧凑、性能可靠，并且具有回差固定的可调温度设定点。

2. 结构

感温部分为内充有蒸汽的毛细管, 主体部分为带有可调旋钮的壳体, 毛细管被剪断将直接导致本设备不可修复性损坏。

3. 工作模式

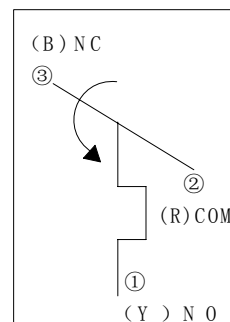
当感温毛细管的任何 200mm 长部位温度下降到刻度盘所设置的温度点时, 内部开关断开, 直到温度上升到比设定温度高出 2.5℃ 以上, 内部开关才重新接通。

4. 产品规格

型号	开关动作	温度范围℃ 断路	回差℃	毛细管长度	感温极限℃
A11D-3	单刀双掷	1.0~7.5	2.5~3.5	3m	80
A11D-6	单刀双掷	1.0~7.5	2.5~3.5	6m	80

5. 安装

将控制器安装于被控制环境的平均温度的墙面上。不要安装在有意外温度影响的冷、热源附近。不要安装在露天墙壁上或者能使感温毛细管超过 80℃ 的环境中。A11D 可以安装在线槽内或者通过壳上的安装孔用螺钉固定在平面上。



单刀双掷端子排列

温度低于设定值
2-3 断开
1-2 接通
R : 红
B : 蓝
Y : 黄
COM : 公共端
NC : 常闭
NO : 常开

不可将控制器的感温毛细管弄扁或形成死弯。毛细管凹陷会改变原来的标定结果, 会使动作温度低于刻度盘设定值。(见图 1)

6. 注意

在凸凹不平的墙面上安装时, 只用顶部的两个安装孔固定。一旦在凸凹不平的墙面安装而用了四个安装孔固定, 这很可能导致壳体变形从而影响标定值和动作。

7. 接线

所有电气连接都要用铜导体并且要遵照 NEC 标准和地方规定。按下列步骤进行接线:

- (1). 松开上盖上的螺钉, 取下上盖。
- (2). 从下面的过线孔将导线穿入。
- (3). 将导线分别紧固压在相应的端子上 (见图 2)。
- (4). 扣好上盖, 安好螺钉。

8. 注意

接线之前一定要切断电源, 以免造成电击或设备损坏。
控制器毛细管应安装于表冷器、加热器的背风面。

9. 额定功率

电源电压(VAC)	125	250
无感负载电流(A)	8	5
有感负载电流(A)	6	4

10. 特别说明

由于产品不断改进, 本说明书电气连接图仅供参考, 详细的电气接线图印于产品本身。

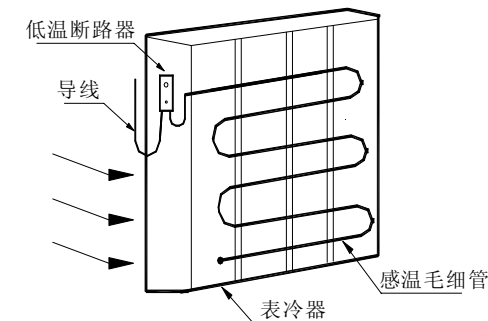


图 1 安装示意图

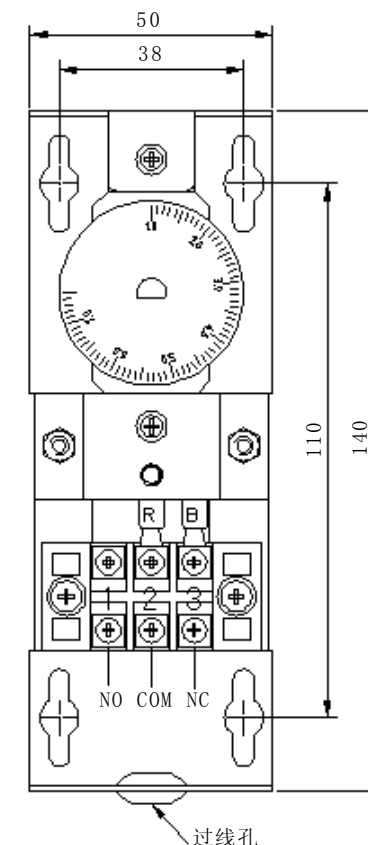


图 2 安装尺寸及接线图

A11D Series Low Temperature Cutout

Control

1.Application

A11D Series low temperature cutout controls are available with SPDT contact action. Typical applications include the sensing of low temperature conditions to avoid overcooling or icing of hydronic coils, cooling coils and liquid handling pipes. The controls are compact and sturdy, and have an adjustable temperature set point range with a fixed differential.



2.Operation

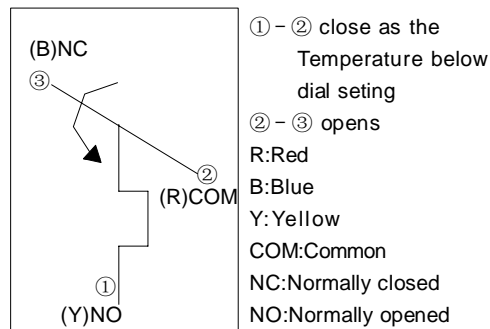
When the temperature drops to the dial settings, the switch circuit opens, and does not close until the temperature rises to 2.5°C higher than the dial settings

3.Specifications

Code Number	Switch Action	Range°C Cutout	Diff °C	Sensing Element	Max. Capillary Temp. °C
A11D-3	SPDT	1.0~7.5	2.5~ 3.5	2mm x 3m	80
A11D-6	SPDT	1.0~7.5	2.5 ~3.5	2mm x 6m	80

4.Installation Mounting

Mount the temperature control on a wall where it will be exposed to the average temperature of the controlled space. Do not mount where it will be affected by unusual heat or cold. Do not mount on an outside wall or where temperature at the capillary exceeds 80°C. The A11D may be mounted to the wiring conduit or to a flat surface which screws through the holes provided in back of the case. Do not dent the sensing coil of this temperature control. A dent will change the calibration and cause



A11D Series Terminal Arrangement for SPDT

the temperature control to cycle at a temperature lower than the dial setting.(see Fig. 1)

5.Note

On rough or uneven mounting surfaces, use the top two mounting holes only. When the temperature controls are mounted on rough or uneven surfaces using screws in all four holes, the case can be twisted enough to affect the temperature control's calibration and operation.

6.Wiring

Make all wiring connections using copper conductors only, and accordance with the National Electrical Code and local regulations.

To make wiring connections, proceed as follows:

- (1). Loosen the cover screw and remove the cover.
- (2). Insert the wire leads through the conduit opening.
- (3). Make wiring connections to the screw type terminals. (see Fig. 2)
- (4). Replace the cover and screw when wiring is completed.

7.Note

Disconnect the power supply before wiring connections are made to avoid possible electrical shock or damage to equipment.

8.Electrical Ratings

Motor Ratings VAC	125	250
Non-inductive Load A	8	5
AC Full Load A	6	4

9.Special Note

As the products are improved constantly, the manual electrical connection diagram for reference only, detailed electrical wiring diagram was printed on the product.

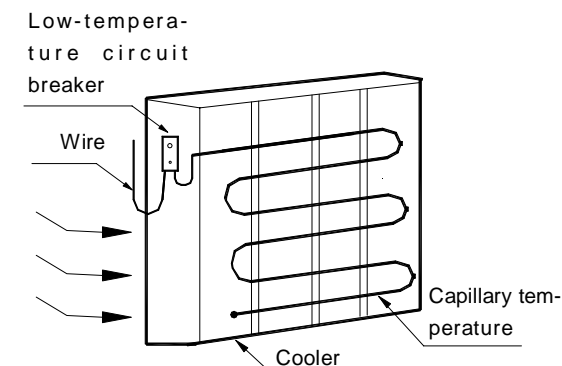


Figure1

