



## Low-limit Temperature Switch

Catalog Number(s) 1414-CLM20AHDAB,  
1414-CLN20AHDAB



### Install the Low-limit Temperature Switch

The switch can be mounted in any position. Avoid locations subject to excessive vibration. On manual reset model, position control to permit convenient access to the reset button . Use three mounting holes in rear of case for flush mounting to duct or other flat surface. Install capillary element in horizontal serpentine pattern across duct on downstream side of the coil so it is exposed to areas where low temperatures will occur. Do not kink or apply excessive force to the capillary element. Fasten capillary at sufficient points to prevent damage from air movement or vibration.

## Important User Information

Solid state equipment has operational characteristics differing from those of electromechanical equipment. *Safety Guidelines for the Application, Installation and Maintenance of Solid State Controls* (Publication SGI-1.1 available from your local Rockwell Automation sales office or online at <http://www.literature.rockwellautomation.com>) describes some important differences between solid state equipment and hard-wired electromechanical devices. Because of this difference, and also because of the wide variety of uses for solid state equipment, all persons responsible for applying this equipment must satisfy themselves that each intended application of this equipment is acceptable.





In no event will Rockwell Automation, Inc. be responsible or liable for indirect or consequential damages resulting from the use or application of this equipment.

The examples and diagrams in this manual are included solely for illustrative purposes. Because of the many variables and requirements associated with any particular installation, Rockwell Automation, Inc. cannot assume responsibility or liability for actual use based on the examples and diagrams.

No patent liability is assumed by Rockwell Automation, Inc. with respect to use of information, circuits, equipment, or software described in this manual.

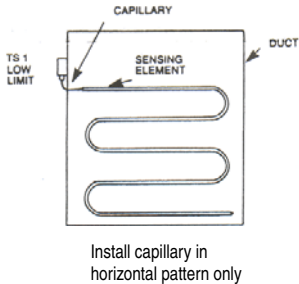
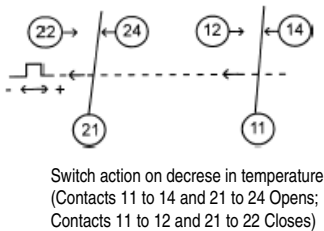
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Throughout this manual, when necessary, we use notes to make you aware of safety considerations.

<p><b>WARNING</b></p> 	<p>Identifies information about practices or circumstances that can cause an explosion in a hazardous environment, which may lead to personal injury or death, property damage, or economic loss.</p>
<p><b>IMPORTANT</b></p>	<p>Identifies information that is critical for successful application and understanding of the product.</p>
<p><b>ATTENTION</b></p> 	<p>Identifies information about practices or circumstances that can lead to personal injury or death, property damage, or economic loss. Attentions help you identify a hazard, avoid a hazard and recognize the consequences.</p>
<p><b>SHOCK HAZARD</b></p> 	<p>Labels may be located on or inside the equipment (e.g., drive or motor) to alert people that dangerous voltage may be present.</p>
<p><b>BURN HAZARD</b></p> 	<p>Labels may be located on or inside the equipment (e.g., drive or motor) to alert people that surfaces may be dangerous temperatures.</p>

## Wire and Connect the Low-limit Temperature Switch

All wiring should comply with national and local electrical codes. An opening for installing a connector for 1/2" conduit is provided in the bottom of the controller case. Recommended wire size is 10 to 14 AWG solid copper wire. Use screwdriver to loosen terminal screws. Strip wire ends 3/8" and insert into box connectors on the switch block. Securely retighten terminal screws. For circuit testing, the DPDT switches can be manually activated by using a screw driver to operate the test lever located on the bottom portion of the controller scaleplate.



## Setpoint Adjustment

The setpoint shown on the controller scaleplate is the temperature at which switch contacts 21 to 24, 11 to 14 (DPDT) will OPEN on a fall in sensed temperature.

To change the setpoint, use a screwdriver or wrench to turn the range adjustment screw located at the top of the spring housing. Clockwise rotation decreases the controller setpoint. Counterclockwise rotation increases the setpoint.

## Manual Reset Models

On a temperature fall to setpoint, switch contacts 21 to 24, 11 to 14 (DPDT) open and contacts 21 to 22, 11 to 12 (DPDT) close.

The switch remains 'locked' in this position until the controller is manually reset by depressing the reset button located in the top of the controller case.

The controller cannot be manually reset until the sensed temperature is at least 5°F (3°C) above setpoint.

# Specifications

## Low-limit Temperature Switch Specifications

Specification	Value
Reset Action	Automatic (1414-CLM20AHDAB)
	Manual (1414-CLN20AHDAB)
Switch Action	DPDT
Setpoint Range	1.1° to 21°C (34° to 70°F)
Differential	2.5°C (4.5°F) fixed
Comments	Five capillary mounting clips supplied with each controller.

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