

TCI-W-U Series Wall Mounted Controller Installation and Operation Manual



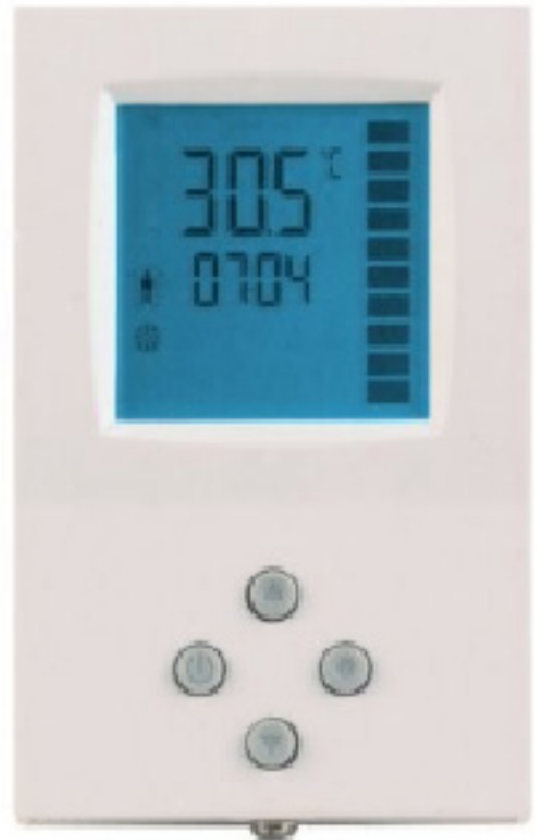
Installation and Set Up Overview

Features.....	3
Duct Application.....	4
Room Application.....	5
Wiring Schematics.....	6-12
Operation.....	13-14

Features

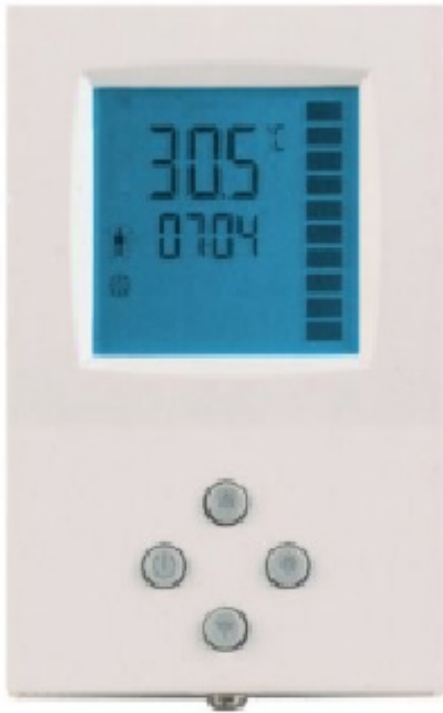
- Universal PID and/or binary control for any analog input/output signal and range.
- Multiple auxiliary functions: automatic enable, set point configuration
- Averaging, min and max functions
- Alarm monitoring of low and high limits
- Accuracy of +/- 2% RH
- Large Backlit display
- Displays Actual RH% and setpoint RH%
- Analog output displayed by a vertical bar
- Jumper selectable 0-10VDC or 4-20mA

The Armstrong TCI-W-U controller can be used for either duct or room applications.



Duct Application

■ The Armstrong D51772 is used in a duct application and includes the parts listed below:



Armstrong Part number:
D50390
(TCI-W-U Controller)



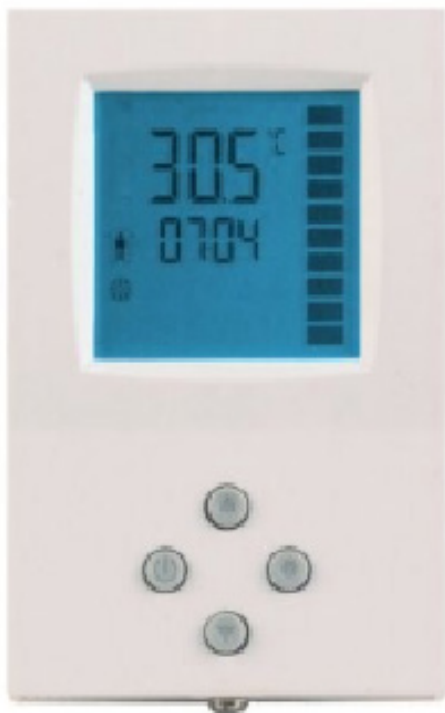
Armstrong Part number:
D50388
(SDC-H1 Transmitter)

Please refer to your humidifiers IOM for proper placement of the D50388. (The D50388 will be referred to as a sensor in the IOM)

The D50390 can be mounted in any location because the sensing of relative humidity is being done by the D50388. Max wire length from sensor to controller is 200 feet.

Room Application

■ The Armstrong D51768 is a stand alone controller used in room applications, see below:

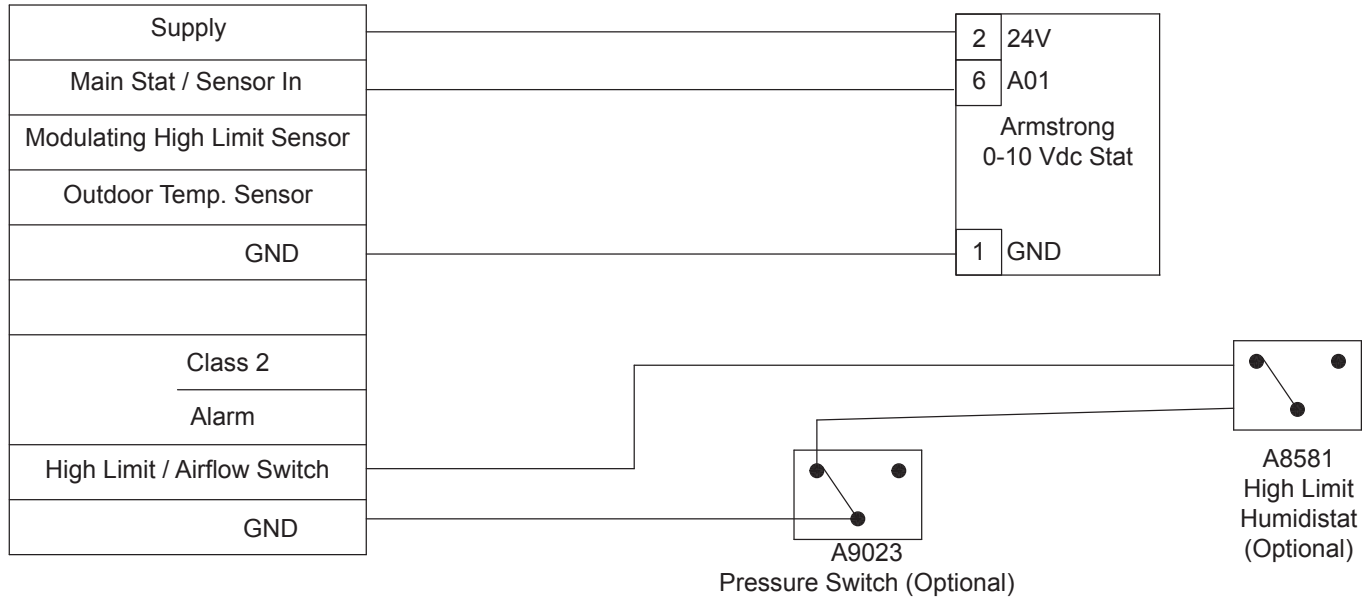


Armstrong Part number:
D51768
(TCI-W-U Controller)

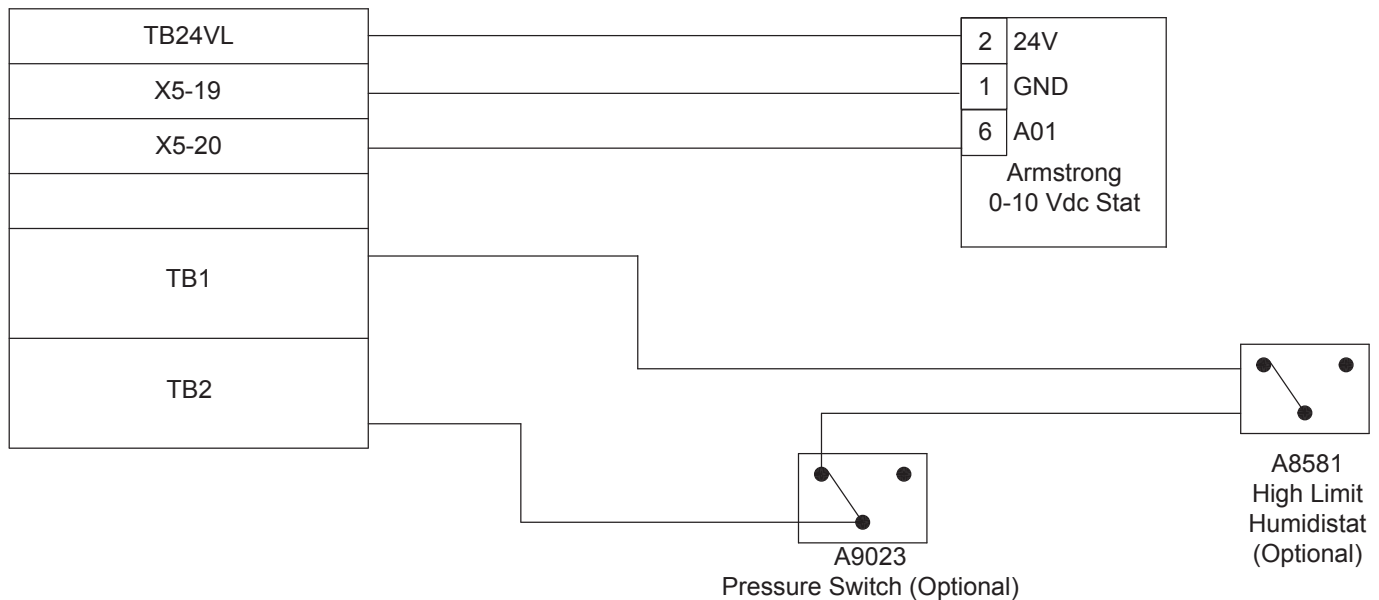
Please refer to your humidifiers IOM for mounting locations of the humidistat/controller as well as set up of the humidifier. This is only installation and set up for the controller.

Wiring Schematics

HC6000 Series Humidifiers:

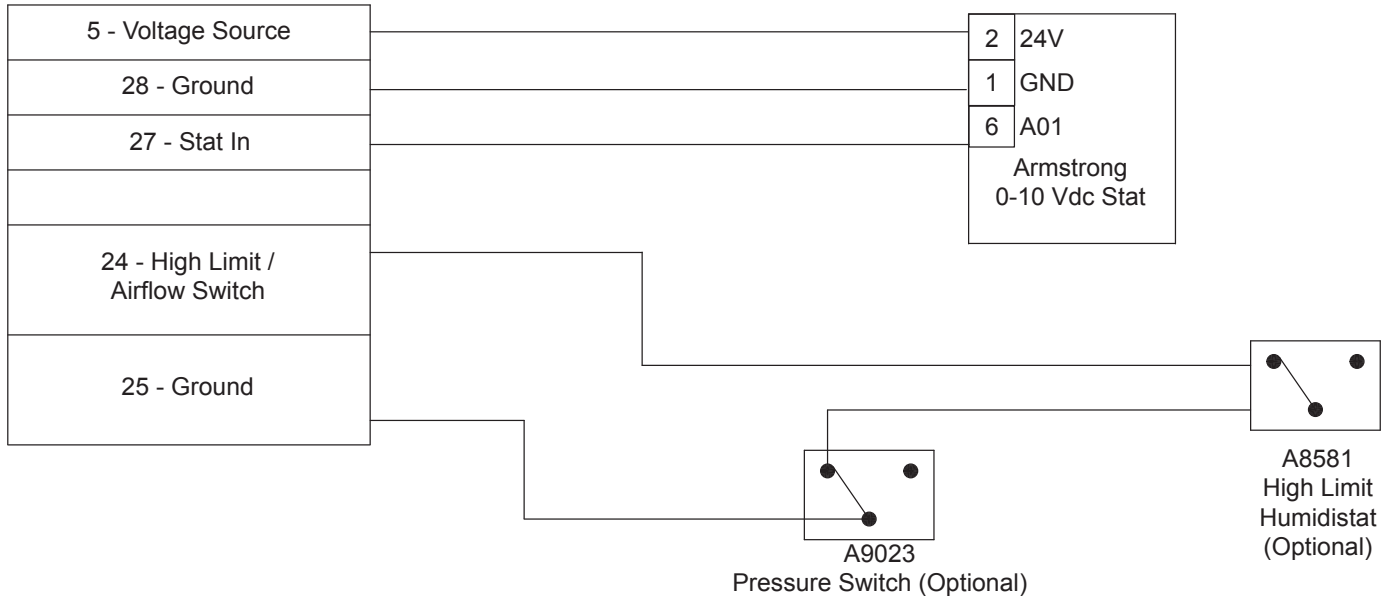


EHU-800 Series and GFH w/communications Humidifiers:

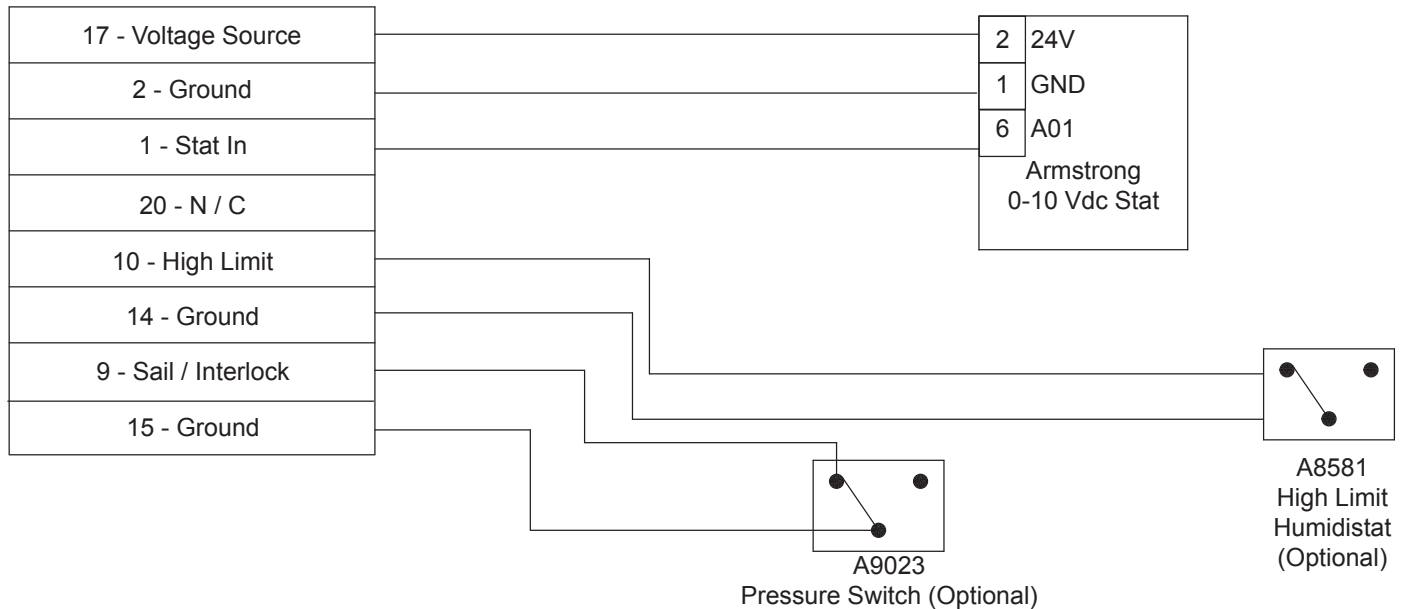


Wiring Schematics

GFH Series Humidifiers:

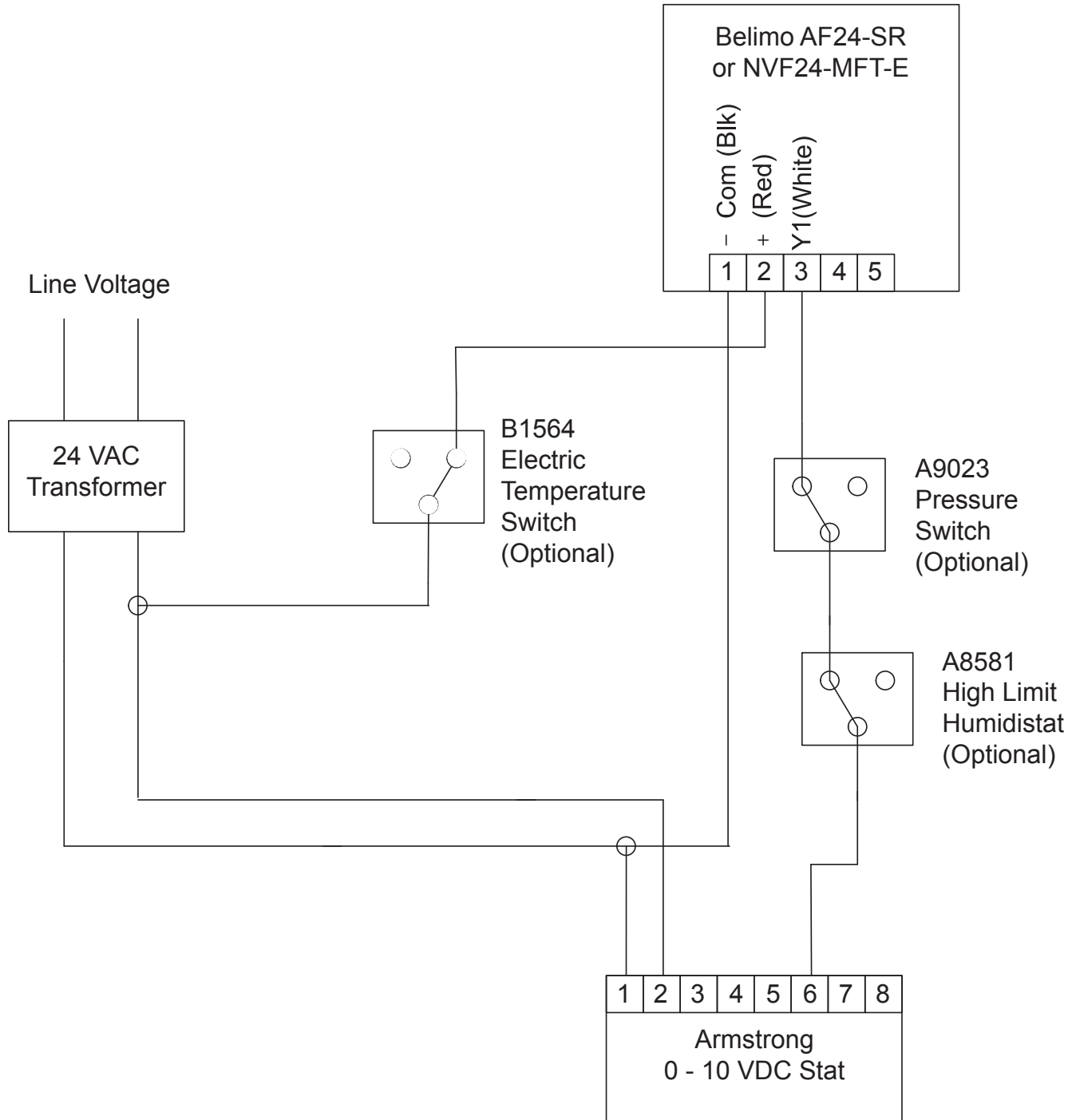


EHU-700 Series Humidifiers:



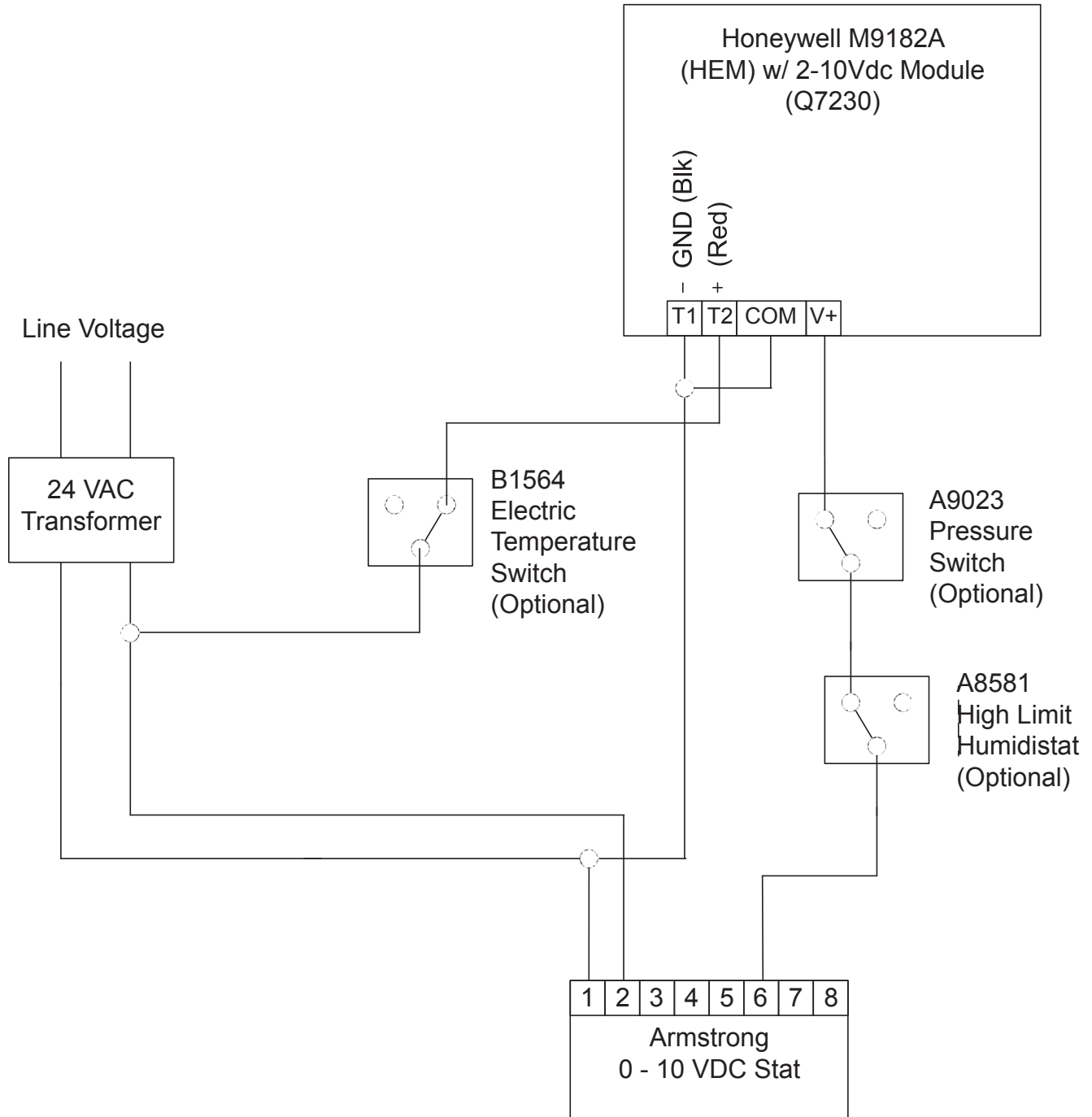
Wiring Schematics

9000 Series with Belimo NVF24 and AF24 Operators:



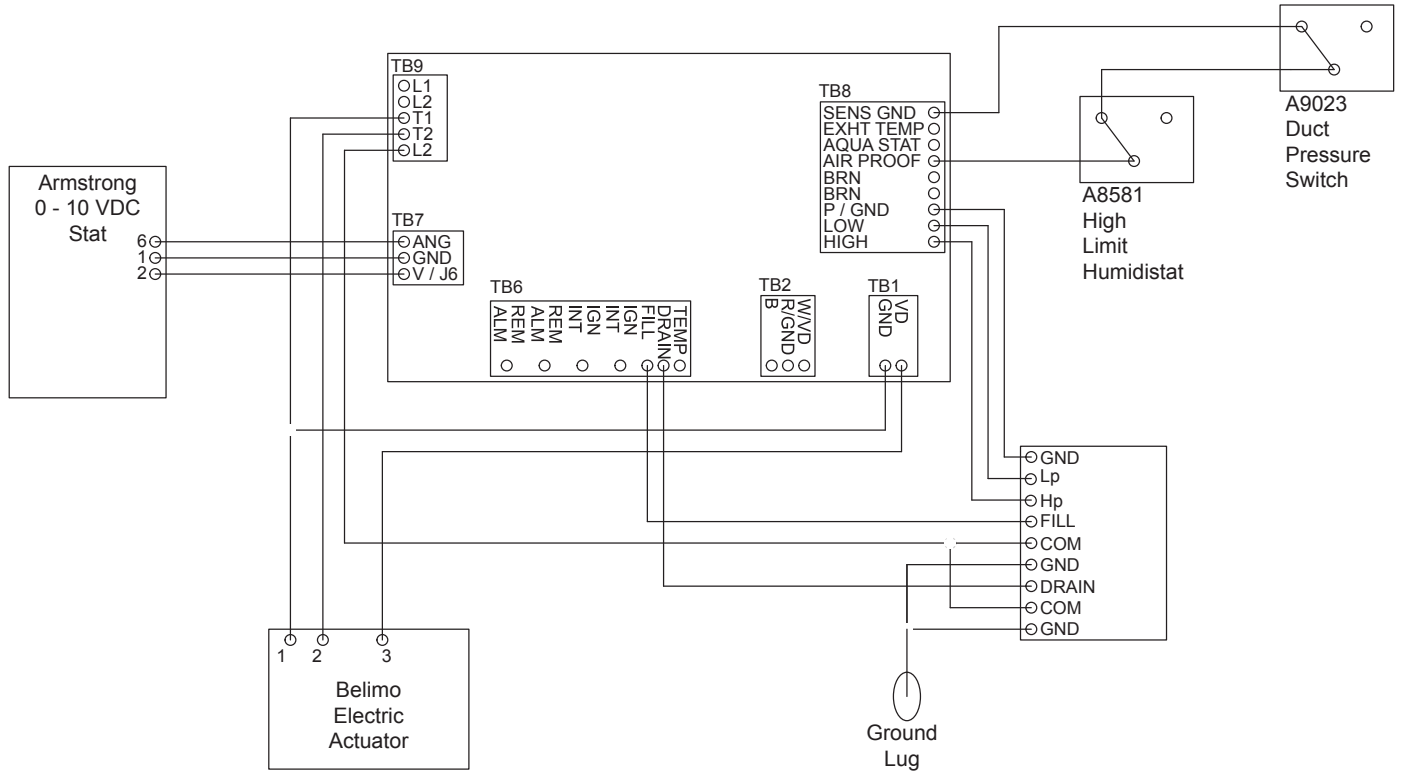
Wiring Schematics

9000 Series with Honeywell M9182A 2-10 VDC:

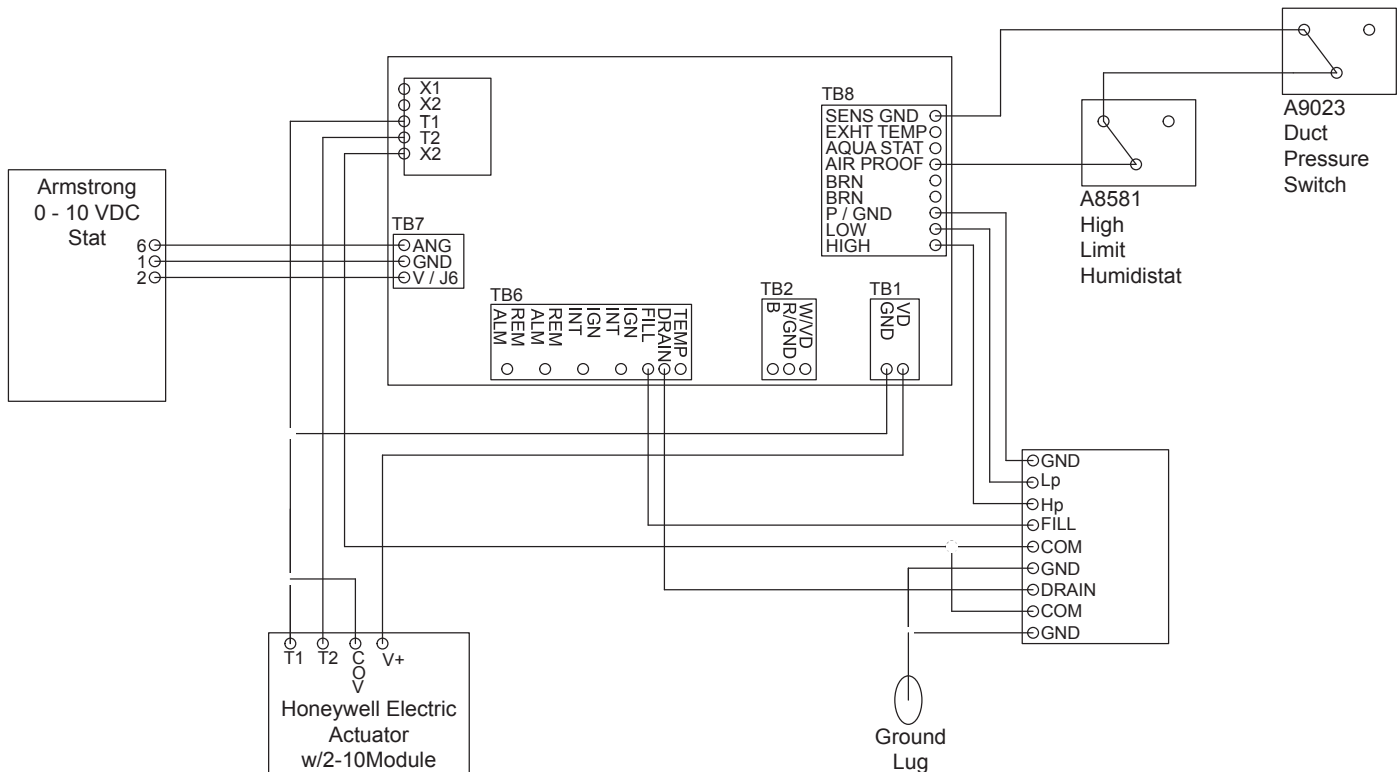


Wiring Schematics

CS Series with Belimo Operators:



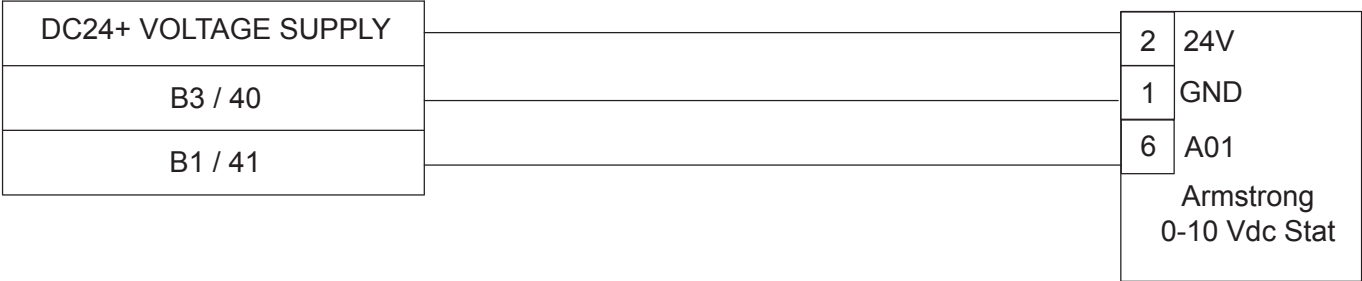
CS Series with Honeywell Operators:



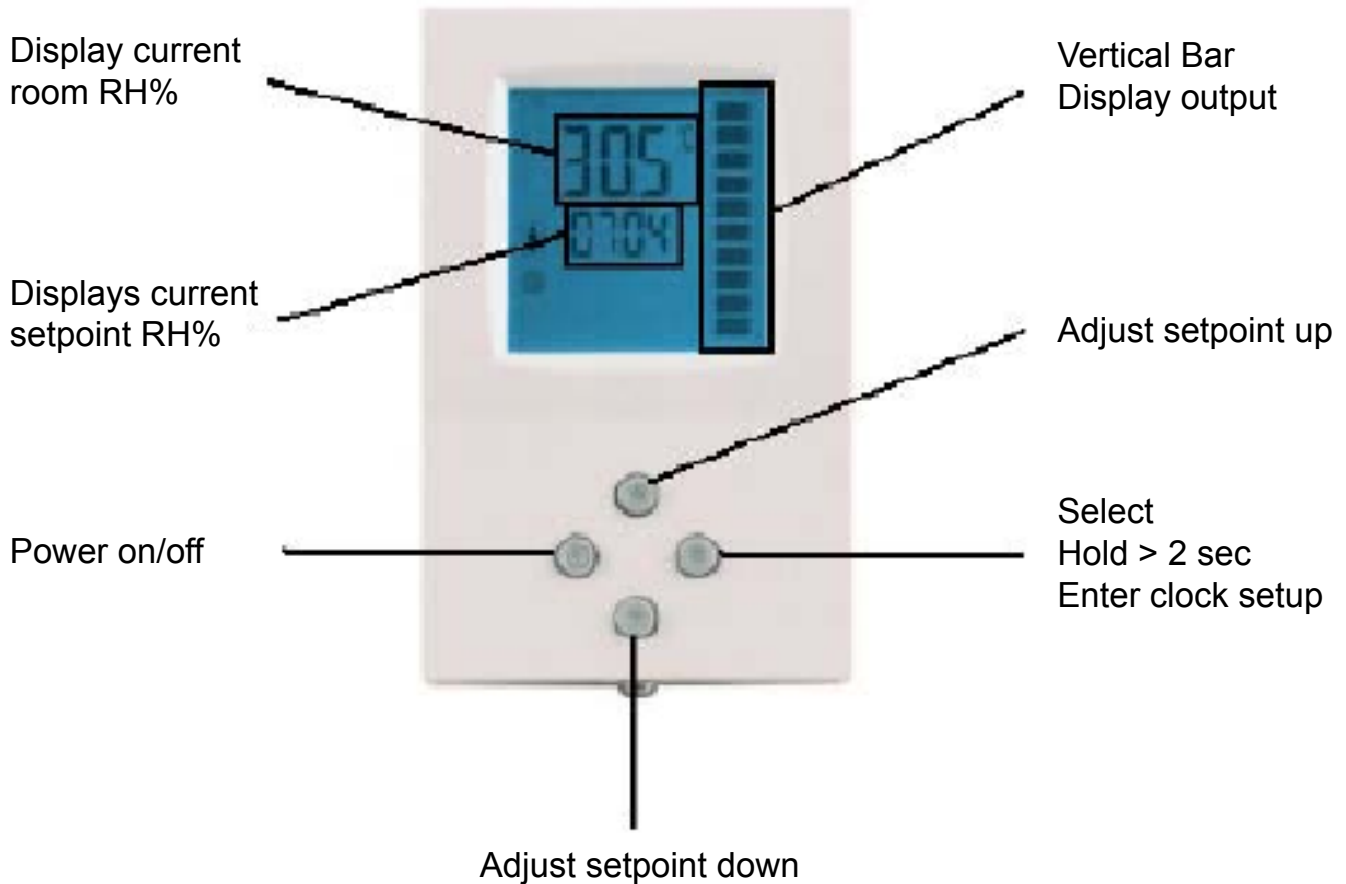
Wiring Schematics

PressureFog Humidifiers:

ANALOG INPUT MODULE (PLC)



Operation



All the Armstrong controllers/humidistats come to you configured with the correct parameters based on the part number ordered.

They all will display the current room relative humidity and the relative humidity setpoint by default. The large digit display shows the current room or duct relative humidity and the smaller digit display, below the large digit display, will show the current relative humidity setpoint.

The vertical bar on the right hand side of the display shows the output of the controller. One bar is equal to a 10% demand for the humidifier. See chart below:

Operation

Vertical Bars	Voltage Range VDC	Humidifier Output %
0	0 - 0.9	0 - 9%
1	1.0 - 1.9	10 - 19%
2	2.0 - 2.9	20 - 29%
3	3.0 - 3.9	30 - 39%
4	4.0 - 4.9	40 - 49%
5	5.0 - 5.9	50 - 59%
6	6.0 - 6.9	60 - 69%
7	7.0 - 7.9	70 - 79%
8	8.0 - 8.9	80 - 89%
9	9.0 - 9.9	90 - 99%
10	10	100%

Once the controller is supplied with either 24 VAC or 24VDC the controller will illuminate and display the current room RH %. If the controller displays current room RH and “off”, pressing the power on/off button one time will activate the controller. When the unit displays “off”, there is **no** output to the humidifier.

The relative humidity setpoint is adjusted by pressing the up or down arrows to the desired room or duct relative humidity.



Armstrong International

816 Maple Street, Three Rivers, MI 49093 – USA Phone: (269) 273-1415 Fax: (269) 278-6555
armstronginternational.com