

### Model

**SHS20**

### Description

The SHS20 is a wall mounted high limit humidistat capable of monitoring and controlling relative humidity for applications using a room distribution system. Its primary function is to act as an On/Off high limit protection for humidifiers equipped with a space distribution unit (SDU).

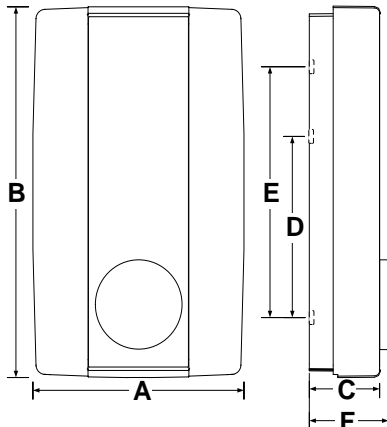
### Features

- On/Off high limit humidistat with on-board setpoint adjustment (20 to 90%RH)
- Built-in humidity sensor
- Plastic cover for wall mount installation
- 24Vac or 24Vdc
- 1 dry contact output (normally open)



**SHS20**

### Technical Specifications

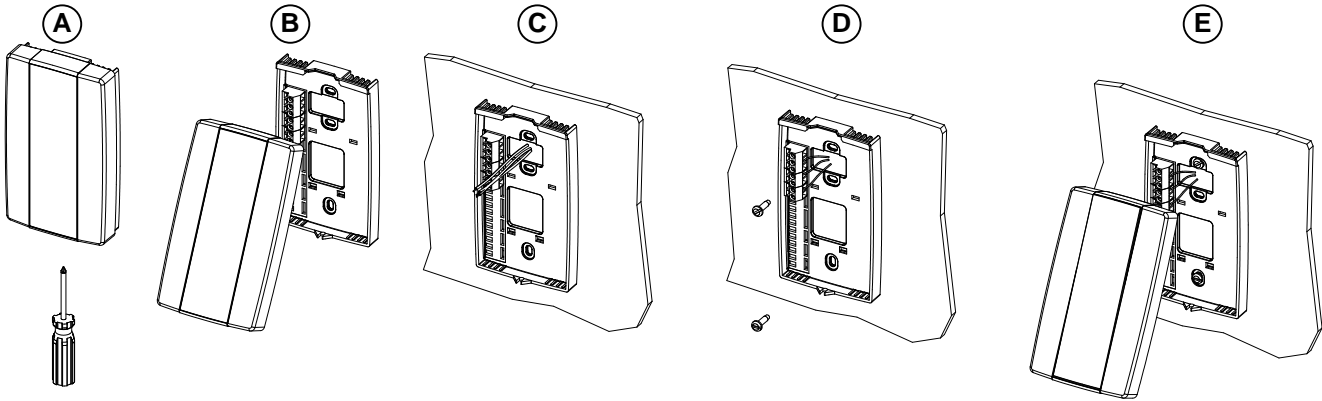
Specifications	SHS20
Power supply	24 Vac or Vdc $\pm 10\%$
Power consumption	1 VA
Electrical connection	0.8 mm <sup>2</sup> [18 AWG] minimum
Humidity sensor precision	$\pm 3\%$ at 40 %RH and 23°C [73°F]
High limit setpoint range	20 to 90 %RH
Operating temperature	32°F to 104°F [0°C to 40°C]
Storage temperature	14°F to 122°F [-10°C to +50°C]
Relative humidity	0 to 95 %RH
Enclosure protection	IP 30 (EN 60529)
Weight	0.13 lb [60 g]
Dimensions A = 2.85" (72mm) B = 4.85" (123mm) C = 1.00" (25mm) D = 2.36" (60mm) E = 3.27" (83mm) F = 1.02" (26mm)	



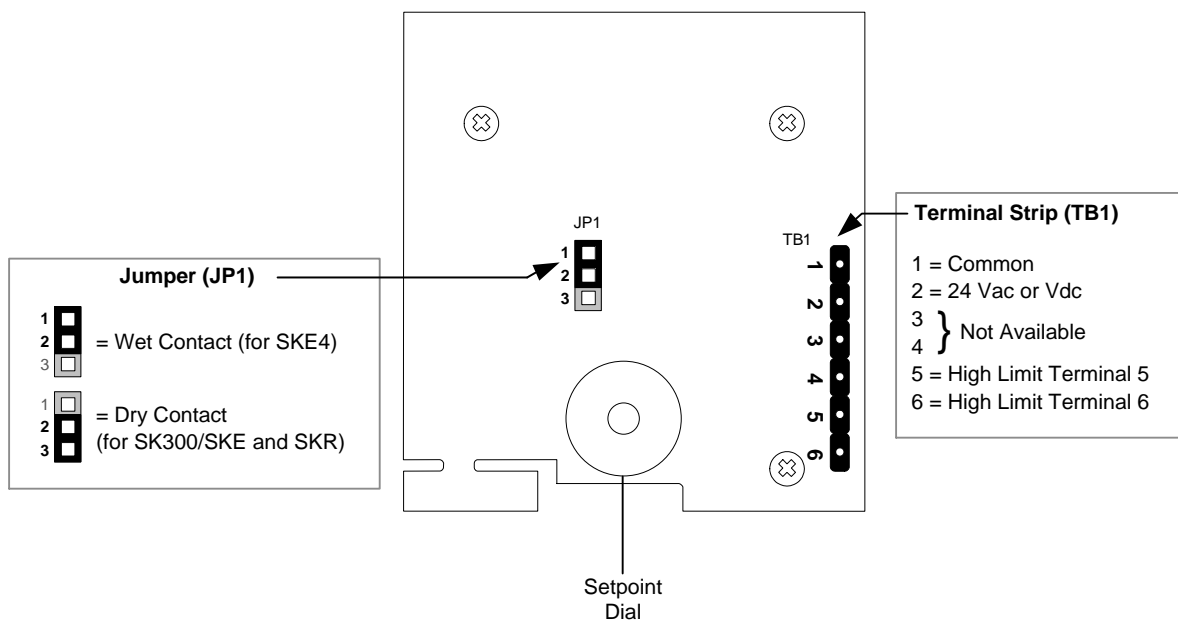
## Mounting Instructions

**CAUTION:** Remove power to avoid a risk of malfunction.

- Remove the captive screw that's holding the base and the front cover of the unit together.
- Lift the front cover of the unit to separate it from the base.
- Pull all wires through the holes in the base.
- Secure the base to the wall using wall anchors and screws (supplied). Make the appropriate connections.
- Mount the front cover on the base and secure using the screw.



## PCB Overview



## Operation

- The contact is normally open when not powered.
- The contact opens without delay when the %RH reading is above the setpoint, i.e., reading > setpoint.
- The contact opens for a minimum of 2 minutes for anti-cycling purposes.
- The contact closes when the reading is below the setpoint hysteresis of 5%RH, i.e., reading < (setpoint - 5%RH).
- A change in the setpoint of more than 5%RH immediately updates the status of the contact.

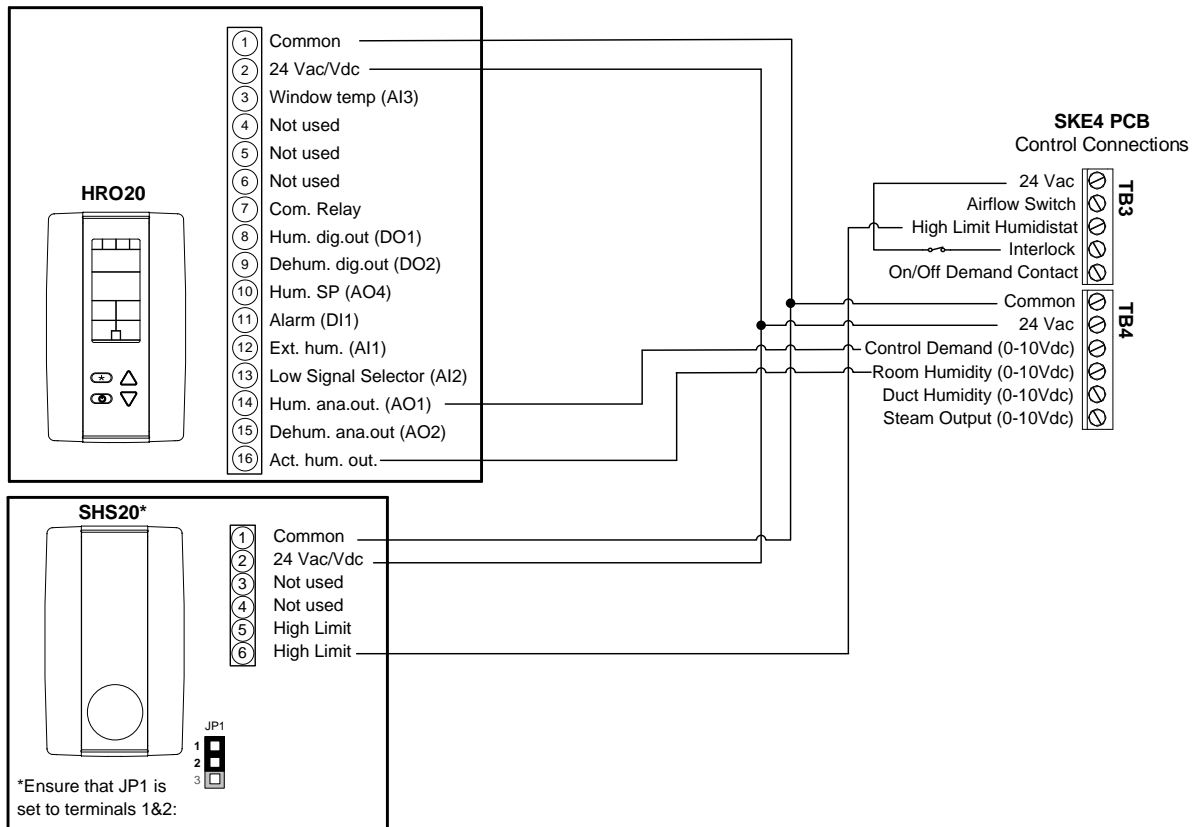


## Wiring Diagrams

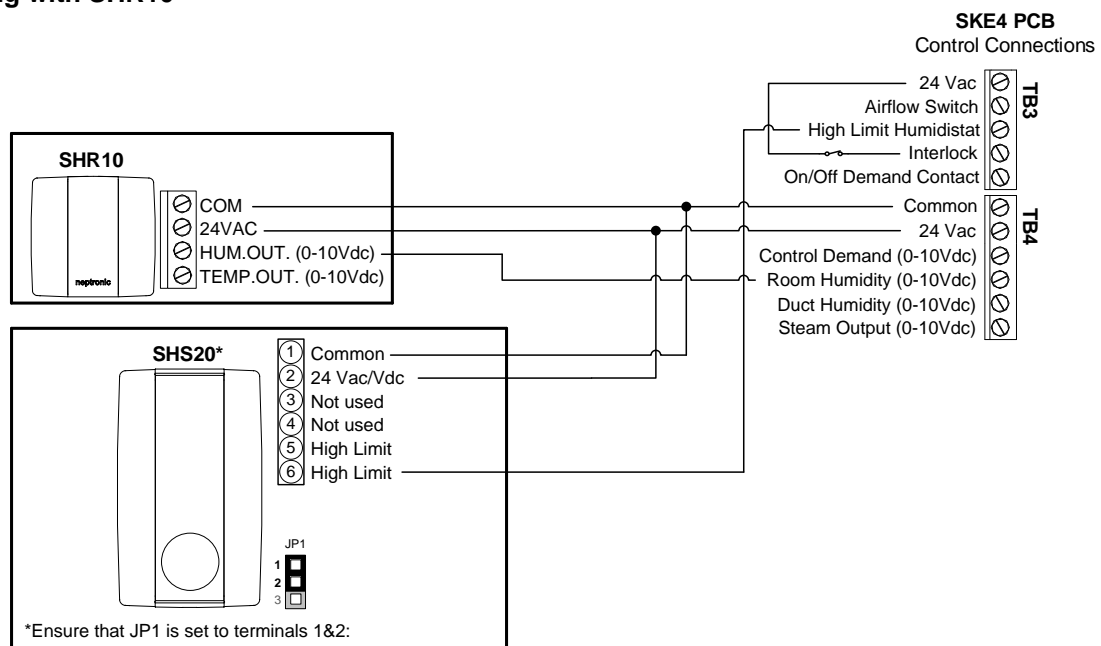
### SKE4 Humidifier

#### Modulating SKE4 Humidifier

##### Field Wiring with HRO20



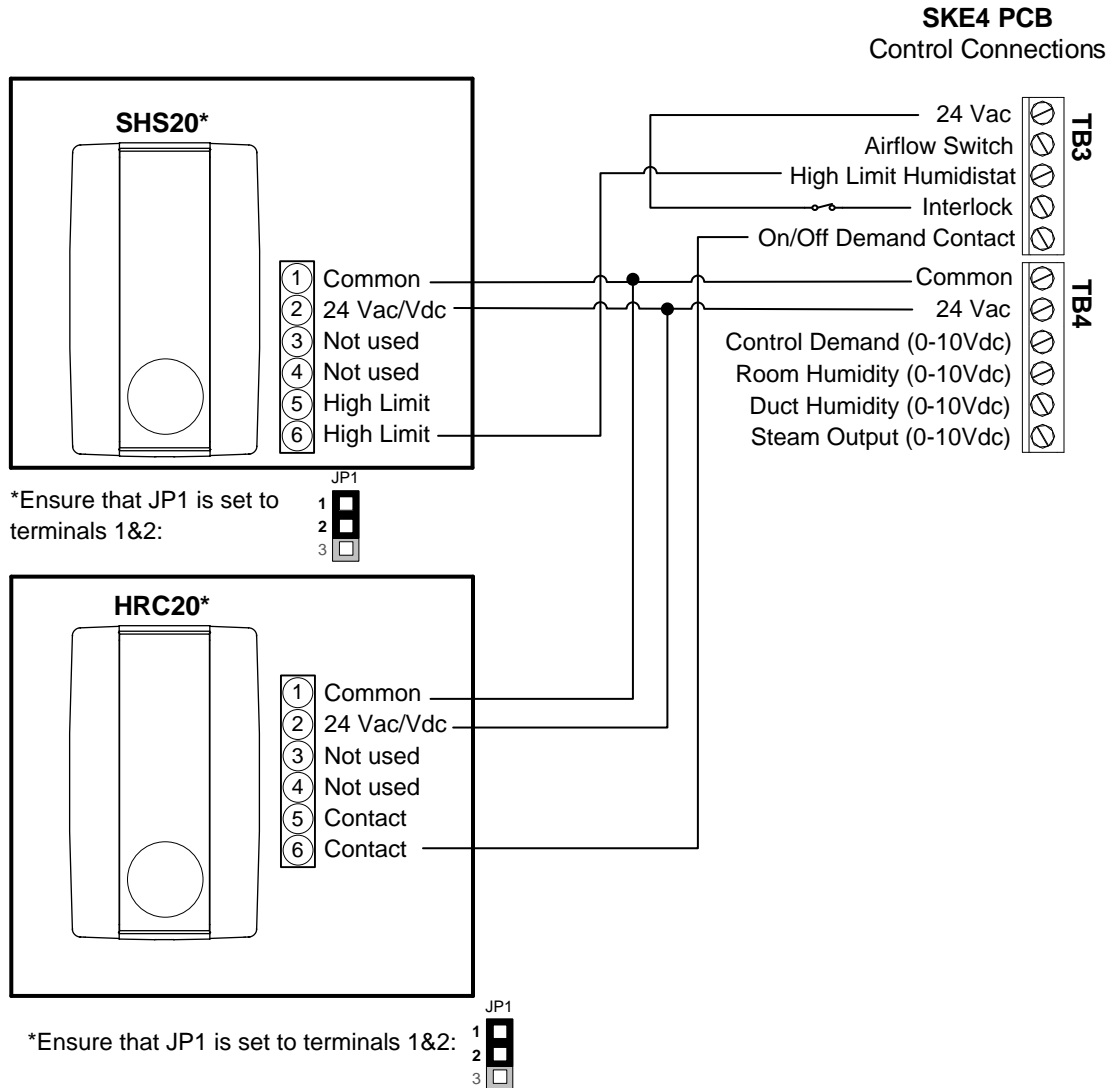
##### Field Wiring with SHR10





**On/Off SKE4 Humidifier**

**Field Wiring with HRC20**

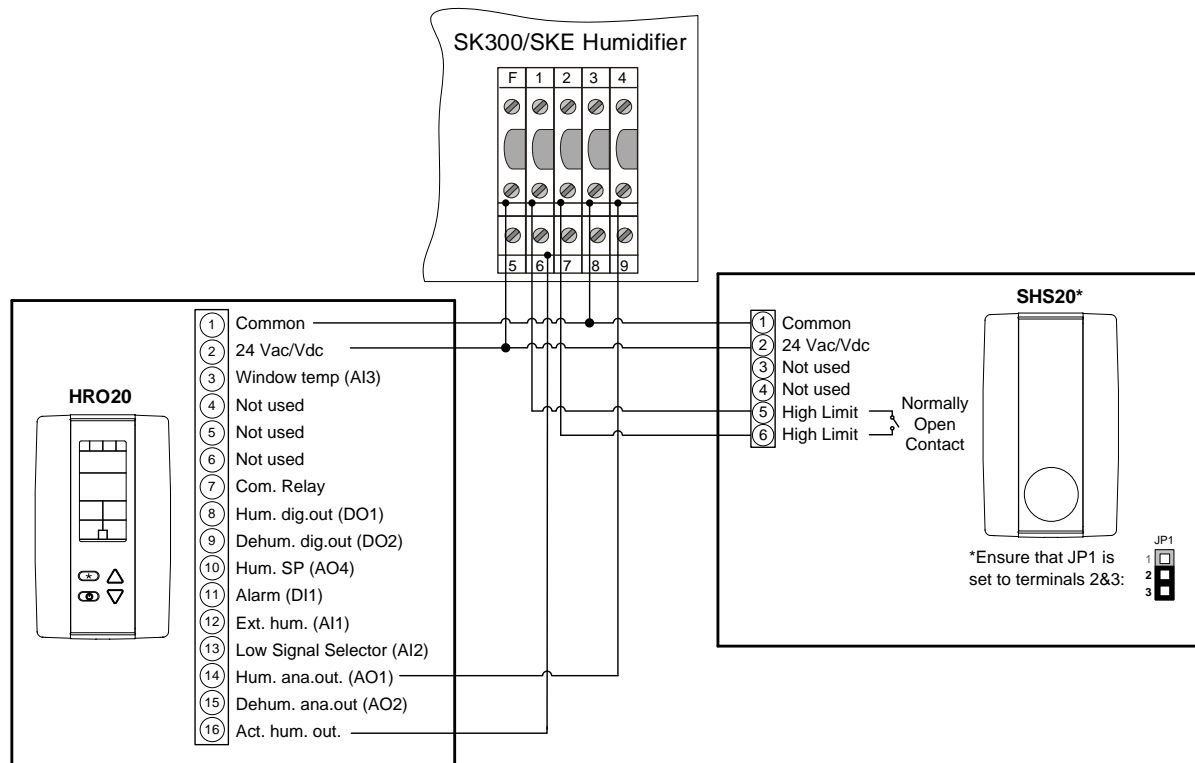




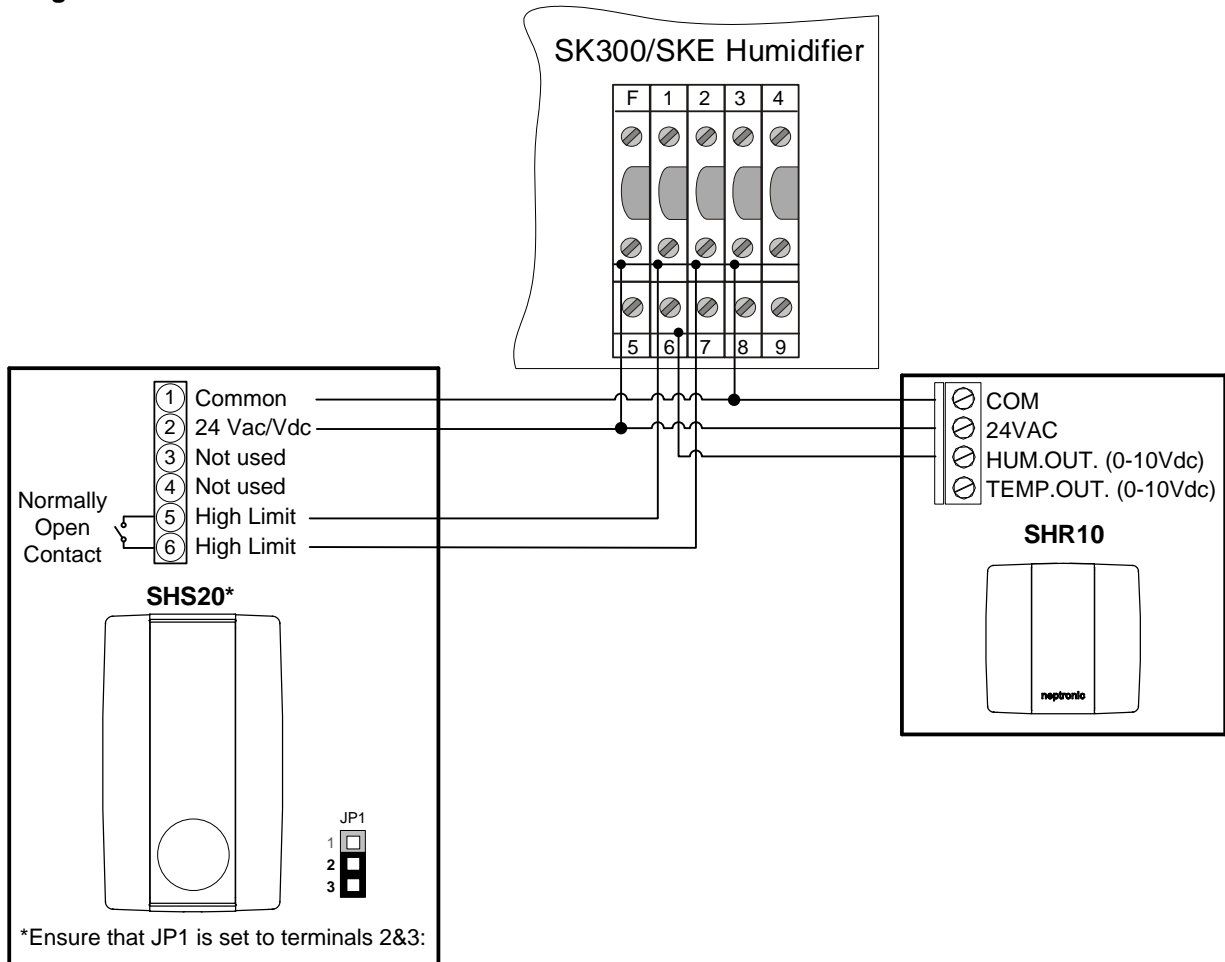
**SK300/SKE Humidifier**

**Modulating SK300/SKE Humidifier (Standard)**

**Field Wiring with HRO20**



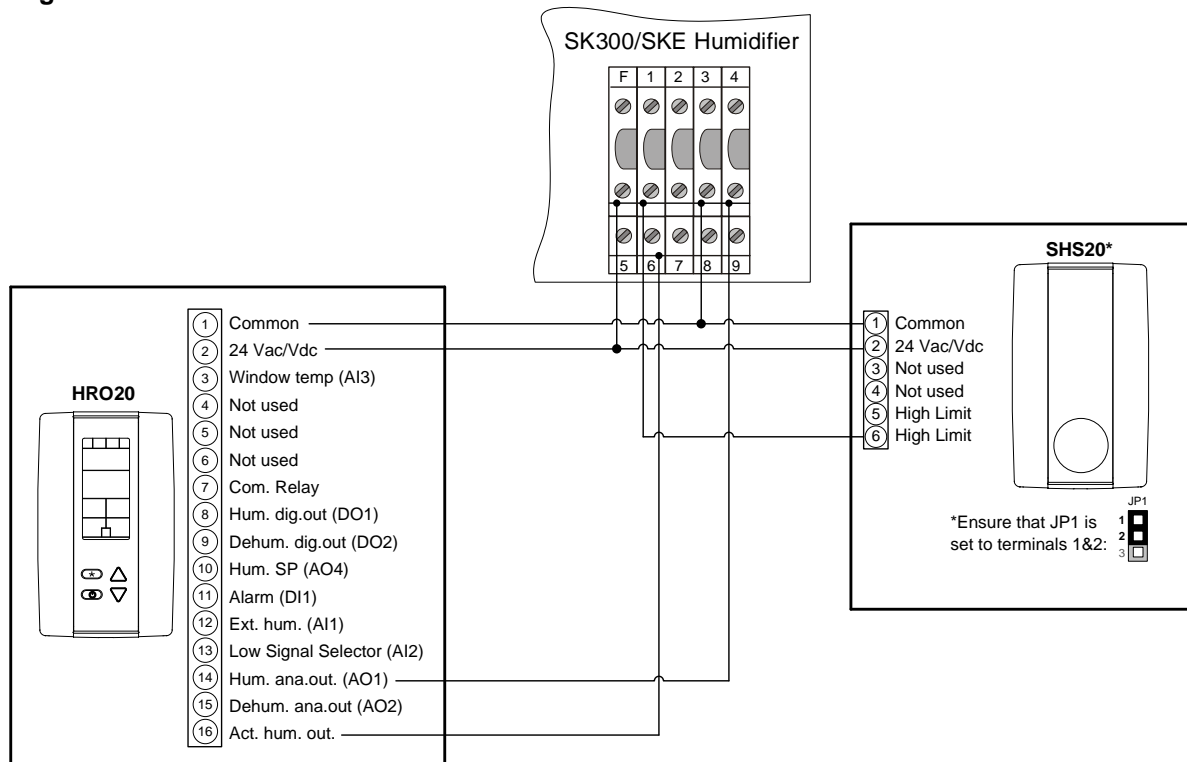
**Field Wiring with SHR10**



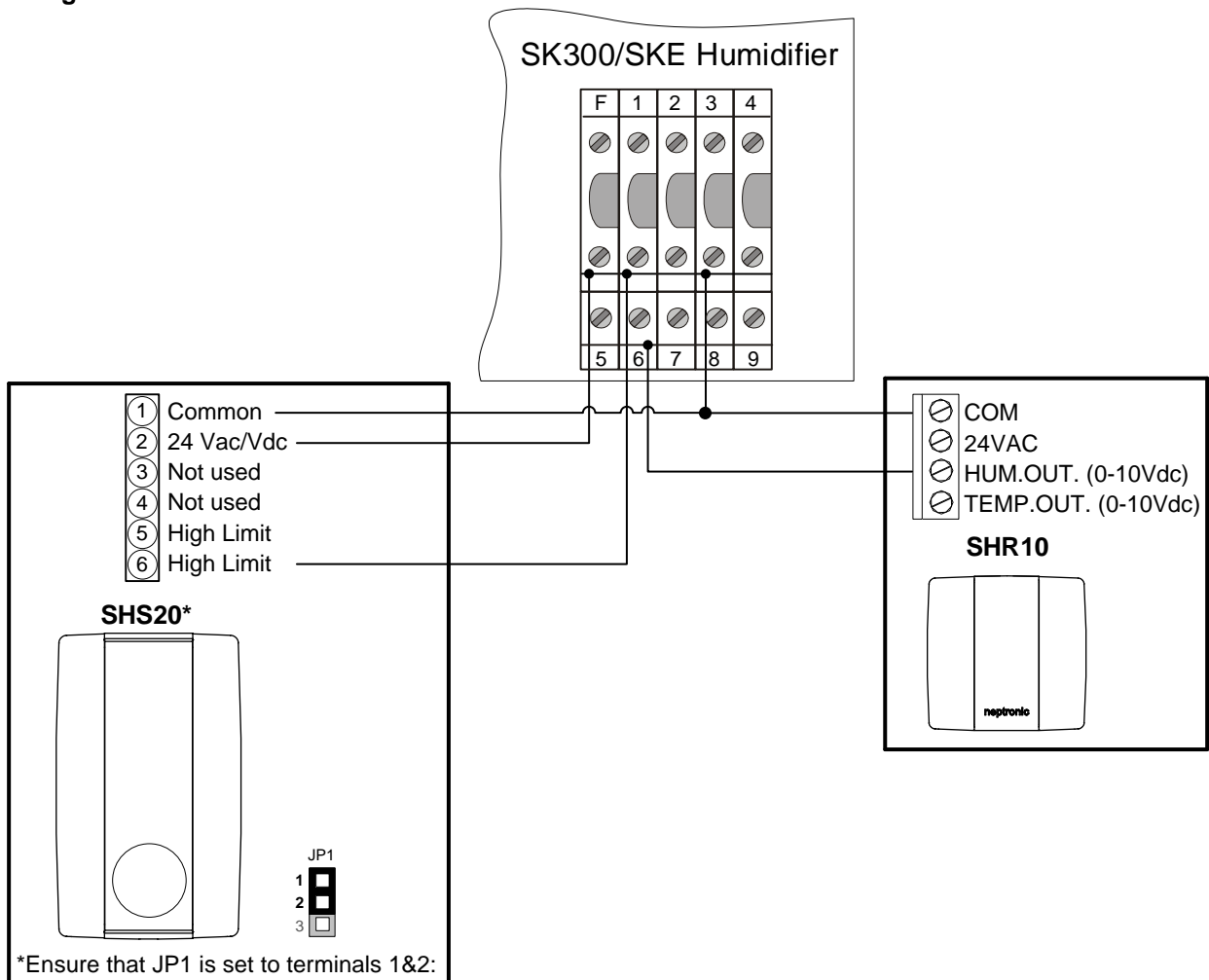


**Modulating SK300/SKE Humidifier (BACnet)**

**Field Wiring with HRO20**



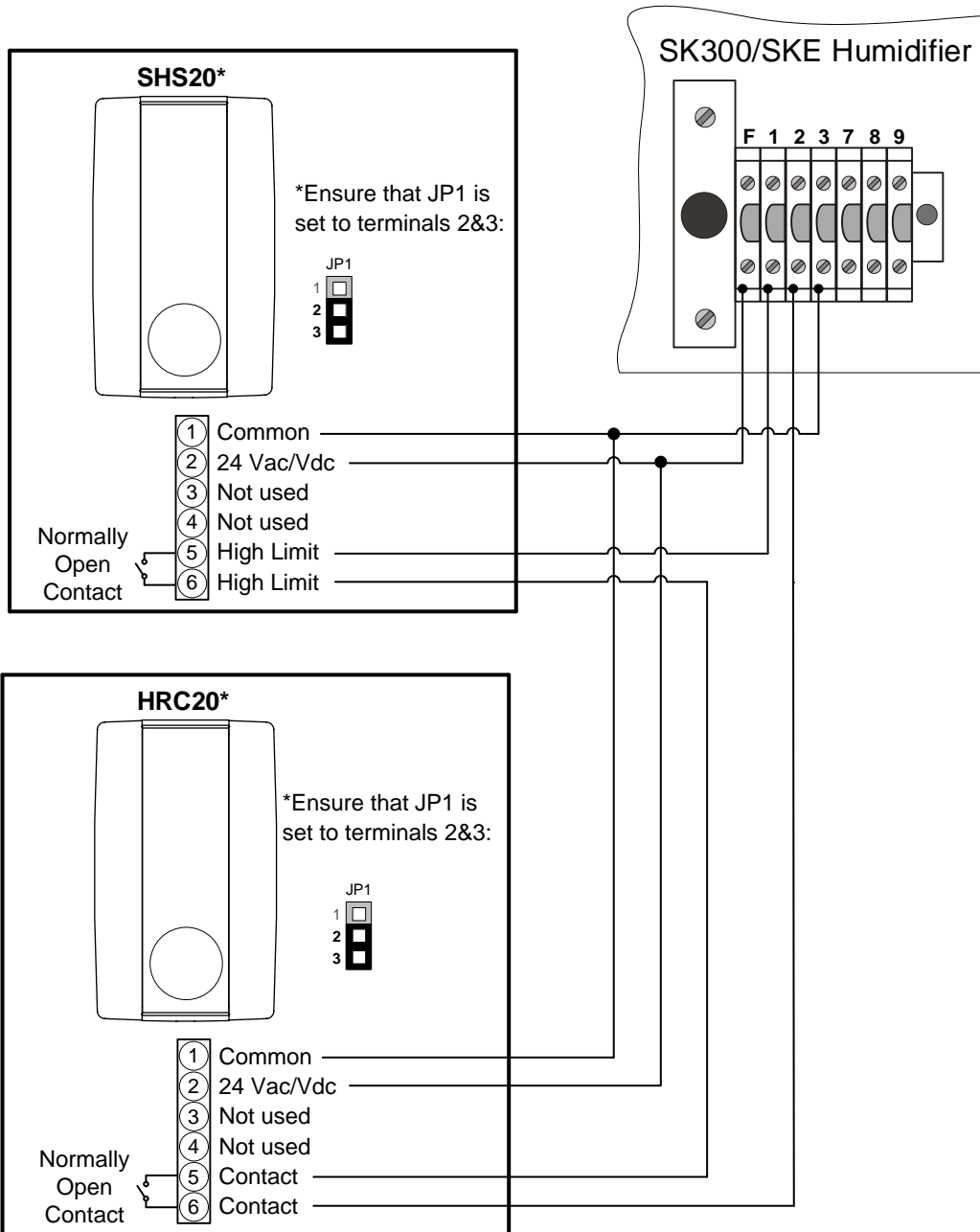
**Field Wiring with SHR10**





**On/Off SK300/SKE Humidifier**

**Field Wiring with HRC20**

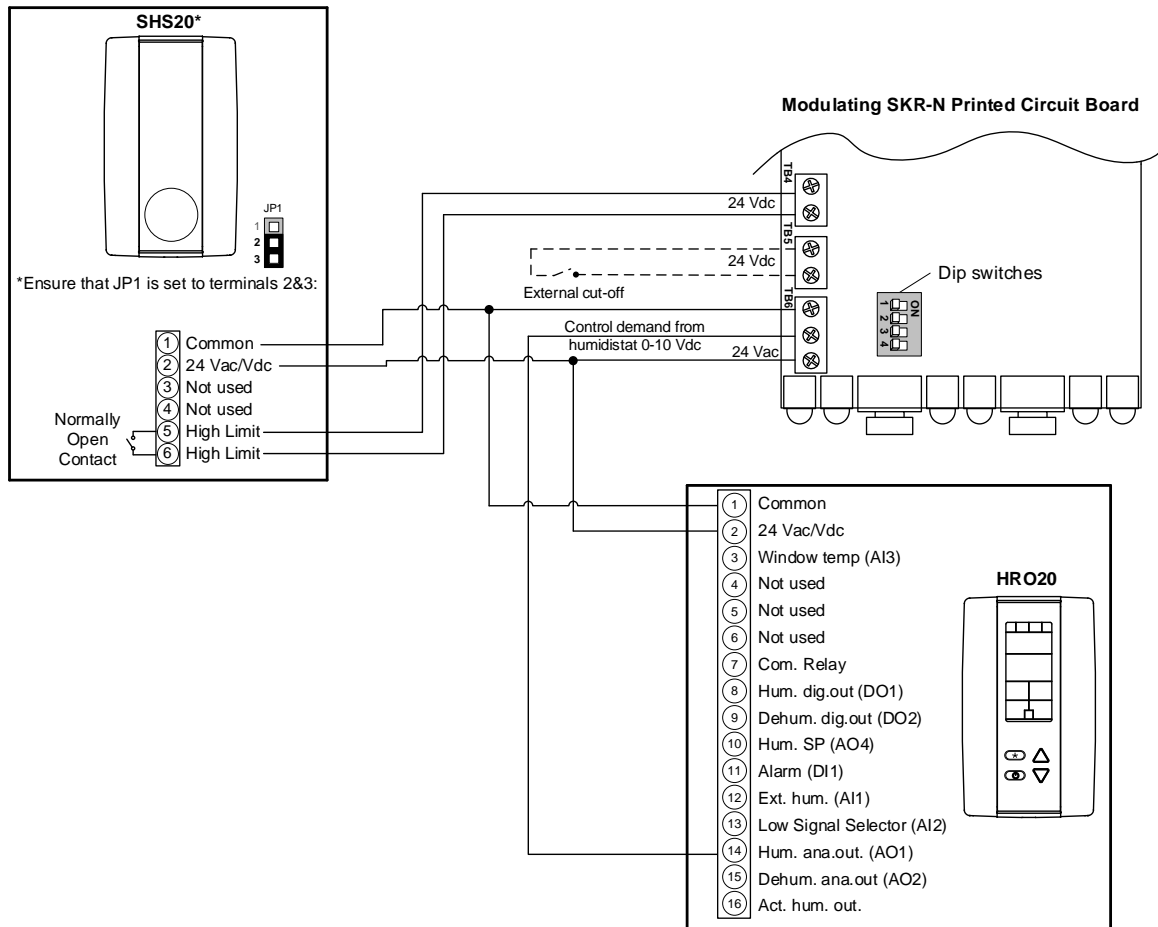




**SKR Humidifier**

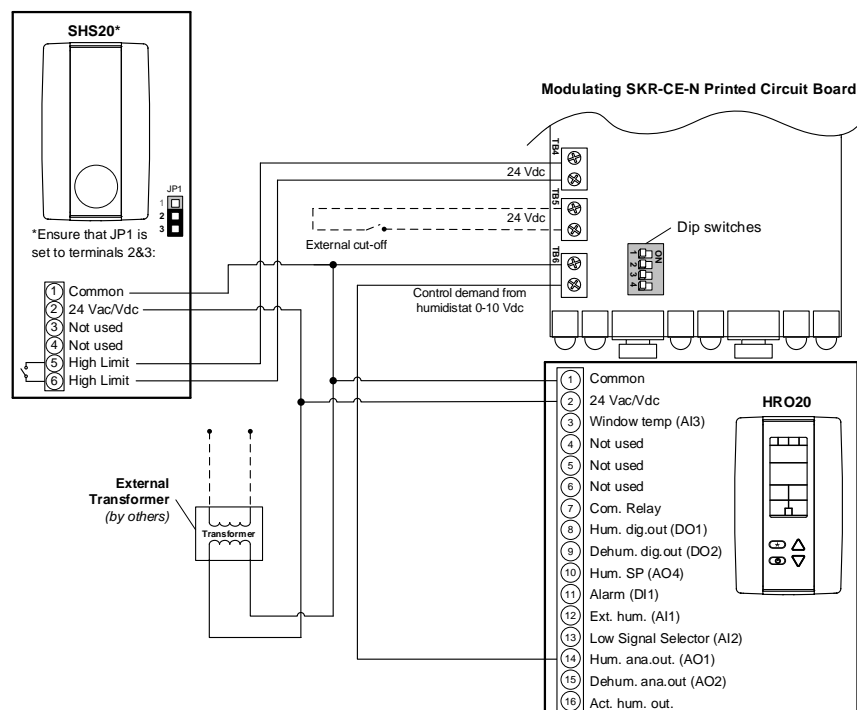
**Modulating SKR Humidifier - Kit N (North America)**

**Field Wiring with HRO20**



**Modulating SKR Humidifier - Kit N (Europe)**

**Field Wiring with HRO20**

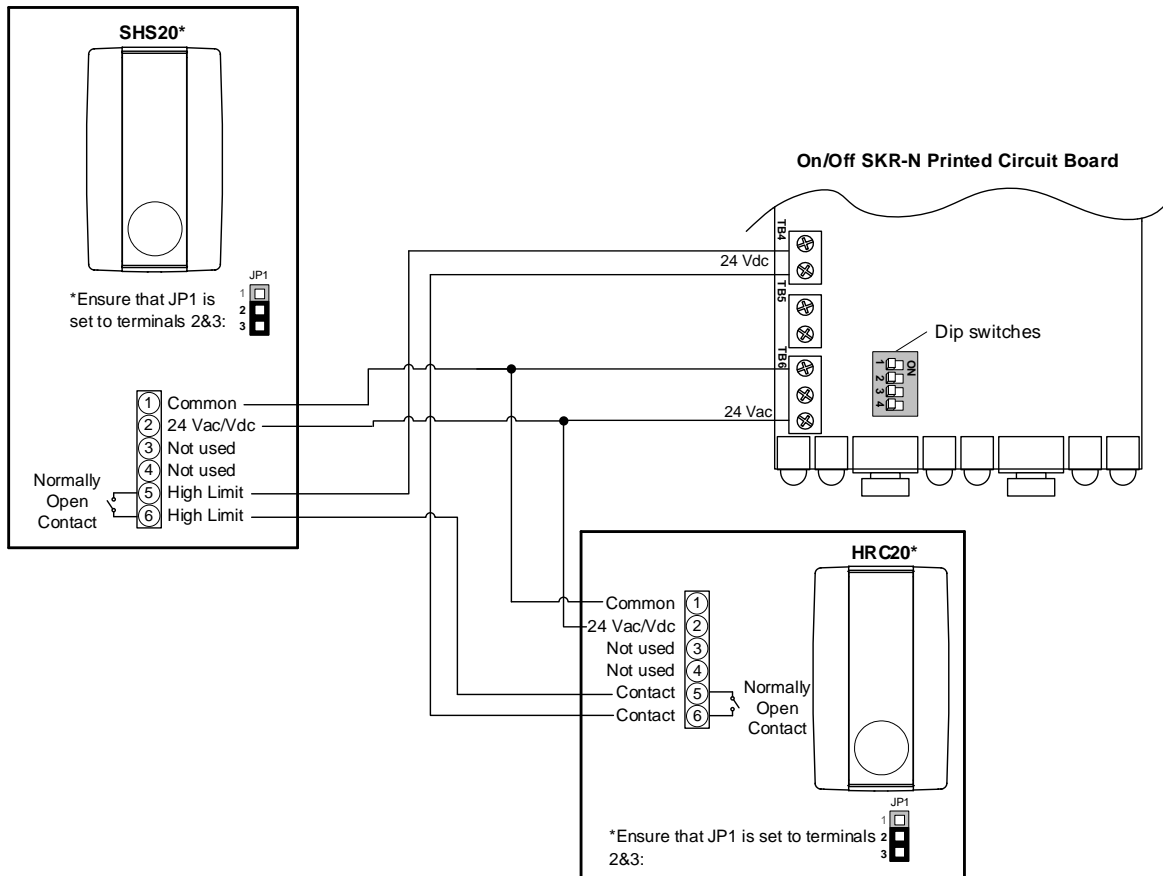






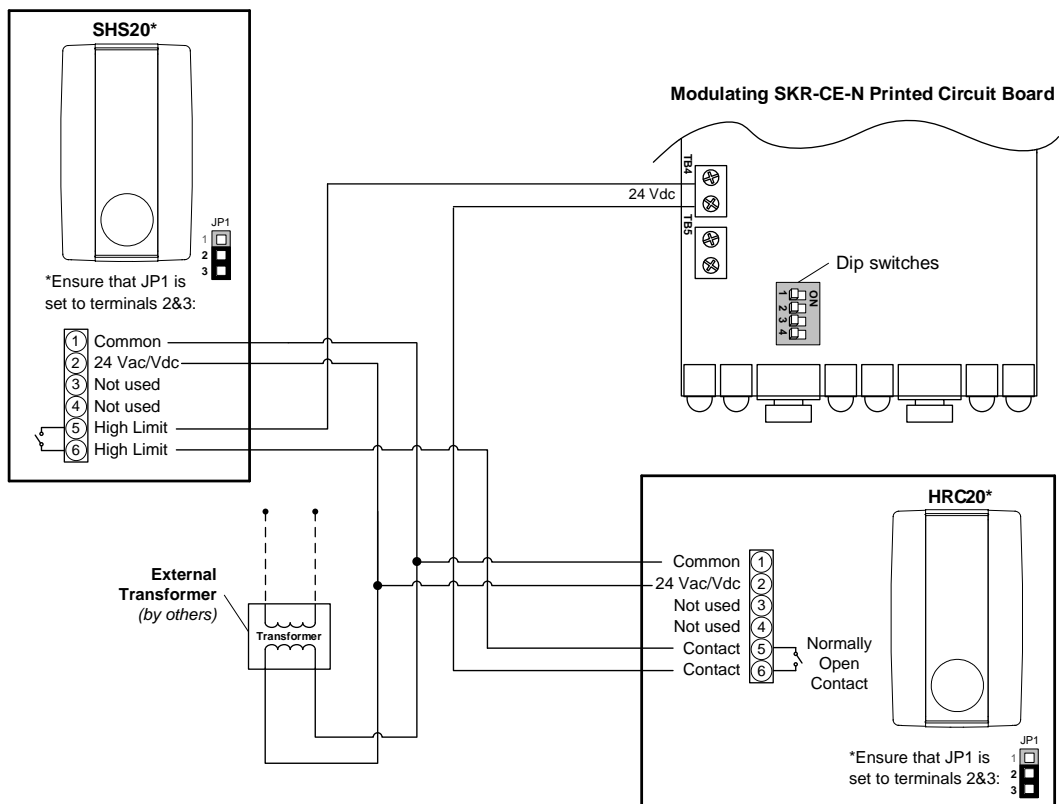
**On/Off SKR Humidifier - Kit N (North America)**

**Field Wiring with HRC20**

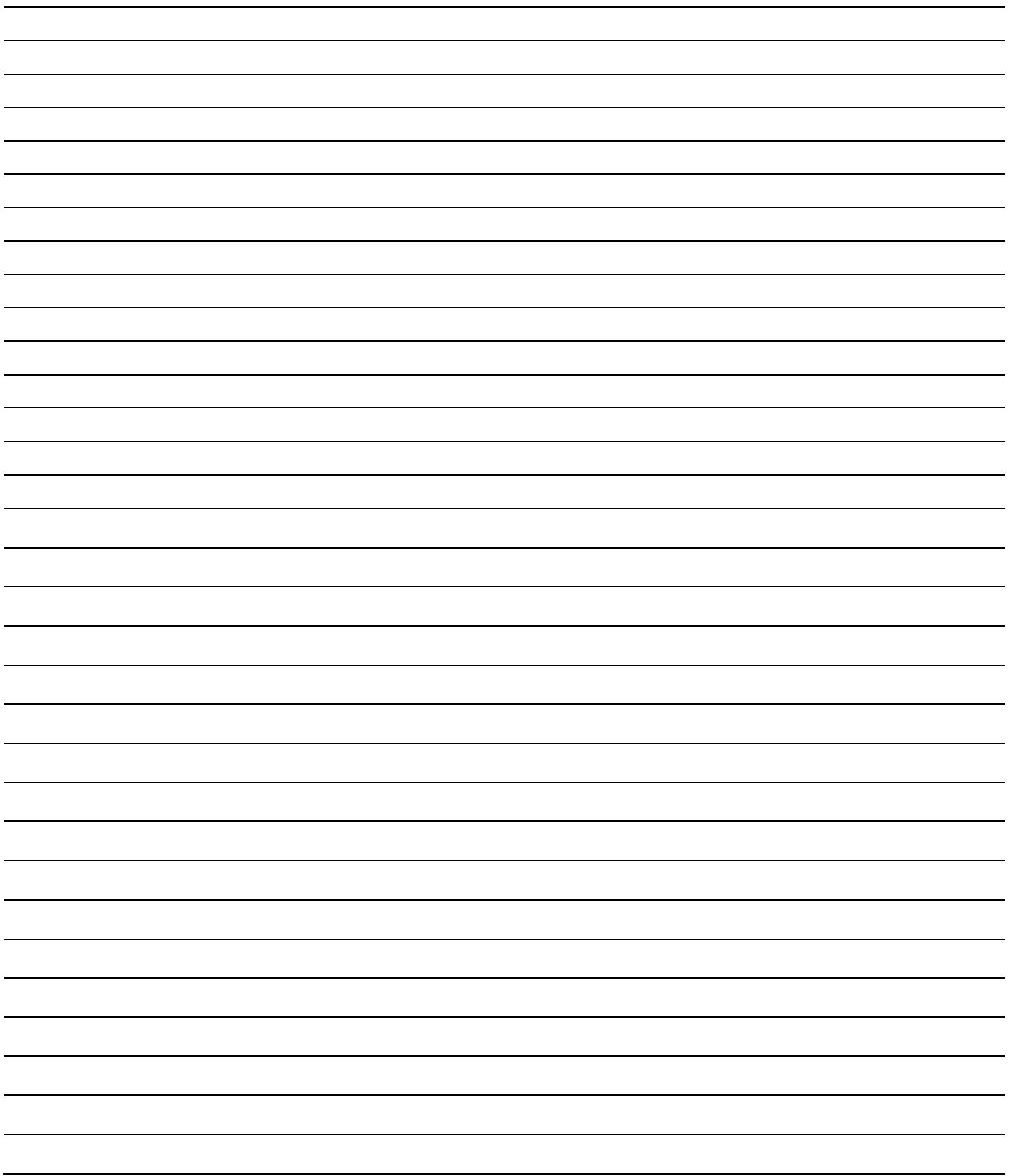


**On/Off SKR Humidifier - Kit N (Europe)**

**Field Wiring with HRC20**



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