Duct-Mount High-Limit Humidistat
Specification and Installation Instructions
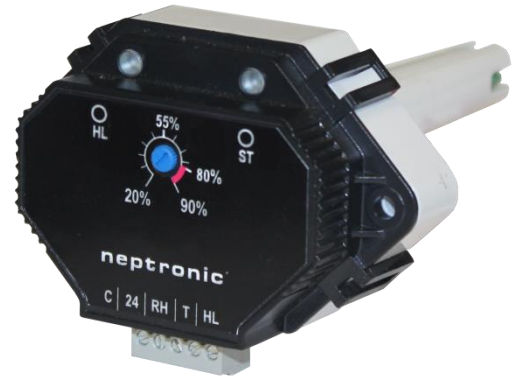
Model
SHS80 *(Duct-Mount High-Limit Humidistat)*

Description
The SHS80 is capable of sensing, monitoring and controlling relative humidity in the supply or return air duct. Its primary function is to act as both a 0-10 Vdc humidity sensor and an On/Off high limit protection for modulating humidifiers.
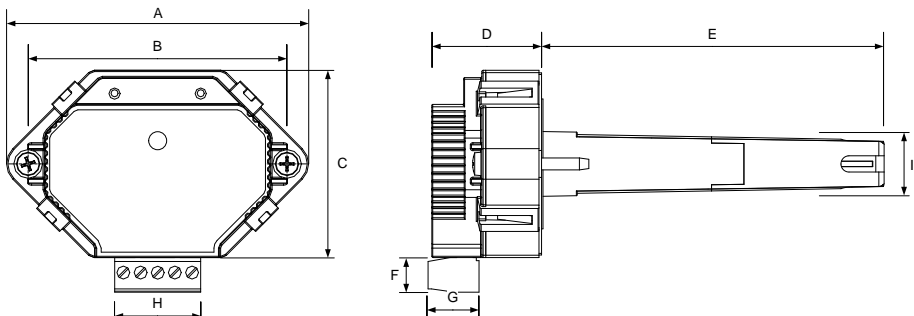
Features
- Built-in temperature and humidity sensor
- On/Off high limit humidistat with on-board setpoint adjustment (20-90 %RH)
- 2 analog outputs (0 - 10 Vdc)
- Status and high limit LEDs

SHS80

Technical Specifications

Description	SHS80
Power supply	24 Vac or Vdc ±10%
Power consumption	1 VA
Electrical connection	0.8 mm^2 [18 AWG] minimum
Humidity transmitter output	0-10 Vdc (0-100 %RH)
Humidity sensor precision	±3% at 40 %RH and 23ºC [73ºF]
On/Off high limit setpoint range	20 to 90 %RH
Temperature transmitter output	0-10 Vdc (0-100ºC) [32-212ºF]
Temperature sensor precision	±0.4ºC [0.72ºF]
Operating temperature	-40ºC to 80ºC [-40ºF to 176ºF]
Weight	0.35lb [160g]
Contact rating	Dry contact, 1A max, 24 Vac
Working temperature	0ºC to 60ºC [32ºF to 140ºF], <95% RH (without condensing)
Storage temperature	-10ºC to 50ºC [14ºF to 122ºF], 0-95% RH
Status LED (right)	Turns ON if the device is powered on. Turns OFF if the device is powered off. Flashes if there is an alarm or an error.
High Limit On/Off LED (left)	Turns ON if there is a high limit cutout (0V). Turns OFF if there is no high limit cutout (24V).
Dimensions A = 3.50" | 89mm B = 3.00" | 76mm C = 2.16" | 55mm D = 1.30" | 33mm E = 3.95" | 100mm F = 0.37" | 9.5mm G = 0.44" | 11mm H = 0.80" | 20mm I = 0.75" | 19mm	

Mounting Instructions
Install the SHS80 directly on the supply air duct using the accessories. For standard humidifier applications, power the unit using the 24 Vac power supply provided from the humidifier.
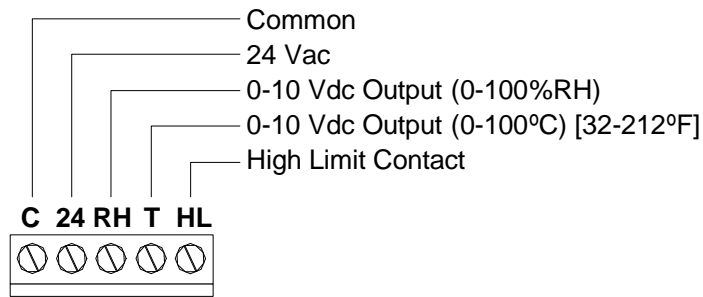
*This product is subject to the terms and conditions described at **http://www.neptronic.com/Sales-Conditions.aspx**.*

⚠️ **Any installation or maintenance work must be carried out by suitably qualified personnel.**

⚡ **Disconnect the main supply on the unit and external loads before proceeding with any installation or maintenance.**

Wiring Diagrams

Terminal Description

- Common
- 24 Vac
- 0-10 Vdc Output (0-100%RH)
- 0-10 Vdc Output (0-100ºC) [32-212ºF]
- High Limit Contact

C 24 RH T HL

Standard Field Wiring

Airflow Switch

Humidifier PCB
Control Connections

Common
24 Vac
0-10 Vdc Output (0-100%RH)
0-10 Vdc Output (0-100ºC) [32-212ºF]
High Limit Contact

Normally Closed Contact

SHS80

24 Vac
Airflow Switch
High Limit Humidistat
Interlock
On/Off Demand Contact
Common
24 Vac
Control Demand (0-10Vdc)
Room Humidity (0-10Vdc)
Duct Humidity (0-10Vdc)
Steam Output (0-10Vdc)