

Enhanced  
Version of  
HumiTherm-i



## What is New

- Extended Input Types for Temperature & Humidity Channels
- Selection for Dry / Wet Input Configuration
- 4 LEDs for Status Indications
- Separate Relay / SSR Outputs for Temperature & %RH Alarms
- Factory Set Excitation Voltage (5/12/24 VDC @ 30 mA)
- Programmable De-Humidifier Control with Relay Output
- No Jumper Settings for Input Type Configuration
- RS485 Serial Port (MODBUS RTU) as Standard
- Plug-in Terminals for Easy Installation
- Reduced Enclosure Depth (94 mm with Terminals)

## Features

- Universal Inputs (RTD/mA/V for Temperature & %RH) with Selection for Dry/Wet Configuration
- Min/Max Monitoring of Temperature & %RH Values
- Independent Zero Offset Adjustment for Temperature & %RH
- °C / °F Units Selection for Temperature Indication
- 2 Independent Alarms for Temperature & %RH Each with Relay/SSR Outputs
- De-Humidifier Control with Relay Output
- Universal Supply Voltage : 85~264 VAC, 50/60 Hz
- DIN Standard Dimensions (mm) : 48(H) X 48(W) X 94(D)

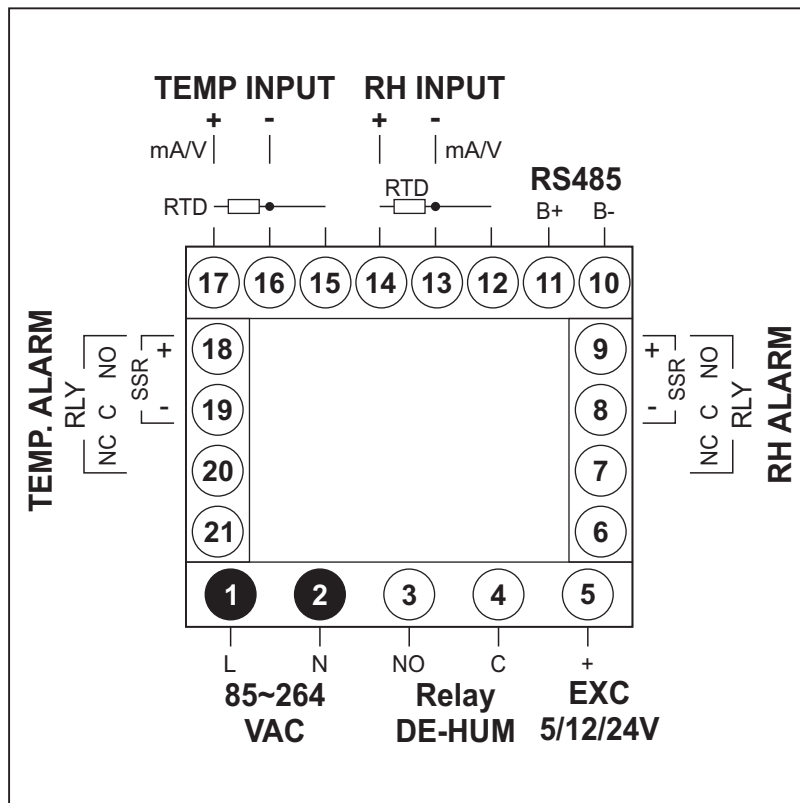
## Specifications

Display	
Digital Readouts	2 Rows of 4 digits, 0.36" Bright Green LED, 7 Segment
Status Indicators	4 Red LEDs
Keys	
Type	4 Tactile Push-button Switches
Functions	PAGE, DOWN, UP, ENTER
Sensor / Signal Input	
Temperature Input (User Configurable)	RTD Pt100, 3 wire (Dry Bulb) 0-20 mA / 4-20 mA 0-5 VDC / 0-10 VDC / 1-5 VDC
Humidity (%RH) Input (User Configurable)	RTD Pt100, 3 wire (Wet Bulb) 0-20 mA / 4-20 mA 0-5 VDC / 0-10 VDC / 1-5 VDC

Accuracy	RTD Pt100 : ± 0.25% of reading ± 1 LSD DC mA / Volts : ± 0.20% of reading ± 1 LSD
Display Range	RTD Pt100 Input : -199.9 to 600.0 °C DC Linear mA / V : Adjustable from -199.9 to 999.9 Counts
Display Resolution	Temperature : 0.1 °C / °F Fixed Humidity : 0.1 % Fixed
Zero Offset	Independent for Temperature & Humidity User Adjustable over Full Range
ADC	16 Bit (±32,768 Counts), Sigma-Delta (ΣΔ)
Input Resistance	> 8 MΩ for Pt100 > 47 KΩ for Voltage Input 249 Ω Precision Shunt for mA Input
Common Mode Rejection	> 100dB at 50/60 Hz
Signal Conditioning	First Order Analog R-C Low-Pass Filter
Input Protection	ESD : 8KV EFT : 2KV Surge : 1KV
<b>Excitation Voltage</b>	
Ratings	5 V @ 30 mA (Standard) 12 V @ 30 mA (Optional) 24 V @ 30 mA (Optional)  Note : For current output transmitters (0/4-20 mA), the Excitation Voltage can power only one input.
<b>Alarms</b>	
Numbers	2, Independent (1 each for Temperature & %RH)
Programmable Parameters	Mode : Process Low, Process High Logic : Direct, Reverse Hysteresis : 0.1 to 25.0 Unit Counts Inhibit : No, Yes
Outputs	Relay Change-over Contacts or SSR Drive (Factory Settable)
<b>De-Humidification Control</b>	
Type	On-Off
Control Parameters	Enable / Disable, Setpoint, Hysteresis
Output	Relay Change-over Contacts
<b>Outputs</b>	
Relay	Contact Type : Potential-free Change-over Contacts Contact Rating : 5A Resistive @ 250 VAC Contact Life : > 5,00,000 Operations at Rated Voltage / Current
SSR Drive	12 VDC @ 30 mA
<b>Serial Communication</b>	
Port	RS485, 2-wire, Half Duplex, Start-Stop Synchronized
Protocol	MODBUS RTU
ID	Settable : 1 to 127
Baud Rate	Settable : 4800, 9600, 19200
Parity	Settable : None, Even, Odd
Max. Distance	1200 Metres

<b>Power Supply</b>	
Type	Switch Mode (SMPS)
Line Voltage	85~264VAC, 50/60Hz
Consumption	7VA Max
<b>Physical</b>	
Mounting	Plug-in with Panel Mounting Clamps
Overall Dimensions	48(H) X 48(W) X 94(D), mm
Panel Cutout	45(H) X 45(W), mm
Terminals	Screw Type, Plug-in Male / Female
Weight	200 gm, max
<b>Environmental</b>	
Operating Ambient	0~55°C & 5~90%RH Non-condensing
Storage Temperature	-10 to +70 °C
EMC Standards	EN50081-2 & EN 50082-2 Generic Stds for Industrial Environment
Safety Standards	Meets EN61010, Installation Catagory II
Atmospheres	Not Suitable for use in Corrosive or Explosive Atmospheres. The Panel in which the Instrument is Mounted must be free of Electrically Conductive Pollution.

## Back Panel Terminations



## Ordering Code

Model		Temperature Alarm Output		Humidity Alarm Output		Excitation Voltage Output	
HIP	HumiTherm-i Pro	1	Relay (Std)	1	Relay (Std)	5	5 VDC (Std)
		2	SSR	2	SSR	12	12 VDC
						24	24 VDC

**Std** : Supplied as Standard

**Example Code** **HIP - 1 - 1 - 5**

Temperature Alarm Output Relay, Humidity Alarm Output Relay, Excitation Voltage Output 5 VDC