



Features

- Independent Displays for Temperature & %RH
- Input Versions :
 - (1) Dry Bulb / Wet Bulb
 - (2) Temperature / RH Transmitter
- Independent Zero Offset Adjustment for Temperature & %RH
- Independent Self Tune PID Control Loop for Temperature & %RH
- Heater and Humidifier Control Outputs (Open Collector Drives)
- Optional Output for Alarm / Compressor Control
- Optional Serial Communication Port
- DIN Standard Dimensions (mm) : 48(H) X 48(W) X 110(D)

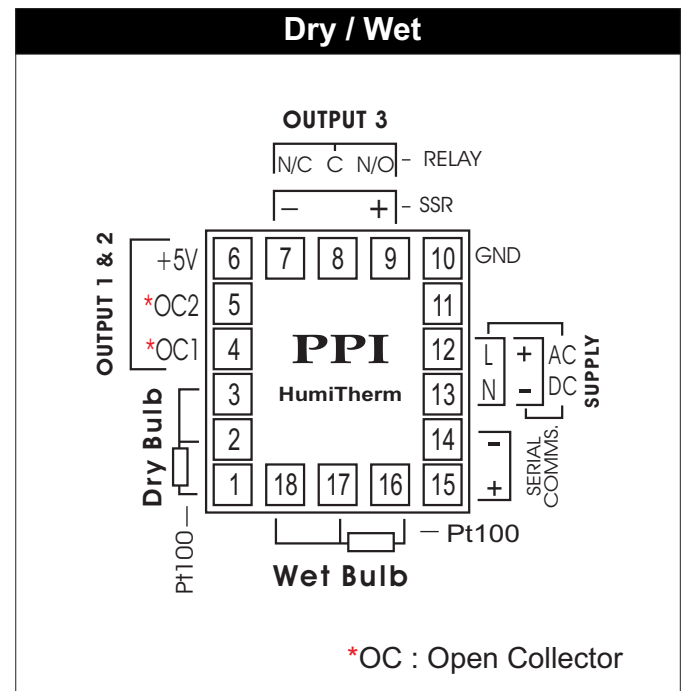
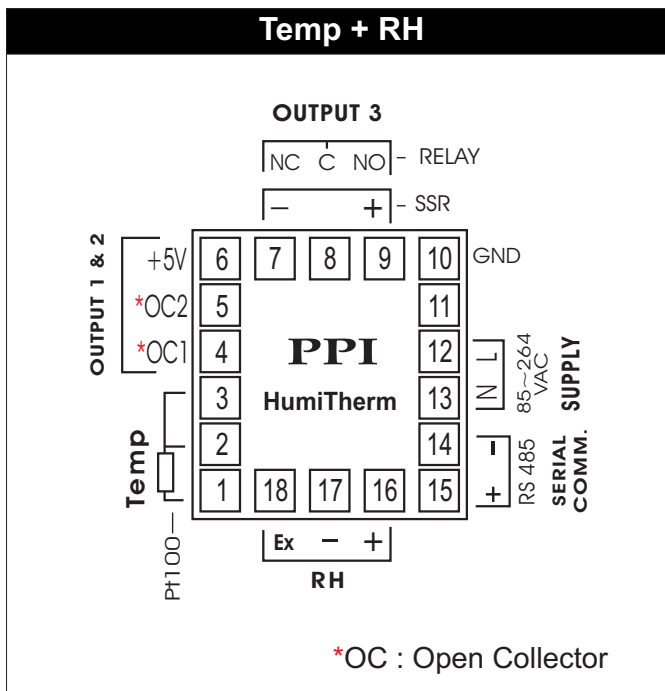
Specifications

Display	
Digital Readout	Upper Readout : 4 digits, 0.39" Bright Red LED, 7 Segment Lower Readout : 4 digits, 0.3" Luminous Green LED, 7 Segment
Status Indicators	5 Red LEDs (3mm Round)
Keys	
Type	4 Tactile Switches
Functions	PAGE, DOWN, UP, ENTER
Sensor / Signal Input	
Temperature Input	RTD Pt100, 3 wire
%RH Input	Dry Bulb / Wet Bulb Version : RTD Pt100, 3 wire Temperature + RH Transmitter Version : 0 - 5 VDC Linear
Accuracy	RTD Pt100 : $\pm 0.25\%$ of reading $\pm 1^\circ\text{C}$ DC Linear Volts : $\pm 0.25\%$ of reading ± 1 LSD
Display Range	RTD Pt100 Input : 0 to 150 °C DC Linear Volts : Adjustable from -199.9 to 999.9 Counts
Display Resolution	Temperature : 0.1 Fixed %RH : 0.1 Fixed
Zero Offset	User Adjustable over Full Range
ADC	16 Bit ($\pm 32,768$ Counts), Sigma-Delta ($\Sigma\Delta$)
Sampling Time	500mS (2 Samples per Second)
Input Resistance	> 8 MOhm
Common Mode Rejection	> 100dB at 50/60 Hz
Signal Conditioning	L-C Analog Filter

Alarms	
Numbers	2, Independent (One Each for Temperature and RH)
Programmable Parameters	Type : Symmetrical Band Around Setpoint Hysteresis : 0.2 to 10.0 Unit Counts
Outputs (Optional)	Relay Change-over Contacts or SSR Drive (Jumper Selectable) Output-3 (If not Selected for Compresses Control)
Compressor Control	
Type	On-Off
Mode	Auto / Manual
Control Parameters	Manual Mode : On, Off Auto Mode : Time Delay
Heating / Humidification Control	
Type	Self Tune PID (Independent Loop for Temperature & RH)
Mode	Reverse Control
Control Parameters	(Independently Settable for Temperature & RH) Proportional Band, Integral Time, Derivative Time, Cycle Time
Outputs	
Relay	Contact Type : Potential-free Change-over Contacts Contact Rating : 5A Resistive @ 120/240 Vac Contact Life : > 5,00,000 Operations at Rated Voltage / Current
SSR Drive	> 4.2 VDC into 1KOhm Minimum
Open Collector Drive	For Driving External Relay / SSR (50 V Max. @ 300 mA Max.)
Serial Communication	
Port	RS485, 2-wire, Half Duplex, Start-Stop Synchronized
Protocol	Modbus RTU
Baud Rate	Settable : 1200, 2400, 4800, 9600
Max. Distance	1200 Metres
Power Supply	
Type	Switch Mode (SMPS)
Line Voltage	Standard : 85~264VAC, 50/60Hz Optional : 18~36 VDC
Consumption	5VA Max
Physical	
Mounting	Plug-in with Panel Mounting Clamps
Overall Dimensions	48(H) X 48(W) X 110(D), mm
Panel Cutout	45(H) X 45(W), mm
Terminals	Screw Type
Weight	225 gm, Appx.

Environmental	
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

Input		Output 1		Output 2		Output 3		Power Supply		Options	
DW	Dry / Wet	2	For SSR	2	SSR	1	Relay	0	85~264 VAC	N	None
TR	Temp + RH					2	SSR			S	Serial Port

Example Code

TR-2-2-1-0-S

Temperature + RH Transmitter Input, Output-1 Open Collector, Output-2 Open Collector, Output-3 Relay/SSR, 85~264 VAC Supply, Serial Port