

HumiTherm-iS Pro

Enhanced
"Temperature + Humidity" Indicator
(with Dry/Wet RTD Input Selection)

Operation Manual

This brief manual is primarily meant for quick reference to wiring connections and parameter searching. For more details on operation and application; please log on to www.ppiindia.net

PPI

101, Diamond Industrial Estate, Navghar,
Vasai Road (E), Dist. Palghar - 401 210.
Sales : 8208199048 / 8208141446
Support : 07498799226 / 08767395333
E: sales@ppiindia.net, support@ppiindia.net

Nov 2024

OPERATOR PAGE AND PARAMETERS : PAGE 0

Parameters	Settings (Default Value)
Maximum Dry Bulb Temperature Value db.H_i	View Only
Minimum Dry - Bulb Temperature Value db.Lo	View Only
Maximum %RH Value rh.H_i	View Only
Minimum Peak of RH rh.Lo	View Only
Reset Command rSt	no No YES Yes (Default : No)
Reset Password COde	0 to 9999 (Default : 0)
Select Channel SEL	0C Temp rh Humidity (Default : Temp)
Temperature Control Setpoint or RH Control Setpoint 0C.SP rh.SP	Setpoint Low Limit to Setpoint High Limit (Default : 0.0)
Temperature or RH Alarm-1 Setpoint Al.SP	
Temperature or RH Alarm-2 Setpoint Al2.SP	

ALARM PARAMETERS : PAGE-10

Parameters	Settings (Default Value)
Select Channel SEL	0C Temp rh Humidity (Default : Temp)
Alarm Function ALFC	ALrā Alarm tr.P Trip (Default : Alarm)
Alarm Latch ALLt	no No YES Yes (Default : No)

ALARM PARAMETERS : PAGE-10

Parameters	Settings (Default Value)
Alarm-1 Type Al1tY	nonE None P_Lo Process Low P_Hi Process High (Default : None)
Alarm-1 Hysteresis Al1HY	0.2 to 99.9 (Default : 2.0)
Alarm-1 Inhibit Al1.h	no No YES Yes (Default : Yes)
Alarm 2 Type Al2tY	nonE None P_Lo Process Low P_Hi Process High (Default : None)
Alarm-2 Hysteresis Al2HY	0.2 to 99.9 (Default : 2.0)
Alarm-2 Inhibit Al2.h	no No YES Yes (Default : Yes)

ON-OFF CONTROL PARAMETERS : PAGE 11

Parameters	Settings (Default Value)
Select Channel SEL	0C Temp rh Humidity (Default : Temp)
Control Function Ctrl	dSbL Disable EnbL Enable (Default : Disable)
Control Mode tyPE	COOL Cool } Temp. Channel HEAT Heat } (Default : Heat) dhUā De- } RH Channel hUā Hum } (Default : Hum)
Setpoint Low Limit SP.Lo	Input Type Minimum Range to Setpoint High Limit (Default : 0.0)
Setpoint High Limit SP.H_i	Setpoint Low Limit to Input Type Maximum Range (Default : 100.0)
Hysteresis HYSt	0.1 to 99.9 (Default : 2.0)

INPUT CONFIGURATION PARAMETERS : PAGE 12

Parameters	Settings (Default Value)																					
Select Channel SEL	0C Temp rh Humidity (Default : Temp)																					
Input Type inPt	Refer Table 1 (Default) For Temp. : RTD, For RH : 0 to 5.0)																					
Signal Low S.Lo	<table border="1"> <thead> <tr> <th>Input Type</th> <th>Settings</th> <th>Default</th> </tr> </thead> <tbody> <tr> <td>0 to 20mA</td> <td>0.00 to Signal High</td> <td>0.00</td> </tr> <tr> <td>4 to 20mA</td> <td>4.00 to Signal High</td> <td>4.00</td> </tr> <tr> <td>0 to 1.25 V</td> <td>0.00 to Signal High</td> <td>0.00</td> </tr> <tr> <td>0 to 5 V</td> <td>0.000 to Signal High</td> <td>0.000</td> </tr> <tr> <td>0 to 10 V</td> <td>0.00 to Signal High</td> <td>0.00</td> </tr> <tr> <td>1 to 5 V</td> <td>1.000 to Signal High</td> <td>1.000</td> </tr> </tbody> </table>	Input Type	Settings	Default	0 to 20mA	0.00 to Signal High	0.00	4 to 20mA	4.00 to Signal High	4.00	0 to 1.25 V	0.00 to Signal High	0.00	0 to 5 V	0.000 to Signal High	0.000	0 to 10 V	0.00 to Signal High	0.00	1 to 5 V	1.000 to Signal High	1.000
Input Type	Settings	Default																				
0 to 20mA	0.00 to Signal High	0.00																				
4 to 20mA	4.00 to Signal High	4.00																				
0 to 1.25 V	0.00 to Signal High	0.00																				
0 to 5 V	0.000 to Signal High	0.000																				
0 to 10 V	0.00 to Signal High	0.00																				
1 to 5 V	1.000 to Signal High	1.000																				
Signal High S.H_i	<table border="1"> <thead> <tr> <th>Input Type</th> <th>Settings</th> <th>Default</th> </tr> </thead> <tbody> <tr> <td>0 to 20mA</td> <td>20.00 to Signal Low</td> <td>20.00</td> </tr> <tr> <td>4 to 20mA</td> <td>20.00 to Signal Low</td> <td>20.00</td> </tr> <tr> <td>0 to 1.25 V</td> <td>1.250 to Signal Low</td> <td>1.250</td> </tr> <tr> <td>0 to 5 V</td> <td>5.000 to Signal Low</td> <td>5.000</td> </tr> <tr> <td>0 to 10 V</td> <td>10.00 to Signal Low</td> <td>10.00</td> </tr> <tr> <td>1 to 5 V</td> <td>5.000 to Signal Low</td> <td>5.000</td> </tr> </tbody> </table>	Input Type	Settings	Default	0 to 20mA	20.00 to Signal Low	20.00	4 to 20mA	20.00 to Signal Low	20.00	0 to 1.25 V	1.250 to Signal Low	1.250	0 to 5 V	5.000 to Signal Low	5.000	0 to 10 V	10.00 to Signal Low	10.00	1 to 5 V	5.000 to Signal Low	5.000
Input Type	Settings	Default																				
0 to 20mA	20.00 to Signal Low	20.00																				
4 to 20mA	20.00 to Signal Low	20.00																				
0 to 1.25 V	1.250 to Signal Low	1.250																				
0 to 5 V	5.000 to Signal Low	5.000																				
0 to 10 V	10.00 to Signal Low	10.00																				
1 to 5 V	5.000 to Signal Low	5.000																				
Range Low r.Lo	-199.9 to 999.9 (Default : 0.0)																					
Range High r.H_i	-199.9 to 999.9 (Default : 100.0)																					
Offset OFSt	-99.9 to 99.9 (Default : 0.0)																					
Filter FiLt	0.5 to 60.0 Seconds (in steps of 0.5 Seconds) (Default : 2.0 sec.)																					

SUPERVISORY PARAMETERS : PAGE 13

Parameters	Settings (Default Value)
Control Set-point Adjustment on Operator Page SP.OP	dSbL Disable EnbL Enable (Default : Disable)
Alarm Set-point Adjustment on Operator Page AL.OP	dSbL Disable EnbL Enable (Default : Disable)
Remote Acknowledge Switch rā.t.A	dSbL Disable EnbL Enable (Default : Disable)
Password For Resetting Min/Max COde	1 to 9999 (Default : 0)
Device Slave ID id	1 to 127 (Default : 1)
Baud Rate BAUD	48 4800 96 9600 192 19200 (Default : 9.6)
Parity PAR_i	nonE None EuEn Even Odd Odd (Default : Even)
Serial Write Permission COde	no No YES Yes (Default : No)

RETRANSMISSION PARAMETERS : PAGE 15

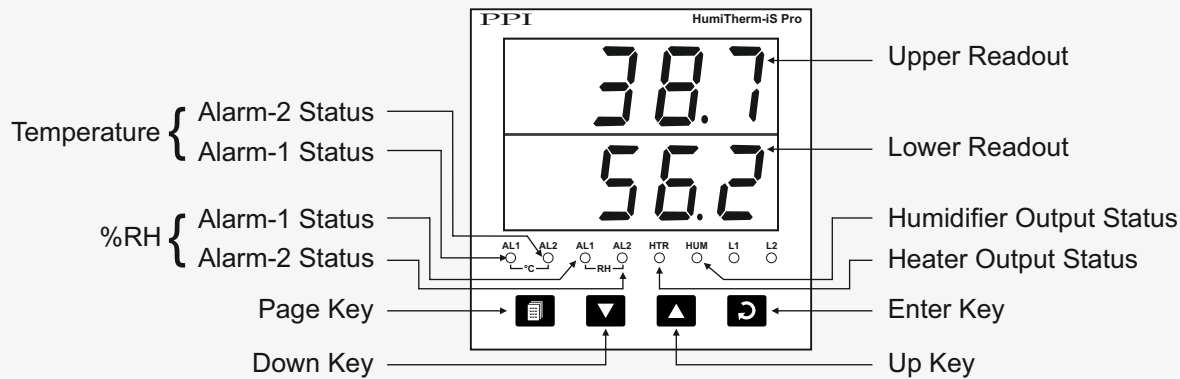
Parameters	Settings (Default Value)
Select Channel SEL	0C Temp rh Humidity (Default : Temp)
Retransmission Output Type rEt.o	0-20 0 - 20mA 4-20 4 - 20mA 0-5 0 - 5 V 0-10 0 - 10 V (Default : 4 - 20mA)

Parameters	Settings (Default Value)
Retransmission Low rEt.L	Input Type Minimum Range to Input Type Maximum Range (Default : 0.0)
Retransmission High rEt.H	Input Type Minimum Range to Input Type Maximum Range (Default : 100.0)

TABLE- 1

Option	Range (Min. to Max.)	Resolution
rtd 3-wire, RTD Pt100	-199.9 to +600.0°C	0.1°C
0-20 0 to 20mA DC current	-199.9 to 999.9 units	0.1 units
4-20 4 to 20mA DC current		
rES.1 rES.2 Reserved (Default : 0 to 20mV)		
1.25 0 to 1.25V DC voltage		
5.0 0 to 5.0V DC voltage		
10.0 0 to 10.0V DC voltage		
1-5 1 to 5.0V DC voltage		

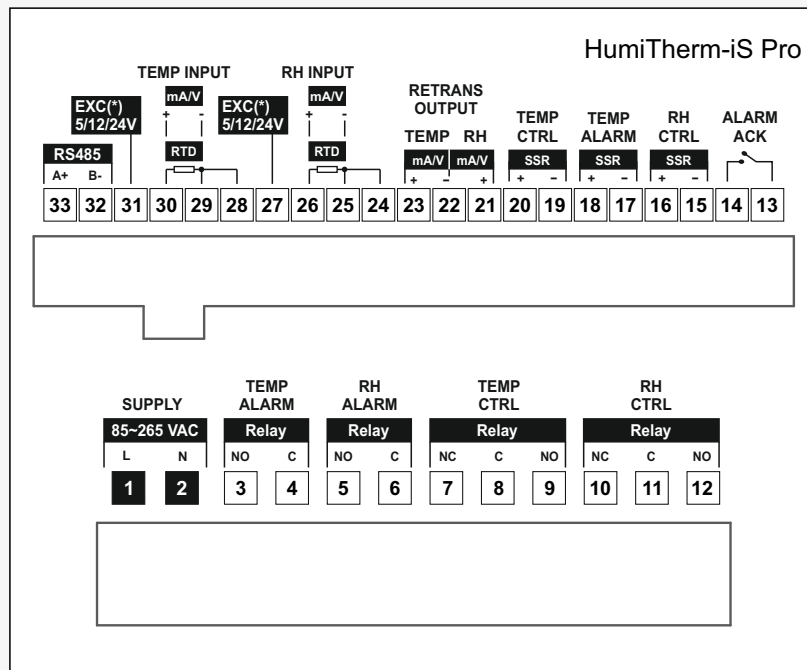
FRONT PANEL LAYOUT



Keys Operation

Symbol	Key	Function
	PAGE	Press to enter or exit set-up mode.
	DOWN	Press to decrease the parameter value. Pressing once decreases the value by one count; keeping pressed speeds up the change.
	UP	Press to increase the parameter value. Pressing once increases the value by one count; keeping pressed speeds up the change.
	ENTER	Press to store the set parameter value and to scroll to the next parameter on the PAGE.

ELECTRICAL CONNECTIONS



PV Error Indications for Dry Bulb Temperature

Message	Error Type
	Over-range Dry Bulb Temp. above Max. Range
	Under-range Dry Bulb Temp. below Min. Range
	Sensor Open Dry Bulb Sensor (RTD) Broken / Open

PV Error Indications for Relative Humidity (RH)

Message	Error Type	Cause
	Over-range	Wet Bulb Temperature above Max. Range
	Under-range	Wet Bulb Temperature below Min. Range
	Sensor Open	Wet Bulb Sensor (RTD) Broken / Open
	RH Error	This error is indicated in the following cases : <ul style="list-style-type: none"> Dry Bulb Temperature above 102.0°C. Dry Bulb Temperature below -20.0°C. Wet Bulb depression beyond: 50.0°C for Dry Bulb Temperature above 0°C 5.6°C for Dry Bulb Temperature below 0°C
	Display Freezes To 100.0%	This error is indicated in the following cases : <ul style="list-style-type: none"> Wet-Bulb Temperature exceeds Dry-Bulb Temperature. Computed % RH above 100.0%.
	Display Freezes To 0.0%	Computed % RH is below 0.0%.