

HumiTherm-AH Pro

Smart Temperature & Humidity Control
for Air Handling Units (AHUs)

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

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Mar 2026

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 Humidity : 0 to 5.0)																							
Signal Low SLo	<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		
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0 to 20mA	0.00 to Signal High	0.00																						
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Input Type	Settings	Default																						
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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 rLo	-199.9 to 999.9 (Default : 0.0)																							
Range High rHi	-199.9 to 999.9 (Default : 100.0)																							
Offset OFSt	-50.0 to 50.0 (Default : 0.0)																							
Filter FLt	0.5 to 60.0 Seconds (in steps of 0.5 Seconds) (Default : 2.0 sec.)																							

Parameters	Settings (Default Value)
Select Channel SEL	0C Temp rH Humidity (Default : Temp)
Heat/Humidifier Output Type OPt	rLY Relay SSr SSR 0-20 0 - 20 mA 4-20 4 - 20 mA 0-5 0 - 5 V 0-10 0 - 10 V (Default : For Heater : 0 to 10V For Humidifier : SSR)
Economic Low Setpoint ECLo	0.0 to Comfort Low Setpoint (Default : For Heater : 19.0 For Humidifier : 20.0)
Comfort Low Setpoint CFLo	Economic Low Setpoint to Comfort High Setpoint (Default : For Heater : 21.0 For Humidifier : 40.0)
Comfort High Setpoint CFHi	Comfort Low Setpoint to Economic High Setpoint (Default : For Heater : 24.0 For Humidifier : 60.0)
Economic High Setpoint ECHi	Comfort High Setpoint to 100.0 (Default : For Heater : 28.0 For Humidifier : 80.0)
Heat/Humidifier Power Low PL	0 to Heat/Humidifier Power High (Default : 0)
Heat/Humidifier Power High PH	Heat/Humidifier Power Low to 100 (Default : 100)
Heat/Humidifier Cycle Time Ct	0.5 to 100.0 (Default : 10.0)

UNOCCUPANCY MODE PARAMETERS : PAGE 15	
Parameters	Settings (Default Value)
Unoccupancy Mode Enable UOEn	no No YES Yes (Default : Yes)
Unoccupancy 'Temperature Offset' UtOF	-10.0 to 10.0 (Default : 2.0)
Unoccupancy 'Humidity Offset' UHOF	0.0 to 20.0 (Default : 10.0)
Humidification in Unoccupancy Mode UOHU	dSbL Disable EnbL Enable (Default : Disable)
Unoccupancy Mode Select Source UOSr	dI DI (Digital Input) rTU RTU (MODBUS) (Default : DI)

OPERATOR PARAMETERS : PAGE-0	
Parameters	Settings (Default Value)
Select Channel SEL	0C Temp rH Humidity (Default : Temp)
Economic Low Setpoint ECLo	0.0 to Comfort Low Setpoint (Default : For Heater : 19.0 For Humidifier : 20.0)
Comfort Low Setpoint CFLo	Economic Low Setpoint to Comfort High Setpoint (Default : For Heater : 21.0 For Humidifier : 40.0)
Comfort High Setpoint CFHi	Comfort Low Setpoint to Economic High Setpoint (Default : For Heater : 24.0 For Humidifier : 60.0)
Economic High Setpoint ECHi	Comfort High Setpoint to 100.0 (Default : For Heater : 28.0 For Humidifier : 80.0)
Alarm-1 Setpoint A1SP	Setpoint Low Limit to Setpoint High Limit (Default : 0.0)
Alarm-2 Setpoint A2SP	

AHU PARAMETERS : PAGE-08	
Parameters	Settings (Default Value)
Cool + De-Humidifier Output Type CdOP	rLY Relay SSr SSR 0-20 0 - 20 mA 4-20 4 - 20 mA 0-5 0 - 5 V 0-10 0 - 10 V (Default : 0-10)
Cool Output Power Strategy COOL	SUM 'Sum' of Cooling & De-Humidifier power GDF2 'Greater' of Cooling & De-Humidifier power (Default : SUM)
Cool Power Low CPL	0 to Cool Power High (Default : 0)
Cool Power High CPH	Cool Power Low to 100 (Default : 100)
Cool Cycle Time CCT	0.5 to 100.0 (Default : 10.0)

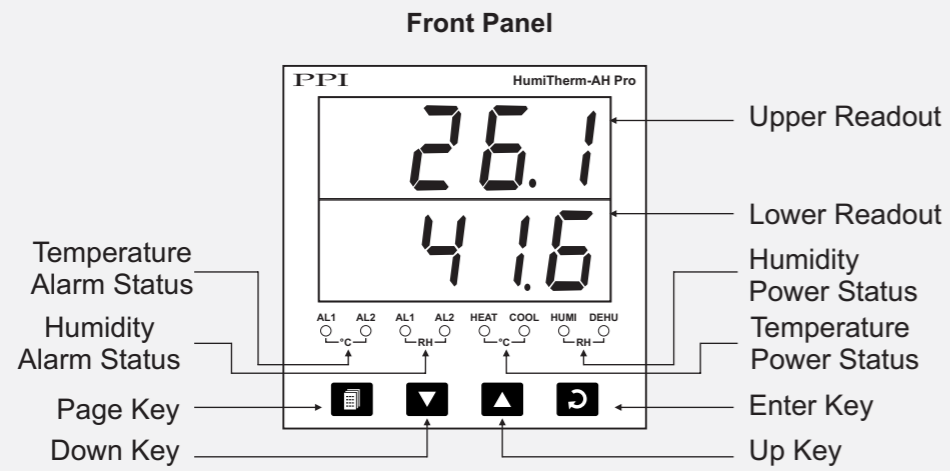
ALARM PARAMETERS : PAGE-10	
Parameters	Settings (Default Value)
Select Channel SEL	0C Temp rH Humidity (Default : Temp)
Alarm-1 Type AL_1	nonE None P_Lo Process Low P_Hi Process High (Default : None)
Alarm-1 Hysteresis A1HY	0.2 to 99.9 (Default : 2.0)
Alarm-1 Inhibit A1h	no No YES Yes (Default : Yes)
Alarm-2 Type AL_2	same as Alarm-1
Alarm-2 Hysteresis A2HY	
Alarm-2 Inhibit A2h	

SUPERVISORY PARAMETERS : PAGE-13	
Parameters	Settings (Default Value)
Control / Alarm Set-point Adjustment Permission SPoP	dSbL Disable EnbL Enable (Default : Disable)
Device Slave ID Id	1 to 127 (Default : 1)
Baud Rate BAUD	48 4800 96 9600 192 19200 (Default : 9600)
Parity PARi	nonE None EvEn Even Odd Odd (Default : Even)
Serial Write Permission CoñE	no No YES Yes (Default : Yes)

CONTROL INFO PARAMETERS : PAGE-1	
Parameters	Settings (Default Value)
Temperature Power oCPr	Read Only
Humidity Power rHPr	Read Only
Cool Power CPOy	Read Only
De-humidifier Power dPOy	Read Only
Net Cool Power nEtP	Read Only

FRONT PANEL LAYOUT

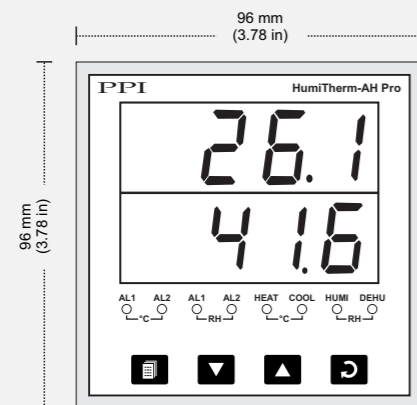
TABLE- 1



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.

Option	What it means	Range (Min. to Max.)	Resolution
	3-wire, RTD Pt100 (Available for Temperature Input Only)	-199.9 to +600.0°C	0.1°C
	0 to 20mA DC current	-199.9 to 999.9 units	0.1 units
	4 to 20mA DC current		
	Reserved (Do not select)		
	Reserved (Do not select)		
	0 to 1.25V DC voltage		
	0 to 5.0V DC voltage		
	0 to 10.0V DC voltage		
	1 to 5.0V DC voltage		

OUTER DIMENSIONS, PANEL CUTOUT & ELECTRICAL CONNECTIONS

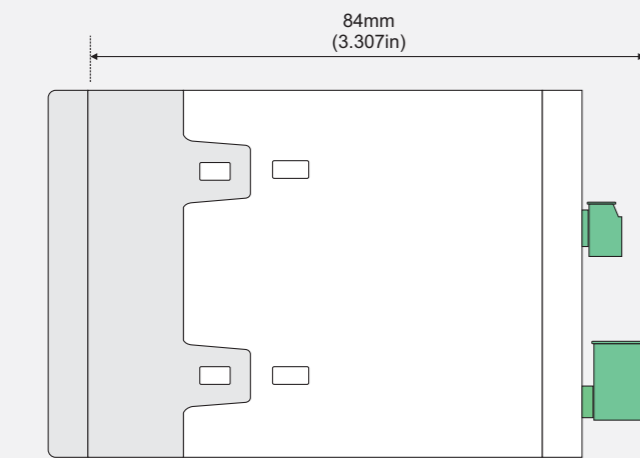


Front View

Panel Cutout
92 X 92 mm
 -0, +0.5 mm
(3.622 X 3.622 in)
 (-0, +0.02 in)

10mm (0.39in)

38mm (1.5in)



Side View

