

HumiTherm Plus 96

PC Interface with 21 CFR Software

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

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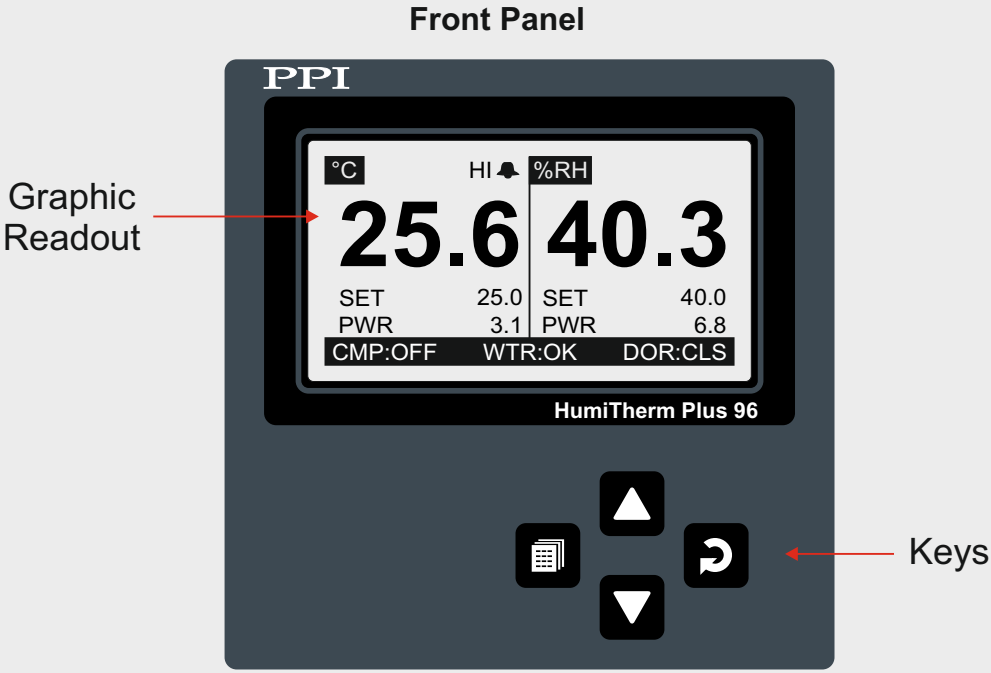
Level	Sub-Level	Parameters	Range (Default Value)
 Operator	 °C SETPOINTS	Control Setpoint	SP Low Limit to SP High Limit (Default : 25.0)
		Low Deviation Alarm	0.2 to 99.9 (Default : 2.0)
		High Deviation Alarm	0.2 to 99.9 (Default : 2.0)
	 RH SETPOINTS	Control Setpoint	SP Low Limit to SP High Limit (Default : 60.0)
		Low Deviation Alarm	0.2 to 99.9 (Default : 2.0)
		High Deviation Alarm	0.2 to 99.9 (Default : 2.0)
 Supervisory	 ZERO OFSET	Temperature Offset	-50.0 to 50.0 (Default : 0.0)
		RH Offset	-50.0 to 50.0 (Default : 0.0)
	 RECORDING	Interval (Min)	0 to 250 (Min) (Default : 5 Min)
		Alarm Toggle Record	Disable Enable (Default : Enable)
		Delete Records	No Yes (Default : No)
		Device ID	1 to 127 (Default : 1)
	 DATE / TIME	Date (DD)	1 to 31
		Month (MM)	1 to 12
		Year (YYYY)	2000 to 2099
		Hours (hh)	0 to 23
		Minutes (mm)	0 to 59
		Sync	No Yes (Default : No)
	 BUZZER	On Alarm	Disable Enable (Default : Enable)
	 CHANGE PSW	Change Password	No Yes (Default : No)
		New Password	0 to 9999

Level	Sub-Level	Parameters	Range (Default Value)																			
 Factory	 °C SETTINGS	Select Group : Alarm Settings																				
		Hysteresis		0.1 to 99.9 (Default : 0.2)																		
		Inhibit		No Yes (Default : Yes)																		
		Select Group : Control Settings																				
		Tune		No Yes (Default : No)																		
		Setpoint LO Limit		-99.9 to SETPOINT HI LIMIT (Default : 10.0)																		
		Setpoint HI Limit		For RTD: Setpoint Lo Limit to 850.0 For mA/V: Setpoint Lo Limit to 999.9 (Default : 60.0)																		
		CONTROL ZONES : DUAL																				
		CZ Prop Band		0.1 to 999.9 (Default : 50.0)																		
		CZ Integral Time		0 to 3600 Sec (Default : 100 Sec)																		
		CZ Derivative Time		0 to 600 Sec (Default : 16 Sec)																		
		HZ Prop Band		0.1 to 999.9 (Default : 50.0)																		
		HZ Integral Time		0 to 3600 Sec (Default : 100 Sec)																		
		HZ Derivative Time		0 to 600 Sec (Default : 16 Sec)																		
		Cycle Time		0.5 to 100.0 Sec (Default : 1.0 Sec)																		
		CONTROL ZONES : SINGLE																				
		Proportional Band		0.1 to 999.9 (Default : 50.0)																		
		Integral Time		0 to 3600 Sec (Default : 100 Sec)																		
		Derivative Time		0 to 600 Sec (Default : 16 Sec)																		
		Cycle Time		0.5 to 100.0 Sec (Default : 1.0 Sec)																		
		Select Group : Sensor Input																				
		Input Type		RTD Pt100 0-20mA 4-20mA 0-5V 0-10V 1-5V (Default : RTD Pt100)																		
		Signal LO		<table><tr><th>Input Type</th><th>Settings</th><th>Default</th></tr><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 5V</td><td>0.000 to Signal High</td><td>0.000</td></tr><tr><td>0 to 10V</td><td>0.00 to Signal High</td><td>0.00</td></tr><tr><td>1 to 5V</td><td>1.000 to Signal High</td><td>1.000</td></tr></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 5V	0.000 to Signal High	0.000	0 to 10V	0.00 to Signal High	0.00	1 to 5V	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 5V	0.000 to Signal High	0.000																		
		0 to 10V	0.00 to Signal High	0.00																		
		1 to 5V	1.000 to Signal High	1.000																		
		Signal HI		<table><tr><th>Input Type</th><th>Settings</th><th>Default</th></tr><tr><td>0 to 20mA</td><td>Signal Low to 20.00</td><td>20.00</td></tr><tr><td>4 to 20mA</td><td>Signal Low to 20.00</td><td>20.00</td></tr><tr><td>0 to 5V</td><td>Signal Low to 5.000</td><td>5.000</td></tr><tr><td>0 to 10V</td><td>Signal Low to 10.00</td><td>10.00</td></tr><tr><td>1 to 5V</td><td>Signal Low to 5.000</td><td>5.000</td></tr></table>	Input Type	Settings	Default	0 to 20mA	Signal Low to 20.00	20.00	4 to 20mA	Signal Low to 20.00	20.00	0 to 5V	Signal Low to 5.000	5.000	0 to 10V	Signal Low to 10.00	10.00	1 to 5V	Signal Low to 5.000	5.000
		Input Type	Settings	Default																		
		0 to 20mA	Signal Low to 20.00	20.00																		
		4 to 20mA	Signal Low to 20.00	20.00																		
0 to 5V	Signal Low to 5.000	5.000																				
0 to 10V	Signal Low to 10.00	10.00																				
1 to 5V	Signal Low to 5.000	5.000																				
Range LO		-99.9 to 999.9 Counts (Default : 0.0)																				
Range HI		-99.9 to 999.9 Counts (Default : 100.0)																				
Filter		0.5 to 60.0 Seconds (in steps of 0.5 Seconds) (Default : 2.0 sec.)																				

Level	Sub-Level	Parameters	Range (Default Value)			
 Factory	 RH SETTINGS	Select Group : Alarm Settings				
		Hysteresis		0.1 to 99.9 (Default : 0.2)		
		Inhibit		No Yes (Default : Yes)		
		Select Group : Control Settings				
		Tune		No Yes (Default : No)		
		Setpoint LO Limit		0% to SETPOINT HI LIMIT (Default : 0%)		
		Setpoint HI Limit		SETPOINT LO LIMIT to 100.0% (Default : 100.0%)		
		CONTROL ZONES : DUAL				
		CZ Prop Band		0.1 to 999.9 (Default : 50.0)		
		CZ Integral Time		0 to 3600 Sec (Default : 100 Sec)		
		CZ Derivative Time		0 to 600 Sec (Default : 16 Sec)		
		HZ Prop Band		0.1 to 999.9 (Default : 50.0)		
		HZ Integral Time		0 to 3600 Sec (Default : 100 Sec)		
		HZ Derivative Time		0 to 600 Sec (Default : 16 Sec)		
		Cycle Time		0.5 to 100.0 Sec (Default : 1.0 Sec)		
		CONTROL ZONES : SINGLE				
		Proportional Band		0.1 to 999.9 (Default : 50.0)		
		Integral Time		0 to 3600 Sec (Default : 100 Sec)		
		Derivative Time		0 to 600 Sec (Default : 16 Sec)		
		Cycle Time		0.5 to 100.0 Sec (Default : 1.0 Sec)		
		Select Group : Sensor Input				
		Input Type		0-20mA 4-20mA 0-5V 0-10V 1-5V (Default : 0-5V)		
		Signal LO		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 5V	0.000 to Signal High			0.000		
0 to 10V	0.00 to Signal High			0.00		
1 to 5V	1.000 to Signal High			1.000		
Signal HI		Input Type	Settings	Default		
		0 to 20mA	Signal Low to 20.00	20.00		
		4 to 20mA	Signal Low to 20.00	20.00		
		0 to 5V	Signal Low to 5.000	5.000		
		0 to 10V	Signal Low to 10.00	10.00		
		1 to 5V	Signal Low to 5.000	5.000		
Range LO		0.0 to 100.0 Counts (Default : 0.0)				
Range HI		0.0 to 100.0 Counts (Default : 100.0)				
Filter		0.5 to 60.0 Seconds (in steps of 0.5 Seconds) (Default : 2.0 sec.)				

Level	Sub-Level	Parameters	Range (Default Value)
 Factory	 COMPRESSOR	Control Strategy : Heat + Cool	
		COMPRESSOR STRATEGY	
			CONT. OFF CONT. ON SP BASED PV BASED (Default : CONT. ON)
		CONT. ON	
		Delay (sec) 0 to 1000 Sec (Default : 200 Sec)	
		SP BASED	
		Boundary SP 0.0 to 100.0 (Default : 45.0)	
		PV BASED	
		Setpoint Offset 0.0 to 100.0 (Default : 2.0)	
		Control Zones SINGLE DUAL (Default : SINGLE)	
		Hysteresis 0.1 to 99.9 (Default : 2.0)	
		Delay (sec) 0 to 1000 Sec (Default : 200 Sec)	
		Delay (sec) 0 to 1000 Sec (Default : 200 Sec)	
	 WATER LEVEL	Enable	No Yes (Default : No)
		Starategy	SINGLE SWITCH DUAL LO-HI DUAL LO-VLO (Default : SINGLE SWITCH)
		Switch-1 Logic	OPEN : WATER LO CLOSE : WATER LO (Default : CLOSE : WATER LO)
		Switch-2 Logic	OPEN : WATER HI CLOSE : WATER HI (Default : CLOSE : WATER HI) OR OPEN : WATER VLO CLOSE : WATER VLO (Default : CLOSE : WATER VLO)
	 DOOR OPEN	Enable	No Yes (Default : No)
		Switch Logic	OPEN : DOR OPEN CLOSE : DOR OPEN (Default : CLOSE : DOR OPEN)
		Delay (Sec)	0 to 1000 Sec (Default : 60 Sec)
	 MAINS FAIL	Enable	No Yes (Default : No)
		Switch Logic	CLOSE : FAIL OPEN : FAIL (Default : CLOSE : FAIL)
	 RESET PARA	Reset	No Yes (Default : No)
	 CHANGE PSW	Change Password	No Yes (Default : No)
		New Password	0 to 9999
	 UTILITIES	Enter Code (Unused. Reserved for factory use)	NA

FRONT PANEL LAYOUT



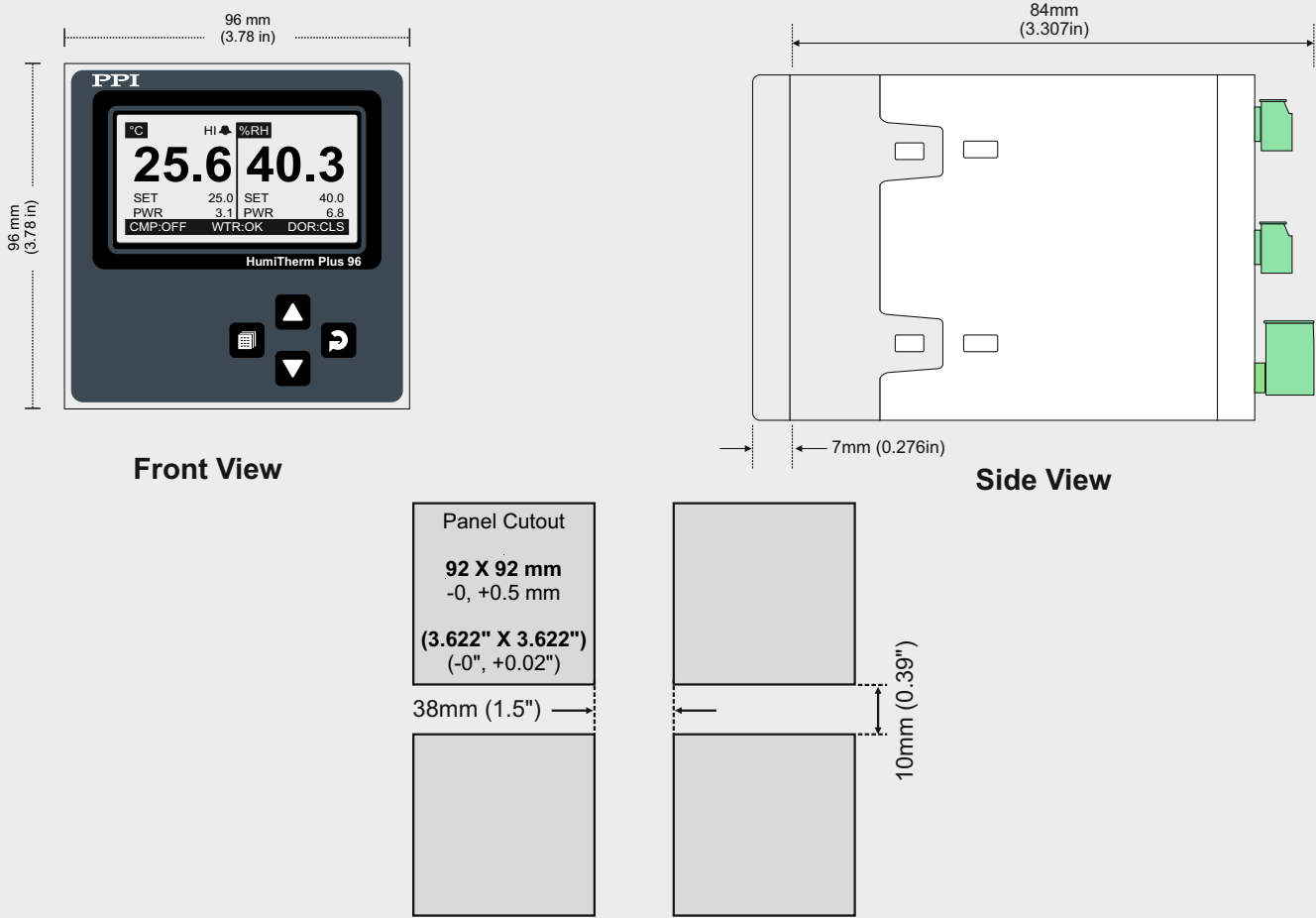
Key Operation

Symbol	Key	Function (in Set-up Mode)
	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 in setup mode. Can also be used as Alarm Acknowledgment in normal operation mode.

PV Error Indication

Message	Error Type	Cause
OPN	Sensor Open	Sensor (RTD Pt100) Broken / Open. Not Applicable for %RH indication.
OVR	Over-range	Measured Temperature / %RH value is above 99.9 °C / % (Max. displayable value).
UNR	Under-range	Measured Temperature / %RH value is below 0.0 °C / % (Min. displayable value).

OUTER DIMENSION, PANEL CUTOUT & SPACING



ELECTRICAL CONNECTIONS

