

# ARC 0102R

Single / Dual Analog Input Channel

# 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](http://www.ppiindia.net)



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Level	Sub-Level	Parameters	Range (Default Value)
Operator	Batch	Batch Start>>	No Yes
		Balance Time>>	Read Only
		Batch Stop>>	No Yes
	Pen-Drive	Stop Copy>>	No Yes
		File Options>>	None Copy (New) Re-copy (Old) Read Set.txt File Recover (Default : None)
Supervisory	Recording	Normal Interval>>	0:00:00 (H:MM:SS) to 2:30:00 (H:MM:SS) (Default : 0:00:30)
		Zoom Interval>>	0:00:00 (H:MM:SS) to 2:30:00 (H:MM:SS) (Default : 0:00:10)
		Alarm Togg Record>>	Disable Enable (Default : Enable)
		Recording Mode>>	Continuous Batch (Default : Continuous)
		Batch Time>>	0:01 (HH:MM) to 250:00 (HHH:MM) (Default : 1:00)
		Batch Start>> Batch Stop>>	No Yes
	Date / Time	Time [HH:MM]>>	0.0 to 23:59
		Date [DD]>>	1 to 31
		Month [MM]>>	1 to 12
		Year [YYYY]>>	2000 to 2099
		Unique ID>>	Read Only
	Permission	Alarm Buzzer>>	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	Device	Interface>>	PC USB		
		Communication ID>>	1 to 127 (Default : 1)		
		Baud Rate>>	2400, 4800, 9600 14400, 19200 (Default : 9600)		
		Parity>>	None, Even, Odd (Default : Even)		
		Factory Reset>>	No Yes (Default : No)		
		Delete Records>>	No Yes (Default : No)		
		*Select Channel>>	1 or 2		
	Channel	Input Type>>	Refer Table 1 (Default : 0 to 10 V)		
		Resolution>>	Refer Table 1		
		Unit>>	Refer Table 2		
		Signal Low>>	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 80mV	0.00 to Signal High	0.00
			0 to 1.25V	0.000 to Signal High	0.000
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		
0 to 160mV	0.00 to Signal High	0.00			
Signal High>>	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 80mV	Signal Low to 80.00	80.00		
	0 to 1.25V	Signal Low to 1.250	1.250		
	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		
0 to 160mV	Signal Low to 160.00	160.00			

Level	Sub-Level	Parameters	Range (Default Value)
Factory	Channel	Range Low>>	-30000 to +30000 (Default : 0)
		Range High>>	-30000 to +30000 (Default : 1000)
		Low Clipping>>	Disable Enable (Default : Disable)
		Low Clip Value>>	-30000 to High Clip Val (Default : 0)
		High Clipping>>	Disable Enable (Default : Disable)
		High Clip Value>>	Low Clip Val to 30000 (Default : 1000)
		Zero offset>>	-30000 to +30000 (Default : 0)
	Alarm	Filter (%)>>	0 to 90% (Default : 20%)
		*Select Channel>>	1 or 2
		Select Alarm>>	AL1, AL2, AL3, AL4
		Alarm Type>>	None Process Low Process High (Default : None)
		Alarm Setpoint>>	Min. to Max. of selected input type range (Default : 0)
		Alarm Hysteresis>>	1 to 30000 (Default : 20)
		Alarm Inhibit>>	No Yes (Default : No)
		Master Lock	Lock / Unlock>>
Change PSW	Change Password>>		No Yes (Default : No)
		New Password>>	0 to 9999
Utilities	Unused. Reserved for factory use.	NA	

\* Available for Dual Channel Only.

**Table 1**

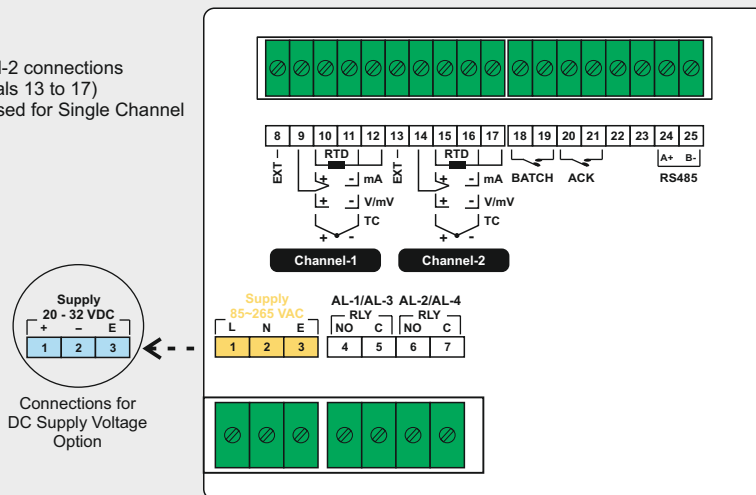
Input Type	Range (Min. to Max.)	Resolution
Type J	0.0 to +960.0°C	1 °C or 0.1 °C
Type K	-200.0 to +1376.0°C	
Type T	-200.0 to +387.0°C	
Type R	0.0 to +1771.0°C	
Type S	0.0 to +1768.0°C	
Type B	0.0 to +1826.0°C	
Type N	0.0 to +1314.0°C	
Type E	-200.0 to +1000.0°C	
RTD Pt100	-199.9 to +850.0°C	1 0.1 0.01 0.001 0.0001 Units
RTD Pt1000		
0 to 20 mA	-30000 to 30000 units	
4 to 20 mA		
0 to 80 mV		
0 to 160 mV		
0 to 1.25 V		
0 to 5.0 V		
0 to 10.0 V		
1 to 5.0 V		

**Table 2**

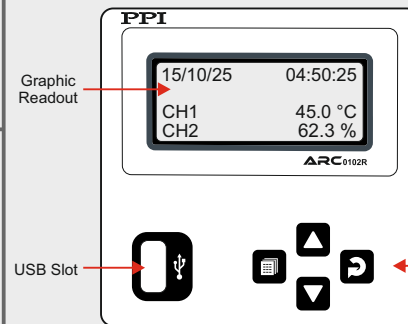
Option	Description	Option	Description	Option	Description
°C	Degree Centigrade	inH <sub>2</sub> O	Inches water gauge	ppm	Parts per million
°F	Degree Fahrenheit	mmHg	mm mercury	rpm	Revolutions per minute
(none)	No Unit (Blank)	Torr	Torr	mSec	Milli seconds
°K	Degree Kelvin	LPH	Litres per hour	Sec	Seconds
EU	Engineering Units	LPM	Litres per minute	min	Minutes
%	Percentage	%RH	% Relative Humidity	hrs	Hours
Pa	Pascals	%O <sub>2</sub>	% Oxygen	PH	PH
Mpa	Mpascals	%CO <sub>2</sub>	% Carbon di-oxide	%PH	%PH
kPa	Kpascals	%CP	% Carbon Potential	MPH	Miles per hour
bar	Bar	V	Volts	mg	Milli grams
mbar	Milli bar	A	Amps	g	Grams
psi	PSI	mA	Milli Amps	kg	Kilo grams
KGCM	kg/cm <sup>2</sup>	mV	Milli Volts		
mmH <sub>2</sub> O	mm water gauge	ohm	Ohms		

**Electrical Connections**

**Note :**  
Channel-2 connections  
(Terminals 13 to 17)  
are unused for Single Channel  
version.



**Front Panel**



FRONT PANEL KEYS		
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.

**Outer Dimension, Panel Cutout & Spacing**

