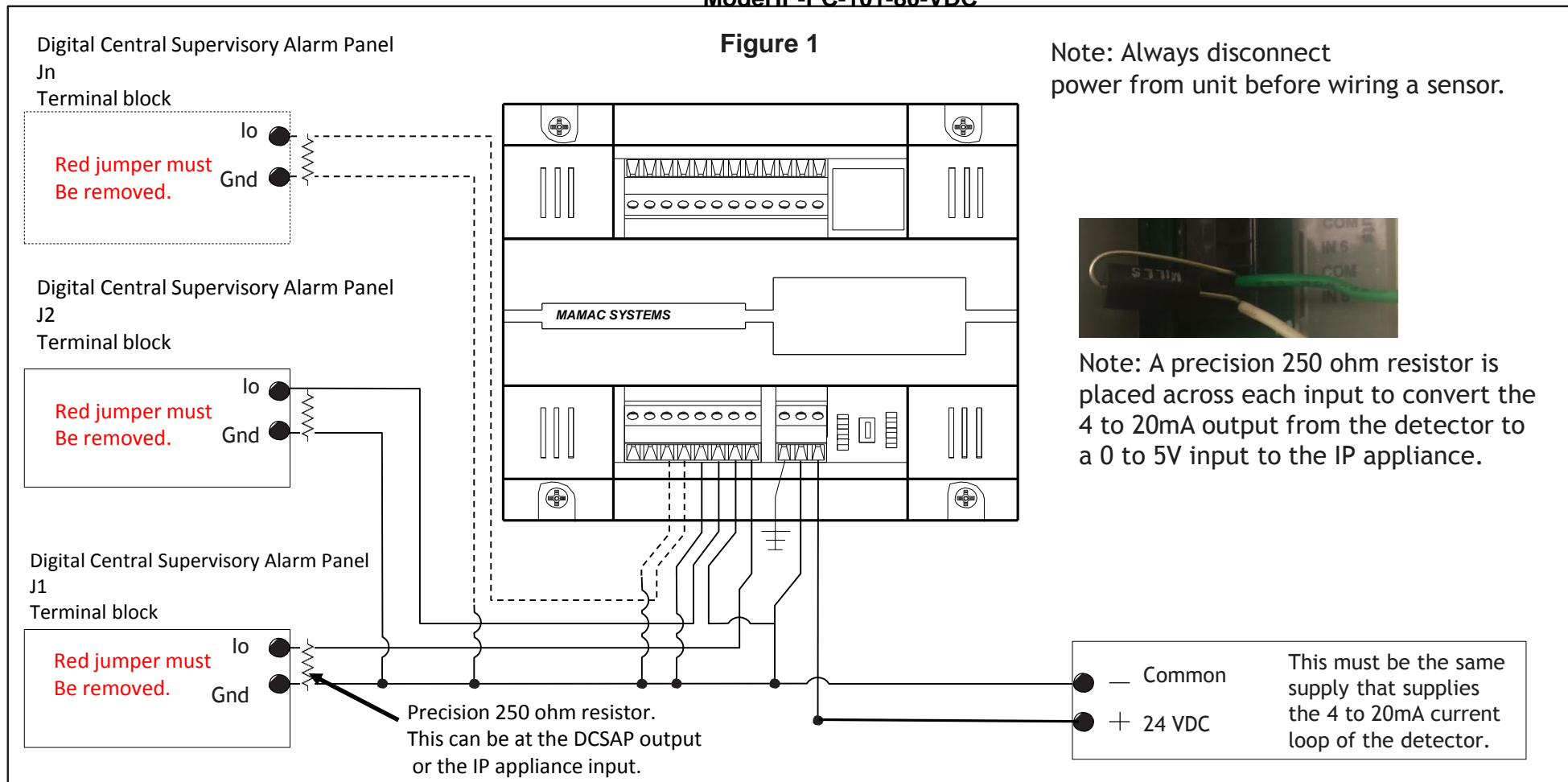# Cool Air Inc. Wiring Instructions

Maverick IP Sensor Appliance to Digital Central Supervisory Alarm (DCSAP) Panel for Ammonia

4 to 20mA output.

Model IP-PC-101-80-VDC

Figure 1

Digital Central Supervisory Alarm Panel
Jn
Terminal block

Io

Red jumper must
Be removed.

Gnd

Note: Always disconnect
power from unit before wiring a sensor.

Digital Central Supervisory Alarm Panel
J2
Terminal block

Io

Red jumper must
Be removed.

Gnd

MAMAC SYSTEMS

Note: A precision 250 ohm resistor is placed across each input to convert the 4 to 20mA output from the detector to a 0 to 5V input to the IP appliance.

Digital Central Supervisory Alarm Panel
J1
Terminal block

Io

Red jumper must
Be removed.

Gnd

Precision 250 ohm resistor.
This can be at the DCSAP output
or the IP appliance input.

Common
24 VDC

This must be the same supply that supplies the 4 to 20mA current loop of the detector.

This is the input configuration screen.

IP *Maverick* Sensor Appliance:

15:53:45   February 17, 2016

IP-PC-101-80-VDC

Configuration | Inputs | Input 1

MAMAC SYSTEMS

Main
Data Logging

Configuration

Input 1

Name: xxxx

This is where you name the input to identify the detector it corresponds to.

Real Value Limits and Units

Min Value	Max Value	Units
-100.0	400.0	PPM

Input scaling. SEE Page $.

Email Alert Configuration

Alert Enable	Lower Value	Upper Value	Alert Wait	Attach Log
○ On ● Off	0.0	0.0	5 Sec	○ On ● Off
	Alert Disable	Alert Disable		

Save   After naming and scaling the input be sure to click this button.

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2:53 PM
2/17/2016

2

This is the input List screen with input type selection.

IP Maverick Sensor Appliance:

IP-PC-101-80-VDC

Configuration | Inputs

MAMAC SYSTEMS

Main
Data Logging

Configuration

CONFIGURATION (1-8)

○ 0-10V ● 0-5V ○ Digital Input   Be sure the 0-5V is selected.

SETUP

Input Description			Analog Values		
Input	Input Name	IO Type	Min Value	Max Value	Unit
Input 1	xxxx	0-5V	-100.0	400.0	PPM
Input 2	xxxx	0-5V	-100.0	400.0	PPM
Input 3	xxxx	0-5V	-100.0	400.0	PPM
Input 4	xxxx	0-5V	-100.0	400.0	PPM
Input 5	xxxx	0-5V	-100.0	400.0	PPM
Input 6	xxxx	0-5V	-100.0	400.0	PPM
Input 7	xxxx	0-5V	-100.0	400.0	PPM
Input 8	xxxx	0-5V	-100.0	400.0	PPM

This is the input list. It shows input name, type and scaling.

Save

To scale the MAMAC inputs to match your LBW-420

Because the MAMAC is a voltage input IP appliance we must convert the 4 to 20mA to 0 to 5Vdc by adding a precision 250 resistor across each MAMAC input. 4mA will be 1Vdc and 20mA will be 5Vdc. Therefor the following will be true.

Range (in PPM)	0PPM (in Vdc)	MAX Range PPM (in Vdc)	PPM / Vdc	MAMAC input max value	MAMAC input Min Value
0 – 100	1Vdc	5Vdc	25	100	-25
0 – 250	1Vdc	5Vdc	62.5	250	-62.5
0 – 400	1Vdc	5Vdc	100	400	-100
0 – 500	1Vdc	5Vdc	125	500	-125
0 – 800	1Vdc	5Vdc	200	800	-200
0 – 1000 (1E3)	1Vdc	5Vdc	250	1000	-250

This is the screen that monitors the inputs.