ConsoliDator+

MasterClass

Week 3 – Gas Detection Applications

Today's Key Topics

- Basic Gas Detection Monitoring
- Common Alarms for Multiple Channels
- Entire Plant Overviews
- Data Logging (for alarms)

PLUS – BONUS CONTENT

- ConsoliDator+ Model Number Breakdown
- Overview of Pricing

ConsoliDator+

MasterClass

Here we are monitoring the LEL percentage of Methane in a room where people may be present

We can also show the status of a room with FULL words!

Lastly, I have a channel that is showing the current (electrically speaking) output of your gas detection sensor.

You certainly don't need to have it there, but it's good for confirming the LEL readings are what they "should" be depending on what the sensor is outputting.

When the LEL rises above 6 percent, we get an alarm (or three)

The “Room Condition” also goes from “Safe” to “RUN!!!!!”

Lastly, we can tell the alarm is “real” since the mA value the sensor is outputting is roughly where it should be at this LEL percentage.

Again, just a way to confirm there are no false alarms.

In this case, if we get an alarm because of the LEL reading, but our sensor output is much lower than it should be for that condition, you may be able to identify a fault in the system with this type of configuration

On this screen we are monitoring four different gases (well, three different gasses, all from different sources) and we are also showing an alarm status (for demo purposes only)

The alarm is titled, “Propane Alarm” because that alarm is actually monitoring BOTH propane channels (first two bar graphs)

Regardless of which channel goes too high, we will get an alarm.

In this particular screen we only have TWO channels on that one alarm, but we CAN have more!

Now that our first Propane channel went above a safe level, the channel turns PURPLE as an alarm, and the bar graph turns RED!

NOTE: this is to demonstrate that alarm colors can be any color you want, and the bar graph and channel information do not HAVE TO be the same

You will also see that our “Propane alarm” is now RED and the status went from “OFF” to “ON”

Again, this Propane alarm on the screen is just to show you how both channels are independent from one another, but they share the same alarm!

And there you have it!

Now it's the second channel that has gone high, and it still triggers our "common alarm".

Again, you can tie MANY channels to a single alarm (or single RELAY, really) but here we only have two!

On this screen, we are taking a look at an entire plant that has been sectioned off into four “zones”

This type of screen can make for a really great way to get a “bird’s eye view” of a plant!

Now let’s say each zone has several gas detectors.

All of those gas detectors are tied to a single alarm for their “zone”

If ANY sensors high presence of a gas, it will throw an alarm that can be seen on THIS screen.

This way, an operator can tell immediately which zone to focus on

Since a detector in “Zone 1” is in alarm condition, the “Zone 1” channel on this screen turns RED, flashes, and the status turns from “Safe” to “WARNING”.

Now, on this screen I programmed a “Soft Key” that can jump to whichever screen I tell it to.

In this example, when we press that button, it will jump right to the screen that is monitoring all the sensors in “Zone 1”.

However, you could make a soft key for EACH Zone if you wanted to

In this example, our “Common Alarms Screen” is where the fault is, and the operator can immediately see that it’s the propane in Zone 1 that is throwing an alarm.

That is how the ConsoliDator+ can be used to monitor an entire plant if need be!

PD9000-GP-12AI-10AO-10RY-E

Every part number will start with “PD9000”

“General Purpose” area classification

How many Analog Inputs the unit has

How many Analog Outputs the unit has

How many Relay Outputs the unit has

The unit has Ethernet capabilities

Did you notice anything missing from this part number?! What about pulse inputs?

PD9000-GP-12AI-10AO-10RY-E

This particular ConsoliDator+ device comes with 12 analog inputs (remember, each analog input comes with a 24 VDC power supply), 10 analog outputs (again, with a power supply on each output), 10 relay outputs, and the ability to use Ethernet

But, what if you don't need any analog inputs? What if you are just going to take inputs from a Modbus device through the Ethernet, and you just need a few outputs?

Our part number would change to:

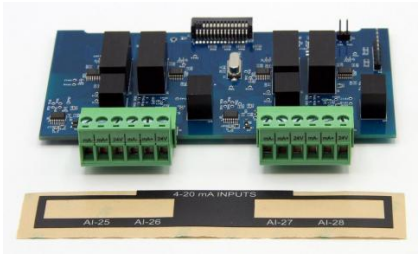
PD9000-GP-10AO-10RY-E

Since digital inputs and RS-485 are standard options, they will never be included in the actual model number

Base Model: **PD9000-GP**
List Price: $1,700 USD

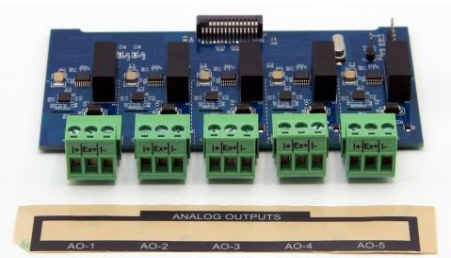
This device has no inputs or outputs aside from RS-485 and a few discrete I/O

Analog Input Card (4)



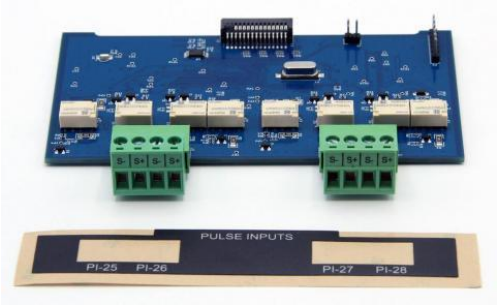
PDA9000-C4AI - $475 USD

Analog Output Card (5)



PDA9000-C5AO - $410 USD

Pulse Input Card (4)



PDA9000-C4PI - $410 USD

Relay Output Card (5)

PDA9000-C5RY - $175 USD

So, a **PD9000-GP-4AI-5AO** would be priced at….

$1,7000 + $475 + 410 = $2,585.00 USD

PRECISION DIGITAL

The EASIEST way to look up pricing is to simply visit the Precision Digital website, click on the image of the ConsoliDator+ right on the home screen, and use this really clever configurator!

BE WARNED… if the part number you need isn't showing up… CALL ME!

Some part numbers WILL need to be customized!