



Green Air Products Damper control system

Green Air Products has developed the GACS Series and it is being recognized as:

1. Cost effective
2. User friendly
3. Easy to install



GACS 50 shown

Controlling, monitoring and reporting



Description

The GACS series is the future of damper control for the above reasons. It was developed to meet the needs of prisons, hospitals and any application where keeping costs low is essential whilst quality kept high.

In response to this need Green Air Products have put together a system based around a touch screen which is user friendly and low in cost. The system is fully addressable allowing the user to monitor, control and report on individual dampers and be in full control of the system.

As well as the system being low in cost and easy to use, it is very simple to install and specify. The reason this system can benefit the user is that the ordering process couldn't be simpler.

The user simply needs to supply:

- 1. The touch screen size they require*
- 2. The number of dampers they need to monitor/control, And a drawing/schematic of the system layout*
- 3. The panel design (off the shelf is available)*

Features of the system

- The System allows cable runs of up to 10km with no repeaters*
- Existing cabling can be used if the system is a replacement*
- The systems free topology allows any cable route to be installed from circles to figures of eight.*
- Off the shelf 2 core cable can be used*
- Simple module addressing process reducing commission costs.*

Day to day running:

The system will run based on the cause on effect programmed into the software, for example a prison may constantly extract from each cell so the control panel will allow the fans to run at half speed whilst the dampers remain open.

In fire mode:

The system will follow the cause and effect still and will for example power the fans to full speed and keep the dampers open unless told to shut.

In override mode:

Using a password or key, the system will allow a fire officer to override a damper or the system if he/she needs to do so.

Damper and system status will be displayed on our bright TFT display LCD screen to give a clear visual of the statuses.



Equipment

- 1. The equipment consists of the following:*
- 2. 1 number 256 color analogue user-friendly touch screen*
- 3. 1 number panel housing with internal components*
- 4. Required number of pre-programmed modules located at each damper*

Alternative Options

The touch screen comes in varying sizes but we suggest the following:

1. The 4.3 inch screen

SIZE	4.3-inch
TYPE	TFT
COLORS	256
PIXELS	480 X 272
BRIGHTNESS	300 cd/m ²
BACKLIGHT TYPE	LED
BACKLIGHT LIFE	50,000 HR TYP.



Screens can also be supplied in:

2. The 5.7 inch screen

SIZE	5.7-inch
TYPE	TFT
COLORS	256
PIXELS	320 X 240
BRIGHTNESS	380 cd/m ²
BACKLIGHT*	50,000 HR TYP.

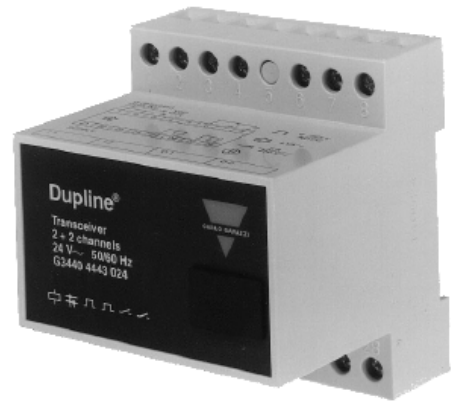
8 Inches

10 Inches

15 Inches

The Dupline Modules

Our system is designed to work with the Gavazzi Transceiver pictured to the right, these are located by each damper (or 2) and connected to the network and a local power supply.



The panel housing can be customized in the following ways:

- *Custom painted to and Standard RAL/metallic finish*

The material manufacture can be:

1. *Mild steel*
2. *Aluminium*
3. *Stainless steel*



Slots and any extra cuts can be made before manufacture

Damper status lights.

Green light: Damper is healthy and operational



Red Light: Damper is reported as in fault and is logged in the fault history along with a time of failure.



If the specification calls for a bespoke housing such as a glass cabinet, Green Air Products would be happy to provide a quotation for it.

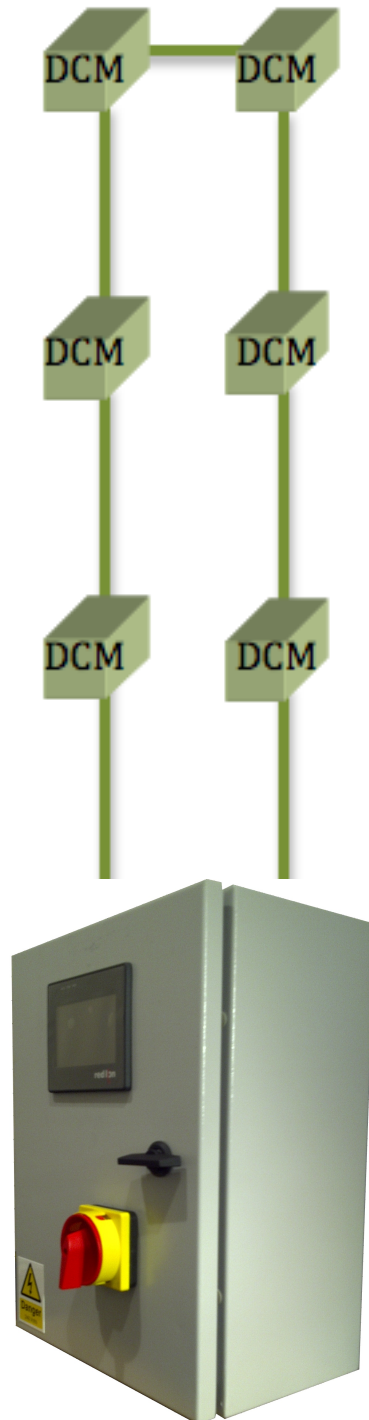
Equipment

The model options are in the table below, all panels are custom built internally using a standard layout, which reduces costs dramatically.

The GACS Ultimate is a GACS model with enough generators built in to handle the required number of dampers that need controlling/monitoring.

Model	2 Inputs	3 Inputs	Addressable
<i>GACS 60</i>	<i>60 dampers with 2 inputs</i>	<i>40 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 120</i>	<i>120 dampers with 2 inputs</i>	<i>80 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 180</i>	<i>180 dampers with 2 inputs</i>	<i>120 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 240</i>	<i>240 dampers with 2 inputs</i>	<i>160 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 300</i>	<i>300 dampers with 2 inputs</i>	<i>200 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 360</i>	<i>360 dampers with 2 inputs</i>	<i>240 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 420</i>	<i>420 dampers with 2 inputs</i>	<i>280 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 480</i>	<i>480 dampers with 2 inputs</i>	<i>320 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 540</i>	<i>540 dampers with 2 inputs</i>	<i>360 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 600</i>	<i>600 dampers with 2 inputs</i>	<i>400 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 660</i>	<i>660 dampers with 2 inputs</i>	<i>440 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 720</i>	<i>720 dampers with 2 inputs</i>	<i>480 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 780</i>	<i>780 dampers with 2 inputs</i>	<i>520 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 840</i>	<i>840 dampers with 2 inputs</i>	<i>560 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 900</i>	<i>900 dampers with 2 inputs</i>	<i>600 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 960</i>	<i>960 dampers with 2 inputs</i>	<i>640 dampers with 3 inputs</i>	<i>Y</i>
<i>GACS 1020</i>	<i>1020 dampers with 2 inputs</i>	<i>680 dampers with 3 inputs</i>	<i>Y</i>
<i>Special</i>			
<i>GACS Ultimate</i>	<i>Can control any number of dampers, price is based on quantity requiring control</i>	<i>N/A</i>	<i>Y</i>

System Details



The DCS specification is as follows:

- 1. A 2 wire addressable system*
- 2. Infinite number of dampers can be controlled*
- 3. F/O control incorporated*
- 4. Pre-programmed controls reduce costs*
- 5. The DCS can accept a BMS signal to allow input possibly for day to day ventilation*
- 6. Pre-programmed cause and effect*
- 7. Fully tested and inspected off site in preparation*
- 8. Addressable loop system*
- 9. Can be used to incorporate fan control possibly for supply and extract*
- 10. On site commissioning*
- 11. Up to 36 loops can be used.*
- 12. Cable runs of up to 10km without repeaters*
- 13. Existing cabling can be used*
- 14. Proven as a robust kit with more than 100,000 installations*

Sectors we cover



- Hospital



- Commercial



- Industrial



- Residential

Green Air Products

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