

## Keep your operators safe from harmful contaminants.



Hummingbird Electronics Cabin Pressure Monitors provide a visual and or audible warning when positive pressure in a vehicle cabin is reaching critical levels.

They are used in mining applications that operate in testing weather conditions and when combined with debris, dust and pollutants can create respiratory problems if breathed in by equipment operators.

Hummingbird offer two cabin pressure monitors for a wide range of vehicle applications.

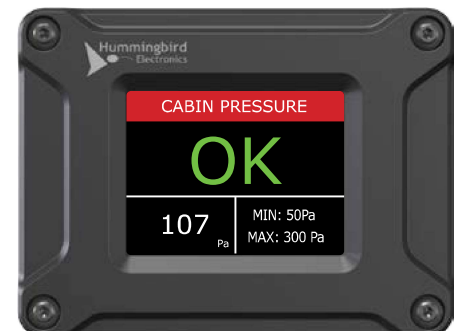
The Configurable Cabin Pressure Monitor provides real-time feedback to operators in a convenient compact module.

The Panel Mount Cabin Pressure Monitor provides a detailed colored display to inform operators when positive pressure reaches a critical level.

There's only one choice to ensure positive pressure within your machine. That's a Hummingbird Electronics Cabin Pressure Monitor.

### Look at the benefits:

- Keeps operators safe from dangerous dust and airborne contaminants
- Reducing dust from electrical or moving components ensures equipment will work more efficiently
- Configurable warnings and alarms
- Multi voltage - 12/24 volt compatible
- Customisable output triggers for external devices, i.e. buzzers and pilot lamps



The Cabin Pressure Monitors have been engineered for simple installation and operation. They measure pressure in the cabin and compare it with atmospheric pressure. When pressure in the cabin is outside the safe range – either high or low cabin air pressure – the operator is alerted via a change of colour on the unit or display.

It is a significant OH&S requirement to provide quality sealed, pressurised and temperature-controlled cabins that create a dust free environment for operators.

#### Precision sensor

A precision sensor allows pressure to measure to a resolution of 0.1mm H<sub>2</sub>O. The measured pressure is also temperature compensated to allow operation over a wide range of temperatures.

A high sensor burst pressure rating of 5000Pa means that door slams will not affect the sensor.

#### Ensuring positive pressure

By ensuring positive pressure, equipment will work better and require less maintenance. Furthermore, operators will not only be healthier but also better able to perform their duties. Reducing costs and providing a healthy work environment can go a long way toward the success of a mining organisation.

It's one thing to have an effective filtration system, however, you can ensure these systems keep performing at their best by incorporating a Hummingbird Electronics Cabin Pressure Monitoring System.

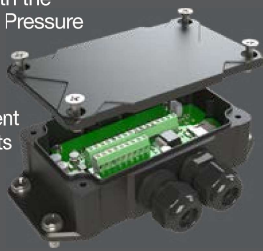
Works best with:

#### Audio Alert System

##### HMMP3016

Provides vehicle operators clear and precise verbal alerts when an input trigger has been detected, for example "Warning - low cabin pressure detected".

When it is paired with the Configurable Cabin Pressure Monitor (HMPS1000BKIT), it can provide a verbal announcement for customised alerts relating to high or low pressure events.



#### Combination Warning LED and Buzzer

HMAC001-12 - 12 volt

HMAC001-24 - 24 volt

Used as an alarm or indicator in automotive applications, when a DC voltage is applied, the LED and buzzer pulse for maximum impact.



## Configurable Cabin Pressure Monitor

HMPS1000BKIT



The HMPS1000BKIT measures pressure in the cabin and compares it with atmospheric pressure outside of the machine. When the pressure in the cabin drops to a level that is not high enough to prevent dust and other contaminants entering, a green light turns red.

If the pressure is low, a normally high output trigger from the device goes low allowing interfacing to external systems. High-pressure events are also monitored.

Using an internal rotary switch, it can be configured to alarm at low pressures between 10Pa and 90Pa (1mm to 9mm H<sub>2</sub>O). The cabin pressure alarm output is supplied pre-set to 50Pa (5mm H<sub>2</sub>O) low pressure and 300Pa high pressure.

## Panel Mount Cabin Pressure Monitor

HMPS3000KIT

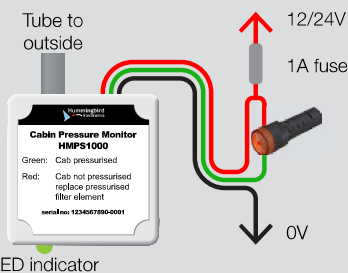


The HMPS3000KIT provides a colour display letting operators and service personnel know when positive pressure in the cabin is too low or high. When the pressure inside the cabin falls below a preset value the display turns orange to alert the operator service is required. After a user-configured time, the display turns red, a warning is shown and, if optional, an external alarm is triggered.

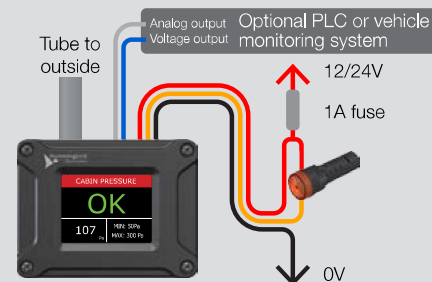
It provides adjustments of the 'units of measure' and 'thresholds' to be configured via the touch screen display.

The menu screen also features adjustments such as brightness, output trigger configuration and a password to limit unauthorised access.

#### HMPS1000BKIT installation



#### HMPS3000KIT installation



#### Specifications

Part number	HMPS1000BKIT	HMPS3000KIT
Operating pressure range	0-500Pa (0-50mm H <sub>2</sub> O)	0-500Pa (0-50mm H <sub>2</sub> O)
Sensor resolution	1Pa (0.1mm H <sub>2</sub> O)	1Pa (0.1mm H <sub>2</sub> O)
Sensor burst pressure	5000Pa	5000Pa
Temperature range	0-50°C	0-50°C
Input voltage	Minimum 9V Maximum 36V	Minimum 9V Maximum 36V
Current consumption	<100mA	Less than 2W (100mA at 12V, 50mA at 24V)
External output - inactive state	100kOhm pullup	High impedance (open collector)
External output - inactive state	Grounded	Grounded
External output - maximum sink current	120mA	120mA
Analog output	N/A	Range 0-10V, maximum 10mA output current
Voltage output	N/A	Low value 0V, high value 9V, maximum output current 10mA
Dimensions	22 x 50 x 50mm base plate 66mm	90 x 76 x 33mm Panel cutout 77 x 57mm

Visit [hmbe.com.au/pressure-monitors](http://hmbe.com.au/pressure-monitors) for more product information

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