

ACGDPPS ParkSafe Gas Detection & Ventilation Control System



Product Overview:

The ParkSafe Controller is designed for installations into car parking facilities and enclosed garages. Each AGS Controls ParkSafe Detector (Nitrogen Dioxide) and (Carbon Monoxide) is powered directly from the AGS ParkSafe controller and communicates data through Modbus RTU. Up to 16 detectors can be powered/controlled by the ParkSafe, each detector can cover a 50ft radius. The system can automatically control ventilation systems according to gas levels and an optional temperature levels. The ParkSafe is capable of activating both the exhaust fan(s) and the air intake device(s) such as outside air louvers/dampers and make up air units.

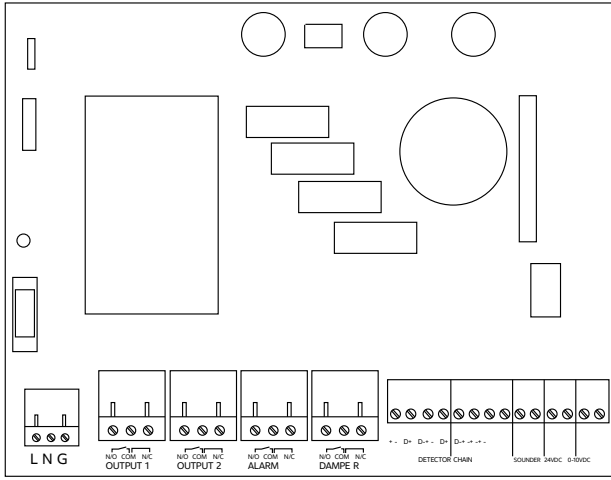
The ParkSafe will make or break dry contacts internally on relay terminals [Output-1] and a second contact on [Output-2]. Another output relay will energize after [Output-2] has been active for an extended period. This is used for a link to a BMS or other external indication device. The ParkSafe controller also has a 0-10vdc output to allow the controller to drive VFD based on gas level outputs.

Technical Specifications

General

Model:	ACGDPPS ParkSafe Controller
Capacity:	Up to 16 channels per controller unit
Size: (H x W x D)	7.08 x 10.03 x 3" (180 x 255 x 77 mm)
Housing Material:	ABS Polyiac - PA765. / UL 94 V-1
Mounting:	Indoor use - Wall Mounting
Weight:	1.3kg (2lb 13.85oz)
Display:	4.3" TFT Touch Screen
Visual Indicators:	TFT visual. Green: Normal; Yellow: Pre-Alarm; Amber: Alarm Delay; Red: Alarm Relay Outputs On/Off / Gas Detection Status
Audible Alarm:	>70dB @ 3.28ft (1m). Quiet conditions
Buttons:	Common for Silence/Reset operation
Power Consumptions:	14.5W max
AC Power:	100-120V~ 50/60Hz
Internal Fuse:	T3.15A L250V
Relay Output:	Volt Free Relay Outputs x4 (non-latching) / NO/COM/NC 6A @ 120V~ User configurable - energised/de-energised, time delay / 24 VDC switching
Common Output:	24 VDC Permanent / 0-10 VDC Variable
Ingress Protection:	IP64 / NEMA 4 (See manual for further information)
Operating:	-10 ~ 50°C / 14 ~ 122°F 30 ~ 80% RH (non-condensing)
Storage:	-25 ~ 50°C / -13~122°F up to 95% RH (non-condensing)
Typical Wiring:	Power & Relay: ~#18-12AWG Detector: #12-18AWG Power Pair; #18-22AWG Data Pair Other: #18-22AWG
Electromagnetic Compatibility and Electrical Safety:	IEC 61010-1:2010 + AMD1:2016; EN 61010-1:2010 +A1:2019; UL61010-1/2012/ CAN CSA C22.2 No. 61010-1-12/ EMC EN 61326-1:2013

ACGDPPS ParkSafe PCB Overview



0-10V OUTPUT

LINEAR OUTPUT BASED ON MEASURING RANGE OF DETECTOR

24VDC PERMANENT OUTPUT

USED IN CONJUNCTION WITH PANEL RELAYS TO CREATE 24V SWITCHED POWER TO CONTROL EXTERNAL CONTACTORS, IF REQUIRED

24VDC SOUNDER STROBE

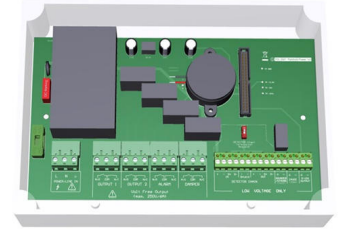
SENDS 24VDC WHEN SYSTEM ENTERS ALARM

DETECTOR CHAIN

DAISY CHAIN IN/OUT



ACPS DETECTOR



PARKSAFE

POWER IN 120VAC

6A MAX

OUTPUT 1 RELAY

6A MAX 120VAC OR 250VAC CHANGES STATE AT PRE-ALARM LEVEL

OUTPUT 2 RELAY

6A MAX 120VAC OR 250VAC CHANGES STATE AT HIGH ALARM LEVEL

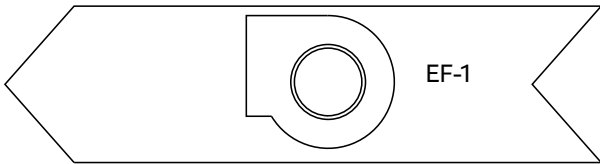
ALARM RELAY

6A MAX 120VAC OR 250VAC CHANGES STATE AT HIGH ALARM, AFTER SET TIME DELAY IF TURNED ON

DAMPER RELAY

6A MAX 120VAC OR 250VAC CHANGES STATE WITH EITHER OUTPUT 1 OR OUTPUT 2 RELAY. SETTINGS CHANGED ON PANEL VIA DIPSWITCHES

EMERGENCY EXHAUST FAN

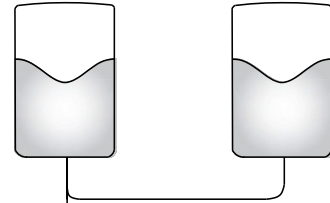


120VAC OR 24V TO FAN STARTER TO ACTIVATE VENTILATION FAN

0-10V OUTPUT TO VFD CONTROLLED FAN

OUTPUT TO BMS VIA DRY CONTACT ON PRE-ALARM OR HIGH ALARM

OPTION TO USE 0-10V TO BMS FOR LIVE PPM VALUES



MODEL# ACAAB AUDIBLE AND VISUAL ALARM STROBES OUTSIDE OF EACH ENTRANCE. WIRED IN PARALLEL FROM 24V STROBE OUTPUT.

MODEL# ACPS PARKSAFE DETECTORS DAISY CHAINED FROM CONTROLLER.

MANUAL RESET

