Panterra

Product Overview

Panterra is a class of intelligent gas detectors supporting a variety of sensing chemistries and technologies. Subclasses are differentiated by sensor type and are selected according to application requirements and target sensing environments (including anaerobic and zero humidity conditions). Supported sensor types include thermal conductivity, metal-oxide semiconductor (MOS), electrochemical, catalytic, and acoustic.

Standard devices are offered in the *Knowz*™ / *PowerKnowz*™ form factor (2.5" x 2.0" x 1.0") with or without extended sensors (1.0" x 1.0" x 1.0" head, up to 25' cable). Custom form factors, connector types and mounting provisions are available by special order.

Power consumption varies according to sensor type from 100mW to 1W. Input powering options are 5VDC (regulated) or 7-40VDC / 7-60VDC (unregulated).

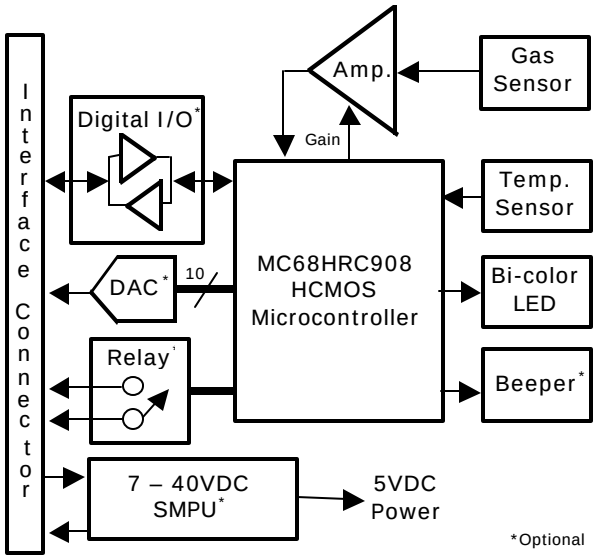
All subclasses are rated non-incendiary and may be upgraded to intrinsic safety rating through appropriate input power current limiting.

For more information on specific subclasses please see the *Panterra* product briefs in the support section of neosafe.com or contact Neodym toll-free at 1-877-723-5400.

FEATURES

- Support for a variety of sensor types
- 10-bit auto-ranging sensor sampling system
- Normal, Warning, Alarm & Error states
- Bi-color LED status indicator
- Optional NO or NC dry relay
- Auto-resetting or latching operation
- Optional 0-to-5V proportional output (8 / 10 bit)
- Optional binary operation (TTL output)
- Optional voltage encoded state output (analog)
- Optional alarm beeper
- *PK-Port*™ compatible digital communications
- User-settable alarm/warning via *PK-Port*™
- Digital FLASH-based calibration
- Each device factory pre-calibrated
- Field re-programmable firmware
- Active temperature compensation (as required)
- Sensor & temperature error detection
- Optional extendable sensor head
- 5VDC, 7-40VDC or 7-60VDC input power
- 500 mW operating power (typical)

BLOCK DIAGRAM



MATRIX OF RELATIVE SENSOR STRENGTHS

SENSOR TYPE / PARAMETER	MOS	Thermal conduct.	Catalytic	Electro-chemical	Acoustic
Low cost	YES				YES
Long life	YES	YES	YES		YES
Gas specific				YES	
Trace gas detection	YES			YES	
Safety applications	YES		YES	YES	
High conc. detection		YES			YES
Anaerobic sensing		YES			YES
0% R.H. sensing		YES	YES		YES
Silicone resistant		YES		YES	YES
High concentration resistant		YES	YES		YES

PRODUCT AVAILABILITY

Sensor Class	Target Gas	Part No.	Range	Status	Lead time
MOS (Metal oxide)	Hydrogen	PN-SM-GHY	0-20,000 PPM	Avail.	2 weeks
	Hydrogen (trace)	PN-SM-GHT	0-1,000 PPM	Avail.	2 weeks
	Methane	PN-SM-GME	0-25,000 PPM	Avail.	2 weeks
	Methane (trace)	PN-SM-GMT	0-1,000 PPM	Avail.	2 weeks
	Propane	PN-SM-GPR	0-11,000 PPM	Avail.	2 weeks
	Refrigerants	PN-SM-GRG	0-5,000 PPM	Avail.	2 weeks
	Carbon Monoxide	PN-SM-GCO	0-450 PPM	Avail.	2 weeks
CAT (Catalytic)	Hydrogen	PN-SC-GHY	0-100% LEL	Avail.	3 weeks
	Methane	PN-SC-GME	0-100% LEL	Avail.	3 weeks
TCOND (Thermal Conductivity)	Hydrogen	PN-ST-GHY	0-100% vol.	Avail.	3 weeks
	Methane	PN-ST-GME	0-100% vol.	Avail.	3 weeks
	Helium	PN-ST-GHE	0-100% vol.	Avail.	3 weeks
ECHEM (Electrochemical)	Oxygen	PN-SE-GOX	0-30% vol.	Avail.	2 weeks
	Carbon monoxide	PN-SE-GCO	0-1,000 PPM	Avail.	3 weeks
	Hydrogen sulphide	PN-SE-GHS	0-100 PPM	Avail.	3 weeks
	Sulfur dioxide	PN-SE-GSO	0-100 PPM	Avail.	3 weeks
	Nitric oxide	PN-SE-GNO	0-500 PPM	Avail.	3 weeks
	Nitrogen dioxide	PN-SE-GND	0-100 PPM	Avail.	3 weeks
	Hydrogen cyanide	PN-SE-GHC	0-100 PPM	Avail.	3 weeks
	Hydrogen (trace)	PN-SE-GHY	0-2,000 PPM	Avail.	3 weeks
	Chlorine	PN-SE-GCL	0-100 PPM	Avail.	3 weeks
	Ammonia	PN-SE-GAM	0-200 PPM	Avail.	2 weeks
	Ethylene oxide	PN-SE-GEO	0-100 PPM	Avail.	3 weeks
	Phosphine	PN-SE-GPH	0-20 PPM	Avail.	3 weeks
SONIC (Acoustic)	Hydrogen	PN-SS-GHA	0-50% vol.	Beta	2 weeks
	Hydrogen	PN-SS-GHY	0-100% vol.	Dev.	1Q05
	Helium	PN-SS-GHB	0-50% vol.	Beta	2 weeks
	Helium	PN-SS-GHE	0-100% vol.	Dev.	1Q05