



**Flexibility that meets
your requirements**

Sieger Apex



Easy to Install

- Sensor can be remotely mounted up to 100m from the transmitter
- On board relays allow for local audible/visual alarms
- Strong integral 316 STST mounting bracket
- Large easy access cable entries
- Easy access terminal blocks
- Wide range of accessories

Easy to Use

- Intuitive menu operating system
- Clear on screen instructions guide user
- Simple for button operation
- Multiple language options
- Transmitter recognizes new sensor cartridges
- Easy to change gas types
- Large clear backlit graphical LCD display

Easy to Maintain

- Simple plug in under power sensor cartridge
- Smart cartridges are supplied pre calibrated
- Common transmitter for all gas types
- Simple filter replacement

Apex takes all the best elements of gas detection design and combines them into one unit. Apex provides the highest performance, installation flexibility, a wide range of accessories and a choice of communication outputs. All this is provided in a package that is easy to install, operate and maintain.

Typical applications include:

Petrochemical

Exploration drilling rigs, production platforms, FPSO's, oil and gas terminals, chemical plants, oil and gas tankers

Heavy Industrial

Steel manufacture, ship building

Manufacturing

Automotive, glass and ceramics, aerospace, printing and coating, cosmetics

Pharmaceutical

Research labs, solvent storage areas, process areas, demineralisation plants

Transmitter

The robust hazardous area approved Apex transmitter housing and mounting bracket is made from 316 Stainless Steel. It has a large backlit LCD display, simple 4 button operation, 3 fully configurable relay outputs and selectable sink, source or isolated 4-20mA signal. The transmitter is common to all types of sensor.

Sensor

The Apex Sensor can be mounted directly on the transmitter or remotely up to 100m away. There are two versions of sensor; one for both catalytic and electrochemical type sensor cartridges and one for the thick film (semi conductor) type cartridges.

Smart cartridge

The sensors can be fitted with a choice of over 40 toxic gas ranges and wide range of detectable flammable gases. Each cartridge is pre calibrated and simply plugs into the sensor. The Intrinsically Safe design allows cartridges to be changed with the unit under power. The transmitter recognizes a newly fitted sensor cartridge and automatically reads all the configuration information from it.



General specification



General Specification			
Power supply	24Vdc nominal (18-32Vdc)		
Power consumption (typical)	Apex 3W toxic, 4.6W catalytic, 4.6W thick film		
Outputs	Relay outputs Analogue signal Digital output		
	A1, A2 and Fault 2A at 30Vdc* selectable normally open or normally closed and normally energised or normally de-energised 4-20mA sink, source or isolated output LonWorks (optional) – only available on ATEX certified version		
Material and weight	316 Stainless Steel 5.25kg (11.55lbs)		
Accuracy	Baseline ±3%, at 50% FSD ±4%		
Repeatability	±2% at 50% FSD		
Linearity	<5% FSD		
Response time (typical)	Catalytic Toxic		
	T50 <5 seconds, T90 <10 seconds T50 <12 seconds, T90 <30 seconds		
Stability (typical)	Temperature: Time:		
	<±5% FSD (zero), <±5% FSD (span) <±3% FSD / year (zero), <±4% FSD / year (span)		
Operating temperature	-40°C to +65°C (-40 to +150°F). Operating temperature of electrochemical cell cartridges is cell dependent. LCD display operates over -20°C to +65°C		
Operating humidity	0-99% (non condensing)		
Environmental protection	IP66/67 to BS EN60529:1992 (Equiv. NEMA 4X / NEMA 6)		
Approvals	CE Approved to all applicable European directives. EMC EN50270: 1999 type 2		
Performance standards	Exam (DMT) EN50054/50057/50271. CSA C22.2 No.152 (with cartridge 2110B3754)		
Certification	ATEX  2G EEx d ia IIC, CSA Class 1, Division 1 groups B, C and D C22.2 No.152 UL Class 1, Division 1 groups B, C and D, and Class 1, Zone 1 AExd [ia] IIC ATEX and UL T4 -40 to +80°C (-40 to +176°F), T5 -40 to +55°C (-40 to +131°F) CSA T4 -40 to +75°C (-40 to +167°F), T5 -40 to +55°C (-40 to +131°F) * CSA / UL rating 1A at 28Vdc		
Available gases and ranges*			
Gas	Formula	Ranges	Cell type
Flammable	Various	0-100%LEL or 0-10%LEL	CAT/TF
Ammonia	NH ₃	0-50ppm, 0-100ppm, 0-400ppm or 0-1000ppm	ECC/TF
Arsine	AsH ₃	0-0.2ppm	ECC
Boron trichloride	BCl ₃	0-6ppm	ECC
Bromine	BR ₂	0-0.4ppm	ECC
Carbon monoxide	CO	0-100ppm, 0-200ppm or 0-500ppm	ECC
Chlorine	Cl ₂	0-2ppm, 0-5ppm or 0-15ppm	ECC
Chlorine dioxide	ClO ₂	0-0.4ppm	ECC
Diborane	B ₂ H ₆	0-0.4ppm	ECC
Dichlorosilane	SiH ₂ Cl ₂	0-10ppm	ECC
Fluorine	F ₂	0-4ppm	ECC
Germane	GeH ₄	0-0.8ppm	ECC
Hydrogen	H ₂	0-1000ppm	ECC
Hydrogen bromide	HBr	0-12ppm	ECC
Hydrogen chloride	HCl	0-20ppm	ECC
Hydrogen cyanide	HCN	0-20ppm	ECC
Hydrogen fluoride	HF	0-12ppm	ECC
Hydrogen sulfide	H ₂ S	0-15ppm, 0-20ppm, 0-50ppm or 0-100ppm	ECC/TF
Nitric oxide	NO	0-100ppm	ECC
Nitrogen dioxide	NO ₂	0-12ppm	ECC
Oxygen	O ₂	0-21%V/V	ECC
Ozone	O ₃	0-4ppm	ECC
Phosphine	PH ₃	0-1.2ppm	ECC
Silane	SiH ₄	0-20ppm	ECC
Sulfur dioxide	SO ₂	0-8ppm, 0-15ppm, 0-50ppm	ECC

CAT- Electrocatalytic, ECC- Electrochemical Cell, TF- Thick Film Semi Conductor

*For other gases and ranges not listed contact Honeywell Analytics.

Honeywell Analytics Lines of Business



Commercial

Gas detection from standalone units to fully engineered, multi-point systems, all offering cost-effective regulatory compliance

- » Applications: parking structures, chillers, mechanical rooms, office towers, commercial buildings, shopping centers, swimming pools, golf courses, schools and universities, laboratories

Industrial

Renowned Sieger and Manning gas detection systems with advanced electrochemical, infrared and open path sensing technologies

- » Applications: oil and gas, cold storage, water/wastewater treatment, chemicals, engine rooms, plastics and fibers, agriculture, printing and light industrial

Portables

Single or multi-gas Lumidor and other premium detectors with compact, lightweight designs ranging from simple alarm only units to advanced, fully configurable and serviceable instruments

- » Applications: underground utility and electricity ducts, boiler rooms, post-fire sites, sewers, industrial plants, industrial hygiene, first responder teams, remote fleets



High Tech/Government

A complete portfolio of gas and chemical detection instrumentation including infrared spectroscopy (MST) with no cross interference, to Chemcassette paper-based solutions (MDA Scientific) offering detection down to parts per billion

- » Applications: semiconductor manufacturing and nanotechnology, aerospace propulsion and safety, specialty chemicals industry, research laboratories, emergency response

Technical Services

24/7 global network includes post-sales service and Systems Integration teams

- » Emergency call out, service contracts, on/off-site repair, training and commissioning
- » Complete range of spares, consumables and accessories

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