

# QEL Q8 Series Gas Detectors

The **new Q8 Series of Explosion Proof Gas Detectors** are used for applications that require a more rugged enclosure and meet Class 1 Division 2 requirements. Each unit comes standard with a digital display of concentration, relay status, STEL, TWA and peak daily value of the gas detected. A three-colour backlight will flash depending on the level of alarm for operator safety. Set-up and calibration is accomplished through non-intrusive hardware that allows programming of all parameters. Remote sensors are available for all types of gases. Sensor types include electrochemical, catalytic bead, and infrared to meet the demands and performance standards of particular industries. Communication is accomplished through Optomux and Modbus RS-485, 4-20 mA, and 3 user-programmable relay contacts. Remote explosion proof sensing is available for all types of sensing technologies.



## MODEL NUMBER ORDERING CODE



**Gas Ordering Code**  
(See Below for Code)

**Span Ordering Code**  
(See Below for Code)

**Enclosure Type**

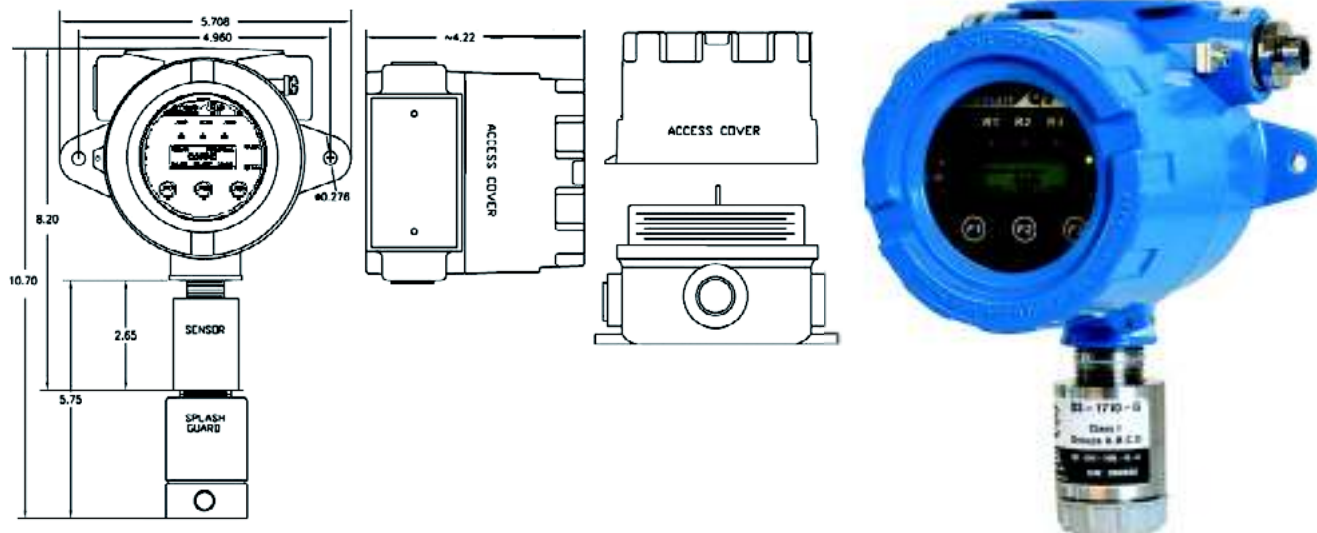
Enclosure, Standard.....**O**  
Remote Mount Sensor .....**R**  
Factory Provided .....**X**

## KEY FEATURES:

- ▶ RS-485 communication
- ▶ 3 on-board relays
- ▶ 4-20 mA output
- ▶ Non-Intrusive calibration
- ▶ Tri-Colour flashing warning screens
- ▶ Display of TWA, STEL, Peak daily value
- ▶ Electrochemical, catalytic bead, infrared sensor technologies
- ▶ Built-in clock

Gas Type, Technology, Span Range	Gas Ordering Code	Span Ordering Code
Acetone, Catalytic Bead, 0-100%LEL	CH3CO	100L
Ammonia, Electrochemical, 0-100PPM	NH3	100P
Ammonia, Electrochemical, 0-1000PPM	NH3	1000P
Arsine, Electrochemical, 0-1PPM	ASH3	1P
Benzene, Catalytic Bead, 0-100%LEL	C6H6	100L
Iso-Butane, Catalytic Bead, 0-100%LEL	C4H10	100L
Butanol, n-Butane, Catalytic Bead, 0-100%LEL	BUTAN	100L
Carbon Monoxide, Electrochemical, 0-250PPM	CO	250P
Carbon Monoxide, Electrochemical, 0-1000PPM	CO	1000P
Chlorine, Electrochemical, 0-5PPM	CL2	5P
Chlorine Dioxide, Electrochemical, 0-2PPM	CLO2	2P
Combustibles, Catalytic Bead, 0-100%LEL	GENL (Specify)	100L
Diborane, Electrochemical, 0-2 PPM	B2H6	2P
Ethylene Catalytic Bead, 0-100%LEL	C2H4	100L
Germane, Electrochemical, 0-2PPM	GeH4	2P
Hydrogen, Electrochemical, 0-1000PPM	H2	1000P
Hydrogen, Electrochemical, 0-2000PPM	H2	2000P
Hydrogen, Catalytic Bead, 0-100%LEL	H2	100L
Hydrogen Bromide, Electrochemical, 0-30PPM	HBR	30P
Hydrogen Chloride, Electrochemical, 0-30PPM	HCL	30P
Hydrogen Cyanide, 0-50PPM	HCN	50P
Hydrogen Sulphide, Electrochemical, 0-25PPM	H2S	25P
Hydrogen Sulphide, Electrochemical, 0-100PPM	H2S	100P
Methane, Catalytic Bead, 0-100%LEL	CH4	100L
Methanol, Catalytic Bead, 0-100%LEL	CH3OH	100L
Nitric Oxide, Electrochemical, 0-100PPM	NO	100P
Nitrogen Dioxide, Electrochemical, 0-10PPM	NO2	10P
Oxygen, Electrochemical, 0-25% VOL	O2	25V
Ozone, Electrochemical, 0-1PPM	O3	1P
Iso-Pentane, Catalytic Bead, 0-100%LEL	CSH12	100L
Phosphine, Electrochemical, 0-1PPM	PH3	1P
Phosphine, Electrochemical, 0-5PPM	PH3	5P
Propane Catalytic Bead, 0-100%LEL	C3H8	100L
Silane, Electrochemical, 0-50PPM	SiH4	50P
Sulphur Dioxide, Electrochemical, 0-6PPM	SO2	6P

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## ELECTRICAL AND MECHANICAL SPECIFICATIONS

<b>Input Power:</b>	24 VDC nominal, range 18 to 30 VDC, 0.3 A DC Total Max. 24 VAC nominal, range 15 to 24 VAC, 0.3 A AC Total Max. (AC must not be grounded)	<b>Enclosure:</b>	Aluminium Pressure Die-Casting Entries: 2 X ¾ NPT
<b>Fuse:</b>	F2 on Main Board: Polyswitch 750 mA Polyswitch device resets after the fault is cleared and power to the circuit is removed	<b>Certificate:</b>	CSA C22.2 No.30 Class I, Groups A, B, C, D, Class II, Groups E, F, G; Class III Enclosure Type: 4X, Division 1 Division 2 ANSI/ISA 12.22.01 Class I, Zone 1 AEx d II C, IP66 Zone 1 CSA E60079-1 Ex d II C, Class I, Zone 1, IP66
<b>Sensor:</b>	Combustible gases: Catalytic Toxic gases and Oxygen: Electrochemical	<b>Operating Temperature:</b>	-40° C to 70° C, depends on sensor specification
<b>Panel Indicators:</b>	5 Status LED's ▶ RS-485 TX Status (Green) ▶ RS-485 RX Status (Green) ▶ Relay 1 Status (Red) ▶ Relay 2 Status (Red) ▶ Relay 3 Status (Red)	<b>Ambient Humidity:</b>	5% to 95% RH (non-condensing)
<b>Display:</b>	LCD graphic display c/w backlight	<b>Storage Temperature:</b>	0° C to 40° C, depends on sensor specification
<b>Keypad:</b>	3 magnetic switches: F1, F2, F3	<b>Size:</b>	145 mm X 190 mm X 130 mm
<b>Relays:</b>	3 Relays SPDT, Dry contacts ▶ 1.0 A maximum at 30 VDC (resistive load) ▶ 0.3 A maximum at 125 VAC (resistive load)	<b>Weight:</b>	Less than 4 lbs

*Ensure a complete understanding of all applicable Federal, State, Provincial and Local Health and Safety laws and regulations before using these products.*



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*This brochure includes general specifications which are subject to change.*