

Wallace & Tiernan®

Electrochemical Gas Sensor Range for GMS *Plus* and EC100 Systems

Introduction

The Wallace & Tiernan® GMS *Plus* and EC100 systems are advanced electronic gas detection systems. The sensor monitors for the presence of specific gases in the atmosphere and initiates a warning to the operating personnel in the event of a gas leak. A range of alternative gas detection sensor heads are available as listed in the tables below to suit a number of applications.

The sensor is a three electrode electrochemical cell which incorporates working, counter and reference electrodes that provide excellent zero and temperature stability. The sensor is maintenance free and has a typical operating life of two years. The presence of a specific gas results in a reduction current passing between the working and counter electrodes, the current being proportional to the concentration of gas in the atmosphere.



Gas Sensor Unit

Sensor Specification	
Ambient Temperature	0°C - 50°C (32°F - 122°F) non-condensing 0°C - 20°C (32°F - 68°F) storage
Storage Life	Six months in CTL container
Pressure Range	Atmosphere ± 10%
Relative Humidity Range	15-90% non-condensing
Enclosure	IP20
Dimensions (W x H x D)	82mm x 100mm x 85mm (3 1/4" x 4" x 3 1/2")
Sensitivity	0.1ppm
Response Time	Less than 1 second

Specification

Part Number	Gas Measured	Symbol	Sensor range ppm
AAA9438	CARBON MONOXIDE	CO	0 - 50
AAA9441	CARBON MONOXIDE	CO	0 - 100
AAA9444	CARBON MONOXIDE	CO	0 - 200
AAA9447	CARBON MONOXIDE	CO	0 - 300
AAA9450	CARBON MONOXIDE	CO	0 - 500
AAA9453	CARBON MONOXIDE	CO	0 - 1000
AAA9456	CARBON MONOXIDE	CO	0 - 2000
AAA9459	HYDROGEN SULPHIDE	H ₂ S	0 - 5
AAA9462	HYDROGEN SULPHIDE	H ₂ S	0 - 10
AAA9465	HYDROGEN SULPHIDE	H ₂ S	0 - 20
AAA9468	HYDROGEN SULPHIDE	H ₂ S	0 - 30

Product Sheet

Part Number	Gas Measured	Symbol	Sensor range ppm
AAA9471	HYDROGEN SULPHIDE	H ₂ S	0 - 50
AAA9474	HYDROGEN SULPHIDE	H ₂ S	0 - 100
AAA9477	HYDROGEN SULPHIDE	H ₂ S	0 - 200
AAA9480	HYDROGEN SULPHIDE	H ₂ S	0 - 300
AAA9483	SULPHUR DIOXIDE	SO ₂	0 - 5
UXB86376	SULPHUR DIOXIDE	SO ₂	0 - 10
UXD86376	SULPHUR DIOXIDE	SO ₂	0 - 20
AAA9486	SULPHUR DIOXIDE	SO ₂	0 - 30
AAA8802	SULPHUR DIOXIDE	SO ₂	0 - 50
AAA9489	SULPHUR DIOXIDE	SO ₂	0 - 100
AAA9537	NITRIC OXIDE	NO	0 - 20
AAA9540	NITRIC OXIDE	NO	0 - 30
AAA9543	NITRIC OXIDE	NO	0 - 50
AAA9546	NITRIC OXIDE	NO	0 - 100
AAA9549	NITRIC OXIDE	NO	0 - 200
AAA9552	NITRIC OXIDE	NO	0 - 300
AAA9555	NITROGEN DIOXIDE	NO ₂	0 - 5
AAA9558	NITROGEN DIOXIDE	NO ₂	0 - 10
AAA9561	NITROGEN DIOXIDE	NO ₂	0 - 20
AAA9564	NITROGEN DIOXIDE	NO ₂	0 - 30
AAA9567	NITROGEN DIOXIDE	NO ₂	0 - 50
AAA9570	NITROGEN DIOXIDE	NO ₂	0 - 100
AAA9573	NITROGEN DIOXIDE	NO ₂	0 - 200
AAA9576	NITROGEN DIOXIDE	NO ₂	0 - 300
AAA9579	CHLORINE	Cl ₂	0 - 5
UXA86376	CHLORINE	Cl ₂	0 - 10
UXC86376	CHLORINE	Cl ₂	0 - 20
AAA9582	CHLORINE	Cl ₂	0 - 30
AAA8748	CHLORINE	Cl ₂	0 - 50
AAA9585	CHLORINE	Cl ₂	0 - 100
AAA9588	CHLORINE	Cl ₂	0 - 200
AAA9615	HYDROGEN CHLORIDE	HCl	0 - 10
AAA9618	HYDROGEN CHLORIDE	HCl	0 - 20
AAA9621	HYDROGEN CHLORIDE	HCl	0 - 30
AAA9624	HYDROGEN CHLORIDE	HCl	0 - 50
AAA9627	HYDROGEN CHLORIDE	HCl	0 - 100
AAA9630	HYDROGEN CHLORIDE	HCl	0 - 200
AAA9633	CHLORINE DIOXIDE	ClO ₂	0 - 5
AAA9636	CHLORINE DIOXIDE	ClO ₂	0 - 10
AAA9639	CHLORINE DIOXIDE	ClO ₂	0 - 20
AAA9642	CHLORINE DIOXIDE	ClO ₂	0 - 50

Please Note: The Part Number refers to a complete solid state sensor unit comprising of a sensor head mounted in an enclosure complete with electrical connections.

Select an appropriate cable from the following;

Part number	Cable to connect to standard sensor types
AAA7857	1 meter (3' 3") length of cable
AAA7860	3 meter (9' 9") length of cable
AAB7179	5 meter (16' 6") length of cable
AAA7863	10 meter (33' 0") length of cable
AAA7866	25 meter (82' 6") length of cable
AAB6639	50 meter (165' 0") length of cable
AAB7107	100 meter (330' 0") length of cable

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