

Durability and High-Tech CAN coexist!

- Made by MSA...
Over 90 years of experience

Reliable

- Standard internal pump with proven patented pump technology for accurate sampling
- Long run time for long or double shifts

Easy-to-use

- Password protected calibration access
- Large display for easy-to-read gas concentrations
- Bright alarm lights visible from all angles give superior warning
- Easy-to-change interchangeable NiMH or alkaline batteries for easy maintenance and flexibility
- Intuitive 3-button operation means simple training

Durable

- Weather and dust resistant design with an IP 54 rating to stand up to the toughest environments
- Passes a 6-foot drop test to withstand tough abuse in the field

Datalog Standard

- Calibration records and stored data viewed quickly and easily

Prices effective October 1, 2008



Orion[®]plus Multigas Detector

Assemble-To-Order System and Pricing Guide



Kits/Approvals/Accessories and Replacement Parts

Approvals

The Orion Multigas Detector has been designed to meet intrinsic safety testing requirements in certain hazardous atmospheres. The Orion Multigas Detector has been approved by UL and cUL for use in Class I, Division I, Groups A, B, C, and D.

Replacement Sensors	Part No.	Price
0 - 100 %LEL	10024247	\$204.00
0 - 25 % Vol. O ₂	10025940	\$153.00
0 - 999 ppm Carbon Monoxide (CO)	711306	\$204.00
0 - 200 ppm Hydrogen Sulphide (H ₂ S)	711307	\$204.00
0 - 30 ppm Hydrogen Cyanide (HCN)	10073949	\$387.60
0 - 10 ppm Chlorine (Cl ₂)	10073945	\$387.60
0 - 100 ppm Ammonia (NH ₃)	10073948	\$387.60
0 - 20 ppm Sulphur Dioxide (SO ₂)	10073944	\$387.60
0 - 20 ppm Nitrogen Dioxide (NO ₂)	10073947	\$387.60
0 - 1 ppm Chlorine Dioxide (ClO ₂)	10073951	\$402.90
0 - 5 ppm Phosphine (PH ₃)	10073952	\$402.90

IR Sensors	Part No.	Price
0 - 10 Vol.% Carbon Dioxide (CO ₂)	10062209	\$765.00
0 - 50 Vol.% Carbon Dioxide (CO ₂)	10070757	\$765.00
0 - 100 % LEL Propane (C ₃ H ₈)	10062208	\$765.00
0 - 100 % Vol Propane (C ₃ H ₈)	10062207	\$765.00
0 - 100 % Vol Methane (CH ₄)	10062205	\$765.00
0-25 % Vol Hydro carbon (Butane)	10062201	\$765.00

Power Supply	Part No.	Price
NiMH battery with PCBA connector	10087243	\$311.10
Charger and Cradle	10073666	\$198.90
Upgrade Kit (Cradle, PCBA connector& Nut)	10073664	\$56.10
Alkaline Battery pack	10031092	\$249.90

Vehicle Battery Charger	Part No.	Price
Vehicle Battery Charger	10034276	\$280.50

Sample line	Part No.	Price
Customized 5 ft PTFE Line for Orion plus	10074535	\$73.44
Standard PU line, not connectable with probe, price per ft	604018	\$3.72

Sample probe	Part No.	Price
Customized 1 ft PTFE straight probe	497600	\$173.91

Carrying Attachments	Part No.	Price
Swivel Belt Loop	710962	\$106.08

Instrument Jacket	Part No.	Price
Black Rubber Boot	10022036	\$90.78
Leather Case	10020485	\$123.42
Codura Nylon Jacket Orange	10020486	\$64.26
Red Rubber Boot	10025665	\$90.78

Data Communication	Part No.	Price
IR Receiver (Jet Eye)	10082834	\$188.70
PC Software Orion Plus	10074833	\$35.70

Calibration Gas	Part No.	Price
34L, 300 ppm CO, 1.45% CH ₄ , 15% O ₂ , 10 ppm H ₂ S, 2.5% CO ₂ , N ₂ Balance	10058022	\$251.94
34L, 300 ppm CO, 1.45% CH ₄ , 15% O ₂ , 2.5% CO ₂ , N ₂ Balance	10058023	\$234.60
34L, 10 ppm HCN, N ₂ Balance	711072	\$337.62
58L, 10 ppm Cl ₂ , N ₂ Balance (to calibrate Cl ₂ sensor)	806740	\$449.82
34L, 2 ppm Cl ₂ , N ₂ Balance (to calibrate O ₃ /COCl ₂ /ClO ₂ sensor)	711082	\$337.62
34L, 25 ppm NH ₃ , N ₂ Balance	711078	\$337.62
34L, 10 ppm SO ₂ , air Balance	711070	\$151.98
34L, 10 ppm NO ₂ , air Balance	711068	\$225.42
34L, 0.5 ppm PH ₃ , N ₂ Balance	711088	\$364.14
58L, 50% Vol Methane, N ₂ Balance	10075804	\$178.50
58L, 100% Vol Methane	711014	\$184.62
100L, 0.6% Propane	493579	\$184.62
34L, 10% CO ₂ in N ₂	10081603	\$188.70
34L, 15% Butane in N ₂	10081604	\$202.98
34L, 15% Propane in N ₂	10081605	\$202.98

Dust & Water filter Orion Plus	Part No.	Price
PTFE Filter D25 (6pcs)	10064531	\$42.84
Maintenance Kit Orion Plus	10059098	\$47.94
Assembly Kit IR Sensor	10080043	\$49.98

Orion^{plus} Kits

All kits are standard equipped with datalog, internal pump and comes with rechargeable battery pack, charger, protective rubber boot, PTFE sampling probe with 5ft line and software (p/n 655505 is needed to read data).

Part #	O ₂	LEL	CO	H ₂ S	NH ₃	Cl ₂	PH ₃	SO ₂	Price
10074944	X	X	X		X				\$2,631.00
10074943	X	X	X			X			\$2,631.00
10074949	X	X		X	X				\$2,631.00
10074946	X	X		X		X			\$2,631.00
10074951	X	X			X		X		\$2,821.00
10074950	X	X		X				X	\$2,631.00
10074945	X	X	X					X	\$2,631.00

Infra Red Versions

Part #	IR	O ₂	LEL	CO	H ₂ S	Price
10074947	IR CO ₂ (0-10% Vol)	X	X	X	X	\$3,201.00
10074941	IR CH ₄ (0-100% Vol)	X	X	X	X	\$3,201.00
10074942	IR HC butane (0-25% Vol)	X	X	X	X	\$3,201.00

Prices above are suggested U.S. list prices only and may not apply in international markets. Prices subject to change without prior notification.

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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For further information:



Orion[®]plus Multigas Detector Assemble-to-Order (ATO) Options

- To generate your instrument configuration, select instrument options and mark them in the boxes to the right.
- To generate your instrument price, write in the price for each option in the space provided to the right and add to the base price of \$1,152 below.

A Combustible Sensor	Choose your sensor calibration with MSA's long-life 20L combustible sensor. Choose selection "L" for a pentane calibration or "M" for a methane calibration. For no combustible sensor, enter a "0".	Combustible Sensor without combustible sensor 0 - 100 %LEL pentane (1.4 vol%) 0 - 100 %LEL methane (5.0 vol%)	Code 0 L M	Price \$0.00 \$200.00 \$200.00	Selection <input type="text"/> <input type="text"/> <input type="text"/>	Price \$ <input type="text"/> <input type="text"/>
B Oxygen Sensor	To choose to have an oxygen sensor installed in your new Orionplus IR Detector, choose selection 1. For no oxygen sensor, enter a "0".	Oxygen Sensor without oxygen sensor 0 - 25 % Vol. O ₂	Code 0 1	Price \$0.00 \$170.00	Selection <input type="text"/> <input type="text"/>	Price \$ <input type="text"/>
C Toxic 1 Sensor	Choose your first toxic gas sensor from this extensive list to configure your new Orionplus IR Detector for your application; for no toxic sensor, enter an "0".	Toxic 1 Sensor None 0 - 999 ppm carbon monoxide (CO) 0 - 200 ppm hydrogen sulfide (H ₂ S) 0 - 30 ppm hydrogen cyanide (HCN) 0 - 10 ppm chlorine (Cl ₂) 0 - 100 ppm ammonia (NH ₃) 0 - 20 ppm sulfur dioxide (SO ₂) 0 - 20 ppm nitrogen dioxide (NO ₂) 0 - 1 ppm chlorine dioxide (ClO ₂) 0 - 5 ppm phosphine (PH ₃)	Code 0 B C E F G H I J K	Price \$0.00 \$200.00 \$200.00 \$380.00 \$380.00 \$380.00 \$380.00 \$380.00 \$380.00 \$390.00 \$390.00	Selection <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Price \$ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
D Toxic 2 Sensor	Choose your second toxic gas sensor from this list to configure your new Orionplus IR Detector for your application; for no toxic sensor, enter an "0".	Toxic 2 Sensor None 0 - 999 ppm carbon monoxide (CO) 0 - 200 ppm hydrogen sulfide (H ₂ S) 0 - 30 ppm hydrogen cyanide (HCN) 0 - 10 ppm chlorine (Cl ₂) 0 - 100 ppm ammonia (NH ₃) 0 - 20 ppm sulfur dioxide (SO ₂) 0 - 20 ppm nitrogen dioxide (NO ₂) 0 - 1 ppm chlorine dioxide (ClO ₂) 0 - 5 ppm phosphine (PH ₃)	Code 0 B C E F G H I J K	Price \$0.00 \$200.00 \$200.00 \$380.00 \$380.00 \$380.00 \$380.00 \$380.00 \$380.00 \$390.00 \$390.00	Selection <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Price \$ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
E Advanced IR Sensor	MSA offers a range of advanced IR options which will operate in the absence of background oxygen for inert applications. If your application require an IR sensor for %CO ₂ or inert %LEL, choose "H" for 0-100% vol methane. For general hydrocarbon monitoring (0-25% vol), choose "J". When no IR sensor is required, enter an "0". Contact MSA for other IR sensors options.	IR Sensor None 0 - 10 vol % carbon dioxide (CO ₂) 0 - 50 vol % carbon dioxide (CO ₂) 0 - 100 % LEL propane (C ₃ H ₈) 0 - 100 % vol propane (C ₃ H ₈) 0 - 100 % vol methane (CH ₄) 0-25 % vol hydrocarbon (butane)	Code 0 C D E F H J	Price \$0.00 \$750.00 \$750.00 \$750.00 \$750.00 \$750.00 \$750.00	Selection <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Price \$ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
F Power Supply	You can choose between MSA's NiMH rechargeable batteries, or you can choose the convenience of alkaline batteries. For ultimate flexibility, choose both!	Battery Pack NiMH battery with PCBA & charger with cradle Alkaline battery pack NiMH & alkaline pack (A&B)	Code A B C	Price \$255.00 \$210.00 \$465.00	Selection <input type="text"/> <input type="text"/> <input type="text"/>	Price \$ <input type="text"/> <input type="text"/>
G Vehicle Battery Charger	If you order your Orionplus IR Detector with a rechargeable battery pack, the charger is included in the price. If you want the optional vehicular charger adapter, choose selection "1".	Vehicle Battery Charger None Vehicle battery charger	Code 0 1	Price \$0.00 \$219.00	Selection <input type="text"/> <input type="text"/>	Price \$ <input type="text"/>
H Sample line	MSA does not recommend sampling reactive gases; however if necessary, MSA's high-speed PTFE sampling line is of the highest quality material, guaranteed to minimize altering of the sample concentration.	Sample Line None Customized 5' PTFE line for Orionplus	Code 0 1	Price \$0.00 \$59.00	Selection <input type="text"/> <input type="text"/>	Price \$ <input type="text"/>
I Sample probe	A 1' PTFE sampling probe with built-in water-stop filter ensures that your sampling system is not contaminated with dirt and debris if the probe tip is dipped in water. You must order a probe if ordering a sampling line. We strongly recommend operating the instrument with this filter in place.	Sample Probe None Sampling PTFE probe	Code 0 1	Price \$0.00 \$140.00	Selection <input type="text"/> <input type="text"/>	Price \$ <input type="text"/>
J Carrying Attachments	While a high-strength, nylon clip is standard offered at no extra charge, a swivel belt loop kit allowing quick belt release with a half-turn is also available.	Carrying Attachments None Swivel belt loop	Code 0 1	Price \$0.00 \$87.00	Selection <input type="text"/> <input type="text"/>	Price \$ <input type="text"/>
K Instrument Jacket	For environmental and rough handling protection, a variety of jackets and boots is available for your Orionplus IR Detector.	Instrument Jacket None Black rubber boot Leather case Codura nylon jacket orange Red rubber boot	Code 0 B L C R	Price \$0.00 \$75.00 \$95.00 \$49.00 \$75.00	Selection <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Price \$ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
L Calibration	Use a minimal length (1-2") of the PU tubing to connect to your designated regulators for reactive gases to your instrument.	Calibration 2 ft PU tubing	Code 0	Price \$0.00	Selection <input type="text"/>	Price \$ <input type="text"/>
M Data Communication	To track readings and operation of your Orionplus IR Detector, this unit is standard-equipped with datalogging and STEL/TWA capabilities. To conveniently track stored records, order the IR Receiver, as software comes standard with each unit.	Data Communication None IR receiver (JetEye)	Code 0 1	Price \$0.00 \$180.00	Selection <input type="text"/> <input type="text"/>	Price \$ <input type="text"/>
N Packaging	You can further protect your Orionplus IR Detector with optional carrying cases. For ease of transport and handling, these cases can be ordered to accommodate calibration accessories.	Packaging Standard carton Economy plastic case Hard plastic with space for 2 cylinders Red economy plastic	Code 0 1 2 3	Price \$0.00 \$120.00 \$200.00 \$100.00	Selection <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Price \$ <input type="text"/> <input type="text"/> <input type="text"/>

Your Model Part Number

Please write in numbers from selections above in appropriate boxes and contact your Safety Products Distributor to place your order.

Selection ... **A** **B** **C** **D** **E** **F** **G** **H** **I** **J** **K** **L** **M** **N**

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Add Base Unit Price + \$1,152.00

Total Unit Price = \$

All Pricing is in US Dollars