
Biosystems Cannonball3™ Multi Gas Detectors



Features

Design

- Rugged RFI-protected case designed for the most demanding environments
- IP65 rated protection against dust and water
- One button operation
- Oversized (5" diagonal) backlit graphic display with automatic backlight
- Super bright alarm lights visible in any direction
- Multiple languages

Pumps

- Field replaceable pump module
- Available with dual pumps for accurate dilution monitoring in inert environments without the use of a dilution orifice
- Dilution calibration regardless of tube length
- Automatic low flow alarm
- Automatic leak test before every use

Recording

- Black-Box recorder with over 100 hours of storage
- Available with optional datalogging for convenient and easy downloading to a computer
- Available with optional patented TouchID™ for automatic input of user and location identification

Smart Sensors & Calibration

- Four sensors. O₂, LEL and up to three toxic channels using Biosystems' Duo-Tox two channel CO/H₂S sensor (see matrix for available sensors)
- One button auto calibration
- Calibration due reminder
- Sensor span reserve indicators during calibration for predictive maintenance

Optional HC/LEL PPM Sensor

- Combustible gas sensor with 10PPM resolution
- Simultaneous display of LEL and PPM scales
- Linked or independent calibration of the LEL and PPM scales

Batteries

- Interchangeable Alkaline (5 "D"-cell) and rechargeable (NiMH) batteries
- Operating life
 - Alkaline: Up to 24 hours
 - NiMH: Up to 16 hours
- Snap-on fast charger included with rechargeable (NiMH) configuration
- Recharges in 4 hours

Standard Accessories

- Built-in sample draw pump
- Remote sampling probe with 10' of tubing and QD (quick disconnect) fittings
- Shoulder strap
- Rechargeable NiMH version includes charger
- Operators guide
- Quick reference guide
- Training video

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Cannonball3 Configuration Matrix

Cannonball3 Sensors Installed Add To Part # ⇨	Standard Version (1 Pump)			Dilution Version (2 Pumps) [†]		
	Part No.	Alkaline (A)	NiMH (N)	Part No.	Alkaline (A)	NiMH (N)
No Sensors Installed	54-34-00000	\$2,020.00	\$2,230.00	54-35-00000	\$2,360.00	\$2,570.00
LEL / O ₂	54-34-30000	\$2,360.00	\$2,570.00	54-35-30000	\$2,710.00	\$2,920.00
LEL / O ₂ / CO	54-34-30100	\$2,650.00	\$2,860.00	54-35-30100	\$3,000.00	\$3,210.00
LEL / O ₂ / CO-H	54-34-31900	\$2,680.00	\$2,890.00	54-35-31900	\$3,020.00	\$3,230.00
LEL / O ₂ / H ₂ S	54-34-30200	\$2,650.00	\$2,860.00	54-35-30200	\$3,000.00	\$3,210.00
LEL / O ₂ / Duo-Tox (CO/H ₂ S)	54-34-31400	\$2,770.00	\$2,980.00	54-35-31400	\$3,110.00	\$3,320.00
LEL / O ₂ / CO / H ₂ S	54-34-30102	\$2,940.00	\$3,150.00	54-35-30102	\$3,290.00	\$3,500.00
LEL / O ₂ / SO ₂ [†]	54-34-30300	\$2,710.00	\$2,920.00	54-35-30300	\$3,060.00	\$3,270.00
LEL / O ₂ / CO / SO ₂ [†]	54-34-30103	\$3,000.00	\$3,210.00	54-35-30103	\$3,340.00	\$3,550.00
LEL / O ₂ / H ₂ S / SO ₂ [†]	54-34-30203	\$3,000.00	\$3,210.00	54-35-30203	\$3,340.00	\$3,550.00
LEL / O ₂ / Duo-Tox (CO/H ₂ S) / SO ₂ [†]	54-34-31403	\$3,110.00	\$3,320.00	54-35-31403	\$3,460.00	\$3,670.00
LEL / O ₂ / SO ₂ Ext. [†]	54-34-31500	\$2,710.00	\$2,920.00	54-35-31500	\$3,060.00	\$3,270.00
LEL / O ₂ / NH ₃	54-34-32100	\$2,770.00	\$2,980.00	54-35-32100	\$3,110.00	\$3,320.00
LEL / O ₂ / Cl ₂ (non-specific)	54-34-30800	\$2,710.00	\$2,920.00	54-35-30800	\$3,060.00	\$3,270.00
LEL / O ₂ / Cl ₂ (specific)	54-34-31800	\$2,710.00	\$2,920.00	54-35-31800	\$3,060.00	\$3,270.00
LEL / O ₂ / ClO ₂ (non-specific)	54-34-31200	\$2,710.00	\$2,920.00	54-35-31200	\$3,060.00	\$3,270.00
LEL / O ₂ / ClO ₂ (specific)	54-34-32000	\$2,710.00	\$2,920.00	54-35-32000	\$3,060.00	\$3,270.00
LEL / O ₂ / NO ₂	54-34-30900	\$2,710.00	\$2,920.00	54-35-30900	\$3,060.00	\$3,270.00
HC-PPM LEL / O ₂	54-34-50000	\$2,420.00	\$2,630.00	54-35-50000	\$2,760.00	\$2,970.00
HC-PPM LEL / O ₂ / CO	54-34-50100	\$2,700.00	\$2,910.00	54-35-50100	\$3,050.00	\$3,260.00
HC-PPM LEL / O ₂ / Duo-Tox (CO/H ₂ S)	54-34-51400	\$2,820.00	\$3,030.00	54-35-51400	\$3,170.00	\$3,380.00
HC-PPM LEL / O ₂ / CO / H ₂ S	54-34-50102	\$2,990.00	\$3,200.00	54-35-50102	\$3,340.00	\$3,550.00

**Please refer to the Cannonball3 Smart Sensor matrix on page 3 for more detailed sensor information
Call Biosystems For Additional Sensor Combinations**

[†] The detection range of the standard SO₂ sensor is 0.0 - 25 in 0.1 PPM increments. The detection range of the extended range SO₂ sensor is 0 - 150 in 1 PPM increments

[‡] The dilution version of the Cannonball3 allows for accurate gas detection in inert environments without the use of a dilution orifice.

Cannonball3 Options (Add option code letter to the part number and option price to the instrument price)

Option	Code	Price	Comments
Alkaline [‡]	A	See Matrix	NiMH battery pack and charger may be purchased separately.
Rechargeable [‡]	N		
Datalogging	D	\$221.00	Enables the Cannonball3 to record and download measurements. This option is available as an upgrade after purchase. Download software must be purchased separately. Computer must support IrDA to download.

Most Common Cannonball3 Accessories

Part No.	Description	Price
35-0379	Cannonball3 motorized sample draw pump module	\$341.00
35-0378	Cannonball3 motorized sample draw pump module for dual pump version (2 pumps). The Cannonball3 must be configured for dual pump.	\$570.00
35-0376	Cannonball3 Alkaline battery pack ("D"-Cell batteries not included)	\$74.00
35-0377	Cannonball3 NiMH battery pack	\$205.00
54-26-0603	Cannonball3 BioTrak Software Kit. Includes BioTrak software and manual [†]	\$231.00
54-26-0605S	Infrared communication device (Serial – IrDA) - Requires one available PC serial port.	\$166.00
54-26-0605U	Infrared communication device (USB – IrDA) - Requires one available USB port.	\$166.00

Biosystems Cannonball3™ Accessories

Cannonball3 Remote Accessories

Part No.	Description	Price
35-0379	Cannonball3 motorized sample draw pump	\$341.00
35-0378	Cannonball3 motorized sample draw pumps for dual pump version. The Cannonball3 must be configured for dual pump.	\$570.00
54-36-03	Cannonball3 Sample probe with plastic extension and male quick disconnect	\$47.00
54-36-04	Cannonball3 Sample probe with stainless steel extension and male quick disconnect	\$53.00
54-36-05	Cannonball3 Sample probe with plastic extension and threaded for quick disconnect fitting.	\$32.00
54-36-06	Cannonball3 Sample probe with stainless steel extension and threaded for quick disconnect fitting	\$37.00
54-36-07	Cannonball3 Sample probe male quick disconnect	\$21.00
54-36-08-010	Cannonball3 Extension hose, 10 feet with male and female quick disconnect	\$47.00
54-36-08-025	Cannonball3 Extension hose, 25 feet with male and female quick disconnect	\$68.00
54-36-08-050	Cannonball3 Extension hose, 50 feet with male and female quick disconnect	\$95.00
54-36-08-100	Cannonball3 Extension hose, 100 feet with male and female quick disconnect	\$152.00
54-36-09	Cannonball3 set of male and female quick disconnects	\$37.00

Cannonball3 “Smart Sensors”

Part No.	Description	Range	Resolution	Price
54-25-80	LEL Combustible gas	0 – 100% LEL	1% LEL	\$173.00
54-25-71	HC-PPM LEL Combustible gas	0 – 100% LEL	see note*	\$232.00
54-25-90	O ₂ Oxygen	0 – 30%/Vol.	0.1%	\$173.00
54-25-01	CO Carbon monoxide	0 – 1000 PPM	1 PPM	\$289.00
54-25-05	CO+ CO Plus dual purpose CO / H ₂ S Provides a non-specific readout for CO & H ₂ S	CO: 0 – 1000 PPM H ₂ S: 0 – 200 PPM	1 PPM	\$289.00
54-25-19	CO-H CO Minus, reduced sensitivity to H ₂	0 – 1000 PPM	1 PPM	\$315.00
54-25-02	H ₂ S Hydrogen sulfide	0 – 200 PPM	1 PPM	\$289.00
54-25-14	Duo-Tox Dual channel CO/H ₂ S Provides substance specific readouts for CO & H ₂ S	CO: 0 – 1000 PPM H ₂ S: 0 – 200 PPM	1 PPM 1 PPM	\$404.00
54-25-03	SO ₂ Sulfur dioxide	0 – 25 PPM	0.1 PPM	\$347.00
54-25-15	SO ₂ -Ext Sulfur dioxide extended range	0 – 150 PPM	1 PPM	\$347.00
54-25-21 [†]	NH ₃ Ammonia	0 – 100 PPM	1 PPM	\$404.00
54-25-08 ^{†‡}	Cl ₂ Chlorine (non-specific)	0 – 50 PPM	0.1 PPM	\$347.00
54-25-18 ^{†‡}	Cl ₂ Chlorine (specific)	0 – 50 PPM	0.1 PPM	\$347.00
54-25-12 ^{†‡}	ClO ₂ Chlorine dioxide (non-specific)	0 – 15 PPM	0.1 PPM	\$347.00
54-25-20 ^{†‡}	ClO ₂ Chlorine dioxide (specific)	0 – 5 PPM	0.01 PPM	\$347.00
54-25-09 [†]	NO ₂ Nitrogen dioxide	0 – 50 PPM	0.1 PPM	\$347.00
54-25-13	PH ₃ Phosphine	0 – 20 PPM	0.1 PPM	\$347.00

[†] Special reactive gas calibration adapter (54-36-16) required for proper calibration. Inert tubing is required for proper calibration and remote sampling

[‡] The non-specific Cl₂ and ClO₂ sensors can be used for the detection of both gases. The specific Cl₂ and ClO₂ sensors are designed for the target gas only.

*HC PPM LEL sensor range

Range	Resolution
0-9999 PPM	10 PPM
1.00 – 9.99% Vol	.01%/Vol

%/Vol range is dependent on calibration scale

Biosystems Cannonball3™ Accessories

Cannonball3 Charging, Datalogging & TouchID™ Accessories

Part No.	Description	Price
54-36-10	Cannonball3 Snap-on fast charger (110VAC)	\$205.00
54-36-11	Cannonball3 Snap-on fast charger (12VDC)	\$147.00
35-0376	Cannonball3 Alkaline battery pack (batteries not included)	\$74.00
35-0377	Cannonball3 NiMH battery pack	\$205.00
54-36-13	Cannonball3 Datalogger upgrade †‡	\$231.00
54-26-0603	Cannonball3 BioTrak Software Kit. Includes BioTrak software and manual †	\$231.00
54-26-0605S	Infrared communication device (Serial – IrDA) - <i>Requires one available PC serial port.</i>	\$166.00
54-26-0605U	Infrared communication device (USB – IrDA) - <i>Requires one available USB port.</i>	\$166.00

† Computer must be equipped with infrared adapter (IrDA) to download ‡ Download software not included

Cannonball3 Miscellaneous Accessories

Part No.	Description	Price
13-173	Cannonball3 Reference Manual	\$15.80
31-292	Cannonball3 Quick Reference Label	\$6.30
22-196	Cannonball3 Training CD	\$26.00
42-002	Cannonball3 Shoulder strap	\$10.50
54-36-20	Cannonball3 Gasket service kit. Includes 6 filter gaskets, 2 pump gasket, 2 battery gasket and lubricant for gaskets	\$21.00
54-36-17	Internal filter kit for Cannonball3. (10 ea. particulate and 5 ea. hydrophobic).	\$42.00

Cannonball3 Calibration Materials & Carrying Cases

Part No.	Description	Price
54-36-14	Cannonball3 Calibration kit. Includes foam-lined carrying case with room for up to three cylinders of calibration gas. Kit contains 12-023 regulator and other fittings. Kit does not include gas	\$252.00
35-0453	Cannonball3 Waterproof "Pelican" style carrying case with room for one Cannonball3 and one cylinder of calibration gas	\$200.00
54-36-15	Cannonball3 Calibration tube with male quick disconnect	\$15.80
54-36-18	Cannonball3 Calibration balloon (not for use with Cl ₂ and ClO ₂)	\$15.80
54-36-16	Cannonball3 Inert calibration tube (for reactive gases) with male quick disconnect	\$15.80