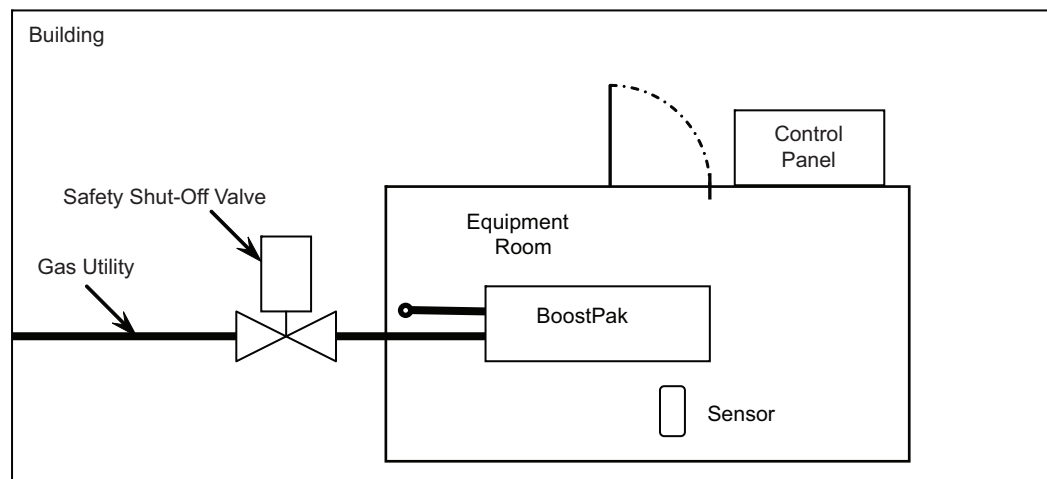# *Eclipse BoostPak*

Leak Detection Option

Version 2

The leak detection option provides a sensor to monitor the presence of combustible gases, an Eclipse 2000AT or equivalent automatic safety shut off valve to stop the gas supply, and an annunciation control panel to alert personnel about the safety of the equipment room. The sensor is mounted within the equipment room and has two adjustable alarm settings. The first is factory set to 25%LEL (lower explosive limit) and the second is set to 50%LEL. The second alarm will cause the safety shut off valve to close. Outputs for both alarms are provided for customer use as needed to operate remote alarms, wired to shut down the BoostPak, or to turn on a ventilation fan. The safety shut off valve is piped into the gas inlet inside the building and upstream of the BoostPak system. The annunciation control panel is mounted near the door of the equipment room containing the BoostPak system. Lights and switches on this panel allow an operator to control the safety shut off valve and observe if the room is safe to enter.

Selection Table for Automatic Shut-Off Valve					
Leak Detection Kit Number	**Gas Capacity at 1/4" w.c. Pressure Drop (cfh natural gas)**	**Pipe Connection Size (NPT)**	**Valve Model / Part Number (NEMA 4)**	**Valve H x W (inches)**	**Valve Weight (lbs)**
10016532-1	700	1	2004AT / 10054939	18 x 7-1/4	34
10016532-2	1,500	1-1/2	2006AT / 10054945	18-5/8 x 9	40
10016532-3	1,750	2	2008AT / 10054948	18-5/8 x 9	40
10016532-4	3,500	3 (flanged)	2012AT / 10054952	20-1/2 x 10-3/8	85
10016532-5	13,500	4 (flanged)	H137 / 14466	32-3/4 x 13-7/8	143
10016532-6	25,000	6 (flanged	H137 / 10016531	34-7/8 x 17-7/8	150

To calculate flow at new pressure drop: New Flow = 2 x Flow x Square Root of New Pressure Drop.

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Annunciation Control Panel Specifications	
Power requirements	120 VAC
Enclosure type	NEMA 12
Dimensions (H x W x D)	356 x 305 x 152 mm (14 x 12 x 6 in)
Weight (approximate)	11.4 kg (25 lb)
Eclipse Part Number: 10025035	

Gas Monitor Specifications	
Input power	24 VAC nominal, 17-27 VAC, 50/60 Hz, 0.35 A 24 VDC nominal, 20-38 VDC
Optional main AC input power	120 VAC nominal, ±10% (with on-board transformer) @ 0.35 A
Relay output	2 DPDT relays, 5A @ 250 VAC
Operating environment	Commercial, indoor
Operating temperature range	CO: -20 to 50°C (-4 to 122°F)
Operating humidity range	15 to 90% RH non-condensing
Resolution	CO = 1 ppm
Operating altitude	Maximum 2000m (6562 ft)
Audible alarm	>85 dB at 3m (10 ft)
Display	8 character, 2 line LCD
Visual indicators	Green LED: Power Amber LED 1: Alarm/Fault Amber LED 2: Alarm/Fault
Enclosure	Polycarbonate
Dimensions (H x W x D)	20.56 x 14.90 x 6.72 cm (8.09 x 5.87 x 2.65 in)
Certifications	CSA C22.2 No. 61010-1, UL61010
Eclipse Part Number: 10052001	

Remote Sensor Specifications	
Power	Electrochemical sensor: 10-24 VDC, 50 mA Catalytic: 10-16 VDC, 100 mA
Operating temperature	-20 to 50°C (-4 to 122°F)
Operating humidity	15 to 90% relative humidity (non-condensing)
Sensor type	Catalytic (Comb)
Visual indicator	Amber LED (Tx)
Size (D x W x H)	3.5 x 4.5 x 6.5 cm (1.36 x 1.75 x 2.56 in)
Eclipse Part Number: 10052001-1	

Detection Ranges and Alarm Levels					
Gas Detected		Range	Alarm A	Alarm B	Alarm C	Maximum Overload
CO	Carbon Monoxide	0 - 250 ppm	25 ppm	200 ppm	225 ppm	500 ppm
COMB	Combustibles	0 - 100% LEL	25% LEL	50% LEL	90% LEL	100% LEL
Maximum overload is the sensor exposure to gas concentration that may result in permanent damage to the sensor.						

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