

## Product Submittal and Wiring

# IEEPBR

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Prepared By:



Interstate HVAC Controls

30 Vineland St, Brighton, MA 02135

Office (617) 782-9000

Fax (617) 254-2247

[www.interstatecontrols.com](http://www.interstatecontrols.com)

# E<sup>3</sup>Point<sup>®</sup> SPECIFICATIONS

## Toxic and Combustible Gas Detector Standalone Platform (Single or Dual-Gas Monitoring)



General Specifications					
<b>Uses</b>	Wall or duct-mounted gas detector for monitoring carbon monoxide (CO), nitrogen dioxide (NO <sub>2</sub> ), oxygen (O <sub>2</sub> ), methane (CH <sub>4</sub> ), hydrogen (H <sub>2</sub> ), hydrogen sulphide (H <sub>2</sub> S), and propane (C <sub>3</sub> H <sub>8</sub> ), installed as a standalone device with single-gas or dual-gas monitoring. <b>(Note: E<sup>3</sup>Point standalone version replaces Vulcain models VA201T, VA201M and VA301M)</b>				
<b>Size</b>	20.56 x 14.90 x 6.72cm (8.09 x 5.87 x 2.65") (H x W x D); Remote Sensor: 3.5 x 4.5 x 6.5 cm (1.36 x 1.75 x 2.56")				
<b>Power Requirement</b>	24 Vac nominal (17-27Vac), 50/60 Hz, 0.35 A; 24Vdc nominal (20-38Vdc); with remote sensor: 7 W max.				
<b>Optional Main AC Input</b>	120Vac nominal, +/- 10% (with on-board transformer)				
<b>Relay Output</b>	2 DPDT relays, 5A @ 250Vac; 5A @ 30Vdc				
<b>Communications</b>	4-20mA				
<b>Operating Environment</b>	Commercial, Indoor, Extreme Temperature Environments				
<b>Operating Temperature</b>	H <sub>2</sub> S, NO <sub>2</sub> , O <sub>2</sub> , CH <sub>4</sub> , H <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> : -40 to 50°C (-40 to 122°F) CO: -20 to 50°C (-4 to 122°F); future available CO version: -40 to 50°C (-40 to 122°F)				
<b>Sensor Type</b>	Electrochemical cell (CO, NO <sub>2</sub> , H <sub>2</sub> S, O <sub>2</sub> ); catalytic (CH <sub>4</sub> , H <sub>2</sub> , C <sub>3</sub> H <sub>8</sub> )				
<b>Display</b>	8 character, 2 line backlit LCD				
<b>Visual Indicators</b>	Green LED: Power Amber LED 1: Alarm/Fault Amber LED 2: Alarm/Fault				
<b>Audible Alarm</b>	>85 dBA at 3 m (10 ft)				
<b>Accuracy</b>	+/- 3% of full scale @ 25 C				
Detection Ranges and Alarm Levels					
Gas	Resolution	Range	Alarm A	Alarm B	Alarm C
<b>CO</b> (Carbon monoxide)	1 ppm	0-250 ppm	25 ppm	100 ppm	225 ppm
<b>H<sub>2</sub>S</b> (Hydrogen sulfide)	0.1 ppm	0-50 ppm	10 ppm	15 ppm	20 ppm
<b>NO<sub>2</sub></b> (Nitrogen dioxide)	0.1 ppm	0-10 ppm	0.7 ppm	2 ppm	9 ppm
<b>O<sub>2</sub></b> (Oxygen)	0.1% vol.	0-25% vol.	19.5% vol.	22% vol.	22.5% vol.
<b>H<sub>2</sub></b> (Hydrogen)	0.5% LEL	0-100% LEL	25% LEL	50% LEL	90% LEL
<b>CH<sub>4</sub></b> (Methane)	0.5% LEL	0-100% LEL	25% LEL	50% LEL	90% LEL
<b>C<sub>3</sub>H<sub>8</sub></b> (Propane)	0.5% LEL	0-100% LEL	25% LEL	50% LEL	90% LEL
Enclosure					
	Polycarbonate				
Certification					
	CSA C22.2 No. 61010-1, UL 61010-1; FCC part 15; ICES-003 issue 4; ISO 9001-2008				

# 1. E3 Point System

## ORDERING INFORMATION

### Single-Gas Configuration: Base Unit, Surface-Mount

*\* Base unit and sensor cartridge sold together \*\* Base unit only; sensor cartridge sold separately*

Part Number	Description
E3SASCO*	E <sup>3</sup> Point, CO sensor cartridge, Surface-mount, 24Vac/dc, -20 to 50°C (-4 to 122°F)
E3SA**	E <sup>3</sup> Point, Surface-mount, 4-20mA, 24Vac/dc, -40 to 50°C (-40 to 122°F)
E3SAHSCO*	E <sup>3</sup> Point, CO sensor cartridge, Surface-mount, 120Vac, -20 to 50°C (-4 to 122°F)
E3SAH**	E <sup>3</sup> Point, Surface-mount, 4-20mA, 120Vac, -40 to 50°C (-40 to 122°F)

### Dual-Gas Configuration: Base Unit w/Remote Sensor Capability, Surface-Mount

Part Number	Description
E3SARSCO*	E <sup>3</sup> Point, CO sensor cartridge, Surface-mount, 24Vac/dc, Dual-mode, -20 to 50°C (-4 to 122°F)
E3SAR**	E <sup>3</sup> Point, Surface-mount, 4-20mA, 24Vac/dc, Dual-mode, -40 to 50°C (-40 to 122°F)
E3SARHSCO*	E <sup>3</sup> Point, CO sensor cartridge, Surface-mount, 120Vac, Dual-mode, -20 to 50°C (-4 to 122°F)
E3SARH**	E <sup>3</sup> Point, Surface-mount, 4-20mA, 120Vac, Dual-mode, -40 to 50°C (-40 to 122°F)

### Remote Sensors (always sold with sensor cartridge included)

Part Number	Description
E3SRMCO	E <sup>3</sup> Point, Remote Sensor, -20 to 50°C (-4 to 122°F), Carbon Monoxide
E3SRMNO2	E <sup>3</sup> Point, Remote Sensor, -20 to 50°C (-4 to 122°F), Nitrogen Dioxide
E3SRMH2S	E <sup>3</sup> Point, Remote Sensor, -20 to 50°C (-4 to 122°F), Hydrogen Sulfide
E3SRMH2	E <sup>3</sup> Point, Remote Sensor, -20 to 50°C (-4 to 122°F), Hydrogen
E3SRMO2	E <sup>3</sup> Point, Remote Sensor, -20 to 50°C (-4 to 122°F), Oxygen
E3SRMM	E <sup>3</sup> Point, Remote Sensor, -20 to 50°C (-4 to 122°F), Methane
E3SRMP	E <sup>3</sup> Point, Remote Sensor, -20 to 50°C (-4 to 122°F), Propane

### Stand-Alone Platform, Duct-Mount

Part Number	Description
E3DASCO*	E <sup>3</sup> Point, CO, Duct-mount, 24Vac/dc, -20 to 50°C (-4 to 122°F)
E3DA**	E <sup>3</sup> Point, Duct-mount, 4-20mA, 24Vac/dc, -40 to 50°C (-40 to 122°F)

### Sensor Cartridges

Part Number	Description
E3SCO	CO Cartridge -20 to 50°C (-4 to 122°F), Carbon Monoxide
E3NO2	NO <sub>2</sub> Cartridge -40 to 50°C (-40 to 122°F), Nitrogen Dioxide
E3H2S	H <sub>2</sub> S Cartridge -40 to 50°C (-40 to 122°F), Hydrogen Sulfide
E3H2	H <sub>2</sub> Cartridge -40 to 50°C (-40 to 122°F), Hydrogen
E3O2	O <sub>2</sub> Cartridge -40 to 50°C (-40 to 122°F), Oxygen
E3M	CH <sub>4</sub> Cartridge -40 to 50°C (-40 to 122°F), Methane
E3P	C <sub>3</sub> H <sub>8</sub> Cartridge -40 to 50°C (-40 to 122°F), Propane

**Sensor cartridges need to be replaced every 2.5 years**

### EXAMPLES OF HOW TO ORDER

To order a stand-alone version, surface-mount, analog, CO detector, -20 to 50°C (-4 to 122°F): Order E3SASCO

To order a stand-alone version, surface-mount, analog, dual-gas CO + NO<sub>2</sub>, -20 to 50°C (-4 to 122°F): Order E3SARSCO + E3SRMNO2

To order a stand-alone version, duct-mount, analog, propane detector, -40 to 50°C (-40 to 122°F): Order E3DA + E3P

To order a stand-alone version, surface-mount, analog, dual-gas CO + C<sub>3</sub>H<sub>8</sub>, 120Vac, -20 to 50°C (-4 to 122°F): Order E3SARHSCO + E3SRMP

### Find out more

[www.honeywellanalytics.com](http://www.honeywellanalytics.com)

Toll free: 1 800 563 2967

### Please Note:

While every effort has been made to ensure accuracy in this publication, no responsibility can be accepted for errors or omissions. Data may change, as well as legislation, and you are strongly advised to obtain copies of the most recently issued regulations, standards, and guidelines. This publication is not intended to form the basis of a contract.

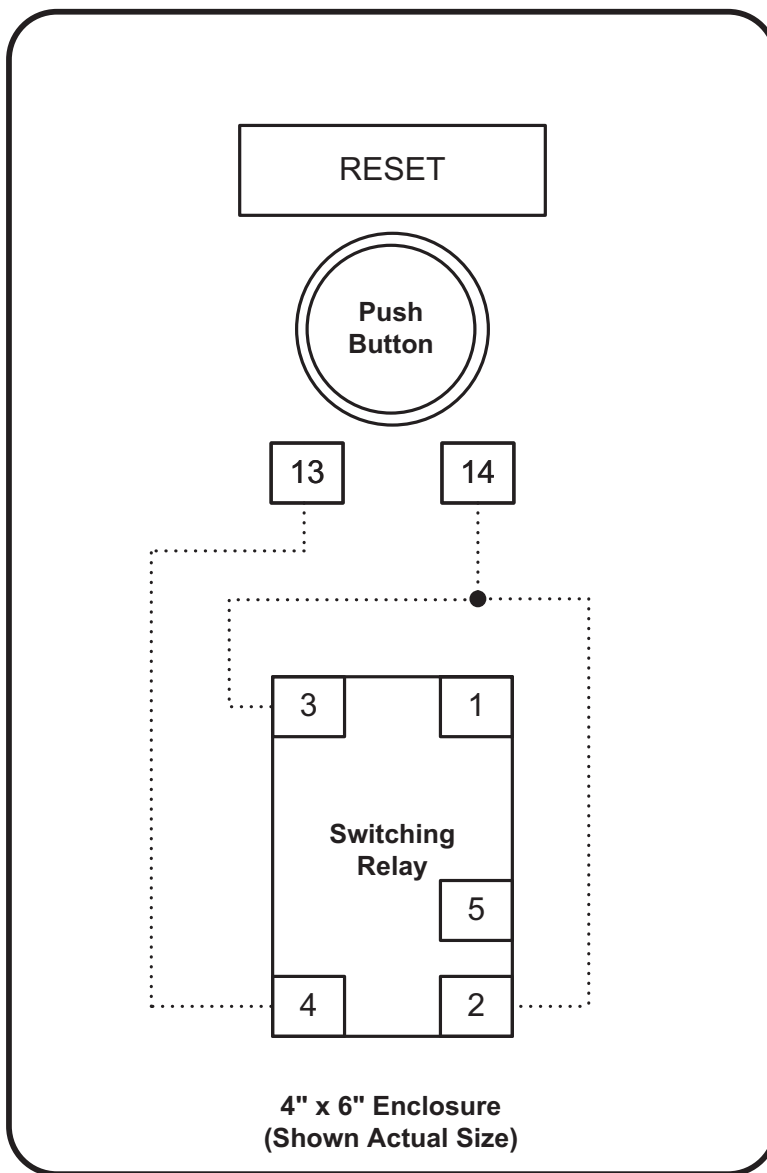
SS01018STAND\_v4 6/11  
© 2011 Honeywell Analytics

# Pushbutton & Enclosed Relay Package For Gas Detection Systems (Manual Reset)

Part Number: IEEPBR

Kit Includes:

- (1) UL Listed Push Button
- (1) UL Listed Switching Relay
- (1) UL Listed 4" x 6" Enclosure  
(Some Assembly Required)



Indicates Field Wiring  
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30 Vineland Street  
Brighton, MA 02135  
T: 617-782-9000  
F: 617-254-2247

[www.interstatecontrols.com](http://www.interstatecontrols.com)  
[info@interstatecontrols.com](mailto:info@interstatecontrols.com)



Direct Acting or Piloted  
**Aluminum Body Solenoid Valves**  
 1/8" to 3" NPT

**2/2**  
**SERIES**  
**8040**  
**8215**

2-WAY

**Features**

- Lightweight, low-cost valves for air service
- Ideal for low pressure applications
- Provides high flow, Cv up to 138 (Kv 118)
- Air and vacuum service

**Construction**

Valve Parts in Contact with Fluids	
Body	Aluminum
Seals, Diaphragms, Disc	NBR
Disc-Holder	PA (10.1 and 11.6 watt Normally Open only)
Core Guide	CA
Core Tube	305 Stainless Steel
Rider Rings	PTFE
Core and Plugnut	430F Stainless Steel
Springs*	302 Stainless Steel
Shading Coil	Copper

\* For 8040H006, 8040H007, 8040H008, spring material is 17-7 PH

**Electrical**

Standard Coil and Class of Insulation	Watt Rating and Power Consumption				Spare Coil Part No.			
	DC Watts	AC			General Purpose		Explosionproof	
		Watts	VA Holding	VA Inrush	AC	DC	AC	DC
F	-	6.1	16	40	238210	-	238214	-
F	11.6	10.1	25	70	238610	238710	238614	238714
B	14.9	-	-	-	-	62691	-	-
F	-	15.4	27	160	99257	-	99257	-
F	-	28.2	50	385	206409	-	206409	-

**Standard Voltages:** 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz), 6, 12, 24, 120, 240 volts DC. Must be specified when ordering.  
 Other voltages available when required.

**Solenoid Enclosures**

**Standard:** RedHat II - Watertight, Types 1, 2, 3, 3S, 4, and 4X; RedHat - Type I.

**Optional:** RedHat II - Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9; RedHat - Explosionproof and Raintight, Types 3, 7, and 9.

(Except EF8215A40 and EF8215A90, which are suitable for Types 3 and 7 (C and D) only and have a T2B temperature rating code.)

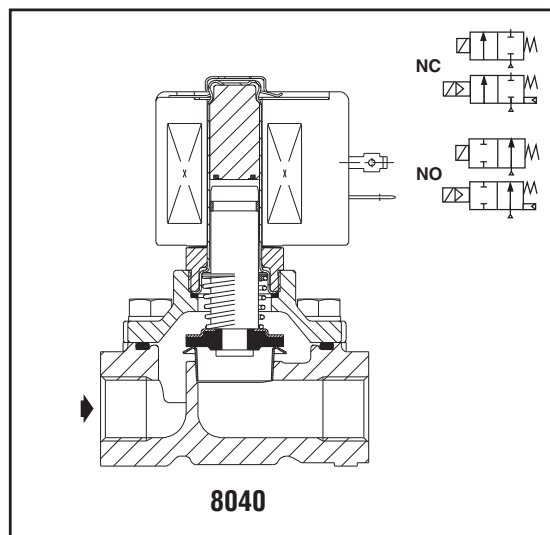
To order, add prefix "EF" to catalog number.

See *Optional Features Section* for other available options.

**Nominal Ambient Temp. Ranges**

Series	AC		DC	
	RedHat II/RedHat	RedHat II	RedHat	
8040	-40°F to 125°F (-40°C to 52°C)	-	-	
8215	32°F to 125°F (0°C to 52°C)	32°F to 104°F (0°C to 40°C)	32°F to 77°F (0°C to 25°C) (104°F/40°C occasionally)	

Refer to *Engineering Section* for details.



**Approvals:**

CSA certified to:

**8040 Series:**

- 1) Standard C22.2 No. 139 "Electrically Operated Valves," File 10381.
- 2) Automatic Gas Valves Z21.21 (6.5), File 112872.
- 3) Automatic Gas Safety Shutoff Valves C/I (3.9), File 112872.

**8215 Series Normally Closed:**

- 1) Standard C22.2 No. 139 "Electrically Operated Valves," File 10381.
- 2) Automatic Gas Valves Z21.21 (6.5), File 112872.

**8215 Series Normally Open:**

- 1) Standard C22.2 No. 139 "Electrically Operated Valves," File 10381.

UL listed, as indicated. FM approved (Normally Closed only, except Catalog Numbers 8215A090 and 8215A040). RedHat II meets applicable CE directives.

Refer to *Engineering Section* for details.

## Specifications (English units)

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Gas Capacity Btu/hr ⑥	Operating Pressure Differential (psi)			Max. Fluid Temp. °F		Aluminum Body Catalog Number	Const. Ref.		UL ⑤ Listing	Watt Rating/ Class of Coil Insulation ②	
				Min.	Max. AC	Max. DC	AC	DC		AC	DC		AC	DC
					Air-Fuel Gas	Air-Fuel Gas								
<b>NORMALLY CLOSED (Closed when de-energized)</b>														
1/8	5/16	1.0	53,700	0	15	-	125	-	8040H006	11	○	6.1/F	-	
1/4	5/16	1.1	59,000	0	15	-	125	-	8040H007	11	○	6.1/F	-	
3/8	5/16	1.2	64,400	0	15	-	125	-	8040H008	11	○	6.1/F	-	
3/8	3/4	3.4	183,000	0	50	25	125	104	8215G010	2	○	10.1/F	11.6/F	
3/8	3/4	3.5	-	5	125	125	125	104	8215G001 ①	1	○	6.1/F	11.6/F	
1/2	3/4	5.4	291,000	0	2	-	125	-	8040G022	13A	○	10.1/F	-	
1/2	3/4	4.4	238,500	0	50	25	125	104	8215G020	2	○	10.1/F	11.6/F	
1/2	3/4	4.8	-	5	125	125	125	104	8215G002 ①	1	○	6.1/F	11.6/F	
3/4	3/4	9.5	512,000	0	2	-	125	-	8040G023	13B	○	10.1/F	-	
3/4	3/4	5.1	247,500	0	50	25	125	104	8215G030	4	○	10.1/F	11.6/F	
3/4	3/4	5.1	-	5	125	125	125	104	8215G003 ①	3	○	6.1/F	11.6/F	
1	1 5/8	21	1,119,000	0	25	25	125	77	8215B050 ③	6	16	○	15.4/F	14.9/B
1 1/4	1 5/8	32	1,730,000	0	25	25	125	77	8215B060 ③	6	16	○	15.4/F	14.9/B
1 1/2	1 5/8	35	1,900,000	0	25	25	125	77	8215B070 ③	6	16	○	15.4/F	14.9/B
2	2 3/32	60	3,251,000	0	25	15	125	77	8215B080 ③	7	17	○	15.4/F	14.9/B
2 1/2	3	117	5,821,000	0	5	-	125	-	8215A090	8	○	28.2/F	-	
3	3	138	7,430,000	0	5	-	125	-	8215A040	8	○	28.2/F	-	
<b>NORMALLY OPEN (Open when de-energized)</b>														
3/8	3/4	3.2	172,500	0	125	125	125	104	8215G013	9	●	10.1/F	11.6/F	
1/2	3/4	4	206,250	0	125	125	125	104	8215G023	9	●	10.1/F	11.6/F	
3/4	3/4	4.6	247,500	0	125	125	125	104	8215G033	10	●	10.1/F	11.6/F	
1	1 5/8	22	1,191,750	0	25	15	125	77	8215C053	12	18	●	15.4/F	14.9/B
1 1/4	1 5/8	33	1,793,250	0	25	15	125	77	8215C063	12	18	●	15.4/F	14.9/B
1 1/2	1 5/8	37	1,988,250	0	25	15	125	77	8215C073	13	19	●	15.4/F	14.9/B
2	2 3/32	58	3,100,000	0	25	15	125	77	8215C083	14	20	●	15.4/F	14.9/B
2 1/2	3	117	6,290,000	0	5	-	125	-	8215B093 ④	15	●	28.2/F	-	
① Do not use for Fuel Gas. ② On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts. ③ FM Approved Process Control Valves. See Engineering Section (Approvals) for details. ④ Type I enclosure only. ⑤ ○ = Safety Shutoff Valve; ● = General Purpose Valve. Refer to Engineering Section (Approvals) for details. ⑥ 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas.														

**Specifications (Metric units)**

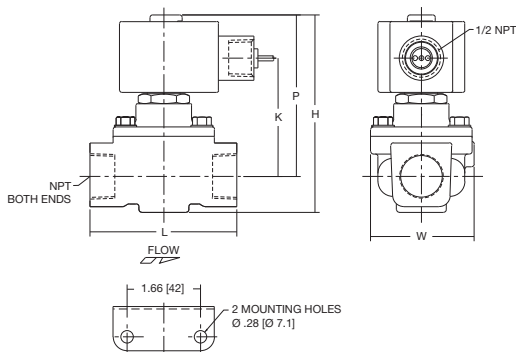
Pipe Size (ins.)	Orifice Size (mm)	Kv Flow Factor (m <sup>3</sup> /h)	Gas Capacity Btu/hr <sup>⑥</sup>	Operating Pressure Differential (bar)			Max. Fluid Temp. °C		Aluminum Body Catalog Number	Const. Ref.		UL <sup>⑤</sup> Listing	Watt Rating/ Class of Coil Insulation <sup>②</sup>	
				Min.	Max. AC	Max. DC	AC	DC		AC	DC		AC	DC
					Air-Fuel Gas	Air-Fuel Gas								
<b>NORMALLY CLOSED (Closed when de-energized)</b>														
1/8	7.9	.86	53,700	0	1.0	-	52	-	8040H006	11	○	6.1/F	-	
1/4	7.9	.94	59,000	0	1.0	-	52	-	8040H007	11	○	6.1/F	-	
3/8	7.9	1.03	64,400	0	1.0	-	52	-	8040H008	11	○	6.1/F	-	
3/8	19	2.91	183,000	0	3.4	1.7	52	40	8215G010	2	○	10.1/F	11.6/F	
3/8	19	3.00	-	0.3	8.6	8.6	52	40	8215G001 <sup>①</sup>	1	○	6.1/F	11.6/F	
1/2	19	4.63	291,000	0	0.1	-	52	-	8040G022	13A	○	10.1/F	-	
1/2	19	3.77	238,500	0	3.4	1.7	52	40	8215G020	2	○	10.1/F	11.6/F	
1/2	19	4.11	-	0.3	8.6	8.6	52	40	8215G002 <sup>①</sup>	1	○	6.1/F	11.6/F	
3/4	19	8.14	449,000	0	0.1	-	52	-	8040G023	13B	○	10.1/F	-	
3/4	19	4.37	247,500	0	3.4	1.7	52	40	8215G030	4	○	10.1/F	11.6/F	
3/4	19	4.37	-	0.3	8.6	8.6	52	40	8215G003 <sup>①</sup>	3	○	6.1/F	11.6/F	
1	41	18.00	1,119,000	0	1.7	1.7	52	25	8215B050 <sup>③</sup>	6	16	○	15.4/F	14.9/B
1 1/4	41	27.43	1,730,000	0	1.7	1.7	52	25	8215B060 <sup>③</sup>	6	16	○	15.4/F	14.9/B
1 1/2	41	30.00	1,900,000	0	1.7	1.7	52	25	8215B070 <sup>③</sup>	6	16	○	15.4/F	14.9/B
2	53	51.43	3,251,000	0	1.7	1.0	52	25	8215B080 <sup>③</sup>	7	17	○	15.4/F	14.9/B
2 1/2	76	100.28	5,821,000	0	0.3	-	52	-	8215A090	8	○	28.2/F	-	
3	76	118.28	7,430,000	0	0.3	-	52	-	8215A040	8	○	28.2/F	-	
<b>NORMALLY OPEN (Open when de-energized)</b>														
3/8	19	2.74	172,500	0	8.6	8.6	52	40	8215G013	9	●	10.1/F	11.6/F	
1/2	19	3.43	206,250	0	8.6	8.6	52	40	8215G023	9	●	10.1/F	11.6/F	
3/4	19	3.94	247,500	0	8.6	8.6	52	40	8215G033	10	●	10.1/F	11.6/F	
1	41	18.86	1,191,750	0	1.7	1.0	52	25	8215C053	12	18	●	15.4/F	14.9/B
1 1/4	41	28.28	1,793,250	0	1.7	1.0	52	25	8215C063	12	18	●	15.4/F	14.9/B
1 1/2	41	31.71	1,988,250	0	1.7	1.0	52	25	8215C073	13	19	●	15.4/F	14.9/B
2	53	49.71	3,100,000	0	1.7	1.0	52	25	8215C083	14	20	●	15.4/F	14.9/B
2 1/2	76	100.28	6,290,000	0	0.3	-	52	-	8215B093 <sup>④</sup>	15	●	28.2/F	-	
<sup>①</sup> Do not use for Fuel Gas. <sup>②</sup> On 50 hertz service, the watt rating for the 6.1/F solenoid is 8.1 watts. <sup>③</sup> FM Approved Process Control Valves. See Engineering Section (Approvals) for details. <sup>④</sup> Type 1 enclosure only. <sup>⑤</sup> ○ = Safety Shutoff Valve; ● = General Purpose Valve. Refer to Engineering Section (Approvals) for details. <sup>⑥</sup> 1" W.C. Drop @ 2" W.C. Inlet Pressure, 1,000 Btu/cu.ft. or more, 0.64 Specific Gravity Gas.														

Dimensions: inches (mm)

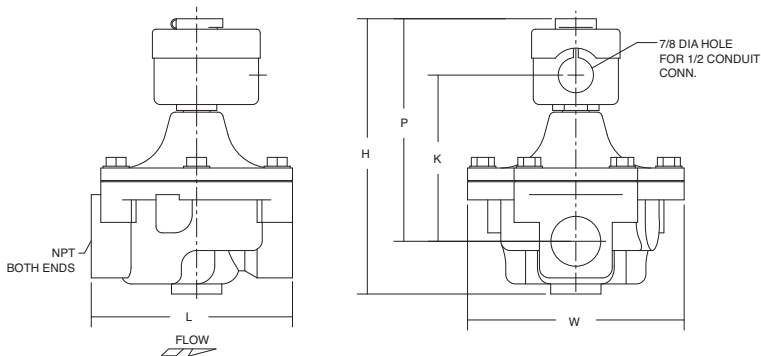
Const. Ref.		H	K	L	P	W
1	ins.	3.42	2.00	2.75	2.87	2.46
	mm	87	51	70	73	63
2	ins.	4.02	2.49	2.75	3.46	2.46
	mm	102	63	70	88	63
3	ins.	3.87	2.19	3.31	3.05	2.33
	mm	98	56	84	77	59
4	ins.	4.46	2.68	3.31	3.64	2.33
	mm	113	68	84	92	59
6 ①	ins.	6.84	4.25	5.00	5.59	5.38
	mm	174	108	127	142	137
7 ①	ins.	7.47	4.53	6.09	5.94	6.31
	mm	190	115	155	151	160
8 ①	ins.	10.25	5.75	7.79	7.91	7.94
	mm	260	146	198	201	202
9	ins.	4.42	2.72	2.75	3.86	2.36
	mm	112	69	70	98	60
10	ins.	4.86	2.72	3.31	4.04	2.36
	mm	123	69	84	103	60
11	ins.	2.74	1.44	2.00	2.30	1.69
	mm	69	36	51	58	43
12	ins.	6.84	2.22	5.00	3.63	5.38
	mm	174	56	127	92	137
13	ins.	6.84	2.16	5.00	3.56	5.38
	mm	174	55	127	90	137
13A	ins.	4.05	2.46	2.75	3.44	2.42
	mm	103	63	70	87	62
13B	ins.	4.49	2.65	3.31	3.63	2.39
	mm	114	67	84	92	61
14 ②	ins.	7.44	2.41	6.09	3.81	6.31
	mm	189	61	155	97	160
15 ②	ins.	10.25	3.07	7.80	5.22	7.94
	mm	260	78	198	133	202
16	ins.	7.59	4.03	5.00	6.34	5.38
	mm	193	102	127	161	137
17	ins.	8.19	4.38	6.09	6.69	6.31
	mm	208	111	155	170	160
18	ins.	6.16	2.09	5.00	4.41	5.38
	mm	156	53	127	112	137
19	ins.	7.59	2.03	5.00	4.34	5.38
	mm	193	52	127	110	137
20	ins.	8.19	2.28	6.09	4.59	6.31
	mm	208	58	155	117	160

**IMPORTANT:** Valves may be mounted in any position except all DC constructions and those marked ①, which must be mounted with the solenoid vertical and upright. Constructions marked ② must be mounted with the solenoid vertical and upright or horizontal only.

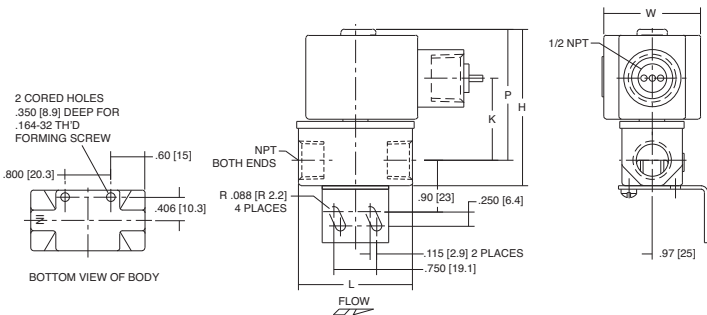
Const. Ref. 1-4, 9, 10, 13A, 13B



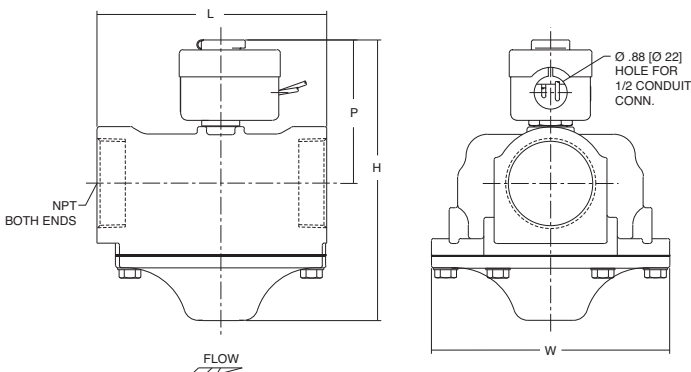
Const. Ref. 6, 7, 8, 16, 17



Const. Ref. 11



Const. Ref. 12-15, 18-20



## CoCheck™

HSI products are Environmentally Friendly. **Our CoCheck™, Carbon Monoxide Detector Tester** does not have HFC or CFC. Our products do not damage the Ozone layer and do not contribute to Global Warming.

**CoCheck™, Carbon Monoxide Detector Tester** complies with both the **Kyoto** and **Montreal Protocols** and the California state requirements.

**CoCheck™** is 100% All Natural and Non-Flammable This product contains material found in the air we breathe. Designed and packaged in a size that prevents any accidents. There is not enough CO in the product to produce any ill effects. It is safe, effective and it works! The perfect solution.

### **The Original Carbon Monoxide Detector Tester™ Since 1997**

**CoCheck™** has been updated and reformulated to an easy to use aerosol product. CoCheck™ has been used by professionals world-wide since 1997. This is the original and still the best option for test your carbon monoxide detector.

### **CoCheck™ Carbon Monoxide Detector Tester**

.876 oz Size, 5-10 tests per can

**Part Number:** HO-CO2

**Standard Pack:** 6 cases/Master Pack 22x13x10 (558.8x330.2x254mm)

**Weight:** 14 lbs.

**MSDS Sheet**



CO Detector Test Gas Accessory For use with UL Certified FTAM Gas Detectors and/or Sensors 3WH9. For compatibility between CO Detector Test Kit and the Detector refer to E328172 Listing Card for Details.



## The facts of Carbon Monoxide Testing

How a Carbon Monoxide Detector works; Carbon Monoxide is found in small concentrations in the air we breath. The detector is constantly testing the surrounding air for the presence of CO, when concentrations begin to rise and reach a set/predefined level, the alarm will sound, warning of a dangerous condition in the area. CO becomes dangerous in higher concentrations. After exhaustive testing, HSI determined that the key to functional CO testing is the length of exposure time and the level of concentration. Co-Check™, when used with Versa-Tools™ Enclosed Delivery Tools, provides an isolation of the CO chemical (concentration level) without using dangerous amounts. The convenient fiberglass extension pole allows you to place the enclosed head around the detector, brace with the pole and walk away. No standing there and holding the tools for extended periods of time!

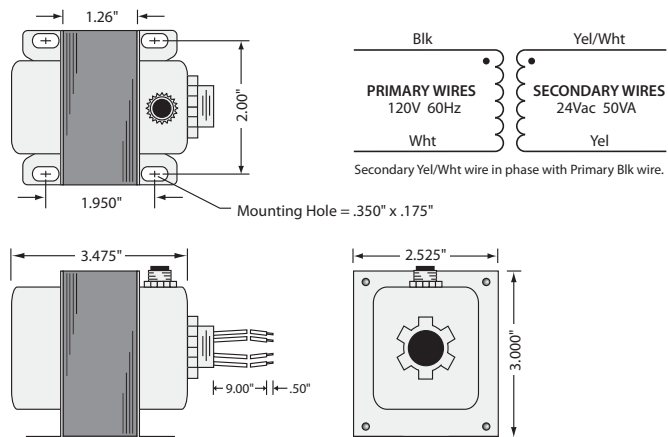
# 5. Transformer



Functional Devices, Inc. • p: 800.888.5538 • f: 765.883.7505 • www.functionaldevices.com • sales@functionaldevices.com

## TR50VA005

Transformer 50 VA, 120 to 24 Vac, Circuit Breaker, Foot and Single Threaded Hub Mount



## Transformer



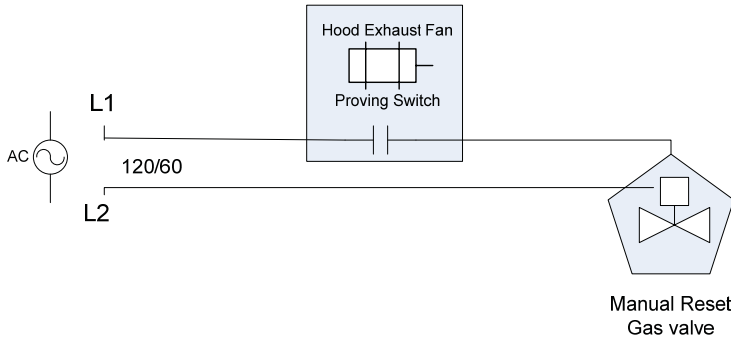
## Specifications

- VA Rating:** 50
- Frequency:** 50/60 Hz
- Mounting:** Foot & Single Threaded Hub
- Over Current Protection:** Circuit Breaker
- Dimensions:** 3.000" x 2.525" x 3.475" (w/ .500" NPT Hub)
- Wire Length:** 9" Typical w/ .5" Strip
- Operating Temperature:** -30 to 140° F
- MTBF:** 100,000 Hours @ 77° F
- Construction:** Split-Bobbin
- Weight:** 2.60 lbs.
- Approvals:** Class 2 UL5085-3 Listed, C-UL, CE, RoHS

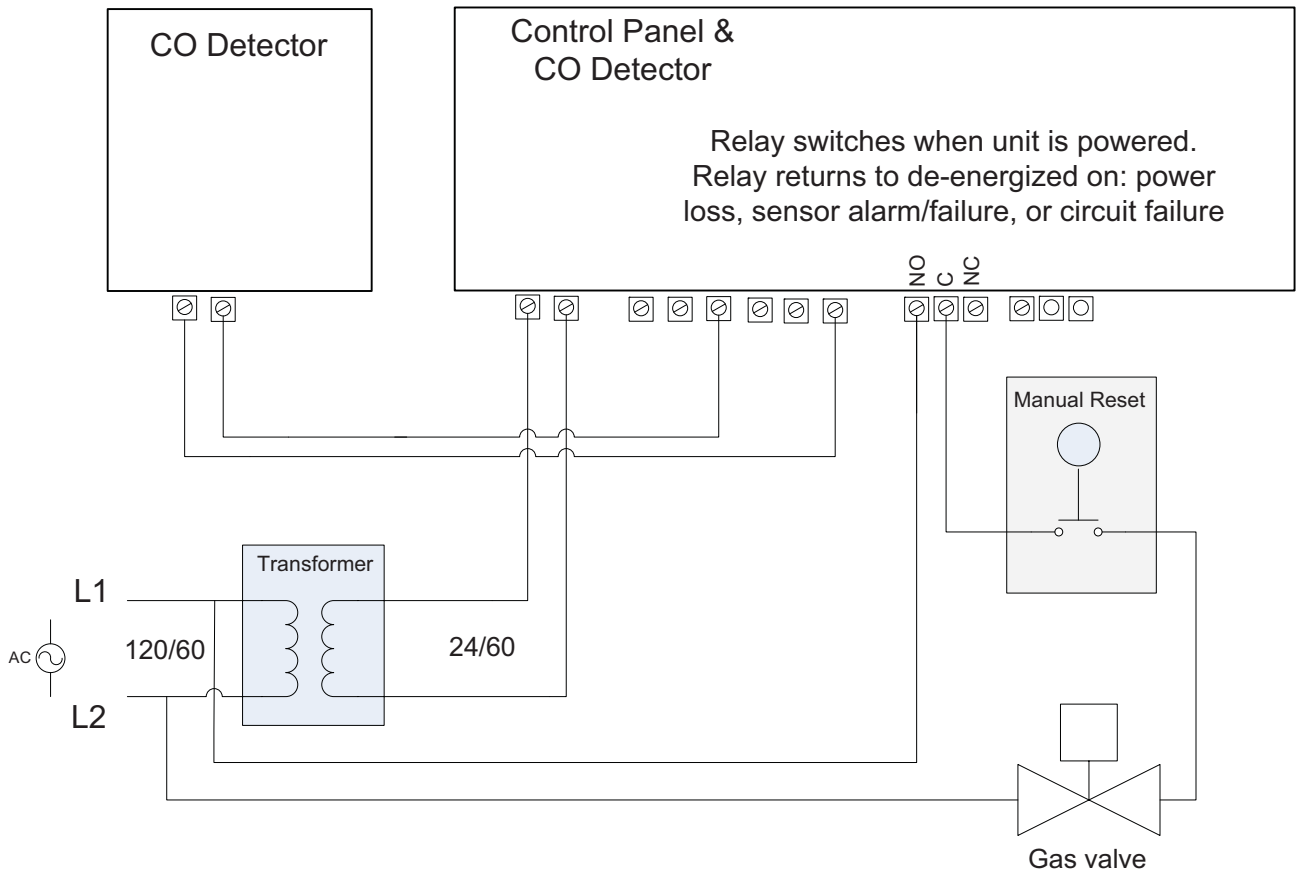
Drawing courtesy of Interstate Hvac Controls

# Suggested wiring diagrams for commercial kitchens

## Option 1- Manual reset gas valve with fan proving system



**Option 2-** Dual CO detectors with manual reset with NON manual reset gas valve, as long as manual reset does not reset when the CO clears the detectors. For instance if the CO detector senses CO it shuts off the electrical power to the rest of the system, tripping the manual reset. If the CO clears and the control panel is reactivated the power remains OFF until someone manually resets the system.



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T) 617-782-9000 F) 617-254-2247