

# Alarm Valve Combo Unit



## Features:

- 2 in 1 design combines the Area Alarm and Zone Valve Box to compensate for space restrictions
- True digital, illuminated LED display is readable even in poor lighting conditions
- High/low alarm set-points are field adjustable for each gas service
- Repeat alarm is adjustable from 1 to 60 minutes or off
- Gas-specific sensor with DISS nut and nipple
- Alarm buzzer in excess of 90 decibels
- Each module is marked with an approved medical gas identification label
- Pre-mounted pull-out ring allows for ease of maintenance
- Individual microprocessor for each display and sensor module; digital sensor is mounted locally
- Dry contacts for remote monitoring of the high and low alarm

## General Specifications:

The Alarm Valve Combo Unit shall be an Amico Alert-1 Series.

Each AVC shall consist of the following components: an 18 Gauge steel valve box complete with a baked white enamel finish which can house one to six shut-off ball valves with tube extensions, gas-specific sensor (DISS nut and nipple connection), a hinged gas-specific compact alarm with illuminated LED digital display and an error message for an incorrect connection, an aluminum frame and a pull-out removable window.

Affixed to the opposing sides of the box will be two adjustable steel brackets for the purpose of mounting the box to the structural support. The steel brackets shall accommodate various finished wall thicknesses between 3/8" [9.5 mm] and 1-3/16" [30 mm] and shall be field adjustable. The frame assembly shall be constructed of anodized aluminum and shall be mounted to the back box assembly by standard number #6 x 3/8" tapping screws as provided.

The digital alarm shall read from 0-250 psi [0-1,724 kPa] for pressure and 0-30" Hg [-100-0 HgkPa] for vacuum. The digital read-out shall provide a constant indication of each service being measured. It will indicate a green "NORMAL" and a red "HIGH" or "LOW" alarm condition. If an alarm occurs, the "RED" alarm light shall flash and the audible alarm (which exceeds 90 decibels) will sound. Pushing the "ALARM MUTE" button will cancel the audible alarm but the unit will remain in the alarm condition until the problem is rectified. A repeat alarm function shall, when enabled on the compact alarm module, be capable of turning on the buzzer again (after a preset time) if the fault condition has not been rectified.

Each alarm module shall be individually microprocessor based and be field adjustable. The default set point on this alarm shall be +/- 20% variation from normal condition. In the calibration mode the following parameters shall be adjustable: high/low set-points, imperial/metric units, repeat alarm enable/disable (adjustable from 1 to 60 minutes) as well as psi, kPa or Bar readout (switch selected). Set points shall be adjustable by two on-board push buttons.

Access to the shut-off valves shall be by merely pulling the ring assembly to remove the window from the frame. The window can be reinstalled without the use of tools only after the valve handles have been returned to the open position. The window shall be marked to prohibit unauthorized persons from tampering with the valves with the following silk-screen caution:

**"Medical Gas Control Valves with Alarms"  
"Close Valves Only in Emergency"**

The valve shall be a 3 piece ball-type design with a brass forging body and a chrome-plated brass ball for sizes 1/2" to 2" [1.3 cm to 5.1 cm]. Seats shall be reinforced Teflon (PTFE) and seals Viton for 1/2" to 2" [1.3 cm to 5.1 cm]. A blow-out proof stem shall be used and the valve shall have a maximum pressure rating of 600 psi [4,137 kPa].

Valves shall be operated by a lever-type handle requiring only a quarter turn from a fully open position to a fully closed position. All valves shall be equipped with a type "K" washed and degreased copper pipe stub. Each valve will be identified for gas specification as indicated on the hinged alarm label.

Input power to the Amico Alarm Valve Combo Unit is: 115 VAC to 220 VAC, 50 to 60 Hz.

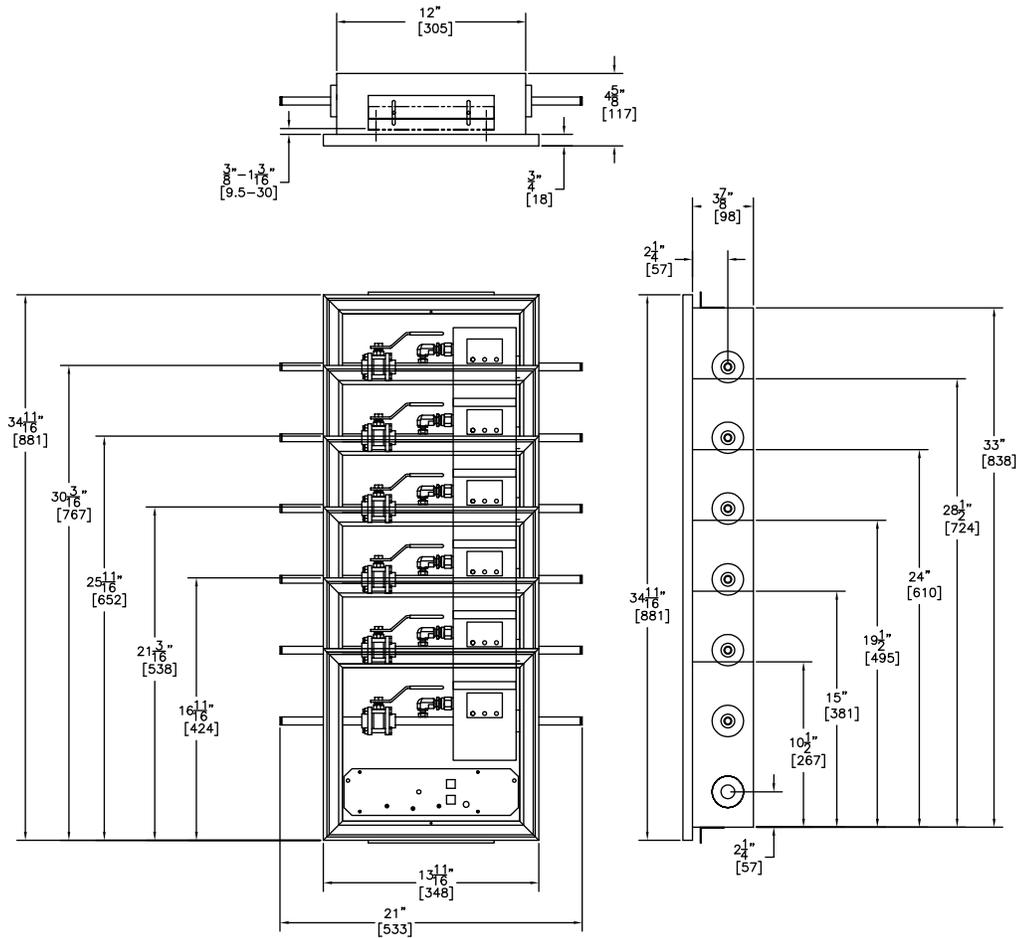
Amico products comply with NFPA 99 and CSA Z7396.1.

The Amico Alert-1 Alarm complies with the following electromagnetic compatibility standards: FCC Part 15 Class A and ICES-003 Class A.

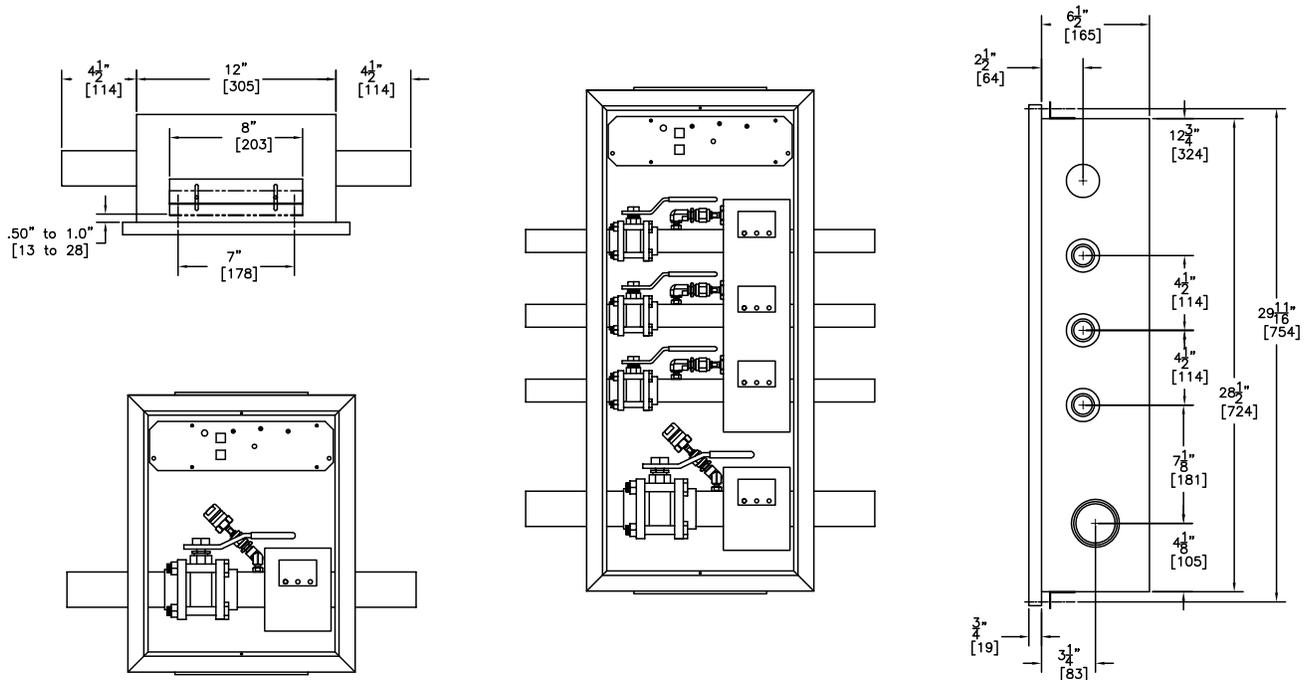
# Technical Specifications

1/2" - 1-1/2" Valve Drawing

Inch  
(mm)



2" Valve Drawing



## AVL-XGXGXGXGXGXGXG

Replace "L" with the Language:

- U = English (NFPA)
- E = English (CSA/ISO)
- F = French (CSA/ISO)
- S = Spanish (NFPA)

The Letter "X" Defines the Valve Size:

1	= 1/2" [1.3 cm]	05
2	= 3/4" [1.9 cm]	07
3	= 1" [2.5 cm]	10
4	= 1-1/4" [3.2 cm]	12
5	= 1-1/2" [3.8 cm]	15
6	= 2" Full Port [5.1 cm]	20F

The Letter "G" Defines the Type of Gas:

- O = Oxygen
- A = Medical Air
- V = MedVac
- 2 = Nitrous Oxide
- N = Nitrogen
- C = Carbon Dioxide
- W = WAGD (NFPA)
- E = AGSS (ISO)
- I = Instrument Air

**NOTE:**

The power supply will require 1 gang per box.

Example: English, 3 valves, 1/2" [1.3 cm] oxygen, 3/4" [1.9 cm] medical air and 1-1/4" [3.18 cm] medvac. Will be in a 4 gang box.  
AVU-1O2A4V

The 1-1/2" [3.8 cm] valve will have an empty space above the valve.

Example: A box with a 1/2" [1.3 cm] oxygen, 3/4" [1.9 cm] medical air and a 1-1/2" [3.8 cm] medvac valves will require a 5 hole box not a 3 hole box.

The 2" [5.1 cm] valve will be assembled in a 6-1/2" [16.5 cm] deep box and shall accommodate up to a maximum of 4 gases. The 2" [5.1 cm] valve shall be positioned on the bottom of the assembly. Refer to 2" [5.1 cm] Valve Drawing provided on page 2.

The height measurements of the 6-1/2" [16.5 cm] valve box are the same as the 3-7/8" [9.84 cm] valve box. When comparing height measurements, consider the gap above the 2" [5.1 cm] valve.

Example: A valve box with 2" [5.1 cm], 1/2" [1.3 cm] and a power supply would be in a 3 gang 6-1/2" [16.5 cm] deep box, which would be the same height as the 4 gang 3-7/8" [9.84 cm] box.