

Alarm Valve Combo Unit



Part Number: AV3U101A2V

Features:

- 2 in 1 design combines the Area Alarm and Zone Indicator Panel 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
- Triple port design, one port on the source side for purging during the install.

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 shutoff 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 Haka] 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.

To access the shut-off valves, simply pull the ring assembly to remove the window from the frame. Reinstalling the window without tools is possible only once the valve handles are returned to the open position. The window will be marked with the following silk-screen caution to prevent unauthorized tampering with the valves:

"Medical Gas Control Valves with Alarms"

"Close Valves Only in Emergency"

The zone shut-offs shall be 3-piece, ball-type design with a brass forging body and a chrome plated brass ball for sizes 1/2" to 2". Ball seats, stem seals and stem washer shall be reinforced Teflon (PTFE), with Viton stem and flange O-rings. A blow-out proof stem shall be used and the zone shut-off shall have a maximum pressure rating of 600 psi (4,137 kPa). All zone shut-offs materials shall be compatible with medical gases or vacuum service to 29" Hg (98.205 kPa).

All pipe stub extensions shall be supplied with suitable plugs or caps to prevent contamination of the assembly prior to installation. Each valve assembly is equipped with three 1/8" NPT ports, each of which is fitted with pipe plugs. The first port is designated for gauge connection and is positioned on the outlet side of the valve to measure pipeline pressure or vacuum. The second port is designated for DISS connection to a gas sensor. The third port is reserved for purging purposes during the brazing process and is situated upstream of the valve.

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.

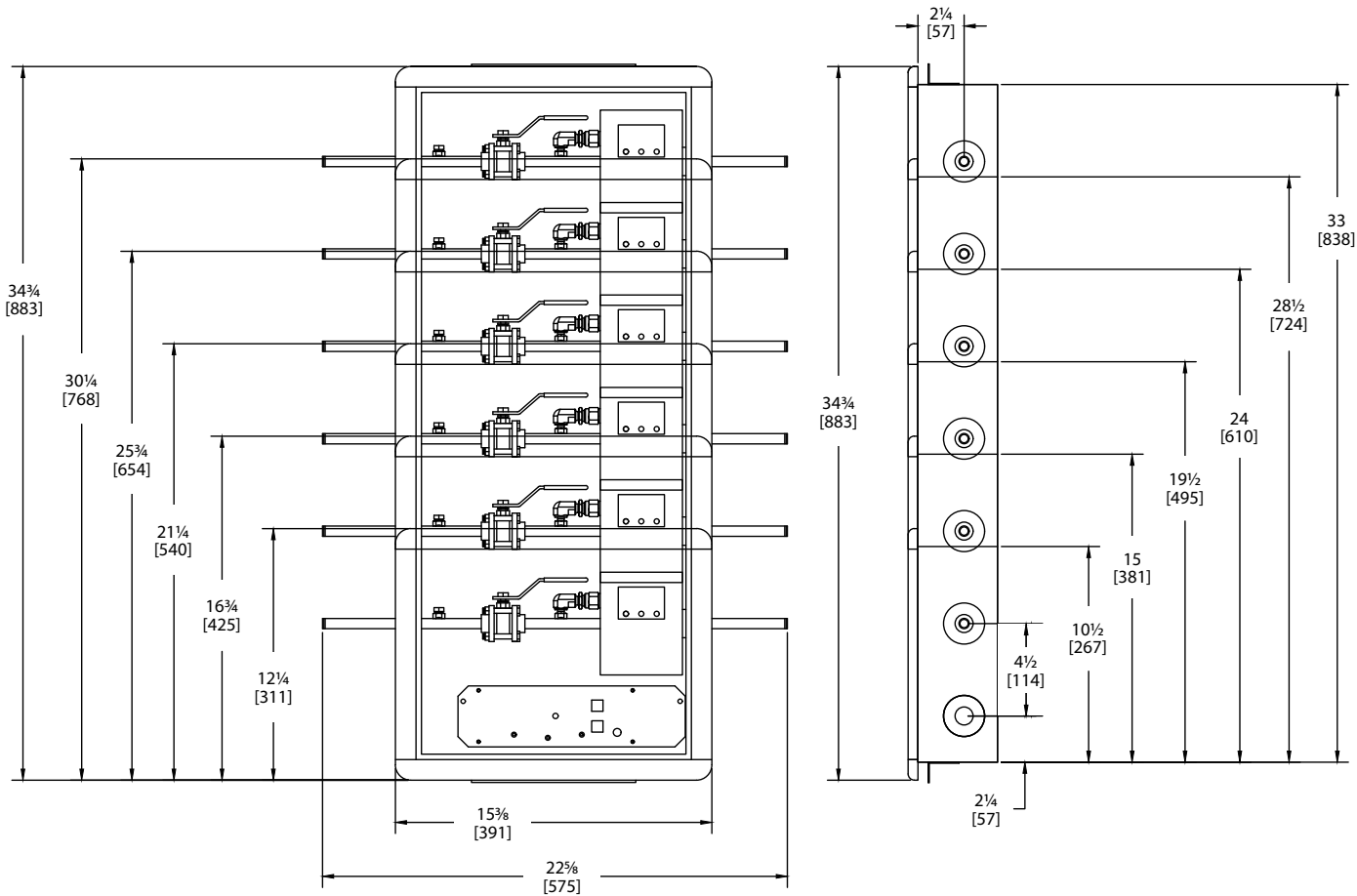
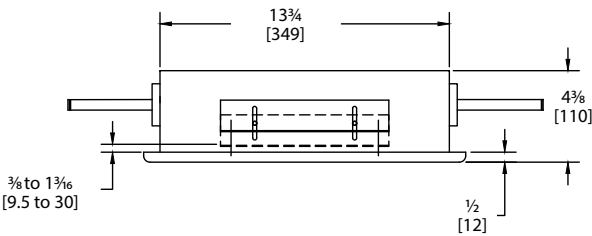
Amico products comply with NFPA 99

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

Technical Specifications

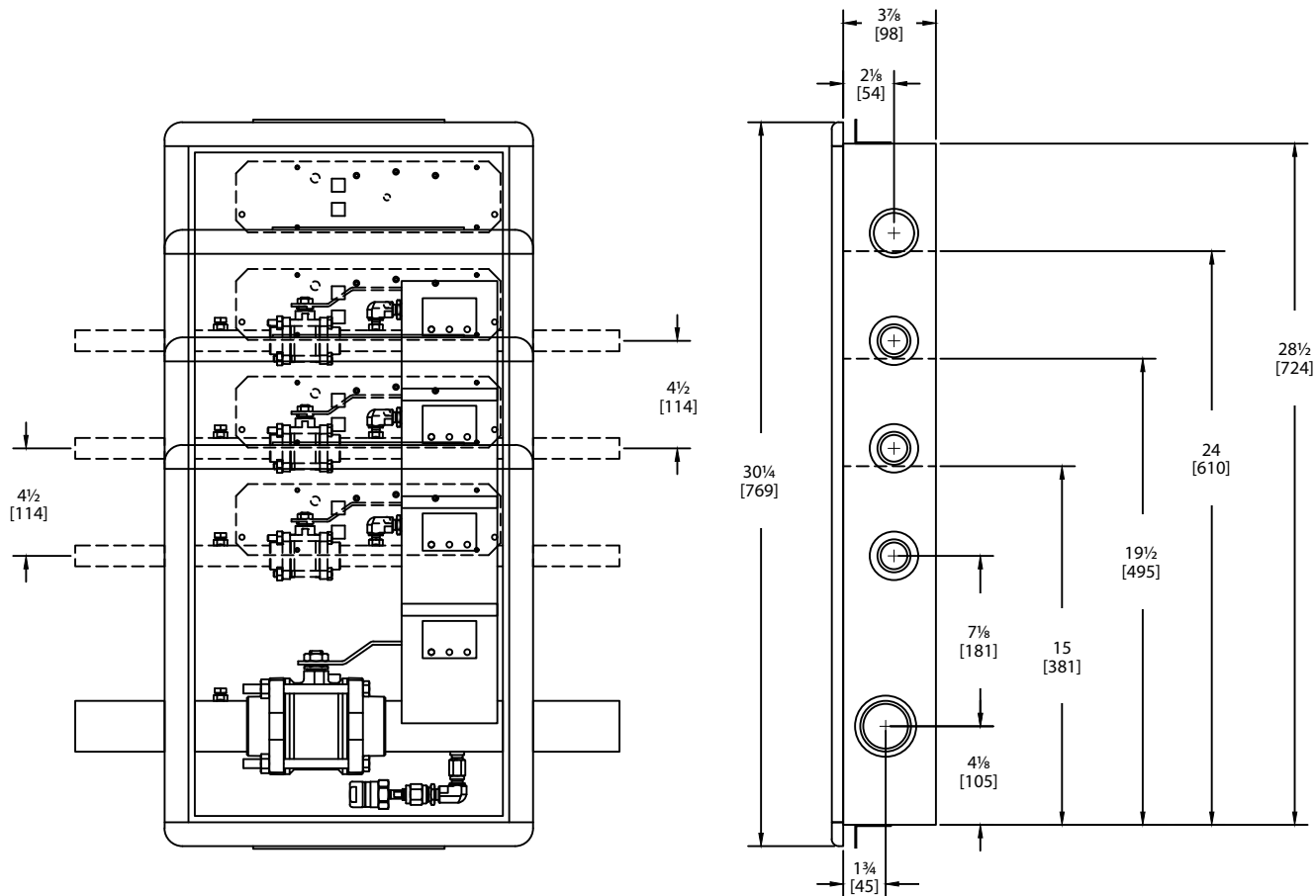
1/2" to 1-1/2" Valve Drawing

Inch
[mm]



2" Valve Drawings

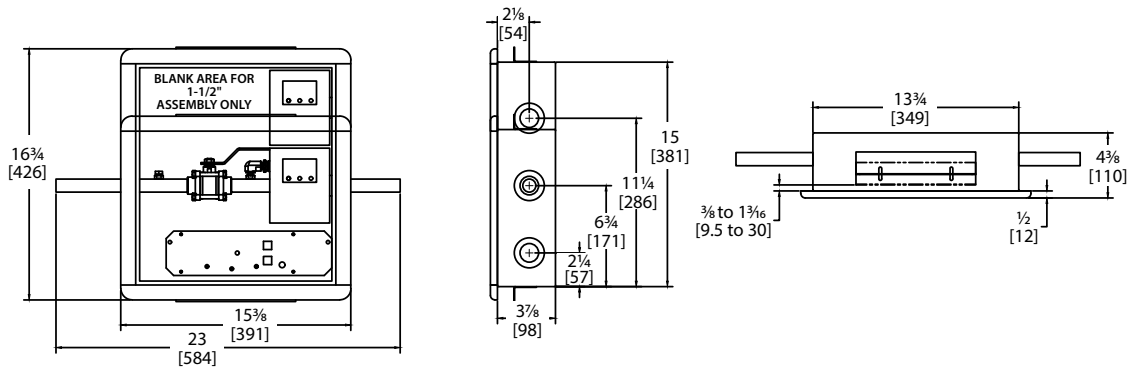
Inch
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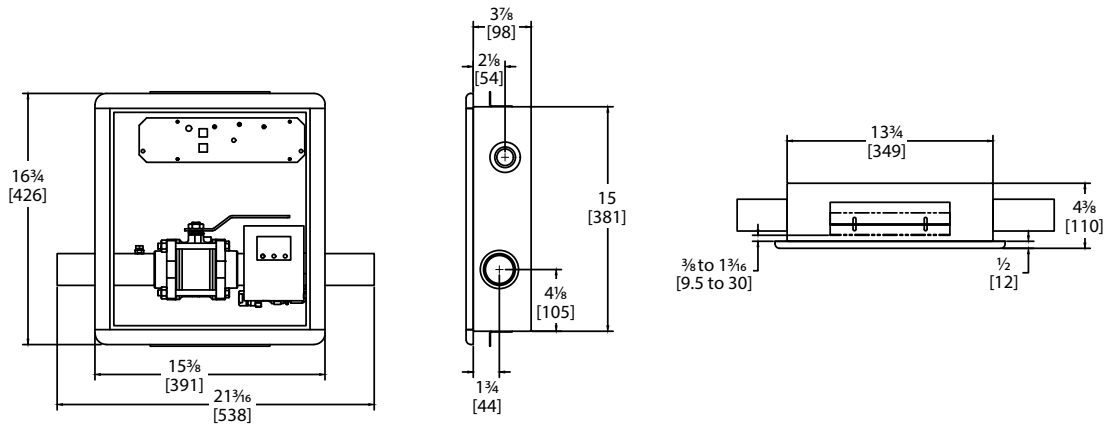
Technical Specifications

½" to 1-½" Assembly

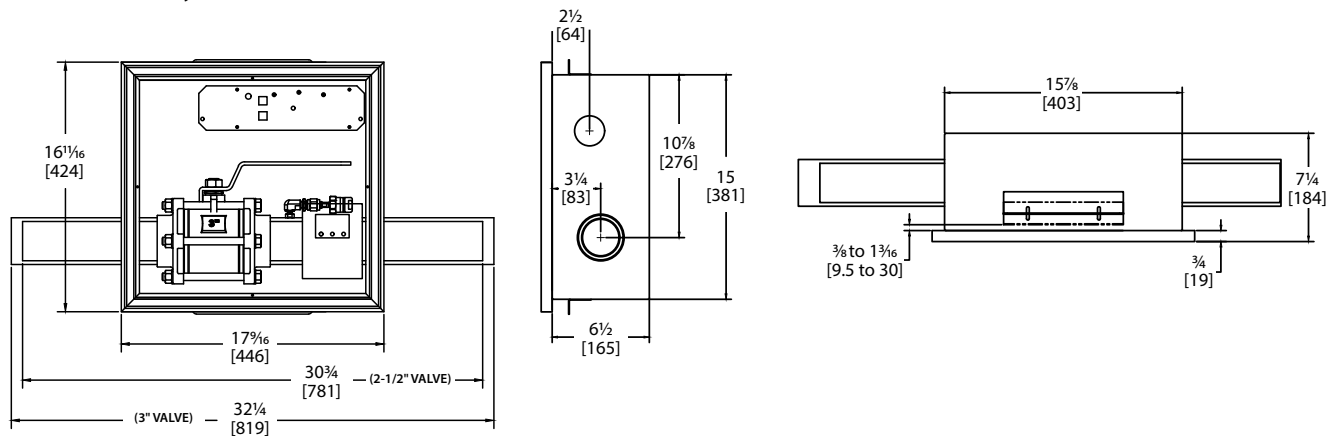
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2" Assembly

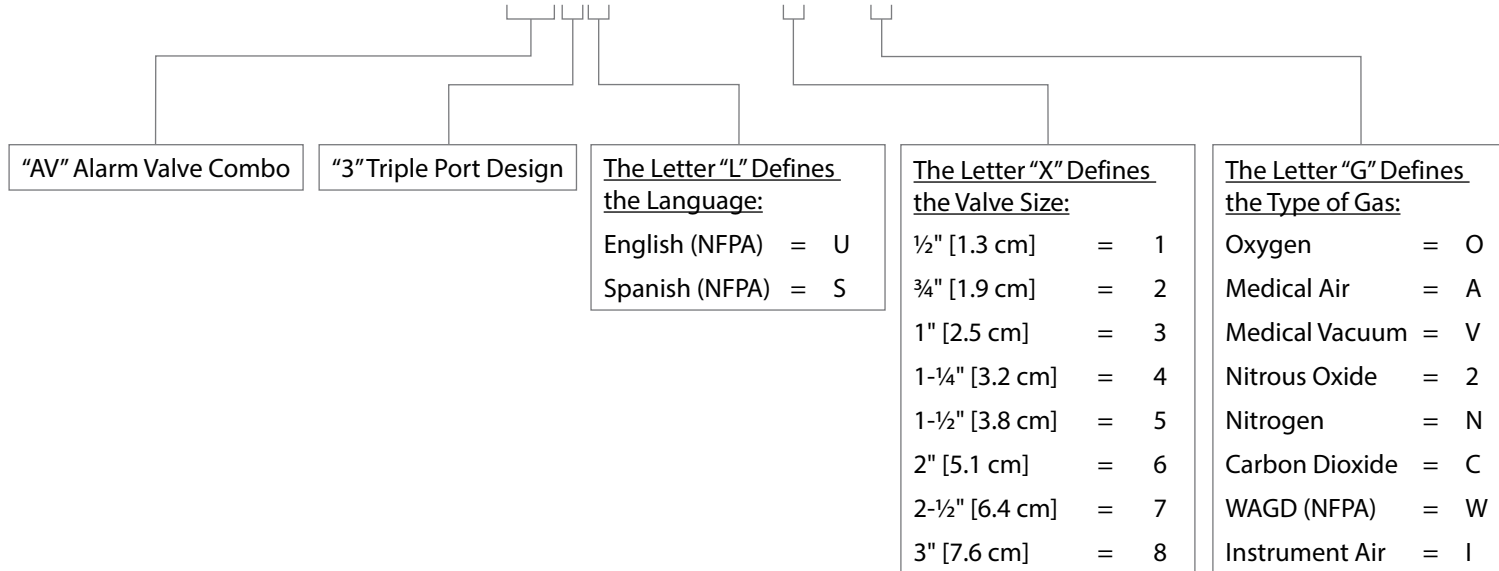


2-½" and 3" Assembly



Model Numbers

AV3LXGXGXGXGXGXG



NOTE: The power supply will require 1 gang per box.

Example: English, 3 gases, ½" [1.3 cm] Oxygen, ¾" [1.9 cm] Medical Air, and 1-¼" [3.18 cm] Medical Vacuum will be in a 4-gang box.
Model Number AV3U1O2A4V.

The 1-½" [3.8 cm] Valve will occupy 2 gangs, 1 for the valve, and 1 for space to access the valve handle.

Example: A box with a ½" [1.3 cm] Oxygen, ¾" [1.9 cm] Medical Air, and 1-½" [3.8 cm] Medical Vacuum will require a 5-gang box not a 4-gang box.

The 2" [5.1 cm] valve will be assembled in a 3-7/8" [9.84 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 the 2" [5.1 cm] drawing provided on page 3.

The 2-½" [6.4 cm] and 3" [7.6 cm] are only offered in a single-box assembly. Refer to the drawings for the single box assemblies.

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