



Pipeline Systems

Solutions for Life

FEATURES

- 14-gauge steel valve box
- Accepts valve sizes ½ through 2 inches
- Factory in stalled copper tubing extensions
- Full port valves for high flow
- Gauges ordered separately
- Complies with NFPA99 requirements
- Cleaned for oxygen service
- 5 year warranty

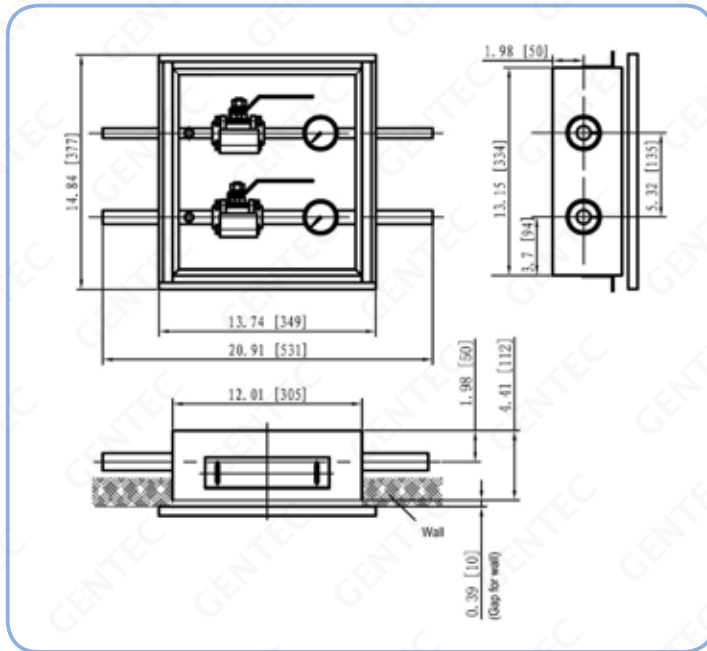


SPECIFICATIONS

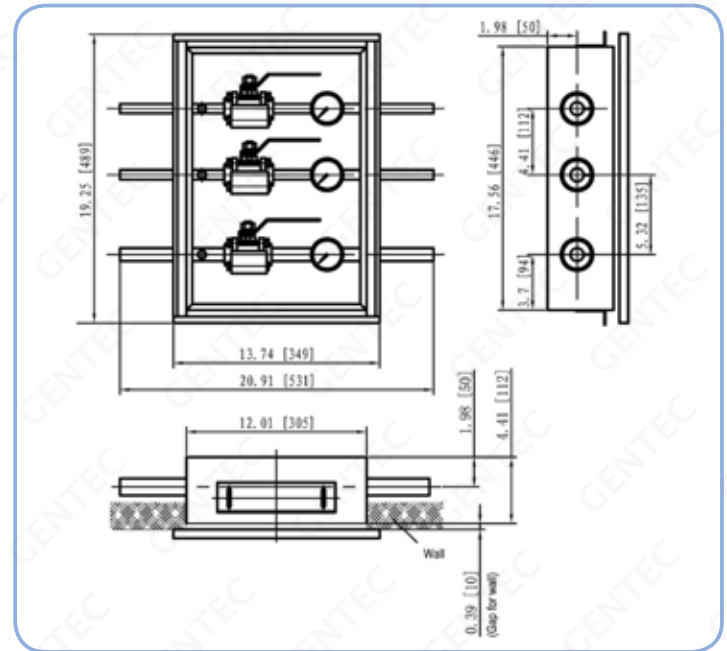
- Medical gas zone valve boxes shall be manufactured by Genstar Technologies Co.,Inc. (GENTEC[®]).Boxes shall be designed for concealed piping installation and available for sizes and services indicated.
- The valve box shall be 14 gauge powder coated sheet steel construction. A multiple valve box houses up to a 2" valve. Valves shall be factory installed with the smallest valve at the top, largest at the bottom. The box is supplied with a 7/8" flange on top and bottom for easymounting.
- Valve box assembly shall be supplied with a powder coated steel frame, attached to the box by concealed 1-1/2-inch(38mm) screws, which encloses an easily removable flexible window panel. The frame shall be capable of adjusting for variances in wall thickness up to 1". The window panel shall be made of a translucent flexible acrylic plastic with a pull-out ring pre-mounted near the center of the panel. Clear viewing space shall be provided in the panel to display the gas service(s), the area controlled by the valve(s), and pressure gauge(s) on units so equipped. The panel is not replaceable while any valve is in a closed position. Window panel is silk screened with the following statement "CAUTION: MEDICAL GAS SHUT-OFF VALVES CLOSE ONLY IN EMERGENCY" The finished assembly shall be substantially dust-tight.
- Ball valves shall be double seal, three piece in-line serviceable ball-type design, with forged bronze / brass body and chrome-plated brass ball. Only ¼ turn of the handle is required to operate the valve from a fully open to fully closed position. The valves shall have a full port design and incorporate an adjustable packing and a blow-outproof stem.
- Ball valves shall be designed for working pressure up to 600 psi WOG. Valve body shall have Teflon[®] material ball seat and Teflon material stem seals. Seats/seals, lubricants and valve materials are compatible with USP oxygen, nitrous oxide,medical air,carbon dioxide,helium,nitrogen and mixtures thereof at continuous pressure up to 600 psi and vacuum service to 29" Hg. Ball valves shall be provided with Type K copper tube extensions,for making connections to the pipeline and shall include dual gauge/purge ports sealed with brass HEX plugs. Gauges, to be ordered separately, shall be 2" face diameter for monitoring pressure and vacuum, and will state:"USE NO OIL". A fully color coded label package shall be supplied with each valve box assembly for application by the installer. Valves are piped from left to right.
- All ball valves shall be supplied clean and prepared for oxygen service in accordance with current CGA G-4.1 standards. All valves shall be 100% tested for leaks and manufactured to comply with the latest edition of NFPA 99. Valves shall be capped to keep them clean prior to installation.
- All GENTEC zone valve boxes are backed by a standard 5-year warranty (see warranty statement for details).

DIMENSIONS

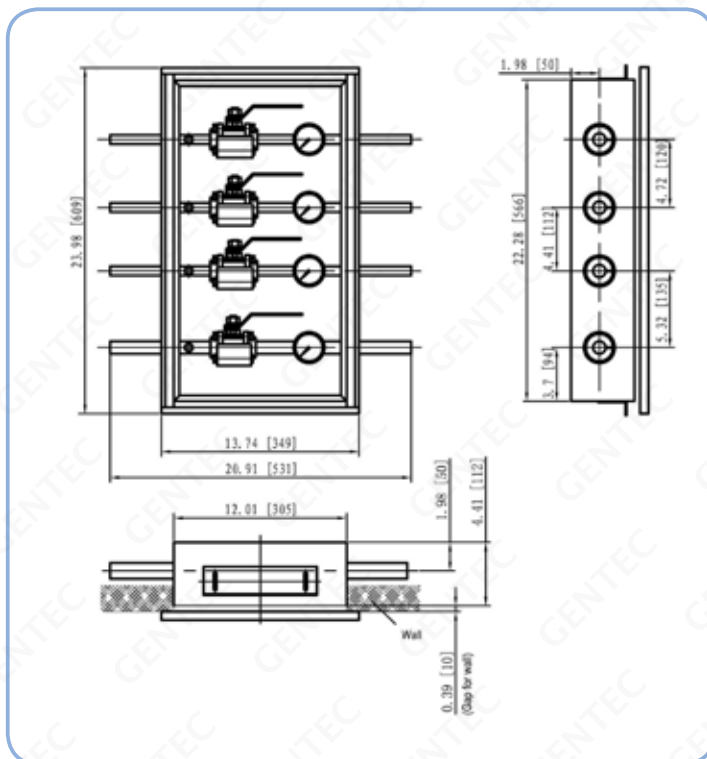
1-2 Valve Box *



3 Valve Box



4 Valve Box



Dimensional Data Notes:

- Up to 2" Valve in a Multiple-Valve Box
- * For 1 Valve Box–Top Valve omitted
- The frame shall be capable of adjusting for variances in wall thickness up to 1 inch
- All dimensions in inches(mm)

Notes:

- All valves have Full Port Design and Dual Gauge/Purge Ports
- Gauges are Ordered Separately
- All zone valve box assemblies include dual 1/8"NPT gauge ports/plugs for each valve
- All zone valve box assemblies include one set of labels each for the following services: oxygen, nitrous oxide, medical air, nitrogen, vacuum, WAGD, carbon dioxide and instrument air

DIMENSIONS (Cont)

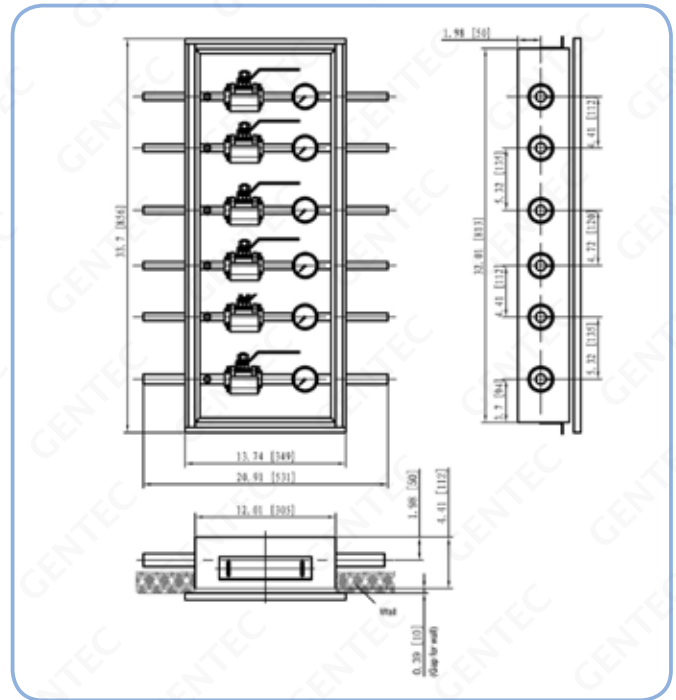
Dimensional Data Notes:

- Up to 2" Valve in a Multiple-Valve Box
- * For 5 Valve Box–Top Valve omitted
- The frame shall be capable of adjusting for variances in wall thickness up to 1 inch
- All dimensions in inches(mm)

Notes:

- All valves have Full Port Design and Dual Gauge/Purge Ports
- Gauges are Ordered Separately
- All zone valve box assemblies include dual 1/8"NPT gauge ports/plugs for each valve
- All zone valve box assemblies include one set of labels each for the following services: oxygen, nitrous oxide, medical air, nitrogen, vacuum, WAGD, carbon dioxide and instrument air

5-6 Valve Box



ORDERING INFORMATION

EXAMPLE: AVB	X	X	-	XX...XX
	Number of Valves	Option		Tubing Dimension
	(1~6)	G: with Gauge		05: 1/2"
		A: with Alarm		07: 3/4"
		R: with Regulator		10: 1"
		None: without		15: 1-1/2"
				20: 2"
				25: 2-1/2"
				30: 3"
				40: 4"

For Example: If you would like to order a three-valve zone box with gauge: 1/2" , 3/4" and 1", then the model number should be ZVB3G-050710.

MATERIAL

Box Assembly

Powder coated steel
End cover–Nylon
Bracket(s)–Powder coated steel
Frame–Powder coated steel

Front Panel

Plastic PMMA
Front panel button/washer–Aluminum
Front panel ring–Chrome plated steel

Valve

Body–Forged bronze/brass
Ball–Chrome plated brass
Ball seat and Stem seals–Teflon material
Ball seat and Stem seals–Teflon material
Gauge port plug–Brass

GAUGES FOR ZONE VALVE BOXES

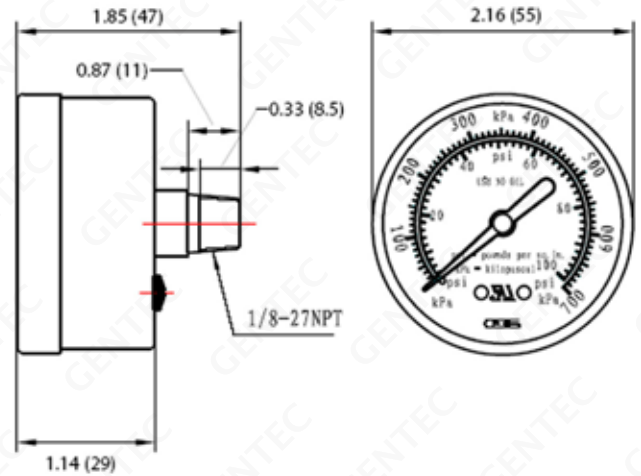
FEATURES

- Size: 2”(50.8mm)
- Style: ASME B40.1 Grade B
- Range(dual): 0-30 inHg; 0-76 cmHg
0-100psi; 0-700 kPa
0-300 psi; 0-2000 kPa
- Temperature: -40°C to +70°C
- Connection: 1/8-27NPT center back
- Bourdon tube: Tin/Bronze
- Dial: Aluminum alloy
- Needle: Aluminum alloy
- Case: Steel
- Window: Polycarbonate



SPECIFICATIONS

Gauges shall be 2” face diameter, dual scale. Gauges will read 0-100 psi / 0-700 kPa for oxygen, medical air, nitrous oxide, and other 50 psi working pressure gases; 0-300 psi / 0-2000 kPa for nitrogen and instrument air; and 0-30inHg / 0-76 cmHg for vacuum or WAGD. The gauge port shall be equipped with removable plug for pressure testing prior to final assembly of gauge. All gauge model zone valve box assemblies shall read pressure on the patient/point of use side of the valve per NFPA99.



ORDERING INFORMATION

(Gauges Ordered Separately)

Gauge Type	Catalog NO.	Gases	Qty
Vacuum,0-30”Hg	GR2005-030V	Vacuum, WAGD	
Pressure,0-100 psi	GR2006-100	Oxygen, Medical Air, Nitrous Oxide, Carbon Dioxide	
Pressure,0-300 psi	GR2006-300	Nitrogen, Instrument Air	



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AREA VALVE SERVICE UNIT

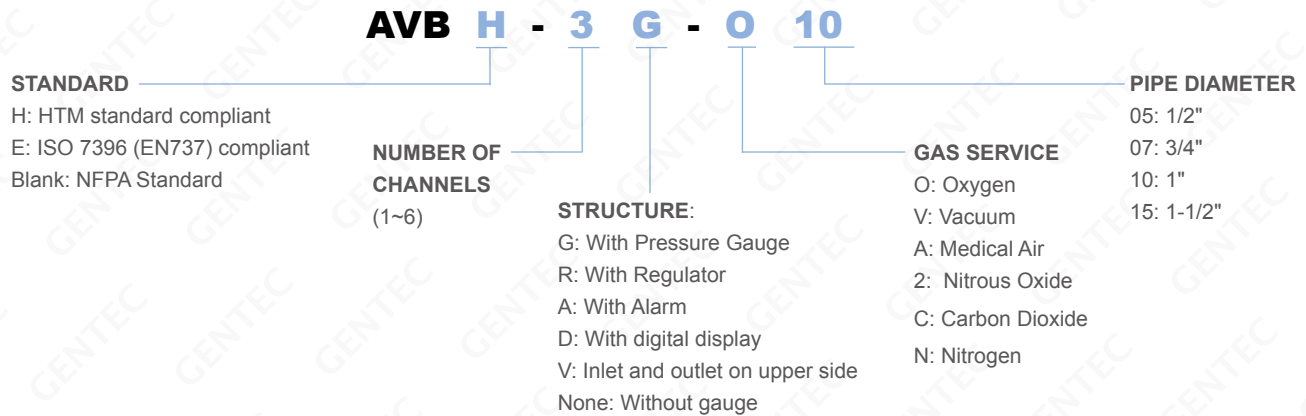
FEATURES

- Includes shut-off valve and check valve with NIST connection, easy to operate and maintain
- Diaphragm-sensed regulator provides a consistent outlet flow
- Pressure gauges included to provide accurate reading of pressure
- HTM 02-01 compliant
- Gas service: Oxygen, Nitrogen, Air, Vacuum, and other medical gas
- Maximum operating pressure:
Pressure: 200 psi; Vacuum: -8.7 psi
- Design Pressure:
Pressure line: 232 psi; Vacuum line : -14.5 psi
- Configuration (3 valve):
Both inlet pipe and outlet pipe face upward (vertical)

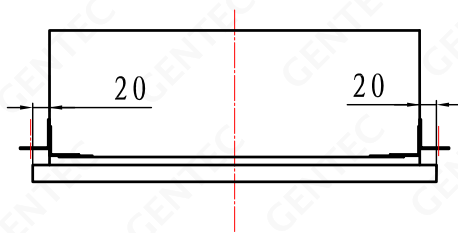
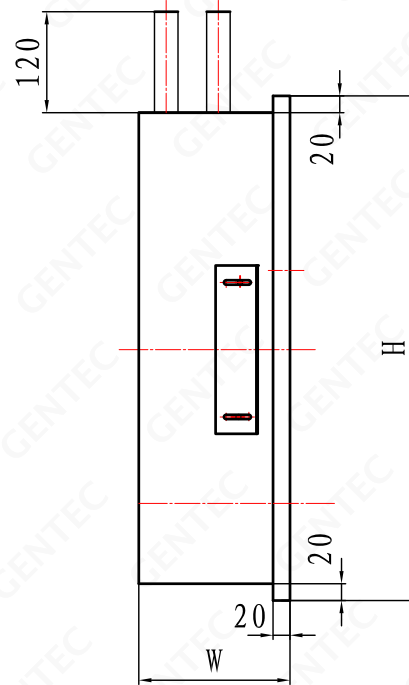
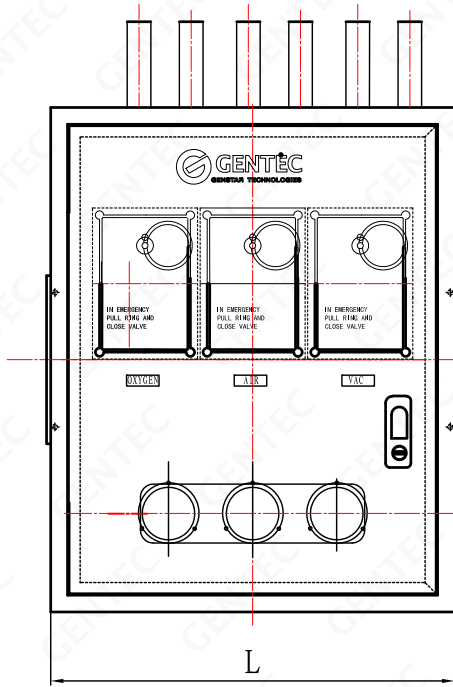


ORDERING INFORMATION

Please follow the instructions below to select the correct model number.



DIMENSIONS



Pipe Diameter	Dimensions in.(mm)		
	H	L	W
1/2"	16.5"(420)	13.8"(350)	6.3"(160)
3/4"	23.6"(600)	18.9"(480)	7.1"(180)
1"	23.6"(600)	18.9"(480)	7.1"(180)
1-1/4"	31.1"(790)	25.2"(640)	7.1"(180)
1-1/2"	31.1"(790)	25.2"(640)	7.1"(180)

Note: Pipe diameter can be chosen to meet user requirements; enclosure dimensions are determined by the dimensions of the pipe.



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FEATURES

- Aluminum front panel for ease of maintenance
- Inlet and outlet display gauges in psi / kPa
- High flow capacity
- Manual shut-off valve
- Outlet supply pipe for additional remote outlets
- Maximum inlet pressure: 300 psi
- NFPA 99 compliant

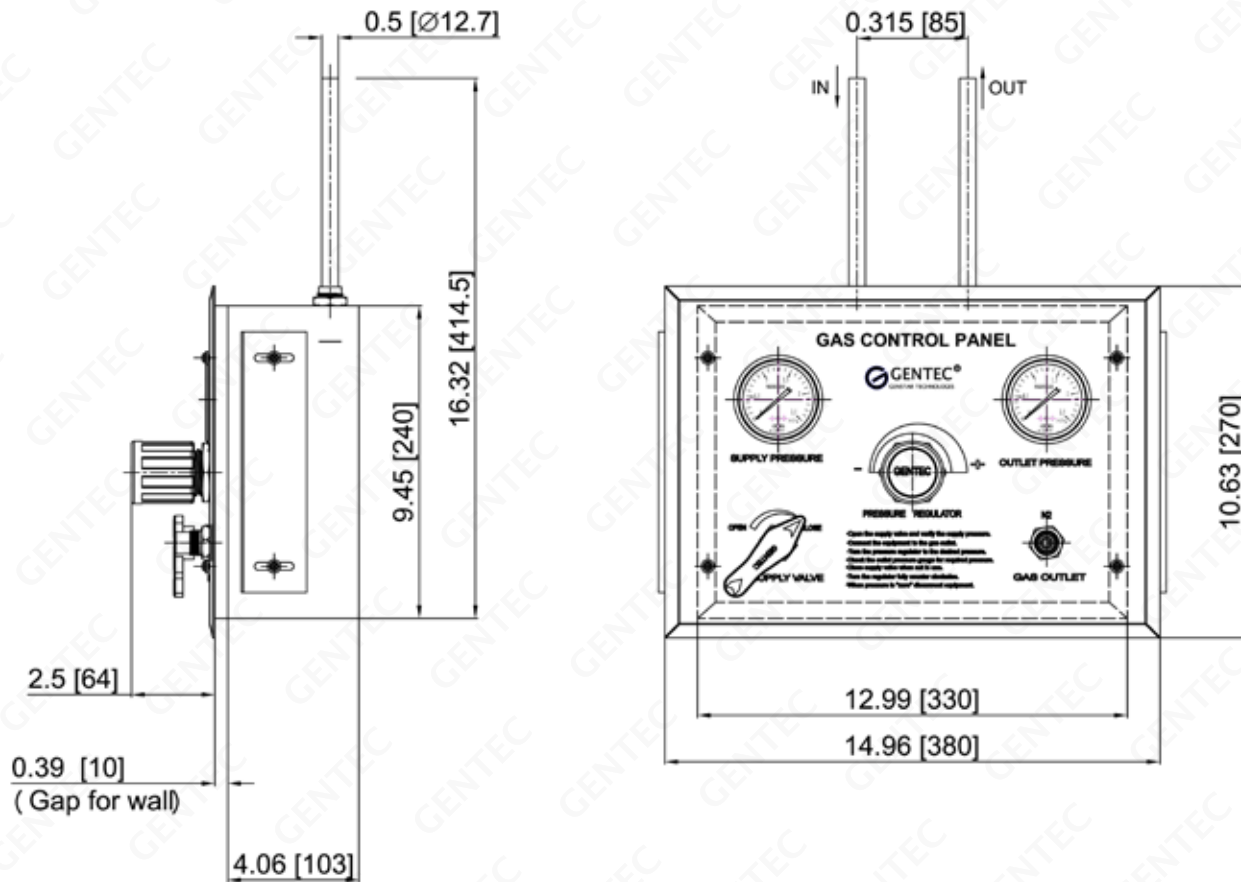


SPECIFICATIONS

- Medical gas control panel(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC®), in an ISO 13485 certified facility. The control panel shall be oxygen cleaned and tested in strict accordance with NFPA 99.
- The gas control panel shall be supplied with a quarter turn shut-off stainless steel ball valve, rated at no less than 300 psi. Two 0-400 psi 2” diameter pressure gauges shall be provided to monitor both inlet and outlet pressures. The control panel shall come with a pressure regulator, adjustable between 0 to 300 psi.
- The DISS outlet shall be a Diameter Index Safety System for Air or Nitrogen outlet for pressure above 200 psi. Customized outlet connections are available. The outlets shall be used for connections to pneumatic surgical tools.
- The gas control panel shall be factory piped and 100% tested. All components shall be panel mounted on the front panel.

PROJECT:

DIMENSIONS



Note: All dimensions are reference.

ORDERING INFORMATION

GCP200 - N Nitrogen Control Panel, DISS Connector
 GCP200 - A Air Control Panel, DISS Connector

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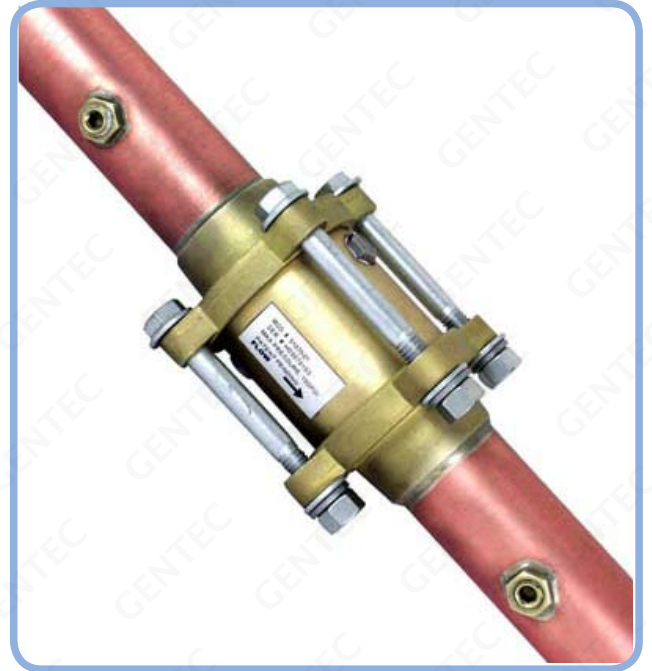


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FEATURES

- Available in Sizes 3/4 " to 4"
- 3 Piece Design for Ease of Maintenance
- Type K Copper Extensions
- Dual Gauge/Purge Ports
- High Flow, Minimal Pressure Drop
- Cleaned for Oxygen Service
- 100% Hydrostatically Tested
- NFPA-Compliant



SPECIFICATIONS

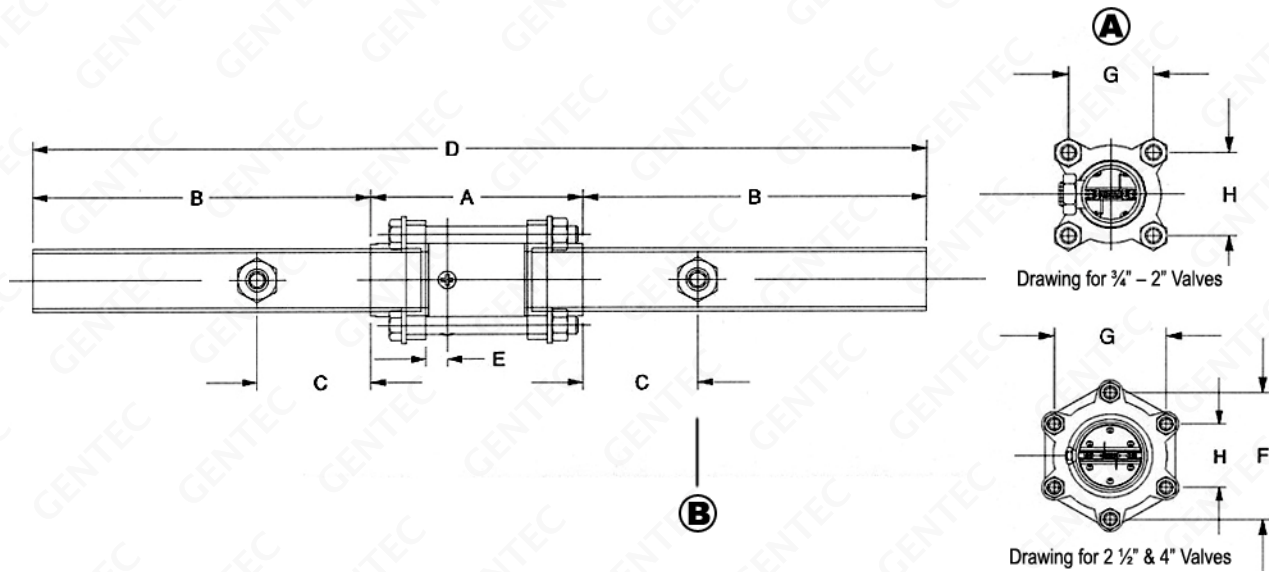
- GENTEC[®] medical check valves shall be designed for concealed piping installation and available for sizes and services indicated.
- Check valves shall be of brass construction and designed for working pressures of up to 300 psi. The valve body is a 3-piece design with Viton[®]/EPDM/Teflon[®] seats. The body shall be field removable for servicing without having to cut or disassemble the medical gas lines. Valves shall be provided with factory-installed Type K copper extensions for making connections to the pipeline and shall include dual gauge/purge ports, sealed with brass HEX plugs, located upstream and downstream of check valve. The GENTEC valve has a high coefficient of flow (Cv)*, and a tight seal, which eliminates the chatter and leakage that is common with some ball and cone check valves.
- All check valves with extensions shall be cleaned for oxygen service per current CGA G-4.1 standards, and be 100% hydrostatically tested. Valves shall be capped and sealed in a polyethylene bag to keep them clean prior to installation.
- All GENTEC medical check valves are backed by a standard 5-year warranty (see warranty statement for details).

GENTEC VALVE



* flow of water through a valve at 60 °F in US gallons per minute at a pressure drop of 1 lb/in²

DIMENSIONS



Dimensional Data Notes:

- A. Four Bolts Used on 3/4" - 2" Valves; Six Bolts Used on 2 1/2" - 4" Valves
- B. Gauge Ports with 1/8" Plug (Gauge Not Supplied)

Dimensions: (Inches)

Valve Size	A	B	C	D	E	F	G	H
3/4"	3.21	6.00	2.00	15.21	.33	-	1.43	1.43
1"	3.72	6.00	2.00	15.72	.33	-	1.62	1.62
1 1/4"	4.06	6.00	2.00	16.06	.40	-	2.00	2.00
1 1/2"	4.45	6.00	2.00	16.45	.40	-	2.25	2.25
2"	5.18	6.00	2.00	17.18	.40	-	2.86	2.86
2 1/2"	6.10	6.00	2.00	18.10	.50	4.94	4.28	2.47
3"	6.76	6.00	2.00	18.76	.50	5.51	4.77	2.75
4"	8.56	6.00	2.00	20.56	.50	7.46	6.46	3.73

ORDERING INFORMATION

Valve Size	CATALOG NUMBER	QTY
3/4"	CVP-07	
1"	CVP-10	
1 1/4"	CVP-12	
1 1/2"	CVP-15	
2"	CVP-20	
2 1/2"	CVP-25	
3"	CVP-30	
4"	CVP-40	

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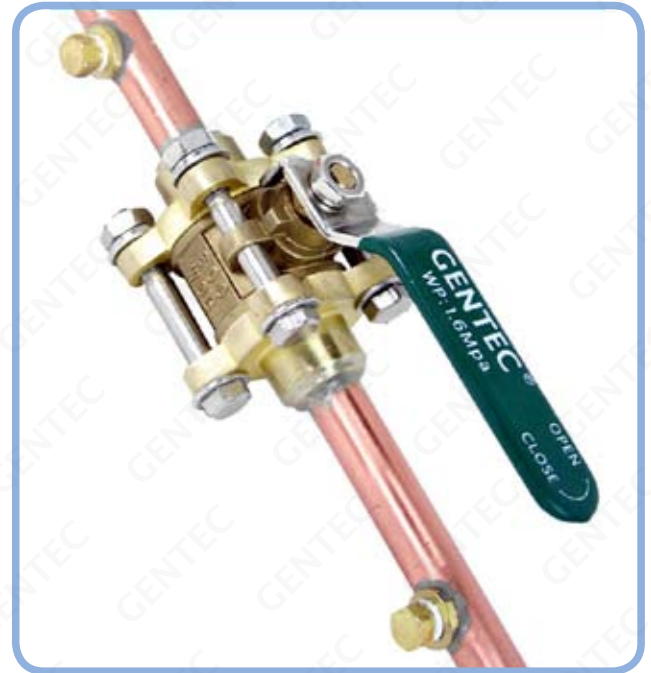
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FEATURES

- Available in Sizes 1/2 " to 4"
- 3 Piece Design for Ease of Maintenance
- Quarter-Turn, Full Port Design Valves
- Blow Out Proof Valve Stem
- Teflon[®] Seats And Seals
- Dual Gauge Port Version
- Lockable or Non-Lockable Handles Available
- Cleaned for Oxygen Service
- 100% Hydrostatically Tested
- NFPA-Compliant

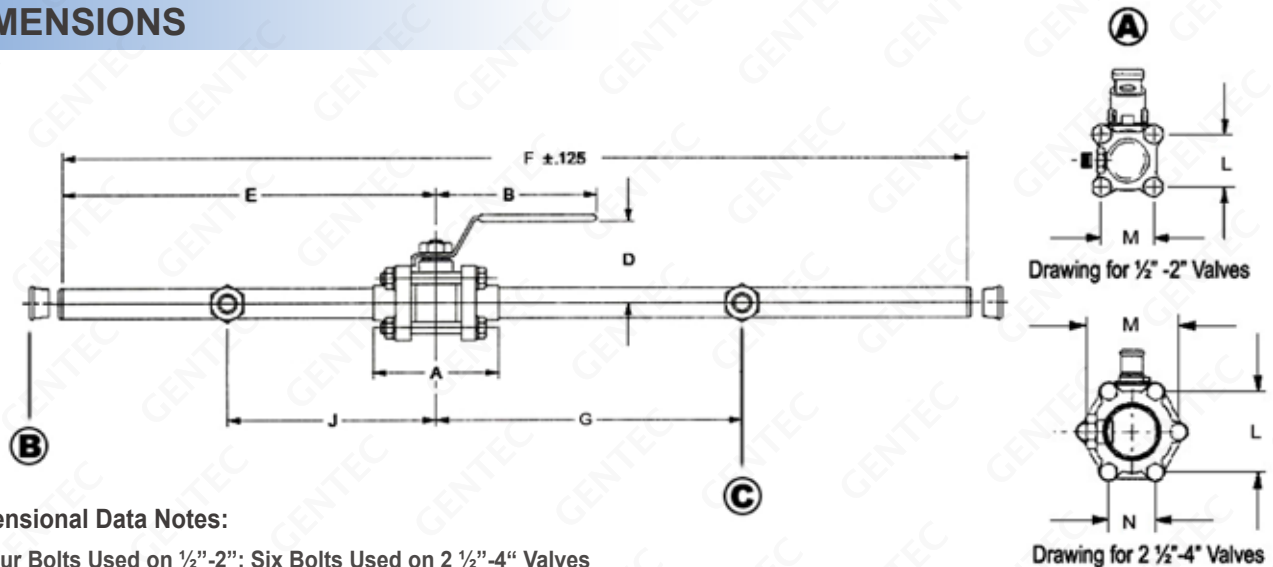


Dual Gauge Port Version

SPECIFICATIONS

- Medical gas ball valves shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]). Ball valves shall be designed for concealed piping installation and available for sizes and services indicated.
- Ball valves shall be double seal, three piece in-line serviceable ball-type design, with forged bronze/brass body and chrome-plated brass ball. Only 1/4 turn of the handle is required to operate the valve from a fully open to fully closed position. The valves shall have a full port design and incorporate an adjustable packing and a blow-out proof stem.
- Ball valves shall be designed for working pressure up to 600 psi WOG. Valve body shall have Teflon[®] material ball seat and Teflon[®] material stem seals. Seats/seals, lubricants and valve materials are compatible with USP oxygen, nitrous oxide, medical air, carbon dioxide, helium, nitrogen and mixtures thereof at continuous pressure up to 600 psi and vacuum service to 29" Hg. Ball valves shall be provided with type-K copper tube extensions, for making connections to the pipeline and shall include a single gauge/purge port sealed with a brass HEX plug. Locking or nonlocking handles are available (locks furnished and installed by others).
- All ball valves shall be supplied clean and prepared for oxygen service in accordance with current CGA G-4.1 standards. All valves shall be 100% tested for leaks and manufactured to comply with the latest edition of NFPA-99. Valves shall be capped and sealed in a polyethylene bag to keep them clean prior to installation.

DIMENSIONS



Dimensional Data Notes:

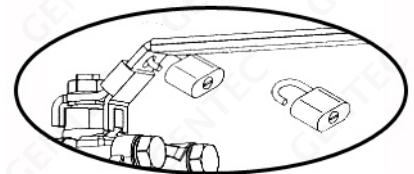
- A. Four Bolts Used on 1/2"-2"; Six Bolts Used on 2 1/2"-4" Valves
- B. Extension Cap
- C. Gauge Port with 1/8" Plug (Gauge Not Supplied)

Valve Size	Dimensions: (Inches)									
	A	B	D	E	F	G	J	M	N	L
1/2"	2.62	3.35	1.69	8.20	20.93	5.58	2.38	1.00	1.29	---
3/4"	2.93	4.33	1.89	8.43	21.00	5.28	2.70	1.43	1.43	---
1"	3.44	4.33	2.03	8.58	21.00	5.09	2.89	1.62	1.62	---
1-1/4"	3.96	5.12	2.56	8.74	20.98	5.49	3.24	2.00	2.00	---
1-1/2"	4.43	5.12	2.72	8.86	20.99	4.85	3.38	2.25	2.25	---
2"	5.55	6.30	3.15	9.23	21.06	4.78	3.76	2.81	2.81	---
2-1/2"	6.73	9.06	4.29	8.50	23.50	7.00	4.25	4.33	2.50	5.00
3"	7.56	9.06	4.61	8.50	24.00	7.00	4.50	4.76	2.75	5.50
4"	9.80	11.73	7.90	8.50	32.00	7.90	7.90	6.38	3.73	7.45

ORDERING INFORMATION

VALVE Size	CATALOG NUMBER	
	Single Port Ball Valves Locking Handle (Non-Locking)	Dual Port Ball Valves Locking Handle (Non-Locking)
1/2"	VL1-05L1 (VL1-05N1)	VL1-05L2 (VL1-05N2)
3/4"	VL1-07L1 (VL1-07N1)	VL1-07L2 (VL1-07N2)
1"	VL1-10L1 (VL1-10N1)	VL1-10L2 (VL1-10N2)
1-1/4"	VL1-12L1 (VL1-12N1)	VL1-12L2 (VL1-12N2)
1-1/2"	VL1-15L1 (VL1-15N1)	VL1-15L2 (VL1-15N2)
2"	VL1-20L1 (VL1-20N1)	VL1-20L2 (VL1-20N2)
2-1/2"	VL1-25L1 (VL1-25N1)	VL1-25L2 (VL1-25N2)
3"	VL1-30L1 (VL1-30N1)	VL1-30L2 (VL1-30N2)
4"	VL1-40L1 (VL1-40N1)	VL1-40L2 (VL1-40N2)

Valve Locking Handle



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Area Alarm with Local Sensors

GUMACS™ Series Area Alarm is CE marked and NFPA 99 compliant. Designed to accept a variety of input signals, GUMACS™ Series Area Alarm is often used to monitor pressure, flow rate, temperature, humidity, concentration, and other safety indexes. If needed, GUMACS™ Series Area Alarm can also offer relay switch output control capability.

Built-in RS485 communication port allows each GUMACS™ Series alarm to be networked for remote monitoring. The physical data will be processed and displayed on site by the area alarms. In addition, GUMACS™ System Console can request data from the slave modules, the area alarms and master alarms.

FEATURES

- Modular system configuration
- 1 to 16 input channels available
- Pressure units are customizable (Psi, kPa, Bar, MPa, inHg, and mmHg)
- Can be used to monitor pressure, flow rate, temperature, humidity, concentration, and other safety indexes
- High/low alarm limits and silence time are customizable
- Built-in RS-485 communication port for networking
- Accept 4-20 mA current inputs and single-ended voltage signals
- One contact switch output per input channel
- Displays error message when pressure transducer is not connected
- Compact size with large four-digit LED numerical displays
- Dual color LEDs for system statuses
- All parameters can be field adjustable
- Labels can be customized upon request
- Alarm volume is adjustable

ELECTRICAL AND PHYSICAL SPECIFICATIONS

Mechanical

Front Panel: Injection Molded Plastic (PCABS, V0 Flame Rated)

Case Body: Metal Alloy

Physical Dimension(Width x Height x Depth)

Overall: 1~4 Channel: 300mm x 135mm x 107mm

5~6 Channel: 300mm x 175mm x 107mm

7~8 Channel: 300mm x 215mm x 107mm

Wall Opening(Width x Height)

(Depth beneath the wall is 95mm):

5~6 Channel: 272mm x 165mm

1~4 Channel: 272mm x 125mm

7~8 Channel: 272mm x 205mm

Communication

RS-485 Port: 9600/19200 baud, standard (8-bit data, no parity, 1 stop bit)

Electrical

Power Requirements

Input: 100~240 VAC, 0.5 A Maximum

Analog Input

Input Type: (1) Single-ended, voltage

(2) Differential, voltage

(3) 4~20 mA current supplying 15 VDC

(4) 4~20 mA current not supplying 15 VDC

Working Range: ± 10 VDC/4~20 mA

Safe Range: ± 14 VDC/0~28 mA Maximum

Resolution: 14 bit or 1% of sensor full range

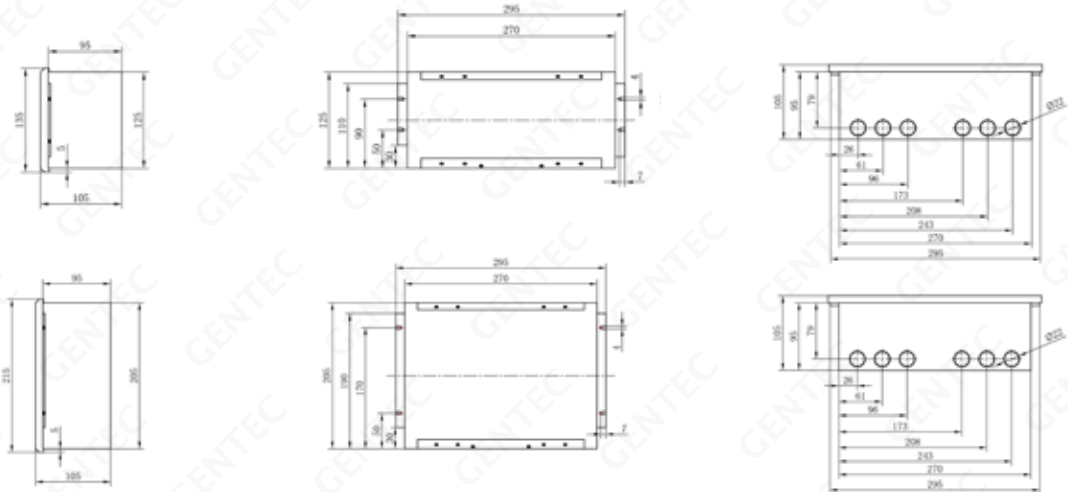
Relay Output

Channels: 1 output per 1 input channel

Range: 0.15 A at 48 VDC/1 A at 30 VDC/0.5 A at 120 VAC

Buzzer: Adjustable Intensity

DIMENSIONS



ORDERING INFORMATION

BAA

Area Alarm

R

Sensor Type
L: Local Sensor
R: Remote Sensor

03

Number of
Numerical Channels
(01 to 16 Normally)

OVA

Gas Type
O: Oxygen
V: Vacuum
A: Medical Air
I: Instrument Air
N: Nitrogen
2: Nitrous Oxide
C: Carbon Dioxide
W: WAGD Vacuum

Example:

BAA - R - 03 - OVA indicates an area alarm (remote sensor) for oxygen, vacuum, and medical air .

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Master Alarm (up to 32 inputs)

GUMACS™ Series Master Alarm is CE marked and NFPA 99 compliant. It is used to monitor the operation conditions of source equipments such as air compressors, vacuum pumps, and/or manifold systems, etc. GUMACS™ Series Master Alarm can also offer relay switch output control capability when required.

Built-in RS485 communication port allows each GUMACS™ Series alarm to be networked for remote monitoring. The physical data will be processed and displayed on site by the master alarm. In addition, GUMACS™ System Console can request data from the slave modules, the area alarms and master alarms.

Although not done conventionally, GUMACS™ Series Master Alarm can be used as an Area Alarms Monitoring Center. When connected, the working conditions of the area alarms will be displayed on the Area Alarms Monitoring Center. This would be a good solution for a medium-sized central monitoring project.

FEATURES

- Can expand up to 64 TTL or contact switch inputs
- Can offer up to 48 switch output capability
- Built-in RS-485 communication port for networking
- Can be upgraded to a combination alarm if numerical displays are required
- Accept both normally open (N/O) and normally closed (N/C) switches
- High/low alarm limits and silence time are customizable
- Can be used to monitor the conditions of area alarms
- Labels can be customized upon request
- Alarm volume is adjustable

ELECTRICAL AND PHYSICAL SPECIFICATIONS

Mechanical

Front Panel: Injection Molded Plastic (PCABS, V0 Flame Rated)

Case Body: Metal Alloy

Physical Dimension(Width x Height x Depth)

Overall: 1~16 Channel: 300mm x 135mm x 107mm
 17~32 Channel: 300mm x 215mm x 107mm
 33~48 Channel: 300mm x 295mm x 107mm
 49~64 Channel: 300mm x 375mm x 107mm

Wall Opening (Width x Height)

(Depth beneath the wall is 95mm):

1~16 Channel: 272mm x 125mm
 17~32 Channel: 272mm x 205mm
 33~48 Channel: 300mm x 285mm
 49~64 Channel: 300mm x 365mm

Communication

RS-485 and RS-232 Port:

9600/19200 baud, standard (8-bit data, no parity, 1 stop bit)

Electrical

Power Requirements

Input: 100~240 VAC, 0.5 A Maximum

Analog Input(for first module)

Input Type: (1) Single-ended, voltage
 (2) Differential, voltage
 (3) 4~20 mA current supplying 15 VDC
 (4) 4~20 mA current not supplying 15 VDC

Working Range: ± 10 VDC/4~20 mA

Channels: 16 Maximum

Safe Range: ± 14 VDC/0~28 mA Maximum

Resolution: 14 bit or 1% of sensor full range

Digital Output (for one expansion module)

5 VDC, -2.6 mA per Channel Maximum

Number of Channels: 16 Maximum

Omron G2R-1, G2R-14, G2R-1A, G2R1A4 or Grayhill 70-OAC5, 70-ODC5, and Compatibles

Digital Input (for one expansion module)

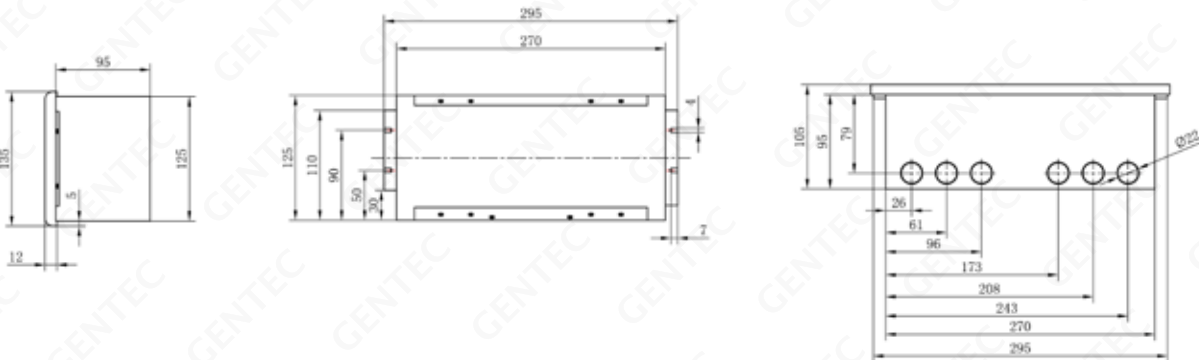
5 VDC, 24 mA per Channel Maximum

Number of Channels: 16 Maximum

Grayhill: 70-IAC5, 70IDC5, and Compatibles

Numerical Display: Resolution: Large 7-segment, four-digits LED

DIMENSIONS



ORDERING INFORMATION

BMA

Area Alarm

01

Number of Digital Input

01: 1~16 Digital Inputs
 02: 17~32 Digital Inputs
 03: 33~48 Digital Inputs
 04: 49~64 Digital Inputs

00

Number of Digital Output

00: 0 Digital Outputs
 01: 1~16 Digital Outputs
 02: 17~32 Digital Outputs
 03: 33~48 Digital Outputs

Example:

BMA - 01 - 00 indicates a master alarm for 1~16 input channels .

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GUMACS™ Series Combination Alarm



Flexibility of Module Placement

GUMACS™ Series Combination Alarm is CE marked and NFPA 99 compliant. Integrating the numerical display functions and master alarm functions, the combination alarm is sometimes more preferable. It can be used to monitor the operational conditions of source equipment and other numerical safety indexes. GUMACS™ Series Combination Alarm can also offer relay switch output control capability when required.

Built-in RS485 communication port allows each GUMACS™ Series alarm to be networked for remote monitoring. The physical data will be processed and displayed on site by the combination alarm. In addition, GUMACS™ System Console can request data from the slave modules, area alarms and master alarms.

FEATURES

- Can be expanded to handle up to 64 TTL or contact switch inputs and 48 TTL or relay (contact switch) outputs
- Built-in RS-485 communication port for networking
- High/low alarm limits and silence time are customizable
- Relative positions of modules can be adjusted to meet the space requirements or limitations
- Displays error message when pressure transducer is not connected
- Labels can be customized upon request
- Alarm volume is adjustable

ELECTRICAL AND PHYSICAL SPECIFICATIONS

Mechanical

Front Panel: Injection Molded Plastic (PCABS, V0 Flame Rated)

Case Body: Metal Alloy

Physical Dimension: Customized

Wall Mounting Hole: Customized

Wiring

Termination:

Analog Input, I/O, and RS-485: PCB mounted screw terminal connections

AC Power: 3 pin AC power connections

Communication

RS-485 and RS-232 Port:

9600/19200 baud, standard (8-bit data, no parity, 1 stop bit)

Electrical

Power Requirements

Input: 100~240 VAC, 0.5 A Maximum

Analog Input(for first module)

- Input Type: (1) Single-ended, voltage
- (2) Differential, voltage
- (3) 4~20 mA current supplying 15 VDC
- (4) 4~20 mA current not supplying 15 VDC

Working Range: ± 10 VDC/4~20 mA

Channels: 16 Maximum

Safe Range: ± 14 VDC/0~28 mA Maximum

Resolution: 14 bit or 1% of sensor full range

Digital Output (for one expansion module)

5 VDC, -2.6 mA per Channel Maximum

Number of Channels: 16 Maximum

Omron G2R-1, G2R-14, G2R-1A, G2R1A4 or Grayhill 70-OAC5, 70-ODC5, and Compatibles

Digital Input (for one expansion module)

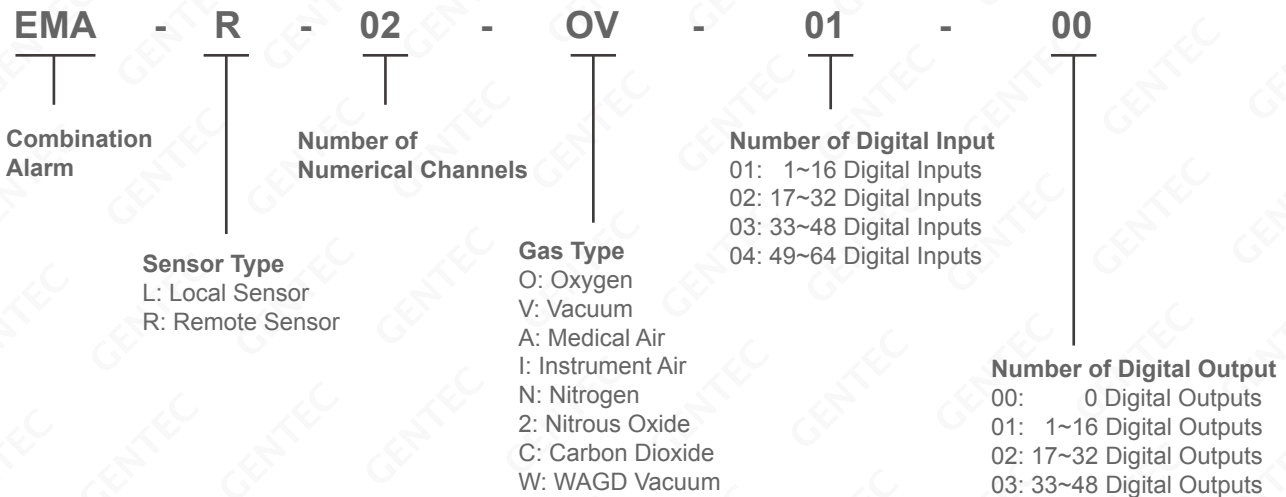
5 VDC, 24 mA per Channel Maximum

Number of Channels: 16 Maximum

Grayhill: 70-IAC5, 70IDC5, and Compatibles

Numerical Display: Resolution: Large 7-segment, four-digits LED

ORDERING INFORMATION



Example:

EMA - R - 02 - OV - 01 - 00 indicates a combination alarm (remote sensor) with 2 numerical channels (oxygen, vacuum), 1~16 digital input channels, and 0 digital output.



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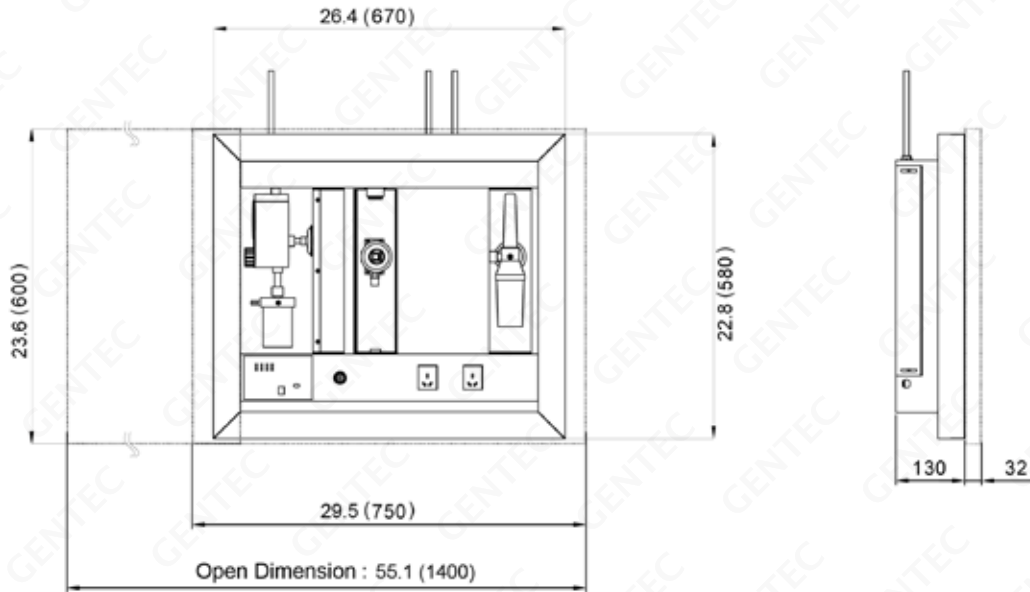
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FEATURES

- Designed for hospital rooms where design is emphasized, replaces traditional bedhead units
- The painting sits on a sliding mechanism which can hide the medical equipment while they are not in use
- The art piece and exterior design can be customized to meet or match a variety of design requirements
- A wide range of medical products & accessories can be custom-ordered
- Gas and electric channels are insulated to ensure safety

DIMENSIONS



Note: All dimensions are reference.

ORDERING INFORMATION

3721	-	P01	-	GS
SERIES 3721		CANVAS STYLE P01: Portrait P02: Landscape P03: Abstract		MEDICAL GAS OUTLET: OH: Ohmeda® adapter DS: DISS hex adapter DH: DISS hand tight adapter CH: Chemetron® adapter PB: Puritan-Bennett® adapter FS: French (NF S 90-116) adapter GS: German (DIN 13260-2) adapter BS: British (BS5682-1998) adapter JIS: Japanese Style adapter SIS: Australian (AS2896) adapter

Please contact Genstar for more ordering information.



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3703 Series



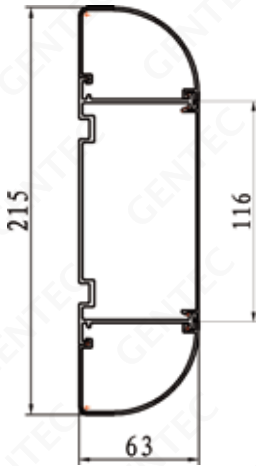
3702 Series



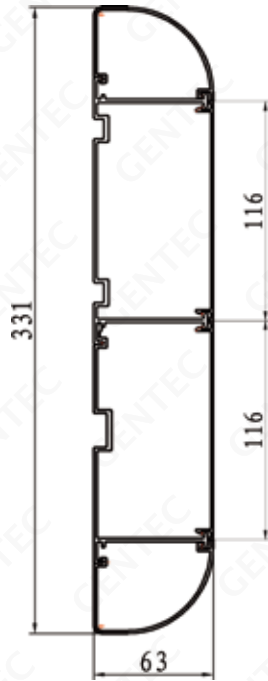
FEATURES

- Aluminum alloy, powder coated to protect against oxidation
- Single & dual trunks available
- Gas and electrical channels are separated by trunks to ensure safety
- Easy installation and maintenance
- Custom-ordered color available
- 100% tested for leakage

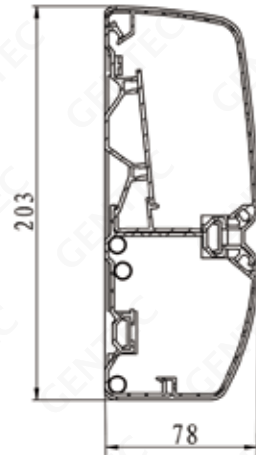
DIMENSIONS



3701 Series



3702 Series



3703 Series

ORDERING INFORMATION

Please contact Genstar for ordering information.



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FEATURES

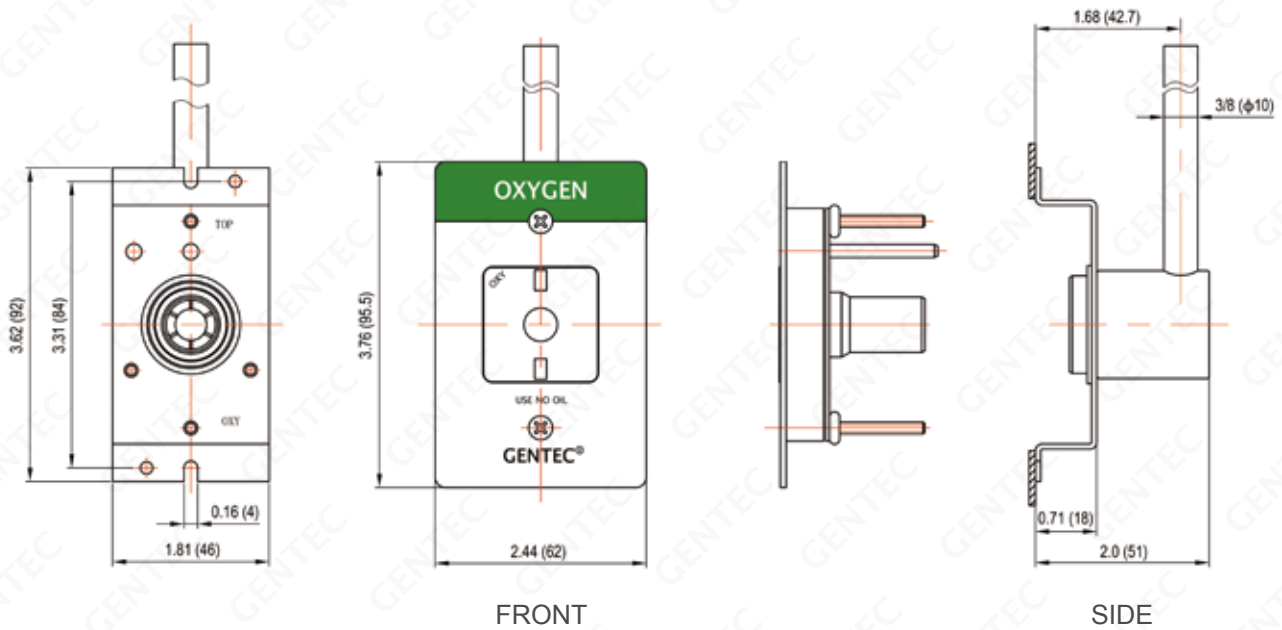
- Accepts only Ohmeda style gas specific adapters
- Indexed to prevent interchangeability of gas services
- Easy conversion of quick connection or DISS type latch valve assemblies
- 360° swivel inlet tube for easy installation
- Cleaned for oxygen service
- 100% leak tested
- Complies with NFPA 99
- UL and CSA approved



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]) in an ISO 9001 and ISO 13485 certified facility. Console outlet shall be designed for concealed piping installation and available for gas services indicated.
- Outlets shall be delivered to the customer in a gas specific rough-in assembly, and a matching gas specific latch valve assembly, both cleaned for oxygen use in strict accordance with CGA G-4.1 and in sealed packages. Optional trim plates can be provided to trim each outlet assembly and allow latch valve to be individually removed for servicing.
- The latch valve assembly shall be Ohmeda quick connect compatible, and accept only corresponding gas specific type adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services. Outlets can be easily converted from one adapter type to another by replacing the latch valve assembly with another of the same gas service.
- Universal rough-in assembly shall include a rough-in plate (16 ga.) with gas inlet tubing silver brazed to the outlet body. Inlet tubing shall be type "K" copper, 1/2" O.D. (12.7 mm), extend 6-1/2 inches (165 mm), and swivel 360° for ease of installation. Rough-in assembly shall accept only the specified gas service by use of indexes. A dust plug shall be provided to protect rough-in assembly from contamination during handling and installation.
- The rough-in assembly shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas piping system.
- All gas outlets shall have primary and secondary check valves, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL and CSA approved.

DIMENSIONS



Dimensional Data Notes:

- A. Ohmeda compatible quick connect type latch valve shown
- B. 3/8" (9.5 mm) Nominal (1/2" O.D.) (12.7 mm) type K copper inlet tube allows 360° swivel on outlet body for entry from any angle
- C. Inch (mm)
- D. Wall thickness 1/2" (12.7 mm) to 1" (12.5 mm)

ORDERING INFORMATION

Gas Service	Ohmeda Compatible	
	Cat No.	Qty
Oxygen	3811U-O	
Vacuum	3811U-V	
Medical Air	3811U-A	
Nitrous Oxide	3811E-2	
WAGD	3811U-W	
Carbon Dioxide	--	
Nitrogen	--	
Instrument Air	--	

MATERIAL

Latch Valve	Rough-in	Trim Plate
Aluminum	Stainless Steel	Aluminum+Coating
ABS Plastic	ABS Plastic	
Steel/Brass+Plating	Neoprene	
Stainless Steel	Steel+Plating	
Brass	Copper	
Neoprene		
Rubber		

Ordering Information shows a Complete Console Outlet, including a Rough-in Assembly and a Latch Valve Assembly. Trim plate is optional.

Note: US colors listed. For ISO 32 colors replace "U" with "E" in the above catalog numbers.

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FEATURES

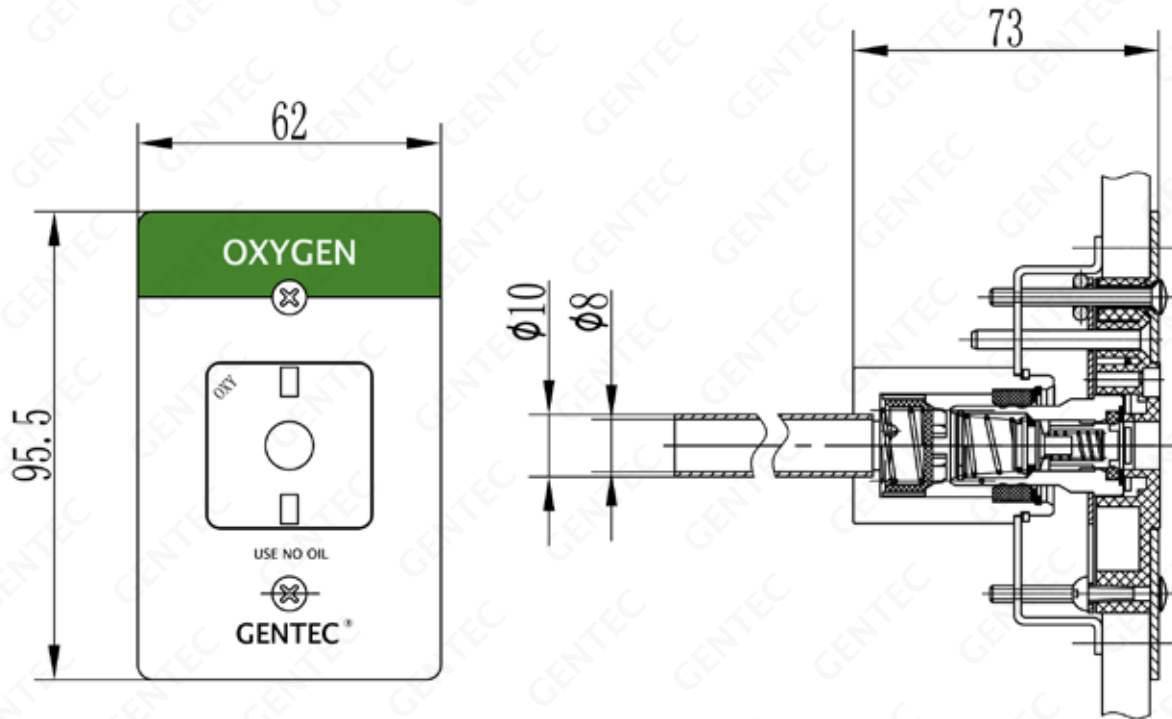
- Accepts Ohmeda[®], Chemetron[®] or Puritan-Bennett[®] quick connect and DISS gas specific adapters
- Indexed to prevent interchangeability of gas services
- Easy conversion of quick connection or DISS type latch valve assemblies
- 100% hydrostatically tested
- Complies with NFPA 99 and CGA G-4.1 standards
- UL Listed



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]). Console outlet shall be designed for concealed piping installation and available for gas services indicated.
- Outlets shall be delivered to the customer in a gas specific rough-in assembly, and a matching gas specific latch valve assembly, both cleaned for oxygen use and in sealed packages. Optional trim plates can be provided to trim each outlet assembly and allow latch valve to be individually removed for servicing.
- The latch valve assembly shall be Ohmeda, Chemetron or Puritan-Bennett quick connect compatible, or have Compressed Gas Association (CGA) Diameter Index Safety System (DISS) threaded connector, and accept only corresponding gas specific type adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services. Outlets can easily be converted from one adapter type to another by replacing the latch valve assembly with another of the same gas service.
- Universal rough-in assembly shall include a rough-in plate (16 ga.) and gas inlet tubing silver brazed at 180 degrees to the outlet body. Inlet tubing shall be type "K" copper, 1/2" (12.7 mm) OD, and extend 6-1/2 inches (165 mm).
- Rough-in assembly shall accept only the specified gas service by use of indexes. A dust plug shall be provided to protect rough-in assembly from contamination during handling and installation.
- Rough-in assemblies shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas piping system.
- All positive pressure gas outlets shall have a primary and secondary check valve, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL Listed.

DIMENSIONS



ORDERING INFORMATION

Gas Service	Cat No.	Ohmeda Compatible	
		Pipe	
Oxygen	3811U-O / 3811U-O-M	1/2" / $\phi 10$ real	
Vacuum	3811U-V / 3811U-V-M	1/2" / $\phi 10$ real	
Medical Air	3811U-A / 3811U-A-M	1/2" / $\phi 10$ real	
Nitrous Oxide	3811E-2 / 3811E-2-M	1/2" / $\phi 10$ real	
WAGD	3811U-W / 3811U-W-M	1/2" / $\phi 10$ real	

MATERIAL

Latch Valve	Rough-in	Trim Plate
Aluminum	Stainless Steel	ABS Plastic
ABS Plastic	ABS Plastic	
Steel/Brass+Plating	Neoprene	
Stainless Steel	Steel+Plating	
Brass	Copper	
Neoprene		
Rubber		



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FEATURES

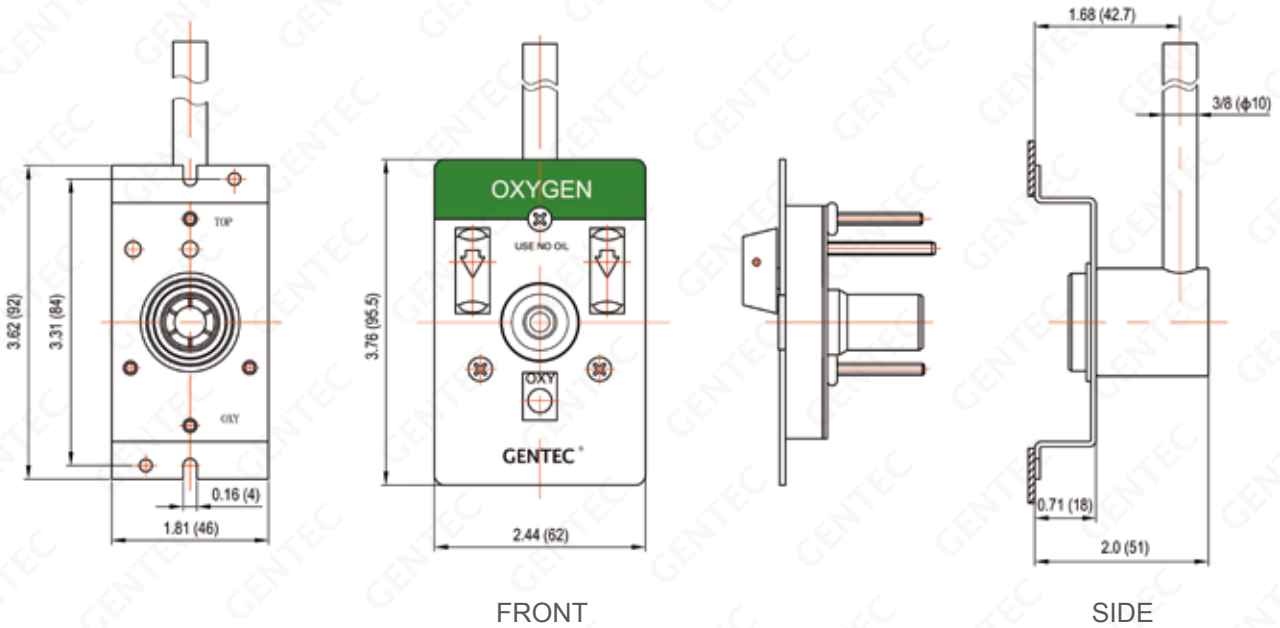
- Accepts only Chemetron style gas specific adapters
- Indexed to prevent interchangeability of gas services
- Easy conversion of quick connection or DISS type latch valve assemblies
- 360° swivel inlet tube for easy installation
- Cleaned for oxygen service
- 100% leak tested
- Complies with NFPA 99
- UL and CSA approved



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]) in an ISO 9001 and ISO 13485 certified facility. Console outlet shall be designed for concealed piping installation and available for gas services indicated.
- Outlets shall be delivered to the customer in a gas specific rough-in assembly, and a matching gas specific latch valve assembly, both cleaned for oxygen use in strict accordance with CGA G-4.1 and in sealed packages. Optional trim plates can be provided to trim each outlet assembly and allow latch valve to be individually removed for servicing.
- The latch valve assembly shall be Chemetron quick connect compatible, and accept only corresponding gas specific type adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services. Outlets can be easily converted from one adapter type to another by replacing the latch valve assembly with another of the same gas service.
- Universal rough-in assembly shall include a rough-in plate (16 ga.) with gas inlet tubing silver brazed to the outlet body. Inlet tubing shall be type "K" copper, 1/2" O.D. (12.7 mm), extend 6-1/2 inches (165 mm), and swivel 360° for ease of installation. Rough-in assembly shall accept only the specified gas service by use of indexes. A dust plug shall be provided to protect rough-in assembly from contamination during handling and installation.
- The rough-in assembly shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas piping system.
- All gas outlets shall have primary and secondary check valves, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL and CSA approved.

DIMENSIONS



Dimensional Data Notes:

- A. Ohmeda compatible quick connect type latch valve shown
- B. 3/8" (9.5 mm) Nominal (1/2" O.D.) (12.7 mm) type K copper inlet tube allows 360° swivel on outlet body for entry from any angle
- C. Inch (mm)
- D. Wall thickness 1/2" (12.7 mm) to 1" (12.5 mm)

ORDERING INFORMATION

Gas Service	Chemetron Compatible	
	Cat No.	Qty
Oxygen	3813U-O	
Vacuum	3813U-V	
Medical Air	3813U-A	
Nitrous Oxide	3813E-2	
WAGD	3813U-W	
Carbon Dioxide	--	
Nitrogen	--	
Instrument Air	--	

MATERIAL

Latch Valve	Rough-in	Trim Plate
Aluminum	Stainless Steel	Aluminum+Coating
ABS Plastic	ABS Plastic	
Steel/Brass+Plating	Neoprene	
Stainless Steel	Steel+Plating	
Brass	Copper	
Neoprene		
Rubber		

Ordering Information shows a Complete Console Outlet, including a Rough-in Assembly and a Latch Valve Assembly. Trim plate is optional.

Note: US colors listed. For ISO 32 colors replace "U" with "E" in the above catalog numbers.

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FEATURES

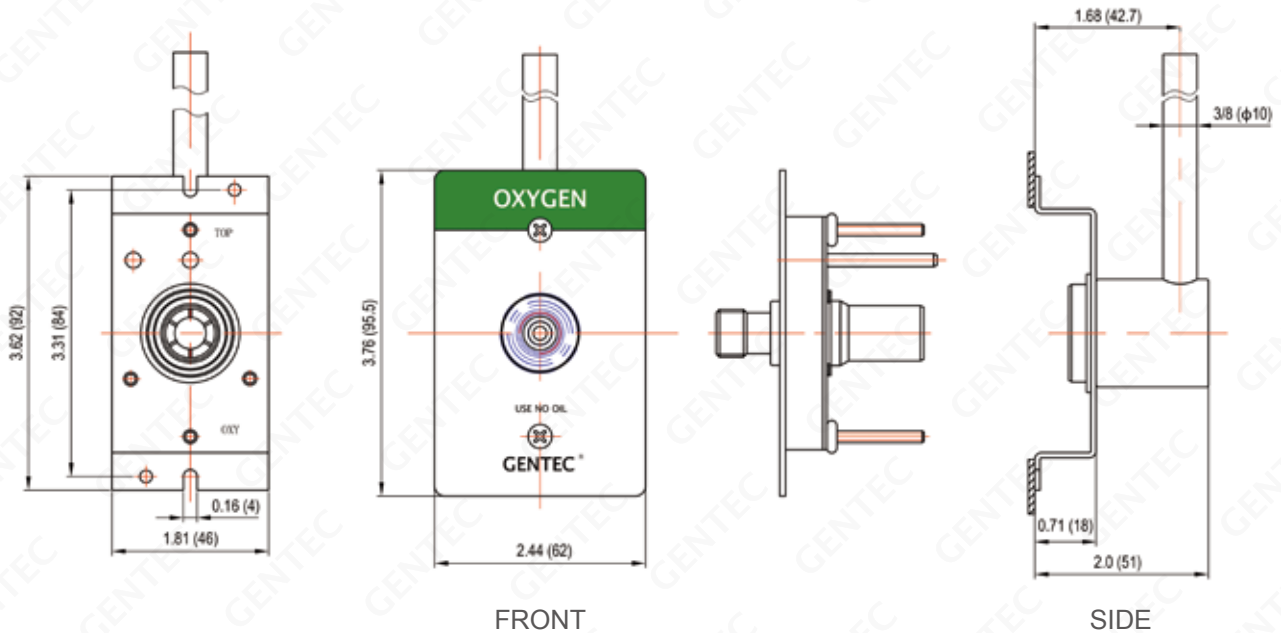
- Accepts only DISS style gas specific adapters
- Indexed to prevent interchangeability of gas services
- Easy conversion of quick connection or DISS type latch valve assemblies
- 360° swivel inlet tube for easy installation
- Cleaned for oxygen service
- 100% leak tested
- Complies with NFPA 99
- UL Listed



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]) in an ISO 9001 and ISO 13485 certified facility. Console outlet shall be designed for concealed piping installation and available for gas services indicated.
- Outlets shall be delivered to the customer in a gas specific rough-in assembly, and a matching gas specific latch valve assembly, both cleaned for oxygen use in strict accordance with CGA G-4.1 and in sealed packages. Optional trim plates can be provided to trim each outlet assembly and allow latch valve to be individually removed for servicing.
- The latch valve assembly have Compressed Gas Association (CGA) Diameter Index Safety System (DISS) threaded connector, and accept only corresponding gas specific type adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services. Outlets can be easily converted from one adapter type to another by replacing the latch valve assembly with another of the same gas service.
- Universal rough-in assembly shall include a rough-in plate (16 ga.) with gas inlet tubing silver brazed to the outlet body. Inlet tubing shall be type "K" copper, 1/2" O.D. (12.7 mm), extend 6-1/2 inches (165 mm), and swivel 360° for ease of installation. Rough-in assembly shall accept only the specified gas service by use of indexes. A dust plug shall be provided to protect rough-in assembly from contamination during handling and installation.
- The rough-in assembly shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas piping system.
- All gas outlets shall have primary and secondary check valves, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL and CSA approved.

DIMENSIONS



Dimensional Data Notes:

- A. Ohmeda compatible quick connect type latch valve shown
- B. 3/8" (9.5 mm) Nominal (1/2" O.D.) (12.7 mm) type K copper inlet tube allows 360° swivel on outlet body for entry from any angle
- C. Inch (mm)
- D. Wall thickness 1/2" (12.7 mm) to 1" (12.5 mm)

ORDERING INFORMATION

Gas Service	Cat No.	DISS Standard	
			Qty
Oxygen	3812U-O		
Vacuum	3812U-V		
Medical Air	3812U-A		
Nitrous Oxide	3812E-2		
WAGD	3812U-W		
Carbon Dioxide	3812E-C		
Nitrogen	3812E-N		
Instrument Air	3812U-1		

MATERIAL

Latch Valve	Rough-in	Trim Plate
Aluminum	Stainless Steel	Aluminum+Coating
ABS Plastic	ABS Plastic	
Steel/Brass+Plating	Neoprene	
Stainless Steel	Steel+Plating	
Brass	Copper	
Neoprene		
Rubber		

Ordering Information shows a Complete Console Outlet, including a Rough-in Assembly and a Latch Valve Assembly. Trim plate is optional.

Note: US colors listed. For ISO 32 colors replace "U" with "E" in the above catalog numbers.

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MEDICAL GAS CONSOLE OUTLET PURITAN-BENNETT® COMPATIBLE 90° TUBING

FEATURES

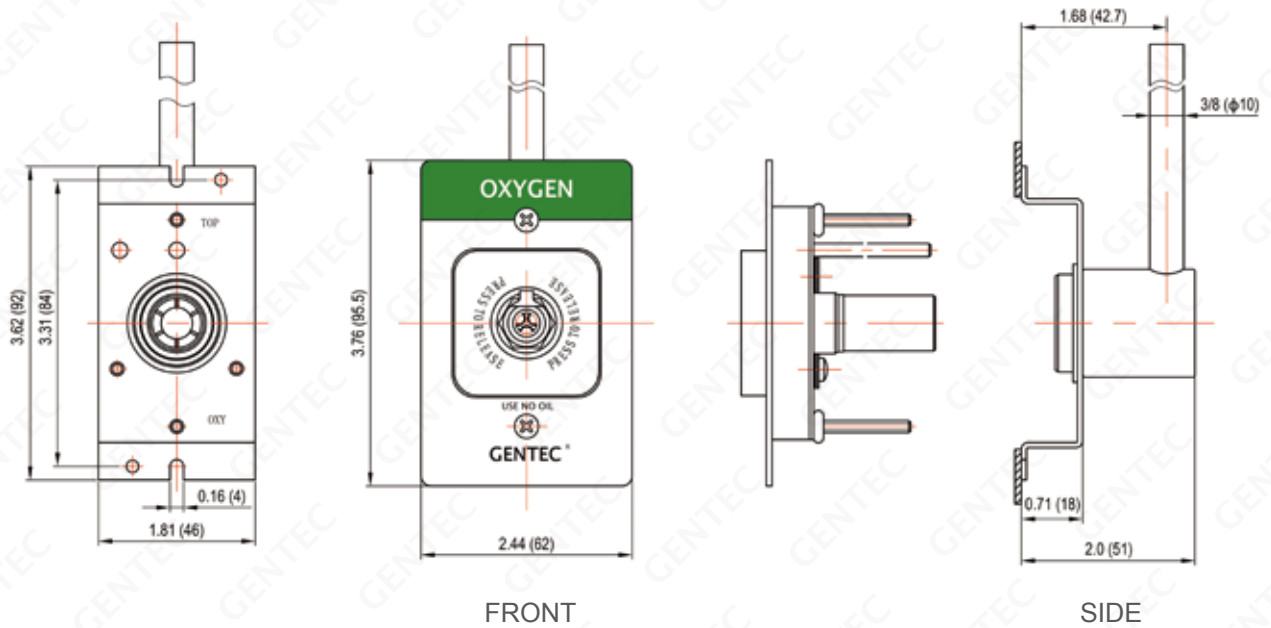
- Accepts only Puritan-Bennett style gas specific adapters
- Indexed to prevent interchangeability of gas services
- Easy conversion of quick connection or DISS type latch valve assemblies
- 360° swivel inlet tube for easy installation
- Cleaned for oxygen service
- 100% leak tested
- Complies with NFPA 99
- UL and CSA approved



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC®) in an ISO 9001 and ISO 13485 certified facility. Console outlet shall be designed for concealed piping installation and available for gas services indicated.
- Outlets shall be delivered to the customer in a gas specific rough-in assembly, and a matching gas specific latch valve assembly, both cleaned for oxygen use in strict accordance with CGA G-4.1 and in sealed packages. Optional trim plates can be provided to trim each outlet assembly and allow latch valve to be individually removed for servicing.
- The latch valve assembly shall be Puritan-Bennett quick connect compatible, and accept only corresponding gas specific type adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services. Outlets can be easily converted from one adapter type to another by replacing the latch valve assembly with another of the same gas service.
- Universal rough-in assembly shall include a rough-in plate (16 ga.) with gas inlet tubing silver brazed to the outlet body. Inlet tubing shall be type "K" copper, 1/2" O.D. (12.7 mm), extend 6-1/2 inches (165 mm), and swivel 360° for ease of installation. Rough-in assembly shall accept only the specified gas service by use of indexes. A dust plug shall be provided to protect rough-in assembly from contamination during handling and installation.
- The rough-in assembly shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas piping system.
- All gas outlets shall have primary and secondary check valves, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL and CSA approved.

DIMENSIONS



Dimensional Data Notes:

- A. Ohmeda compatible quick connect type latch valve shown
- B. 3/8" (9.5 mm) Nominal (1/2" O.D.) (12.7 mm) type K copper inlet tube allows 360° swivel on outlet body for entry from any angle
- C. Inch (mm)
- D. Wall thickness 1/2" (12.7 mm) to 1" (12.5 mm)

ORDERING INFORMATION

Gas Service	Puritan-Bennett Compatible	
	Cat No.	Qty
Oxygen	3814U-O	
Vacuum	3814U-V	
Medical Air	3814U-A	
Nitrous Oxide	3814E-2	
WAGD	3814U-W	
Carbon Dioxide	--	
Nitrogen	--	
Instrument Air	--	

MATERIAL

Latch Valve	Rough-in	Trim Plate
Aluminum	Stainless Steel	Aluminum+Coating
ABS Plastic	ABS Plastic	
Steel/Brass+Plating	Neoprene	
Stainless Steel	Steel+Plating	
Brass	Copper	
Neoprene		
Rubber		

Ordering Information shows a Complete Console Outlet, including a Rough-in Assembly and a Latch Valve Assembly. Trim plate is optional.

Note: US colors listed. For ISO 32 colors replace "U" with "E" in the above catalog numbers.

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FEATURES

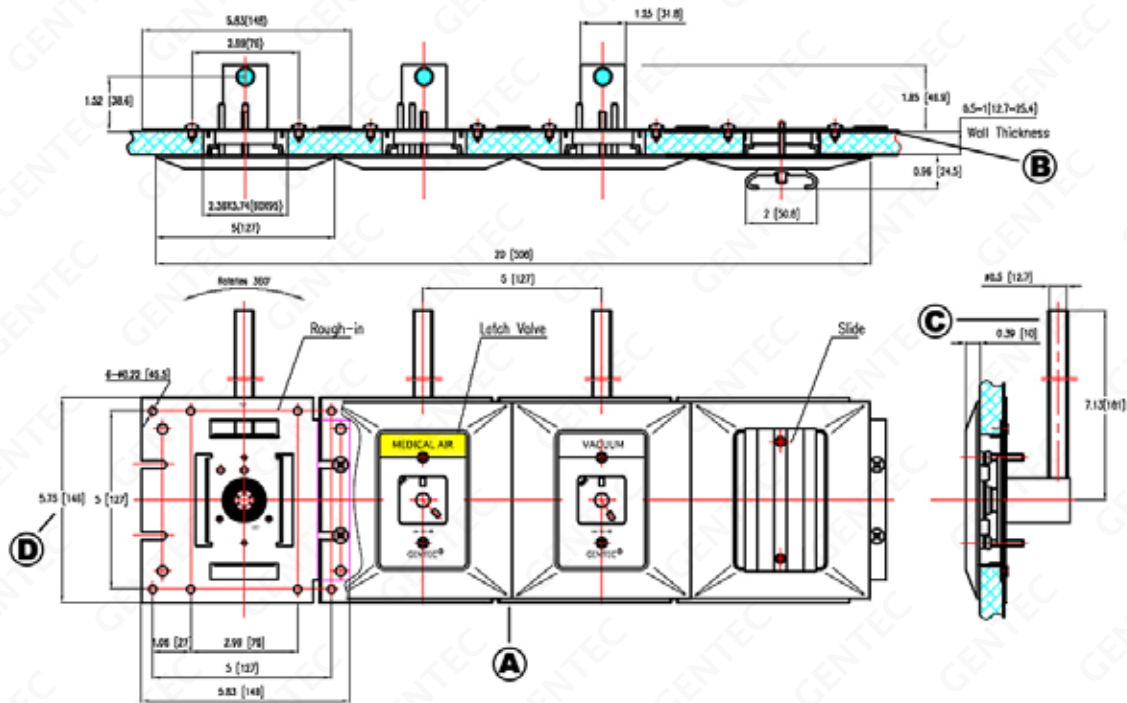
- Accepts only Ohmeda gas specific adapters
- Indexed to prevent interchangeability of gas services
- Universal rough-in accepts quick connection (Chemetron[®], Ohmeda[®], Puritan-Bennett[®]) or DISS latch valve assemblies
- Modular design capability
- 100% hydrostatically tested
- Complies with NFPA 99 and CGA G-4.1 standards
- UL Listed



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]). Wall outlet shall be designed for concealed piping installation and available for services indicated.
- The latch valve assembly shall be Ohmeda quick connect compatible and accept only gas specific Ohmeda type quick connect adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services and shall adjust up to 1" for variations in wall thickness.
- Universal rough-in assembly shall include the wall rough-in plate (16 ga.) with inlet tubing silver brazed to the outlet body. Inlet tubing shall be type "K" copper, 1/2" (12.7 mm) OD, extend 6-1/2 inches (165 mm), and swivel 360° for ease of installation. Rough-in assembly shall accept only the specified gas service by use of indexes. Rough-in assembly shall be of modular design to permit on-site ganging of multiple outlets with assurance of accurate alignment and providing 5" centerline spacing. A dust plug and cover shall be provided to protect rough-in assembly from contamination during handling and installation at the job site.
- Rough-in assemblies shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas system.
- All positive pressure gas outlets shall have a primary and secondary check valve, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- Complete outlet shall be delivered to the customer in a gas specific rough-in assembly, a matching gas specific latch valve assembly, both cleaned for oxygen use and in a sealed package, and a trim plate. All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL Listed.

DIMENSIONS



Dimensional Data Notes:

- A. Additional support needed if ganging more than 3 outlets
- B. Wall thickness may vary from 1/2" to 1" (12.7mm to 25.4mm).
- C. 1/2" O.D. (3/8" Nominal) type K copper inlet tube allows 360° swivel on outlet body for entry from any angle.
- D. Inch (mm)

ORDERING INFORMATION

Gas Service	Ohmeda Compatible	
	Cat No.	Qty
Oxygen	3821U-O	
Vacuum	3821U-V	
Medical Air	3821U-A	
Nitrous Oxide	3821E-2	
WAGD	3821U-W	
Slide	3820-SLD	

MATERIAL

Latch Valve	Rough-in	Trim Plate
Aluminum	Stainless Steel	Cast Aluminum
ABS Plastic	ABS Plastic	Powder Coating
Steel/Brass+Plating	Neoprene	
Stainless Steel	Steel+Plating	
Brass	Copper	
Neoprene		
Rubber		

Ordering Information for Complete Wall Outlets (Includes Rough-in, Trim Plate and Latch Valve Assembly)

Note: US colors listed. For ISO 32 colors replace "U" with "E" in the above catalog numbers.

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FEATURES

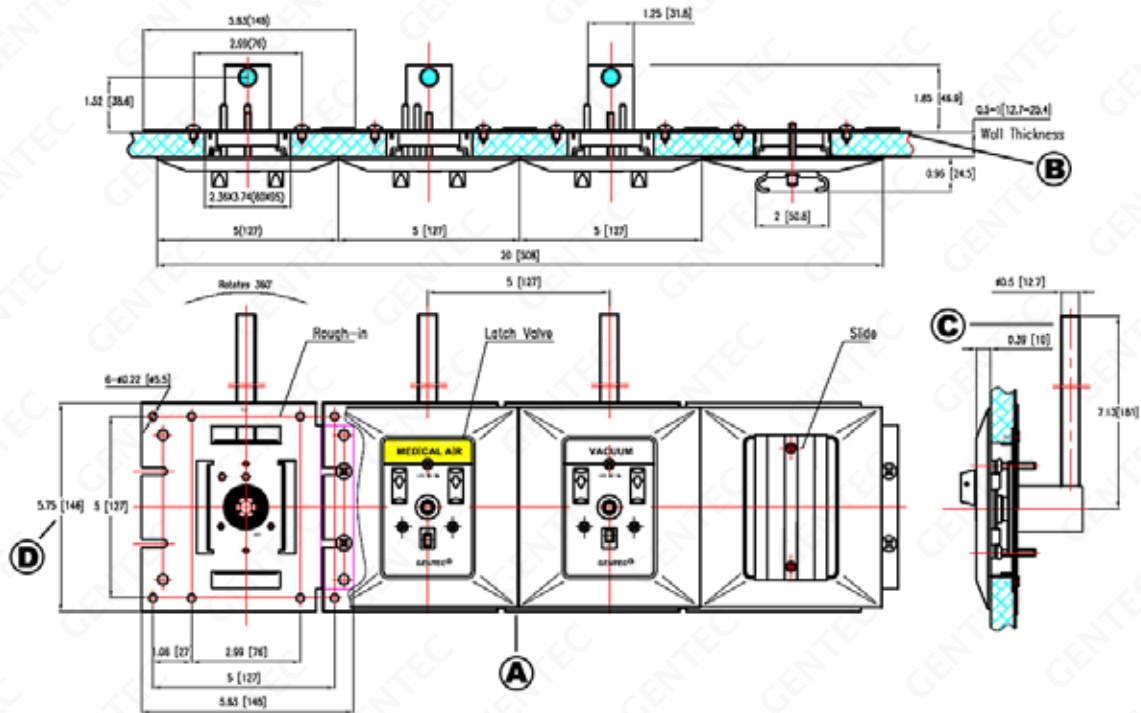
- Accepts only Chemetron gas specific adapters
- Indexed to prevent interchangeability of gas services
- Universal rough-in accepts quick connection (Chemetron[®], Ohmeda[®], Puritan-Bennett[®]) or DISS latch valve assemblies
- Modular design capability
- 100% hydrostatically tested
- Complies with NFPA 99 and CGA G-4.1 standards
- UL Listed



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]). Wall outlet shall be designed for concealed piping installation and available for services indicated.
- The latch valve assembly shall be Chemetron quick connect compatible and accept only gas specific Chemetron type quick connect adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services and shall adjust up to 1" for variations in wall thickness.
- Universal rough-in assembly shall include the wall rough-in plate (16 ga.) with inlet tubing silver brazed to the outlet body. Inlet tubing shall be type "K" copper, 1/2" (12.7 mm) OD, extend 6-1/2 inches (165 mm), and swivel 360° for ease of installation. Rough-in assembly shall accept only the specified gas service by use of indexes. Rough-in assembly shall be of modular design to permit on-site ganging of multiple outlets with assurance of accurate alignment and providing 5" centerline spacing. A dust plug and cover shall be provided to protect rough-in assembly from contamination during handling and installation at the job site.
- Rough-in assemblies shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas system.
- All positive pressure gas outlets shall have a primary and secondary check valve, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- Complete outlet shall be delivered to the customer in a gas specific rough-in assembly, a matching gas specific latch valve assembly, both cleaned for oxygen use and in a sealed package, and a trim plate. All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL Listed.

DIMENSIONS



Dimensional Data Notes:

- A. Additional support needed if ganging more than 3 outlets
- B. Wall thickness may vary from 1/2" to 1" (12.7mm to 25.4mm).
- C. 1/2" O.D. (3/8" Nominal) type K copper inlet tube allows 360° swivel on outlet body for entry from any angle.
- D. Inch (mm)

ORDERING INFORMATION

Gas Service	Chemetron Compatible	
	Cat No.	Qty
Oxygen	3823U-O	
Vacuum	3823U-V	
Medical Air	3823U-A	
Nitrous Oxide	3823E-2	
WAGD	3823U-W	
Slide	3820-SLD	

MATERIAL

Latch Valve	Rough-in	Trim Plate
Aluminum	Stainless Steel	Cast Aluminum
ABS Plastic	ABS Plastic	Powder Coating
Steel/Brass+Plating	Neoprene	
Stainless Steel	Steel+Plating	
Brass	Copper	
Neoprene		
Rubber		

Ordering Information for Complete Wall Outlets (Includes Latch Valve Assembly, Trim Plate and Rough-in Assembly)

Note: US colors listed. For ISO 32 colors replace "U" with "E" in the above catalog numbers.

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MEDICAL GAS WALL OUTLET DISS (Diameter Index Safety System)

FEATURES

- Accepts only DISS gas specific adapters
- Indexed to prevent interchangeability of gas services
- Universal rough-in accepts quick connection (Chemetron[®], Ohmeda[®], Puritan-Bennett[®]) or DISS latch valve assemblies
- Modular design capability
- 100% hydrostatically tested
- Complies with NFPA 99 and CGA G-4.1 standards
- UL Listed



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]). Wall outlet shall be designed for concealed piping installation and available for services indicated.
- The latch valve assembly shall be Compressed Gas Association (CGA) Diameter Index Safety System (DISS) threaded connectors and accept only corresponding gas specific type nut and nipple adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services and shall adjust up to 1" for variations in wall thickness.
- Universal rough-in assembly shall include the wall rough-in plate (16 ga.) with inlet tubing silver brazed to the outlet body. Inlet tubing shall be type "K" copper, 1/2" (12.7 mm) OD, extend 6-1/2 inches (165 mm), and swivel 360° for ease of installation. Rough-in assembly shall accept only the specified gas service by use of indexes. Rough-in assembly shall be of modular design to permit on-site ganging of multiple outlets with assurance of accurate alignment and providing 5" centerline spacing. A dust plug and cover shall be provided to protect rough-in assembly from contamination during handling and installation at the job site.
- Rough-in assemblies shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas piping system.
- All positive pressure gas outlets shall have a primary and secondary check valve, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- Complete outlet shall be delivered to the customer in a gas specific rough-in assembly, a matching gas specific latch valve assembly, both cleaned for oxygen use and in a sealed package, and a trim plate. All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL Listed.

FEATURES

- Accepts only Puritan-Bennett gas specific adapters
- Indexed to prevent interchangeability of gas services
- Universal rough-in accepts quick connection (Chemetron[®], Ohmeda[®], Puritan-Bennett[®]) or DISS latch valve assemblies
- Modular design capability
- 100% hydrostatically tested
- Complies with NFPA 99 and CGA G-4.1 standards
- UL Listed



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]). Wall outlet shall be designed for concealed piping installation and available for services indicated.
- The latch valve assembly shall be Puritan-Bennett quick connect compatible and accept only gas specific Puritan-Bennett type quick connect adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services and shall adjust up to 1" for variations in wall thickness.
- Universal rough-in assembly shall include the wall rough-in plate (16 ga.) with inlet tubing silver brazed to the outlet body. Inlet tubing shall be type "K" copper, 1/2" (12.7 mm) OD, extend 6-1/2 inches (165 mm), and swivel 360° for ease of installation. Rough-in assembly shall accept only the specified gas service by use of indexes. Rough-in assembly shall be of modular design to permit on-site ganging of multiple outlets with assurance of accurate alignment and providing 5" centerline spacing. A dust plug and cover shall be provided to protect rough-in assembly from contamination during handling and installation at the job site.
- Rough-in assemblies shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas system.
- All positive pressure gas outlets shall have a primary and secondary check valve, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- Complete outlet shall be delivered to the customer in a gas specific rough-in assembly, a matching gas specific latch valve assembly, both cleaned for oxygen use and in a sealed package, and a trim plate. All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL Listed.

FEATURES

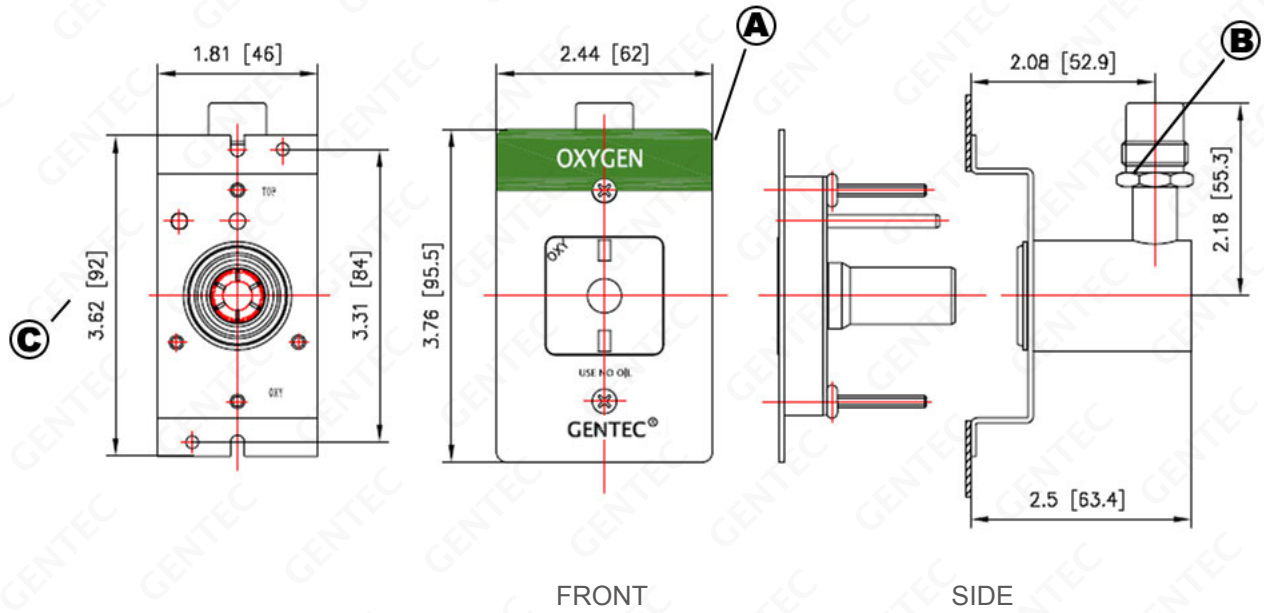
- Accepts Ohmeda[®], Chemetron[®] or Puritan-Bennett[®] quick connect and DISS gas specific adapters
- Indexed to prevent interchangeability of gas services
- Easy conversion of quick connection or DISS type latch valve assemblies
- 360° swivel inlet for easy installation
- Cleaned for oxygen service
- 100% hydrostatically tested
- Complies with NFPA 99 and CGA G-4.1 standards
- UL Listed



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]). Console outlet shall be designed for concealed piping installation and available for gas services indicated.
- Outlets shall be delivered to the customer in a gas specific rough-in assembly, and a matching gas specific latch valve assembly, both cleaned for oxygen use and in sealed packages. Optional trim plates can be provided to trim each outlet assembly and allow latch valve to be individually removed for servicing.
- The latch valve assembly shall be Ohmeda, Chemetron or Puritan-Bennett quick connect compatible, or have Compressed Gas Association (CGA) Diameter Index Safety System (DISS) threaded connector, and accept only corresponding gas specific type adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services. Outlets can easily be converted from one adapter type to another by replacing the latch valve assembly with another of the same gas service.
- Universal rough-in assembly shall include a rough-in plate (16 ga.) and gas inlet silver brazed to the outlet body. Inlet shall be a gas specific DISS connection extending 1-1/2 inches (38 mm), and swivel 360° for ease of installation.
- Rough-in assemblies shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas piping system.
- All positive pressure gas outlets shall have a primary and secondary check valve, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL Listed.

DIMENSIONS



Dimensional Data Notes:

- A. Ohmeda compatible quick connect type latch valve shown
- B. DISS connection inlet allows 360° swivel on outlet body for entry from any angle
- C. Inch (mm)

ORDERING INFORMATION

Gas Service	Ohmeda Compatible		DISS Standard		Chemetron Compatible		Puritan-Bennett Compatible		Rough-in Only	
	Cat No.	Qty	Cat No.	Qty	Cat No.	Qty	Cat No.	Qty	Cat No.	Qty
Oxygen	3851U-O		3852U-O		3853U-O		3854U-O		3850U-O	
Vacuum	3851U-V		3852U-V		3853U-V		3854U-V		3850U-V	
Medical Air	3851U-A		3852U-A		3853U-A		3854U-A		3850U-A	
Nitrous Oxide	3851E-2		3852E-2		3853E-2		3854E-2		3850E-2	
WAGD	3851U-W		3852U-W		3853U-W		3854U-W		3850U-W	
Carbon Dioxide	--		3852E-C		--		--		3850E-C	
Nitrogen	--		3852E-N		--		--		3850E-N	
Instrument Air	--		3852U-I		--		--		3850U-I	
Trim Plate	3900A-11	>	>	>	>	>	>	Total Qty Required:		

MATERIAL

Latch Valve

Aluminum
 ABS Plastic
 Steel/Brass+Plating
 Stainless Steel
 Brass
 Neoprene
 Rubber

Rough-in

Stainless Steel
 ABS Plastic
 Neoprene
 Steel+Plating
 Copper

Trim Plate

Aluminum+Coating

Ordering Information shows a Complete Console Outlet, including a Rough-in Assembly and a Latch Valve Assembly. Trim plate is optional.

Note: US colors listed. For ISO 32 colors replace "U" with "E" in the above catalog numbers.

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FEATURES

- Accepts Ohmeda[®], Chemetron[®] or Puritan-Bennett[®] quick connect and DISS gas specific adapters
- Indexed to prevent interchangeability of gas services
- Easy conversion of quick connection or DISS type latch valve assemblies
- 360° swivel inlet for easy installation
- Cleaned for oxygen service
- 100% hydrostatically tested
- Complies with NFPA 99 and CGA G-4.1 standards
- UL Listed



SPECIFICATIONS

- Medical gas outlet(s) shall be manufactured by Genstar Technologies Co., Inc. (GENTEC[®]). Console outlet shall be designed for concealed piping installation and available for gas services indicated.
- Outlets shall be delivered to the customer in a gas specific rough-in assembly, and a matching gas specific latch valve assembly, both cleaned for oxygen use and in sealed packages. Optional trim plates can be provided to trim each outlet assembly and allow latch valve to be individually removed for servicing.
- The latch valve assembly shall be Ohmeda, Chemetron or Puritan-Bennett quick connect compatible, or have Compressed Gas Association (CGA) Diameter Index Safety System (DISS) threaded connector, and accept only corresponding gas specific type adapters. Each latch valve assembly shall be color-coded for ease of gas identification per the appropriate standards (US or ISO). Latch valve assemblies shall have gas specific pin indexing corresponding to the rough-in assembly to prevent interchangeability of gas services. Outlets can easily be converted from one adapter type to another by replacing the latch valve assembly with another of the same gas service.
- Universal rough-in assembly shall include a rough-in plate (16 ga.) and gas inlet silver brazed to the outlet body. Inlet shall be a hose barb fitting extending 1-1/4 inches (32 mm), and swivel 360° for ease of installation. Rough-in assembly shall accept only the specified gas service by use of indexes. A dust plug shall be provided to protect rough-in assembly from contamination during handling and installation.
- Rough-in assemblies shall accept any latch valve assembly of the same gas service. The latch valve assembly shall be interchangeable, allowing conversion from one connection style to another without shutting down the medical gas piping system.
- All positive pressure gas outlets shall have a primary and secondary check valve, where the secondary valve in the rough-in assembly allows servicing of the latch valve assembly without having to disrupt gas service to the outlet.
- All assemblies shall be 100% tested for leaks, manufactured to comply with the latest edition of NFPA 99, and UL Listed.

SLIDE BRACKET WALL AND CONSOLE



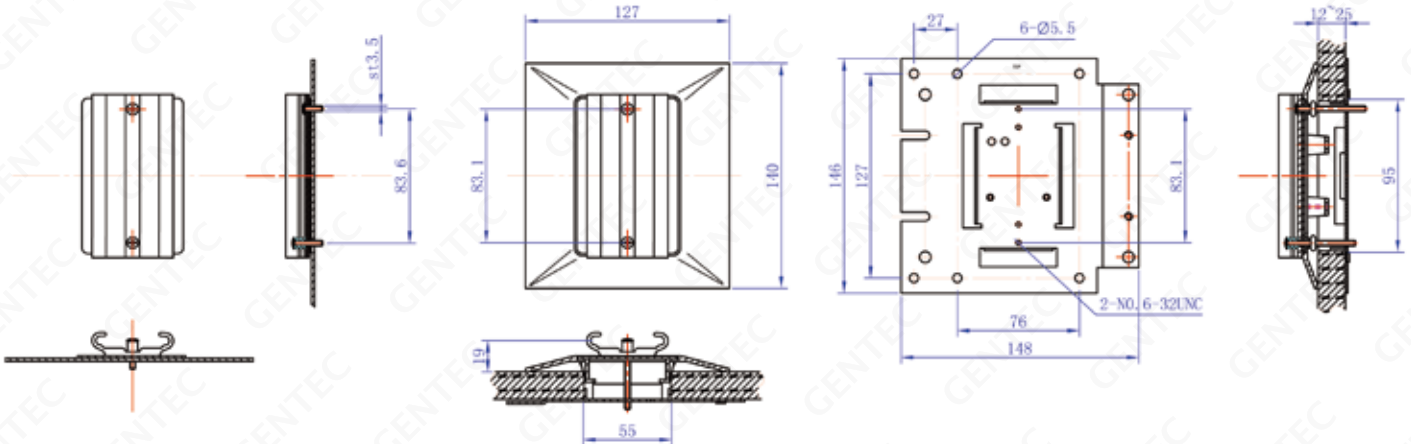
FEATURES

- For use on all surfaces
- Fits reusable and disposable bottle brackets

ORDERING INFORMATION

MODEL	DESCRIPTION
3910-Sld	Slide Bracket for Console
3820-Sld	Slide Bracket for Wall

DIMENSIONS units in millimeter(s)



ASSEMBLY CHART



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British Standard



Japanese Standard



French Standard



German Standard

FEATURES

- Color-coded for easy gas service identification according to ISO 32
- Pressure Lid can be disassembled during maintenance
- Multiple assembly methods
- 100% tested and individually packaged
- French Standard is compliant with ISO 9170-1 and NFS 90 116
- German Standard is CE listed and compliant with ISO 9170-1 and DIN 13620-2
- British Standard is CE listed and compliant with HTM 02-01, ISO 9170-1 and BS 5682-1998
- Japanese Standard is compliant with ISO 9170-1 and JIST 7101

SPECIFICATIONS

GENTEC® gas outlets are designed for delivery of medical gas from a central pipeline system. These outlets are 100% individually tested for leaks to ensure safety. The outlets fulfill ISO 9170-1 and are manufactured in an ISO 9001:2000 and ISO 13485 certified manufacturing facility.



The Inlet Pipe

- The swivel design allows the inlet pipe to be installed in six directions for ease of installation
- Multiple connections available: 90° copper tubing, 180° copper tubing, 90° flexible connection, 180° flexible connection, 90° VCR connection

Body

- Durable high quality forged brass body
- The sealing ring can be replaced without interrupting gas service to other outlets
- Body is compatible with previous model pressure lid

Gas Service Indication Ring

- Uses ISO 32 color code for differentiating gas service
- Durable and conspicuous

Pressure Lid

- Manufactured from high quality aluminum alloy
- Anodized to protect against oxidation and corrosion



Base Block

- High quality forged brass



Surface Mount

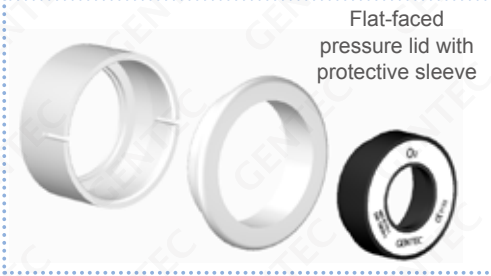


Flush Mount



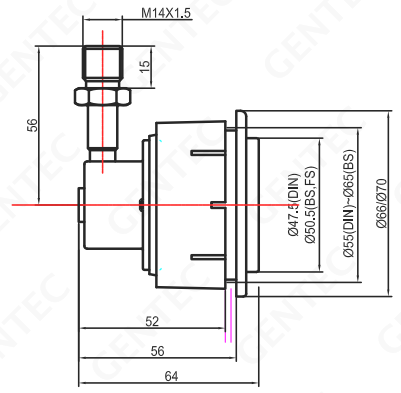
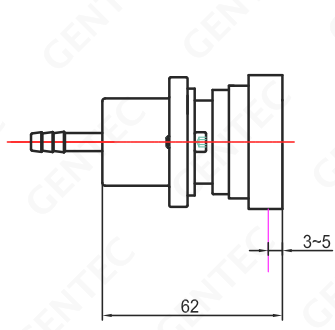
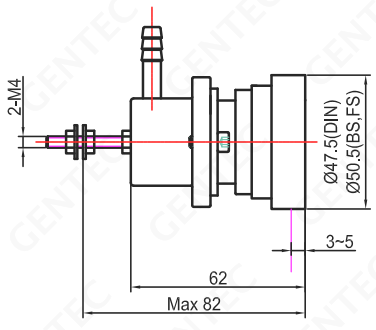
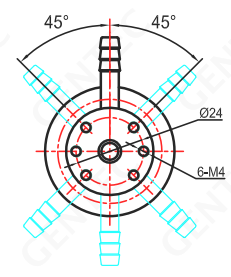
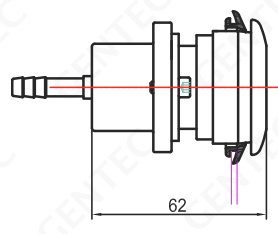
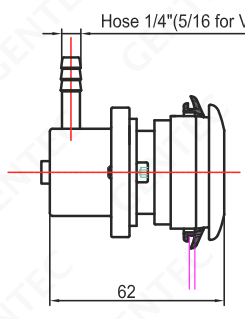
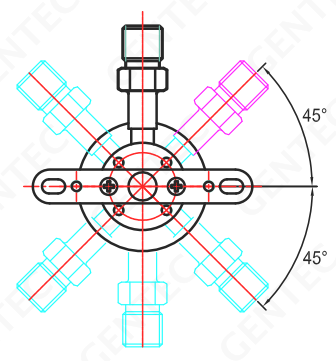
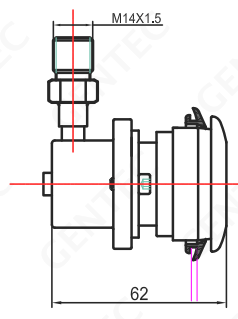
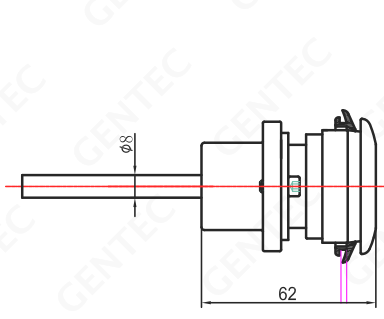
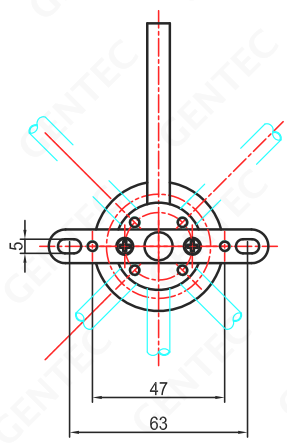
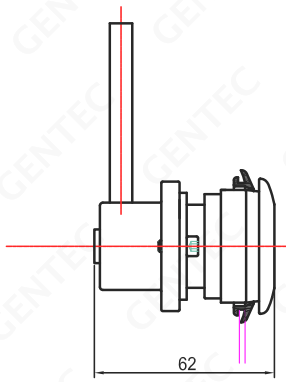
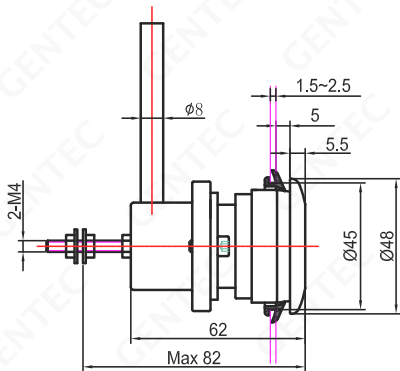
Installation Bracket

CONFIGURATION



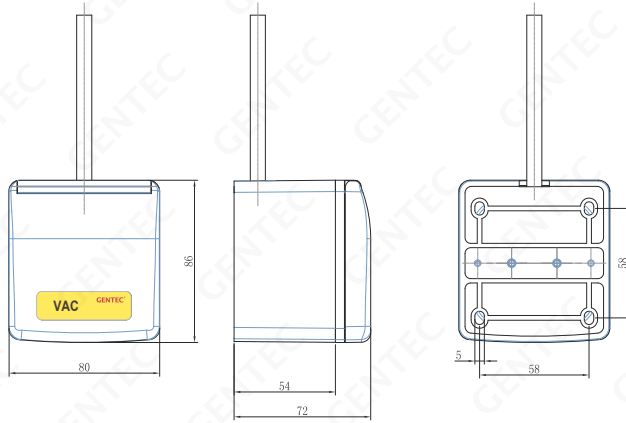
Please choose the base block, socket, pressure lid to meet your requirement(s)

DIMENSIONS units in millimeter(s)

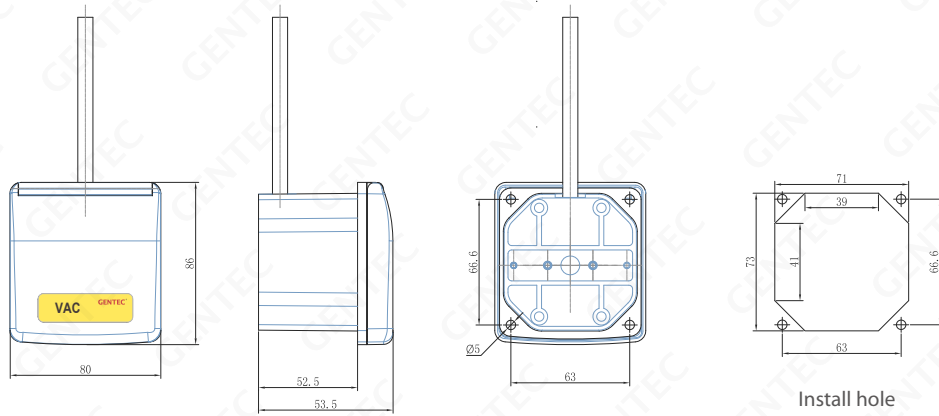


DIMENSIONS units in millimeter(s)

Surface Mount



Flush Mount



REPAIR SCHEMATICS



1. Pull the pressure lid off



2. Loosen the two retaining bolts 2-3 mm



3. Pull out the body at an angle



4. Replace the sealing ring without disassembling the panel mount

ORDERING INFORMATION

38	1	6	-	V	-	S	P 0 8	-	S
Series	Installation	Type		Gas Service		Inlet direction	Connection		Lid Options
	1: Console	5: FSO		O: Oxygen		S: 90°	P08: Straight, O.D. of 8mm		SN: Round-faced pressure lid
	2: Surface mount	6: GSO		V: Vacuum		R: 180°	P10: Straight, O.D. of 10mm		S: Round-faced pressure lid
	3: Flush mount	7: BSO		A: Air (400 kPa)			P12: Straight, O.D. of 12mm		with panel and protective
	4: Installation	8: JSO		2: N ₂ O			HB4: Flexible hose: 1/4"		cover
	bracket			C: CO ₂			HB5: Flexible hose: 5/16"		P: Flat-faced pressure lid
				N: N ₂			M14: Threading M14 X 1.5VCR		with protective sleeve
				MA7: Air (800 kPa)					PN: Flat-faced pressure lid
									P1: Flat-faced pressure lid
									with panel and protective
									cover
									P2: Flat-faced pressure lid
									with panel



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