

Cryogenic Vessel Shut-off Valve

Type: MG97 - C&M



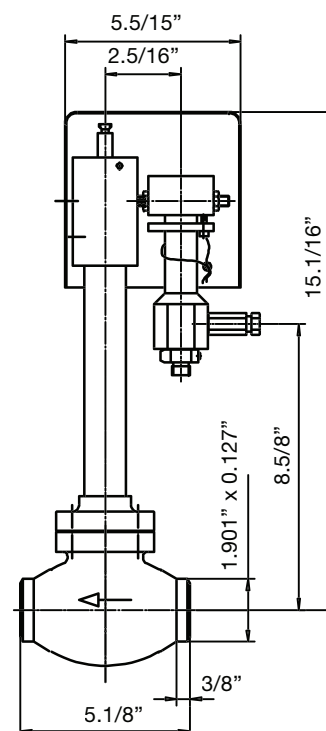
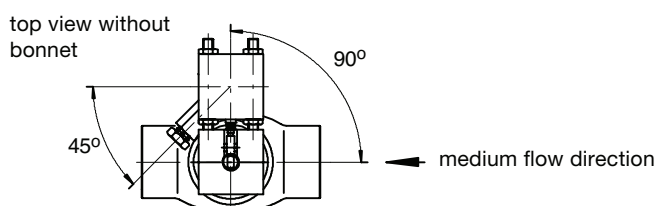
MG-97 valves are cryogenic valves with a spring loaded release sensor, housed under the stainless steel protection cap. The release unit keeps the valve in the open position at all times unless the sensor is tripped closed on seeing a pressure higher than the Cryoguard set pressure.

PART NUMBERS

MG-97-C-40-BW-ALOK	Stainless steel MG97 1.1/2" BW c/w ALOK sensor
MG-97-M-40-BW-ALOK	Stainless steel MG97 MegaPure 1.1/2" BW c/w ALOK sensor
MG-97-C-40-FL300-ALOK	Stainless steel MG97 1.1/2" Flanged ANSI300 c/w ALOK sensor

SPECIFICATION

Size:	1.1/2" (DN40)		
Valve Pressure Rating:	1,160psi (80bar)		
Set Sensor Pressure Range:	Between 30 to 580psi (2 to 40bar)		
Temperature Range:	-320 to 122°F (-196 to +50 °C)		
Cleaning:	Supplied cleaned for oxygen use.		
Connections:	1.901" x 0.127" butt weld end to DN402821 Option - Flanged ANSI 300		
Approved Mediums:	Oxygen (O ₂), Nitrogen (N ₂), Argon (Ar), Carbon Dioxide (CO ₂), Nitrous oxide (N ₂ O), Methane (CH ₄), Ethylene (C ₂ H ₄)		
Materials:	Body	Bonnet	Sensor
MG-97 C	A351 CF8	A276 304	brass
MG-97M	A351 CF8*	A276 304*	brass
	*Ultra-Pure Version		
Closing Time:	≤ 30 ms		
Valve Cv / Kv	33 gal/min (28m³/hr)		
Weight:	14lbs (6.4kg)		



NOTE: The valves must only be opened using the re-setting tool Type MG97-RT (see separate data sheet)

Cryogenic Vessel Shut-off Valve

Type: MG97-U



MG-97 CRYOGUARD valves are cryogenic valves with a spring loaded release sensor, housed under the stainless steel protection cap.

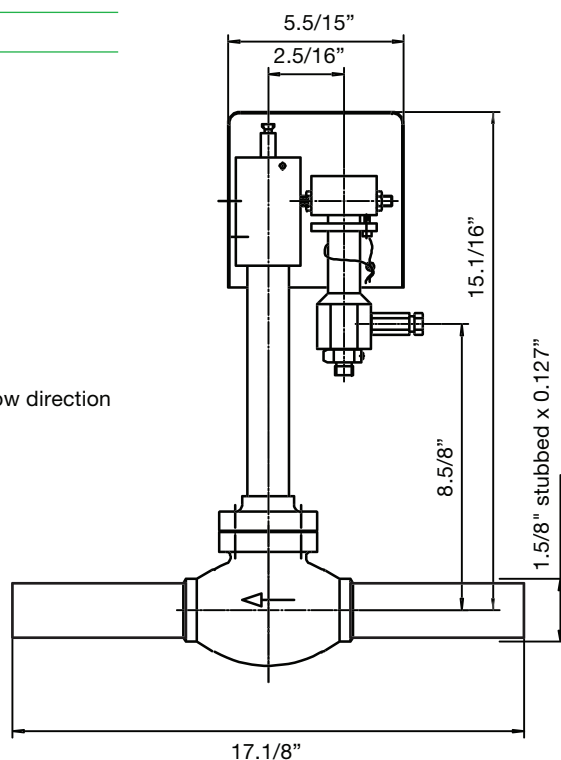
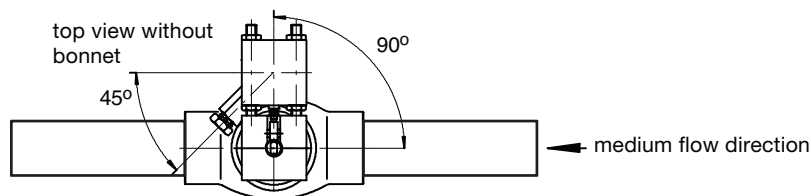
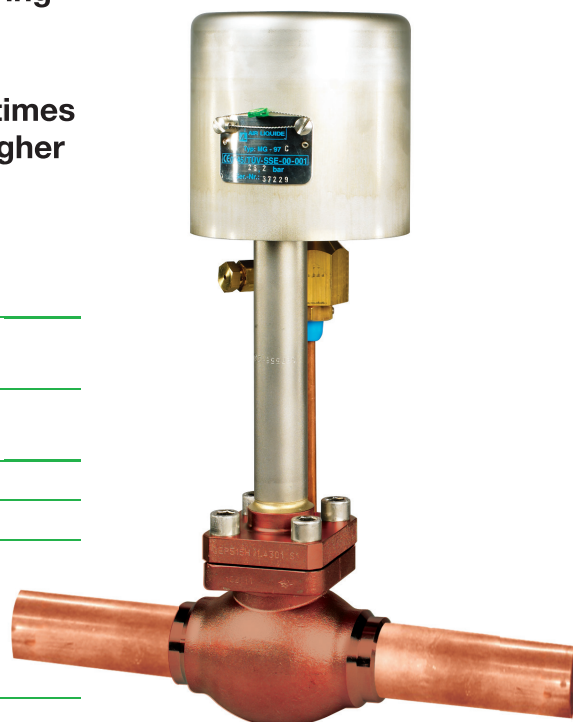
The release unit keeps the valve in the open position at all times unless the sensor is tripped closed on seeing a pressure higher than the valve set pressure.

PART NUMBERS

MG-97-U-40-CS-AL Bronze MG97 1.5/8" copper stubbed c/w ALOK sensor

SPECIFICATION

Size:	1.1/2" (DN40)						
Valve Pressure Rating:	580psi (40bar)						
Set Sensor Pressure Range:	Between 30 to 580psi (2 to 40bar)						
Temperature Range:	-320 to 122°F (-196 to +50 °C)						
Cleaning:	Supplied cleaned for oxygen use.						
Connections:	1.5/8" copper stubbed						
Approved Mediums:	Oxygen (O ₂), Nitrogen (N ₂), Argon (Ar), Carbon Dioxide (CO ₂), Nitrous oxide (N ₂ O)						
Materials:	<table border="0"> <tr> <td>Body</td> <td>Bonnet</td> <td>Sensor</td> </tr> <tr> <td>B62 UNS C83600</td> <td>B505 UNS C93200</td> <td>Brass</td> </tr> </table>	Body	Bonnet	Sensor	B62 UNS C83600	B505 UNS C93200	Brass
Body	Bonnet	Sensor					
B62 UNS C83600	B505 UNS C93200	Brass					
Closing Time:	≤ 30 ms						
Valve Cv / Kv	33 gal/min (28m ³ /hr)						
Weight:	15.2lbs (6.9kg)						



NOTE: The valves must only be opened using the re-setting tool Type MG97-RT (see separate data sheet)

Cryogenic Vessel Shut-off Valve

Type: MG97-P-SE & MT (European)



MG-97 CRYOGUARD valves are cryogenic valves with a spring loaded release sensor, housed under the stainless steel protection cap.

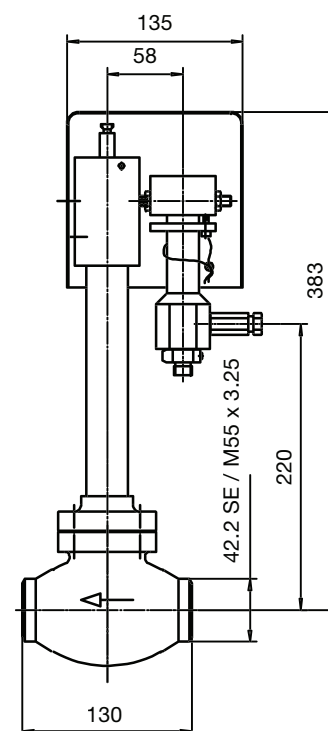
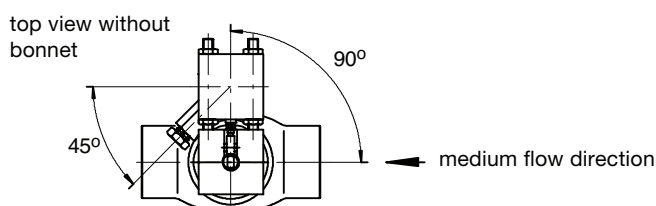
The release unit keeps the valve in the open position at all times unless the sensor is tripped closed on seeing a pressure higher than the valve set pressure.

PART NUMBERS

MG-97-P-40-SE42	Bronze DN40 MG97 socket end 42.2mm c/w $\varnothing 8$ sensor fitting
MG-97-P-40-MT55	Bronze DN40 MG97 male threaded M55 x 2 c/w $\varnothing 8$ sensor fitting

SPECIFICATION

Size:	DN40		
Valve Pressure Rating:	40.0 bar		
Set Sensor Pressure Range:	Between 2 to 40bar		
Temperature Range:	-196 to +50 °C		
Cleaning:	Supplied cleaned for oxygen use.		
Valve Connections:	SE - 42.2mm socket end MT OPTION - M55 male threaded		
Sensor Connections:	A screwed union with an olive ring for the pipe, $\varnothing 8 \times 1$ mm (Type EO-8 L)		
Approved Mediums:	Oxygen (O ₂), Nitrogen (N ₂), Argon (Ar), Carbon Dioxide (CO ₂), Nitrous oxide (N ₂ O)		
Materials:	Body CC491K	Bonnet CC493K	Sensor Brass
Closing Time:	≤ 30 ms		
Valve Cv / Kv	28m ³ /hr		
Weight:	6.4kg		



NOTE: The valves must only be opened using the re-setting tool Type MG97-RT (see separate data sheet)

Cryogenic Vessel Shut-off Valve

Type: MG97-P-FL (European)

MG-97 CRYOGUARD valves are cryogenic valves with a spring loaded release sensor, housed under the stainless steel protection cap.

The release unit keeps the valve in the open position at all times unless the sensor is tripped closed on seeing a pressure higher than the valve set pressure.

PART NUMBERS

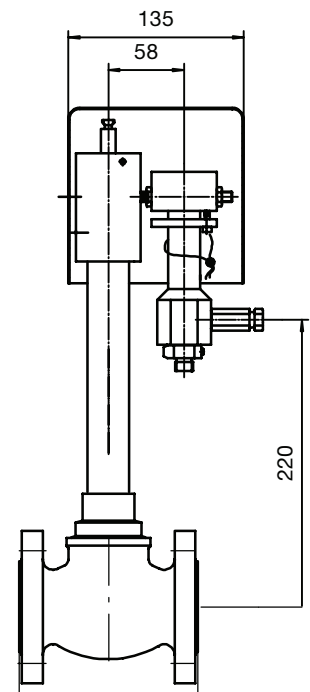
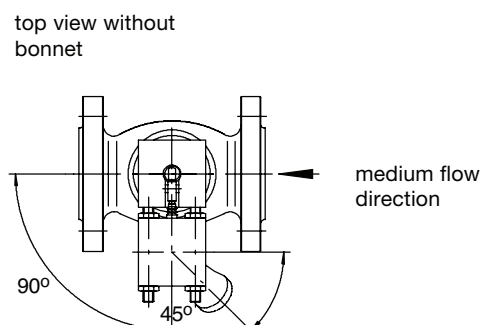
MG-97-P-25-PN40	Bronze DN25 Flanged PN40 c/w Ø 8 sensor fitting
MG-97-P-40-PN40	Bronze DN40 Flanged PN40 c/w Ø 8 sensor fitting

SPECIFICATION

Size:	DN25 & DN40		
Valve Pressure Rating:	40.0 bar		
Set Sensor Pressure Range:	Between 2 to 40bar		
Temperature Range:	-196 to +50 °C		
Cleaning:	Supplied cleaned for oxygen use.		
Valve Connections:	Flanged PN40		
Sensor Connections:	A screwed union with an olive ring for the pipe, Ø 8 x 1 mm (Type EO-8 L)		
Approved Mediums:	Oxygen (O2), Nitrogen (N2), Argon (Ar), Carbon Dioxide (CO2), Nitrous oxide (N2O)		
Materials:	Body	Bonnet	Sensor
	CC491K	CC493K	Brass
Closing Time:	≤ 30 ms		
Valve Kv	DN25 - 17m3/hr : DN40 - 28m3/hr		
Weight:	6.4kg		



from above the line it should have the same top (sensor) as the C&M page. Also pull in the 383 dimension



NOTE: The valves must only be opened using the re-setting tool Type MG97-RT (see separate data sheet)

Cryogenic Vessel Shut-off Valve Re-Setting Tool & Valve Notes

MG-97 valves are cryogenic valves with a spring loaded release sensor, housed under the stainless steel protection cap. The release unit keeps the valve in the open position at all times unless the sensor is tripped on seeing a pressure higher than the Cryoguard set pressure. On tripping, the valves MUST only be re-opened using the MG97-RT tool.

PART NUMBERS

MG-97-RT	Stainless steel MG97 Re-Setting Tool
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RE-SETTING PROCEEDURE

- Remove hood following unscrewing of the 2 screws of the manufacturer's name plate.
- Insert the pin at the brass knob of the clamping device into the vent valve and de-pressurize the pneumatic switch. At the end of the venting process, the pneumatic switch is reset
- Put the positive-locking plug socket of the clamping device on the spindle and turn by 90°.
- Lift the spindle up to the lift limiter with the clamping lever (noticeable deflection) and slowly release it again. The spindle now locks into place and the safety shut-off valve remains in its open position.

INSTALLATION & OPERATIONAL NOTES

VALVE - The valve forms part of the filling line after the filling connection and before the fill valves. If the MG-97 is installed on the tank in a deflection-resistant and torsion-proof manner, the influence of valve closure by rough handling of the coupling is minimized.

VALVE SET PRESSURE - The valve set pressure is typically set at the mid-pressure between the safety valve and bursting disc pressures.

SENSOR - The valve sensor has an A-LOK 1/4" connection. The connecting line to the release unit should be as direct as possible to minimize pressure losses, be free of tension and be tamper-resistant. The sensing gas pressure line should be taken from the gas space of the storage vessel. Should maintenance of the valve be required then a LOCKABLE full flow valve can be installed in the sensing line.

VESSEL FILLING NOTE: At a differential pressure of ≥ 37 psi any liquid trapped between the fill valves and the MG97 will be relieved as the MG97 opens as a check valve.

VALVE SET PRESSURE - The valves are supplied at the ordering closing pressure and are NOT adjustable unless returned to the factory in the original sealed bag.

RE-SETTING THE VALVE

Note: It is recommended to record inspection results and the causes of any release in writing:

1. Clamping device
2. Plug socket
3. Valve spindle
4. Release unit (pneumatic switch)
5. Pin (inserted into the vent valve)
6. The MG97

