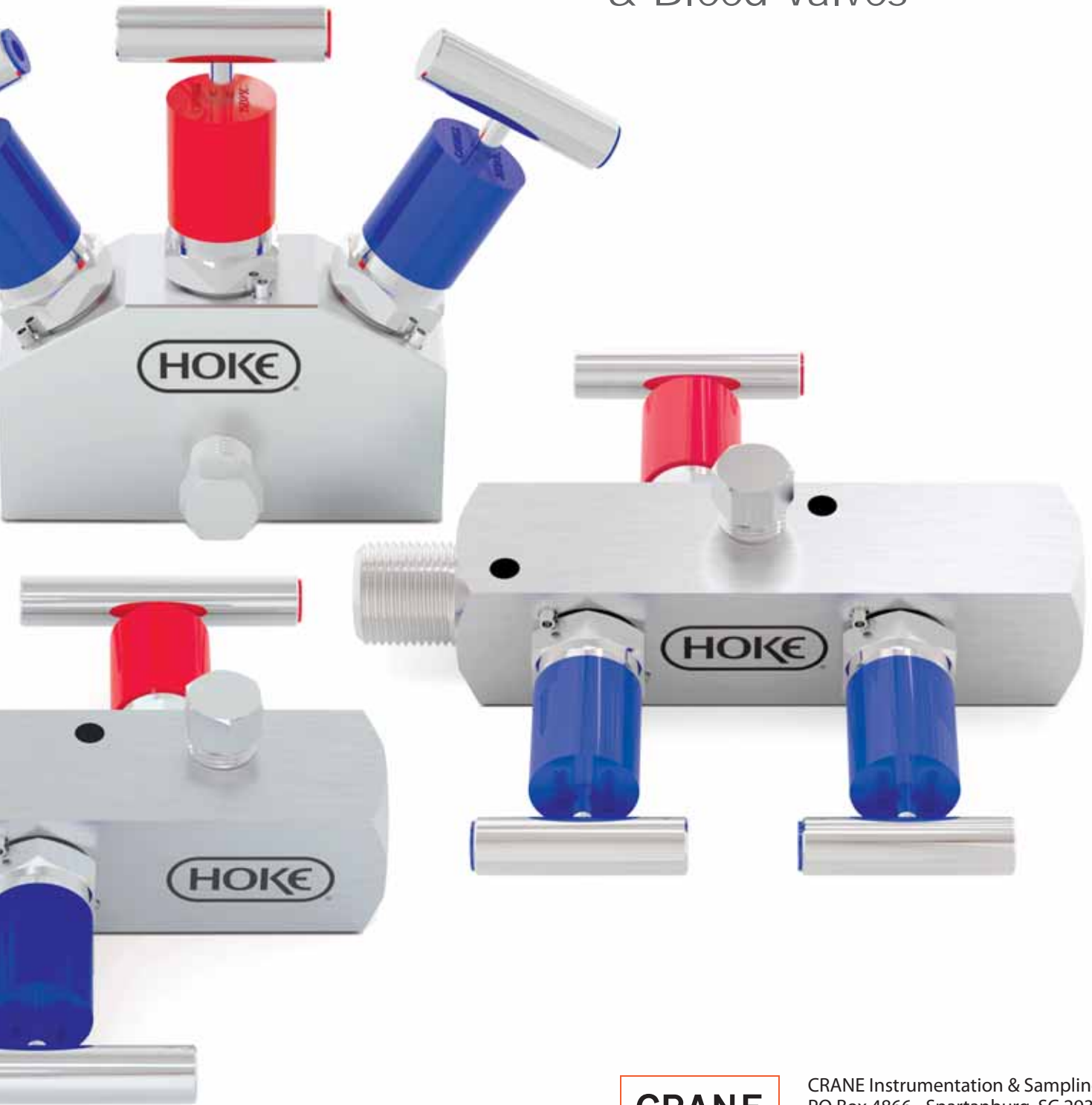




HM Series - DBB

Single, Double Block
& Bleed Valves



CRANE

CRANE Instrumentation & Sampling, HOKE®
PO Box 4866 • Spartanburg, SC 29305-4866
(864) 574-7966 • www.hoke.com



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Single and Double Block & Bleeds at a Glance

HOKE® offers a variety of precision engineered valves and 2, 3, and 5-valve Hand Valves, Gauge Valves & Manifolds in Direct and Remote Mount styles with vent configurations to meet most flow, pressure and level measurement application requirements. HOKE® 2-valve manifolds are designed for static pressure and liquid level applications; the 3 and 5 valve manifolds are well suited for use with most differential pressure transmitters and can accept both female and flange process impulse line connections.

HOKE® Hand Valves, Gauge Valves & Manifolds have been designed to provide the safest possible connection and mounting of instruments. Standard features include:

- Full 316/316L Dual Certified stainless steel components.
- Full compliance of NACE MR-01-75 specifications.
- Laser engraved identification.
- HOKE® Close tolerance NPT threads to ensure maximum engagement with mating threaded components. (Page.16)
- Available with option of integral / GYROLOK® tube fitting connections on Model HM8322 only. Please refer to the HOKE® HM Series - Integral / GYROLOK® catalog for other valve types on **HOW TO ORDER**.
- Choice of exotic alloys i.e., MONEL®, Duplex, Super Duplex, Titanium, HASTELLOY®, Alloys 625, 825, 6Mo.
- All special materials available from NORSOK M-650 approved mills. See **HOW TO ORDER**.
- Optional anti-tamper and locking handles and round wheel handles available.

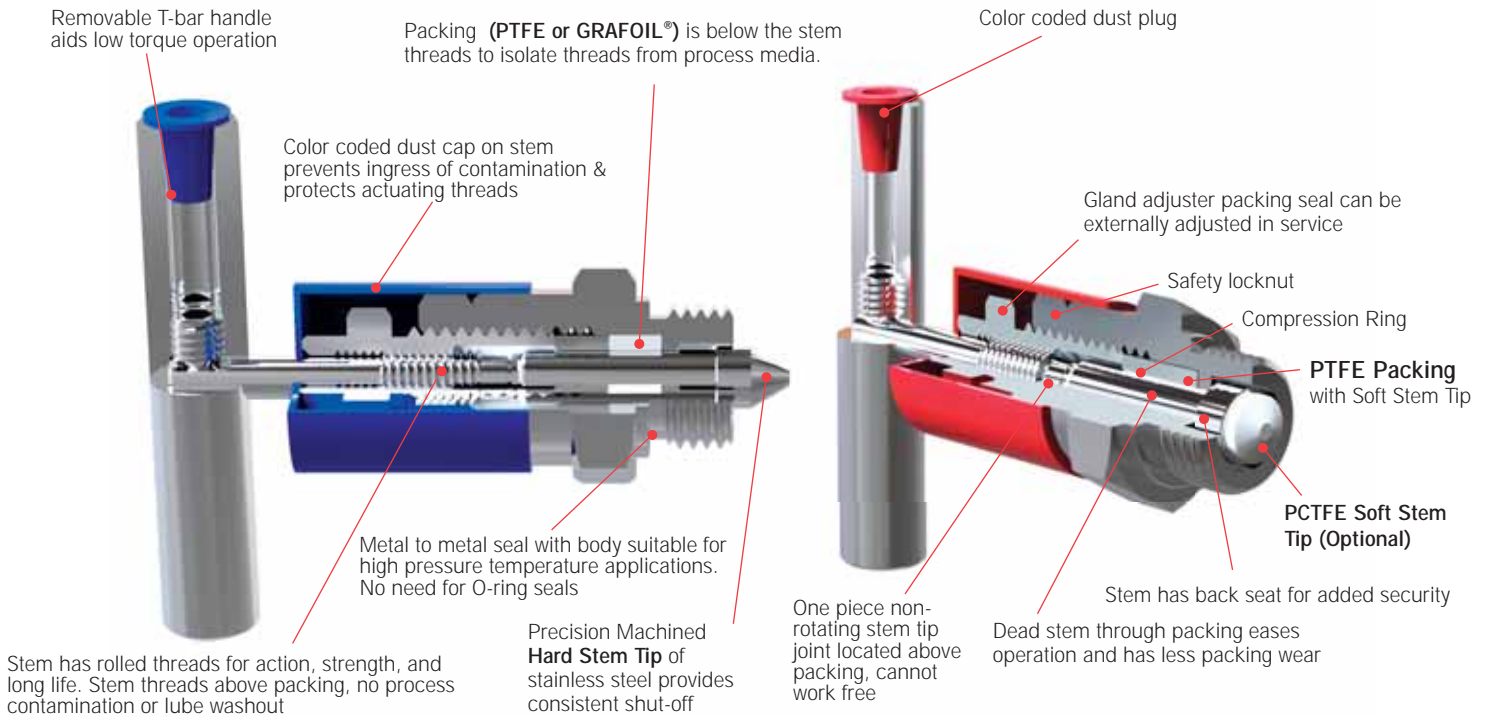
Pressure Equipment Directive.

Due to internal bore size and internal volumes up to and including 1"-inch/25mm, products offered in this catalog comply with S.E.P (Sound Engineering Practice) article 3, paragraph 3 of the Pressure Equipment Directive P.E.D. 97/23/EC and therefore CE marking is not applicable.





STANDARD VALVE HEAD ASSEMBLY Technical Specifications



Note: PCTFE Soft Stem Tip (Option) is only available with PTFE Packing

PRESSURE TEMPERATURE CHART

PTFE PACKING

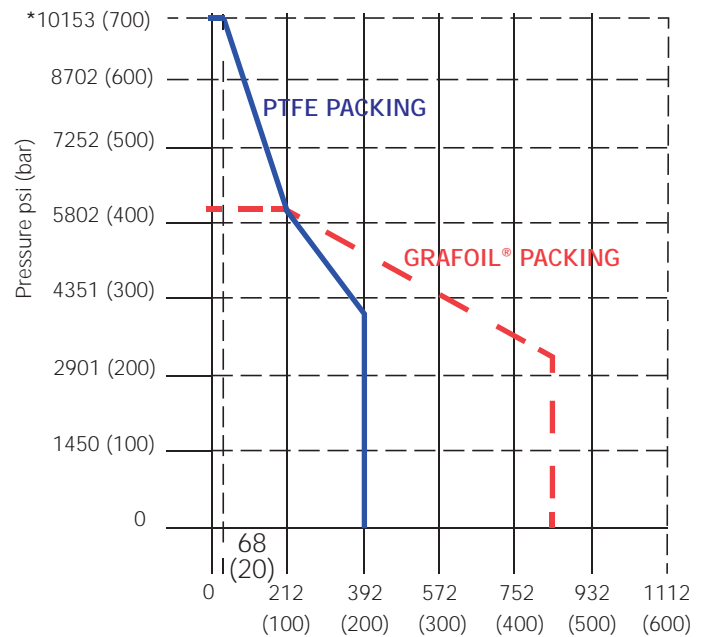
- Maximum pressure 6000 psi (413 bar) at 212° F (100° C)
- Maximum pressure 4000 psi (275 bar) at 392° F (200° C)
- (PTFE packing rated to maximum temperature of 392° F (200° C))*

GRAFOIL® PACKING

- Maximum pressure 6000 psi (413 bar) at 212° F (100° C)
- Maximum pressure 3300 psi (230 bar) at 842° F (450° C)

OTHER FEATURES

- Valves are supplied to NACE MR-01-75 specification.
- Needle valve & block and bleed valve available in right angled form.
- Hydrostatically tested to 1.5 times maximum working pressure.
- Wide variety of process connections available by arrangement.
- Bleed & blind plugs are available.
- Isolating trim as standard, metering trim available on request.
- Panel mounting valve available on request.
- PCTFE Soft tip option available for special application (Max working temperature = 120° C).
- All valves and manifolds are individually boxed for protection and storage.
- Laser engraved identification.
- Valves have trace code on body with original mill certificates available all to EN 10204-3.1.
- All special materials available from NORSOK M-650 approved mills.
- Ø 4.76 Standard thru bore (CV = 0.4) Fully open.
- Bonnet locking pin safely locks the bonnet to body.



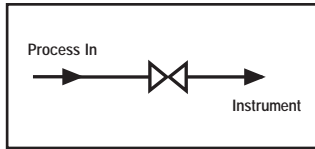
Temperature Fahrenheit (Celsius)

* 10,000 psi option available on non-direct valves. See HOW TO ORDER pages.



SINGLE BLOCK HAND VALVE MODEL-HM25

ISOLATE	Blue
VENT	Red
EQUALIZE	Green



Weight=1.1 lbs(0.5 kg)

Also available in a range of other materials and options
(See **HOW TO ORDER** Data Sheet Pg.5).

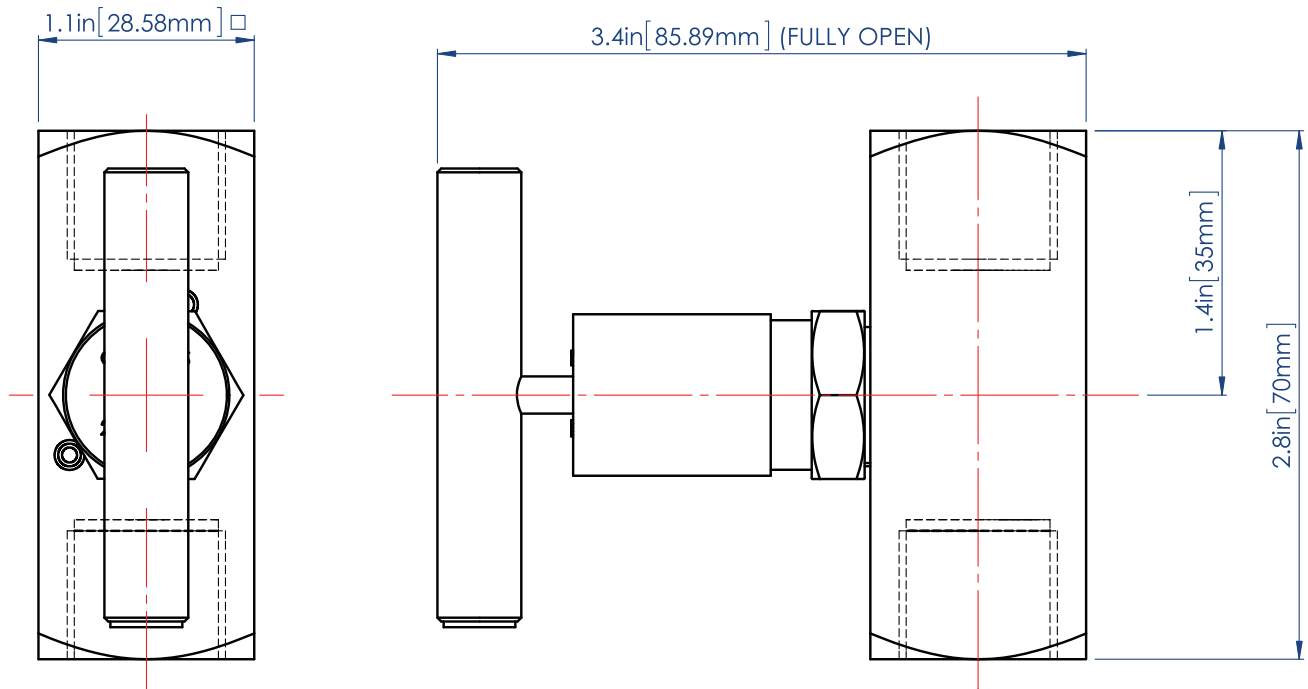
Application

High integrity instrument isolation of pressure gauges and pressure transmitters.



Note: NOT available with Integral GYROLOK® connections

Valve Shown with 1/2" NPT Inlet & Outlet



Dimensions shown in inches (millimeters) are for reference only and are subject to change.



Ordering Multiple Options

HOKE HM Valves and Manifolds are available with a wide variety of options that enable valve configurations customized to meet specific requirements. Please select or add designators from the ordering combinations as shown below:

How To Order

Standard items in bold.

Typical Ordering Part Number

HM25 1 1 F 8 6MO AA

TIP

- 1 = **Hard**
- 2 = Soft

PACKING

- 1 = **PTFE**
- 2 = GRAFOIL® [AA (10,000 psi) not available]

CONNECTION

- F = Female inlet x Female outlet**
- M = Male inlet x Male outlet
- L = Male inlet x Female outlet

SIZE

- 4 = ¼" NPT
- 8 = ½" NPT

ALLOY

- YL = 316/316L**
- HC = HASTELLOY® C276
- M = MONEL®
- D50 = Super Duplex
- TI = Titanium
- TB = Titanium Blue Anodized
- DX3 = Duplex
- 625 = 625 INCONEL®
- 825 = 825 INCONEL®
- 6MO = 6%Mo
- E = Carbon Steel

OPTIONS

- AA = 10,000 psi Rated
- AB = Anti Tamper Vent(s)
- AC = Lockable Vent(s)
- AD = Anti Tamper Isolate
- AE = Lockable Isolate
- AH = BSPP Connections
- AO = Norsok M-650 Material Required
- AP = Panel nut on bonnets
- AR = Firesafe
- AS = Round Hand Wheel for Vent
- AT = Round Hand Wheel for Isolate
- BC = Round Hand Wheel - Lockable Vent
- BE = Round Hand Wheel - Lockable Isolate

Note: Keys are not included and are sold separately. Order part number HMATHDL-316 for key.

Note: The body & trim parts on all 316/316L Valves & Manifolds comply to NACE MR-01-75.

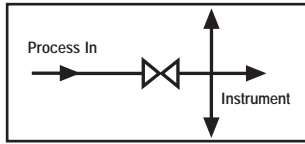
Please consult the factory or your local distributor for information on special connections. O-rings, operating pressures, & temperature ratings.

△ When selecting products for specific applications users should refer to our notice at the bottom of page 1. And the guidance of Use of Equipment on page 20.



MULTI-PORT GAUGE VALVE MODEL-HM681

ISOLATE	Blue
VENT	Red
EQUALIZE	Green



Weight=1.76 lbs(0.8 kg)

Also available in a range of other materials and options
(See **HOW TO ORDER** Data Sheet Pg. 9).

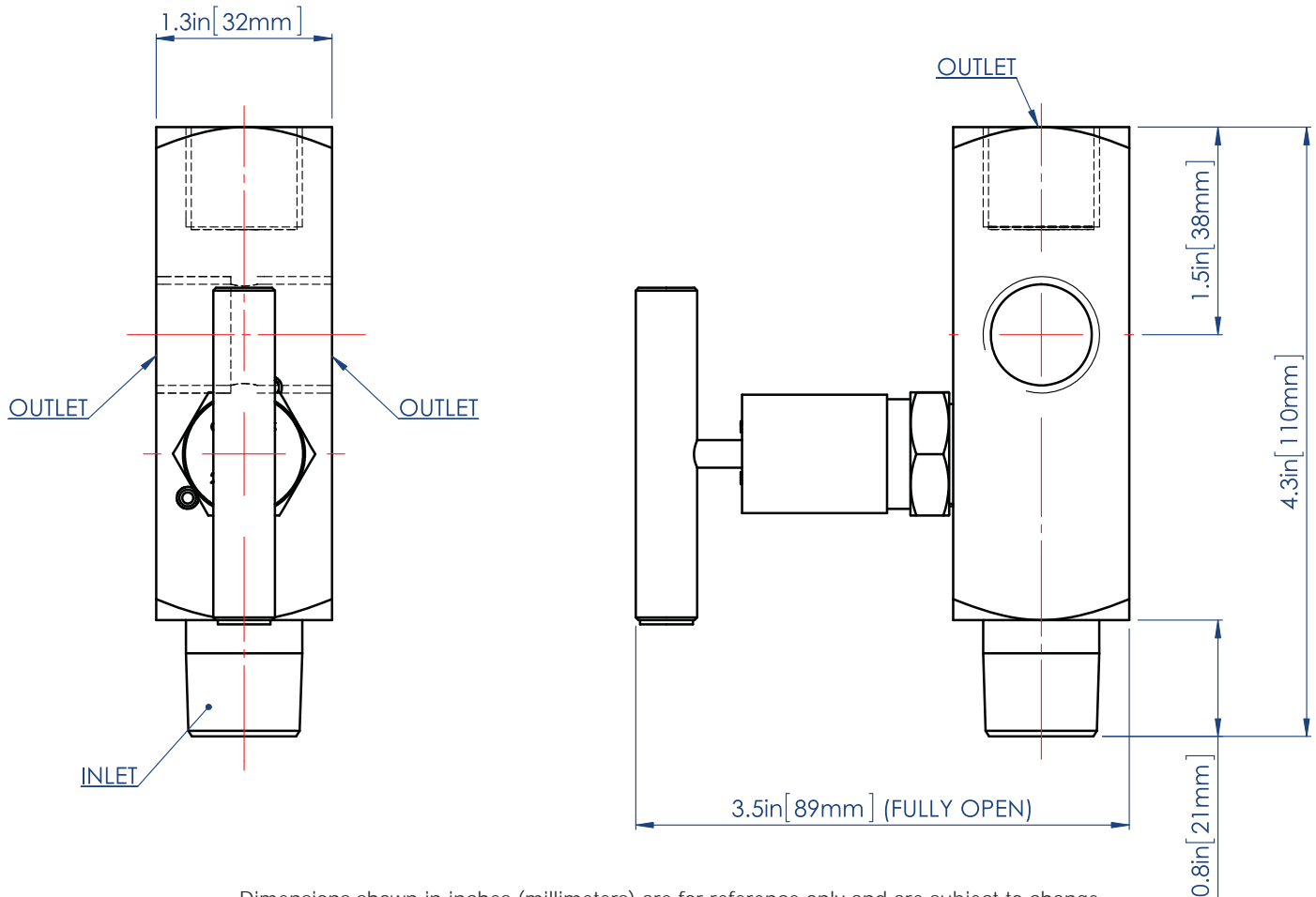
Application

High integrity instrument isolation of pressure gauges and pressure transmitters.



Note: NOT available with Integral GYROLOK® connections

Valve Shown with 1/2" NPT Inlet & Outlet

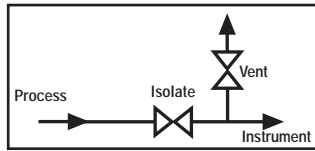


Dimensions shown in inches (millimeters) are for reference only and are subject to change.



**SINGLE BLOCK & BLEED GAUGE VALVE
MODEL-HM682**

ISOLATE	Blue
VENT	Red
EQUALIZE	Green



Weight=2.2 lbs(1.0 kg)

Also available in a range of other materials and options
(See **HOW TO ORDER** Data Sheet Pg. 9).

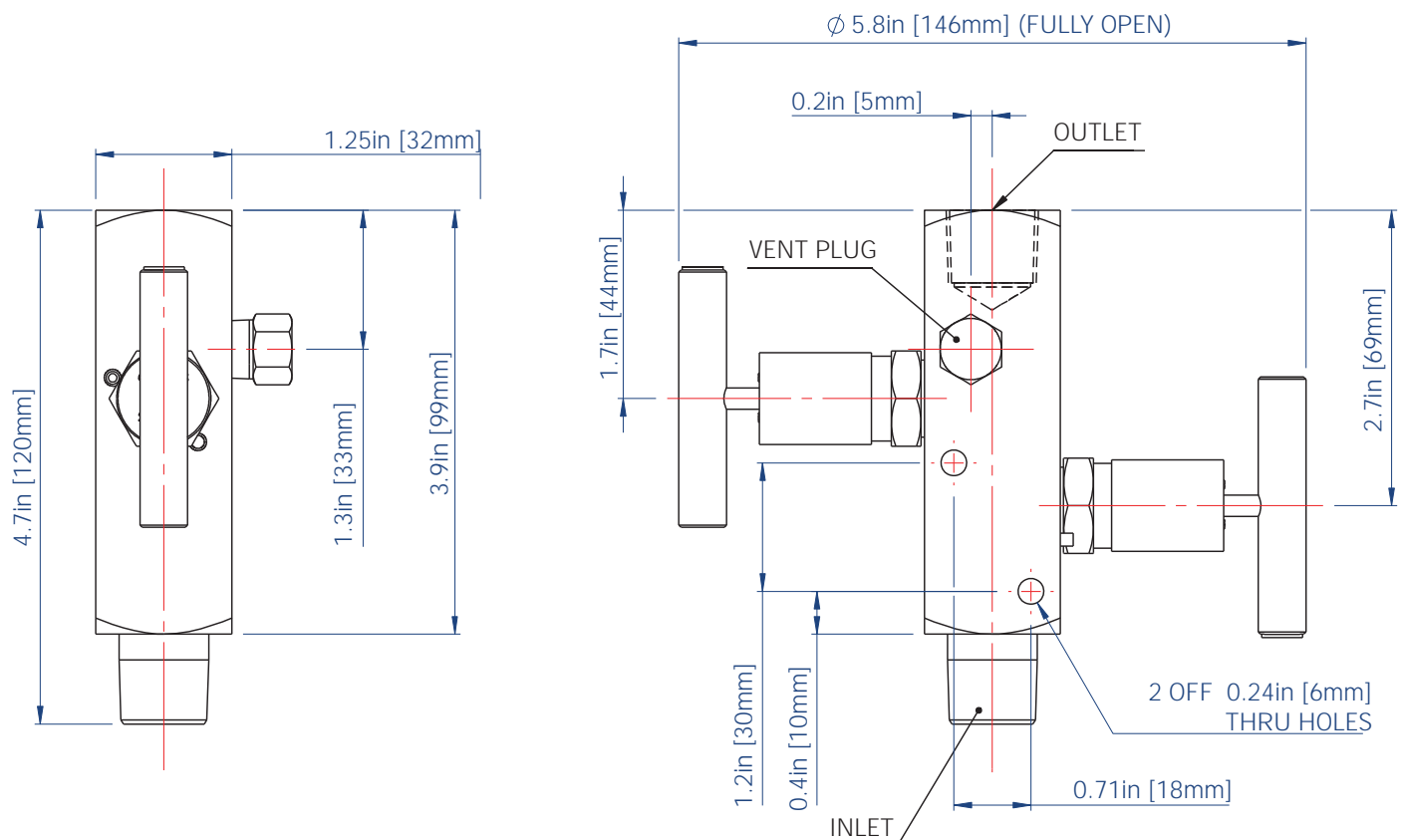
Application

High integrity instrument isolation of pressure gauges and pressure transmitters.



Note: NOT available with Integral GYROLOK® connections

Valve Shown with 1/2" NPT Inlet & Outlet & 1/4" NPT Vent Plug (Supplied loose)

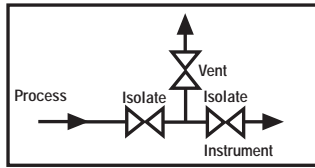


Dimensions shown in inches (millimeters) are for reference only and are subject to change.



**DOUBLE BLOCK & BLEED GAUGE VALVE
MODEL-HM683**

ISOLATE	Blue
VENT	Red
EQUALIZE	Green



Weight=2.86 lbs(1.3 kg)

Also available in a range of other materials and options
(See **HOW TO ORDER** Data Sheet Pg. 9).

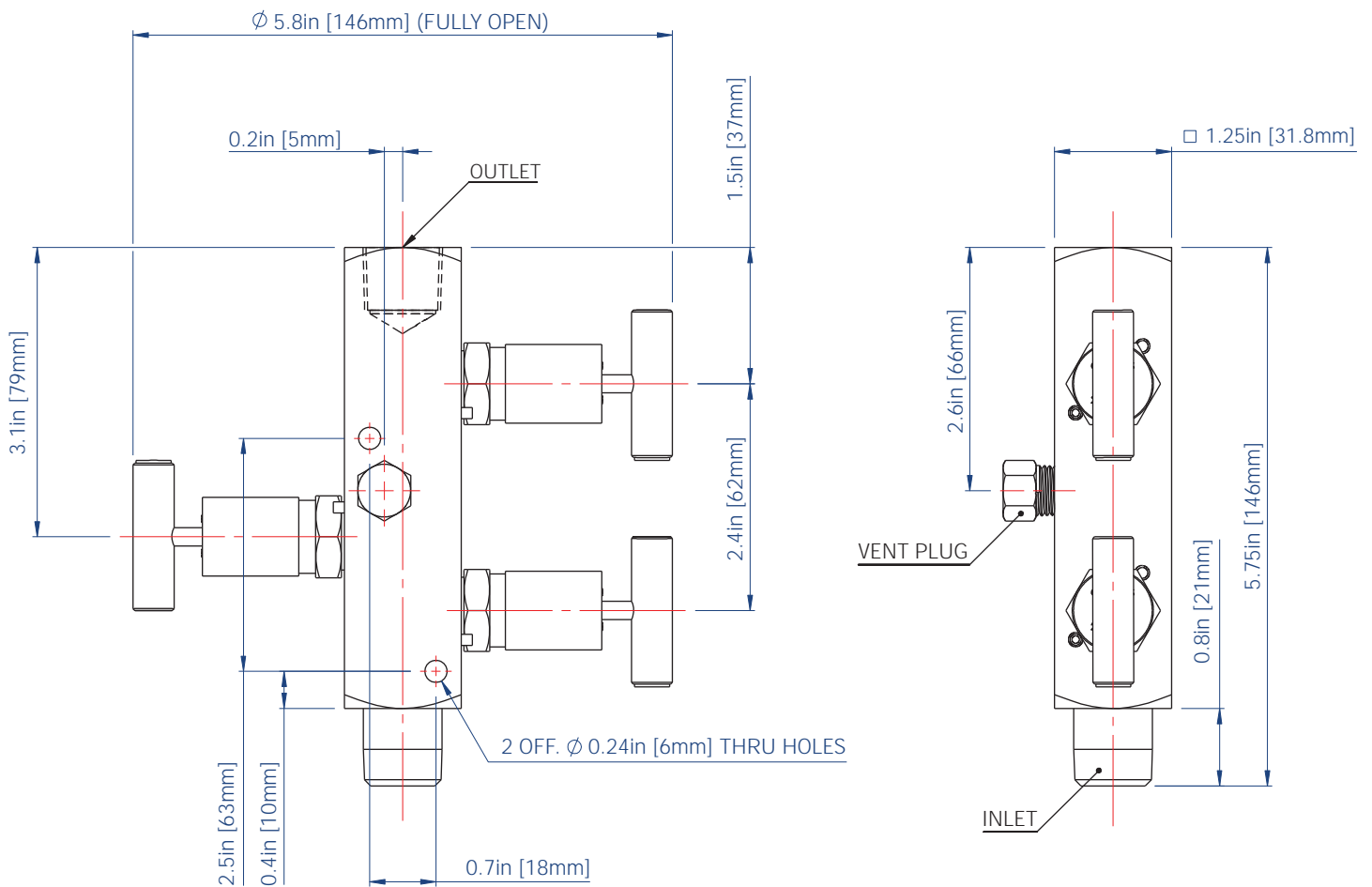
Application

High integrity instrument isolation of pressure gauges and pressure transmitters.



Note: NOT available with Integral GYROLOK® connections

Valve Shown with 1/2" NPT Inlet & Outlet & 1/4" NPT Vent Plug (Supplied loose)



Dimensions shown in inches (millimeters) are for reference only and are subject to change.



Ordering Multiple Options

HOKE HM Valves and Manifolds are available with a wide variety of options that enable valve configurations customized to meet specific requirements. Please select or add designators from the ordering combinations as shown below:

How To Order

Standard items in bold.

Typical Ordering Part Number

HM68 2 1 1 F 8 6MO AA

of VALVES

- 1
- 2
- 3

TIP

- 1 = Hard
- 2 = Soft

PACKING

- 1 = PTFE
- 2 = GRAFOIL® [AA (10,000 psi) not available]

CONNECTION

- F = Female inlet x Female outlet
- M = Male inlet x Male outlet
- L = Male inlet x Female outlet

SIZE

- 4 = 1/4" NPT
- 8 = 1/2" NPT

ALLOY

- YL = **316/316L**
- HC = HASTELLOY® C276
- M = MONEL®
- D50 = Super Duplex
- TI = Titanium
- TB = Titanium Blue Anodized
- DX3 = Duplex
- 625 = 625 INCONEL®
- 825 = 825 INCONEL®
- 6MO = 6%Mo
- E = Carbon Steel

OPTIONS

- AA = 10,000 psi Rated
- AB = Anti Tamper Vent(s)
- AC = Lockable Vent(s)
- AD = Anti Tamper Isolate
- AE = Lockable Isolate
- AH = BSPP Connections
- AO = Norsok M-650 Material Required
- AP = Panel nut on bonnets
- AR = Firesafe
- AS = Round Hand Wheel for Vent
- AT = Round Hand Wheel for Isolate
- BC = Round Hand Wheel - Lockable Vent
- BE = Round Hand Wheel - Lockable Isolate

Note: Keys are not included and are sold separately. Order part number HMATHDL-316 for key.

Note: The body & trim parts on all 316/316L Valves & Manifolds comply to NACE MR-01-75.

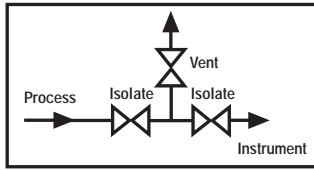
Please consult the factory or your local distributor for information on special connections, O-rings, operating pressures, & temperature ratings.

△ When selecting products for specific applications users should refer to the notice at the bottom of page 1 and the guidance of Use of Equipment on page 20.



Double Block & Bleed Valve Model-HM8322

ISOLATE	Blue
VENT	Red
EQUALIZE	Green



Weight=2.54lbs (1.15kg)

Also available in a range of other materials and options
(See **HOW TO ORDER** Data Sheet Pg. 12).

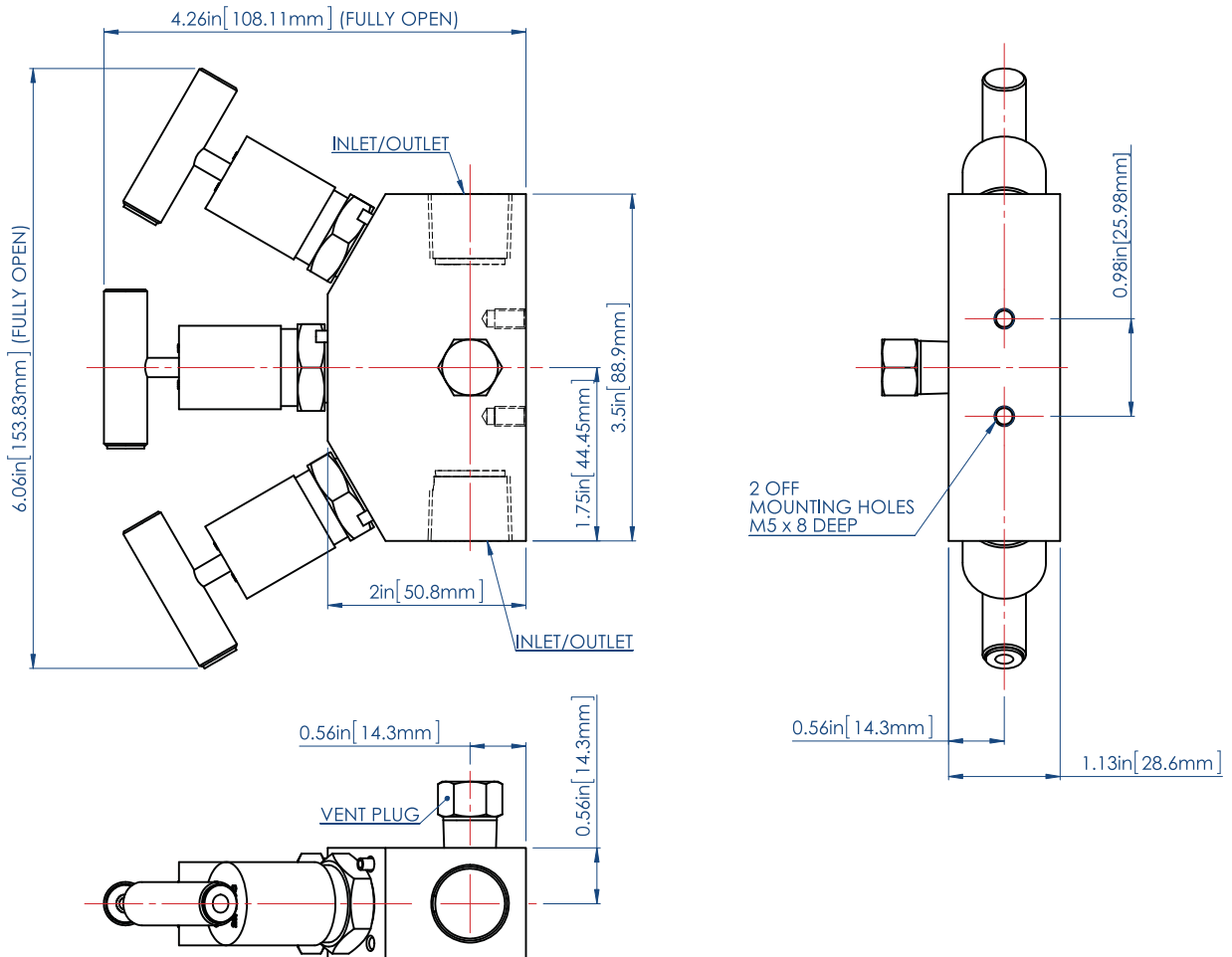
Application

High integrity instrument isolation of pressure gauges and pressure transmitters.



Note: Model HM8322 is available with or without Integral GYROLOK® connections.

Valve Shown with 1/2" NPT Inlet & Outlet & 1/4" NPT Vent Plug (Supplied loose)

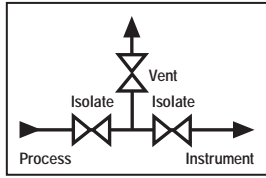


Dimensions shown in inches (millimeters) are for reference only and are subject to change.



Double Block & Bleed Valve
MODEL-HM8322 with Integral GYROLOK® Connection

ISOLATE	Blue
VENT	Red
EQUALIZE	Green



Weight=2.54lbs (1.15kg)

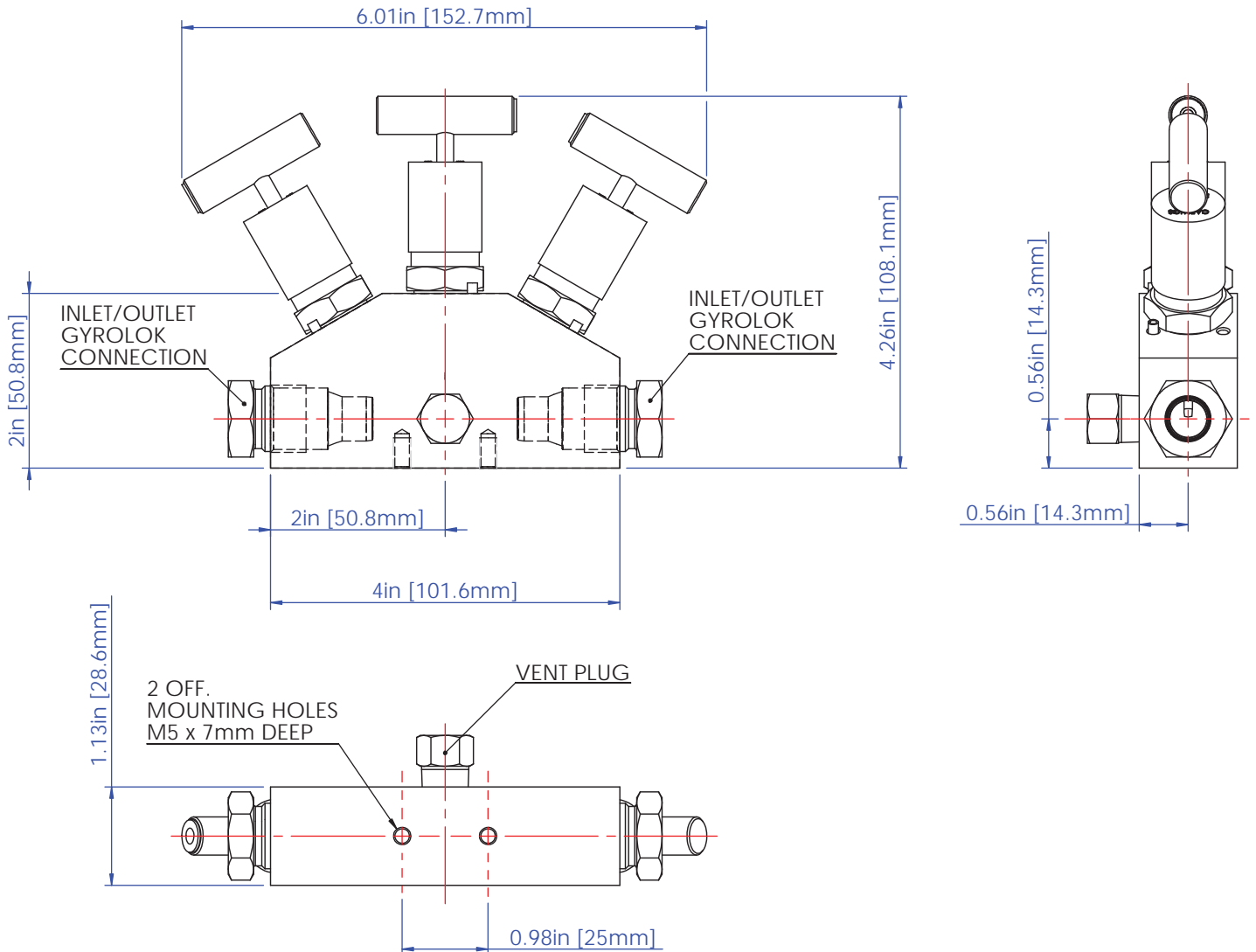
Also available in a range of other materials and options
(See **HOW TO ORDER** Data Sheet Pg. 12).

Application
High integrity instrument isolation of pressure gauges and pressure transmitters.

Note: Model HM8322 is available with or without Integral GYROLOK® connections.



¼" NPT Vent Plug (Supplied loose)



Dimensions shown in inches (millimeters) are for reference only and are subject to change.



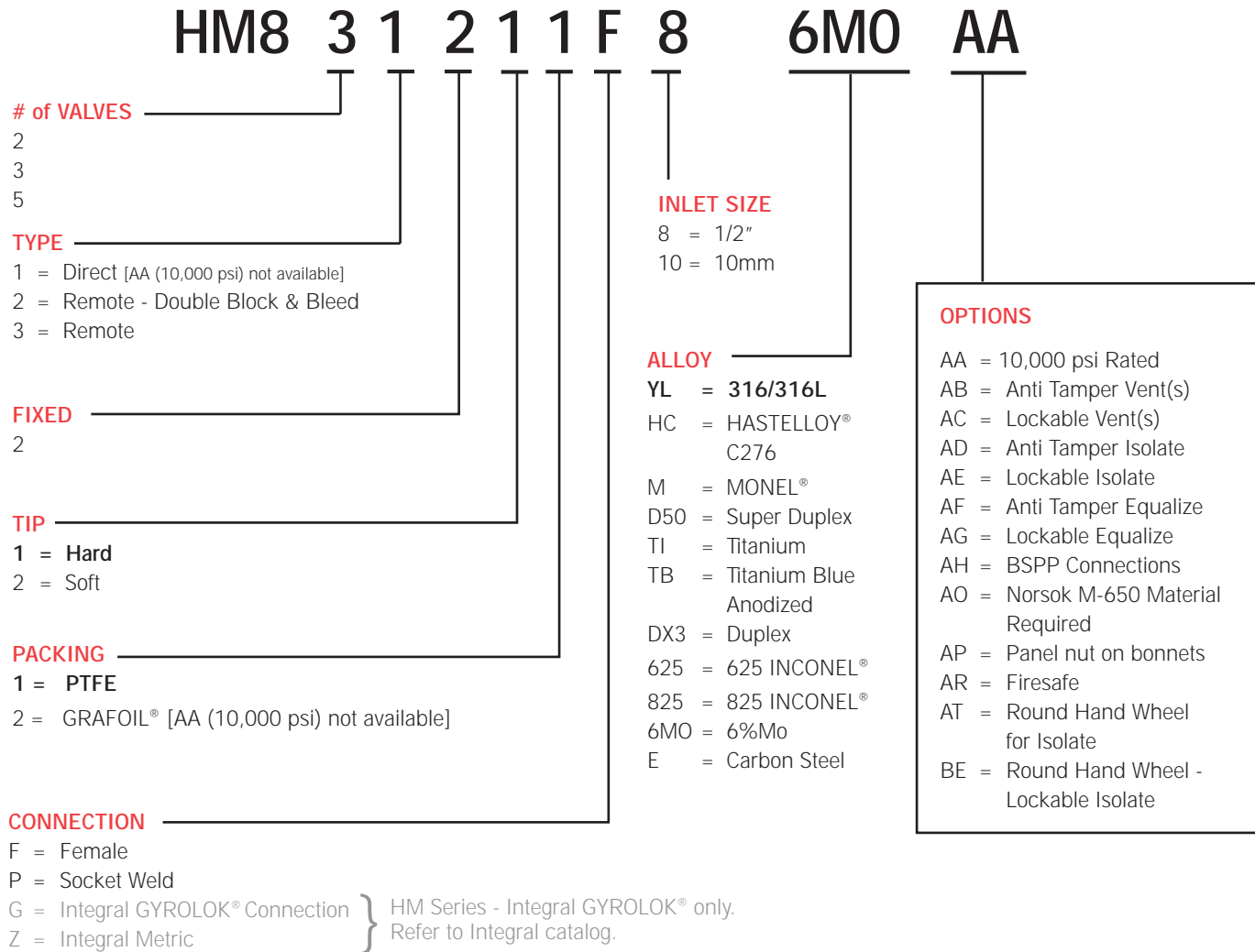
Ordering Multiple Options

HOKE HM Valves and Manifolds are available with a wide variety of options that enable valve configurations customized to meet specific requirements. Please select or add designators from the ordering combinations as shown below:

How To Order

Standard items in bold.

Typical Ordering Part Number



Keys are not included and are sold separately. Order part number HMLATDL-316 for key.

Note: The body & trim parts on all 316/316L Valves & Manifolds comply to NACE MR-01-75.

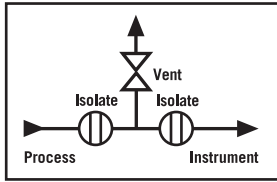
Please consult the factory or your local distributor for information on special connections. O-rings, operating pressures, & temperature ratings.

△ When selecting products for specific applications users should refer to our notice at the bottom of page 1. And the guidance of Use of Equipment on page 20.



DOUBLE BLOCK & BLEED VALVE MODEL-HBDBB7V8F316

ISOLATE	Blue
VENT	Red
EQUALIZE	Green



Weight=3.46lbs (1.57kg)

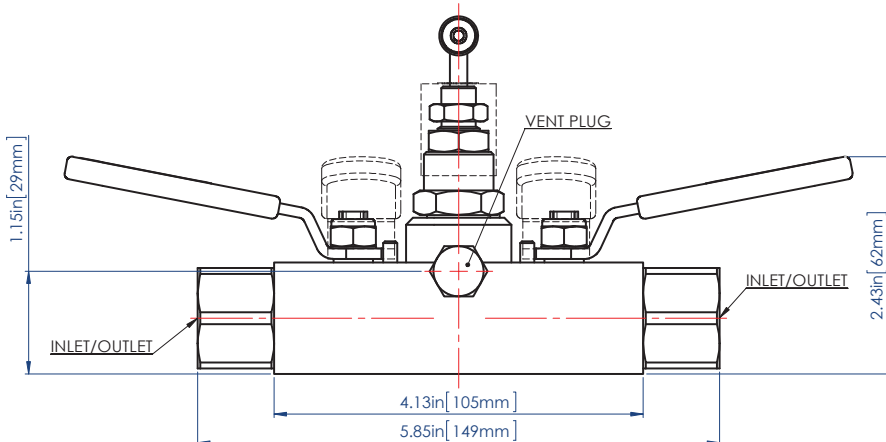
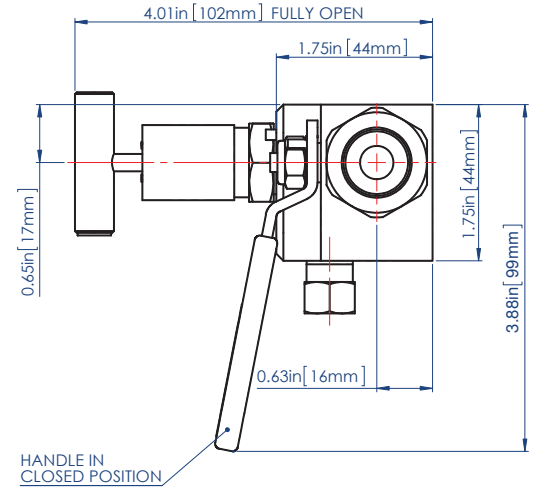
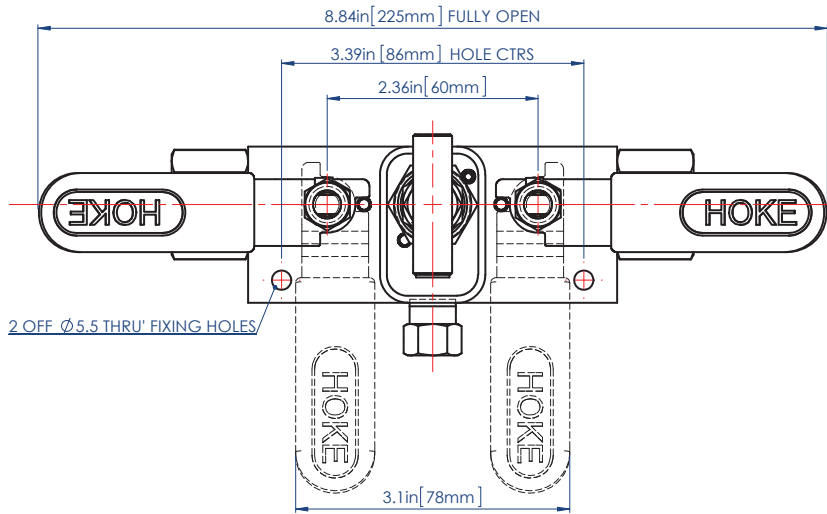
Also available in a range of other materials and options
(See **HOW TO ORDER** Data Sheet Pg. 14).

Application

High integrity instrument isolation of pressure gauges and pressure transmitters.



Note: Available with Integral GYROLOK® connections.
Consult factory.



Dimensions shown in inches (millimeters) are for reference only and are subject to change.



Ordering Multiple Options

HOKE HM Valves and Manifolds are available with a wide variety of options that enable valve configurations customized to meet specific requirements. Please select or add designators from the ordering combinations as shown below:

How To Order

Standard items in bold.

Typical Ordering Part Number

HBDBB7V 8 F 316 AB

SIZE
4 = 1/4" NPT
8 = 1/2" NPT

CONNECTION
F = Female

ALLOY
YL = **316/316L**
HC = HASTELLOY® C276
M = MONEL®
D50 = Super Duplex
TI = Titanium
TB = Titanium Blue Anodized
DX3 = Duplex
625 = 625 INCONEL®
825 = 825 INCONEL®
6MO = 6%Mo
E = Carbon Steel

OPTIONS
AB = Anti Tamper Vents
AC = Lockable Vents
AO = Norsok M-650 Material Required

Note: Keys are not included and are sold separately. Order part number HMATHDL-316 for key.

Note: The body & trim parts on all 316/316L Valves & Manifolds comply to NACE MR-01-75 & NORSOK M-650 as standard.

Please consult the factory or your local distributor for information on special connections. O-rings, operating pressures, & temperature ratings.

△ When selecting products for specific applications users should refer to our notice at the bottom of page 1. And the guidance of Use of Equipment on page 20.



HOKE® Integral GYROLOK® Tube Fitting Connections

Please refer to the HOKE® HM Series - Integral GYROLOK® catalog for product information, specifications and how to order integral connection versions of these valves and manifolds. There are only two HM Series Double Block & Bleed Valves available with Integral GYROLOK® connections: **Model HM8322** and **HBDBB7V8F316**. See **HOW TO ORDER** pages 12 and 14.

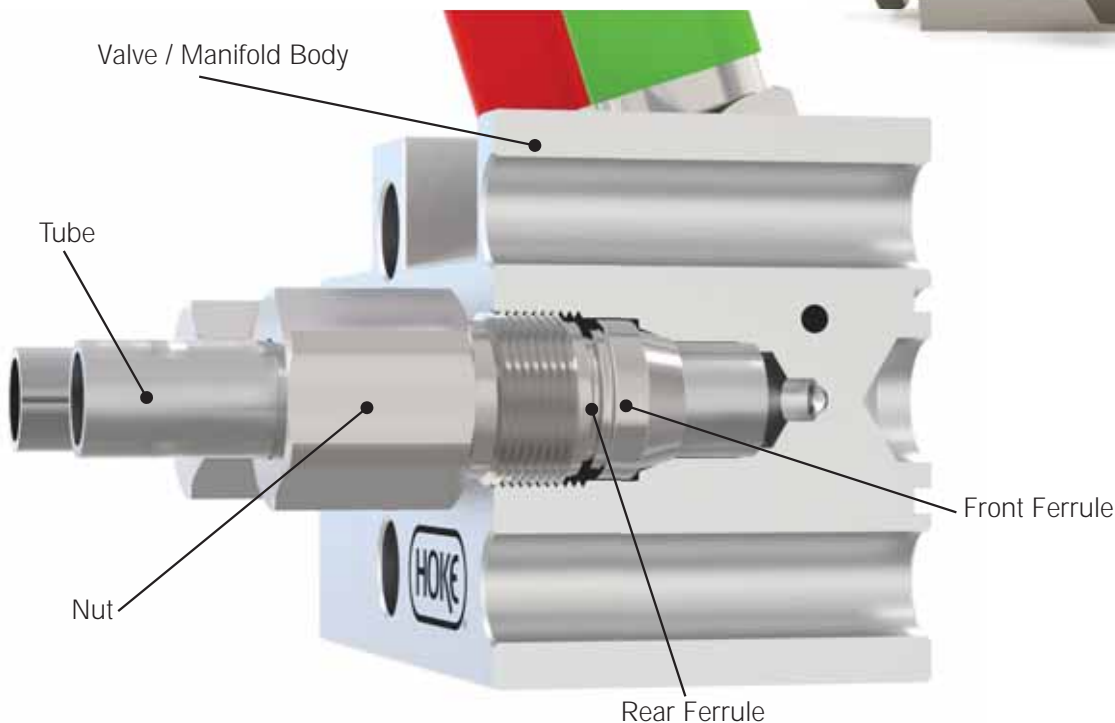
Note: Graphic is an illustration only – please consult HOKE® for details

The HOKE® range of standard hand valves, gauge valves and manifolds are available with the option of the integral / GYROLOK® tube fitting connections. The integral / GYROLOK® tube fitting connection is machined directly into the body of the valve or manifold, allowing tubing to be directly connected without the use of traditional threaded (NPT, BSP) connections. The integral / GYROLOK® connection provides a safer connection system for high pressure, severe, steam or sour gas service where leakage has dangerous consequences.

- Eliminates traditional threaded tubing connections
- Provides a safer and more consistent tube connection
- Saves assembly time during field assembly
- Reduces potential leak paths
- No need for sealing tape or liquid sealing compounds
- Fully field maintainable
- Successfully used for over 20 years in many offshore applications
- Available in 10mm metric tube connections
- Available in 1.2" and 10mm tube connections



HM8322-Integral





HOKE® HIGH TOLERANCE NPT THREAD

Note: Graphic is an illustration only

NPT Engagement using High Tolerance HOKE® NPT Connections has 5-6 threads engaged when fully tightened.



HOKE® High Tolerance NPT Thread

NPT Engagement using ANSI/ASME B1.20.1 Pipe Thread Standard has only 3-4 threads engaged when fully tightened.



Standard B1.20.1 NPT Thread



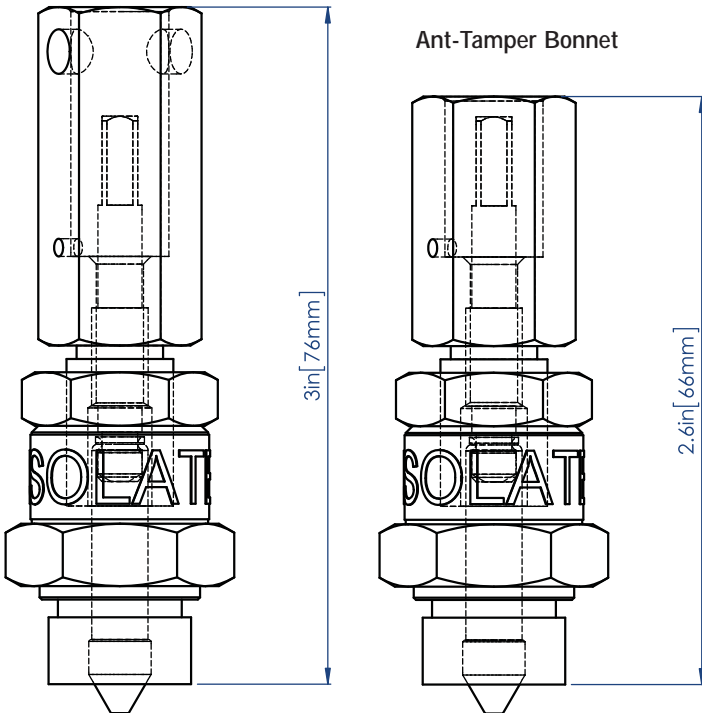
OPTION DETAIL
Anti Tamper & Lockable Bonnet
 (without padlock)



HM682 shown with Anti-Tamper and Lockable Isolate and Vent



Anti-Tamper and Lockable Bonnet (without padlock)

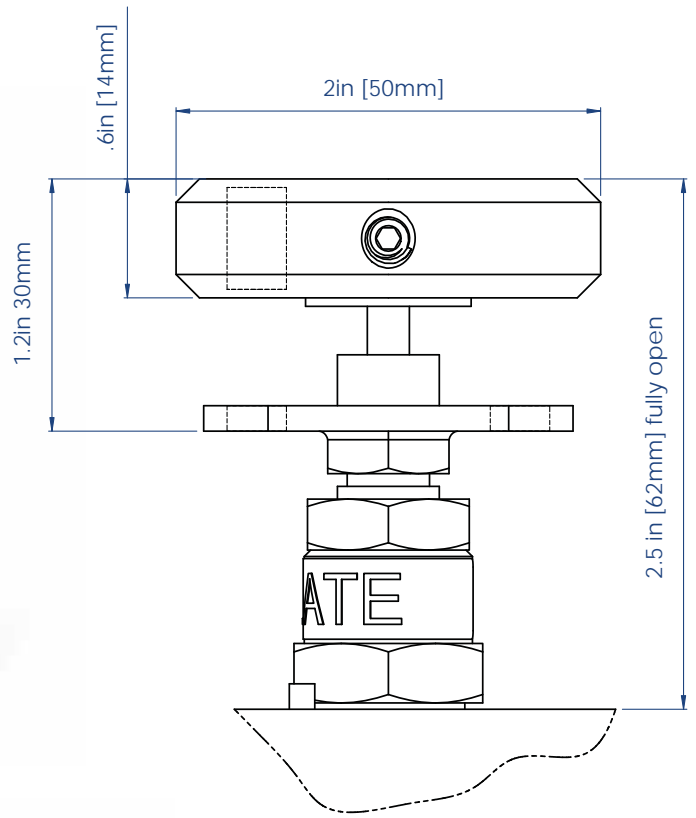


OPTION CODES	
AB	Anti Tamper Vents(s)
AC	Lockable Vent(s)
AD	Anti Tamper Isolate
AE	Lockable Isolate
AF	Anti Tamper Equalize
AG	Lockable Equalize

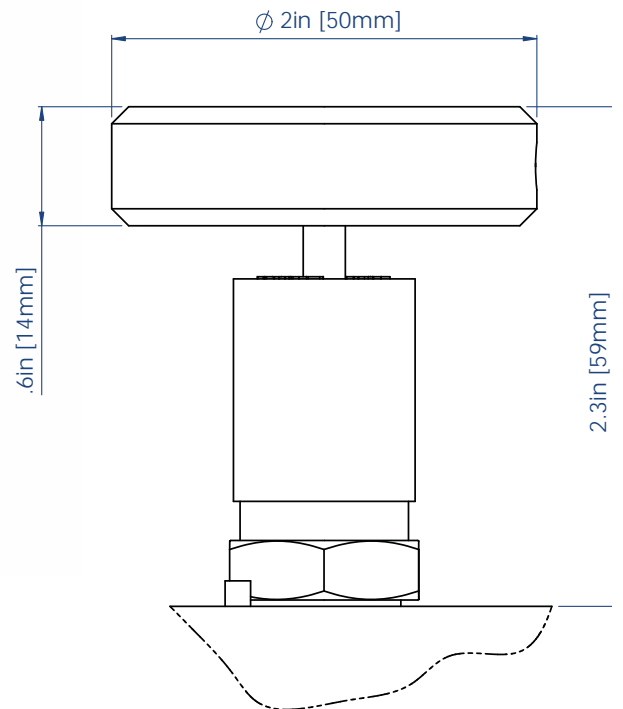


OPTION DETAIL
Round 316SS Handwheels Option

HM682 shown with round 316SS handwheel - Lockable isolate and vent



HM682 shown with round 316SS handwheel - isolate and vent

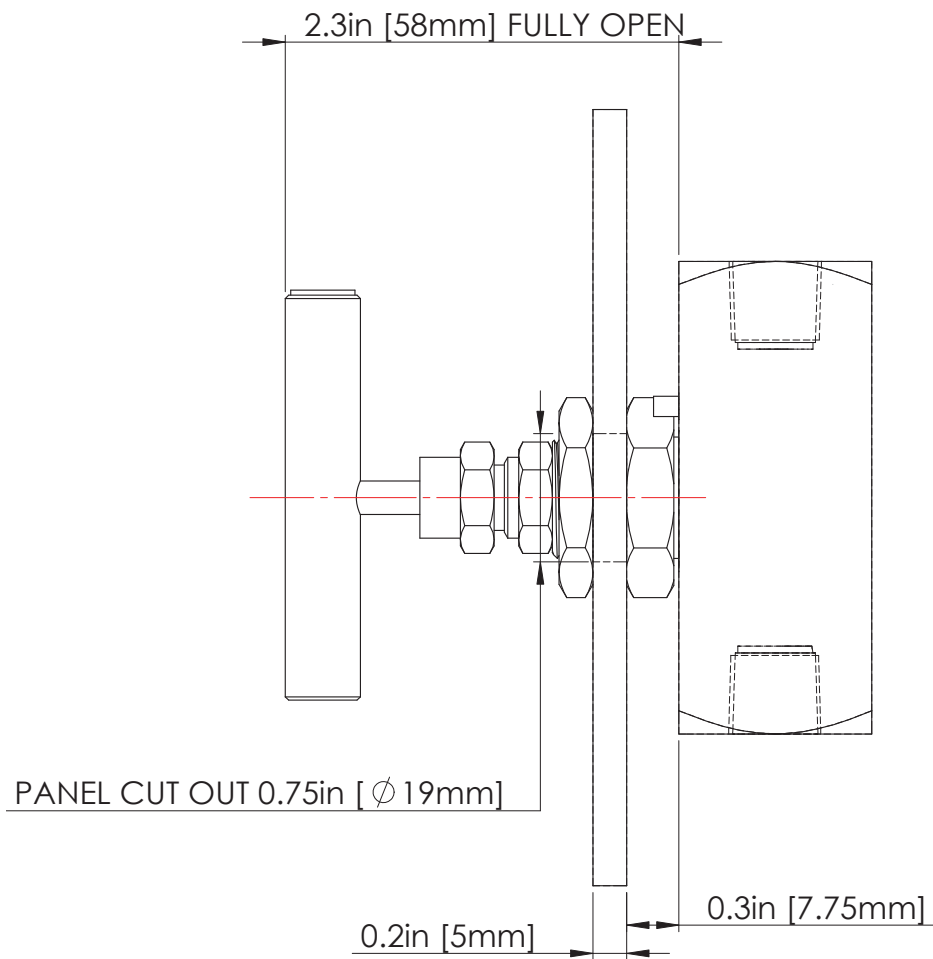


OPTION CODES

AS	Round Hand Wheel for Vent
AT	Round Hand Wheel for Isolate
AV	Round Hand Wheel for Equalize
BC	Round Hand Wheel - Lockable Vent
BE	Round Hand Wheel - Lockable Isolate
BG	Round Hand Wheel - Lockable Equalize



OPTION DETAIL
Option AP Panel Nut on Bonnet





Installation & use of equipment should be done by trained personnel!

MATERIALS

- Materials must be compatible with medium.
- Pressure and temperature also have direct bearing on the correct seal & body material to be used and must be considered when specifying. See pressure/temperature ratings table contained in our printed literature.
- If in any doubt, consult HOKE®.

THREADS AND JOINTING

- All pressure connections should be leak tight and should be observed when first applying pressure.
- Recommended maximum operating pressure for each size of thread and type of material must not be exceeded. Please note the stated pressures represent the maximum applied pressure. If in doubt, consult the manufacturer.
- Care must be taken to ensure mismatch of threads does not occur.
- Mating female connections must have a pressure rating that is compatible with the pressure range of the product.
- Valves with parallel threads must have the independent seal made on the flat seating using a washer or bonded seal of material compatible with the pressure medium.
- Valves with tapered threads have the joint made by mating of the threads. It is common practice to apply jointing material to the male thread. This must be compatible with the pressure medium and applied in the correct quantity to ensure non-interference with the mating of the threads.
- NPT and other tapered thread forms when manufactured to the standard specification may not be adequate to offer sufficient thread engagement for safe use under pressure.
- Particular care must be taken to ensure the valve has the correct pressure rating for the application.

INSTALLATION

- When joining up a valve to the system, the system must not be pressurized.
- If the valve is already fitted to a gauge at time of installation, the valve should be in the closed position to prevent the build up of pressure from entering the gauge. The valve should then be opened slowly and care taken to ensure the pressure entering the gauge does not exceed its pressure rating.
- When the valve does not have a gauge fitted at time of installation (i.e., with an open port) the valve should be in the open position which will prevent build up of pressure within the valve. Care should therefore be taken to confirm that all systems are sealed before pressurizing.
- Manifolds and equalizing valves are accompanied by specific installation instructions and these should be referred to before proceeding with installation.

MAINTENANCE

- Valves etc. should be part of a planned maintenance program to ensure they continue to function properly.
- The time interval between examinations will vary depending upon site conditions, the number of opening and shutting operations etc. and should be determined in the light of experience.
- Threaded connections should be checked for leaks and tightened as required.
- If leaking through the packing is evident, loosen locknut, tighten packing compression bolt to torque rating of 13 lbs/ft (18 Nm) minimum to 18 lbs/ft (25 Nm) maximum and re-tighten locknut.

REPAIRS

- The design of these valves allows packing or whole stem assembly to be replaced without removing the valve from the system but the system must be closed down and any residual pressure exhausted in a controlled manner before proceeding.
- To replace packing: Remove handle, slacken locknut, remove compression bolt and compression gland ring. Remove packing and replace. Re-assemble in reverse order to the above and tighten to torque described above.
- To replace whole stem assembly: Remove handle and bonnet locking pin. Remove whole head assembly (N.B. To loosen - turn anti-clockwise). Slacken locknut, remove compression bolt and compression gland ring. Remove stem assembly by withdrawing downwards. Fit new stem assembly and packing. Re-assemble in reverse order to the above and tighten compression bolt to torque described above.

Re-fit head assembly to valve body and tighten to torque of 100 lbs/ft (135.58Nm) Replace locking pin. Test valve for leaks.

Note: Ensure stem is screwed fully into the bonnet before refitting to body. Fit locking pin, after testing.

- If the valve seat is damaged, the whole valve should be replaced.

SPARES

- We recommend that spares should be held in the form of whole stem assemblies.

Note: It is the responsibility of the customer to select the proper valve. If in any doubt, consult HOKE®.



The Small Bore Instrumentation Specialists



We specialize in small bore instrumentation products up to 2" that deliver benchmark performance quality & safety; provide the broadest array of superior alloy offerings in the market; decades of proven success in a wide range of industries; a roster of "who's who" customers & projects globally; original "Best Solution" engineering & designs; and are focused on continuous improvement in all aspects of our business.

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PO Box 4866, Spartanburg, SC
29305-4866 USA

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