

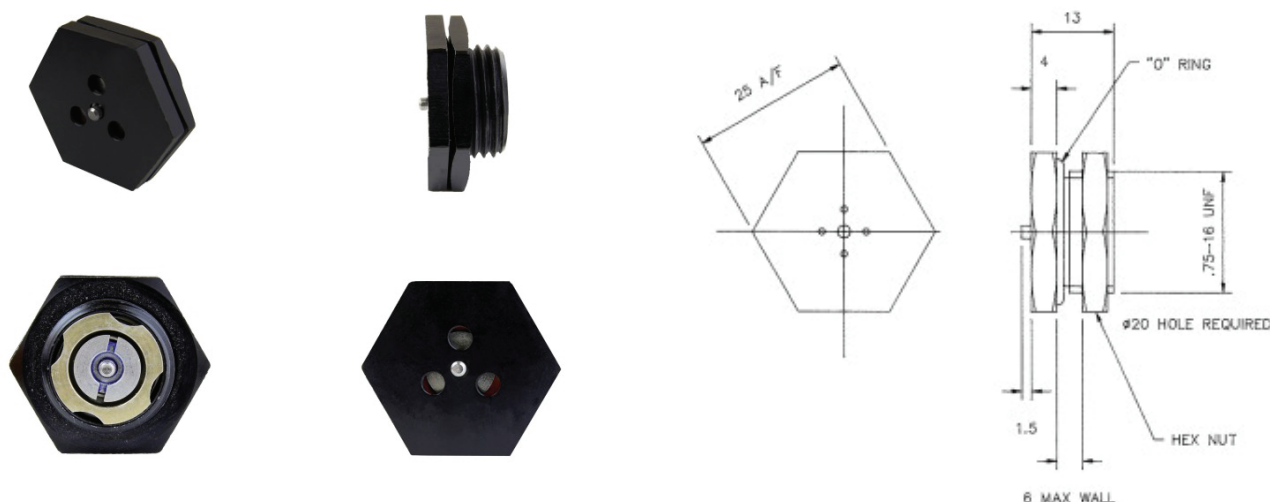
Two Way Relief Valves

Two Way Relief Valves are designed for transit and storage containers but can also be used for electronic and electro-optics equipments. The valves have separate and distinct settings for both pressure and vacuum relief. Standard settings range from 0.5psid to 3.0psid reseal pressure. These valves are tamper-proof and require no field maintenance. On some of these valves a desiccant cartridge can be fitted to adsorb moist air entering an equipment or container. Most valves have a manual release push button to equalize pressure or vacuum differentials in order to open the container or equipment.

DH/D8887/01-06 - Panel Mounting Double Differential Relief Valve

The DH/D8887 Breather Valve was designed to meet the need for a low cost, two-way valve for use on transit cases and similar applications up to 4 cubic feet in volume. The valve has separate and distinct settings for both pressure and vacuum relief. It has a flow rate of 0.5 scfm at a pressure of 1.5 psi to 2.0 psi above the valve setting. Standard settings range from 0.5 psid to 3.0 psid reseal pressure, please contact us if this is not what you are looking for.

The DH/D8887 Breather Valve is tamper-proof and requires no field maintenance. Corrosion-resistant materials are used throughout. The valve seal is made of silicone rubber. Each valve comes complete with a nut and o-ring, and is intended for small cases that require a low profile valve. A manual release push button is standard on all DH/D8887 valves. It is used to equalize pressure or vacuum differentials in order to open the container.



Part Number	Sealed At	Flow Rate	@ Pressure
DH/D8887/01	0.5 PSID	0.5 SCFM	2.0 PSID
DH/D8887/02	1.0 PSID	0.5 SCFM	2.5 PSID
DH/D8887/03	1.5 PSID	0.5 SCFM	3.0 PSID
DH/D8887/04	2.0 PSID	0.5 SCFM	3.5 PSID
DH/D8887/05	2.5 PSID	0.5 SCFM	4.5 PSID
DH/D8887/06	3.0 PSID	0.5 SCFM	5.0 PSID

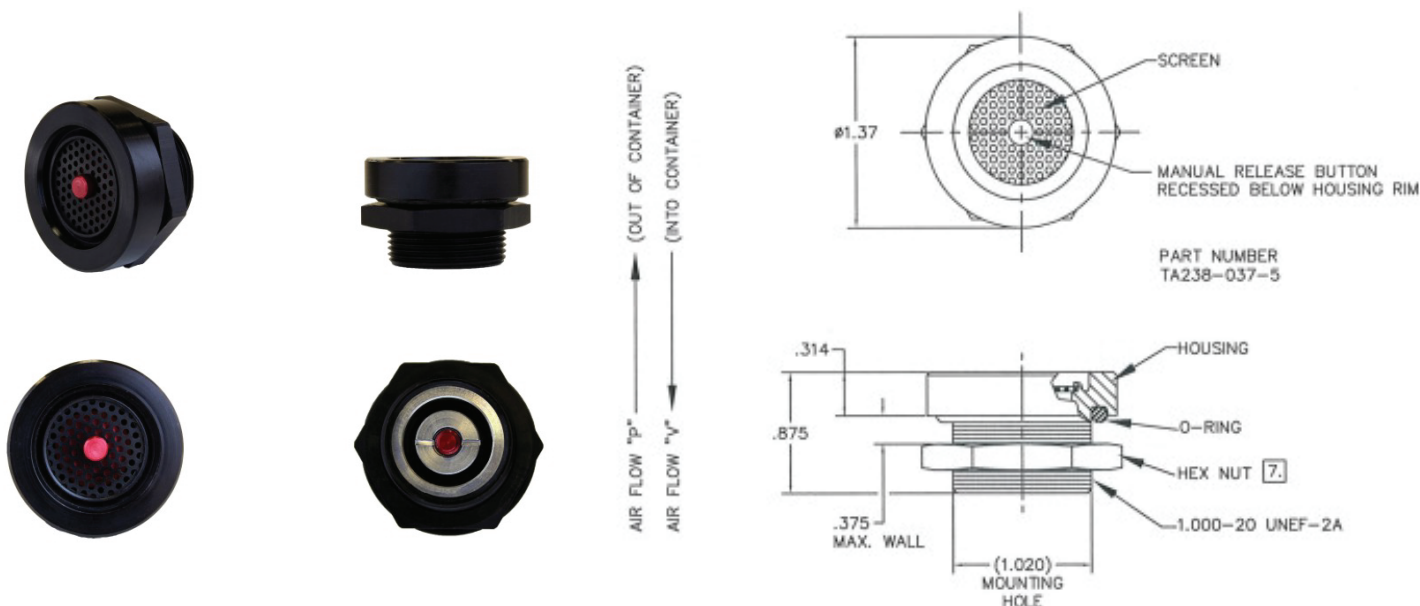
VALVES

DH/D9146/01-05 - 1.00 x 20 UNEF Thread Double Differential Relief Valve

The DH/D9146 Breather Valve fills the need for a low cost, but higher flow valve than the DH/D8887 Breather Valve. The valve can be used on transit cases and similar applications up to 33 cubic feet in volume. It has a flow rate of 4.0 scfm and is available in settings from 0.5 psi to 5.0 psi.

The valve is lightweight, rugged, tamper-proof and requires no field maintenance. Corrosion-resistant materials are used throughout. The valve seal is made of silicone rubber. A recessed manual release push button is standard on all Breather Valves Versions. It is used to equalize residual pressure or vacuum differentials in order to open the container. Please contact us for more information.

Please contact us for more information



Pressure Side (Flow Out)					Vacuum Side (Flow In)			
Part No.	Rating	Crack Pressure	Reseal	Min Flow 4 SCFM @	Rating	Crack Pressure	Reseal	Min Flow 4 SCFM @
DH/D9146/01	0.5 PSID	0.4-0.8 PSID	0.2 PSID	1.5 PSID	0.5 PSID	0.4-0.8 PSID	0.2 PSID	1.5 PSID
DH/D9146/02	1.5 PSID	1.0-1.9 PSID	0.8 PSID	2.9 PSID	1.5 PSID	1.0-1.9 PSID	0.8 PSID	2.9 PSID
DH/D9146/03	2.5 PSID	1.7-3.0 PSID	1.4 PSID	5.0 PSID	3.5 PSID	2.4-4.0 PSID	2.0 PSID	5.1 PSID
DH/D9146/04	2.5 PSID	1.7-3.0 PSID	1.4 PSID	5.0 PSID	0.5 PSID	0.4-0.8 PSID	0.2 PSID	1.5 PSID
DH/D9146/05	3.2 PSID	2.4-4.0 PSID	2.0 PSID	5.1 PSID	3.2 PSID	2.4-4.0 PSID	2.0 PSID	5.1 PSID

VALVES

DH/D9314/01-05 - 0.75 x 16 UNF Double Differential Relief Valve (W/ Weather Shield)

The DH/D9314 Breather Valve, a weather shielded version of Brownell's time tested DH/D8887 Breather Valve, was designed to meet the need for a weather shielded, low cost, two-way valve for use on transit cases and similar applications up to 4 cubic feet in volume. The valve has separate and distinct settings for both pressure and vacuum relief. It has a flow rate of 0.5 scfm at a pressure of 1.5 psi to 2.0 psi above the valve setting. Standard settings range from 0.5 psid to 3.0 psid reseal pressure.

The DH/D9314 Breather Valve requires no field maintenance. Corrosion-resistant materials are used throughout. The valve seal is made of silicone rubber. Each valve comes complete with a nut and o-ring, and is intended for small cases that require a low profile valve.

The conversion coated housing allows for use of a conductive o-ring for minimal RFI shielding. For higher energy RFI shielding, Brownell's standard style RFI nuts are available.



Part Number	Inward & Outward Pressure
DH/D9314/01	0.5 PSI
DH/D9314/02	1.0 PSI
DH/D9314/03	1.5 PSI
DH/D9314/04	2.0 PSI
DH/D9314/05	2.5 PSI
DH/D9314/06	3.0 PSI

VALVES

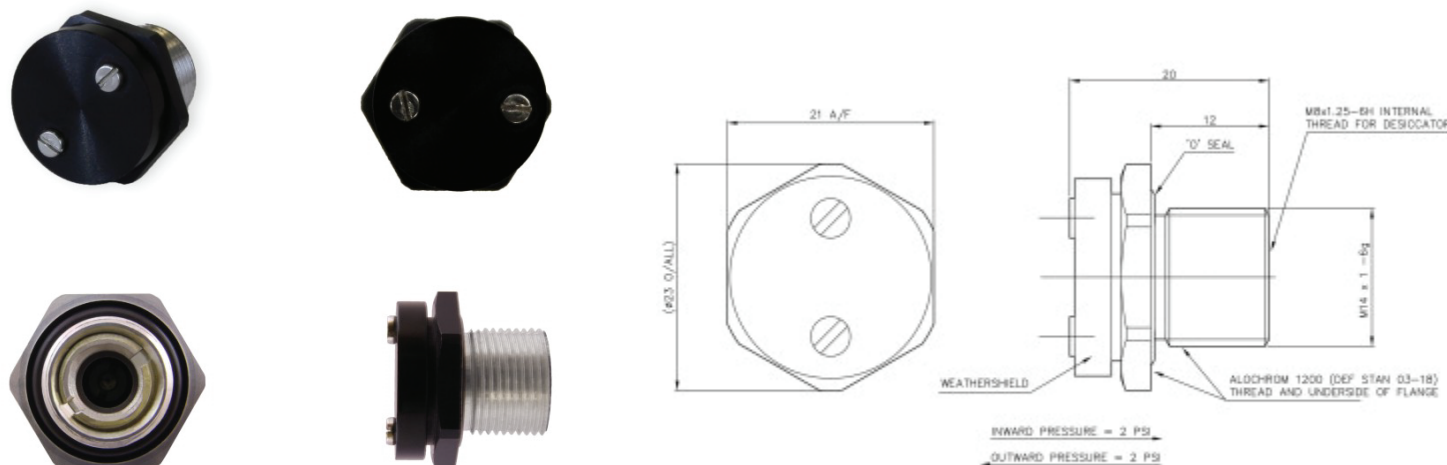
DH/D9629 - M14 Thread Double Differential Relief Valve (W/ Weather Shield)

The BLD9629 Protects enclosures from the imbalance of internal and external pressures. It is made from Anodized Aluminum.

The valve has a weather shield for added protection and can be supplied with R.F Screening Continuity if required.

We can offer this valve in a range of pressure settings, please contact us for more information.

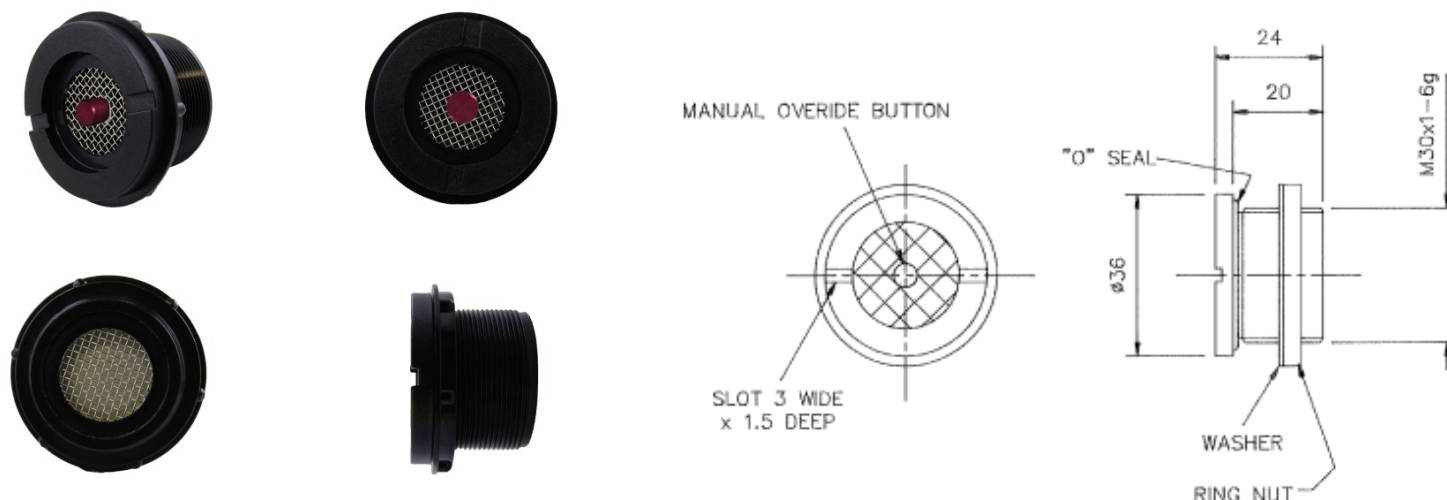
The internal M8 Mounting thread on the rear can be used to fit BLD9600 which is our ultra clean desiccators.



DH/D6637/01 - M30 Thread Pressure Relief Valve (Polycarbonate)

The DH/D6637/01 Protects enclosures from the imbalance of internal and external pressures. It is made from mixture of polycarbonate and stainless steel. The valve requires a 30.5mm diameter hole and is fitted with a manual override button for safe equipment opening.

We can offer this valve in a range of pressure settings, please contact us for more information.



VALVES

DH/D7047 - Unthreaded FDA Approved Two Way Relief Valve

The DH/D7047 is a FDA Approved Two Way Relief Valve which can be used in medical or food devices.

The items can be used to release steam build up in cookers or equalize pressure in medical storage containers.

Please contact us for more information on this valve.

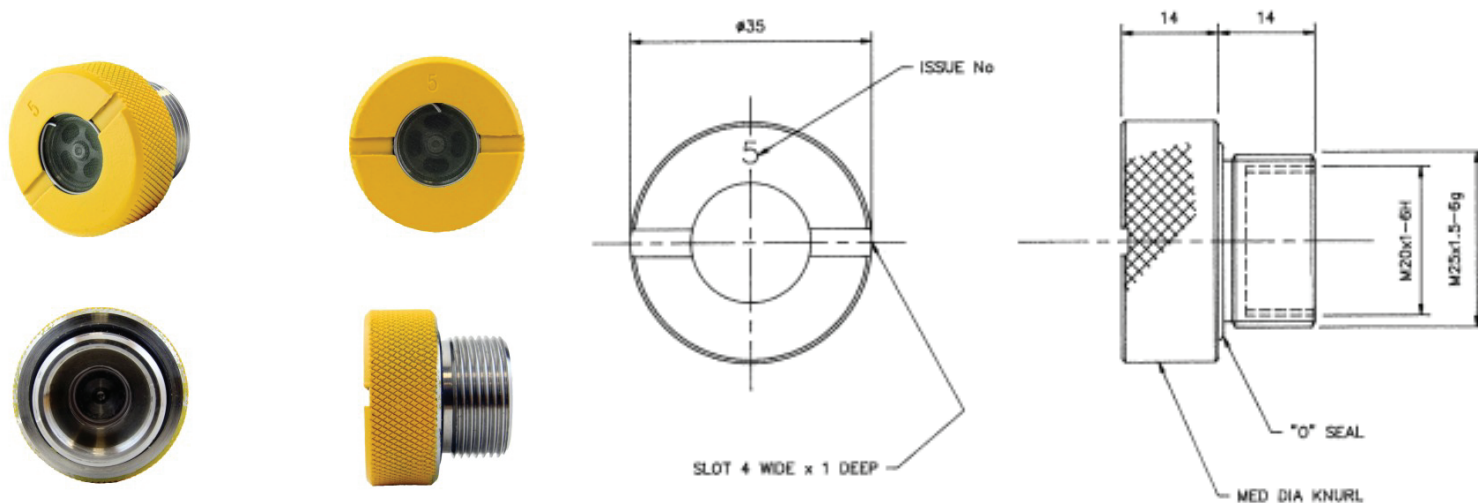


DH/D8405 - M25 Thread Stainless Steel Relief Valve

The DH/D8405 is a Two Way Pressure Relief Valve which can also be used in conjunction with a Desiccator thanks to the M20 internal thread on the rear.

The Valve has a key slot on the front and a Diamond Knurl cut body to help fitting.

The unit can be set to varying pressures, please contact us for more details.



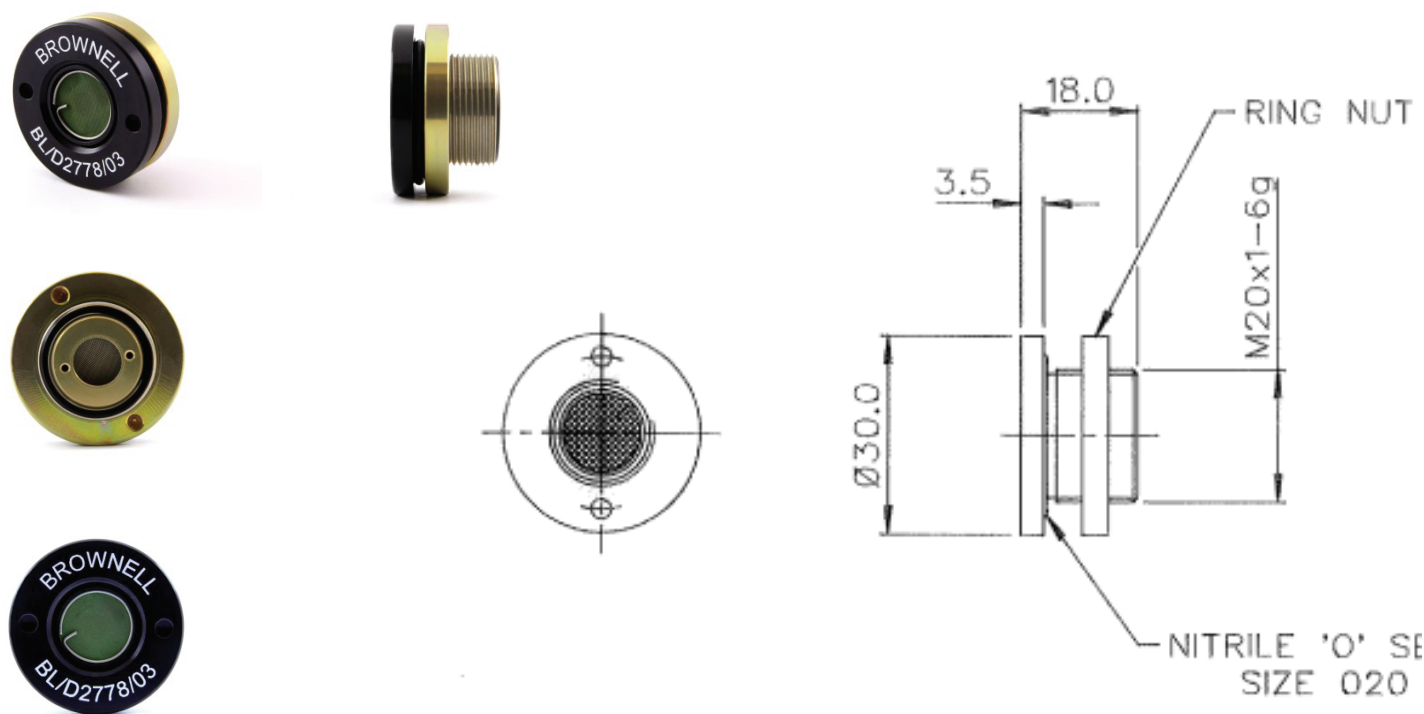
VALVES

Outward Relief Valves

Outward Relief Valves are designed for use in electronic and electro-optics equipments. The valves have pressure relief only. Standard settings range from 0.5psid to 5.0psid pressure. These valves are tamper-proof and require no field maintenance. A typical application for pressure relief valve is a safety valve for pneumatic pipelines as used with DHD/8042/01. Note: all of our two way relief valves can also be set for inward or outward only pressure settings.

DH/D2778/01-06 - M20 Thread Outward Relief Valve

The DH/D2778 is a panel mounting Outward Relief Valve which is used to protect equipment from vacuum damage. This valve is supplied with a back nut and has a Alochrome thread for R.F Screening Continuity.



Part No.	Opening Pressure
DH/D2778/01	1.25 - 1.75 PSI
DH/D2778/01	1.0 - 1.5 PSI
DH/D2778/01	2.5 - 3.0 PSI
DH/D2778/01	0.25 PSI
DH/D2778/01	0.5 - 0.75 PSI
DH/D2778/01	4.0 - 5.0 PSI

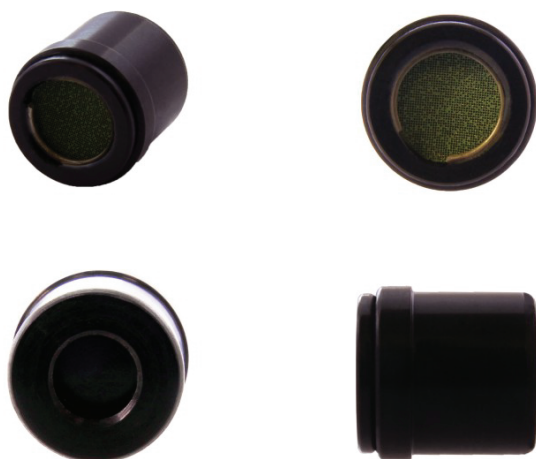
VALVES

DH/D8337 - 10mm Diameter Push Fit Outward Relief Valve

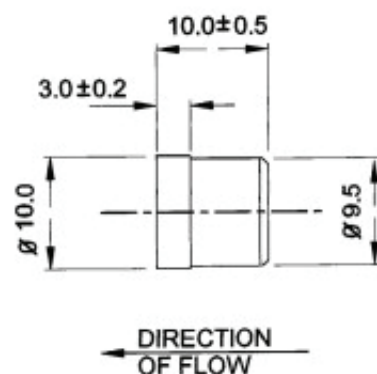
The DH/D8337 is a Push Fit Outward Relief Valve which is used to protect equipment from vacuum damage.

This valve is supplied with a Stainless Steel mesh to act as a filter and protect the valve from dust and contaminants

We can offer this valve in a range of pressure settings, please contact us for more information



STAINLESS STEEL MESH FILTER

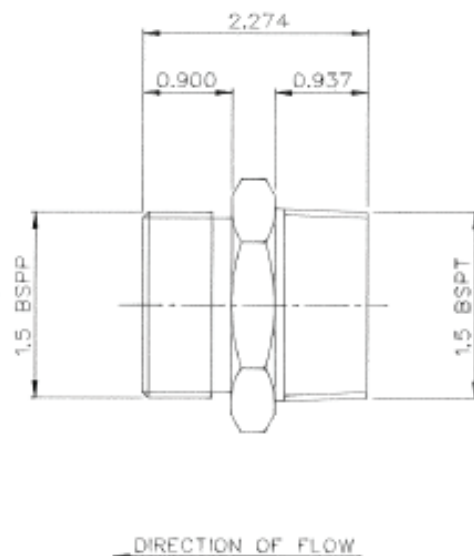
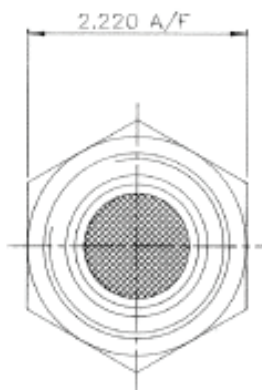


DH/D6604- 1.5 BSP Thread Outward Relief Valve (Stainless Steel)

The DH/D6604 is one of the largest Stainless Steel Outward Pressure Relief Valves we offer and can be supplied in a range of settings. Valves can also be mounted in reverse positions to act as Inward Relief Valves.

These valves are commonly used along with our range of Tank Vent Dryers to give added protection in case of blockages. The BSP thread mean they can be easy mounted into standard p

Please contact us for more information.



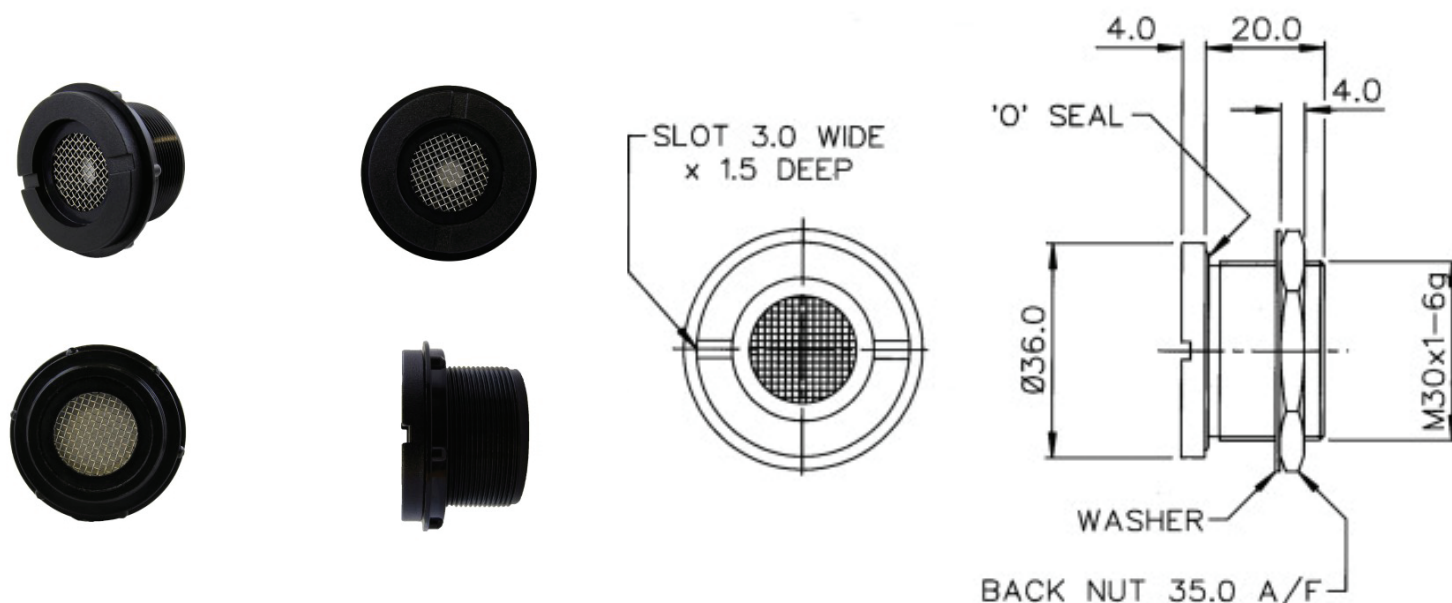
VALVES

DH/D6189 - M30 Thread Outward Relief Valve

The DHD/6189 is a panel mounting Aluminum Outward Relief Valve which protect equipment from Vacuum damage.

The unit can be supplied in various pressure settings if needed and also has a filter on the inlet.

Please contact us for more information as this item is a special item.



DH/D3588- Push Fit Outward Relief Valve

The BLD3588 is a small push fit aluminum Outward Relief Valve which protect equipment from Vacuum damage.

Please contact us for more information as this item is a special



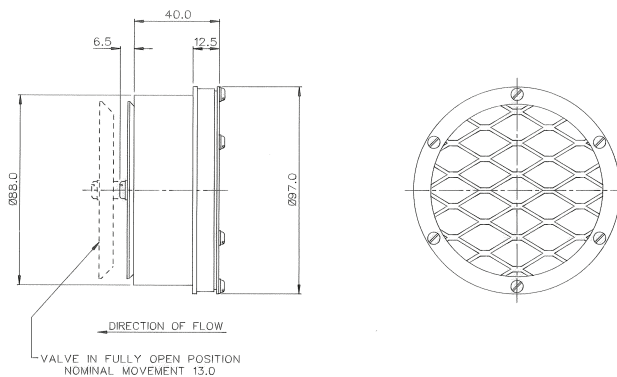
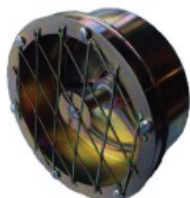
VALVES

DH/D6001 - Flange Mounted Outward Relief Valve

The DHD6001 is a large Flange Mounted Aluminum Outward Relief Valve which protect equipment from Vacuum damage.

The intake out the unit is protected by a mechanical guard, extra filtration can also be added but can affect the flow rate.

Please contact us for more information as this item is a special



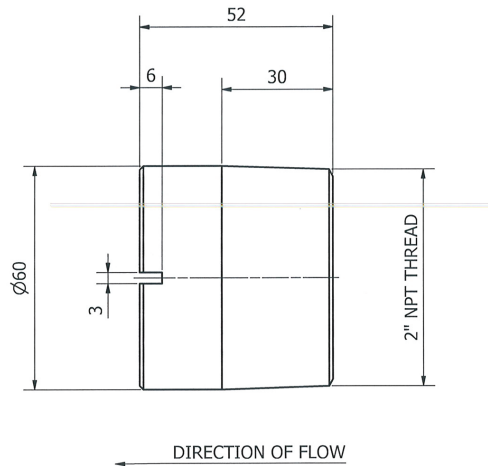
DH/D8042/01-04 - 2" Thread Outward Relief Valve (Stainless Steel)

The DHD8042 is the largest Stainless Steel Outward Pressure Relief Valves we offer and are supplied in a range of settings. They can also be fitted with either Viton or Nitrile seals and offer a large flow rate.

Valves can also be mounted in reverse positions to act as Outward Relief Valves.

These valves are commonly used along with our range of Tank Vent Dryers to give added protection in case of blockages. The BSP thread mean they can be easy mounted into standard pipe fittings.

Please contact us for more information.



Part No.	Opening Pressure	Valve Seat Material
DH/D8042/01	2.0± 0.25 PSIG	Viton
DH/D8042/02	6"±2" WG	Nitrile
DH/D8042/03	20"±2" WG	Nitrile
DH/D8042/04	3.5 PSI	Nitrile

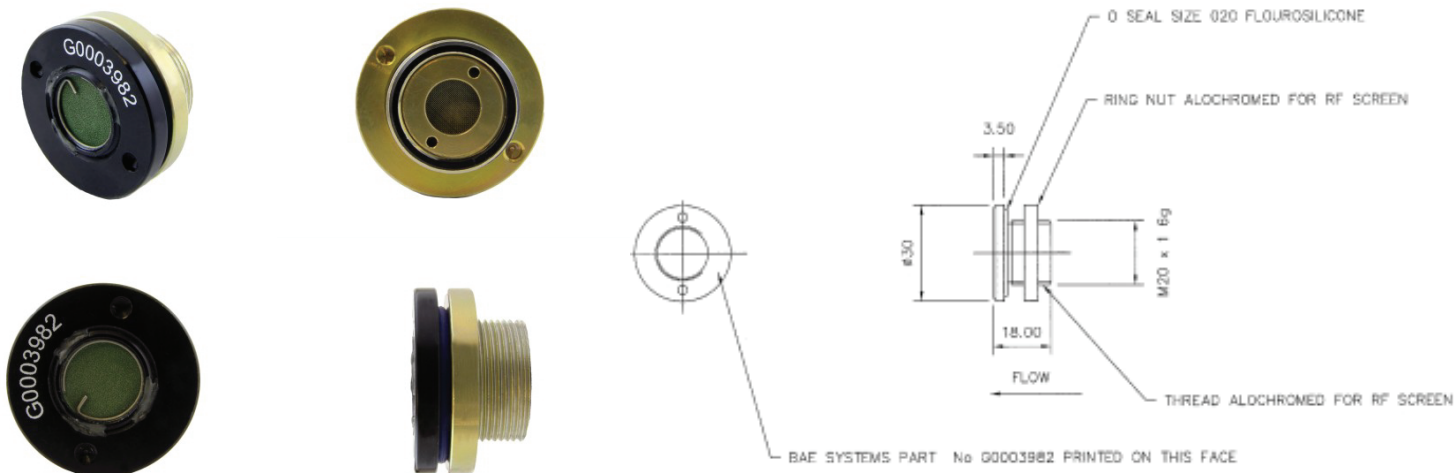
VALVES

DH/D8531 - M20 Thread Outward Relief Valve

The DHD8531 is a panel mounting Outward Relief Valve which is used to protect equipment from vacuum damage. This valve is supplied with a back nut and has a Alochrome thread for R.F Screening Continuity.

It is supplied with a back nut and o-ring for fitting and has a PTFE coated Stainless Steel mesh to act as a filter and protect the valve from dust and containments.

We can offer this valve in a range of pressure settings, please contact us for more information



DH/D7067/03 - 1.5 BSP Double Thread Outward Relief Valve

The DHD7067/03 is one of the largest hexagonal head Outward Pressure Relief Valves we offer and can be supplied in a range of settings. One side is tapered and the other parallel meaning it can be installed in-line or connected to an exhaust or intake . The unit can be easy installed with a socket or spanner.

Valves can also be mounted in reverse positions to act as Outward Relief Valves.

These valves are commonly used along with our range of Tank Vent Dryers to give added protection in case of blockages. The BSP thread mean they can be easy mounted into standard pipe fittings.



VALVES

Inward Relief Valves

Inward Relief Valves are designed for use in electronic and electro-optics equipments. The valves have vacuum relief only. Standard settings range from 0.5psid to 5.0psid pressure. These valves are tamper-proof and require no field maintenance. On some of these valves a desiccant cartridge can be fitted to adsorb moist air entering an equipment or container. A typical application for these valves is gas scavenging as with DH/D6017/01, they can also be used as check valves for pipelines. Note: all of our two way relief valves can also be set for inward or outward only pressure settings.

DH/D2777/01-06 - M24 Thread Inward Relief Valve

The DH/D2777 is a panel mounting Inward Relief Valve which is used to protect equipment from vacuum damage.

This valve is supplied with a back nut and has a Alochrome thread for R.F Screening Continuity. We can offer this valve in a range of pressure settings, please contact us for more information.



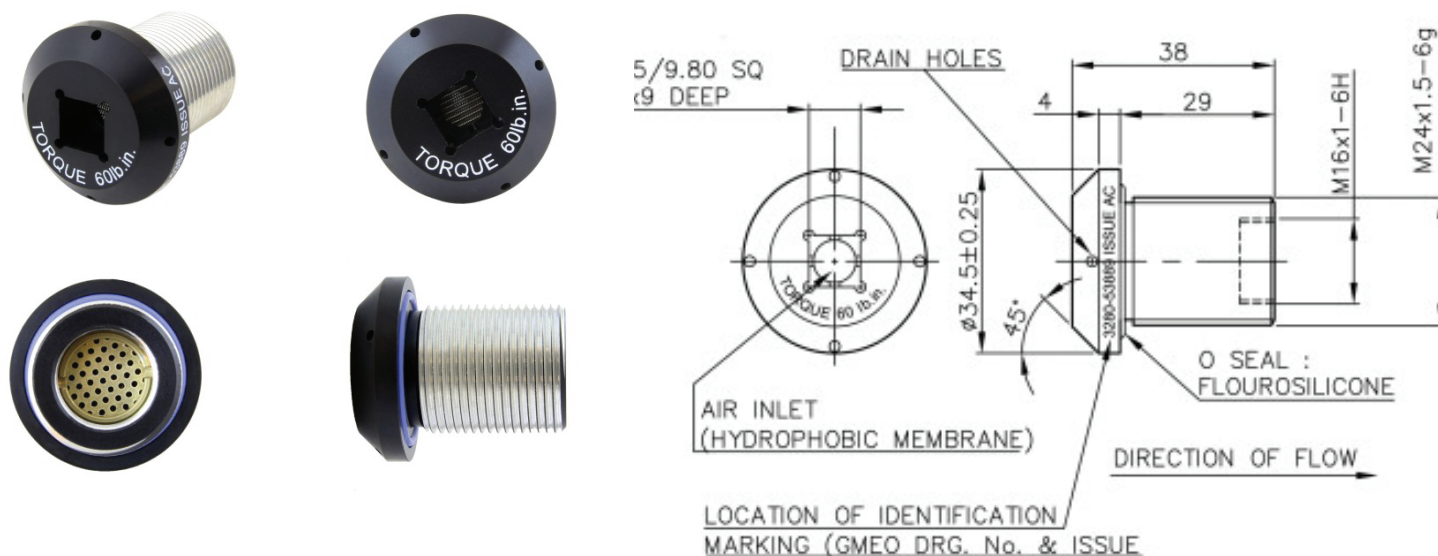
Part No.	Opening Pressure
DH/D2777/01	1.25 - 1.75 PSI
DH/D2777/02	0.5 - 0.75 PSI
DH/D2777/03	2.5 - 3.0 PSI
DH/D2777/04	0.25 PSI
DH/D2777/05	3.5 - 4.0 PSI
DH/D2777/06	1.0 - 1.5 PSI

VALVES

DH/D7725 - M24 Large Inward Relief Valve

The DHD7725 is a large Inward Pressure Relief Valves we offer and can be supplied in a range of settings. The unit can be easily installed with a square drive and is printed with the recommended installation torque figure.

Valves can also be mounted in reverse positions to act as Outward Relief Valves. These valves are commonly used on pressure sensitive equipment (electronics, containers and optics) to protect them from vacuum damage which can occur due to air transportation or atmospheric changes.



DH/D6017/01-05 - 1.5" BSP Thread Inward Relief Valve

The BLD6017 is one of the largest Inward Pressure Relief Valves we offer and are supplied in a range of settings.

Valves can also be mounted in reverse positions to act as Outward Relief Valves.

These valves are commonly used along with our range of Tank Vent Dryers to give added protection in case of blockages. The BSP thread means they can be easily mounted into standard pipe fittings.



Part No.	Opening Pressure
DH/D6017/01	125 mbar
DH/D6017/02	172 mbar $\pm$ 35 mbar (2.5 PSI $\pm$ 0.5 PSI)
DH/D6017/03	250 mbar
DH/D6017/04	35 - 70 mbar
DH/D6017/05	3"-4" WG

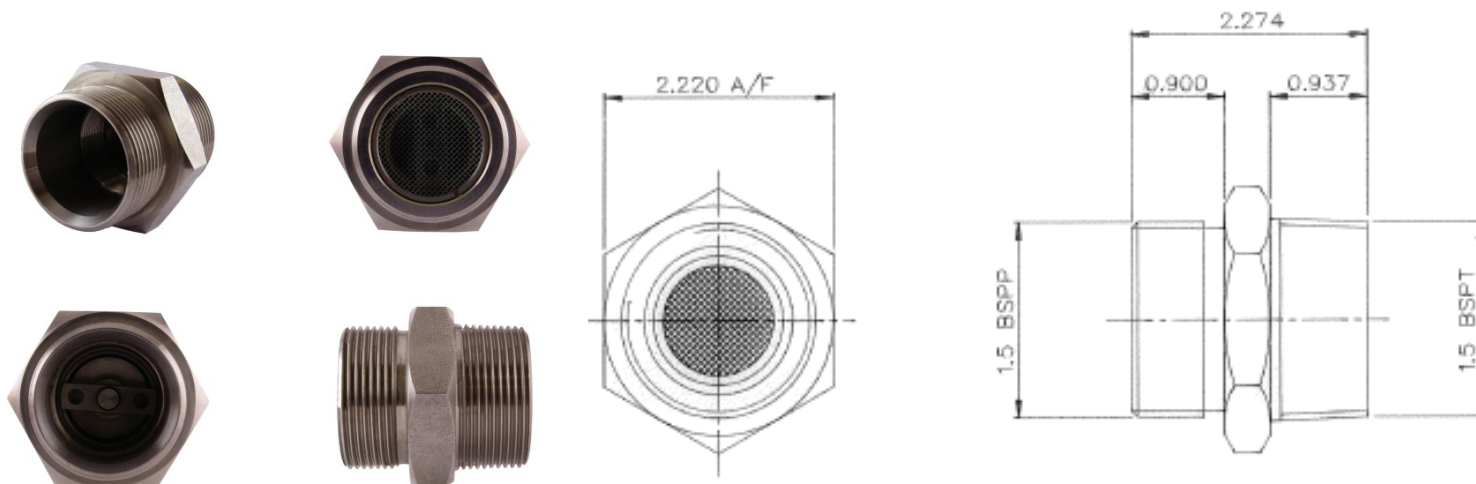
VALVES

DH/D7340 - 1.5" BSP Double Thread Inward Relief Valve (Stainless)

The DHD7340 is a large hexagonal head Inward Pressure Relief Valves with a double thread. One side is tapered and the other parallel meaning it can be installed in-line or connected to an exhaust or intake . The unit can be easy installed with a socket or spanner.

Valves can also be mounted in reverse positions to act as Outward Relief Valves.

These valves are commonly used along with our range of Tank Vent Dryers to give added protection in case of blockages. The BSP thread mean they can be easy mounted into standard pipe fittings.

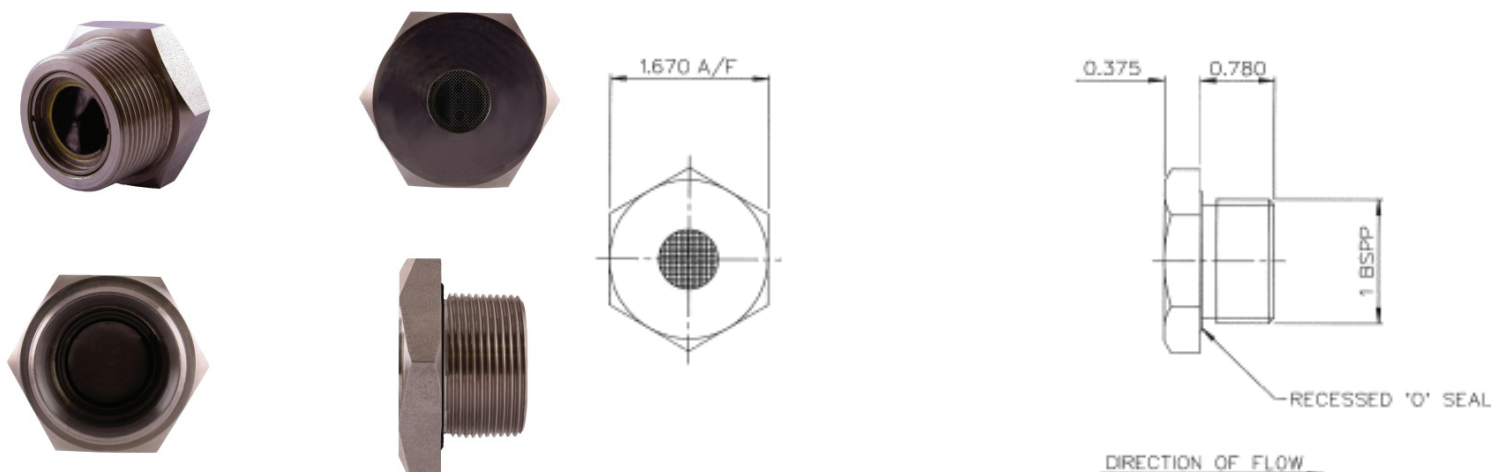


DH/D6076 - 1" BSP Thread Inward Relief Valve (Stainless Steel)

The DHD6076 is a large hexagonal head Inward Pressure Relief Valves we offer and are supplied in a range of settings. The unit can be easy installed with a socket or spanner.

Valves can also be mounted in reverse positions to act as Outward Relief Valves.

These valves are commonly used along with our range of Tank Vent Dryers to give added protection in case of blockages. The BSP thread mean they can be easy mounted into standard pipe fittings.



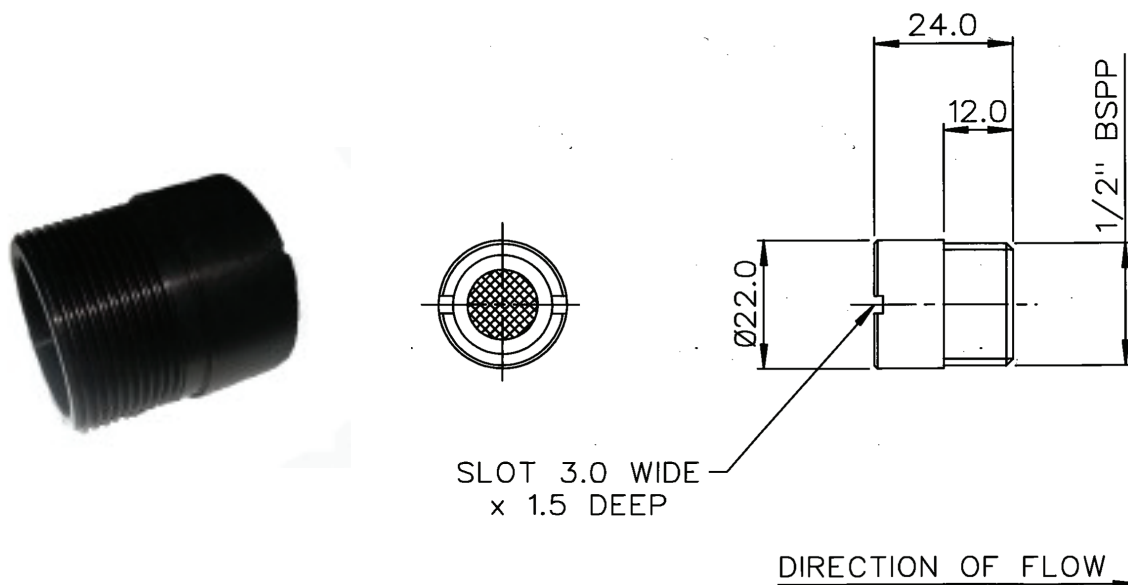
VALVES

DH/D6806/01 - 1/2" BSP Thread Inward Relief Valve

The DHD6806/01 is one of the larger inward Pressure Relief Valves we offer and are supplied in a range of settings.

Valves can also be mounted in reverse positions to act as Outward Relief Valves.

These valves are commonly used along with our range of Tank Vent Dryers to give added protection in case of blockages. The BSP thread mean they can be easy mounted into standard pipe fittings.

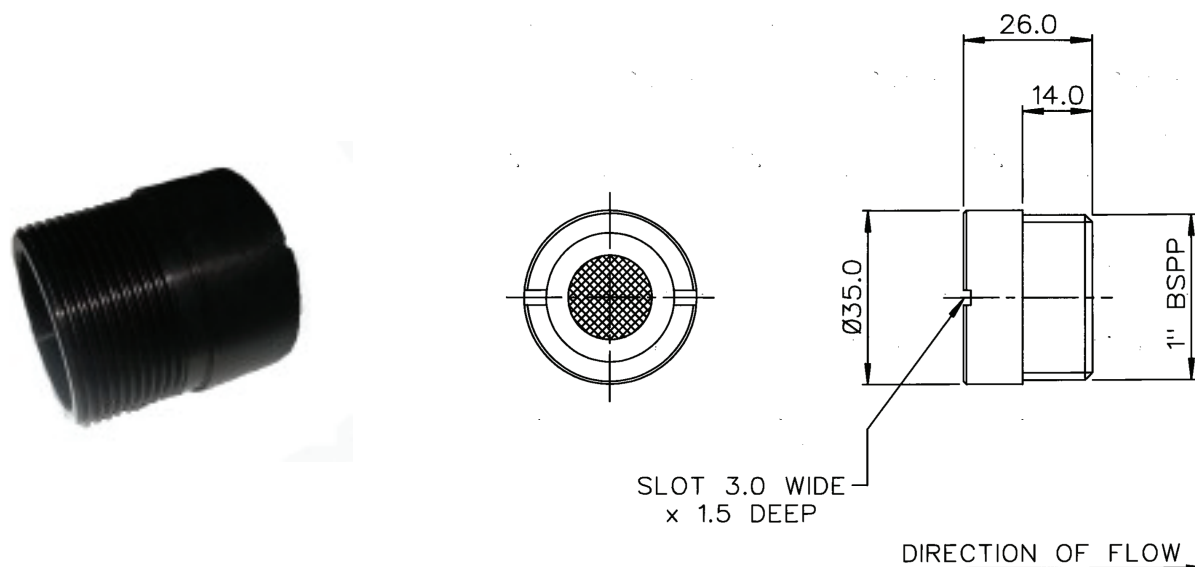


DH/D6806/02 - 1" BSP Thread Inward Relief Valve

The DHD6806/02 is one of the largest Inward Pressure Relief Valves we offer and are supplied in a range of settings.

Valves can also be mounted in reverse positions to act as Outward Relief Valves.

These valves are commonly used along with our range of Tank Vent Dryers to give added protection in case of blockages. The BSP thread mean they can be easy mounted into standard pipe fittings.



VALVES

High Flow Relief Valves

Our High Flow Valve is intended for applications requiring the moving of large amounts of air in short periods of time, automatically. This offers both pressure and vacuum relief for rapid decompression or explosive decompression. The manual release button ensures easy entry into the enclosure when it is under vacuum conditions and safe opening when the container is pressurized. The attached retaining clip guarantees the button is only used when intended. The lanyard makes losing the retaining clip impossible.

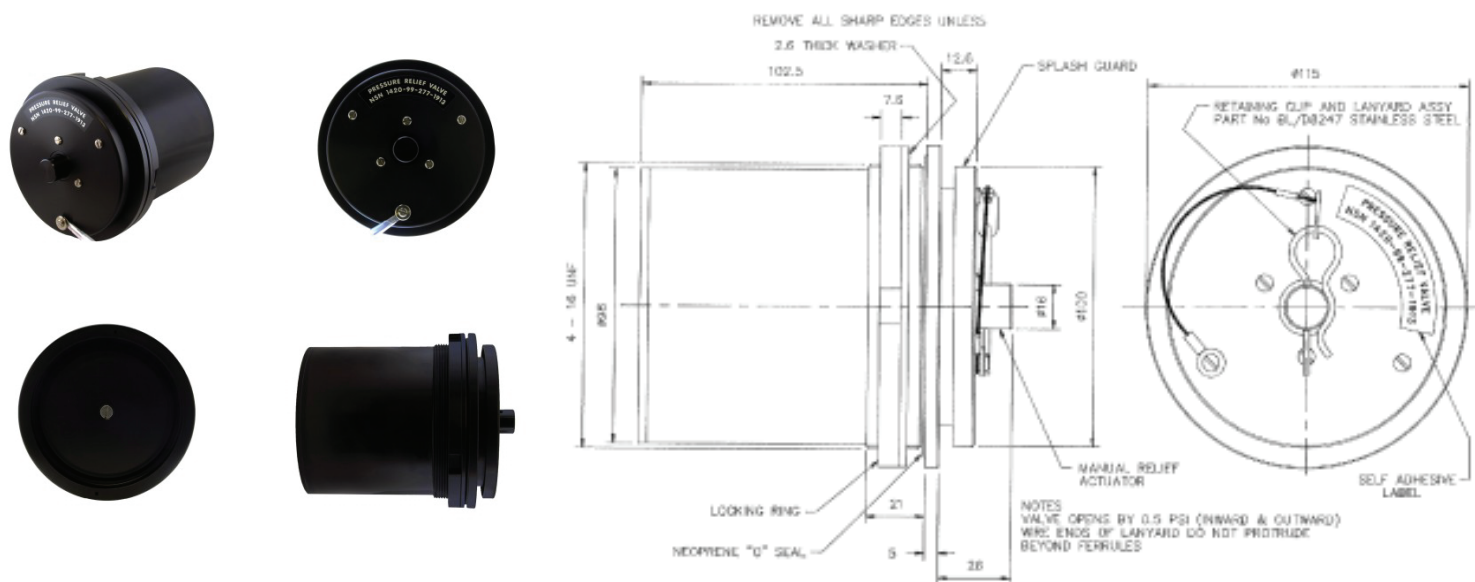
DH/D9156 - 4" UNF Thread Pressure Relief Valve

The DHD9156 High Flow Valve is intended for applications requiring the moving of large amounts of air in short periods of time, automatically. The unit offers both pressure and vacuum relief at an opening point of $0.50 \text{ psi} \pm 0.25 \text{ psi}$ in both directions. Rapid decompression, or explosive decompression, is becoming a more common requirement for airborne military packages. This requirement has presented a very difficult design challenge. One solution to this requirement has been the use of rupture disks which require replacement if used or if accidentally over-pressurized.

With a flow rate of up to 140 SCFM, the DHD9156 will provide for the rapid decompression needs of a 50 ft.^3 container that experiences a loss of pressurization from 10.1 psia (altitude of $10,000 \text{ ft.}$), a typical cargo hold pressure, to 2.7 psia , the external ambient pressure at $40,000 \text{ ft.}$, in a 15 second time period.

Airborne transport of large volume containers, even without a rapid decompression requirement, need to move large volumes of air to keep from exploding or imploding due to atmospheric pressure changes with altitude. SAE AS27166 recommends that valves should have a flow capacity of 12% of the container volume. Applied to the High Flow Valve, this means a container of over $1,100 \text{ ft.}^3$ can be protected with a single valve.

The manual release button ensures easy entry into the enclosure when it is under vacuum conditions and safe opening when the container is pressurized. The attached retaining clip guarantees the button is only used when intended. The lanyard makes losing the retaining clip impossible. The valve is low profile, projecting only 1.25" from the container wall to the tip of the manual release button. Installation into container walls up to $1/2"$ thick is simple.



VALVES

Ultra High Flow Relief Valves

The Deluge pressure relief valve is a new design Brownell Ltd has developed, for over pressure and vacuum relief applications.

The range has standard sizes of 25-200mm. These valves have an unusual operating characteristic. After fully opening there is a proportional decrease in back pressure. This allows significantly higher increases in gas flow when compared to similar size relief valves.

These valves have reaction speeds of less than 0.2 seconds this product is suitable for various applications, such as over pressure in pipelines, pressure vessels, storage vessels, equipment containers and safety relief applications. The deluge relief valves are fully automatic and reset after opening, even when maximum flow performance has been achieved.

The standard range of pressure settings is from 0.5 to 5 psi for pressure and vacuum relief. These products can operate in aggressive environments, including corrosive chemicals, driving rain, and low & high temperatures. A weather and impact shield provides further mechanical and physical protection. Additional product options also include debris filter, EMC screening and a manual relief override.

DV3-05 - High Flow Toggle Pressure Relief Valve

Introducing a new range of Ultra High Flow Relief Valves in three standard sizes of 1", 3" and 8" (25 mm, 76 mm and 200 mm). A unique operating characteristic for this pressure relief valve is proportional decrease in back pressure after the relief valve has opened at the set pressure and increased flow is required.

This allows a significantly high increase in gas flow when compared to similar size pressure relief valves. These valves are ideal for rapid decompression or explosive decompression requirements. Additionally, these valves are suitable for over pressures in pipelines, pressure vessels, storage vessels, equipment containers and safety relief applications.

The standard specification for pressure settings is from 0.5 to 5 psi for opening pressures and vacuum relief. The pressure relief valve can operate in aggressive environments, including corrosive chemicals, driving rain, and low and high temperatures. A weather and impact shield provides further mechanical and physical protection.

Additional optional features include: debris filter, EMC screening and manual relief override.

