

1039 Bronze Horizontal Lift Type Check Valve

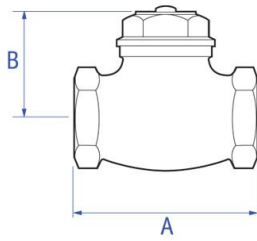


Horizontal lift type check valve BS5154 PN32 Series B Metal Disk

GENERAL INFORMATION

Pattern No. key :Standard Thread = BS21 Taper, AT = American Thread, PT = Parallel Thread

Size	Pattern No.	Pack 1 Qty	Code	Barcode	Discontinued
1/4	1039	10	119005	5013866025228	01/07/2003
3/8	1039	10	119006	5013866013515	01/07/2003
1/2	1039	1	119007	5013866013522	
3/4	1039	1	119008	5013866013539	
1	1039	1	119009	5013866013546	
1 1/4	1039	2	119010	5013866013553	
1 1/2	1039	1	119011	5013866013560	
2	1039	1	119012	5013866002533	
2 1/2	1039	1	119013	5013866002540	01/07/2003
3	1039	1	119014	5013866002557	01/07/2003
4	1039	1	119015	5013866002564	01/07/2003
1/4	1039 AT	10	119025	753818003731	01/07/2003
3/8	1039 AT	10	119026	753818003748	30/04/2003
1/2	1039 AT	0	119027	5022050288141	08/07/2008
3/4	1039 AT	0	119028	5022050318558	08/07/2008
1	1039 AT	0	119029	5022050288219	08/07/2008
1 1/4	1039 AT	0	119030	5022050288288	21/07/2006
1 1/2	1039 AT	0	119031	5022050318619	21/07/2006
2	1039 AT	0	119032	5022050288363	21/07/2006
3	1039 AT	1	119034	753818002116	30/04/2003
4	1039 AT	1	119035	753818002123	01/07/2003
1/4	1039 PT	1	119045	5013866013577	30/04/2003
3/8	1039 PT	10	119046	5013866013584	01/07/2003
1/2	1039 PT	1	119047	5013866013591	
3/4	1039 PT	1	119048	5013866013607	
1	1039 PT	1	119049	5013866013614	
1 1/4	1039 PT	1	119050	5022050228147	21/07/2006
1 1/2	1039 PT	0	119051	5022050318671	21/07/2006
2	1039 PT	1	119052	5013866002649	21/07/2006



DIMENSIONS (mm)

Code	Description	A	B	Kg
119005	1/4 1039 GM HORIZONTAL CHECK VALVE	44	30	0.14
119006	3/8 1039 GM HORIZONTAL CHECK VALVE	46	30	0.18
119007	1/2 1039 GM HORIZONTAL CHECK VALVE	57	30	0.28
119008	3/4 1039 GM HORIZONTAL CHECK VALVE	65	40	0.44
119009	1 1039 GM HORIZONTAL CHECK VALVE	78	45	0.68
119010	1.1/4 1039 GM HORIZONTAL CHECK VALVE	89	55	1.14
119011	1.1/2 1039 GM HORIZONTAL CHECK VALVE	100	60	1.46
119012	2 1039 GM HORIZONTAL CHECK VALVE	121	65	2.24
119013	2.1/2 1039 GM HORIZONTAL CHECK VALVE	159	100	5.83
119014	3 1039 GM HORIZONTAL CHECK VALVE	187	115	8.38
119015	4 1039 GM HORIZONTAL CHECK VALVE	235	130	16.21
119025	1/4 1039 AT GM HORIZONTAL CHECK VALVE	44	30	0.14
119026	3/8 1039 AT GM HORIZONTAL CHECK VALVE	46	30	0.18
119027	1/2 1039 AT GM HORIZONTAL CHECK VALVE	57	30	0.28
119028	3/4 1039 AT GM HORIZONTAL CHECK VALVE	65	40	0.44
119029	1 1039 AT GM HORIZONTAL CHECK VALVE	78	45	0.64
119030	1.1/4 1039 AT GM HORIZONTAL CHECK VALVE	89	55	1.14
119031	1.1/2 1039 AT GM HORIZONTAL CHECK VALVE	100	60	1.44
119032	2 1039 AT GM HORIZONTAL CHECK VALVE	121	65	2.24
119034	3 1039 AT GM HORIZONTAL CHECK VALVE	187	115	8.38
119035	4 1039 AT GM HORIZONTAL CHECK VALVE	235	130	16.21
119045	1/4 1039 PT GM HORIZONTAL CHECK VALVE	44	30	0.14
119046	3/8 1039 PT GM HORIZONTAL CHECK VALVE	46	30	0.18
119047	1/2 1039 PT GM HORIZONTAL CHECK VALVE	57	30	
119048	3/4 1039 PT GM HORIZONTAL CHECK VALVE	65	40	
119049	1 1039 PT GM HORIZONTAL CHECK VALVE	78	45	
119050	1.1/4 1039 PT GM HORIZONTAL CHECK VALVE	89	55	1.14
119051	1.1/2 1039 PT GM HORIZONTAL CHECK VALVE	100	60	1.44
119052	2 1039 PT GM HORIZONTAL CHECK VALVE	121	65	2.24

PRESSURE & TEMPERATURE

1039 Bronze Horizontal Lift Type Check Valve	Minimum Operating Pressure (bar)	Maximum Cold Working Pressure (bar)	Maximum Hot Working Pressure (bar)
3/4 1039 AT GM HORIZONTAL CHECK VALVE	0.5 - 1.0 bar	32.0 bar at temperatures up to 100°C	14.0 bar at temperatures up to 198°C

MATERIAL SPECIFICATIONS

Number	Component	Material
1	Body	Gunmetal
2	Cap	Forged Brass (1/2" to 1.1/4") Gravity Die Cast Brass (1.1/2" to 2")
3	Valve	Brass
4	Rating Disc	Aluminium

CARE & MAINTENANCE

Care

No regular aesthetic care is required for this product

Maintenance

A regular maintenance program is the most efficient method of ensuring longer term operational efficiency of the selected valve. Such a program would need to include a risk assessment and a planned procedure of how the maintenance will be carried out. The possibility of operational limits being exceeded and the potential hazards ensuring must be considered as part of this assessment. This should be implemented to include visual checks on the valve's condition and any development of unforeseen conditions, which could lead to failure. The correct fitting tools and equipment should be used for valve maintenance work. Separate means of draining the pipe work must be provided when carrying out any maintenance to valves. Where there may be any system debris this could be collected and /or filtered by installation of the appropriate protective device.

For further help please contact your local engineer.

If your product is under warranty please contact the Service Support Team on: 0800 1560050

REGULATIONS

Regulations

THE PRESSURE EQUIPMENT DIRECTIVE 97/23/EC and CE MARKING

The Pressure Equipment Regulations 1999 (SI 1999/2001) have now been introduced into United Kingdom law.

Valves with a maximum allowable pressure greater than 0.5 bar are covered by these new Regulations. Valves are categorised according to their maximum working pressure, size and rising level of hazard. The level of hazard varies according to the fluid being carried. Fluids are classified as Group 1, dangerous fluids or Group 2, all other fluids including steam. The Categories designated are SEP (sound engineering practice). Valves up to and including 25mm (1") are designated SEP regardless of the fluid group. Those identified as having increased hazard are Categorised as, I, II, III or IV. All valves designated as SEP do not bear the CE mark nor require a Declaration of Conformity. Categories I, II, III or IV carry the CE mark and require a Declaration of Conformity. Valves classified from the piping chart would not be included in Category IV.

GUARANTEE

Valves and Fittings

Pegler Yorkshire Customcare 5 Year Guarantee - Terms and Conditions

Products are subject to a 5 year guarantee that is between Pegler Yorkshire and the final purchaser of the product.

The guarantee is subject to proof of purchase being supplied.

This guarantee does not affect any statutory rights the consumer may have in law.

The guarantee covers manufacturing or material defects and does not cover parts subject to normal wear and tear.

This product range has been designed for the use of homeowners, domestic and commercial applications and therefore the guarantee is subject to the product being properly selected for their intended service conditions.

The guarantee is not applicable where the product is fitted contrary to the conditions in the fitting instructions.

This is reinforced where valves are covered by the European Pressure Equipment Directive (PED97/23/EC) where Installation, Operating and Maintenance Instructions are supplied with each product and/or carton.

Provided it is installed correctly and receives adequate preventative maintenance it should give years of trouble – free service.

Abusive behaviour and accidental damage to the product are not covered by this guarantee.

The extent of this liability is limited to the cost of the replacement of the defective item and not to fitting or consequential damages.

Product Data Sheet: Valves Package THE PRESSURE EQUIPMENT DIRECTIVE 97/23/EC & CE MARKING

The Pressure Equipment Regulations 1999 (SI 1999/2001) have now been introduced into United Kingdom law. Valves within a maximum allowable pressure greater than 0.5 bar are covered by these new Regulations. Valves are categorised according to their maximum working pressure, size and rating level of hazard. The level of hazard varies according to the fluid being carried. Fluids are classified as Group 1 (dangerous fluids or Group 2, all other fluids including steam). The categories designated are SEP (sound engineering practice). Valves up to and including 250mm (1") are designated SEP (regardless of the fluid group). Those identified as having increased hazard are categorised as I, II, III or IV. All valves designated as SEP do not bear the CE mark, nor require a Declaration of Conformity. Categories I, II, III or IV carry the CE mark and require a Declaration of Conformity. Valves classified from the piping chart would not be included in Category IV.

CE MARKING & THE ATEX Directive 94/9/EC

Concerning equipment and protection systems intended for use in potentially explosive atmospheres. This has been implemented in United Kingdom law by the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmosphere Regulations 1996/31 1996/192 and amended by The Equipment and Protective Systems (Amendment) Regulations 2001 (SI2001/3766). The regulations apply to all valves where each valve: a) has its own potential source of ignition; b) operates in a potentially explosive atmosphere created by:

- the presence of gases, vapours, mists released from the valve through leakage;
- the presence of gases, vapours, mists released from the valve through leakage.

The regulations will not apply to a valve without a potential source of ignition, which operates in a dust free environment and the fluid being transported is cold, inert gas or non-flammable liquid. The requisite level of protection for valves not exempt from the regulations is defined as Group II category 2 and shall bear the following markings: (Ex) II GEP X

VALVE SELECTION Selection, Storage & Protection

Valves must be properly selected for their intended service conditions. Provided it is installed correctly and receives adequate preventative maintenance it should give years of trouble-free service. They must be compatible with the system design, pressure and temperature requirements and must be suitable for the fluids that they are intended to carry. Interactions between parts in the pipe system and the valve must be considered as part of the valve selection.

Valves should be stored off the ground in a clean, dry, indoor area.

Where desiccant bags are included with the valve these should be changed after a period of 6 months.

Pegler valves are supplied in cardboard cartons or are bagged as appropriate and so adequate protection from damage is provided. When Pegler valves are fitted with pressure equipment or assemblies, suitable protective devices may be required.

PRESSURE/TEMPERATURE RATING

Valves must be installed in a piping system whose normal pressure and temperature does not exceed the stated rating of the valve. The maximum allowable pressure in valves as specified in the standards is for non-stopcock conditions. Water hammer and impact standards should also be avoided.

If system testing will subject the valve to pressures in excess of the working pressure, rating, this should be within the "shell test pressure" for the body, to a maximum of 1.5 times the PN rating and concluded with the valve fully opened. It may be hazardous to use these valves outside of their specified pressure and temperature limitations and also when not used for the correct application.

LOCATION/END-OF-LINE SERVICE

To ensure ease of operation, adjustment, maintenance and repair, valve siting should be decided during the system design phase. To prevent imposing strain on the valve seat, pipe work and valves they must be adequately supported. The 1022, 1070/125, 1065 and 1068 Gate valves are suitable for end of line service but we strongly recommend the fitting of a blanking plug to the downstream end of the valve. Pegler Ball, Globe, Check, Flanged and Lever Gate valves are not suitable for end-of-line service.

INSTALLATION Health & Safety

Before starting work on any installation a risk assessment must be made to consider the possibility of operational limits being exceeded and reduction or elimination of any potential hazards. 1. Protective clothing and safety equipment must be utilised as appropriate to the hazard presented by the nature of the process to which the valve is being installed or maintained. 2. Before installing or removing a valve the pipeline circulating pumps (when fitted) must be turned off. The pipeline must be de-pressurised, drained and vented. Valves must be fully opened to ensure release of any pipeline or valve pressure. 3. Filters must be trained in manual and mechanical handling to enable them to safely lift and install Pegler valves. 4. The valve selected must be suitable for the required service conditions. The pressure and temperature limitations are indicated on the valve nameplate, body or data plate. These must not be exceeded.

5. Valve seats, seals and internal components can be damaged by system debris. Protective devices may need to be fitted and

system flushing may be required. 6. Any flushing fluid used to clean the pipeline must not cause any damage to the valve and its components. 7. Pegler valves must not be misused by fitting them by their hand wheels, levers or stems. 8. Pegler valves are not suitable for fatigue loading, creep conditions, fire testing, fire hazard environment, corrosive or erosive service, or for carrying fluids containing abrasive solids. There is no allowance for corrosion in the design of these valves. Designs for this valve do not allow for decomposition of unstable fluids and must not be used where this could occur.

9. Pegler valves are not designed to withstand the effects of fire, wind, earthquakes and traffic. 10. All Health and Safety Rules must be followed when installing and maintaining valves.

INSTALLATION

Unpack the valve and check that the flow paths and valve threads are clean and free from debris. Check the body markings and nameplate to ensure that the correct valve has been selected for installation. Gate valves and globe valves may be fixed in "vertical pipe work with stem horizontal" or "horizontal pipe work with stem vertical and upright". Globe valves are marked with a directional flow arrow on the body. The valve will function correctly providing it is fitted so that the fluid transported follows the indicated flow direction. Make sure that a gate valve is fully closed during installation. Fitting a gate valve in the open position may cause twisting and the gate and seating may not mate properly. The valve should be operated from fully open to fully closed to test that it has been correctly installed.

The valve should not be installed in horizontal pipe work with stem horizontal because full closure may be hindered by an accumulation of system debris. Pegler Valves are manufactured to exacting standards and, therefore, should not be subjected to misuse. The following should be avoided: **Caress handling** (Valves should not be lifted using the hand wheel, lever or the stem). **Dirt and debris** entering the valve through the end ports. **Excessive force** during assembly and hand wheel operation. **Ball valves may be fixed in any orientation, always leaving enough space for the 90° operation of the lever handle.** **Horizontal and Vertical pattern check valves may be fitted in horizontal pipe work with the cap uppermost and vertically with the flow in an upwards direction.** The valve is marked with a directional flow arrow on the body. The valve will function correctly providing it is fitted so that the fluid transported follows the indicated flow direction. Check valves having 6 diameters of straight length of pipe upstream and 3 diameters downstream are suitable for velocities of 3 metres per second. If the valve is situated such that

non uniform or pulsating flow enters the valve, e.g. the valve is close to reciprocating pumps, then the velocity should not exceed 2 metres per second. Use suitable hangers close to both ends of the valve in order to remove stresses transmitted by the pipe. Confirm that the pipe threading length is correct to avoid excessive penetration of the pipe into the valve that would otherwise cause pipe only and not in the valve threads. Surplus compound will then be forced outwards and will not enter the valve. Over use of compound can lead to valve failure on the body ends. Threads should be engaged correctly when tightening the valve onto the pipe. The wrench should always be fitted on the body end adjacent to the joint being made. Severe damage can occur to stems, valves and seats by the use of hand tools or levers larger than those originally supplied by the manufacturer, and by wheelkeys. Any electrical component e.g. actuators, limit switches must be explosion proof and comply with the ATEX Directive and Standards as listed in BS EN 1127-1 Clauses 6, 4.5.

OPERATION

To open - an anti-clockwise rotation of the hand wheel will open the valve. When it will go no further return the hand wheel clockwise 1/2 turn. To close the valve a clockwise rotation of the hand wheel will close the valve. Closure will be confirmed when the handle can be turned no further. **Caution:** Service applications with extremes of temperature may cause the wedges to become tight in the valve. The valve may be become stiff to operate in these circumstances. Suitable hand protection applications. The valve should only be used in the fully open or fully closed position. Gate valves are not suitable for regulating and throttling service. **Globe Valves** To open - an anti-clockwise rotation of the hand wheel will open the valve. When it will go no further return the hand wheel clockwise 1/2 turn. To close the valve a clockwise rotation of the hand wheel will close the valve. Closure will be confirmed when the handle can be turned no further. **Caution:** Suitable hand protection should be worn when operating valves used in extreme temperature applications. Globe valves are suitable for regulating and throttling service. **Check Valves** The Horizontal/vertical pattern check valves operate according to the flow within the pipeline and there is no external method of operation. **Ball Valves** **PB LEVER HANDLE** To open - turn the lever 90° so that it is in line

with the pipe run in which it is installed. To close - turn the lever 90° so that it is across the line of the pipe in which it is installed. Full closure and closing is completed when a full 90° is achieved and the lever is firmly set against the stop on the valve body. **PB T** Models have lockable handles for use in both open and closed positions. In the fully open position the T handle is in line with the pipe work. To lock the valve in the open position a hexagon key of the appropriate size can be used to remove the securing screw. The T handle can then be fitted from the valve. This should then be rotated through 180° and refitted on to the valve spring ensuring the handle slot engages on to the body lug. Insert the securing screw and re-tighten with the hexagon key.

PB EL models are fitted with an extended spindle mechanism that lifts the lever away from the body and is particularly useful when pipe insulation is being used. This version is only available with a standard lever handle. **Caution:** Service applications with extremes of temperature may cause the ball to become tight in the valve. The valve may be become stiff to operate in these circumstances. Suitable hand protection should be worn when operating valves used in extreme temperature applications. The valve should only be used in the fully open or fully closed position. Ball valves are not suitable for regulating or throttling applications.

MAINTENANCE

A regular maintenance program is the most efficient method of ensuring longer term operational efficiency of the selected valve. Such a program would need to include a risk assessment and a planned procedure of how the maintenance will be carried out. The possibility of operational limits being exceeded and the potential hazards ensuring must be considered as part of this assessment. This should be implemented to include visual checks on the valve's condition and any development of unforeseen conditions, which could lead to failure. The correct fitting tools and equipment should be used for valve maintenance work. Separate means of draining the pipe work must be provided when carrying out any maintenance to valves. Where there may be any system debris this should be collected and/or filtered by installation of the appropriate protective device. **Gland Adjustment** - The gland may need adjustment during installation and then periodically thereafter to maintain a stem gland seal. **NOTE:** It is recommended that within the 1st year the gland be inspected at 3 monthly intervals to check for gland leakage. **Gland Replacement** - Under normal working conditions Pegler gland and globe valves do not normally require any maintenance, however, in the event of maintenance being necessary, the following procedure should be followed:

Before starting work, de-pressurise the system, turn off any circulating pumps. Slacken the hand wheel nut and remove the nut, nameplate and hand wheel. Remove the gland nut and gland ring. Using a suitable tool, lift out the existing packing and make sure the stem and stuffing box are clean & free from debris. Care must be taken not to damage the valve stem. **Fit a replacement Pegler packing gland into the stuffing box and push down firmly.** Re-assemble the gland ring and gland nut. Re-attach the handwheel, nameplate and nut. Tighten the gland nut and confirm stem resistance while operating the valve. Once the pressure is re-established a check for leak tightness should be made, further adjust the gland nut as required necessary to achieve a satisfactory seal. **PB Permanent removal of the CE compliance of this valve, Pegler Ball valves and Check valves are generally NOT suitable for maintenance.** According to valve type, gland packing and valve discs may be replaced. Valves within the scope of the ATEX Directive with a protective level defined as Group II (category 2 will operate in Zone 1 (gases/vapours) or Zone 21 (dust) designated in BS1127-1 Explosion prevention and protection. Tools are either "single spark" e.g. screwdriver, spanner, impact screwdriver or "shower of sparks" e.g. sawing or grinding. Only steel "single spark" tools are permitted in Zones 1 & 21. Tools causing showers of sparks are only permissible if: a) no hazardous explosive atmosphere is present. b) dust deposits have been removed and no dust cloud is present. The use of tools on equipment in Zones 1 and 21 should be subject to a "permit to work" system.

1029 Renewable Valve Disc System.

Before starting work, de-pressurise the system, turn off any circulating pumps, and ensure the valve is empty of fluid. Using a suitable wrench remove the complete bonnet assembly from the valve. Care should be taken to ensure the appwork is held securely during this process so that there is no distortion to the valve threads. Any damage to the threads could lead to valve failure. Strichen and remove disc nut and disc. Assess damage to valve seat replacing the whole valve if necessary. The valve disc can be replaced with an equivalent size disc and type as appropriate. Re-attach a replacement disc and disc nut. Re-assemble the bonnet in to the valve body, checking for damage. Ensure the valve bonnet is joined securely to body and will not leak. NB. The 1029 Globe valves have non-metallic PTFE valve discs. **Installation, Operating & Maintenance Instructions are available from Sales Office.** Pegler recommended spares must be used. Refer to Pegler Technical Department for further information.

PRODUCT LIFE SPAN

When a valve is properly selected for its service conditions it should give years of trouble-free service provided it is installed correctly and receives adequate preventative maintenance. By not considering the compatibility of the system design and the pressure and temperature requirements the life expectancy of the valves can be adversely affected and valve failure may occur. The nature of the fluid being carried through the valve could also affect the valve performance as this could lead to premature valve failure. There may also be interactions between metals in the pipe system and the valve which need to be considered. Appropriate flushing and cleaning of the pipe work installation should take place when commissioning the system as this would help extend the valve life.

Reference Material: Pegler Valves Package Brochure, Pegler Spares Catalogue, and Spares Price list. A Technical File is held at Doncaster as part of the requirements for compliance to the European Pressure Equipment Directive (PED 97/23 EC). **MAINTAINING A POLICY OF CONTINUAL PRODUCT DEVELOPMENT PRESERVES THE RIGHT TO CHANGE SPECIFICATION DESIGN AND MATERIALS OR PRODUCTS LISTED IN THIS LABELLET WITHOUT PRIOR NOTICE**

Head Office: Pegler Limited, St Catherine's Avenue, Doncaster, South Yorkshire DN4 8DF England www.pegler.co.uk

UK Sales: Northern Tel: 0870 1200281 Fax: 01302 560108 Southern Tel: 0870 1200282 Fax: 01302 560456 Western Tel: 0870 1200283 Fax: 01302 560109 uk.sales@pegler.co.uk

Export Sales: Tel: 44 (0) 1302 855656 Fax: 44 (0) 1302 730513 export@pegler.co.uk

QUALITY • RELIABILITY • INNOVATION

PL Pegler

PL Pegler

QUALITY • RELIABILITY • INNOVATION

Engineers Valves

**Installation, Operating & Maintenance Instructions
Pressure Equipment Directive**

**PED 97/23/EC Compliant
A Watertight Guarantee Of Quality**

VALVE SUITABILITY

Product	Steam	Water	Oil	Air	Gas Inert	Gas Condensable	Gas Corrosive	Gas Oxygen
P8700	✓	✓	✓	✓	✓	✓	✓	X
P8500 RED	✓	✓	✓	✓	X	X	X	X
P8500 YELLOW	✓	✓	✓	✓	✓	✓	✓	X
P8300 RED/BLUE	✓	✓	✓	✓	X	X	X	X
P8300 YELLOW	✓	✓	✓	✓	✓	✓	✓	X
P8100	X	✓	✓	✓	X	X	X	X
1065	X	✓	✓	✓	X	X	X	X
1068	✓	✓	✓	✓	X	X	X	X
1072	✓	✓	✓	✓	X	X	X	X
1070/125	✓	✓	✓	✓	X	X	X	X
P81M	✓	✓	✓	✓	X	X	X	X
63	X	✓	✓	✓	X	X	X	X
GMS3	X	✓	✓	✓	X	X	X	X
1029	✓	✓	✓	✓	✓	✓	✓	X
1031	✓	✓	✓	✓	X	X	X	X
1039	✓	✓	✓	✓	X	X	X	X
1060A	✓	✓	✓	✓	X	X	X	X
1062	✓	✓	✓	✓	X	X	X	X
1063	X	✓	✓	✓	X	X	X	X
1064	X	✓	✓	✓	X	X	X	X
1832	X	✓	✓	✓	X	X	X	X
833GM, GM LS	X	✓	✓	✓	X	X	X	X

* Pressure limited to 10 bar for Air & Gas applications. ** Pressure limited to 5 bar for Air applications.

Thread Depths (mm)

Product	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	4"
P8700	11.5	11.9	15.4	16.7	19.4	21.7	21.4	26.0	30.5	33.5	39.5
P8500 RED	11.5	11.9	15.4	16.7	19.4	21.7	21.4	26.0	30.5	33.5	39.5
P8500 YELLOW	11.5	11.9	15.4	16.7	19.4	21.7	21.4	26.0	30.5	33.5	39.5
P8300 RED/BLUE	-	-	-	-	-	-	-	-	-	-	-
P8300 YELLOW	-	-	-	-	-	-	-	-	-	-	-
P8100	-	-	12.7	14.0	16.2	18.5	18.5	22.8	-	-	-
1065	-	-	12.7	14.0	16.1	18.5	18.5	22.8	-	-	-
1068	-	-	15.0	16.3	19.1	21.4	21.4	25.7	30.2	33.3	39.3
1072	-	-	15.0	16.3	19.1	21.4	21.4	25.7	-	-	-
1070/125	11.4	11.4	15.0	16.3	19.1	21.4	21.4	25.7	30.2	33.3	39.3
P81M	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-
GMS3	-	-	-	-	-	-	-	-	-	-	-
1029	7.5	7.9	9.9	11.1	12.3	14.3	14.3	18.2	19.8	22.6	-
1031	-	-	9.9	11.1	12.3	14.3	14.3	18.2	-	-	-
1039	-	-	9.9	11.1	12.3	14.3	14.3	18.2	-	-	-
1060A	-	-	15.0	16.3	19.1	21.4	21.4	25.7	25.0	33.0	33.0
1062	-	-	15.9	16.7	19.0	-	-	-	-	-	-
1063	-	10.3	12.8	14.2	15.0	15.2	16.4	17.2	19.8	26.0	26.6
1064	-	10.3	12.8	14.2	15.0	15.2	16.4	17.2	19.8	26.0	26.6
1832	-	-	-	-	-	-	-	-	-	-	-
833GM, GM LS	-	-	-	-	-	-	-	-	-	-	-

OPERATIONAL LIMITS

Product	PN	Non-Shock Pressure @ Temp. Range	Non-Shock Pressure @ Max. Range
P8700	40*	40 Bar - 10°C to 110°C	10 Bar at 180°C
P8500 RED	25	25 Bar - 10°C to 100°C	16.5 Bar at 150°C
P8500 YELLOW	25*	25 Bar - 10°C to 100°C	16.5 Bar at 150°C
P8300 RED/BLUE	16	16 Bar - 10°C to 30°C	5 Bar at 120°C
P8300 YELLOW	16*	16 Bar - 10°C to 30°C	5 Bar at 120°C
P8100	25	25 Bar - 10°C to 100°C	4 Bar at 120°C
1065	17.5	17.5 Bar - 0°C to 25°C	17.5 Bar at 93°C
1068	20	20 Bar - 10°C to 100°C	9 Bar at 180°C
1072	32	32 Bar - 10°C to 100°C	14 Bar at 198°C
1070/125	20	20 Bar - 10°C to 100°C	9 Bar at 180°C
P81M	16	20 Bar - 10°C to 100°C	9 Bar at 180°C
63	16	16 Bar - 10°C to 30°C	5 Bar at 120°C
GMS3	16	16 Bar - 10°C to 30°C	5 Bar at 120°C
1029	32*	32 Bar - 10°C to 100°C	14 Bar at 198°C
1031	32	32 Bar - 10°C to 100°C	14 Bar at 198°C
1039	32	32 Bar - 10°C to 100°C	14 Bar at 198°C
1060A	25	25 Bar - 10°C to 100°C	10.5 Bar at 186°C
1062	25	25 Bar - 10°C to 100°C	10.5 Bar at 186°C
1063	8 - 12	0°C to 90°C	90°C
1064	8 - 12	0°C to 90°C	90°C
1832	10	10 Bar - 0°C to 120°C	10 Bar at 120°C
833GM, GM LS	10	20 Bar - 10°C to 100°C	13 Bar at 120°C

* 10 bar for Gas

PED Categorisation Table

Product	1/4"	3/8"	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	4"
P8700	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	Cat 1	Cat 1	Cat 1	Cat 1	Cat 1	Cat 1
P8500 RED	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P
P8500 YELLOW	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	Cat 1	Cat 1	Cat 1	Cat 1	Cat 1	Cat 1
P8300 RED/BLUE	-	-	-	-	-	-	-	-	-	-	-
P8300 YELLOW	-	-	-	-	-	-	-	-	-	-	-
P8100	-	-	-	-	-	-	-	-	-	-	-
1065	-	-	-	-	-	-	-	-	-	-	-
1068	-	-	-	-	-	-	-	-	-	-	-
1072	-	-	-	-	-	-	-	-	-	-	-
1070/125	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P
P81M	-	-	-	-	-	-	-	-	-	-	-
63	-	-	-	-	-	-	-	-	-	-	-
GMS3	-	-	-	-	-	-	-	-	-	-	-
1029	S.E.P	S.E.P	S.E.P	S.E.P	S.E.P	Cat 1	Cat 1	Cat 1	Cat 2	Cat 2	-
1031	-	-	-	-	-	-	-	-	-	-	-
1039	-	-	-	-	-	-	-	-	-	-	-
1060A	-	-	-	-	-	-	-	-	-	-	-
1062	-	-	-	-	-	-	-	-	-	-	-
1063	-	-	-	-	-	-	-	-	-	-	-
1064	-	-	-	-	-	-	-	-	-	-	-
1832	-	-	-	-	-	-	-	-	-	-	-
833GM, GM LS	-	-	-	-	-	-	-	-	-	-	-

Category 1 and Category 2 carry the CE mark