

PISTON INTAKE VALVE



Piston Intake Valve

Description and operating instructions

Shut-off valve DN 120 for pressure and suction hose lines with hydraulic balanced stainless-steel piston enabling easy closure even under pressure. The piston intake valve is equipped with an air bleeder, pressure relief valve and hand wheel with folding swivel hand grip. It takes only 9 turns to open or close the valve.

A Unit of IDEX Corporation



FOREWORD

Conversions and modifications

Unauthorised conversions or modifications to the Gate Valve are prohibited without written consent from the manufacturer.

AWG Fittings GmbH accepts no liability for damage caused by conversions or modifications, improper handling by the customer or by third parties commissioned by the customer or caused by non-compliance with these instructions.

Copyright

This operating manual is valid for the device Piston Intake Valve (stainless steel piston) with pressure relief valve

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These instructions and the applicable documents are not subject to any automatic update service. The latest version can be obtained from the manufacturer.

CONTENTS

FOREWORD	2
CONTENTS.....	3
SAFETY INFORMATION	4
Operating personnel:	4
Meaning of safety words:	4
Intended use:	4
Foreseeable misuse:	4
PRODUCT WARNINGS.....	5
TECHNICAL INFORMATION	8
INSTALLATION	9
Mounting to the Apparatus	9
Set pressure relief valve.....	9
OPERATION.....	10
Valve Operation	10
MAINTENANCE	10
WARRANTY	11

SAFETY INFORMATION

Operating personnel:

Only persons whom have read and understood these operating instructions or have been trained in the use of the system may work with the Piston Intake Valve. The safety instructions must be strictly observed.

The user must read the instruction manual before use. Failure to follow the warnings and instructions may result in injury. If you do not understand how to use this device and have not received proper training, do not use this product.

Meaning of safety words:

⚠ DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury
⚠ WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Intended use:

The AWG Piston Intake Valve is designed for intake applications.

Foreseeable misuse:

- Operating above maximum operation pressure.
- Not draining and allowing water to freeze inside the product.
- Dropping the fitting from a height where damage is incurred.
- Prolonged exposure to temperatures¹ above + 55°C / +130° F, or below -20°C / -5° F
- Operating in a corrosive environment.
- Other misuse that might be unique to your specific firefighting environment

⚠ WARNING

Read these instructions before use.

Failure to follow the instructions provided with the piston intake valve, may result in serious injury. For safe use of this product, you must read and follow the instructions.

¹ with flowing water
M1136B02 | Rev.01-03/22

PRODUCT WARNINGS

▲ DANGER

▲ DANGER

Do not exceed maximum operating pressure, particularly when relay pumping. Exceeding the maximum rated pressure for this appliance may cause malfunction or failure resulting in severe injury or death.

▲ DANGER

Failure of fittings and hoses can result in injury. Use caution not to exceed hose pressure as stated in NFPA 1961 for the type of hose being used.

▲ DANGER

Ensure all connections are secure and complete. Failure to ensure proper connection may result in leaks or cause the devices to become disconnected under pressure resulting in injury or death.

▲ DANGER

Open and close all valves slowly. Failure to operate valves slowly may cause a water hammer, which may result in: damage or failure of the hose, coupling devices and appliances leading to injury or death

▲ DANGER

Attach hose line securely to valve.
Attach hose line securely to appliance/apparatus.

Ensure all connections are secure and complete. Failure to ensure proper connection may result in leaks or cause the devices to become disconnected under pressure resulting in injury or death.

Open the air bleeder on top of the valve completely.

▲ DANGER

Slowly fill the hose line with water and allow all the air to bleed from the hose. Do not fill too quickly, as this may cause a water hammer and damage: valves, hoses, apparatus and/or appliances, resulting in equipment failure or injury. When all the air has been bled from the hose line, close the air bleeder valve completely. Slowly open the intake valve completely. Avoid opening quickly as this may cause a water hammer and damage valves, hoses, apparatus and/or appliances resulting in equipment failure and injury.

▲ DANGER

The relief valve has no field serviceable parts. Never try to repair this intake valve unless you are a certified repair person. Improper repair could result in serious injury and/or death.

▲ DANGER

If the relief valve operates continually, fails to operate or water leaks slowly through the relief valve during use, remove it from service. The valve should be cleaned and repaired by an AWG certified repair facility with the pressure reset.

▲ WARNING

- ▲ WARNING** This equipment is to be used by trained firefighting personnel only. Failure to obtain proper training may result in severe injury or death.
- ▲ WARNING** Altering this device may reduce its operating effectiveness or safety. Do not alter or change in any way from its intended design.
- ▲ WARNING** Inspect valve for damage or malfunctioning parts before use. Ensure valve is fully closed.
- ▲ WARNING** Do not use if damaged. Damage to the product may cause malfunction or failure. Remove from service until the unit can be repaired.
- ▲ WARNING** Check for damage or worn coupling connections. Damage or worn connections may become disconnected under pressure. Remove from service to be repaired by an AWG certified repair facility.
- ▲ WARNING** Ensure that all adapters or thread on the water supply line matches the thread or adapter on the valve inlet. Do not overtighten the supply line onto the unit.
- ▲ WARNING** Do not connect the hose to the valve until the full length of hose to be used is completely laid.
- ▲ WARNING** Do not use the valve as shut-off when testing hose.
- ▲ WARNING** Open and close valves with your hands only. DO NOT use tools to assist in operating the valves.
- ▲ WARNING** Always open and close valves fully and do not regulate water flow or pressure with the intake valve. When operations are completed, shut down valve(s) completely.
- ▲ WARNING** Bleed off any excess pressure in the hose lines, disconnect and drain hose lines.
- ▲ WARNING** Attempting to disconnect the valve before pressure is relieved may result in serious injury.
- ▲ WARNING** After use, clean and inspect the valve for damage or malfunctioning parts. Repair or replace damaged parts otherwise remove valve from service until repairs can be made. The valve should be repaired by an AWG certified repair facility.
- ▲ WARNING** Foam may be used with this appliance. Make sure to flush completely with fresh water after use. Some foam concentrates may leave a residue that may cause corrosion or adhesion and interfere with the operation of the gate valve or PRV device and shorten the service life of this appliance.
Salt water may be used with this appliance. Make sure to flush with large amounts of fresh water after use with salt water. Salt water may shorten the service life of this appliance due to corrosion.
Flush with fresh clean water after use to remove any dirt and debris. This is especially important if any firefighting foam or salt water has been used in this appliance.

⚠ WARNING

After use, disconnect and drain all hose lines and inspect the appliance for damage. If any components are damaged or malfunctioning, remove from service until appliance can be repaired.

⚠ WARNING

This intake valve has a 30° elbow to help reduce the stress on the coupling and reduce or prevent kinking of the hose line at the gate valve. However, kinking of hose lines can only be avoided by proper planning and layout.

⚠ WARNING

This intake valve also has a pressure relief valve to automatically release excess pressure in the hose line. This relief valve must be set prior to operation. Excess pressure in the hose line may cause failure of the hose, leading to injury.

⚠ WARNING

To properly set the pressure at which the relief valve will operate, please see the included operating supplement for the pressure relief valve.

⚠ WARNING

The relief valve when will discharge water at high pressure when operating. Caution must be exercised to keep all persons away from the relief valve discharge.

⚠ CAUTION

⚠ CAUTION

This appliance designed has an intake valve that should be secured to the appropriate inlet (fixed position on to the vehicle) before use.

⚠ CAUTION

For use with fresh or salt water, with or without firefighting foam.

⚠ CAUTION

Check the valve during your normal maintenance routine. Inspect appliance for damage or malfunctioning parts routinely. If appliance is damaged or not functioning as it should, repair or remove appliance from service until repairs can be made.

⚠ CAUTION

Dirt or debris in the relief valve may prevent the relief valve from operating or closing, which may cause the relief valve to operate prematurely with subsequent loss of pressure. Flush with fresh clean water after use to remove any dirt and debris. This is especially important if any firefighting foam or salt water has been used in this appliance.

TECHNICAL INFORMATION

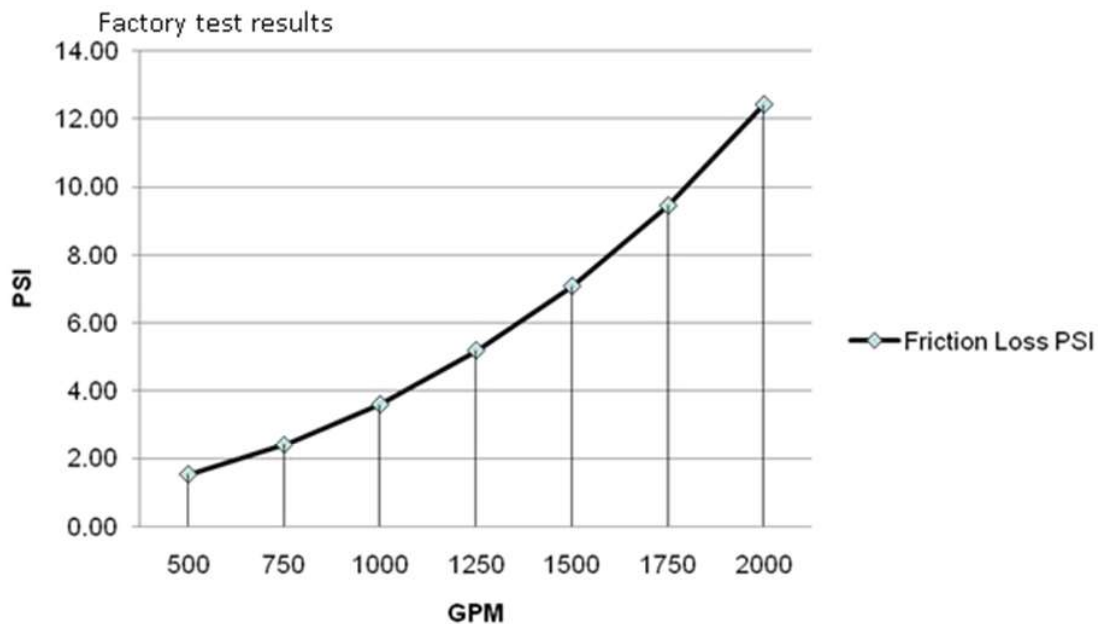
Id.-No.	Nominal Size	Inlet	Outlet	Length* [in] L	Width* [in] B	Height* [in] H	Weight* [lb]
10051138	DN 120	G5 " male	Ball groove	17.7 (450mm)	6.5 (165mm)	15.3 (388mm)	21.4 (9,7kg)

* w/o adapters

Max. operating pressure: PN16 / 200 PSI
Tested burst pressure per NFPA1965

Material: Body: aluminium anodized, powder coted
Piston: stainless steel

Friction Loss:



INSTALLATION

Mounting to the Apparatus

The outlet side of the intake valve should be tightened securely to the pump manifold on the apparatus.

The ventilation valve should be visible and directly on top. If desired, the relief valve discharge can be plumbed to discharge behind the panel or desired location. Ensure that the relief valve is adjusted to the required setting prior to use (see Set pressure relief valve section).

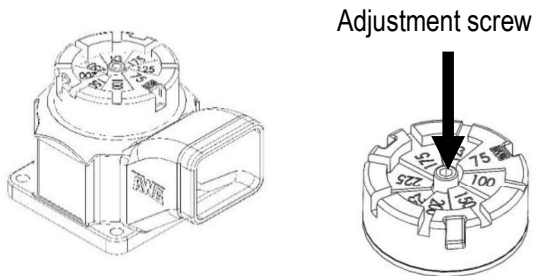
Set pressure relief valve

The pressure relief valve can be set in incremental steps from 76 PSI up to 250 PSI.

The pressure relief can be adjusted using a 6mm hexagonal spanner.

The relief valve is set by aligning the highlighted surface on the adjustment screw to the height of the desired setting labelled on the relief housing. The relief valve should not be tightened past the 250PSI setting, doing so may cause damage to the valve.

i.e.: For pressure relief from 175PSI, the adjusting screw must be at the level of pressure stage 175. Turn the screw until the top of the screw is at the same level with the corresponding pressure stage. The slots on the side of the housing allow adjustment using the hexagonal wrench, while checking the exact height of the screw.



OPERATION

Valve Operation

- To open the piston intake valve: Turn the hand wheel counter clockwise.
- To close the piston intake valve: Turn the hand wheel clockwise.
- Open and close **slowly**.

MAINTENANCE



Lubricate as necessary with AWG recommended lubricant: Fully synthetic grease for food technology (e.g. OKS 479).

Using anything other than the recommended lubricants may cause the o-rings to swell or degrade faster than expected.

Do not use excessive amounts of lubricant, over lubricating may cause dirt to collect inside the valve.

Use only recommended lubricant, improper lubricants may cause premature failure of O-rings and seals.

WARRANTY

- AWG Fittings GmbH warrants to the original purchaser and all subsequent purchasers of the AWG Fittings GmbH products that the product is free from defects in material and workmanship during a one (1) year period from the date of its sale by AWG Fittings GmbH.
- AWG Fittings GmbHs' obligation under this warranty is specifically limited to replacing or repairing any product which is determined by AWG Fittings GmbH inspection to be in a defective condition attributed to AWG Fittings GmbH manufacture or design. If AWG Fittings GmbH determines the product is defective, then AWG Fittings GmbH will repair or replace the product during the warranty period. The purchaser or beneficiary must notify AWG Fittings GmbH of any alleged defect within a reasonable time period.
- If AWG Fittings GmbH determines that the product is defective, then it will replace the product, repair the product, or refund the purchase price, at the discretion of AWG Fittings GmbH.
- This warranty is a LIMITED WARRANTY. The original purchaser of the product and any subsequent purchaser of the product and any person who is an intended or unintended beneficiary of the product shall not be entitled to recover from AWG Fittings GmbH any consequential or incidental damages for injury to person and/or property resulting from any defective product manufactured or assembled by AWG Fittings GmbH. It is agreed that the price stated and paid for the product is in part consideration for limiting AWG Fittings GmbH liability.
- This is a limited Expressed Warranty Only. AWG Fittings GmbH expressly disclaims with respect to the product all implied warranties of merchantability and all implied warranties of fitness for a particular purpose.
- There are NO WARRANTIES of any nature made by AWG Fittings GmbH beyond that stated in this Warranty.



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