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1 DESCRIPTION

1.1 Intended use
The adjustable PLV serves as protection against excess pressures exceeding the measurement range of the instruments used. The maximum permitted inlet pressure is 14,500 psi. Oil/grease-free type gauge protectors for oxygen operation have an operating pressure of 3,625 psi. The maximum operating temperature is 176°F (or 60°C for the oil/grease free types). Use beyond these limits and any unauthorized modifications are not permitted and relieve the manufacturer from liability for any consequential damage that may arise.

Material suitability:
It must be particularly ensured that the materials used for the medium contacting parts of the gauge protector are suitable for the media used. Ashcroft cannot be held responsible for damage to the gauge protector caused by corrosive media. Failure to comply with these precautions can endanger the user and cause damage to the piping system.

1.2 Information about the pressure equipment
The allowable operating pressure depends on the temperature of the medium and on the materials and sealing's used.

1.3 Labelling
• Material
• Charge/molten mass
• Factory inspector
• Direction arrow
• Pressure rating class (nominal pressure)
• Article number
• Set range [in psi]

2 TRANSPORTATION AND STORAGE
The PLV must only be stored in its original packaging to avoid contamination or damage. The PLV must only be transported in depressurized state.

3 ASSEMBLY

3.1 Installation requirements
The following installation conditions apply to the PLV:
The PLV must be installed such that employees or third parties are not endangered.
The PLV must be installed or mounted such that
• it is accessible for any necessary inspection and is clearly visible,
• the labelling is clearly legible
• operation of the PLV is possible from a safe position
The PLV must be protected from outside mechanical influences to prevent damage. The PLV must be protected from tampering.

1 Adjusting Screw
2 Locking Screw
3.2 Connecting the PLV
The PLV must be connected directly to the instrument as provided. Additional introduction of forces, bending strains applied to the female connectors by piping connections must be avoided. Weld seams on connections must be welded and tested in compliance with valid and approved welding methods. If the weld ends are made of steel, they must be painted after welding in order to avoid corrosion.

4 START-UP
Before start-up, ensure the PLV:
• has been correctly installed in the system and
• has been inspected for the correct assembly, installation conditions and is functioning safely.
The start-up test must be arranged by the system operator.

5 OPERATION

5.1 General information
Oil/grease free PLV's for instruments are used with various media. They can be poisonous, irritating or very hot. Any assembly and maintenance work must only be carried out by experienced and trained personnel. The generally valid regulations on health and safety as well as accident prevention must be observed in addition to this operating manual and the operating instructions for the system and instruments that are used. The PLV must only be operated by authorized personnel.

5.2 Operating conditions
Refer to section 1.1 for the allowable pressure and temperature limits.

5.3 Operation

5.3.1 Function
When the set pressure is reached, the valve automatically closes, thus blocking off the flow to the pressure instrument. When the pressure falls approx. 25% under the closing pressure, the valve opens and again releases the flow.

5.3.2 Setting range
The gauge protectors have the following set ranges:
STYLE A - 6 — 36 psi
STYLE B - 30 — 85 psi
STYLE C - 75 — 360 psi
STYLE D - 300 — 850 psi
STYLE E - 750 — 3,600 psi
STYLE F - 3,500 — 5,800 psi

5.3.3 Setting the closing pressure
PLV's must be ordered with the required set point included within the model code. If necessary, the PLV's can be set in the field by following the steps below:
• Turn the locking screw counter clockwise to free large adjusting screw to allow for set point adjustments (refer to image in section1.2)
• To increase limiting pressure set point, turn adjusting screw clockwise.
• To decrease limiting pressure set point, turn adjusting screw counter clockwise.
• Apply pressure to the system to set the point pressure required, making sure not to exceed the pressure instrument specifications.

• If the pressure limiting valve has not closed, turn the adjusting screw counter clockwise until the PLV closes.
• If the PLV closed before reaching the set point, turn the screw clockwise until the PLV opens. Once the PLV is open, turn the adjusting screw counter clockwise until the PLV closes.
• Repeat the steps above as required to verify set point and repeatability.
• Turn the locking screw clockwise to lock adjusting screw to prevent set point drift.

6 MAINTENANCE

6.1 General Information
The locking screw must not be removed in view of the setting pressure! Do not dismantle the PLV.

6.2 Maintenance and repair
Check the PLV regularly for tightness and damage. Worn or damaged PLV’s cannot be repaired by the customer.

7 APPLICABLE DOCUMENTS
• Pressure Equipment Directive 2014/68/EU.