

Installation, Operation & Maintenance Instructions



Pressure Accessories

Syphons, Overrange Protectors, Snubbers

SAFETY INSTRUCTIONS

- Information** ...points out useful tips, recommendations and information for efficient and trouble-free operation.
- CAUTION!** ...indicates a potentially dangerous situation that can result in light injuries or damage to equipment or the environment, if not avoided.
- WARNING!** ...indicates a potentially dangerous situation that can result in serious injury or death, if not avoided.
- WARNING!** ...identifies hazards caused by electric power. Should the safety instructions not be observed, there is a risk of serious or fatal injury.
- WARNING!** ...indicates a potentially dangerous situation that can result in burns, caused by hot surfaces or liquids, if not avoided.
- WARNING!** ...indicates a potentially dangerous situation in the hazardous area that can result in serious injury or death, if not avoided.
- Ex applications** ...special instructions for Ex applications.

CONTENTS

Foreword

- Pressure range
- Pressure & Temperature limits

Operating principle

Installation

- Safety notice
- Adjustments
- Maintenance
- Inspection
- Storage

Replacement parts

Warranty

Decommissioning

Disposal

Foreword

These units are designed to protect and to allow proper operation of the pressure instruments connected.

Overrange protector OVP:

The adjustable overload protection device is used to protect the instrument from pressure levels exceeding the instrument's scale range, preventing the instrument to be damaged and /or any pressure loss.

Snubbers:

The pulsation snubber is a device used to protect the instrument from excessive pulsation of the process pressure.

Syphons & Cooling Towers: Pigtailed syphons and cooling towers are used to reduce the temperature of the process inside the measuring chamber of the instrument (gauge, switch or transmitter).

- Warning:** Units must be selected and installed by suitably trained and qualified personnel in accordance with appropriate codes of practice so that the possibility of failure resulting in injury or damage caused by misuse or misapplication is avoided.
- Warning:** Before installation **check** that the **characteristics** of the valve comply with process and plant requirements
- Warning:** The user should ensure the equipment is suitable for use in the application with aggressive substances.
- Warning:** The user's attention is drawn to the fact that, when the unit is 'live' with respect to electrical or pressure supplies, a hazard may exist if the unit is opened or dismantled.
- Warning:** For a correct operation of the devices, these must be connected directly to the instrument.
- Warning:** Use appropriate tools for the installation of the device.
- Warning:** the devices must be installed following the direction of flow marked on the body.

Pressure & Temperature Range

Refer to the Technical Data Sheet of the product for the limits of applicability of the device

Operating principles

Overrange Protectors: The series of Overrange protector OVP, are devices that automatically close the circuit separating the measuring instrument from the process in case the pressure in line exceeds a prefixed value. The prefixed value is settled compressing an internal spring.

Snubbers: Snubbers reduce pulsations of the process, to the instrument, generating a restriction in the circuit. The restriction is adjustable acting on an external screw.

Syphon and Cooling Towers: these devices reduce the temperature of the process inside the measuring chamber of the instrument, by reducing the volume of hot process and facilitate the exchange of heat to the (cooling tower) or allowing the steam to condensate in the lower part of the device and let lower temperature fluid to enter into the measuring chamber (syphon)

INSTALLATION

Safety notice

Warning: All adjustments should be carried out by qualified personnel with the valve at zero pressure.

Warning: End connectors must not be removed from bodies.

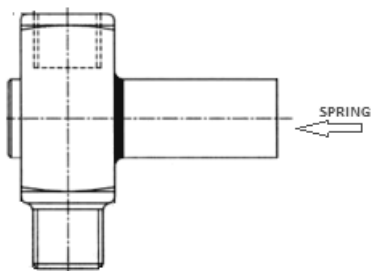
Caution: Do not paint over the device marking.

Adjustments

Overrange protectors

Do not set the overrange protector at a pressure close or above the Pmax of the instrument.

When protecting Pressure gauges, the set point should be above the fsv of the instrument (typically 110%),



Turn the screw **clockwise** to increase closure pressure.

Turn the screw **counter-clockwise** to reduce the closure pressure

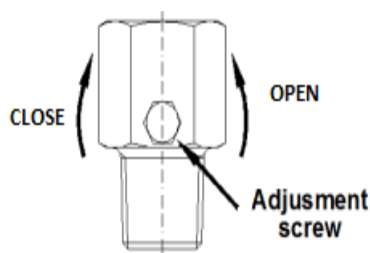
To adjust the closure value,:

- Be sure that the overpressure protector is fully open
- Connect the adjustable overload protection device to a pressure source equipped with a reference gauge having appropriate accuracy class, and with a device for the adjustment of the pressure itself.
- Increase the pressure gradually up to the desired value and operate on the protection device turning the adjustment screw counter-clockwise until it switch.
- Reduce the pressure to 0 to re-open the circuit.
- Repeat the cycle increasing the pressure and verify again if the pressure indication stops at the desired value. If this does not occur, decrease the pressure to zero and operate again on the protection device turning the adjustment screw 90° counterclockwise.
- Repeat this operation through small screw rotations until the protection device activates at the required value.

Snubbers

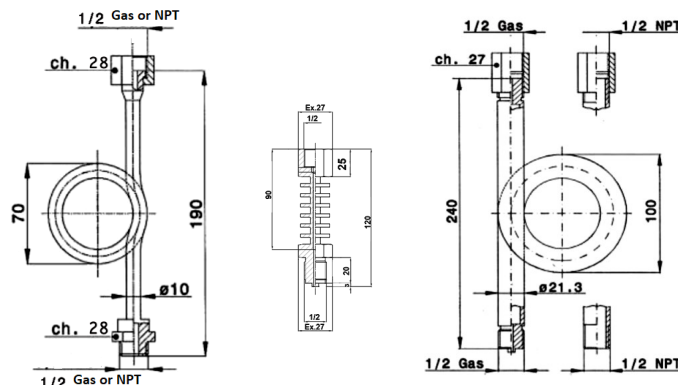
Turn the screw **clockwise** to reduce the orifice.

Turn the screw **counter-clockwise** to increase the orifice



Syphon and Cooling Towers

No adjustments are foreseen for these devices. The limits of application are stated on the Technical Data Sheet.



Maintenance

Other than periodic inspection to ensure satisfactory operation & sealing, no routine maintenance is necessary.

Inspections

Warning: Valve should be at zero pressure and at ambient temperature prior to any inspection. Maintenance Engineers & Operators are reminded to use correct tools and equipment.

Storage

If the devices are not required for immediate use then they should be stored in their original packaging and end protectors should not be removed. Storage should be off the ground in a clean, dry, indoor area. If storage period exceed 12 months then items should be accurately inspected prior to installation.

Replacement parts

Warning: The equipment contains no user-replaceable parts and is not intended to be repaired by the user.

Warranty

See Standard Conditions of Sale.

Decommissioning

Warning: Do not dispose of the process fluid into the environment if this causes pollution or personal injury.

- Disconnect the instrument from the process connection.
- Disconnect the accessory from the instrument

Warning: The process fluid can be hot and or corrosive.

- Plug the process pipe.

Disposal

These parts are mainly made of stainless steel. Clean the wetted parts before scrapping the instrument.