

DEVICE DESCRIPTION AND CONNECTION

The SRD991 positioner standard version blows the exhaust air into the atmosphere via venting in the rear of positioner.

This special version, the SRD991 ECEP0212, is supplied with natural gas, so the venting in the rear of the positioner is tightly sealed. The gas is exhausted through an adapter connection in place of a cable gland. The exhausted gas must be collected and be directed to a safe area.

The connections are marked with labels:

Cable Entry Used for Venting!

Vent for exhaust gas collection.
 Don't fill up the vent!
 Don't use a tube longer than
 3 meters for 10 feet!



In single-acting positioners, the output Y2 is also sealed with a stainless steel plug.

- Installation and basic adjustment of the equipment (autostart) must be done with compressed air (not gas). For detailed information on mounting and setup, see "Valve Positioners, RCV SRD991 Intelligent Positioner User Manual" available at www.badgermeter.com.
- The device and cable gland must be absolutely closed / sealed.
- The hose end or tube end must lead into a safe area, far away from the positioner.
- After running the equipment with natural gas, the cover MUST NOT BE OPENED. Use only the communication connection (HART, FOUNDATION Fieldbus, PROFIBUS) to access the parameters and settings.
- Follow all relevant regulations (for example, ATEX).
- Follow the installation guidelines according to IEC 1081.

INSTALLATION GUIDELINES FOR PNEUMATIC INSTRUMENTS DRIVEN BY GAS

- Install pneumatic instruments in enclosures with a minimum degree of protection of IP54, according to IEC 529, with one common venting arrangement into the open air.

Install a group of instruments in dedicated common enclosures.

Field transmitters, valves and other remote instruments could be excluded from the above requirements, as appropriate, although the enclosures could in themselves comply with the above degree of protection.



- If the instrument enclosures are installed in a shelter or building, extend the vent outside the building. Exceptions may be made if the building is ventilated with air and the ventilation flow rate is high enough to dilute the released gas below the lower explosive limit (LEL.)
- The diameter of the vent pipes for the enclosures should be at least 15 mm or large enough to avoid any buildup of back pressure of more than 100 Pa (Pascal) at the maximum release rates of the sum of the individually installed pneumatic instruments that have a common vent.

For single instruments, the vent pipe diameter may be smaller.

NOTE: 100 Pa will introduce an error of not more than 0.1% on standard signals of 100 kPa and a loading of not more than 100 Pa for the instrument enclosures. The defined back pressure limitation should be decreased for those instruments that operate at a much lower signal rating than 100 kPa.

- Protect the vent outlets from obstructions such as rain, ice formation, solid substances and condensate.
- Take adequate measures to avoid lightning strikes at the vent, where appropriate.

NOTE: The amount of released gas is normally small so gas flares are not required.

- Use enclosures made of an electrically conductive material to avoid the accumulation of static electric charges.
- Make sure that all parts of the enclosure, including the internal framework, are bounded and grounded.

NOTE: Fit the doors of the enclosures with electrically conductive braiding across the hinges, as appropriate.

- Keep the volume of the enclosures as small as possible to limit the amount of gas released when the doors are opened.



- Label the enclosures with the following notice:

THIS ENCLOSURE CONTAINS FLAMMABLE GAS;
ANY SOURCE OF IGNITION IS
STRICTLY FORBIDDEN IN ITS VICINITY.

- Where appropriate, use gas detection devices to monitor the possible presence on an air/gas mixture inside the enclosure.
- Consider flushing the enclosures and the associated piping in order to create a safe area before opening the doors of the enclosure.

NOTE: When nitrogen is used for purging, be aware of the dangers of being in the vicinity of the released nitrogen.

- Use valves to isolate the instruments from the associated gas supply to provide a safe environment for replacing any instruments.

Control. Manage. Optimize.

Research Control is a registered trademark of Badger Meter, Inc. Other trademarks appearing in this document are the property of their respective entities. Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists. © 2021 Badger Meter, Inc. All rights reserved.

www.badgermeter.com