INSTALLATION, SERVICE AND MAINTENANCE INSTRUCTIONS

ANNEX FOR CE MARKED EQUIPMENT ACCORDING TO THE ATEX DIRECTIVE 2014/34/EU:

INNOVA N/K Ex SINGLE SEAT VALVE

The content of this Annex supplements the information in the instruction manual. The instructions in this Annex must be taken into account in conjunction with the equipment marked according to Directive 2014/34/EU.

This Annex is complemented, if applicable, by the manuals of the ATEX-certified components comprising the assembly.

Original Manual

10.240.30.07EN

(0) 2022/11

EU Declaration of Conformity ATEX 2014/34/EU

We,

INOXPA, S.A.U.
Telers, 60
17820 – Banyoles (Girona)

Hereby declare under our sole responsibility that the machine

SINGLE SEAT VALVE

Model
INNOVA N – INNOVA K

From serial number **IXXXXXXXXX** to **IXXXXXXXXX** (1)

Fulfills (2) all the relevant provisions of Safety and Health from ATEX 2014/34/EU Directive and are adapted to the harmonized norms:

EN ISO 80079-36:2016
EN ISO 80079-37:2016
EN 1127-1:2019
EN 13237:2012
EN 15198:2007

This Declaration of Conformity covers equipment with the following ATEX marking:

II 2G Ex h IIB T6…T3 Gb
II 2D Ex h IIIB T85 ºC…T200 ºC Db

The technical documentation referenced 033208/18 is on file with the notified body INSTITUT NATIONAL DE L'ENVIRONNEMENT INDUSTRIEL ET DES RISQUES (INERIS), Parc Technologique Alata BP 2, 60550 Verneuil-en-Halatte, France. Reference num. 0080.

Signed by and on behalf of:
INOXPA, S.A.U.

David Reyero Brunet
Technical Office Manager
Banyoles, 2022

(1) the serial number may be preceded by a slash and by one or two alphanumeric characters
(2) pneumatic actuator D/E make connection between the shaft and the actuator support, to ensure electrical continuity. Twin Stop option, make connection between the piston and the support, to ensure electrical continuity. The piston must be in stainless steel

1. Safety

1.3. SAFETY

1.3.1. Warning symbols

Danger! Important instructions for protection from explosions

1.4. GENERAL SAFETY INSTRUCTIONS

1.4.1. During installation

The reduce the danger from static electricity, the assembly should be earthed to ensure electrical continuity between pipes and valves

1.4.2. During operation

The limit values for the operating conditions in explosive atmospheres must not be exceeded

The valve was selected according to the working conditions specified by the user, therefore INOXPA is not responsible for any damage that may occur due to the use of valve under conditions other than those stated in the order

1.4.3. During maintenance

Danger! Important instructions for protection from explosions

An explosive atmosphere may be generated or be present when removing the valve therefore safe work permits should be set and these tasks should only be carried out by qualified or trained personnel

1.4.4. Compliance with the instructions

Failure to comply with the instructions may prove hazardous for operators, the environment, the machine and the installations, leading to a loss of rights for claiming damages.
This non-compliance may result in the following hazards (in addition to those already listed in the manual):
- Generation of explosive atmospheres and risk of explosion.

1.4.5. Warranty

Any warranty will immediately be declared void, as of right, and we will be entitled to indemnity for any civil liability claim put forward by third parties (in addition to the conditions referred to in the manual):
- The material has been badly used or has not been used according to the conditions for working in the classified zone, in a different classified zone, in temperature or pressure conditions and/or different substance.

2. Table of Contents

The instructions provided in these sections of this Annex should be taken into account jointly with the valve manual.

4. Installation

4.1. DELIVERY OF THE VALVE

It should be checked that the valve received is adjusted to the working conditions in the classified zone as well as the order conditions

4.3. IDENTIFICATION

ATEX valves should be identified in a complementary manner:

II 2G Ex h IIB T6…T3 Gb
II 2D Ex h IIIB T85ºC…T200 ºC Db

The temperature class and the maximum surface temperature depend on the temperature of the product to be stirred and the ambient temperature.

Temperature class for explosive gas atmospheres

Temperature class	Product temperature (in process or cleaning)	Room temperature
T6	≤ 60 °C	-20 °C to +40 °C
T5	≤ 75 °C	
T4	≤ 110 °C	
T3	≤ 140 °C	

Maximum surface temperature for explosive dust atmospheres

Maximum surface temperature	Product temperature (in process or cleaning)	Room temperature
T85 °C	≤ 85 °C	-20 °C to +40 °C
T100 ºC	≤ 100 °C	
T125 ºC	≤ 125 °C	
T 200 °C	≤ 200 °C	

4.6. GENERAL INSTALLATION

The reduce the danger from static electricity, the assembly should be earthed to ensure electrical continuity between pipes and valves

4.8. WELDING

Safe work permits must be set for any welding work in potentially explosive atmospheres; it is recommended to this kind of work in non-classified atmospheres (there is no explosive atmosphere in the valve's location during handling)

5. Start-up

5.2. START-UP

It should be checked that the valve received is adjusted to the working conditions in the classified zone as well as the order conditions

Ensure electrical continuity between the valve and the installation, as well as connecting the installation to earth

A connection is made between the shaft and the body to ensure electrical continuity (in case of double acting actuator D/E)

In the Twin Stop option, a connection is made between the piston and the support, to ensure electrical continuity

5.3. OPERATION

Do not modify the operating parameters for which the valve has been designed without prior written authorisation from INOXPA

The valve was selected for certain working conditions in potentially explosive atmospheres at the time of placing the order. INOXPA is not liable for any damage that may arise if the information provided by the buyer is incomplete or incorrect (liquid type, viscosity, classification of the potentially explosive area, gas generated by the potentially explosive atmosphere, etc.)

7. Maintenance

7.1. GENERAL INFORMATION

The assembly and disassembly of the valves must only be carried out by qualified personnel, taking into account the need to adopt safe working conditions in potentially explosive atmospheres

If the maneuver head or inductive sensors are not supplied with the valve, and the client wants them installed, the specifications of Directive 2014/34/EU ATEX must be met

7.2. MAINTENANCE

7.2.3. Spare parts

On requesting spare parts for a valve intended to work in a classified zone, it is necessary to explicitly indicate in the order that they are for valve operating in an ATEX zone, as well as the characteristics of said zone.
If the spare parts are not requested in this way, INOXPA shall not be responsible for the case that the valve may not operate with parts which are not suitable for the classified zone where is installed.

7.3. CLEANING

Before beginning the disassembly and assembly work it should be taken into account the presence or possible formation of potentially explosive atmospheres

7.4. ASSEMBLY AND DISASSEMBLY

The assembly and disassembly of the valves must only be carried out by qualified personnel, taking into account the need to adopt safe working conditions in potentially explosive atmospheres

7.5. DISASSEMBLY/ASSEMBLY OF THE INNOVA SINGLE SEAT VALVE (TYPE N)

The stem and actuator support are connected to ensure electrical continuity for a double-acting actuator (DA) only

7.5.1. Disassembly:

1. **Apply compressed air to the actuator so that the plug stem (08) is in the open position (only for NC valves).**
2. **Loosen and separate the clamp (34).**
3. **Separate the actuator (10) from the valve body (01).**
4. **Release the compressed air in the actuator (only NC valves).**
5. **Unscrew the Allen bolts (23) from the lantern (21).**

6. **Use two 17 mm spanners to unscrew the plug stem (08) from the actuator.**
7. **Finish unscrewing the plug stem by hand.**
8. **Once the plug stem is out, remove the body cap (12) and the seals from inside it (20B and 05).**
9. **Remove the guide bushing (17) and the scraper (60D), and then the washer with the electrical continuity connection cable.**
10. **Remove the seat seal (05C), and the washer with the electrical continuity connection cable.**

7.5.2. Assembly:

1. **Place the scraper (60D), the electrical continuity connection cable and the guide bushing (17) into the lantern (21).**
2. **Line up the lantern (21) below the actuator.**
3. **Lubricate the seals with soapy water if necessary.**
4. **Fit the seals (20B and 05) into the body cap (12) and place this assembled unit onto the lantern.**
5. **Fit the seat seal (05C).**
6. **After fitting the seat seal (05C), place the washer with the electrical continuity connection cable onto the plug stem (08); use the actuator shaft to screw it on (10).**
7. **Tighten the four Allen bolts (23) that secure the lantern (21) to the actuator.**
8. **Apply compressed air to the actuator so that the plug stem (08) is in the open position (only for NC valves).**
9. **Fit the assembled actuator (10) - lantern (21) - stem (08) - body cap (12) unit to the valve body (01) (which can be rotated 360º according to the user's needs), and use the clamp (34) to secure it.**
10. **Release the compressed air in the actuator (only NC valves).**

7.6. DISASSEMBLY/ASSEMBLY OF THE INNOVA SINGLE SEAT VALVE (TYPE K)

The stem and the body are connected to ensure electrical continuity for a double-acting actuator (DA) only.

7.6.1. Disassembly:

1. **Apply compressed air to the actuator (10) so that the plug stem (08) does not touch the lower body (only for NC valves).**
2. **Remove the connector from the upper body (01A).**
3. **Loosen and separate the lower clamp (34).**
4. **Separate the actuator (10) - lantern (21) - stem (08) unit from the valve body (01).**
5. **Release the compressed air in the actuator (only NC valves).**
6. **Apply compressed air to the actuator (only NO valves).**
7. **Remove the clamp that joins the upper body (01A) to the lantern (21).**
8. **Unscrew the four Allen bolts (23) that secure the lantern to the actuator, which will allow the lantern to turn freely.**
9. **Use two spanners to unscrew the plug stem (08) and remove both the intermediate bushing (12A) and the seals (20B), as well as the washer with the electrical continuity connection cable.**
10. **Separate the upper body (01A) and the body cap (12), the seal (20B), the stem seal (05) and the guide bushing (17).**
11. **Release the compressed air from the actuator (only NO valves).**
12. **Separate the lantern and remove the scraper (60D), and then remove the washer with the electrical continuity connection cable.**
13. **Remove both seat seals (05C).**

7.6.2. Assembly:

1. **Place the scraper (60D), the electrical continuity connection cable and the guide bushing (17) into the lantern (21).**
2. **Line up the lantern (21) below the actuator.**
3. **Lubricate the seals with soapy water if necessary.**

4. **Fit the seals (20B and 05) into the body cap (12) and place this assembled unit onto the lantern.**
5. **Fit the upper body into position (01A).**
6. **Install both seals (20B) into the separator bushing (12A) and place it on the upper body (01A).**
7. **Fit the seat seal (05C).**
8. **Apply compressed air to the actuator (only NO valves).**
9. **After fitting the seat seals (05C), place the washer with the electrical continuity connection cable onto the plug stem (08); use the actuator shaft to screw it on (10).**
10. **Tighten the four Allen bolts (23) that secure the lantern (21) to the actuator.**
11. **Place the upper clamp (34) that joins the lantern to the upper body.**
12. **Release the compressed air from the actuator (only NO valves).**
13. **Apply compressed air to the actuator (only NC valves).**
14. **Fit the actuator (10) – upper body (01A) – stem (08) unit onto the lower body (01).**
15. **Fit the upper body (01A) connector.**
16. **Tighten the lower clamp (34) that joins both halves of the valve body.**
17. **Release the compressed air in the actuator (only NC valves).**

8. Technical Specifications

Temperature range. See section 4.3.

PNEUMATIC ACTUATOR GENERAL DATA

The pneumatic actuator cannot exceed, under any circumstances, the 12 cycles per minute to ensure that there is no significant increase in temperature.

In any case, in ongoing work it is not recommended to exceed the 2/3 cycles per minute to ensure a reasonable life of the seal.