

InterApp Butterfly Valves for use in potentially explosive atmospheres

The special versions of the InterApp butterfly valves suitable for the use in explosive atmospheres are as described below. If you need assistance to choose the right version suitable to your specific application, contact our technical department. For this, we absolutely need to know the group and the category of equipment, the atmosphere outside the valve and the kind of fluid and its condition inside the valve.

Special code	Explosive environments	Body coating	Version	Documents
135	Zone 1 (o) IIB / T6...T3 Zone 21 (o) IIIC / 85...200°C	80 µm to 2 mm, Code R, N, M, Y and customer specific	<ul style="list-style-type: none"> Earthing connection all liner and disc materials 	Manufacturer declaration
112	Zone 1 (o) IIC / T6...T3 Zone 21 (o) IIIC / 85...200°C	Max. 80 µm, Code E		
278	Zone 0 (i), 1 (o) IIB / T6...T3 Zone 20 (i), 21 (o) IIIC / 85...200°C	80 µm to 2 mm, Code R, N, M, Y and customer specific	<ul style="list-style-type: none"> Earthing connection Only allowed liner materials (E, EC, EF, N, NF, NH, NG, V, VA, FP, FT, T*A, T*VA) Only discs with conductive coating (3BA, 4GA) or non-coated discs 	
246	Zone 0 (i), 1 (o) IIC / T6...T3 Zone 20 (i), 21 (o) IIIC / 85...200°C	Max. 80 µm, Code E		

The table below shows the respective valve version to be used. These are recommendations only. The plant operator / purchaser have the sole responsibility for the definition and the appropriate selection.

InterApp butterfly valves for use in explosive atmospheres

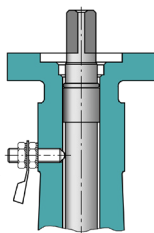
Equipment group II and III as defined in EN ISO 80079-36 - not for Mining

Atmosphere around the valve outside

			Atmosphere around the valve outside	
			non explosive atmosphere outside	explosive atmosphere max. zone 1/21, gas and dust outside
non explosive atmosphere inside	Liquid with low conductivity and inflammable liquids	no zone	Standard version	Zone 1 (o) IIB Zone 21 (o) IIIC Code 135
	non inflammable dusts			Zone 1 (o) IIC Zone 21 (o) IIIC Code 112
	Gases; as well inflammable but non explosive mixtures			
explosive atmosphere inside	Gas / Vapour	Zone 1 or 2 (not zone 0)	Zone 1 (i) IIB Code 278	Zone 1 (o) IIB Zone 21 (o) IIIC Code 278
		Zone 0 (as well applicable for Zone 1 or 2)	Zone 0 (i) IIC Code 246	Zone 1 (o) IIC Zone 21 (o) IIIC Code 246
	Drops (vaporous and mist), vapours of inflammable liquids	Zone 0, 1 or 2	Zone 0 (i) IIB Code 278	Zone 1 (o) IIB Zone 21 (o) IIIC Code 278
		Dust	Zone 20, 21 or 22	Zone 20 (i) IIIC Code 246



Earthing connection
Cable and ring terminal
not included in delivery



Example how to order:

DESPONIA

D1 0150.33-2AR.4A.4C0.E-**135**

DESPONIAplus

DP1 150.33-2AE.4A.4C0.E-**112**

Description of keycode see datasheet

DESPONIA, DESPONIAplus, BIANCA

InterApp Butterfly Valves for use in potentially explosive atmospheres

Special versions of the InterApp valves may be used in explosive atmospheres when the following rules are observed.

1. Concerning safety regulations

- a. Valves can only be used when the materials according to the respective working conditions are resistant against mechanical and/or chemical influence respectively corrosion, so that the explosion protection is remaining. Please consult column "version" on the first table of first page of this document.
- b. All metallic parts – as well those add by the operator of the installation – must be electrically connected to each other and put to ground.
- c. Accessories of the valve must as well be according to the 2014/34/EU and suitable to be used in a classified area.
- d. The operator of the installation is responsible to assure that the allowed temperatures according to
 - i. the conveyed fluid and the zone classification in the inner hazardous atmosphere as well as
 - ii. the substances appearing at the external hazardous atmosphere are not exceeded.
- e. Installation, maintenance and operating of the valves must be carried out by skilled and qualified personnel.
- f. In outdoor applications, the project planning must implement a compliant lightning discharge concept as well as other environmental influences such as heating due to direct solar radiation.
- g. Warning: Increasing operating parameters (such as operating pressure or fluid temperature) can lead to potential sources of ignition.

2. Important notice concerning installation

- a. By use in explosive location, the earthing terminal of the valve must be connected to the ground. The volume resistance must be tested and must be $< 10^6$ Ohm.
- b. The volume resistance must be tested regularly by the operator of the installation, at least once per year.
- c. Before removing valves from piping systems conveying inflammable or explosive fluids, the piping system must be rinsed or made inert, so that no inflammable or explosive gases remain at the work place.
- d. The operator of the installation is responsible to assure that the allowed temperatures according to
 - i. the conveyed fluid and the location classification in inner explosive atmosphere as well as
 - ii. the substances appearing at the external explosive atmosphere are observed.
- e. When using sacrificial anodes, anode material aluminium or magnesium is prohibited.

3. Important notice concerning intended use



Warning of explosion:

The butterfly valves are neither inside-inside nor inside-outside in the long term designed to be technically tight according to EN 1127-1 Annexe B (in terms of explosion protection / zone entrainment).



Warning of explosion:

During assembly, connection, testing, disassembly there are increased ignition risks such as sparking when handling tools and screw connections compared to normal operation. Organisational measures must be taken.



Warning of explosion:

The use of aggressive media can cause exothermic reactions that can cause an explosion.

Foreign objects in the pipe system can cause sparks.

4. Important notice concerning maintenance

- a. The volume resistance must be tested frequently by the operator of the installation, at least once per year ($< 10^6$ Ohm).
- b. Remove the dust layer on the components. All the operation shall be executed by skilled and qualified personnel.