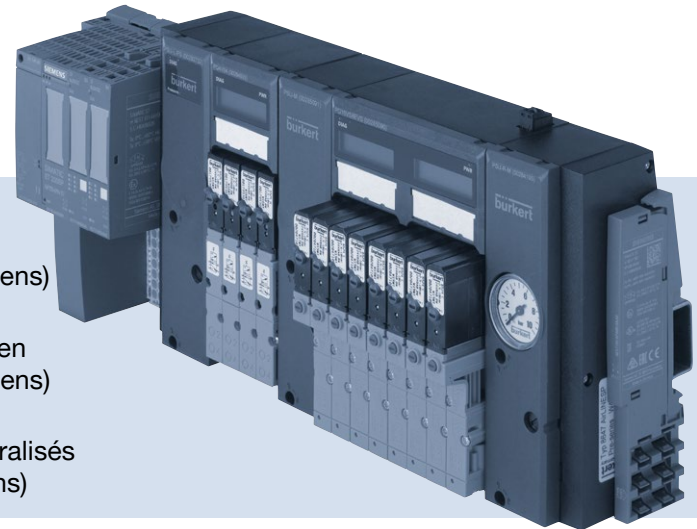


# BVS 18 ATEX E 078 X / IECEx BVS 18.0068X AirLINE SP Type 8647

Valve block AirLINE SP  
with interface to the distributed I/O systems  
SIMATIC ET 200SP and SIMATIC ET 200SP HA (Siemens)

Ventilblock AirLINE SP  
mit Schnittstelle zu den dezentralen Peripheriesystemen  
SIMATIC ET 200SP und SIMATIC ET 200SP HA (Siemens)

Bloc de vannes AirLINE SP  
avec interface vers les systèmes de périphérie décentralisés  
SIMATIC ET 200SP et SIMATIC ET 200SP HA (Siemens)



## Additional Instructions

Zusatzanleitung  
Instruction supplémentaire



We reserve the right to make technical changes without notice.  
Technische Änderungen vorbehalten.  
Sous réserve de modifications techniques.

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Operating Instructions 1812/00\_EU-ML\_00810770 / Original DE

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## **1 ADDITIONAL INSTRUCTIONS FOR USE IN THE POTENTIALLY EXPLOSIVE ATMOSPHERE**

(ATEX Directive 2014/34/EU)

If Bürkert devices with the code PX67 are used in the potentially explosive atmosphere, follow not only the respective operating instructions, but also the information in these additional instructions.

Keep these instructions in a location which is easily accessible to every user and make them available to every new owner of the device.

### **Important safety information!**

Carefully read through these additional instructions. Note in particular the chapters “Intended use” and “Special safety instructions”.

- ▶ These additional instructions must be read, understood and followed.
- ▶ The operating instructions for the valve block AirLINE SP Type 8647 must be read, understood and followed.



The operating instructions for the valve block AirLINE SP Type 8647 can be found on the Internet at:

[www.burkert.com](http://www.burkert.com)

## 1.1 Definition of terms

Term	in these instructions stands for
Device, valve block	Valve block AirLINE SP Type 8647
Valve island	Valve block AirLINE SP Type 8647 in combination with modules from the distributed I/O systems SIMATIC ET 200SP or SIMATIC ET 200SP HA (Siemens)
Ex area	Potentially explosive atmosphere

## 1.2 Symbols



### DANGER

Warns of an immediate danger.

- ▶ Failure to observe these instructions will result in death or serious injuries.



### WARNING

Warns of a potentially hazardous situation.

- ▶ Failure to observe these instructions may result in serious injuries or death.



### CAUTION!

Warns of a potential danger.

- ▶ Failure to observe these instructions may result in moderate or minor injuries.

### NOTE

Warns of damage.



Important tips and recommendations.



Refers to information in these operating instructions or in other documentation.

- ▶ Highlights instructions to avoid a danger.
- Designates a procedure which you must carry out.

## 2 INTENDED USE

The valve block AirLINE SP Type 8647 has been designed to control pneumatic consumers in automation systems. The valve block may be used for controlling suitable pneumatic consumers only.

The valve block was designed for use in Explosion group II, Category 3G Ex ec IIC T4 Gc (see specifications on the adhesive label for approval).

- ▶ Install device in a suitable control cabinet or a suitable housing.
- ▶ In the event of interference, ensure that the rated voltage is not exceeded by more than 10 % permanently or by more than 40 % temporarily (transients).
- ▶ Do not use the device outdoors.
- ▶ Prerequisites for safe and trouble-free operation are correct transportation, correct storage, installation, start-up, operation and maintenance.
- ▶ To use the device, observe the permitted data, operating conditions and application conditions. These specifications can be found in the contract documents, the operating instructions and on the type label.
- ▶ Use the device only in conjunction with third-party devices and components recommended or approved by Bürkert.
- ▶ Use the device only when it is in perfect condition.
- ▶ Use the device only as intended. Non-intended use of the device may be dangerous to people, nearby equipment and the environment.

For systems in the potentially explosive atmosphere, which are installed in a housing (degree of protection at least IP 54), ensure the following:

- ▶ The control cabinet must be approved for use in the potentially explosive atmosphere.
- ▶ The control cabinet must be dimensioned in such a way that the resulting heat loss can be discharged to the outside using suitable means.
- ▶ The internal temperature of the control cabinet must not exceed the maximum permitted ambient temperature for the device.

### 3 SAFETY INSTRUCTIONS IN THE POTENTIALLY EXPLOSIVE ATMOSPHERE

To prevent a risk of explosion, follow not only the safety instructions in the operating instructions, but also the safety instructions in these additional instructions.



#### **Danger due to electric voltage.**

- ▶ Before working on the device or system, switch off the power supply. Secure against reactivation.
- ▶ Observe the applicable accident prevention and safety regulations for electrical devices.

#### **Risk of explosion due to electrostatic charge.**

If there is a sudden discharge of electrostatically charged devices or persons, there is a risk of explosion in the potentially explosive atmosphere.

- ▶ Use suitable measures to ensure that electrostatic charges cannot occur in the potentially explosive atmosphere.
- ▶ Clean the device surface by gently wiping it with a damp or anti-static cloth only.

#### **Risk of injury due to improper installation, operation or maintenance.**

- ▶ Only qualified technicians may perform installation work, operating procedures or maintenance work.
- ▶ Perform installation work and maintenance work using suitable tools only.

#### **General hazardous situations.**

To prevent injuries, observe the following:

- ▶ Operate the device only when it is in perfect condition and in accordance with the operating instructions.
- ▶ Observe applicable safety regulations (also national safety regulations) as well as the general rules of technology during setup and operation.
- ▶ Do not repair the device, but replace it with an equivalent device. Repairs may be carried out by the manufacturer only.
- ▶ Do not place the device under mechanical stress (e.g. by placing objects on it or standing on it).
- ▶ Do not subject the device to mechanical and/or thermal stresses/influences which exceed the limits described in the operating instructions.

## 4 SPECIAL CONDITIONS OF USE



- ▶ Install device in a housing which meets the applicable requirements of the type of protection “ec” according to EN/IEC 60079-0 and EN/IEC 60079-7 and has a degree of protection of at least IP54.
- ▶ Use the device only in an area which has minimum pollution degree 2, as defined in IEC 60991-1.
- ▶ Ensure that the transient protection has been set to a value which does not exceed 140 % of the rated peak voltage value on the supply connections of the device.

## 5 EXPLOSION PROTECTION APPROVAL

The explosion protection approval is only valid if you use the modules and components approved by Bürkert as described in these operating instructions.

The devices may be used only in combination with the valve types approved by Bürkert, otherwise the explosion protection approval will expire.

In the event of unauthorised changes to the system, modules or components, the explosion protection approval will also expire.

The type examination certificates  
BVS 18 ATEX E 078 X and  
IECEX BVS 18.0068X

were issued by DEKRA EXAM GmbH  
Fachstelle für Sicherheit elektrischer  
Betriebsmittel - BVS  
44809 Bochum, Germany

Production is audited by the PTB (CE0102).

## 6 TECHNICAL DATA

To prevent a risk of explosion, observe not only the technical data in the operating instructions, but also the technical data in these additional instructions.

### 6.1 Conformity

The device conforms to the EU directives as per the EU Declaration of Conformity.

### 6.2 Standards

The applied standards, which are used to verify compliance with the directives, can be found in the type examination certificate and/or the EU Declaration of Conformity.

### 6.3 Adhesive label for the potentially explosive atmosphere

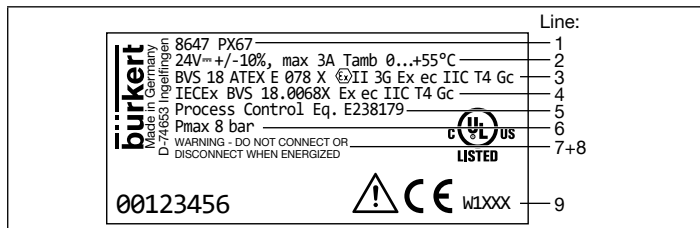


Figure 1: Example of an adhesive label for the potentially explosive atmosphere

Line	Description	Specification
1	Type number of the valve block AirLINE SP	8647
	Variable code	PX67
2	Rated voltage	24V $\pm$ +/-10 %
	Current consumption	max. 3 A
	Permitted ambient temperature range	Tamb 0...+55 °C
3	ATEX approval number	BVS 18 ATEX E 078 X
	Ex-logo, identification of the Ex protection ATEX	ⓈII 3G Ex ec IIC T4 Gc
4	Certificate number IECEX	IECEX BVS 18.0068X
	Identification of the Ex protection IECEX	Ex ec IIC T4 Gc
5 + 6	Further optional specifications	
7+8	⚠ Safety note	
9	Device order number	00123456 (example)
	Date of manufacture, coded	W1XXX

Tab. 1: Description of the specifications in the example "Adhesive label for the potentially explosive atmosphere"



## 6.4 Operating conditions

Rated voltage:	24 V ==
Nominal power:	Depending on the structure
Ambient temperature range:	0...+55 °C
Solenoid valve types used:	Type 6144 (pilot control of the pneumatic valves Types 6524 and 6525)
Maximum number of valve functions:	64

If device structures have fewer than 64 valve functions, less power is converted, so that the considered and measured maximum temperatures are the same or lower.

## 6.5 Permitted device variants

Device variants with the following properties are permitted in the potentially explosive atmosphere:

- Maximum 64 valve functions
- Combination of pneumatic valves  
Type 6524 (double coil 2 x 0.8 W) with  
Type 6525 (single coil 1 x 0.8 W)  
The maximum number of 64 valve functions must not be exceeded.
- Structures with additional pneumatic connection units “Middle”





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