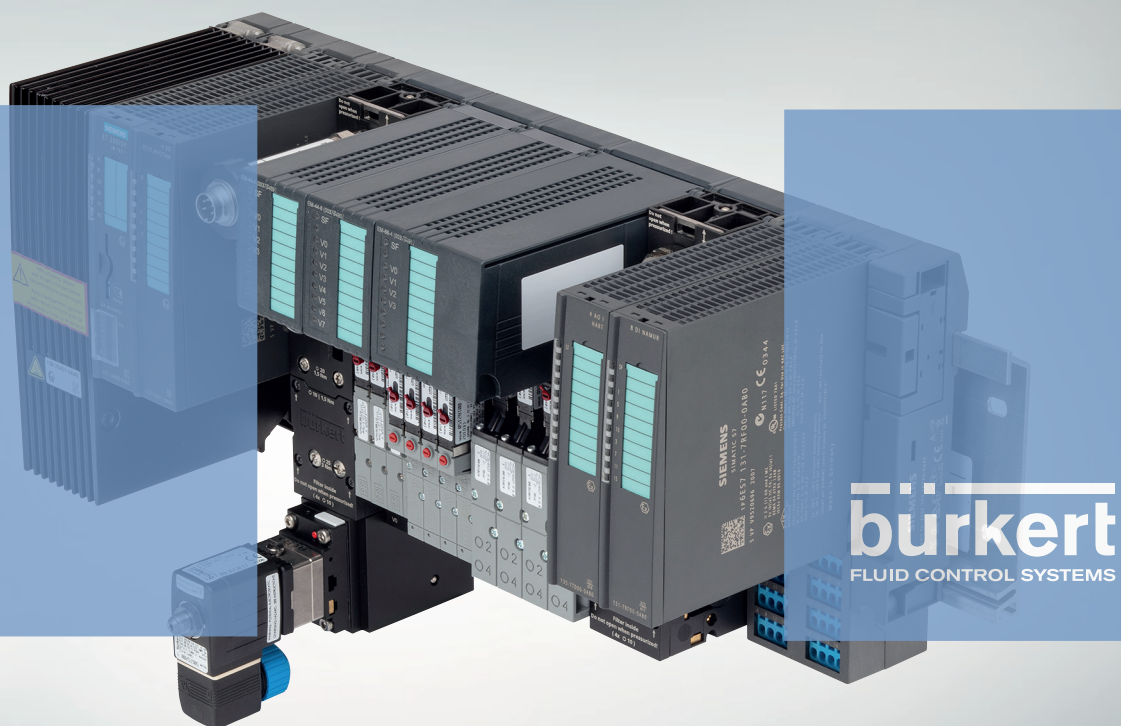


A conservative approach

Type 8650 AirLINE Ex electropneumatic automation system



- Replacement of individual valves and modules during operation under ex conditions possible/access from the front
- Control unit (PROFIBUS DP-iS) and electrical I/O functions via SIMATIC™ ET 200iSP
- Seamless integration into SIMATIC™ ET 200iSP (mechanical, electrical, project planning and diagnostics)
- Auxiliary functions such as safety-related shutdown, pressure switches and pressure sensors can be integrated

Systematic cost reduction

Decentralisation is a key factor in implementing lower-cost solutions in process automation. Connecting sensors and actuators to bus systems significantly reduces the cabling effort, and modular peripheral systems allow greater efficiency and flexibility “on site”.

With AirLINE Ex, these advantages can also be implemented in ex areas. Several savings effects apply at the same time. Less wiring, less planning and less documentation is required.

Update for the ex-zone

The modular electropneumatic automation system can be used in potentially explosive areas of the Ex Zone 1/21 with a gas or dust atmosphere. This makes it, among other things, predestined for the chemical and pharmaceutical industries, paint processing and petrochemicals. Type 8650 offers innovative pneumatic functions and is compatible with the Siemens SIMATIC™ ET 200iSP IO system. The valve island is housed in the control cabinet and enables the connection of (field) devices in superordinate controllers:

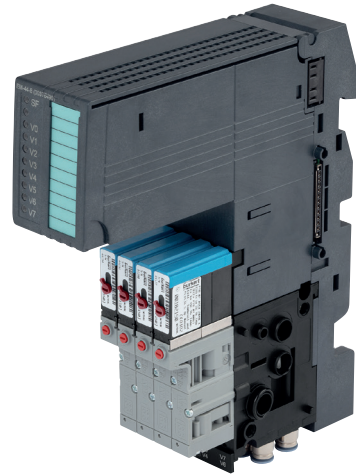
Innovative pneumatic functions

Valves for safety-related shutdown can be installed directly on the valve island. Pressure switches or pressure sensors can also be integrated to monitor pressure and ensure system availability. A filter ensures the necessary air quality, which is necessary for a long service life of the pilot valves. Thanks to intelligent integration of pneumatic functions, the control cabinet construction can also be realised in a more compact manner.

Bürkert as a system supplier

Due to the IP30 degree of protection, the valve island is typically installed in a stainless steel control cabinet. For this purpose, the Bürkert Systemhaus offers holistic, custom-fit solutions that fit perfectly into your plant.

Project planning can be carried out using GSD for any Profibus DP system or for seamless integration into the SIMATIC™ world using EDD (SIMATIC™ PDM) and HSP (SIMATIC™ Step7/Classic/TIA Portal/PCS7).



Expansion and flexibility

The maximum expansion allows up to 32 electronics assemblies/valve modules in the complete Siemens SIMATIC™ ET 200iSP system. The fieldbus gateway and power supply module can be built up twice – i.e. redundantly, with special terminal modules – if required. The number of possible valve slots varies depending on the size. Up to 48 valves can be configured, although valves with different flow rates can also be combined. Additional electrical modules can be inserted at the right end of the pneumatic block.

Conclusion

Innovative pneumatic functions and full integration into the Siemens hardware and software environment: With AirLine Ex, Bürkert offers a compact solution with extensive diagnostic functions to ensure the highest possible system availability.

Type 8650 AirLine Ex from Bürkert – technical lead from the innovation leader!

Technical data

Pressure range

- 2.7–7 bar (extended range with auxiliary pilot air)
- 1–8 bar (certain valve designs with auxiliary pilot air)

Temperature range

- 0 ° to 60 °C (horizontal installation position, operation 100% duty cycle)
- 0 ° to 50 °C (all other installation positions, operation 100% duty cycle)

Valve slots

- up to 48 valves 6524/-25 or
- up to 32 valves 6526/-27
- Mixing of the 4-fold modules 11/16.5 mm possible

Number of modules

- per min. 1 interface module and 1 power supply module (optional 2 for redundancy)

Supply

- 24 V DC in Ex-e (via power supply module “PS”/Siemens)
- 110–230 V AC

Control unit

Profibus DP-is (via interface module “IM152”/Siemens)

Diagnostics

Yes; including Coil short circuit/open output (channel by channel), switching cycle counter

Degree of protection

IP30

Installation

on “S7 mounting rail” (Siemens)

Ex protection



Intrinsic safety “ib” or increased safety “e”

Ex approvals

- ATEX Zone 1/21 (BVS 21 ATEX E013X)
- IEC-Ex Zone 1/21 (IECEX BVS 21.0013X)

Dimensions

Width:

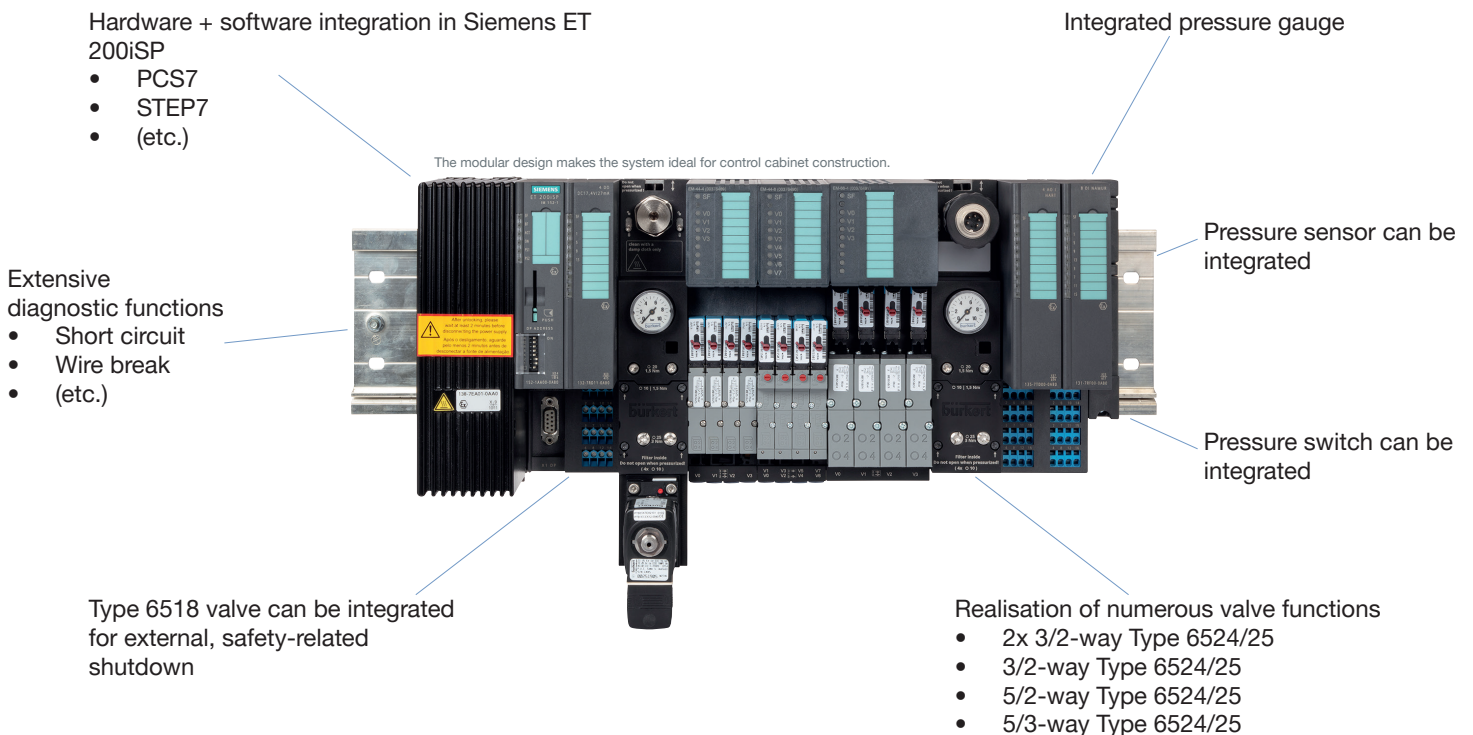
- Width per valve of the 4-fold valve segments for 6524/-25: 44 mm
- Width per valve of the 4-fold valve segments for 6526/-27: 66 mm
- Width per valve of the connection segments: 44 mm
- Max. 660 mm (pneumatic block)
- Max. 1095 mm (including all Siemens modules, one power supply and interface module each)
- Max. 1185 mm (including all Siemens modules, two power supply and interface modules each)

Depth:

- 168 mm (from the installation surface of the S7 mounting rail)

Height:

- 190 mm





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