

AirLINE SP - Electropneumatic Automation System



Type 8647 can be combined with...



Type 8032
Switch



Type 6212
Solenoid valve



Type 2012
Process valve



Type 8692
Positioner



Type 0498
Double pilot controlled
check valve

The pneumatic valve island, Type 8647 AirLINE SP, is a modular, electropneumatic automation system consisting of connection modules and valve modules. It is perfectly designed for safe and complete integration into the decentralized peripheral system "SIMATIC ET 200SP" from Siemens. Type 8647 is used to integrate pneumatic pilot valves directly into the SIMATIC ET 200SP and to control them via the ET 200SP. Pneumatically actuated process valves, pneumatic cylinders or other pneumatic components can be connected to the pneumatic outputs. If the pneumatic components are installed with digital feedbacks, the position of the actuated pneumatic components can be displayed on the associated pilot valve. This can save time on commissioning and maintenance.

- Direct connection to the I/O-System SIMATIC ET 200SP
- Combination of fieldbus, pilot valves and I/O modules
- Easy diagnosis by LC-Display
- Safety related shut-off of valves possible

Technical data	Pilot valve Types 0460, 6524, 6525 
Width/station	11 mm
Circuit function	C (3/2 way) D (3/2 way) H (5/2 way) H (5/2 way) impulse
Flow rate	300 l/min (200 l/min for functions H impulse)
Pressure range	Vac. up to 10 bar
Max. number of modules	Depending on application
Max. number valve functions	64
Fieldbus type	PROFIBUS DP, PROFINET I/O
Electrical modules	Siemens ET200SP
Operating voltage	24 V/DC
Voltage tolerance	±10%
Residual ripple	2.4 V _{SS}
Nominal power per valve	0.8 W (0.5 W Nominal power acc. to 120 ms)
Rated current per valve	40 mA (28 mA Hold current after 120 ms) 20 mA (by use of Type 0460)
Temperatures	Ambient Storage
	0 to +55 °C -20 to +60 °C
Protection class	IP20 IP65 in closed field housing
Approvals	ATEX & IECEx, Zone 2 (in preparation)

11 mm width/station: Solenoid Valves 6524 and 6525

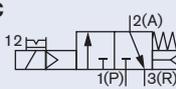
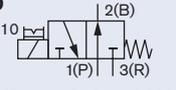
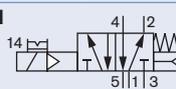
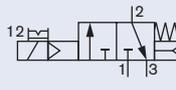


The solenoid valve Types 6524 and 6525 consist of a 6144 flipper pilot valve and a pneumatic seat valve. The principle allows switching of high pressures together with low power consumption and fast response times. The pilot valves are equipped with manual override as a standard.

Specification	3/2 and 5/2 way valve	2 x 3/2 way valve
Body material	PA (Polyamide)	
Seal materials	FPM, NBR and PUR	
Medium	compressed air, lubricated, oil free, dry; neutral gases (5 µm Filter)	
Port connections	Flange for MP11	
Pneumatic module	Type MP11 with push-in connection Diameter 6 mm, D1/4 Threaded port M7	
Manual override	Standard	
Operating voltage	24 V DC*	
Nominal power	0.8 W	2 x 0.8 W
Duty cycle	Continuous operation (100% ED)	
Electrical connection at the valve	Rectangular plug 2-pin grid spacing 5.08 mm	Rectangular plug 3-pin grid spacing 2.54 mm
Mounting	with 2 screws M2 x 20	with 2 screws M2 x 28
Installation	As required, preferably with actuator upright	
Flow rate: QNn value air [l/min]	Measured at +20 °C, 6 bar pressure at valve inlet and 1 bar pressure difference	
Pressure values [bar]:	Overpressure with respect to atmospheric pressure	
Response times [ms]:	Measured according to ISO 12238	

* 10% residual ripple allowed

Ordering chart for valves

Circuit function	Orifice [mm]	QNn value air [l/min]	Pressure range [bar]	Response times		Voltage/Frequency [V/Hz]	Item no.
				Opening [ms]	Closing [ms]		
 <p>3/2 way Solenoid Valve servo-assisted, normally closed, with manual override</p>	4	300	Vac.-7	15	20	24 V DC*	186 258
			1-10 ¹	15	20	24 V DC*	186 257
			2.5-10	15	2	24 V DC*	184 043
 <p>3/2 way Solenoid Valve direct-acting, normally open, with manual override</p>	4	300	2.5-10	15	28	24 V DC*	184 400
 <p>5/2 way Solenoid Valve servo-assisted, with manual override</p>	4	300	1.0-10 ¹	15	20	24 V DC*	186 271
			2.5-10	20	28	24 V DC*	179 938
 <p>2 x 3/2 way Solenoid Valve servo-assisted, normally closed, with manual override</p>	4	300	1.0-10 ¹	12	20	24 V DC*	300 817
			2.5-10	12	20	24 V DC*	204 710

¹ Version with auxiliary pilot air
* 10% residual ripple allowed

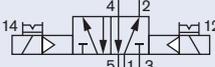
11 mm width/station: Type 0460 pilot valve



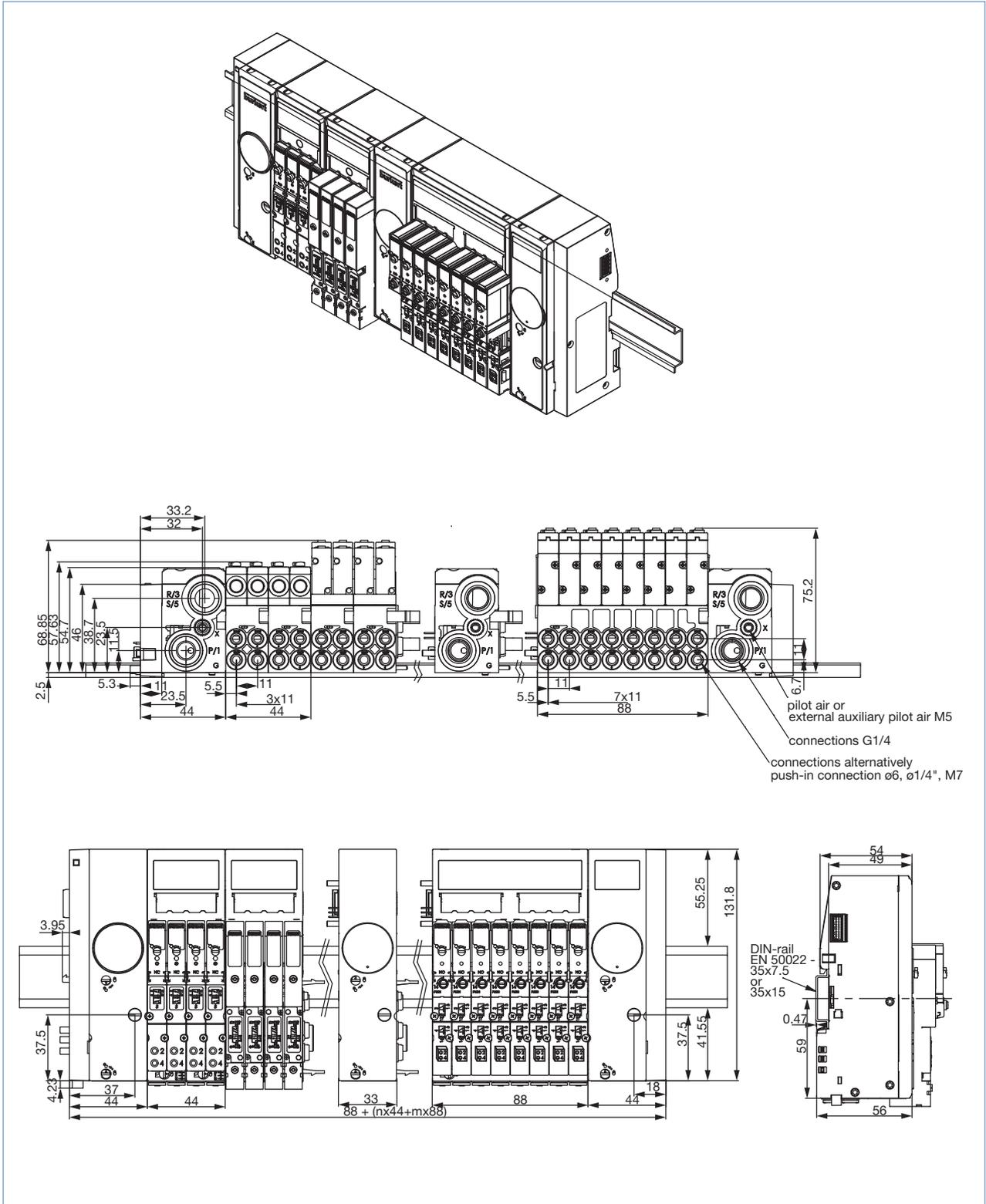
The solenoid valve, Type 0460, consists of a pneumatic valve body fitted with a double coil pilot valve. The principle allows switching of high pressures together with low power consumption and fast response times. All valves are equipped with manual override as a standard.

Technical data	
Body material	Aluminium
Seal material	NBR
Medium	compressed air, lubricated, oil free, dry; neutral gases (5µm filter recommended)
Port connections	Flange
Pneumatic module	MP11
Supply port connection	G 1/4
1 (P), 3 (R), 5 (S)	NPT 1/4
Service port 2 (A), 4 (B)	Push-in connection Ø 6 mm Push-in connection Ø 1/4" Threaded port M7
Operating voltage	24 V/DC
Electrical connection at the valve	Rectangular plug
Manual override	standard
Flow rate: QNn value air [l/min]	Measured at +20°C, 6 bar pressure at valve inlet and 1 bar pressure difference
Pressure values [bar]	Measured as overpressure to the atmospheric pressure
Response times [ms]	Measured according to ISO 12238

Ordering chart for valves

Circuit function	Orifice [mm]	QNn value air [l/min]	Pressure range [bar]	Nominal power [W]	Response times		Item no.
					Opening [ms]	Closing [ms]	
H  5/2 way Solenoid Valve, with 2 pulse coils, with manual override	2.5	200	2.0-7.0	1	15	15	154 183

Dimensions [mm]



* To find your nearest Bürkert office, click on the orange box →

www.burkert.com

In case of special application conditions, please consult for advice.

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