

AirLINE and AirLINE Quick – electrical/pneumatic Automation System

- Fully compatible with PHOENIX INLINE System
- Combination of Fieldbus, pilot valves and I/O modules
- Higher flexibility in the control cabinet with AirLINE Quick
- Compact design
- High flow rate valve

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 2000 ▶ Pneumatically operated 2/2 way angle seat valve CLASSIC
	Type MKRS ▶ Redundancy valve block for safety related shut-off function
	Type 0498 ▶ Double pilot controlled check valve for realising 5/3 way function with all ports blocked
	Type 8614 ▶ Pneumatic control cabinet solutions for hygienic process environments

Type description

The AirLINE System integrates high performance solenoid pilot valves, remote electronic I/O and fieldbus communication into a process actuation and control system that is both compact and extremely flexible. Its modular design allows fully customized, pre-mounted and tested solutions to exactly meet all application needs including the integration of a local Mini PLC. Due to the full electronic and mechanical integration, the valve block can be added without the need of any tools or wiring.

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1. General Technical Data

Pilot valves	Type 0460, Type 6524, Type 6525
Product properties	
Dimensions	Detailed information can be found in chapter "3. Dimensions" on page 6.
Width/station	11 mm
Module types	2x and 8x ^{1.)}
Max. number of modules	Depending on application
Max. number of valves	64 (by use of Type 0460 and Type 6524: 2 × 3/2 way-valve: 32)
Fieldbus type	PROFIBUS DP, INTERBUS, DeviceNet, CANopen, Ethernet, others on request
Electrical modules	PHOENIX INLINE
Circuit function	C (3/2 way) D (3/2 way) H (5/2 way) H (5/2 way) impulse L (5/3 way) in middle position all ports locked N (5/3 way) in middle position all ports exhausted
Performance data	
Flow (Q _{Nn} value air)	300 l/min ^{1.)}
Pressure range	Vac. up to 10 bar
Electrical data	
Operating voltage	24 V DC
Voltage tolerance	+20%/- 15% (by use of Type 0461: ± 10%)
Residual ripple (at DC)	1 V _{ss}
Nominal power per valve	2 W (1 W Nominal power acc. to 120 ms)
Rated current per valve	85 mA (52 mA hold current after 120 ms) 41 mA (by use of Type 0461)
Approvals and Certificates	
Approvals	On request
Degree of protection	IP20, IP65 in closed field housing
Environment and installation	
Ambient temperature	0...+55 °C (by use of Type 0460: 0...+50 °C)
Storage temperature	-20...+60 °C

1.) Integrated check valve and P-Shut off valve are optional)

1.1. 11 mm width/station: Solenoid valves Type 6524 and Type 6525

Note:

- 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.
- Detailed information about ordering information see “11 mm width/station: Solenoid valve Type 6524 and Type 6525” on page 8.
- Detailed information about further valve options see “4.4. Ordering chart accessories” on page 9.



Circuit function	3/2 way valve	2 x 3/2 way valve
Product properties		
Material		
Body	PA (Polyamide)	
Seal	FPM, NBR and PUR	
Manual override	Standard	
Pneumatic modules	Type MP11 with push-in connection diameter 6 mm	
Performance data		
Pressure data	Overpressure with respect to atmospheric pressure	
Flow (Q _{Nn} value air)	Measured at +20 °C, 6 bar pressure at valve inlet and 1 bar pressure difference	
Nominal operating mode	Continuous operation (100 % ED)	
Switching times	Measured according to ISO 12238	
Electrical data		
Operating voltage	24 V DC (10 % residual ripple allowed)	
Nominal power	0.8 W	2 x 0.8 W with reduction of power
Medium data		
Operating medium	Lubricated and non lubricated dry compressed air; neutral gases (5µm filter recommended)	
Process/Port connection & communication		
Port connection size	Flange for MP11	
Electrical connection (on valve)	With 2 screws M2 x 20	With 2 screws M2 x 28
Environment and installation		
Installation position	As required, preferably with actuator upright	
Assembly conditions	With 2 screws M2 x 20	With 2 screws M2 x 28

1.2. 11 mm width/station: Pilot valve Type 0460

Note:

- 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.
- Detailed information about ordering information see “11 mm width/station: Pilot valve Type 0460” on page 9.
- Detailed information about further valve options see “4.4. Ordering chart accessories” on page 9.



Product properties	
Material	
Body	Aluminium
Seal	NBR
Manual override	Standard
Pneumatic modules	Type MP11
Performance data	
Pressure data	Measured as overpressure to the atmospheric pressure
Flow ($Q_{Nn, val, ue, air}$)	Measured at +20 °C, 6 bar pressure at valve inlet and 1 bar pressure difference
Switching times	Measured according to ISO 12238
Electrical data	
Operating voltage	24 V DC (10 % residual ripple allowed)
Medium data	
Operating medium	Lubricated and non lubricated dry compressed air; neutral gases (5µm filter recommended)
Process/Port connection & communication	
Port connection size	Flange
Electrical connection (on valve)	Rectangular plug
Supply connection 1 (P), 3 (R), 5 (S)	G 1/4
Working port 2 (A), 4 (B)	Push-in connection Ø 6 mm

2. Circuit functions

Circuit Function	Description
	Type: C, solenoid valve 3/2 way Servo-controlled, with manual mode Normally closed
	Type: C, solenoid valve 2 x 3/2 way Servo-controlled, with manual mode Normally closed
	Type: D, solenoid valve 3/2 way Servo-controlled, with manual mode Normally open
	Type: H, solenoid valve 5/2 way Servo-controlled, pilot air and manual mode Pressure applied via port (1), therefore one of the two ports (2) or (4) is under pressure.
	Type: L, solenoid valve 5/3 way With manual mode In middle position all ports locked Normally closed
	Type: N, solenoid valve 5/3 way With manual mode In middle position ports 2 and 4 exhausted There is always one of the two outlet ports (2) or (4) pressurized when coil is activated.

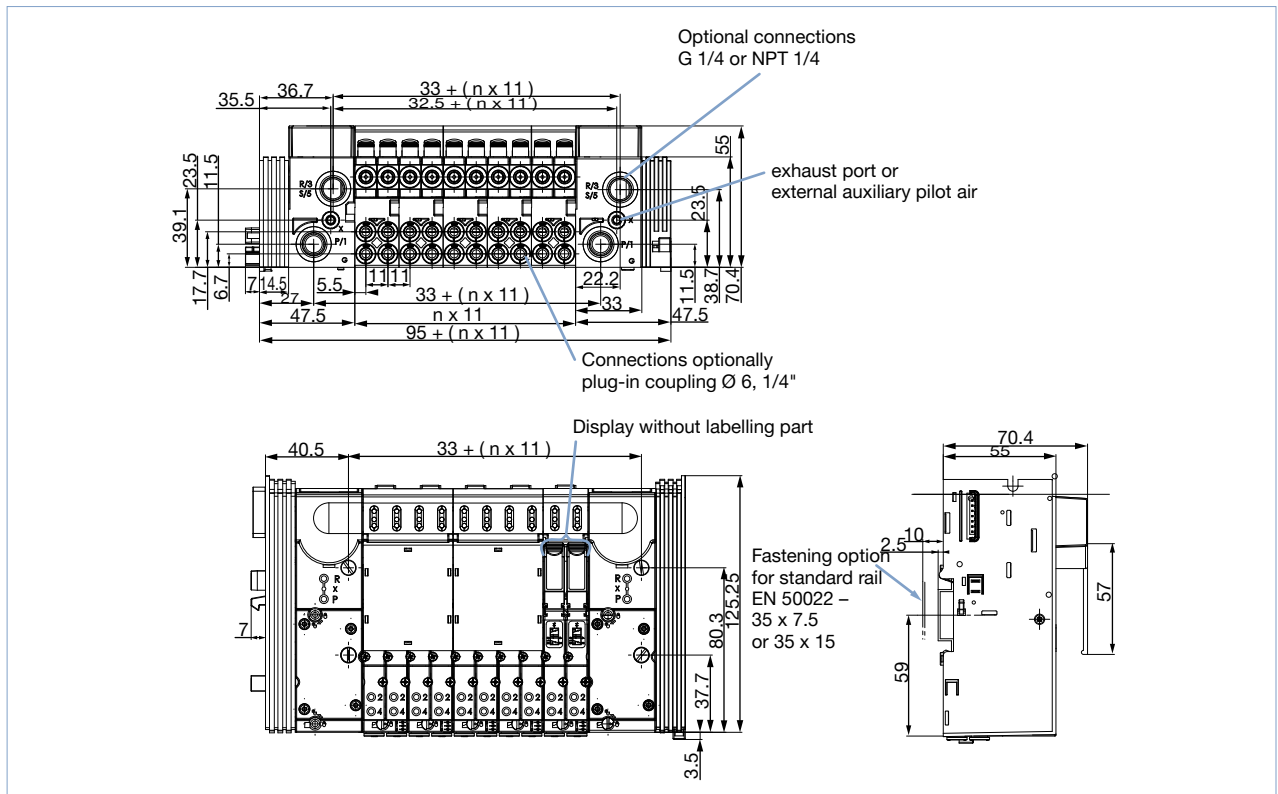
Circuit Function	Description
	<p>Type: Z, solenoid valve 5/2 way Impulse version with 2 coils and manual mode Normally open Pressure applied via port (1), therefore one of the two ports (2) or (4) is under pressure.</p>

3. Dimensions

3.1. 11 mm width/station: Solenoid valve Type 6524 and Type 6525

Note:

- Dimensions in mm
- n = number of valves

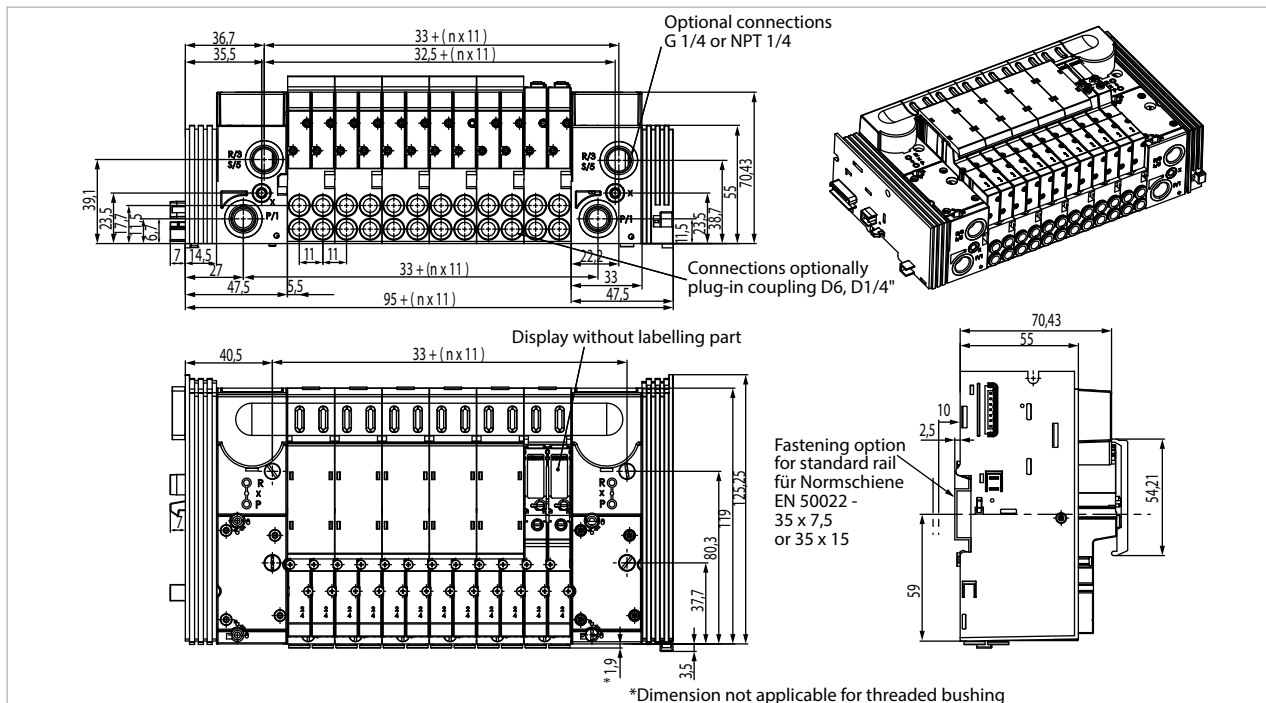


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3.2. 11 mm width/station: Solenoid valve with Type 6524 2×3/2 way valve

Note:

- Dimensions in mm
- n = number of valves



4. Ordering information

4.1. Bürkert eShop – Easy ordering and quick delivery



Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

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4.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

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4.3. Ordering chart spare valves

11 mm width/station: Solenoid valve Type 6524 and Type 6525

Note:

Detailed information about product version see “3.1. 11 mm width/station: Solenoid valve Type 6524 and Type 6525” on page 6.

Circuit function	Orifice	Q _{Nn} -value ^{1.)}	Pressure range	Switching times		Voltage/ Frequency ^{3.)}	Article no.
	[mm]			[l/min]	Opening [ms]		
C, solenoid valve 3/2 way Servo-controlled, with manual mode Normally closed 	4	300	Vac. 7	15	20	24 V DC	186258
			1...10 ^{2.)}				186257
			2.5...10				28
C, solenoid valve 2 x 3/2 way Servo-controlled, with manual mode Normally closed 	4	300	1...10 ^{2.)}	12	20	24 V DC	186259
			2.5...10				186260
D, solenoid valve 3/2 way Servo-controlled, with manual mode Normally open 	-	-	2.5...10	15	28	24 V DC	184400
H, solenoid valve 5/2 way Servo-controlled, pilot air and manual mode Pressure applied via port (1), therefore one of the two ports (2) or (4) is under pressure 	4	300	1...10 ^{2.)}	15	20	24 V DC	186271
			2.5...10				28

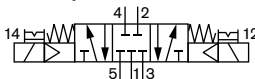
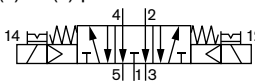
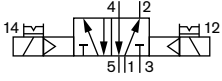
- 1.) With integrated HotSwap and/or non-return function, the flow rate reduces
- 2.) Version with auxiliary control air
- 3.) 10 % residual ripple allowed
- 4.) Version with integrated power reduction

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11 mm width/station: Pilot valve Type 0460

Note:

Detailed information about product version see “1.2. 11 mm width/station: Pilot valve Type 0460” on page 5.

Circuit function	Orifice	Q _{Nn} -value ¹⁾	Pressure range	Switching times		Voltage/ Frequency ³⁾	Article no.
	[mm]	[l/min]		Opening [ms]	Closing [ms]		
L, solenoid valve 5/3 way With manual mode In middle position all ports locked Normally closed 	2.5	200	2...7	1	15	20	154184 ☒
N, solenoid valve 5/3 way With manual mode In middle position ports 2 and 4 exhausted There is always one of the two outlet ports (2) or (4) pressurized when coil is activated. 	2.5	200	2...7	1	15	20	154184 ☒
Z, solenoid valve 5/2 way Impulse version with 2 coils and manual mode Normally open Pressure applied via port (1), therefore one of the two ports (2) or (4) is under pressure. 	2.5	200	2...7	1	15	20	154185 ☒

4.4. Ordering chart accessories

Covering plates

Note:

When all the valve connections in a basic valve unit module are not used, then these connections should be covered by the appropriate covering plate for full efficiency.

Covering plates	Article no.
Covering plate for solenoid valve Type 0460	655069 ☒
Covering plate for solenoid valve Type 6524/6525	650373 ☒
Covering plate for solenoid valve Type 6524 2 × 3/2 way valve	661092 ☒

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