



aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
**pneumatics**  
process control  
sealing & shielding



# PS1 Modular Interface Valve

PDE2626TCUK June 2014



ENGINEERING YOUR SUCCESS.



**Important !**

Before carrying out any service work, ensure that the valve and manifold have been vented. Remove the primary supply air hose to ensure total disconnection of the air supply before dismantling valves or blank connection blocks.



**NB !**

All technical data in this catalogue is typical only. The air quality is decisive for the valve life: see ISO 8573.



**WARNING**

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannifin Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met. The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Parker Hannifin Corporation and its subsidiaries at any time without notice.

**SALE CONDITIONS**

*The items described in this document are available for sale by Parker Hannifin Corporation, its subsidiaries or its authorized distributors. Any sale contract entered into by Parker will be governed by the provisions stated in Parker's standard terms and conditions of sale (copy available upon request).*



## Summary

## Page

Presentation	4
Order codes	4-6
- Head and tail sets, intermediate air supply modules	4
- Electro-pneumatic modules without solenoid valve	5
- Solenoid pilote	5
- Electro-pneumatic modules with solenoid valves	6
- Pressure switch	6
Dimensions	7

## Modular Interface Valve - PS1

High speed poppet valve solenoid type with individual electrical connections. Light weight plastic bodies with DIN rail manifold. For cabinet installation

- Push-in connection
- High Performance 15 mm Solenoid
- Built-in terminal block
- Pneumatic output indicator
- DIN rail mounting






### Technical characteristics

		3/2	4/2
Fluid :		Air or inert gas, filtered 40 µ, dry or lubricated	
Working pressure ;		3 to 8 bar	
	3/2 and 4/2 Low pressure module	1 to 8 bar	---
Flow rate :		120 NI/min 200 NI/min	
Changeover time :			
	Actuation	10 ms	15 ms
	Return	15 ms	20 ms
Operating temperature :		- 15 °C to + 60 °C	
Storage temperature :		- 40 °C to + 70 °C	
Vibrations resistance :		2 g at 2 to 150 Hz according to IEC68-2-6	
Impact resistance :		15 g 11 ms according to IEC68-2-27	

### Head and tail sets - intermediate supply modules

For 3/2 and 4/2 interface modules

	Description	Characteristics	Pneumatic connection	Weight (g)	Order code
	Set for single air supply connection	1 electrical common terminal 1 main air supply port 1 exhaust port	Push-in Ø 6 mm	100	<b>PS1-E101</b>
			G1/8	100	<b>PS1-E1018</b>
	Set for double air supply connection	1 electrical common terminal 2 main air supply ports 2 exhaust ports	Push-in Ø 6 mm	125	<b>PS1-E102</b>
			G1/8	125	<b>PS1-E1028</b>
	Intermediate air supply module	1 air supply port 1 exhaust port (see description below)	G1/8	45	<b>PS1-E1038</b>

Incorporating an intermediate air supply module into a group of electro-pneumatic modules gives the following options :

#### Air supply connection

- Additional G1/8 port to supplement the air supply to the manifold
- Blank the common air supply, enabling different pressures to be supplied to groups of modules within the manifold.

#### Exhaust connection

- Additional exhaust flow through the G1/8 port
- Blank the common exhaust, enabling separation of exhaust from module groups





The intermediate air supply module is supplied with 4 interchangeable connectors to enable the above supply options to be achieved.

## Modular Interface Valve - PS1

### Electro-pneumatic modules

Modules without solenoid valve


Visual indication of pneumatic output status : Closed = Red Open = Yellow

Symbol function	Description	Pneumatic connection	Weight (g)	Order code
	3/2 normally closed (NC)	Push-in Ø 4 mm	52	<b>PS1-E111</b>
		M5	55	<b>PS1-E115</b>
		Push-in Ø 6 mm	55	<b>PS1-E116</b>
	3/2 normally open (NO)	Push-in Ø 4 mm	52	<b>PS1-E121</b>
		M5	55	<b>PS1-E125</b>
		Push-in Ø 6 mm	55	<b>PS1-E126</b>
	4/2 single solenoid / spring return	Push-in Ø 4 mm	120	<b>PS1-E181</b>
		M5	120	<b>PS1-E185</b>
		Push-in Ø 6 mm	125	<b>PS1-E186</b>
	4/2 double solenoid	Push-in Ø 4 mm	120	<b>PS1-E191</b>
		M5	120	<b>PS1-E195</b>
		Push-in Ø 6 mm	125	<b>PS1-E196</b>

### Low pressure Electro-Pneumatic modules 3/2 (1 to 8 bar)


Modules without solenoid valve

Visual indication of pneumatic output status : Closed = Red Open = Yellow

Symbol	Description	Pneumatic connection	Weight (g)	Order code
	3/2 normally closed (NC)	Push-in Ø 4 mm	52	<b>PS1-E311</b>
		M5	52	<b>PS1-E315</b>
		Push-in Ø 6 mm	52	<b>PS1-E316</b>

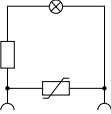
### Solenoids 15 mm - 8 mm pin spacing - 1,2 W / 1,6 VA (220VAC 2,4VA)

Manual override type

Voltage	Weight (g)	Without	Non locking flush	Locking flush	
		Order code	Order code	Order code	
	12 VDC	38	<b>P2E-KS32B0</b>	<b>P2E-KS32B1</b>	<b>P2E-KS32B2</b>
	24 VDC	38	<b>P2E-KS32C0</b>	<b>P2E-KS32C1</b>	<b>P2E-KS32C2</b>
	48 VDC	38	<b>P2E-KS32D0</b>	<b>P2E-KS32D1</b>	<b>P2E-KS32D2</b>
	24 VAC 50 Hz	38	<b>P2E-KS31C0</b>	<b>P2E-KS31C1</b>	<b>P2E-KS31C2</b>
	48 VAC 50/60 Hz	38	<b>P2E-KS34D0</b>	<b>P2E-KS34D1</b>	<b>P2E-KS34D2</b>
	115 VAC 50 Hz	38	<b>P2E-KS31F0</b>	<b>P2E-KS31F1</b>	<b>P2E-KS31F2</b>
	220 VAC 50 Hz	38	<b>P2E-KS31J0</b>	<b>P2E-KS31J1</b>	<b>P2E-KS31J2</b>

### Suppressor and LED indicators

For 8 mm solenoid pin spacing - For mounting between the solenoid valve and the cable plug

Symbol	Description	Pneumatic connection	Weight (g)	Order code
	LED indicator	24 VAC/DC	3	<b>P8V-CR26C</b>
		115 VAC 50 Hz - 120 VAC 60 Hz	3	<b>P8V-CR24F</b>
		230 VAC 50 Hz - 240 VAC 60 Hz	3	<b>P8V-CR24J</b>

### Maintenance avertissement - Solenoid pin spacing







The electro-pneumatic interface modules have been re-designed to accept both 8 mm and 9,4 mm solenoid pin spacing. If you are purchasing a solenoid or a suppressor & LED indicator for maintenance on an electro-pneumatic interface module purchased before June 2004, above solenoid P2E-KS3xxx and P8V-CRxxx (8 mm pin spacing) will not be compatible. Please, contact your Parker customer service.

## Modular Interface Valve - PS1

### Electro-pneumatic modules

Modules including 24 VDC solenoid valve (using P2E-KS32C1 solenoid)

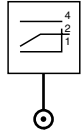
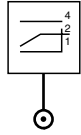
Visual indication of pneumatic output status : Closed = Red Open = Yellow

Symbol	Description	Manual override	Pneumatic connection	Weight (g)	Order code
	3/2 normally closed (NC)	Spring return	Push-in Ø 4 mm	90	<b>PS1-E21102B</b>
	3/2 normally open (NO)	Spring return	Push-in Ø 4 mm	90	<b>PS1-E22102B</b>
	4/2 single solenoid / spring return	Spring return	Push-in Ø 4 mm	160	<b>PS1-E28102B</b>
	4/2 double solenoid	-	Push-in Ø 4 mm	200	<b>PS1-E29102B</b>

### Accessories : Pressure switch

With Ø4 push in connection (pneumatic input)

With electrical terminals 1,5 mm<sup>2</sup> (electric output)

Type	Symbol	Electrical characteristics	Pneumatic characteristics	Override	Weight (g)	Order code
		Pressure switch 1 CO contact 5 A/250 V	Fixed operating threshold < 1,3 bar	Manual override	50	<b>PS1-P1081</b>
			Adjustable operating threshold 2 to 5 bar	Manual override	50	<b>PS1-P1091</b>

#### Technical characteristics : Pressure switch

- Effective detection for preventing hazardous risks linked with equipments operating at to low pressure
- Manual override
- Easy clip on DIN rail mounting
- Fixed or adjustable threshold versions
- Recessed Electrical Terminals

#### Electrical durability

	24 VAC	48 VAC	115 VAC	24 VDC	48 VDC	115 VDC
1 million	25 VA	56 VA	115 VA	24 W	37 W	50 W
2 million	-	-	-	14 W	25 W	40 W
5 million	10 VA	14 VA	19 VA	-	-	-

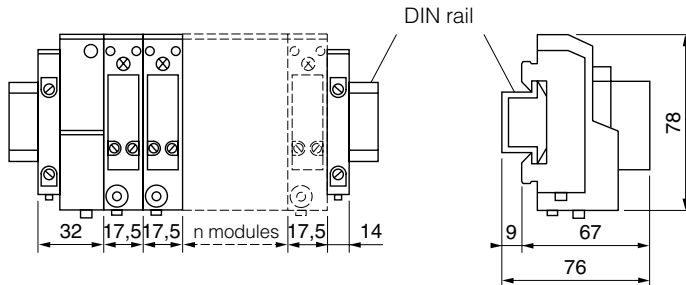
Working pressure	Max 10 bar
Working temperature	-15 °C to +60 °C
Minimum actuating pressure, non adjustable	≤1,3 bar
Minimum actuating pressure, adjustable	2 to 5 bar
Operating frequency	Max 10 Hz
Nominal isolation voltage	660 V AC or DC
Nominal thermal current	10 A
Operating voltage	250 V
Pending current	5 A
Protection level	IP 40
According Power switches (inductive lead)	

# Modular Interface Valve - PS1

## Dimensions, PS1 valve Series

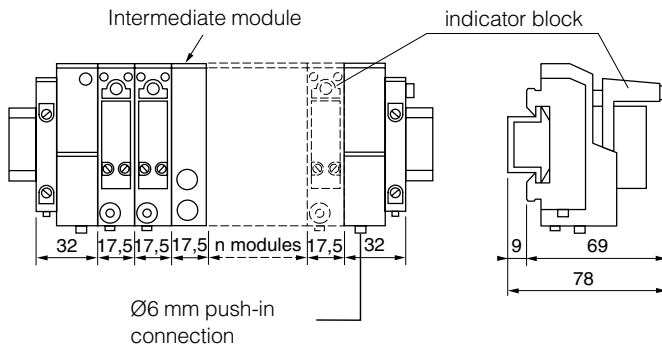
### Electropneumatic interface modules 3/2 NC or NO

3/2 modules equipped with solenoid  
Head and tail set for single air supply connection



**Total length (mm)**  
 $L = 46 + (n \times 17,5)$   
 n = number of modules

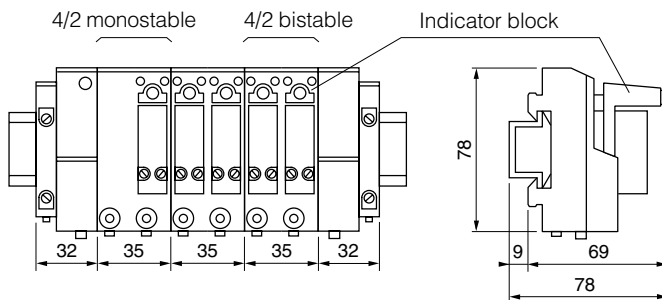
3/2 modules equipped with solenoid, suppressor and LED indicator  
Head and tail set for double air supply connection



**Total length (mm)**  
 $L = 64 + (n \times 17,5)$   
 n = number of modules

### Electropneumatic interface modules 4/2 single or double solenoid

4/2 modules equipped with solenoid, suppressor and LED indicator  
Head and tail set for double air supply connection



**Total length (mm)**  
 $L = 64 + (n \times 35)$   
 n = number of modules