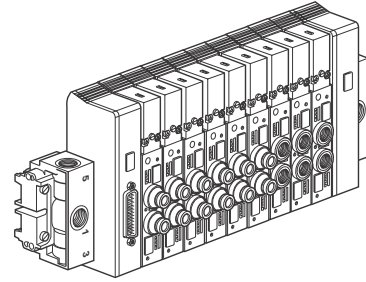


- ñ High flow, compact, light weight
- ñ Push-in or threaded pneumatic connections
- ñ High performance 15 mm solenoid DIN 43 650 C
- ñ 2 x 3/2 - 5/2 - 5/3 functions
- ñ Electrical head connection by Sub D 25 or Industrial Cylindrical Connection
- ñ Surface or DIN rail 35 mm mounting



Dimensions see page 40

Operating information

PVL-B10 valves

Protection level	IP 65
Working Pressure	2 to 10 bar (3 to 10 bar for Monostable)
Storage temperature	-40 ±C to +70 ±C
Working temperature	-15 ±C to +60 ±C
Fluids	Air or neutral gas, 50 µm filtered, lubricated or not
Mechanical life with dry air at 6 bar, 20 ±C, 1 Hz:	30 million cycles
Duty factor	100 %
Maximum operating frequency	10 Hz bistable
Solenoid voltage	12 to 48 V DC 24 to 115 V AC
Power consumption	1,2 W 1,6 VA Hold 1,2 W 3,5 VA Inrush
Orientation	Any plane
Visualisation	LED indicator
Surge suppression	Diode for DC version Varistor for AC version
Inverting commutation time	12 to 40 ms, according types

Input modules

Protection level	IP65
Voltage and type of output	PNP 24 V CC
Normal current	100 mA
Maxi. available current island	1 A for all the outputs

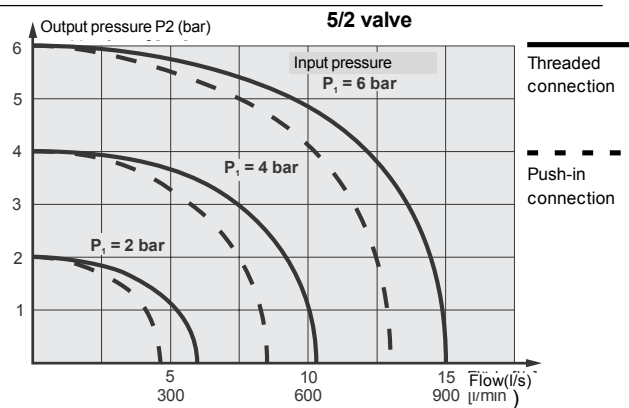
Output modules

Protection level	IP65
Type and output voltage	PNP 24 V CC
Normal current	100 mA
Maxi. available current island	1 A for all the inputs

Additional information

Modules for the DC version are protected against overvoltage up to 300 V. Protections on inductive loads connected to the same source are necessary.

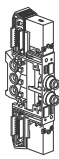
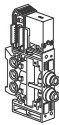
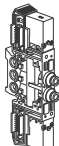
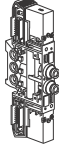


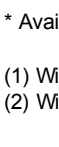
Modules for the AC version are fitted with a DC solenoid are compatible with PLC control card NPN protected.



Flow characteristics

	Type 2 x 3/2 G1/8 threaded	Type 2 x 3/2 Push in Ø6 mm	Type 5/2 G1/8 threaded	Type 5/2 Push in Ø6 mm
Qn	7,33 l/s (440 l/min)	5,83 l/s (350 l/min)	9 l/s (540 l/min)	7,5 l/s (450 l/min)
Qmax	12,5 l/s (750 l/min)	10 l/s (600 l/min)	15 l/s (900 l/min)	12,9 l/s (775 l/min)
Cv	0,45	0,36	0,56	0,42
Kv	6,4	5,1	8	6
	Type 5/3 closed centre G1/8 threaded	Type 5/3 closed centre Push in Ø6 mm	Type 5/3 vented centre G1/8 threaded	Type 5/3 vented centre Push in Ø6 mm
Qn	6,16 l/s (370 l/min)	4,83 l/s (290 l/min)	9 l/s (540 l/min)	7,5 l/s (450 l/min)
Qmax	10,83 l/s (650 l/min)	8,33 l/s (500 l/min)	15 l/s (900 l/min)	12,9 l/s (775 l/min)
Cv	0,38	0,29	0,56	0,46
Kv	5,4	4,2	8	6,5

Main data for PVL-B

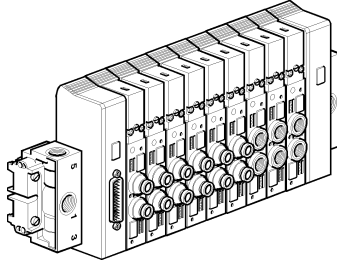
Symbol	Actuator	Return	Solenoid Pilot	Pneumatic Connection	Weight kg	Voltage	Order code
	Electric double 3/2 NC (2)	Internal air	With	/ 6 G1/8	0,240 0,240	24 VDC 24 VDC	PVL-B10560652B PVL-B10561852B
			Without	/ 6 G1/8	0,150 0,150	DC AC	PVL-B105606W2 PVL-B105606W1
				/ 6 G1/8	0,150 0,150	DC AC	PVL-B105618W2 PVL-B105618W1
				/ 6 G1/8	0,150 0,150	DC AC	PVL-B105606W2 PVL-B105606W1
				/ 6 G1/8	0,150 0,150	DC AC	PVL-B105618W2 PVL-B105618W1
				Electric 5/2 (2)	Spring	With	/ 6 G1/8
Without	/ 6 G1/8	0,125 0,125				DC AC	PVL-B101606W2 PVL-B101606W1
	/ 6 G1/8	0,125 0,125				DC AC	PVL-B101618W2 PVL-B101618W1
	/ 6 G1/8	0,125 0,125				DC AC	PVL-B101606W2 PVL-B101606W1
	/ 6 G1/8	0,125 0,125				DC AC	PVL-B101618W2 PVL-B101618W1
	Electric 5/2 (2)	Internal air				With	/ 6 G1/8
			Without	/ 6 G1/8	0,125 0,125	DC DC	PVL-B103606W2 PVL-B103618W2
				/ 6 G1/8	0,125 0,125	DC DC	PVL-B103606W2 PVL-B103618W2
				/ 6 G1/8	0,125 0,125	DC DC	PVL-B103606W2 PVL-B103618W2
				/ 6 G1/8	0,125 0,125	DC DC	PVL-B103606W2 PVL-B103618W2
				Electric 5/2 (1)	Electric	With	/ 6 G1/8
Without	/ 6 G1/8	0,150 0,150				DC AC	PVL-B102606W2 PVL-B102606W1
	/ 6 G1/8	0,150 0,150				DC DC	PVL-B102618W2 PVL-B102618W1
	/ 6 G1/8	0,150 0,150				DC DC	PVL-B102606W2 PVL-B102606W1
	/ 6 G1/8	0,150 0,150				DC AC	PVL-B102618W2 PVL-B102618W1
	Electric 5/3 Closed Centre position* (1)	Electric Self centring				With	/ 6 G1/8
			Without	/ 6 G1/8	0,150 0,150	DC AC	PVL-B107606W2 PVL-B107606W1
				/ 6 G1/8	0,150 0,150	DC DC	PVL-B107618W2 PVL-B107618W1
				/ 6 G1/8	0,150 0,150	DC DC	PVL-B107606W2 PVL-B107606W1
				/ 6 G1/8	0,150 0,150	DC AC	PVL-B107618W2 PVL-B107618W1
				Electric 5/3 Vented Centre position* (1)	Electric Self centring	With	/ 6 G1/8
Without	/ 6 G1/8	0,150 0,150				DC AC	PVL-B108606W2 PVL-B108606W1
	/ 6 G1/8	0,150 0,150				DC DC	PVL-B108618W2 PVL-B108618W1
	/ 6 G1/8	0,150 0,150				DC DC	PVL-B108606W2 PVL-B108606W1
	/ 6 G1/8	0,150 0,150				DC AC	PVL-B108618W2 PVL-B108618W1
	Electric 5/3 Pressurised Centre position* (1)	Electric Self centring				With	/ 6 G1/8
			Without	/ 6 G1/8	0,150 0,150	DC AC	PVL-B109606W2 PVL-B109606W1
				/ 6 G1/8	0,150 0,150	DC DC	PVL-B109618W2 PVL-B109618W1
				/ 6 G1/8	0,150 0,150	DC DC	PVL-B109606W2 PVL-B109606W1
				/ 6 G1/8	0,150 0,150	DC AC	PVL-B109618W2 PVL-B109618W1

* Available December 99

(1) With override non locking flush
 (2) With override locking flush

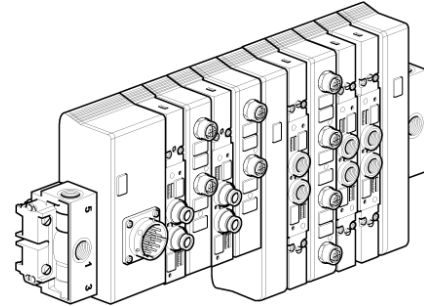
Configuration : Up to 16 valves or 32 I / O maximum

Monostable



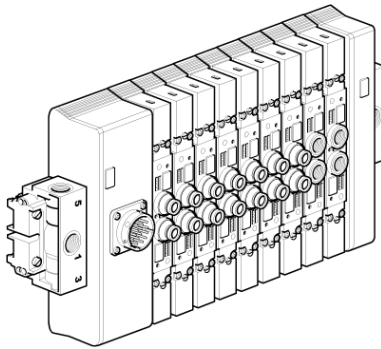
With SubD25 or
cylindrical 19 pins connector
⇒ 16 valves or 16 I/O

Monostable + Bistable



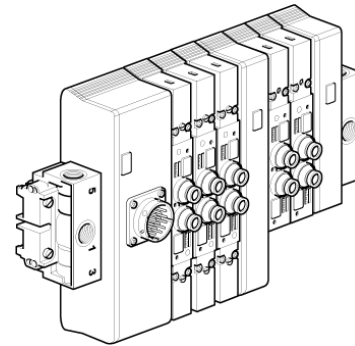
With SubD25 or
cylindrical 19 pins connector
⇒ 16 valves or 16 I/O

Bistable



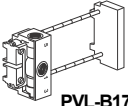
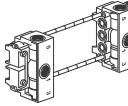
With SubD25 connector
⇒ 10 valves or 20 I/O
With cylindrical 35 pins connector
⇒ 16 valves or 32 I/O

Bistable + Monostable

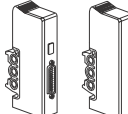
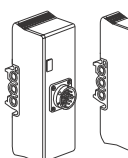


With SubD25 connector
⇒ 16 valves or 21 I/O
With cylindrical 35 pins connector
⇒ 16 valves or 32 I/O

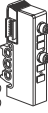

Pneumatic head and tail sets

	Type of mounting	Description	Valve size	Pneumatic connection	Weight kg	Order code
 PVL-B1719	DIN rail mounting	Single supply head and tail set	1/8"	G1/4	0,175	PVL-B1719
		Dual air supply head and tail set	1/8"	G1/4	0,245	PVL-B1729
 PVL-B1729	Surface mounting	Single air supply head and tail set	1/8"	G1/8	0,200	PVL-B1818
		Dual air supply head and tail set	1/8"	G1/8	0,260	PVL-B1828
		Pressure isolating disc		G1/8		PVL-B1902 Sold by lot of 10

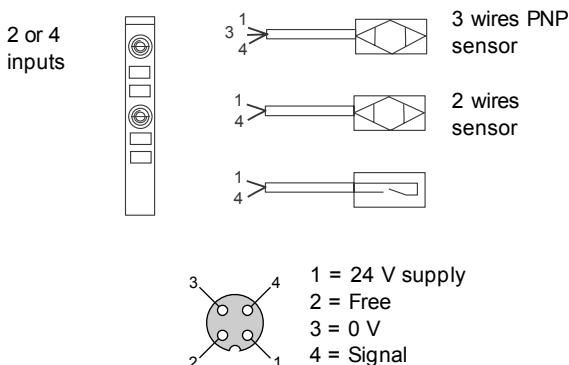
Electrical head and tail sets

	Description	Valves configuration	Type of connector	Weight kg	Order code
 PVL-B191125	Head and tail sets	Monostable	Sub-D25	0,220	PVL-B191125
			Cylindrical 19-pins	0,250	PVL-B191219
		Bistable	Sub-D25	0,220	PVL-B192125
			Cylindrical 35-pins	0,250	PVL-B192235
 PVL-B192235	Head and tail sets	Bistable then monostable	Sub-D25	0,370	PVL-B194125
			Cylindrical 35-pins	0,420	PVL-B194235
		Monostable then bistable	Sub-D25	0,320	PVL-B193125
			Cylindrical 19-pins	0,350	PVL-B193219
Transferring module		Bistable then monostable		0,220	PVL-B1940
		Monostable then bistable		0,240	PVL-B1930

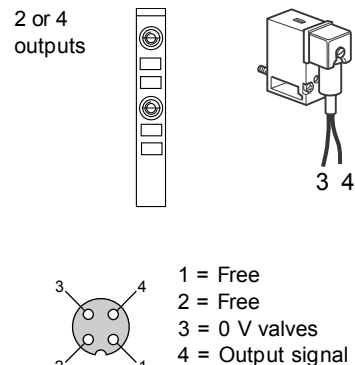
Electrical modules for external connection

	Description	Type	Connection	Weight kg	Order code
 PVL-B1E1302  PVL-B1E2304	Input module	PVL-B monostable	2 Inputs	0,180	PVL-B1E1302
		PVL-B bistable	4 Inputs	0,240	PVL-B1E2304
	Output module	PVL-B monostable	2 Outputs	0,180	PVL-B1S1302
		PVL-B bistable	4 Outputs	0,240	PVL-B1S2304

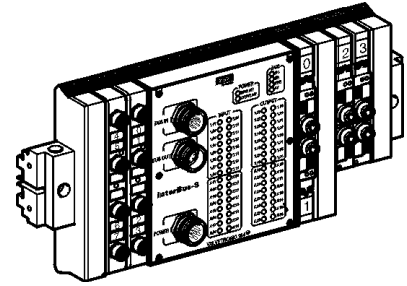
External input module connection



External output module connection



- ñ Interbus S - Profibus DP - DeviceNet - FIPIO
- ñ 2 x 3/2 - 5/2 - 5/3 valves 24 V DC with LEDs
- ñ Protection level IP 65
- ñ Up to 32 inputs and 32 outputs
- ñ Visual indication Bus diagnostic by LEDs
- ñ Output Module for driving external valves



Dimensions see page 40

Operating information

Bus Head Modules

Protection level	IP 65
Diagnostic Bus	3 to 4 LED
Diagnostic voltage	2 LED
Short circuit protection	Diagnostic by LED on Outputs
Vibrations	IEC 68-2-6 1g
Shock	IEC 68-2-27 15 g 11 ms
EMC Protection	IEC 801-2 level 3 IEC 801-3 level 3 IEC 801-4 level 3
Working temperature	0 ±C to 55 ±C, 75% duty factor 0 ±C to 40 ±C, 100% duty factor
Storage temperature	-40 ±C to +70 ±C
Bus voltage	20,6 to 30 V DC
Solenoid voltage	21,6 to 26,4 V DC
Mounting	DIN rail 35 mm surface

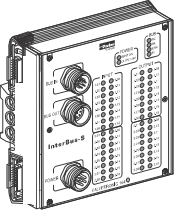
Input modules

Protection level	IP 65
Type and input voltage	PNP 24 V DC
Maxi. available current island	1,5 A for all inputs
Normal current input at state 1	15 mA
Maximum current input state 0	3 mA
Minimum voltage input state 1	11 VDC

Output modules

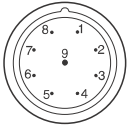
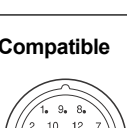
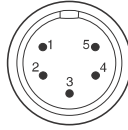
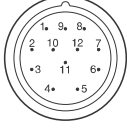
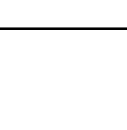
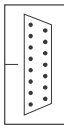
Protection level	IP 65
Type and output voltage	PNP 24 V DC
Normal current	100 mA
Maxi. available current island	1,5 A for all outputs

Main data for Bus Head Module

Description	Type	Connection	Weight kg	Order code
 Bus Module*	Interbus	32 Inputs 32 Outputs	1,770	PVL-B1BS3232A
	Profibus DP	32 Inputs 32 Outputs	1,770	PVL-B1BP3232A
	DeviceNet	32 Inputs 32 Outputs	1,750	PVL-B1BD3232A
	FIPIO	32 Inputs 32 Outputs	1,700	PVL-B1BF3232A
Head and tails pneumatical module	Bistable then Monostable	G1/4	0,740	PVL-B194729
- air feed/anchoring blocks - transfer module	Bistable	G1/4	0,740	PVL-B192729
Connector	M23 female 6 pins power	Supply	0,030	P8C-MC06B
	M23 female 12 pins	Profibus	0,030	P8C-MC12BP
Plug	M23, IP 65	Bus Out	0,015	P8C-PB1
Installation Diskett	Profibus and DeviceNet		0,030	P8B-PDISK
Input Module	PVL-B Monostable	2 Input	0,180	PVL-B1E1302
	PVL-B Bistable	4 Input	0,240	PVL-B1E2304
Output Module	PVL-B Monostable	2 Output	0,180	PVL-B1S1302
	PVL-B Bistable	4 Output	0,240	PVL-B1S2304

* Spare front panel are available for replacements, Order code PVL-BññDEP

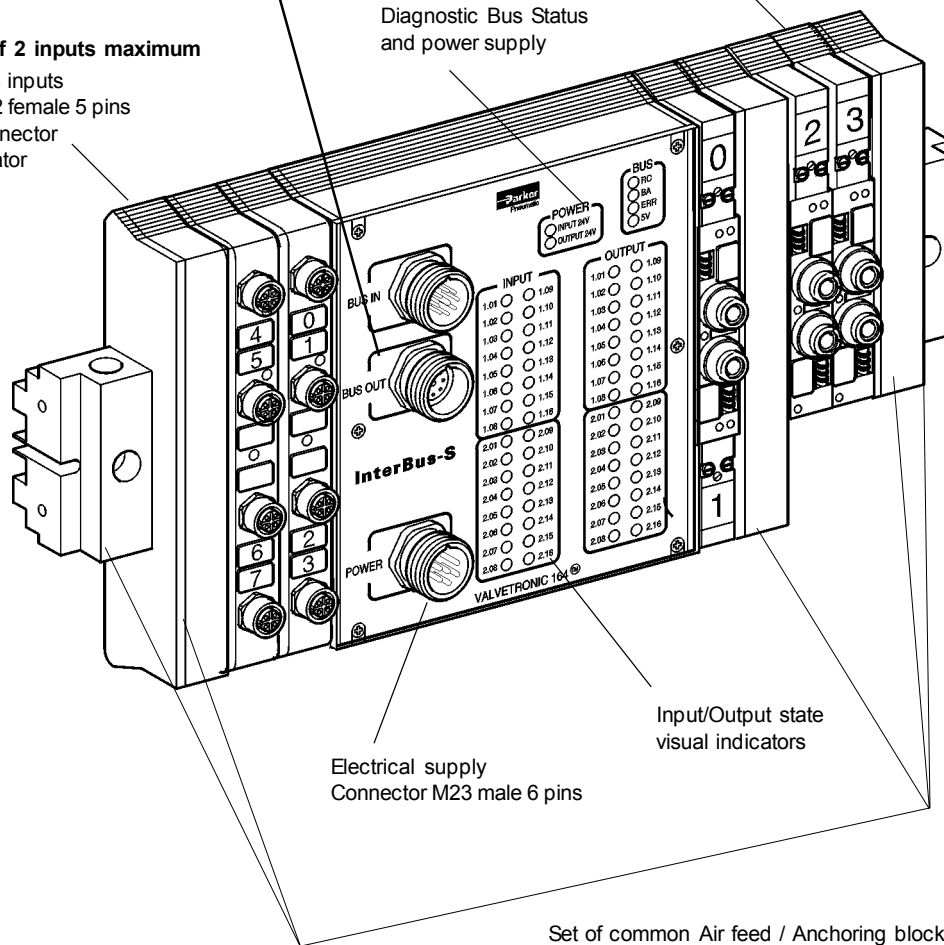
Connection on the Bus

Interbus S compatible Bus In  M23 male 9 pins* Bus Out  M23 female 9 pins*		DeviceNet compatible Bus  M18 male 5 pins*	
Profibus DP Compatible Bus In  M23 female 12 pins Bus Out  M23 female 12 pins		FIPIO compatible Bus  Sub D 15 pins compatible with Schneider connector TSX-BLP10	

**32 Inputs or
 16 modules of 2 inputs maximum**
 8 Modules of 4 inputs
 Connector M12 female 5 pins
 1 input per connector
 with LED indicator

Diagnostic Bus Status
 and power supply

16 valves PVL-B10 or 32 outputs maximum
 Monostable or bistable
 32 pilot Solenoids or external outputs



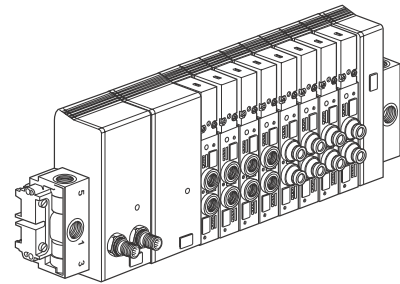
Input/Output state
 visual indicators

Electrical supply
 Connector M23 male 6 pins

Set of common Air feed / Anchoring blocks

* We recommend to use connecting leads which conform to Interbus S such as Phoenix contact or equivalent.

- ñ Total compatibility with ASI Bus
- ñ Islands from 4 to 16 valves output
- ñ Modularity of 4 outputs
- ñ Protection level IP 65
- ñ One single connection ASI
- ñ One single connection Valve supply 24 V DC



Dimensions see page 40

Operating information

ASI Bus Module characteristics

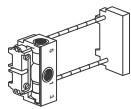
Protection level	IP 65
ASI operating voltage	26,9 to 31,6 V
Solenoid voltage	24 V DC \leq 10%
Operating voltage	0 to 55 \pm C
Vibrations	IEC 68-2-6 1g
Shock	IEC 68-2-27 15 g 11 ms
EMC Protection	IEC 801-2 level 3 IEC 801-3 level 3 IEC 801-4 level 3
Working temperature	0 \pm C to 55 \pm C
Identification code	8.F
Mounting	DIN rail

ASI Network characteristics

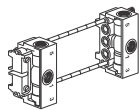
Maximum length	100 m
Maximum length with duplicator	200 m
Node capacity	4 inputs and 4 outputs
Total capacity	124 Inputs and 124 output
Number of nodes	1 to 31
Response time	5 ms maxi
Nodes supply	Through the Bus
Total available current	2 A or 5 A

Main data for ASI Bus Modules - Outputs version

Description	Valves configuration	Connection	Weight kg	Order code
Head module*	Monostable valves	M12 ASI and valves supply	0,460	P2S-BA1BA40
Head* and transfer module	Monostable then bistable valves	M12 ASI and valves supply	0,560	P2S-BA3BA40
Head module*	Bistables valves	M12 ASI and valves supply	0,510	P2S-BA2BA40
Head* and transfer module	Bistable then monostable valves	M12 ASI and valves supply	0,610	P2S-BA3BA40
Transfer module	Monostable valves	-	0,410	P2S-BA5BA40
	Bistable valves	-	0,460	P2S-BA6BA40
Air supply module	DIN rail mounting	Single air supply G1/4	0,175	PVL-B1719
		Dual air supply G1/4	0,245	PVL-B1729
		Surface mounting		
		Single air supply G1/8	0,200	PVL-B1818
		Dual air supply G1/8	0,260	PVL-B1828
Connecting lead to the ASI module addressing terminal (type P2S-BA...)			0,15	P8L-MH02B1



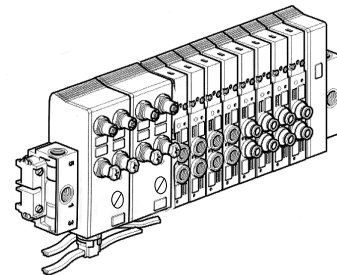
PVL-B1719



PVL-B1729

* Head module = with ASI, and supply 24V DC connection

- ñ Total compatibility with ASI Bus
- ñ Islands from 4 to 16 valves output and 4 or 16 inputs
- ñ Protection level IP 65
- ñ Connection M12 or Vampire plug
- ñ ASI visualisation and 24 V supply diagnostic by LED
- ñ Inputs visualisation by LED



Dimensions see page 40

Operating information

ASI Bus Module Characteristics

Protection level	IP 65
ASI operating voltage	26,9 to 31,6 V
Solenoid voltage	24 VDC ±10%
Isolation voltage	1500 V
Vibrations	IEC 68-2-6 1g
Shock	IEC 68-2-27 15 g 11 ms
EMC Protection	IEC 801-2 level 3 IEC 801-3 level 3 IEC 801-4 level 3
Bus diagnostic	2 LED, red and green
Solenoid voltage visualisation	By LED
Short circuit protection	Diagnostic by LED
Working temperature	0 ±C to 55 ±C
Storage temperature	-40 ±C to 70 ±C
Solenoid voltage	ASI Vampire plug or M12

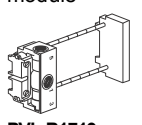
Identification code	7.F
Bus connection	ASI Vampire plug or M12 Connector
Available current on inputs	200 mA
Compatibility with sensors or photo-cells	2 or 3 wires technology
Inputs	PNP type

ASI Network characteristics

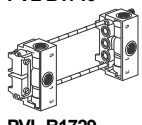
Maximum length	100 m
Maximum length with duplicator	200 m
Node capacity	4 inputs and 4 outputs
Total capacity	124 Inputs and 124 output
Number of nodes	1 to 31
Response time	5 ms maxi
Nodes supply	Through the Bus
Total available current	2 A or 5 A

Main data for ASI Bus Modules - Inputs and Outputs version

Description	Valves configuration	Connection	Weight kg	Order code
Head module*	Monostable valves	M12 ASI and valves supply	0,460	PVL-BA1BA44
		Vampire ASI and valves supply	0,460	PVL-BA1BA44V
Head module*	Monostable then bistable valves	M12 ASI and valves supply	0,560	PVL-BA3BA44
		Vampire ASI and valves supply	0,560	PVL-BA3BA44V
Transfer module	Monostable or bistable valves	-	0,400	PVL-BA5BA44
Air supply module	DIN rail mounting	Single air supply G1/4	0,175	PVL-B1719
		Dual air supply G1/4	0,245	PVL-B1729
	Surface mounting	Single air supply G1/8	0,200	PVL-B1818
		Dual air supply G1/8	0,260	PVL-B1828



PVL-B1719



PVL-B1729

Spare Vampire cover dip	Sold by lot of 5	P8B-AVMP2
Connecting lead to the ASI module addressing terminal (type PVL-BA...)		P8B-AJACK

* Head module = with ASI, and supply 24V DC connection

Connection

