

# Modular Valve Terminal, Model 1000, with Field Bus Interface or Multi-Pin Plug Connector



Working port: G 1/8 or plug connector for hose dia. 8/6

Catalog Register

P 6

**OBSOLETE  
DOCUMENT**  
Technical  
Reference  
Only

## Description

Modular expandable valve terminal system. The smallest unit is equipped with 4 solenoid valves. The maximum number of valves, with different functions, is 16 units. The terminal can be controlled via a bus line or multi-pin plug connector. A separate I/O bus can be used to input external signals from sensors or switch individual external valves, thus integrating these into the bus system.

## Features

- Modular pneumatic and electrical system
- Basic unit with 4 valves
- Expandable by up to 4 valves
- Max. number of valves 16
- Valve functions: 5/2 directional control valves, single- or double-solenoid, and 5/3 directional control valves
- Controlled by Interbus-S, Sinec L 2 DP or Profibus DP, or multi-pin plug connector IP 40 or IP 65
- Separate I/O box for sensors and/or individual valves, max. 8 inputs/32 outputs
- Mounting position optional

## Parameters

### Electrical

- Various bus systems:
  - Interbus S
  - Sinec L 2 DP or Profibus DP
  - Others on request
- Multi-pin connector IP 40 or IP 65
- 24 VDC

### Mechanical

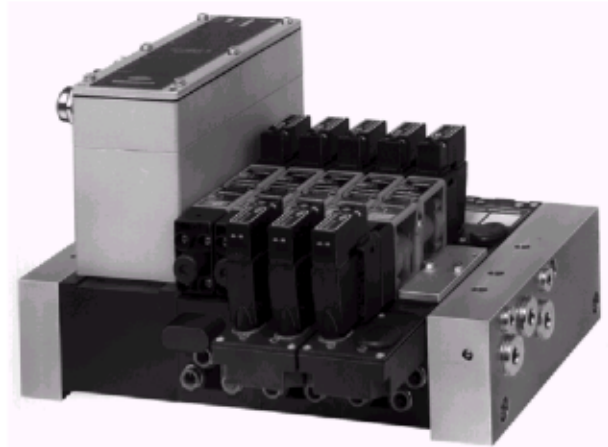
- Interconnected sub-base system, giving flexible expansion for 1 to 4 valves
- 2 valves per segment
- Supply port G 3/8
- Valve output G 1/8 or plug connector for hose dia. 8/6

### Pneumatical

- Flange-mounting valve series with width of 26 mm in accordance with VDMA 24563
- 5/2 directional control valves, single- or double-solenoid
- 5/3 directional control valves with various neutral-position functions
- High flow rate on valve terminal, approx. 1000 l/min.
- Valves with or without throttle check valve function
- Pressure range: Coarse vacuum to 16 bar
- Temperature range:
  - Multi-pin plug connection: –10 to +60 °C
  - Field bus connection: 0 to +50 °C
- Mounting position optional



Multi-pin plug connector IP 40 or IP 65



Field bus connection



Expansion segments

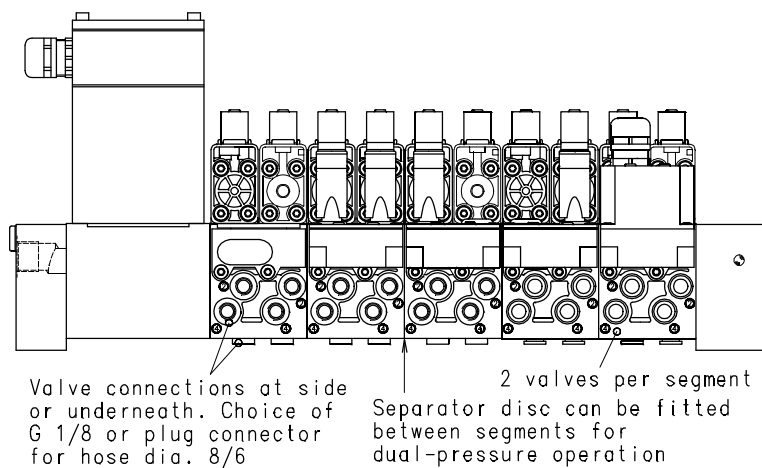
## Functional descriptions

The following detailed functional descriptions are available for use during installation and commissioning:

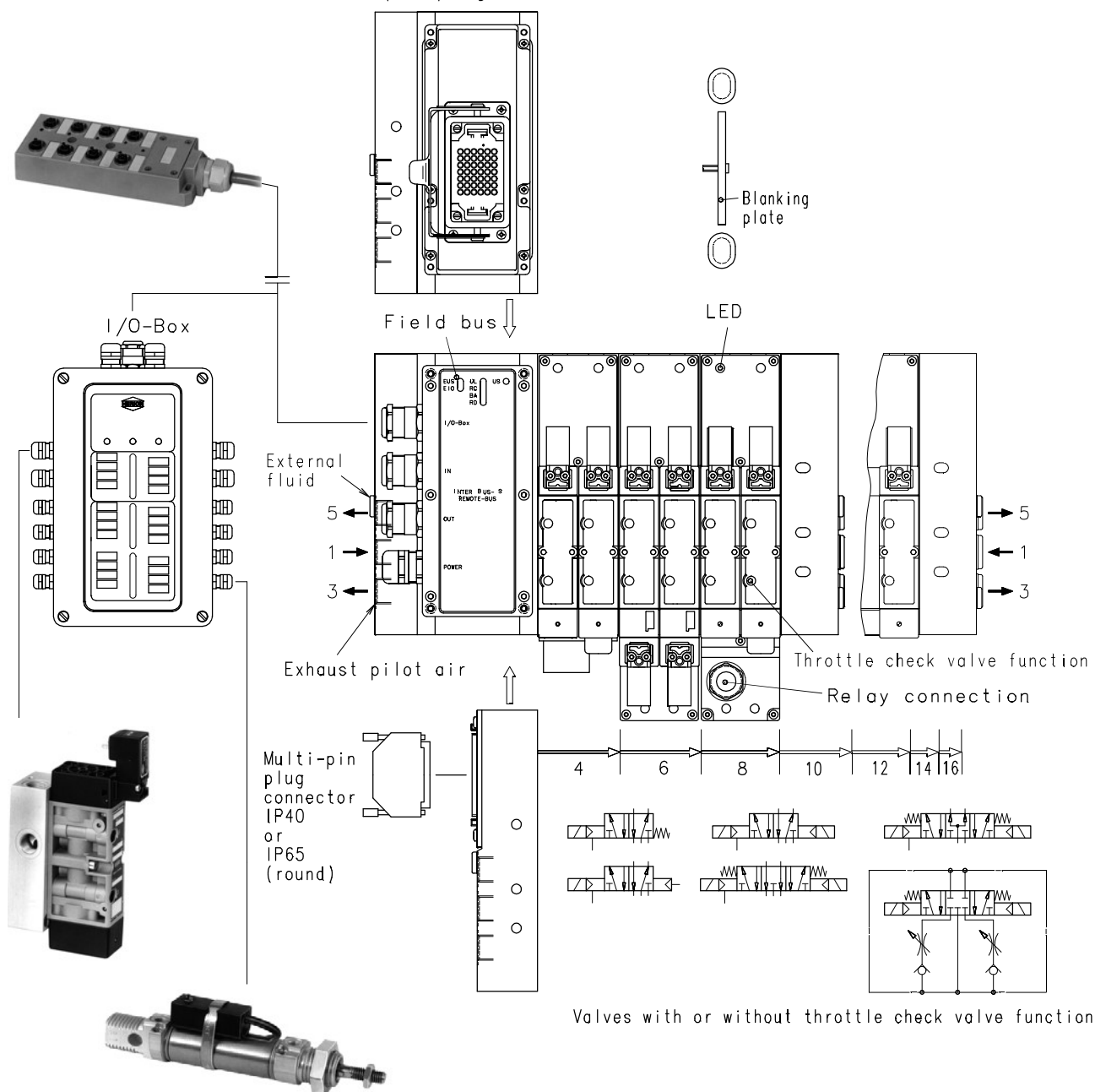
Publication No. 7503015 Interbus S

## System overview

- Multi-pin or bus connection
- Modular design
- From 4 to 16 valves
- 2 valves per segment
- Separate I/O box



Multi-pin plug connector IP65



## Valve terminal, Model 1000, with multi-pin plug connector IP 40 or IP 65

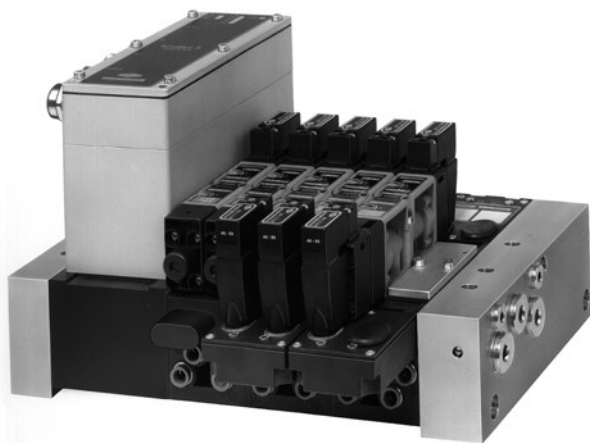


### Features

- Variants with IP 40 or IP 65
- IP 40: Subminiature D plug connector, 37-pin, male
- IP 65: Harting plug connector, Type Han 42 DD, male
- IP 65: ITT-Cannon plug connector, Type Trident 35-pin, male
- Number of valves: Min. 4, max. 16
- Pressure range: 2 ... 10 bar (internal fluid)  
-1 ... 16 bar (external fluid)

For selection of valve terminals, see Page 8 onwards.

## Valve terminal, Model 1000, with field bus connection



### Features

- Controlled via Interbus-S, Sinec L 2 DP
- Degree of protection IP 65
- Central connection for 24 VDC power supply
- Number of valves: Min. 4, max. 16
- Pressure range: 2 ... 10 bar (internal fluid)  
-1 ... 16 bar (external fluid)

For selection of valve terminals, see Page 10 onwards.

## Expansion segments for valve terminal Model 1000



### Features

#### Expansion segments

- Connection: Either G 1/8 or plug connector for hose dia. 8/6
- Three segment variants:
  - For single-solenoids valves
  - For double-solenoids valves
  - With relay output for control of external valves

#### Valves

- 5/2 directional control valves, single- or double-solenoid, and 5/3 directional control valves
- With or without throttle check valve function

For selection of expansion segments, see Page 14.

## Valve terminal, Model 1000, with multi-pin plug connector IP 40

### Features

- Valve terminal with multi-pin plug connector IP 40  
Subminiature D plug connector, 37-pin, male
- Min. 4 valves
- Max. 16 valves
- Expandable by up to 4 valves

### Parameters

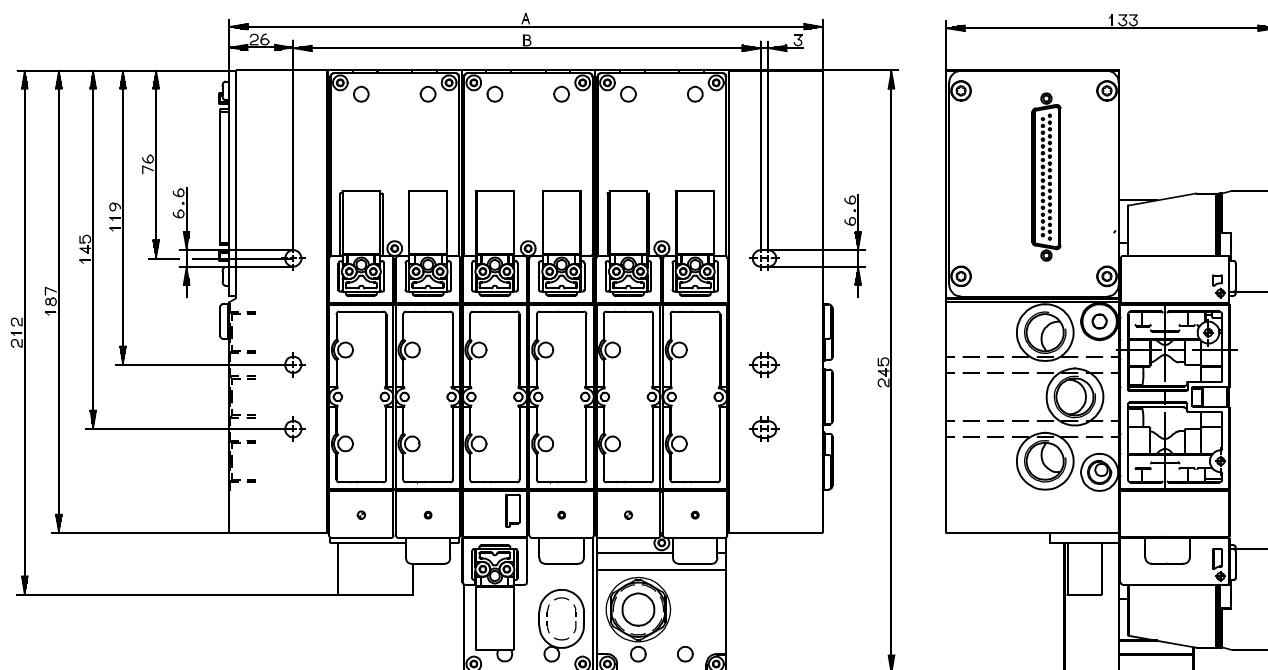
- Supply and exhaust ports G 3/8  
External fluid connection G 1/8
- Valve outlet G 1/8 or plug connect  
for hose dia. 8/6  
For connection diagram, see Page 7



### Valve parameters

- Flow rate: 1000 l/min.
- Functions: 5/2 directional control valves, single- or double solenoid  
5/3 directional control valves, closed in neutral position, with or without throttle check valve function

### Dimensional drawing [mm]



### Dimensional table [mm]

Number of valve stations	A	B	Weight, approx. [kg]
4	186	135	5.2
6	240	189	5.9
8	294	243	6.5
10	348	297	7.2
12	402	351	7.9
14	456	405	8.5
16	510	459	9.2



## Valve terminal, Model 1000, with multi-pin plug connector IP 65

### Features

- Valve terminal with multi-pin plug connector IP 65  
Type Han 42 DD, male (Harting)
- Min. 4 valves
- Max. 16 valves
- Expandable by up to 4 valves

### Parameters

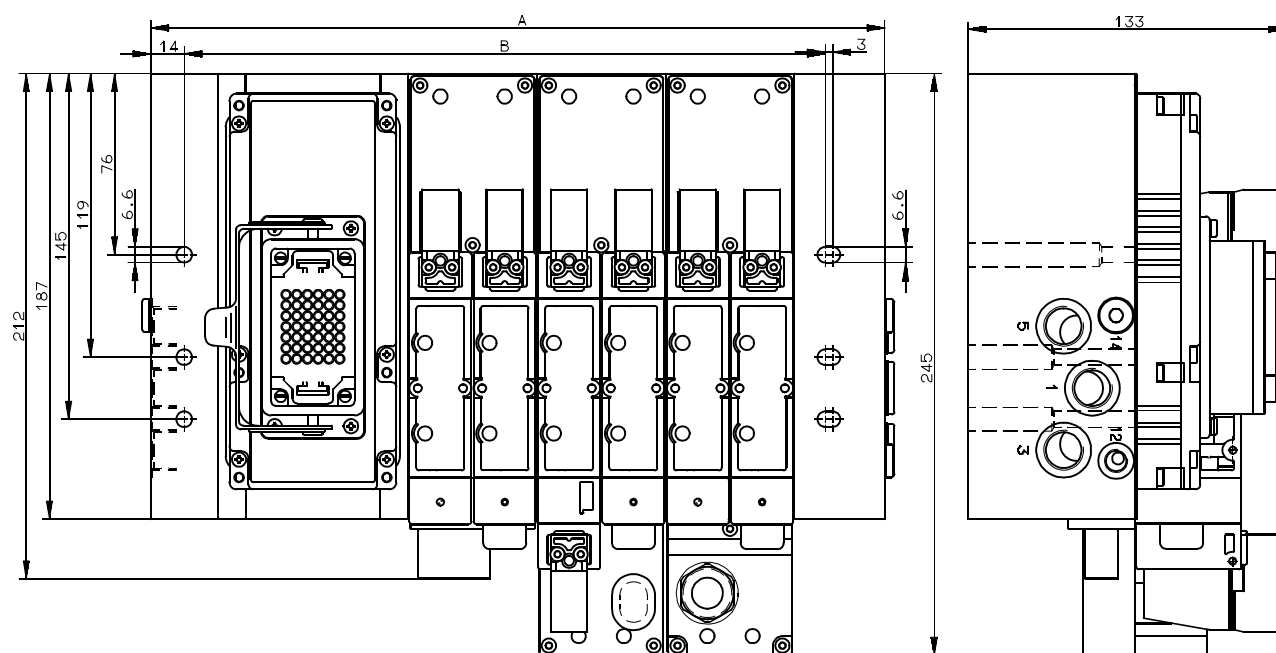
- Supply and exhaust ports G 3/8  
External fluid connection G 1/8
- Valve outlet G 1/8 or plug connect  
for hose dia. 8/6  
For connection diagram, see Page 7



### Valve parameters

- Flow rate: 1000 l/min.
- Functions: 5/2 directional control valves, single- or double-solenoid  
5/3 directional control valves, closed in neutral position, with or without throttle check valve function

### Dimensional drawing [mm]



### Dimensional table [mm]

Number of valve stations	A	B	Weight, approx. [kg]
4	254	215	5.7
6	308	269	6.4
8	362	323	7.0
10	416	377	7.7
12	470	431	8.4
14	524	485	9.0
16	578	539	9.7

## Valve terminal, Model 1000, with multi-pin plug connector IP 65

### Features

- Valve terminal with multi-pin plug connector IP 65  
Type ITT Cannon Trident 35-pin, male
- Min. 4 valves
- Max. 16 valves
- Expandable by up to 4 valves

### Parameters

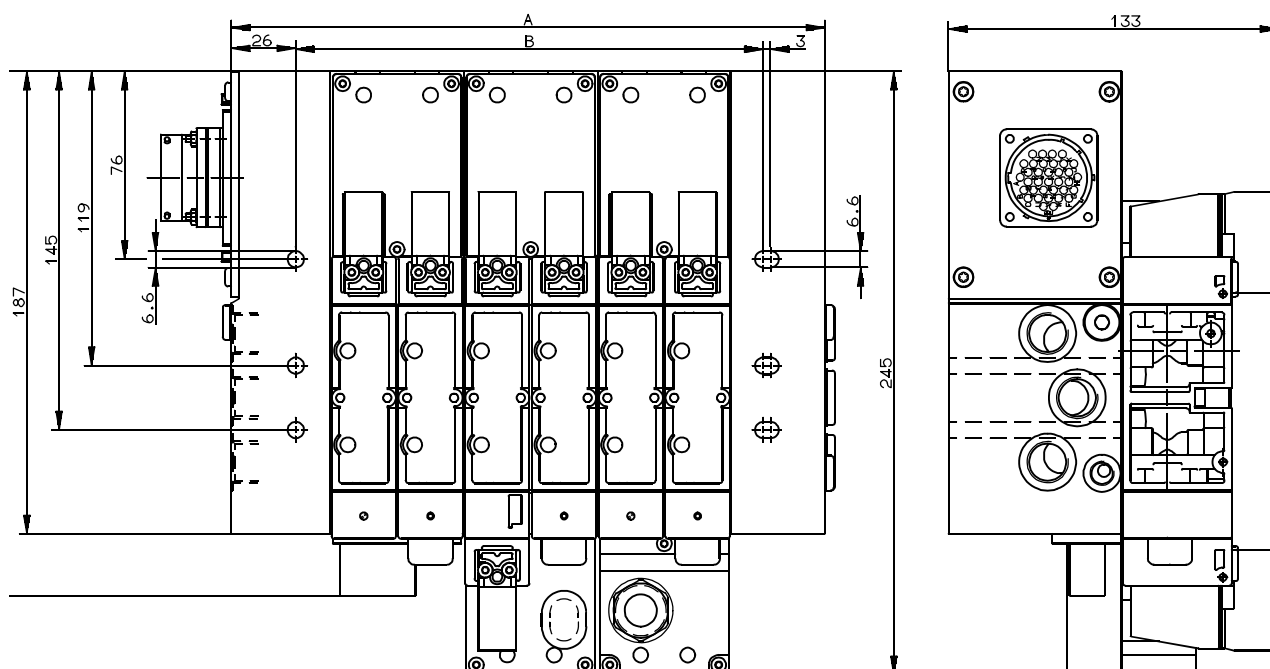
- Supply and exhaust ports G 3/8  
External fluid connection G 1/8
- Valve outlet G 1/8 or plug connect  
for hose dia. 8/6  
For connection diagram, see Page 7



### Valve parameters

- Flow rate: 1000 l/min.
- Functions: 5/2 directional control valves, single- or double-solenoid  
5/3 directional control valves, closed in neutral position, with or without throttle check valve function

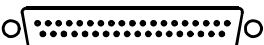

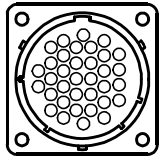
### Dimensional drawing [mm]

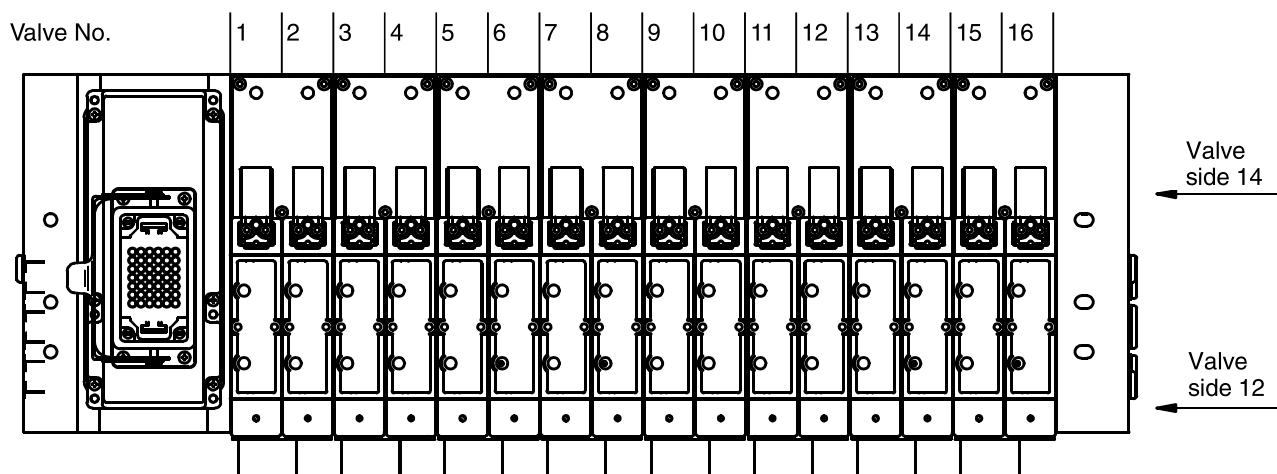


### Dimensional table [mm]

Number of valve stations	A	B	Weight, approx. [kg]
4	186	135	5.2
6	240	189	5.9
8	294	243	6.5
10	348	297	7.2
12	402	351	7.9
14	456	405	8.5
16	510	459	9.2

## Connection diagram for multi-pin plug connectors IP 40 and IP 65

Valve No.	Valve side	Pin No. / Designation		
		 IP 40	 IP 65	 IP 65
1	12	20	1	b
	14	1	8	a
2	12	21	29	d
	14	2	36	c
3	12	22	2	f
	14	3	9	e
4	12	23	30	h
	14	4	37	g
5	12	24	3	j
	14	5	10	i
6	12	25	31	m
	14	6	38	k
7	12	26	4	E
	14	7	11	D
8	12	27	32	G
	14	8	39	F
9	12	28	5	J
	14	9	12	H
10	12	29	33	L
	14	10	40	K
11	12	30	6	N
	14	11	13	M
12	12	31	20	R
	14	12	27	P
13	12	32	34	T
	14	13	41	S
14	12	33	7	V
	14	14	14	U
15	12	34	21	X
	14	15	28	W
16	12	35	35	Z
	14	16	42	Y
Frame (0 Volt)		36 + 37	22 ... 26	B + C
Grounding (PE)		18 + 19	15 + housing	A



## Range of available functions for valve terminal Model 1000 with multi-pin plug connectors IP 40 or IP 65

### Valve functions<sup>1)</sup>

Code	Symbol	Description
4		Single-solenoid valve with mechanical spring return
2		Single-solenoid valve with air spring return
1		Double-solenoid valve
6		Valve closed in neutral position
7		Valve pressurised in neutral position
8		Valve exhausted in neutral position
0		Blanking plate set Cat. No. <b>0546792</b>
4 D		Single-solenoid valve with mechanical spring return with throttle check valve insert
2 D		Single-solenoid valve with air spring return with throttle check valve insert
1 D		Double-solenoid valve with throttle check valve insert
6 D		Valve closed in neutral position with throttle check valve insert
7 D		Valve pressurised in neutral position with throttle check valve insert
8 D		Valve exhausted in neutral position with throttle check valve insert

### Multi-pin plug connectors

Code	Symbol	Description
J		Multi-pin plug connector, 37-pin, IP 40
M		Multi-pin plug connector, 42-pin, IP 65
K		Multi-pin plug connector, 35-pin, IP 65

### Additional equipment

E		Relay module
W		Separator for two different pressure ranges

### Valve subplate

X		Thread G 1/8
Y		Plug connector for hose dia. 8/6

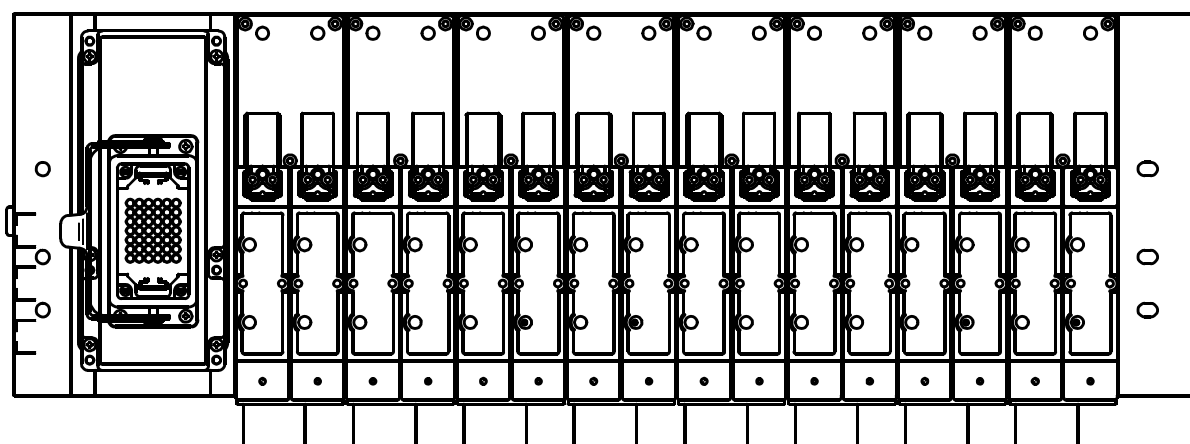
### Accessories

R		Separator stud for external fluid Cat. No. <b>0544600</b>
G		Multi-pin plug for IP 40 Cat. No. <b>0795782</b>
N		Multi-pin plug for IP 65 - Harting Cat. No. <b>0795446</b>
P		Multi-pin plug for IP 65 - Cannon Cat. No. <b>0546646</b>

<sup>1)</sup> Standard manual override, without detent

## Specification of functions for valve terminal Model 1000

### Multi-pin plug connector



### Order code

Terminal size					<div>valves <input type="checkbox"/> 4 valves <input type="checkbox"/> 6 valves <input type="checkbox"/> 8 valves <input type="checkbox"/> 10 valves <input type="checkbox"/> 12 valves <input type="checkbox"/> 14 valves <input type="checkbox"/> 16</div>																+	Accessories
Terminal type	Number of valve stations	Standard	Multi-pin plug	Valve subplate	Valve stations																	
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
<b>Mod.1000-Code</b>																						
Throttle check valve function																						
Relay only 1 x per segment (only with valve code 2 and/or 4)																						
Separator stud for 2 pressures (max. 1 piece)																						

### Example of order

Terminal size					<div>valves <input type="checkbox"/> 4 valves <input type="checkbox"/> 6 valves <input checked="" type="checkbox"/> 8 valves <input type="checkbox"/> 10 valves <input type="checkbox"/> 12 valves <input type="checkbox"/> 14 valves <input type="checkbox"/> 16</div>																+	Accessories
Terminal type	Number of valve stations	Standard	Multi-pin plug	Valve subplate	Valve stations																	
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
<b>Mod.1000-Code</b>	<b>08-</b>	<b>S-</b>	<b>M-</b>	<b>Y:</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>0</b>										
Throttle check valve function					<b>D</b>		<b>D</b>															
Relay only 1 x per segment (only with valve code 2 and/or 4)						<b>E</b>																
Separator stud for 2 pressures (max. 1 piece)								<b>W</b>														

**Example of order: Mod.1000- 08- S- M- Y: 4DE,2E,6D,7,W,4,4,2,0 + N ...**

Terminal type    Number of valve stations    Standard    Multi-pin plug    Valve subplate

The data enclosed by commas represent the functions of one valve station.

#### Valve terminal Model 1000, 8 valve stations

Code	Description
<b>08-</b>	Number of valve stations
<b>S-</b>	Standardausführung
<b>M-</b>	Multi-pin plug connector IP 65
<b>Y:</b>	Plug connector for hose dia. 8/6
<b>4DE</b>	Single-solenoid valve with mechanical spring return, throttle check valve insert and relay module
<b>2E</b>	Single-solenoid valve with air spring return and relay module

Code	Description
<b>6D</b>	Valve closed in neutral position, with throttle check valve insert
<b>7</b>	Valve pressurised in neutral position
<b>W</b>	Separator stud for two different pressure ranges
<b>4</b>	Single-solenoid valve with mechanical spring return
<b>4</b>	Single-solenoid valve with mechanical spring return
<b>2</b>	Single-solenoid valve with air spring return
<b>0</b>	Blanking plate set
<b>N</b>	Multi-pin plug IP 65 - Harting

## Valve terminal Model 1000 with field bus connection

### Features

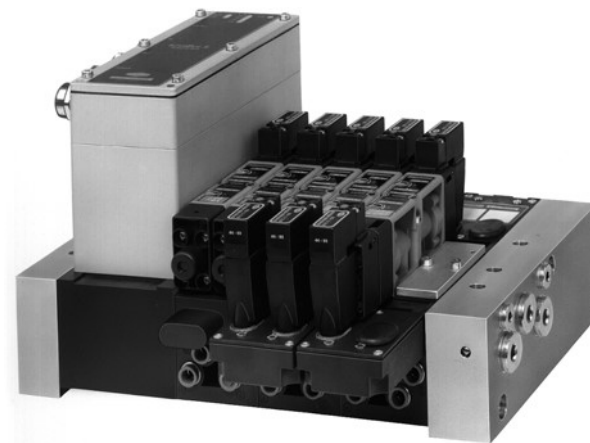
- Valve terminal with bus connection (inputs/outputs), 24 VDC power supply and I/O box connection
- Type of connection: Cable gland and plug clamps
- Bus system: Interbus-S, 2-wire remote bus

### Parameters

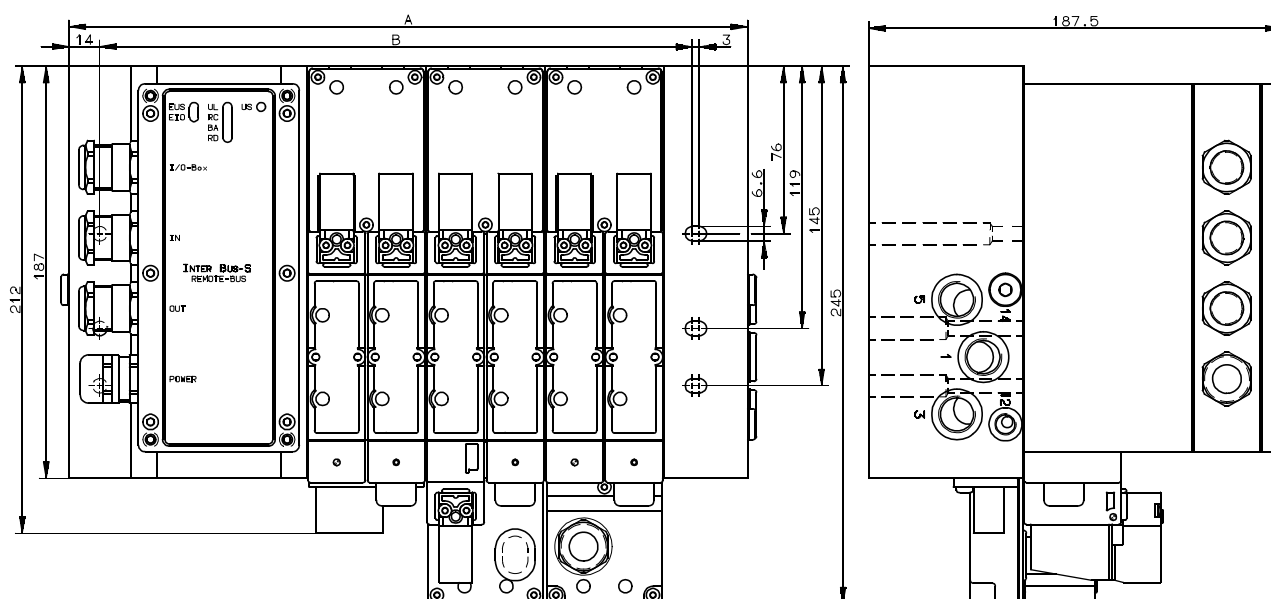
- Supply and exhaust ports G 3/8  
External fluid connection G 1/8
- Valve outlet G 1/8 or plug connect  
for hose dia. 8/6

### Valve parameters

- Flow rate: 1000 l/min.
- Functions: 5/2 directional control valves, single- or double solenoid  
5/3 directional control valves, with various center positions, with or without throttle check valve function



### Dimensional drawing [mm]



### Dimensional table [mm]

Number of valve stations	A	B	Weight approx. [kg]
4	254	215	6.5
6	308	269	7.2
8	362	323	7.8
10	416	377	8.5
12	470	431	9.1
14	524	485	9.8
16	578	539	10.6

## Valve terminal Model 1000 with field bus connection

### Description of E-box for Interbus-S

Within the valve terminal system, the E-box represents the actual interface to the remote Interbus-S and remote installations bus.

The E-box includes power drivers to control the solenoid valves on the valve terminal.

The E-box can be connected to the HERION I/O box via an additional built-in interface. The I/O box makes it possible to interrogate proximity switches and control external actuators.

### Note

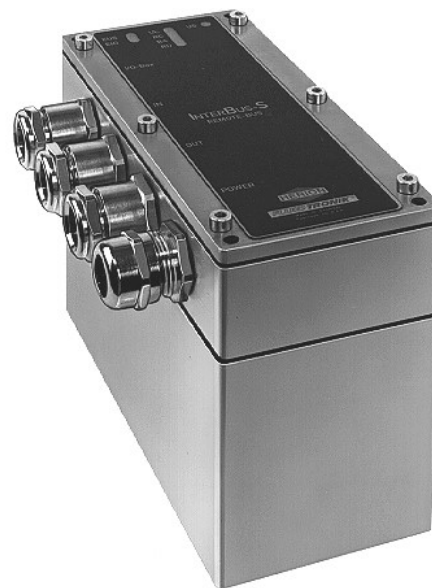
In choosing an E-box, you must take the following decisions:

- E-box with or without connection for I/O box
- E-box for remote bus or remote installation bus
- Possible subsequent expansion of valve terminal

Expansion: Min. 1 valve

Max. 4 valves

(See Page 12 for further details)



### Parameters

<b>Ambient temperature range</b>	0 ... 50 [°C]
<b>Degree of protection to DIN 40050</b> (in installed state)	IP 65
<b>Electromagnetic compatibility</b>	Conforms to IEC 801.1 to IEC 801.4, degree of severity 3
<b>Power supply for bus logic</b>	18 ... 32 VDC
Residual ripple	Max. 10%
Current consumption	Max. 100 mA
<b>Power supply for solenoid valves</b>	24 VDC $\pm$ 10%
Residual ripple	Max. 10%
Current consumption (without solenoid coils)	Max. 30 mA
<b>Output voltage for solenoid valves</b>	Power supply - 0,6 V
<b>Output current for solenoid valves per solenoid coil</b>	150 mA (not short-circuit-proof)

<b>Electrical isolation</b>	Between bus power supply and bus logic
	Between bus logic and peripherals
	Insulation voltage 500 VAC
<b>Bus protocol</b>	Interbus-S 2-wire remote bus
Transmission rate	500 kbits/s
Transmission medium	2x RS485



## Range of available functions for valve terminal Model 1000 with field bus connection

### Valve functions<sup>1)</sup>

Code	Symbol	Description
<b>4</b>		Single-solenoid valve with mechanical spring return
<b>2</b>		Single-solenoid valve air spring return
<b>1</b>		Double-solenoid valve
<b>6</b>		Valve closed in neutral position
<b>7</b>		Valve pressurised in neutral position
<b>8</b>		Valve exhausted in neutral position
<b>0</b>		Blanking plate set Cat. No. <b>0546792</b>
<b>4D</b>		Single-solenoid valve with mechanical spring return with throttle check valve insert
<b>2D</b>		Single-solenoid valve with air spring return with throttle check valve insert
<b>1D</b>		Double-solenoid valve with throttle check valve insert
<b>6D</b>		Valve closed in neutral position with throttle check valve insert
<b>7D</b>		Valve pressurised in neutral position with throttle check valve insert
<b>8D</b>		Valve exhausted in neutral position with throttle check valve insert

### Remote bus

Code	Bus system	Number of solenoids, max.	I/O box possible
<b>I</b>	Interbus-S	16	No
<b>IA</b>	Interbus-S	32	No
<b>IB</b>	Interbus-S	16	Yes
<b>IC</b>	Interbus-S	32	Yes

### Remote installation bus

<b>ID</b>	Interbus-S	16	No
<b>IE</b>	Interbus-S	32	No
<b>IF</b>	Interbus-S	16	Yes
<b>IG</b>	Interbus-S	32	Yes

### Profibus DP

<b>S</b>	Profibus DP	32	No
<b>SA</b>	Profibus DP	24	Yes except Cat. No. <b>5980211</b>

### Additional equipment

Code	Symbol	Description
<b>E</b>		Relay module
<b>W</b>		Separator for two different pressure ranges

### Valve subplate

<b>X</b>		Thread G 1/8
<b>Y</b>		Plug connector for hose dia. 8/6

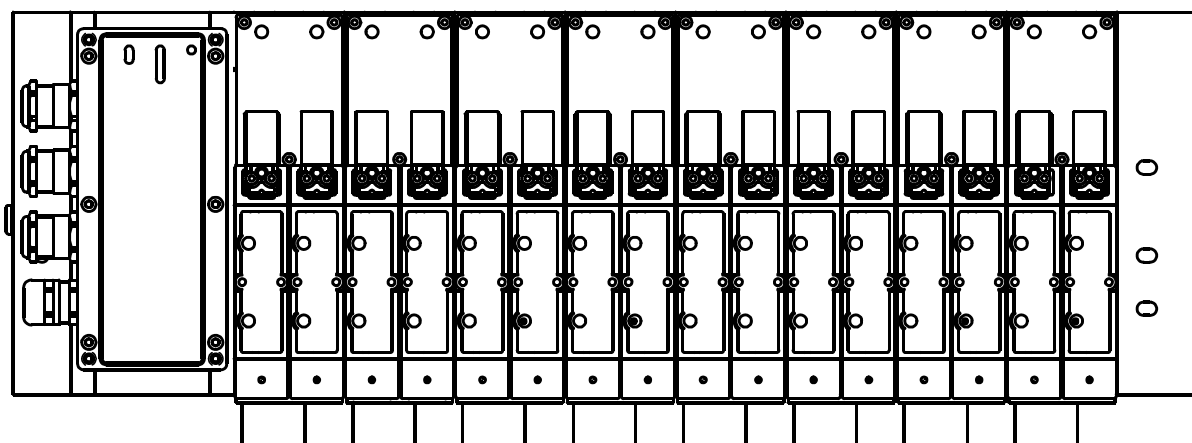
### Accessories

<b>R</b>		Separator stud for external fluid Cat. No. <b>0544600</b>
<b>F</b>		Software on 3 1/2" diskette (for Profibus DP) Cat. No. <b>0795372</b>

### Further bus systems on request

<sup>1)</sup> Standard manual override, without detent

## Specification of functions for valve terminal Model 1000 with field bus connection



### Order code

Terminal size					<div>4 valves <input type="checkbox"/></div> <div>6 valves <input type="checkbox"/></div> <div>8 valves <input type="checkbox"/></div> <div>10 valves <input type="checkbox"/></div> <div>12 valves <input type="checkbox"/></div> <div>14 valves <input type="checkbox"/></div> <div>16 valves <input type="checkbox"/></div>																+	Accessories
Terminal type	Number of valve stations	Standard	Field bus connection	Valve subplate	Valve stations																	
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Mod.1000-Code																						
Throttle check valve function																						
Relay only 1 x per segment (only with valve code 2 and/or 4)																						
Separator stud for 2 pressures (max. 1 piece)																						

### Example of order

Terminal size					<div>valves<div>4</div>valves<div>6</div>valves<div>8</div>valves<div>10</div>valves<div>12</div>valves<div>14</div>valves<div>16</div></div>																+	Accessories
Terminal type	Number of valve stations	Standard	Field bus connection	Valve subplate	Valve stations																	
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Mod.1000-Code	08-	S-	IB-	Y:	4	2	6	7	4	4	2	0										
Throttle check valve function					D		D															
Relay only 1 x per segment (only with valve code 2 and/or 4)					E																	
Separator stud for 2 pressures (max. 1 piece)								W														

**Example of order: Mod.1000- 08- S- IB- Y: 4DE,2E,6D,7,W,4,4,2,0 + R ...**

Terminal type    Number of    Standard    Field bus    Valve    Valve    The data enclosed by commas represent  
valve stations    connection    subplate    stations

The data enclosed by commas represent the function of one valve station.

#### Valve terminal Model 1000, 8 valve stations

Code	Description
<b>08-</b>	Number of valve stations
<b>S-</b>	Standardausführung
<b>IB-</b>	Remote bus/Interbus-S, max. 8 valves, with I/O box
<b>Y:</b>	Plug connector for hose dia. 8/6
<b>4DE</b>	Single-solenoid valve with mechanical spring return, throttle check valve insert and relay module
<b>2E</b>	Single-solenoid valve with air spring return and relay module

Code	Description
<b>6D</b>	Valve closed in neutral position, with throttle check valve insert
<b>7</b>	Valve pressurised in neutral position
<b>W</b>	Separator stud for two different pressure ranges
<b>4</b>	Single-solenoid valve with mechanical spring return
<b>4</b>	Single-solenoid valve with mechanical spring return
<b>2</b>	Single-solenoid valve with air spring return
<b>0</b>	Blanking plate set
<b>R</b>	Separator stud for external fluid

## Expansion segments for valve terminal Model 1000




### Expansion table

Number of pre-fitted valves	1st expansion stage	2nd expansion stage
4	(+2) 6	(+2) 8
6	(+2) 8	-
8	(+2) 10	(+2) 12
10	(+2) 12	-
12	(+2) 14	(+2) 16
14	(+2) 16	-
16	-	-

### Note

Please check if you have ordered an E-box for the right number of valves.

### Range of segments (2 valves per segment or blanking plate)

Symbol	Cat. No. for segments <sup>1)</sup>		Code	Cat. No. for valves For function, see Page 6
	G 1/8 thread	Plug-in connection		
Segment for single-solenoid valve 	<b>0544760</b>	<b>0544761</b>	4	<b>2624050.9000 024 00</b>
			2	<b>2624150.9000 024 00</b>
			$\frac{4}{D}$	<b>2624051.9000 024 00</b>
			$\frac{2}{D}$	<b>2624151.9000 024 00</b>
Segment for double-solenoid valve and 5/3 directional control valve 	<b>0544762</b>	<b>0544763</b>	1	<b>2624250.9000 024 00</b>
			6	<b>2624350.9000 024 00</b>
			7	<b>2624450.9000 024 00</b>
			8	<b>2624550.9000 024 00</b>
			$\frac{1}{D}$	<b>2624251.9000 024 00</b>
			$\frac{6}{D}$	<b>2624351.9000 024 00</b>
Segment for single-solenoid valve with relay module 	<b>0545923</b>	<b>0545924</b>	$\frac{7}{D}$	<b>2624451.9000 024 00</b>
			$\frac{8}{D}$	<b>2624551.9000 024 00</b>
			4	<b>2624050.9000 024 00</b>
			2	<b>2624150.9000 024 00</b>
			$\frac{4}{D}$	<b>2624051.9000 024 00</b>
			$\frac{2}{D}$	<b>2624151.9000 024 00</b>

<sup>1)</sup> Including mounting components

**Example of order:** Segment with G 1/8 thread for single-solenoid valve Cat. No. **0544760**  
and 5/2 single-solenoid valve with spring return Cat. No. **2624050.9000 024 00**  
and subplate-set Cat. No. **0544706**

## Relay module

### Description

The relay module can be fitted in place of solenoid coils 12 if a valve segment is not fitted with components or is fitted with a single-solenoid valve.

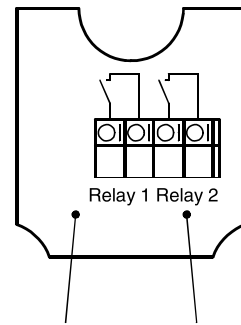
The relay is driven electrically in the same way as solenoid coils 12 of a double-solenoid valve.

### Parameters

Contact configuration	1x ON
Contact rating	Ohmic load
	5 A at 250 VAC
	5 A at 30 VDC
	Inductive load
	1.5 A at 250 VAC
	0.5 A at 30 VDC
Contact circuitry	Varistor 275 V
Electric connection	Via 13.5 mm conduit thread for cable diameter 6 ... 12 mm and spring terminals



### Terminal diagram



### External fluid connection (separator stud, Code R)

#### Description

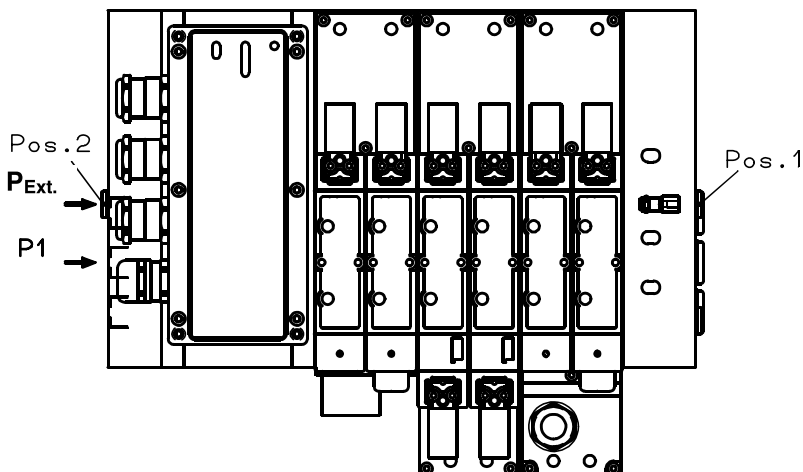
The standard version of the valve carrier system is designed for internal fluid. The separator stud can be used to adapt the valve terminal for external pilot air.

#### Procedure for fitting:

- Unscrew screw plug, Item 1
- Press separator stud (complete stud, Cat. No. 0544600) into the bore
- Re-fit screw plug, Item 1
- Remove screw plug, Item 2, and connect up external pilot air.

#### Removing the separator stud:

Screw a bolt M4 - 25 into the separator stud and use this to pull the stud out.



### Pressure table

(External fluid)

Connection	Pressure range [bar]
p <sub>1</sub>	-1 to 16
p <sub>Ext.</sub>	2 to 10

## Input / output box

### Description

I/O boxes are generally installed separately from the bus valve terminal. The boxes are connected to the bus valve terminal using a cable no more than 10 m long.

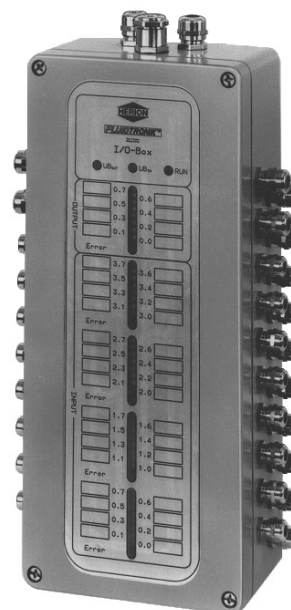
There is a choice of several designs of boxes:

- Input box for 8 sensor inputs
- Input box for 16 sensor inputs
- Output box for 8 outputs (valves)
- I/O box for 8 outputs and 16 sensor inputs
- I/O box for 8 outputs and 32 sensor inputs

For detailed technical data and ordering data, please see Publication No. 7503065. See pneumatic catalog, Register 6.

### Features

- Inputs for direct connection of PNP proximity switches using 3-wire technology
- Outputs short-circuit-proof:  $I_{max} = 1\text{ A}$
- Separate power supply for inputs and outputs
- Available in various sizes
- Connection: Conduit thread
- M12 plug (on request)
- LEDs
- Material: Housing: Die-cast aluminium
- Degree of protection IP 65



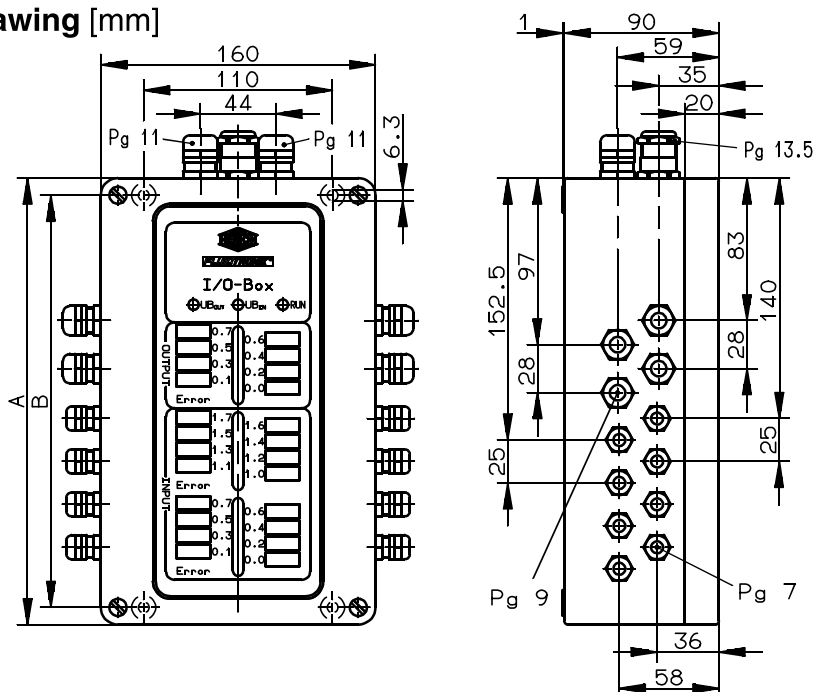
### Ordering

Input / output box	Cat. No.
Input box for 8 sensor inputs	<b>5980209</b>
Input box for 16 sensor inputs	<b>5980212</b>
Output box for 8 outputs (valves)	<b>5980208</b>
I/O box for 8 outputs and 16 sensor inputs	<b>5980210</b>
I/O box for 8 outputs and 32 sensor inputs	<b>5980211</b>

### Dimensional table [mm]

Cat. No.	A	B
<b>5980209</b>	160	140
<b>5980212</b>	260	240
<b>5980208</b>	160	140
<b>5980210</b>	260	240
<b>5980211</b>	360	340

### Dimensional drawing [mm]



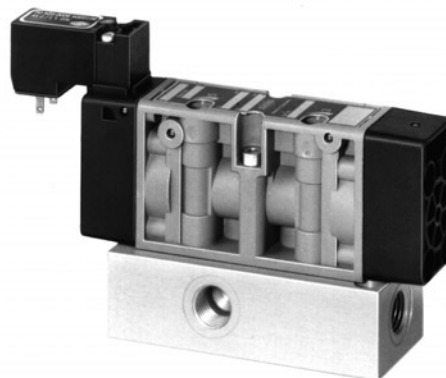
## External 5/2 or 5/3 directional control valves

### Description

This valve, with identical functions and design to those used on the valve terminal Model 1000, can be connected externally to the I/O box via an individual sub-base or to the relay module.

Solenoid valve for filtered, lubricated or unlubricated compressed air

Flow direction: Fixed  
 Temperature range: -10 to +60 °C  
 Materials:  
 – Body: PA 6.6  
 – Seals: NBR



### Features

- Manual override as standard
- Width 26 mm
- Low power consumption of 2 W

### Parameters

Nominal size	Port size	Operating pressure [bar]		Control pressure [bar]	Flow rate $Q_N$ [l/min]	Cat. No.
		Internal fluid	External fluid			
6	Top-mounting flange to VDMA 24563	2 ... 10	-1 ... 16	2 ... 10	1000	See below

### Range of 5/2 and 5/3 directional control valves

Symbol	Cat. No.			
	Directional control valve <b>without</b> throttle check valve function		Directional control valve <b>with</b> throttle check valve function	
	Internal fluid	External fluid	Internal fluid	External fluid
	<b>2624000</b>	<b>2624002</b>	<b>2624001</b>	<b>2624003</b>
	<b>2624100</b>	<b>2624102</b>	<b>2624101</b>	<b>2634103</b>
	<b>2624200</b>	<b>2624202</b>	<b>2624201</b>	<b>2624203</b>
	<b>2624300</b>	<b>2624302</b>	<b>2624301</b>	<b>2624303</b>
	<b>2624400</b>	<b>2624402</b>	<b>2624401</b>	<b>2624403</b>
	<b>2624500</b>	<b>2624502</b>	<b>2624501</b>	<b>2624503</b>
	Plug connector with LED and 3m cable			<b>0681415</b>

**Example of order:** 2624002. 9000 024 00

5/2 directional control valve  
 with spring return  
 External fluid without throttle      Solenoid      Voltage

## Additional equipment

### Separator stud (Code-W)

#### Description

If two different pressures are required, a pressure separator stud can be inserted between segments.

(nur für Lieferung ab Werk).

The supply is then as follows:

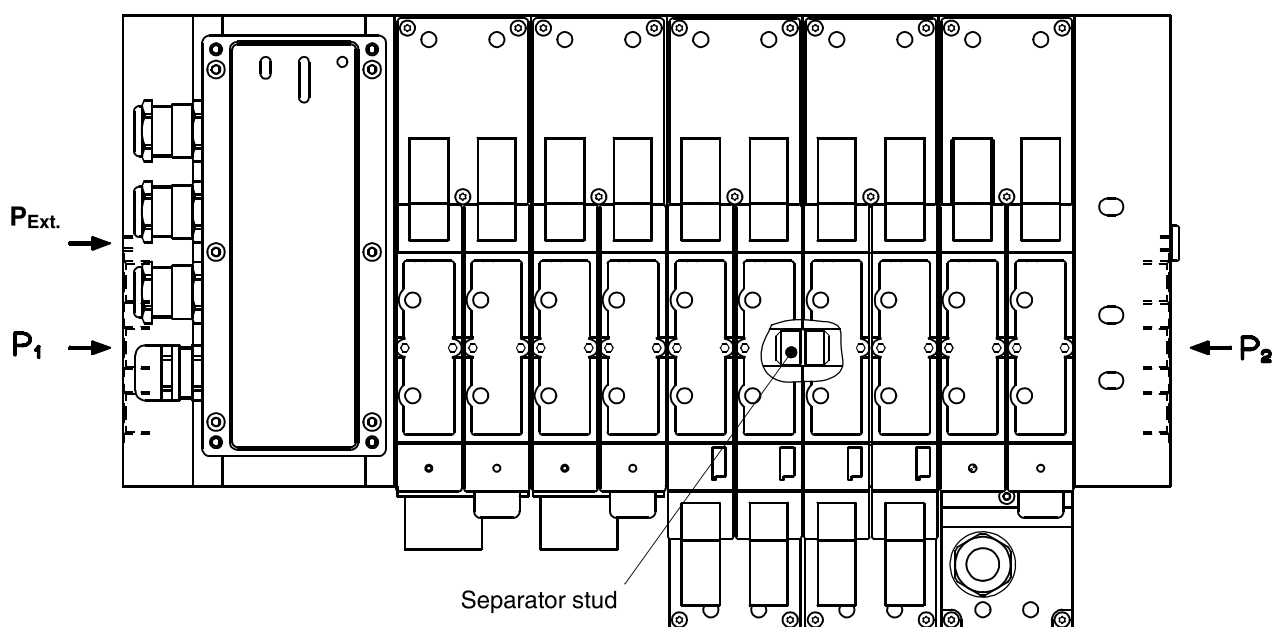
- $p_1$  = Left
- $p_2$  = Right
- $p_{Ext.}$  = Left

#### Pressure table (for two-pressure application)

Valve terminal with internal fluid	$p_1 = -1 \dots 16 \text{ bar}$ $p_2 = 2 \dots 10 \text{ bar}$ $p_{Ext.} = \text{closed}$
Valve terminal with external fluid (with separator stud <b>W</b> and separator stud <b>R</b> ) see Page 15	$p_1 = -1 \dots 16 \text{ bar}$ $p_2 = -1 \dots 16 \text{ bar}$ $p_{Ext.} = 2 \dots 10 \text{ bar}$

#### Note

- External fluid: By means of separator stud **R**
- Internal fluid: Control air supply for pilot valves via  $p_2$  in right terminal plate





## Instructions for commissioning

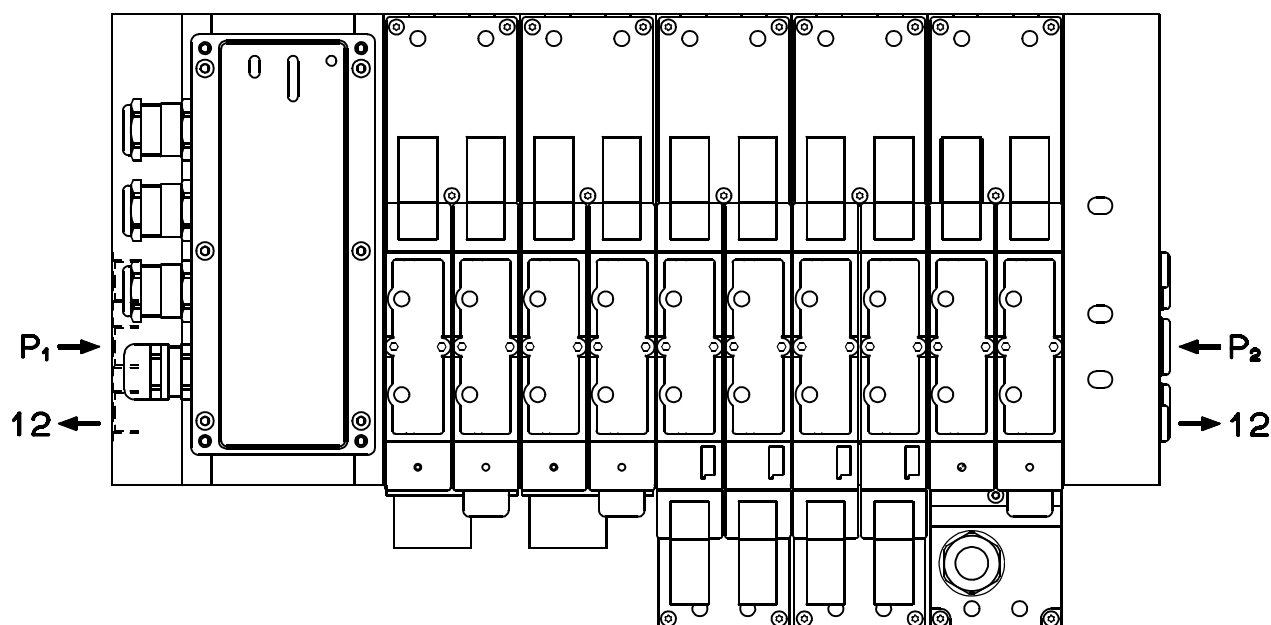
### Pilot exhaust air

For faultless operation of the valve terminal station, it is necessary to mount at least to one of the two ports 12 (thread size G 1/8 either a silencer or a screw fitting in order to exhaust the pilot air.

### Pressure supply on both sides

Connections for pressure supply and exhaust-air lines (e.g. provided with silencers) should be available on both sides in case of large-sized consuming devices.

The same goes for valve terminal stations equipped with more than 8 valves. Here, too, connections for pressure supply and exhaust-air lines are recommended on both sides.



### ATTENTION !

Prior to any kind of work to be carried out on the valve terminal station, it is imperative to disconnect its pressure as well as its electric power supply.

## Further valve terminals with field bus interface or multi-pin connector

Type of device	Actuation	Pressure range [bar]	Nominal size	Register	Publication
ISO valve terminal Control via bus or multi-pin plug	Solenoid	Vacuum to 16 bar	7 and 10 (ISO 1 and 2)	6	<b>7502947</b>
Valve terminal, size 1, with multi-pin or field bus connector	Solenoid	0 ... 10	1	6	<b>7503114</b>
Valve terminal, size 4, model Tio, with multi-pin or field bus connector	Solenoid	3 ... 10	4	6	<b>7503116</b>
ASI system components	Solenoid	3 ...10	4	6	<b>7503117</b>