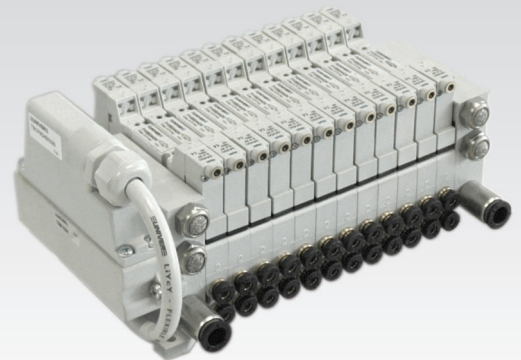


# P10

## 10 mm COMPACT valves - threaded body and for sub-base mounting 90° ELECTROPILOT CONNECTION

- Standard consumption: 1 W; upon request low power consumption: 0,3W
- Quick response times
- High flow rate: the development of the traditional UNIVER spool technology permits high flow rate values
- Compact design: the valve body (10mm) allows reduced overall dimensions
- Complete solution
- Threaded body (P10F) and body for sub-base (P10B) in the following versions: 5/2 - 5/3 - 3/2+3/2
- External and multipolar electrical connections
- TC serial transmission system
- Maximum application flexibility
- Modular sub-base (single and double) for a high versatility in the composition of the valve manifolds
- Simplified installation
- Easy installation of tubes and fittings thanks to connections being all on the same side

Available ATEX version upon request



### TECHNICAL CHARACTERISTICS

Ambient temperature	-5 ÷ +50 °C
Fluid temperature	Max +50 °C
Fluid	10 µm filtered air, with or without lubrication
Commutation system	spool
Ways/Positions	<b>3/2+3/2, 5/2, 5/3</b>
Pressure	7 bar (electric control) 10 bar (pneumatic control)
Control	indirect electro-pneumatic, pneumatic
Return	mechanical spring, pneumomechanical spring, pneumatic, electric
Connections	M5 (P10F) - M5, M7, tube Ø 4 (P10B)
Nominal flow rate (NI/min)	310 (5/2) 230 (5/3) 250 (3/2+3/2)

### CONSTRUCTIVE CHARACTERISTICS

Valve body	zamak
Seals	nitrile rubber (NBR)
Sub-base and actuators	selfextinguishing technopolymer
Spool	aluminum

### ELECTRIC CHARACTERISTICS

Electropilot	B10 (0,3 W) B11 (1 W)
Voltage	24 V DC (± 10%)
Power consumption	B10 = 0,3 W, speed -up 1 W (25 ms) B11 = 1 W
Protection degree	IP65
Manual override	recessed button - 1 position

### CODIFICATION KEY

P	1	0	F	2	4	4	2	4		
	1	2	3	4	5	6	7			

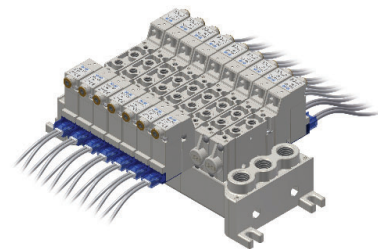
<b>1 Series</b> P10F = threaded body P10B = body for sub-base	<b>2 Type</b> 2 = 5/2 3 = 5/3 c.c. 4 = 5/3 o.c. 5 = 5/3 p.c. 6 = 3/2+3/2 NC-NC 7 = 3/2+3/2 NC-NO 8 = 3/2+3/2 NO-NO	<b>3 Control 14</b> 3 = pneumatic amplified 4 = electric amplified 90° (0,3W) 6 = electric amplified 90° (1W)	<b>4 Return 12</b> 0 = pneumomechanical spring 1 = mechanical spring 3 = pneumatic amplified 4 = electric amplified 90° (0,3W) 6 = electric amplified 90° (1W)
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<b>5 Voltage</b> 24 = 24 V DC	<b>6 Variant</b> D = external pilot supply on valve body (P10 = M3)	<b>7 ATEX option</b> X = Atex (upon request)
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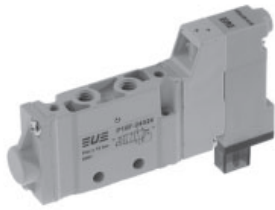
See ATEX Catalogue for types and versions

o.c. = open centres c.c. = closed centres p.c. = pressurized centres

Version with in-line connections (upon request)

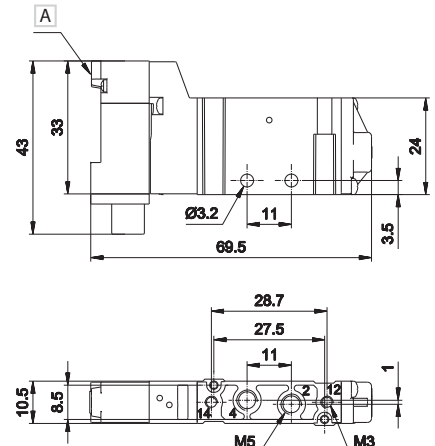


### Single electric impulse



Weight (Kg): 0,054

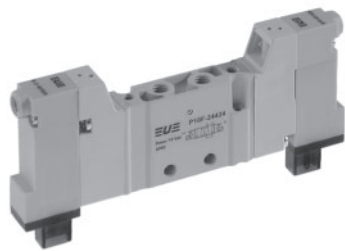
	Symbol	Control	Return	Pressure bar	Resp. Time (ms)		Part no.
					14	12	
5/2		electric amplified	pneumo mechanical spring	1,5÷9	12	20	<b>P10F24024</b> <b>P10F26024</b>
5/2		electric amplified	mechanical spring	1,9÷9	10	21	<b>P10F24124</b> <b>P10F26124</b>



A Manual override

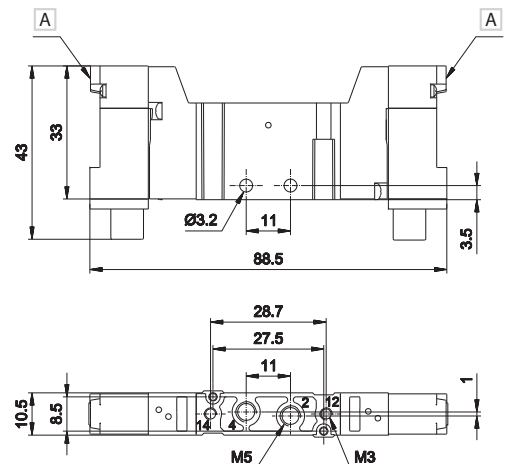
2 - 4 = Use  
14 = Control  
12 = Return

### Double electric impulse



Weight (Kg): 0,069

	Symbol	Control	Return	Pressure bar	Resp. Time (ms)		Part no.
					14	12	
5/2		electric amplified	electric amplified	0,7÷9	10	10	<b>P10F24424</b> <b>P10F26624</b>
5/3 c.c.		electric amplified	electric amplified	1,5÷9	11	22	<b>P10F34424</b> <b>P10F36624</b>
5/3 o.c.		electric amplified	electric amplified	1,5÷9	11	22	<b>P10F44424</b> <b>P10F46624</b>
5/3 p.c.		electric amplified	electric amplified	1,5÷9	11	22	<b>P10F54424</b> <b>P10F56624</b>
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,3÷9	9	14	<b>P10F64424</b> <b>P10F66624</b>
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,3÷9	9	14	<b>P10F74424</b> <b>P10F76624</b>
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,3÷9	9	14	<b>P10F84424</b> <b>P10F86624</b>



A Manual override

2 - 4 = Use  
14 = Control  
12 = Return

o.c. = open centres    c.c. = closed centres    p.c. = pressurized centres

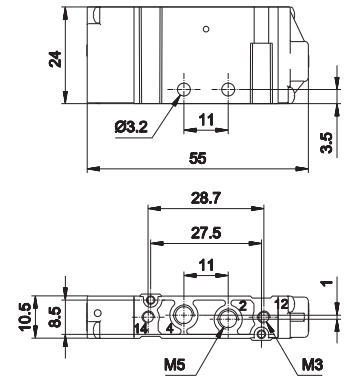
3

### Single pneumatic impulse



Weight (Kg): 0,042

	Symbol	Control	Return	Pressure bar	Resp. Time (ms)		Part no.
					14	12	
5/2		pneumatic amplified	pneumo mechanical spring	1,5÷10	8	14	<b>P10F230</b>
5/2		pneumatic amplified	mechanical spring	1,9÷10	7	16	<b>P10F231</b>



2 - 4 = Use  
14 = Control  
12 = Return

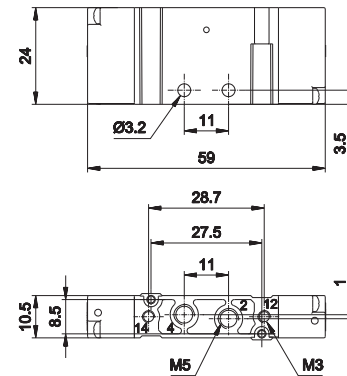
### Double pneumatic impulse



Weight (Kg): 0,044

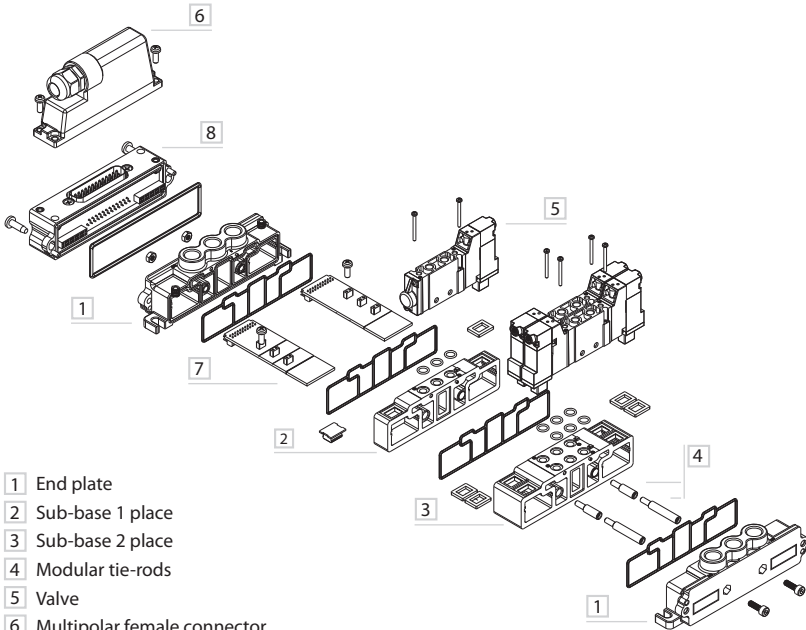
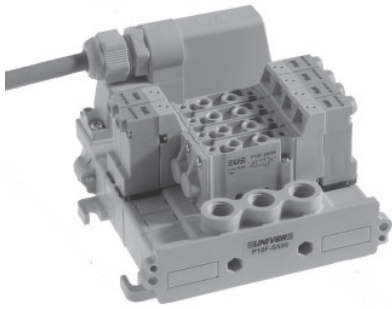
	Symbol	Control	Return	Pressure bar	Resp. Time (ms)		Part no.
					14	12	
5/2		pneumatic amplified	pneumatic amplified	0,6÷10	6	6	<b>P10F233</b>
5/3 c.c.		pneumatic amplified	pneumatic amplified	1,5÷10	7	20	<b>P10F333</b>
5/3 o.c.		pneumatic amplified	pneumatic amplified	1,5÷10	7	20	<b>P10F433</b>
5/3 p.c.		pneumatic amplified	pneumatic amplified	1,5÷10	7	20	<b>P10F533</b>
3/2 NC + 3/2 NC		pneumatic amplified	pneumatic amplified	1,3÷10	8	14	<b>P10F633</b>
3/2 NC + 3/2 NO		pneumatic amplified	pneumatic amplified	1,3÷10	8	14	<b>P10F733</b>
3/2 NO + 3/2 NO		pneumatic amplified	pneumatic amplified	1,3÷10	8	14	<b>P10F833</b>

o.c. = open centres    c.c. = closed centres    p.c. = pressurized centres

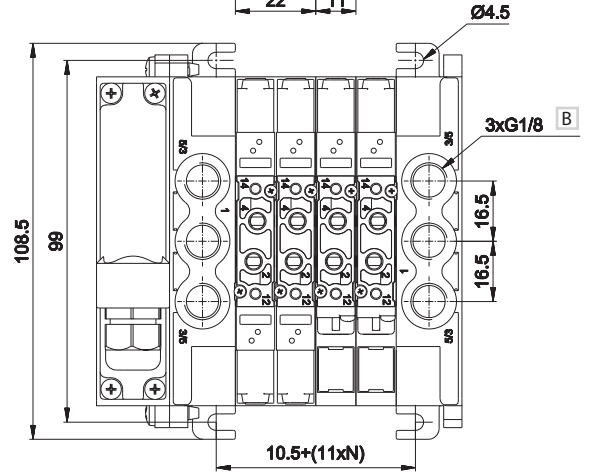
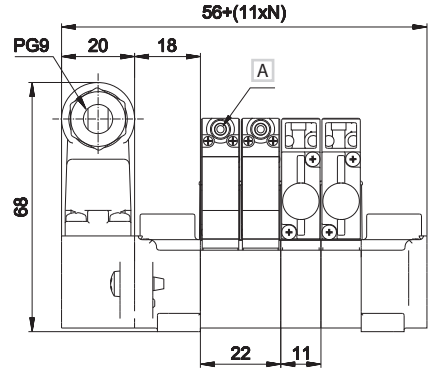


2 - 4 = Use  
14 = Control  
12 = Return

Integrated electric connection



- 1 End plate
- 2 Sub-base 1 place
- 3 Sub-base 2 place
- 4 Modular tie-rods
- 5 Valve
- 6 Multipolar female connector
- 7 Bus connection card
- 8 Multipole connection module



- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

- A Manual override
- B Tightening torque  
G1/8 = max 3 Nm

N = Number of valve places

TIM1024	P10SF100	P10SF110	P10SF200	P10SF210	P10SF500
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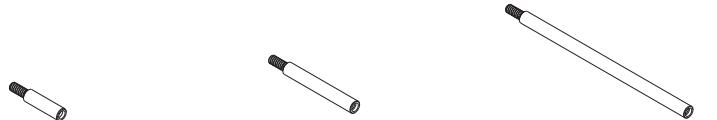
connection module 25 poles male type D-sub weight: 0,047 Kg	sub-base 1 place weight: 0,018 Kg	sub-base 1 place 1-3-5 closed weight: 0,02 Kg	sub-base 2 places weight: 0,04 Kg	sub-base 2 places 1-3-5 closed weight: 0,04 Kg	supply plate G1/8 left for TIM module weight: 0,04 Kg
--	--------------------------------------	---	--------------------------------------	--	---

P10SF505	P10SF550	P10SF560	P10SF570	P10SS14**M	P10SS12**M
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supply plate G1/8 right weight: 0,04 Kg	supply pressure separator plate weight: 0,002 Kg	covering plate for unused valve place weight: 0,003 Kg	intermediate supply plate for threaded version weight: 0,004 Kg	bus connection card, side 14 ** = 04, 06, 08, 10, 12 places weight: 0,006 Kg	bus connection card, side 12 ** = 04, 06, 08, 10, 12 places weight: 0,006 Kg
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P10STR01	P10STR02	P10STR05
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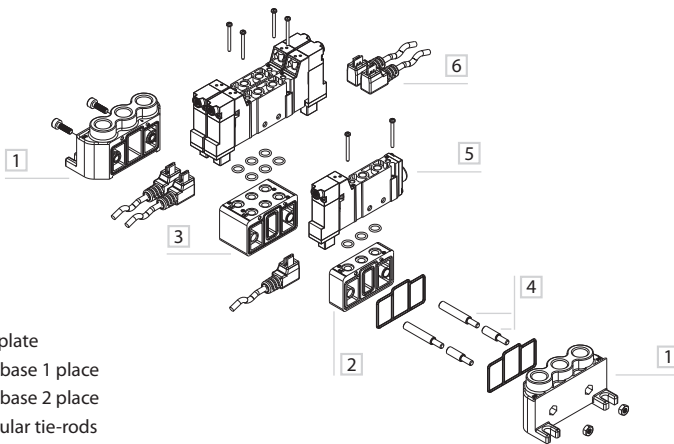
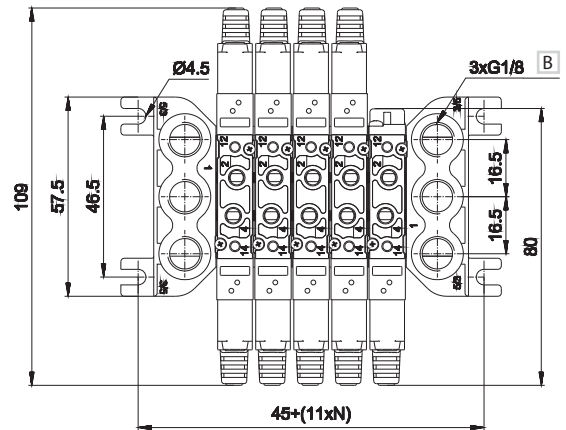
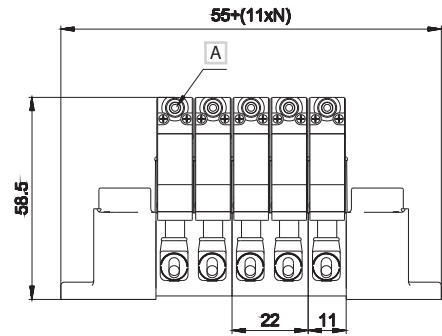
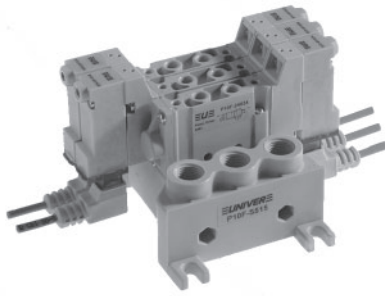


modular tie-rods 1 valve place (package 100 pcs.) weight: 0,001 Kg	modular tie-rods 2 valve places (package 100 pcs.) weight: 0,003 Kg	modular tie-rods 5 valve places (package 100 pcs.) weight: 0,007 Kg
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**AZ4-SN003A**  
100 nuts M3 for tie-rods

**AZ4-VN0310**  
100 screws for tie-rods

Electric connection with external connector



- 1 End plate
- 2 Sub-base 1 place
- 3 Sub-base 2 place
- 4 Modular tie-rods
- 5 Valve
- 6 Single connection

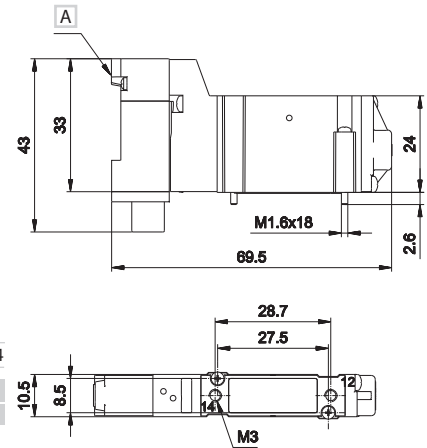
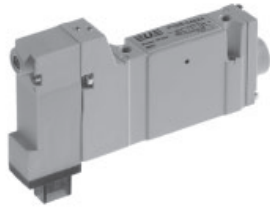
- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return

- A Manual override
- B Tightening torque  
G1/8 = max 3 Nm

N = Number of valve places

P10SF300	P10SF310	P10SF400	P10SF410	P10SF515	P10SF550
sub-base 1 place weight: 0,011 Kg	sub-base 1 place 1-3-5 closed weight: 0,013 Kg	sub-base 2 places weight: 0,024 Kg	sub-base 2 places 1-3-5 closed weight: 0,026	supply place G1/8 right/left weight: 0,032 Kg	supply pressure separator plate weight: 0,003 Kg
P10SF560	P10SF570	P10STR01	P10STR02	P10STR05	
covering plate for unused valve place weight: 0,003 Kg	intermediate supply plate for threaded version weight: 0,004 Kg	modular tie-rods 1 valve place (package 100 pcs.) weight: 0,001 Kg	modular tie-rods 2 valve places (package 100 pcs.) weight: 0,003 Kg	modular tie-rods 5 valve places (package 100 pcs.) weight: 0,007 Kg	<b>AZ4-SN003A</b> 100 nuts for tie-rods  <b>AZ4-VN0310</b> 100 screws for tie-rods

### Single electric impulse



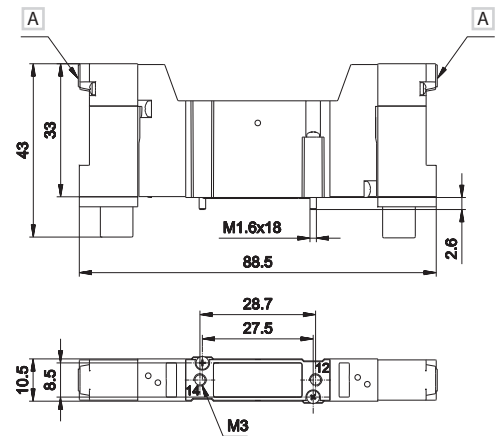
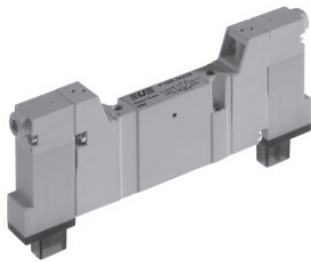
Weight (Kg): 0,054

	Symbol	Control	Return	Pressure	Resp. Time (ms)		Part no.
					En.	De-en.	
5/2		14	12	bar	12	20	<b>P10B24024</b> <b>P10B26024</b>
5/2		14	12	bar	10	21	<b>P10B24124</b> <b>P10B26124</b>

A Manual override

14 = Control  
12 = Return

### Double electric impulse



Weight (Kg): 0,069

	Symbol	Control	Return	Pressure	Resp. Time (ms)		Part no.
					En.	De-en.	
5/2		14	12	bar	10	10	<b>P10B24424</b> <b>P10B26624</b>
5/3 c.c.		14	12	bar	11	22	<b>P10B34424</b> <b>P10B36624</b>
5/3 o.c.		14	12	bar	11	22	<b>P10B44424</b> <b>P10B46624</b>
5/3 p.c.		14	12	bar	11	22	<b>P10B54424</b> <b>P10B56624</b>
3/2 NC + 3/2 NC		14	12	bar	9	14	<b>P10B64424</b> <b>P10B66624</b>
3/2 NC + 3/2 NO		14	12	bar	9	14	<b>P10B74424</b> <b>P10B76624</b>
3/2 NO + 3/2 NO		14	12	bar	9	14	<b>P10B84424</b> <b>P10B86624</b>

A Manual override

14 = Control  
12 = Return

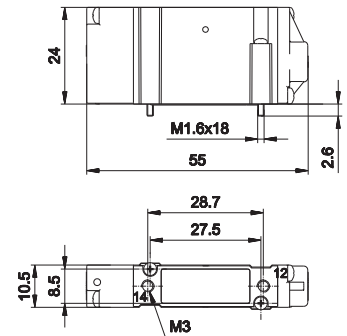
o.c. = open centres c.c. = closed centres p.c. = pressurized centres

### Single pneumatic impulse



Weight (Kg): 0,042

	Symbol	Control	Return	Pressure bar	Resp. Time (ms)		Part no.
					En.	De-en.	
5/2		14	12	1,5÷9	8	14	P10B230
5/2		14	12	1,9÷9	7	16	P10B231



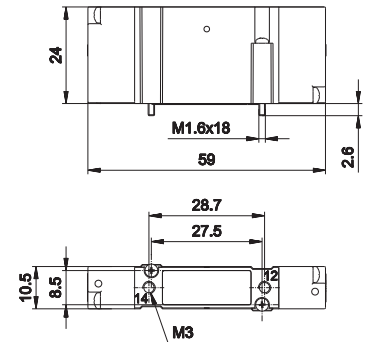
14 = Control  
12 = Return

### Double pneumatic impulse



Weight (Kg): 0,044

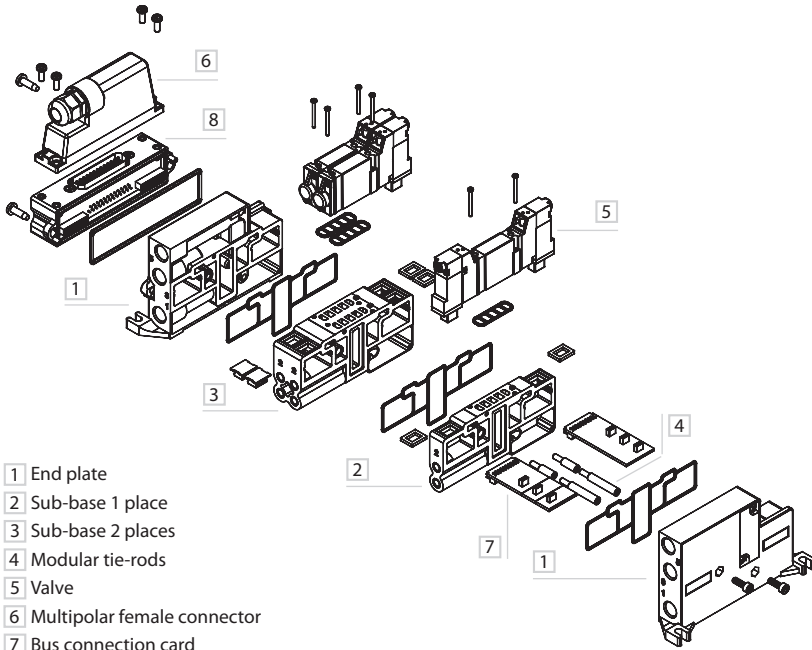
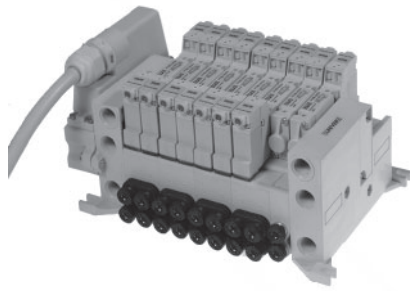
	Symbol	Control	Return	Pressure bar	Resp. Time (ms)		Part no.
					En.	De-en.	
5/2		14	12	0,6÷9	6	6	P10B233
5/3 c.c.		14	12	1,5÷9	7	20	P10B333
5/3 o.c.		14	12	1,5÷9	7	20	P10B433
5/3 p.c.		14	12	1,5÷9	7	20	P10B533
3/2 NC + 3/2 NC		14	12	1,3÷9	8	14	P10B633
3/2 NC + 3/2 NO		14	12	1,3÷9	8	14	P10B733
3/2 NO + 3/2 NO		14	12	1,3÷9	8	14	P10B833



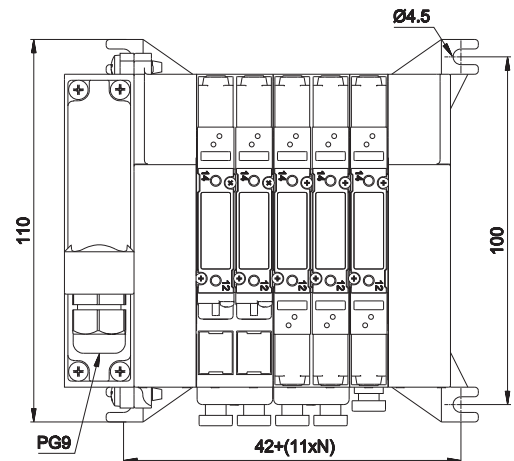
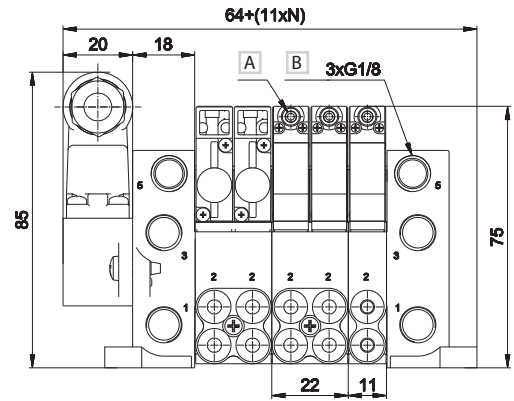
14 = Control  
12 = Return

o.c. = open centres    c.c. = closed centres    p.c. = pressurized centres

Integrated electric connection

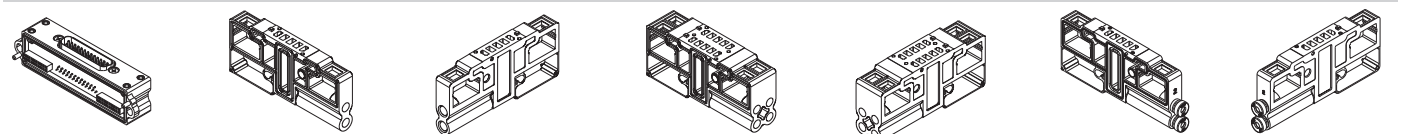


- 1 End plate
- 2 Sub-base 1 place
- 3 Sub-base 2 places
- 4 Modular tie-rods
- 5 Valve
- 6 Multipolar female connector
- 7 Bus connection card
- 8 Multipole connection module



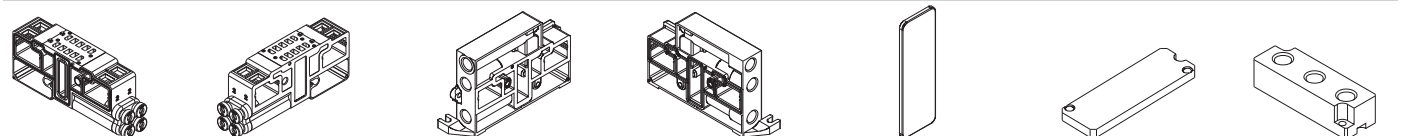
- 1 = Supply port
- 2 - 4 = Use
- 3 - 5 = Exhaust
- 14 = Control
- 12 = Return
- N = Number of valve places
- A Manual override
- B Tightening torque
- G1/8 - M5 = max 3 Nm
- M7 = 2 Nm

TIM1024 P10SB100/107 P10SB110/117 P10SB200/207 P10SB210/217 P10SB304 P10SB314



- connection module 25 poles male type D-sub weight: 0,047 Kg
- sub-base 1 place side outlets M5, M7 weight: 0,031 Kg
- sub-base 1 place side outlets M5, M7 1-3-5 closed weight: 0,033 Kg
- sub-base 2 places side outlets M5, M7 weight: 0,062 Kg
- sub-base 2 places side outlets M5, M7 1-3-5 closed weight: 0,067 Kg
- sub-base 1 place side outlets with quick couplings pipe 4 weight: 0,034 Kg
- sub-base 1 place side outlets with quick couplings pipe 4 1-3-5 closed weight: 0,034 Kg

P10SB404 P10SB414 P10SB500 P10SB505 P10SB550 P10SB560 P10SB570



- sub-base 2 places side outlets with quick couplings pipe 4 weight: 0,073 Kg
- sub-base 1 place side outlets with quick couplings pipe 4 1-3-5 closed weight: 0,068 Kg
- supply plate G1/8 left for TIM module weight: 0,074 Kg
- supply plate G1/8 right weight: 0,074 Kg
- supply pressure separator plate weight: 0,004 Kg
- covering plate for unused valve place weight: 0,002 Kg
- intermediate supply plate for sub-base weight: 0,007 Kg

P10SS14\*\*M P10SS12\*\*M P10STR01 P10STR02 P10STR05



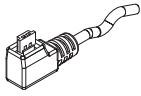
- bus connection card, side 14 \*\* = 04, 06, 08, 10, 12 places weight: 0,006 Kg
- bus connection card, side 12 \*\* = 04, 06, 08, 10, 12 places weight: 0,006 Kg
- modular tie-rods 1 valve place (package 100 pcs.) weight: 0,001 Kg
- modular tie-rods 2 valve places (package 100 pcs.) weight: 0,003 Kg
- modular tie-rods 5 valve places (package 100 pcs.) weight: 0,007 Kg

AZ4-SN003A  
100 nuts for tie-rods

AZ4-VN0310  
100 screws for tie-rods

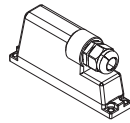


**D-535U40300**  
**D-535U40500**



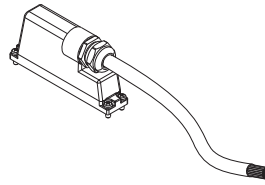
■ single connector with cable 3-5 m

**TSCFN24S000**



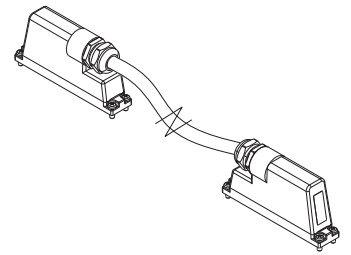
■ female connector 25 poles type D-sub no cable M3 x 8 fixing screws

**TSCFN24S0300**  
**TSCFN24S0500**  
**TSCFN24S1000**



■ female connector 25 poles type sub-D cable 3-5-10 m M3 x 8 fixing screws

**TSCFN16D0300**  
**TSCFN16D0500**  
**TSCFN16D1000**



■ flying male/female connector sub D (upon request) prewired for 24 coils with cable Ø 8 mm (3-5-10 m length) suitable for mobile laying M3 x 8 fixing screws

➤ Colour identification according to standard DIN 47100

Female D-SUB 25 poles for connection 12+12 coils



PIN No.	Colour	Coil	Control side		Valve No.
			TIM1524	TIM151806	
1	white	1	14	14	1
2	brown	2	12	12	1
3	green	3	14	14	2
4	yellow	4	12	12	2
5	grey	5	14	14	3
6	pink	6	12	12	3
7	blue	7	14	14	4
8	red	8	12	12	4
9	black	9	14	14	5
10	violet	10	12	12	5
11	grey-pink	11	14	14	6
12	red-blue	12	12	12	6
13	white-green	13	14	14	7
14	brown-green	14	12	14	7
15	white-yellow	15	14	14	8
16	yellow-brown	16	12	14	8
17	white-grey	17	14	14	9
18	grey-brown	18	12	14	9
19	white-pink	19	14	14	10
20	pink-brown	20	12	14	10
21	white-blue	21	14	14	11
22	brown-blue	22	12	14	11
23	white-red	23	14	14	12
24	brown-red	common	-	-	-
25	white-black	24	12	14	12