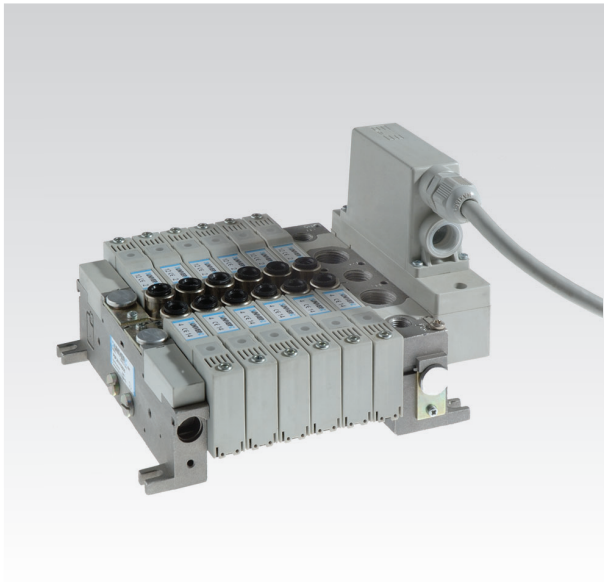
PS

COMBOBOX valves

- Valves with compact design: valve body with integrated sub-base
- High flexibility:
  > possibility of choosing fitting dimension (4-6-8) according to users' needs
  > manifolds from 2 up to 20 valve positions
  > electric and pneumatic control - versions 3/2+3/2 - 5/2 - 5/3
  > different pressures (vacuum included)
- Electrical connection: external - multipin - serial connections

Available ATEX version upon request



TECHNICAL CHARACTERISTICS

Ambient temperature	-5 ÷ +50 °C (**PSR:** -15 ÷ +50 °C)
Fluid temperature	Max +50 °C
Fluid	10 µm filtered air, with or without lubrication
Commutation system	spool
Ways/Positions	**3/2+3/2, 5/2, 5/3**
Pressure	**electric control** = Max 9 bar **pneumatic control** = Max 10 bar
Control	indirect electro-pneumatic, pneumatic
Return	mechanical spring, pneumomechanical spring
Connections	tube Ø 4, 6, 8
Nominal Ø	6 mm
Nominal flow rate (Nl/min) according to the type of fittings:	
straight - tube Ø8 mm	**830**
90° elbow - tube Ø8 mm	**700**
straight - tube Ø6 mm	**510**
90° elbow - tube Ø6 mm	**370**
straight - tube Ø4 mm	**200**
90° elbow - tube Ø4 mm	**140**

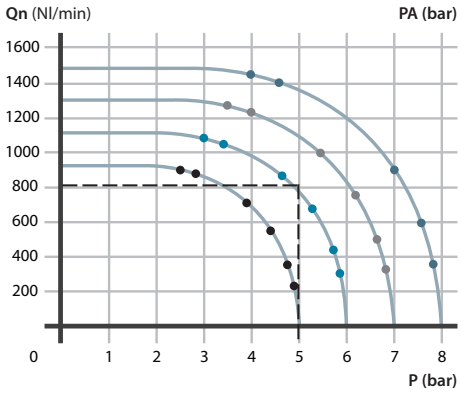
CONSTRUCTIVE CHARACTERISTICS

Valve body	zamak
Seals	nitrile rubber
Actuators	self-extinguishing technopolymer
Spool	aluminum

ELECTRIC CHARACTERISTICS

Electropilot/Coil	B series/U04
Voltage	24 V DC (12 V DC upon request)
Power consumption	1,35 W
Protection degree	IP65
Manual override	recessed button - 1 position **(PSC)**
	impulse screw - 1-2 positions **(PSP)**

Flow rate characteristics



P = Working pressure
PA = Supply pressure
Qn = Flow rate

CODIFICATION KEY

P	S	C	2	6	0	2	4	
1			2	3	4	5		6

1 Series

COMBOBOX Valves
PSC = Separate wires
PSP = Plug-in
PSR = Pneumatic

2 Ways

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

3 Control 14

2 = Pneumatic amplified
6 = Electrical amplified

4 Return 12

0 = Pneumatic spring
1 = Mechanical spring
2 = Pneumatic amplified
3 = Pneumatic not amplified
6 = Electrical amplified
7 = Electrical not amplified

5 Voltage and coil

PSC and PSP series: coils assembled with standard supplied led
24 = 24 V (standard)
12 = 12 V (upon request)

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

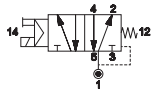
6 ATEX version

X = Atex (upon request)

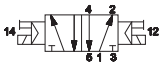
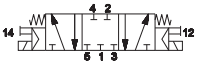
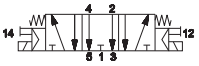
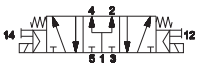
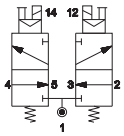
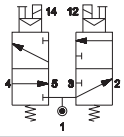
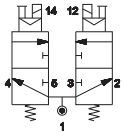
See ATEX Catalogue for types and versions

Subject to change

Single electric impulse

	Symbol	Control 14	Return 12	Pressure bar	Resp. Time (ms) En.	Resp. Time (ms) De-en.	Weight Kg	Part no.
5/2		electrical amplified	pneumomechanical spring	1,8÷9	17	38	0,143	**PSC26024**
5/2		electrical amplified	mechanical spring	2,2÷9	15	50	0,143	**PSC26124**

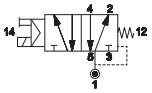
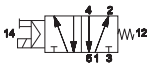
Double electric impulse

	Symbol	Control 14	Return 12	Pressure bar	Resp. Time (ms) En.	Resp. Time (ms) De-en.	Weight Kg	Part no.
5/2		electrical amplified	electrical amplified	0,7÷9	11	11	0,150	**PSC26624**
5/3 c.c.		electrical amplified	electrical amplified	2,2÷9	15	50	0,155	**PSC36624**
5/3 o.c.		electrical amplified	electrical amplified	2,2÷9	15	50	0,155	**PSC46624**
5/3 p.c.		electrical amplified	electrical amplified	2,2÷9	15	50	0,155	**PSC56624**
3/2 NC + 3/2 NC		electrical amplified	electrical amplified	2÷9	15	33	0,140	**PSC66624**
3/2 NC + 3/2 NO		electrical amplified	electrical amplified	2÷9	15	33	0,140	**PSC76624**
3/2 NO + 3/2 NO		electrical amplified	electrical amplified	2÷9	15	33	0,140	**PSC86624**

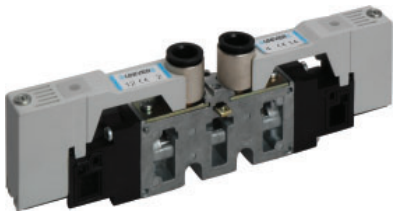
o.c. = open centres **c.c.** = closed centres **p.c.** = pressurized centres

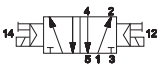
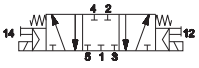
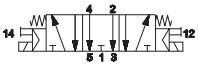
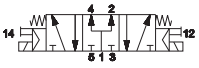
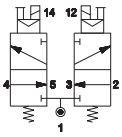
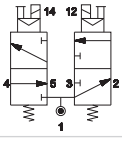
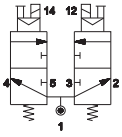
Solenoid valves are supplied without coil and connector
Manual override on PSC series is with button with tool, 1 position

Single electric impulse

	Symbol	Control	Return	Pressure	Resp. Time (ms)		Weight	Part no.
		14	12	bar	En.	De-en.	Kg	
5/2		electrical amplified	pneumomechanical spring	1,8÷9	17	38	0,148	**PSP26024**
5/2		electrical amplified	mechanical spring	2,2÷9	15	50	0,148	**PSP26124**

Double electric impulse



	Symbol	Control	Return	Pressure	Resp. Time (ms)		Weight	Part no.
		14	12	bar	En.	De-en.	Kg	
5/2		electrical amplified	electrical amplified	0,7÷9	11	11	0,160	**PSP26624**
5/3 c.c.		electrical amplified	electrical amplified	2,2÷9	15	50	0,165	**PSP36624**
5/3 o.c.		electrical amplified	electrical amplified	2,2÷9	15	50	0,165	**PSP46624**
5/3 p.c.		electrical amplified	electrical amplified	2,2÷9	15	50	0,165	**PSP56624**
3/2 NC + 3/2 NC		electrical amplified	electrical amplified	2÷9	15	33	0,140	**PSP66624**
3/2 NC + 3/2 NO		electrical amplified	electrical amplified	2÷9	15	33	0,140	**PSP76624**
3/2 NO + 3/2 NO		electrical amplified	electrical amplified	2÷9	15	33	0,140	**PSP86624**

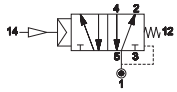
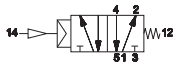
o.c. = open centres **c.c.** = closed centres **p.c.** = pressurized centres

Solenoid valves are supplied without coil and connector

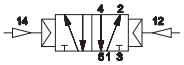
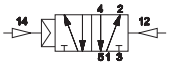
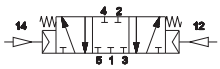
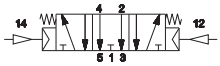
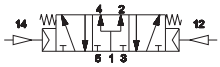
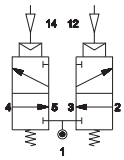
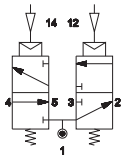
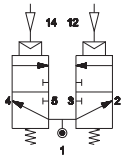
Manual override on PSC series is with button with tool, 1 position

On PSP series a maximum of 20 coils can be used, restriction due to the connection modules

Single pneumatic impulse

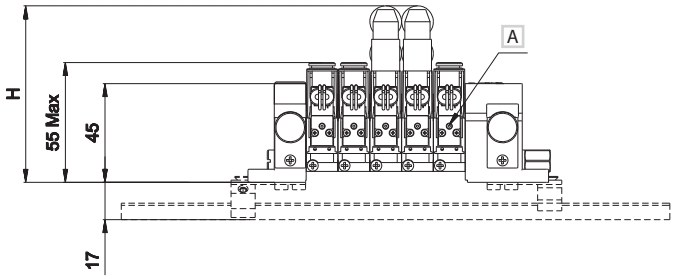
	Symbol	Control	Return	Pressure	Resp. Time (ms)		Weight	Part no.
		14	12	bar	En.	De-en.	Kg	
5/2		pneumatic amplified	pneumomechanical spring	1,7÷10	14	33	0,136	**PSR220**
5/2		pneumatic amplified	mechanical spring	2,2÷10	12	45	0,136	**PSR221**

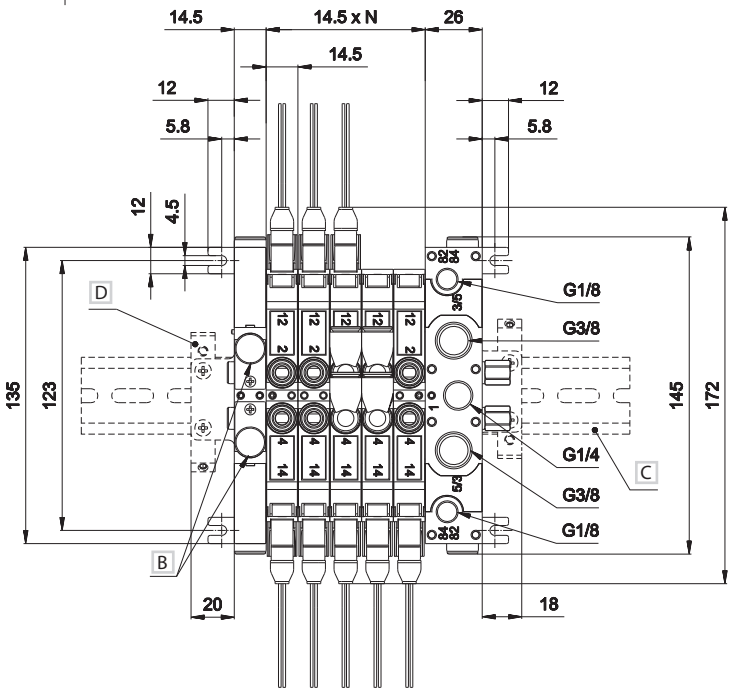
Double pneumatic impulse

	Symbol	Control	Return	Pressure	Resp. Time (ms)		Weight	Part no.
		14	12	bar	En.	De-en.	Kg	
5/2		pneumatic amplified	pneumatic amplified	0,7÷10	5	5	0,136	**PSR222**
5/2		pneumatic amplified	pneumatic non amplified	1,1÷10	9	8	0,132	**PSR223**
5/3 c.c.		pneumatic amplified	pneumatic amplified	2,2÷10	12	45	0,140	**PSR322**
5/3 o.c.		pneumatic amplified	pneumatic amplified	2,2÷10	12	45	0,140	**PSR422**
5/3 p.c.		pneumatic amplified	pneumatic amplified	2,2÷10	12	45	0,140	**PSR522**
3/2 NC + 3/2 NC		pneumatic amplified	pneumatic amplified	2÷10	12	29	0,140	**PSR622**
3/2 NC + 3/2 NO		pneumatic amplified	pneumatic amplified	2÷10	12	29	0,140	**PSR722**
3/2 NO + 3/2 NO		pneumatic amplified	pneumatic amplified	2÷10	12	29	0,140	**PSR822**

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

PSC Series with 26 mm inlet plate and 14.5 mm end plate with DIN (EN50022) rail



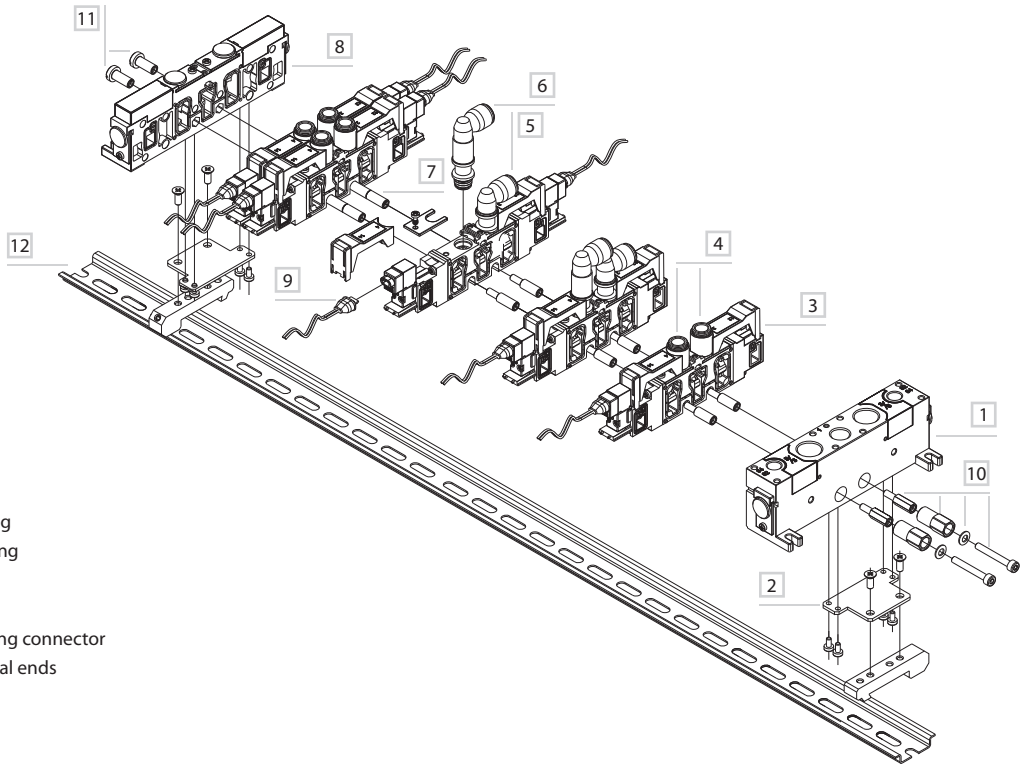


Tube Ø	H
4	72,6
6	76,6
8	80,5

A Manual override
B Possibility of supplementary exhausts 3-5
C DIN rail (EN 50022)
D DIN rail connector as optional

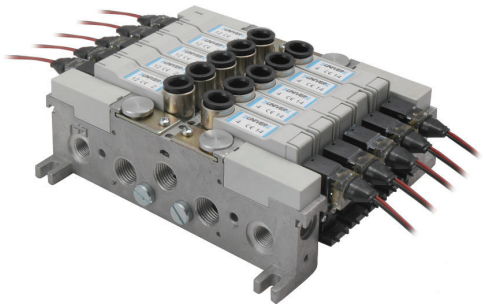
1 = Supply port
2 - 4 = Use
3 - 5 = Exhaust
14 = Control
12 = Return
82 = Pilot exhaust side 2
84 = Pilot exhaust side 4

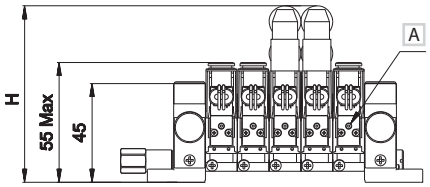
N = Number of valve positions

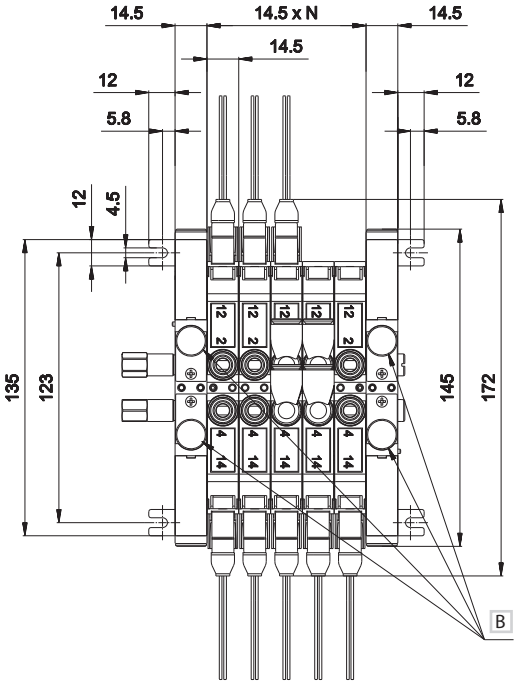


1 Inlet plate
2 DIN rail adapter plate
3 Valve
4 Straight fitting
5 Swivel low elbow fitting
6 Swivel high elbow fitting
7 Modular tie-rods
8 Blank plate
9 Micro double-pole flying connector
10 Tie-rods with hexagonal ends
11 Counter tie-rods
12 DIN rail

PSC series with 14,5 mm inlet and end plate







Tube Ø	H
4	72,6
6	76,6
8	80,5

A Manual override
B Possibility of supplementary exhausts 3 - 5

1 = Supply port
2 - 4 = Use
3 - 5 = Exhaust
14 = Control
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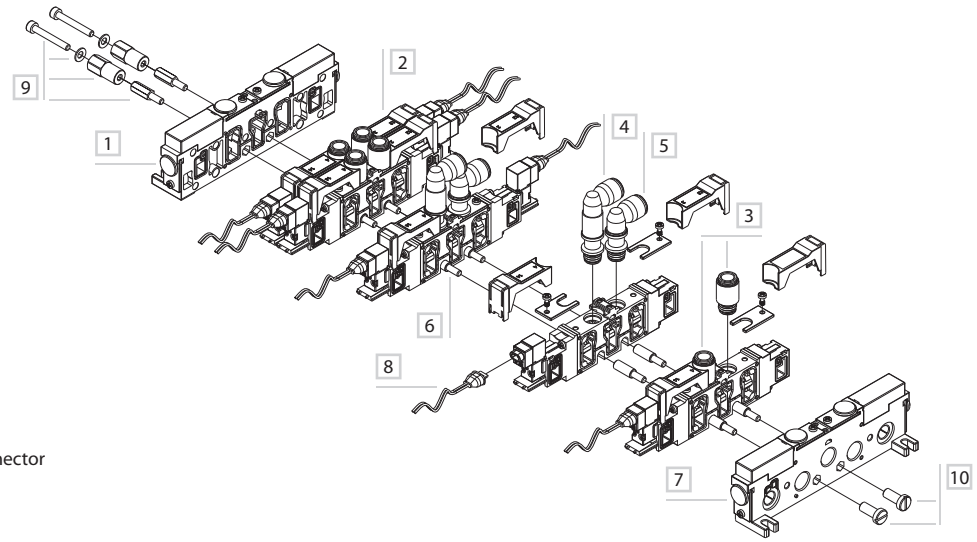
82 = Pilot exhaust side 2
84 = Pilot exhaust side 4

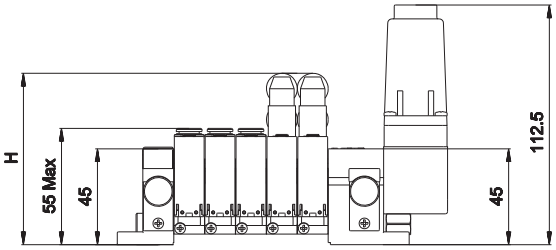
N = Number of valve positions

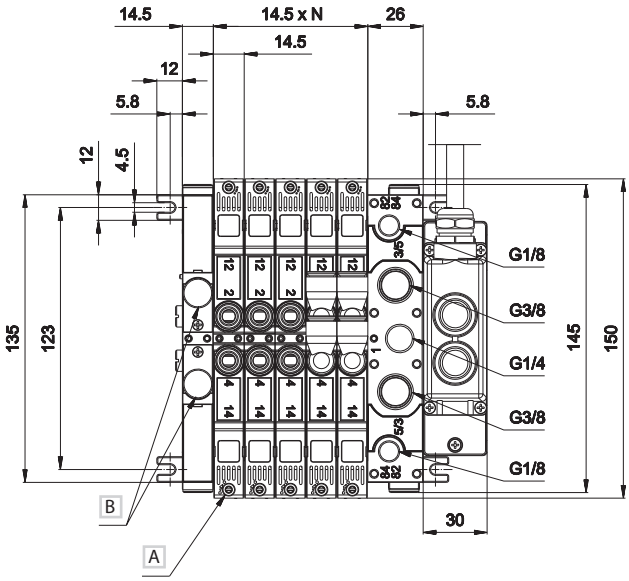


1 Inlet plate
2 Valve
3 Straight fitting
4 Swivel low elbow fitting
5 Swivel high elbow fitting
6 Modular tie-rods
7 Blank plate
8 Micro double-pole flying connector
9 Tie-rods with hexagonal ends
10 Counter tie-rods

Subject to change

PSP series with 26mm inlet plate and 14,5 mm end plate with multipolar connector





Tube Ø	H
4	72,6
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A Manual override
B Possibility of supplementary exhausts 3 - 5

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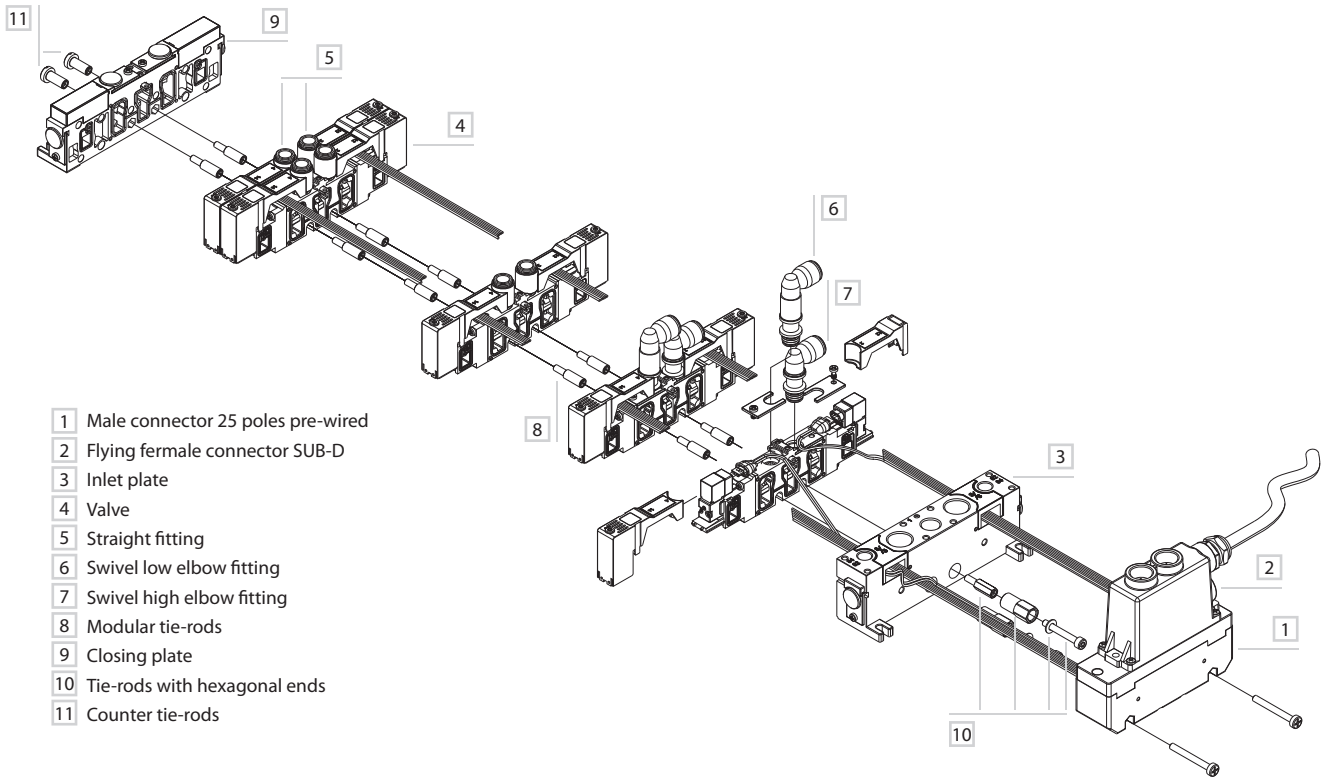
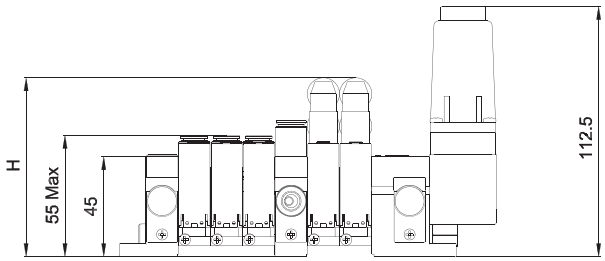


1 Male connector 25 poles pre-wired
2 Flying fermale connector SUB-D
3 Inlet plate
4 Valve
5 Straight fitting
6 Swivel low elbow fitting
7 Swivel high elbow fitting
8 Modular tie-rods
9 Closing plate
10 Tie-rods with hexagonal ends
11 Counter tie-rods

PSP series with 26mm inlet plate and 14.5mm end plate with multipin connector and intermediate plate

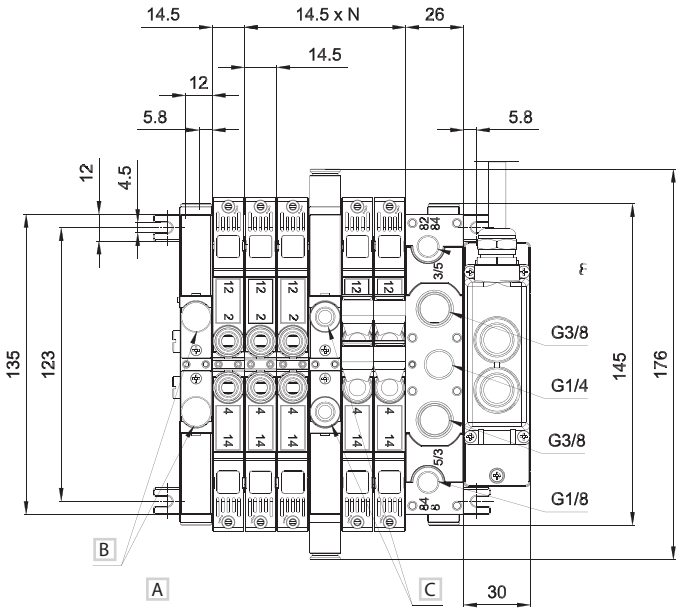


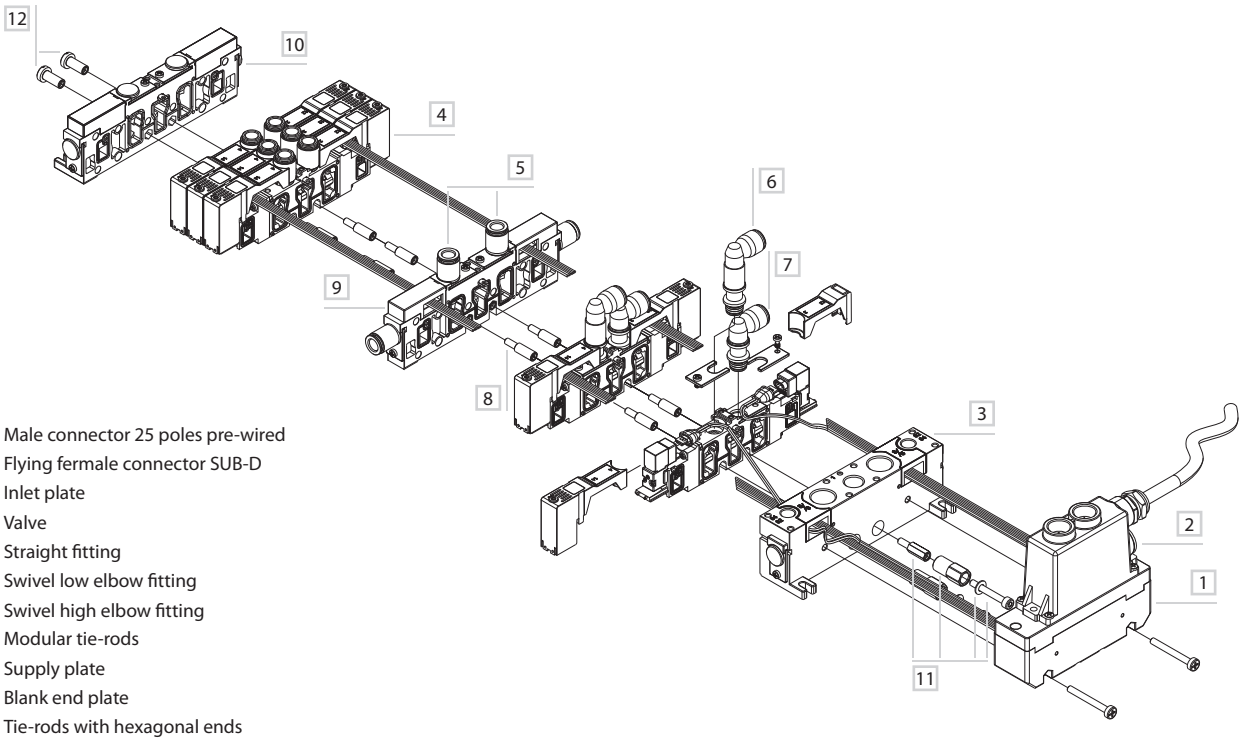
Tube Ø	H
4	72,6
6	76,6
8	80,5

A Manual override
B Possibility of supplementary exhausts 3 - 5
C For type of fittings see page **3**_59

1 = Supply port
2 - 4 = Use
3 - 5 = Exhaust
14 = Control
12 = Return
82 = Pilot exhaust side 2
84 = Pilot exhaust side 4

N = Number of valve positions

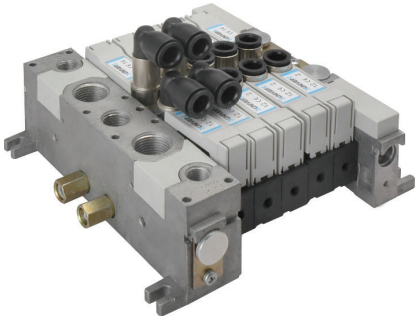


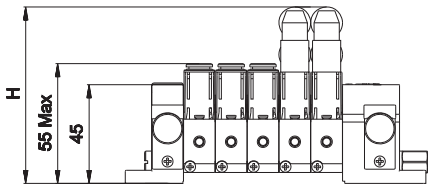


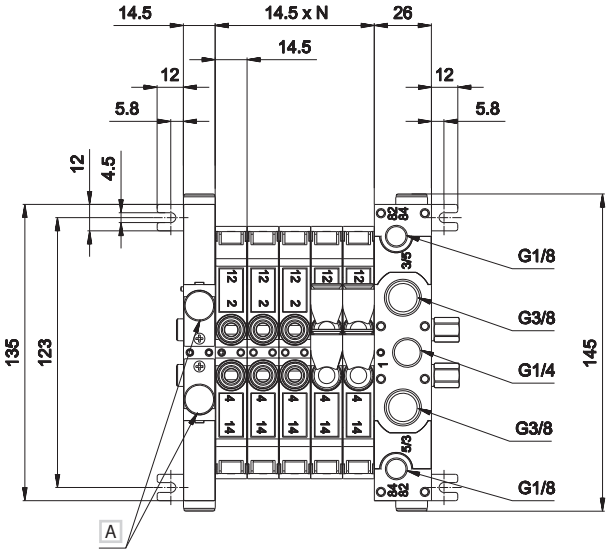
1 Male connector 25 poles pre-wired
2 Flying fermale connector SUB-D
3 Inlet plate
4 Valve
5 Straight fitting
6 Swivel low elbow fitting
7 Swivel high elbow fitting
8 Modular tie-rods
9 Supply plate
10 Blank end plate
11 Tie-rods with hexagonal ends
12 Counter tie-rods

Subject to change

PSR series with 26 mm inlet and 14,5 mm end plate







Tube Ø	H
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6	76,6
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A Possibility of supplementary exhausts 3 - 5

1 = Supply port
2 - 4 = Use
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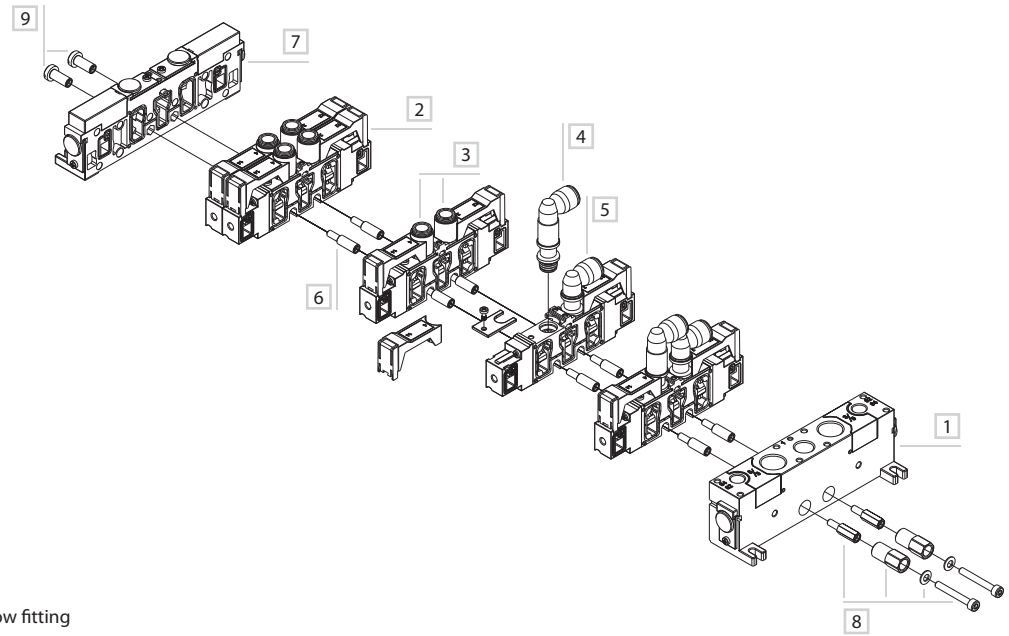
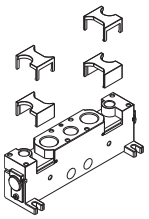


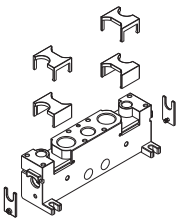
1 Inlet plate
2 Valve
3 Straight fitting
4 Swivel low elbow fitting
5 Swivel high elbow fitting
6 Modular tie-rods
7 Blank plate
8 Tie-rods with hexagonal ends
9 Counter tie-rods

PS14100



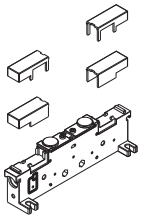
inlet plate 26 mm
internal pilot supply
weight: 0,295 Kg

PS14200



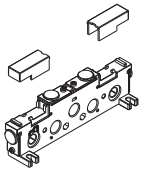
inlet plate 26 mm
external pilot pupply
weight: 0,290 Kg

PS15000



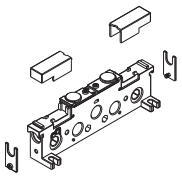
blank closing plate
weight: 0,168 Kg

PS15100



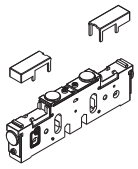
intel plate 14,5 mm
internal pilot supply
weight: 0,167 Kg

PS15200



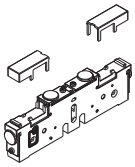
intel plate 14,5 mm
external pilot supply
weight: 0,162 Kg

PS15300*



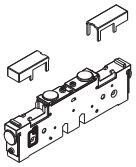
intermediate plate
14,5 mm, closed air
supply, open exhausts
weight: 0,167 Kg

PS15310*



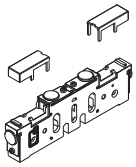
intermediate plate
14,5 mm, open air
supply, closed exhausts
weight: 0,170 Kg

PS15320*



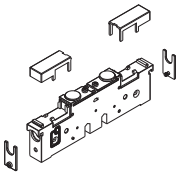
intermediate plate
14,5 mm, closed
air supply and exhaust
weight: 0,171 Kg

PS15330*



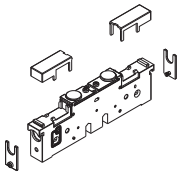
intermediate plate
14,5 mm open
air supply and exhaust
weight: 0,165 Kg

PS15340



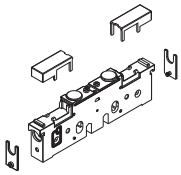
intermediate supply plate
with closed exhausts and
internal pilot supply
weight: 0,164 Kg

PS15350



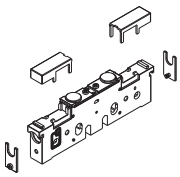
intermediate supply plate
with closed exhausts and
external pilot supply
weight: 0,164 Kg

PS15360



intermediate supply plate
with open exhausts and
internal pilot supply
weight: 0,164 Kg

PS15370

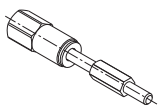


intermediate supply plate
with open exhausts and
external pilot supply
weight: 0,164 Kg

* = For intermediate plate with closed pilot supply ports add suffix 1 to part number.
The intermediate plate occupies one valve place, please keep this in mind for a correct order of the modular tie-rods.

Supply with airf the electropilots by means of the end plates for both internal and external air supply. In case there are two different working pressures at the end plates, it is possible to supply all pilots with one of the two pressures (in general with the higher one) or to supply the pilots of each valve group with the related working pressure.
This can be realized by choosing the correct separation plate.
The same is valid if the pressures are more than two: in this case it is necessary to use intermediate supply plates suitably coupled with the separation plates.

PSK100145

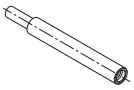


tie-rods with hexagonal
ends
(package 50 pcs.)
weight: 0,015 Kg

PSK200145

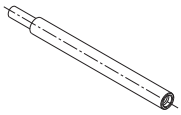
modular tie-rods
L1 = 14,5 mm each place
(package 100 pcs.)
weight: 0,003 Kg

PSK200290



modular tie-rods
L2 = 29 mm for 2 places
(package 100 pcs.)
weight: 0,006 Kg

PSK200725

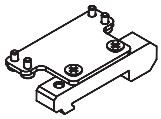


modular tie-rods
L5 = 72,5 mm for 5 places
(package 100 pcs.)
weight: 0,015 Kg

PSK300145

counter tie-rods
(package 50 pcs.)
weight: 0,003 Kg

PSK401



DIN rail adapter plate
with screws
(package 2 pcs. suitable
for all models)
weight: 0,066 Kg

GZR-100

plug
(package 2 pcs. suitable
for all models)
weight: 0,002 Kg

GZR-101

G1/8
Fitting seat reducing
plug - gas thread for
silencer assembly
weight: 0,011 Kg

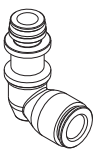
GZR-102

G1/4
Fitting seat reducing
plug - gas thread for
silencer assembly
weight: 0,0315 Kg

GZR-V10004/6/8

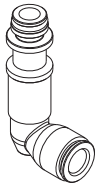
straight fitting
(package 50 pcs.)
GZR-V10004 tube: 4 mm
GZR-V10006 tube: 6 mm
GZR-V10008 tube: 8 mm
weight: 0,010 Kg

GZR-V20004/6/8



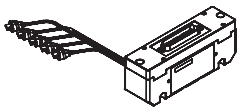
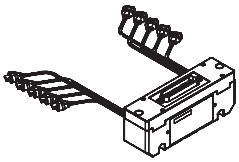
swivel low elbow fitting
(package 50 pcs.)
GZR-V20004 tube: 4 mm
weight: 0,013 Kg
GZR-V20006 tube: 6 mm
weight: 0,014 Kg
GZR-V20008 tube 8 mm
weight: 0,015 Kg

GZR-V20L004/6/8

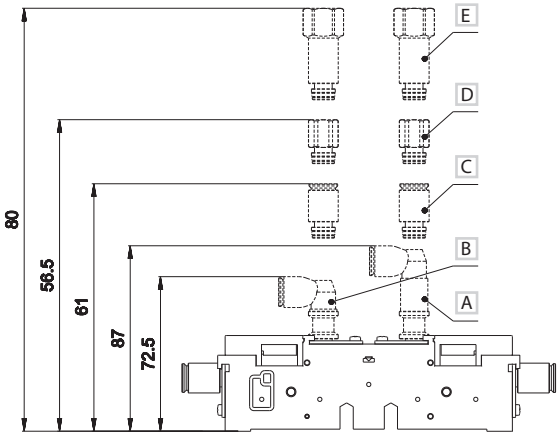


swivel high elbow fitting
(package 50 pcs.)
GZR-V20L004 tube: 4 mm
weight: 0,017 Kg
GZR-V20L006 tube: 6 mm
weight: 0,021 Kg
GZR-V20L008 tube: 8 mm
weight: 0,027 Kg

Subject to change

TIM06M/10M/20M	TIM06B/10B	D-530C-100/200
		
male connector 25 poles pre-wired for monostable valves (M) **TIM06M** weight: 0,096 Kg (max 6M) **TIM10M** weight: 0,103 Kg (max 10M) **TIM20M** weight: 0,127 Kg (max 20M)	male connector 25 poles pre-wired for bistable valves (B) **TIM06B** weight: 0,11 Kg (max 6B) **TIM10B** weight: 0,118 Kg (max 10B)	micro double-pole flying connector: stripped and tinned wires with protection guard (package 100 pcs.) **D-530C-100** weight: 0,0047 Kg (wire length 100 cm) **D-530C-200** weight: 0,0093 Kg (wire length 200 cm)

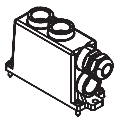
Overall dimensions of fittings on intermediate plates for exhausts 3-5



A Swivel high elbow fitting for tube Ø8
B Swivel low elbow fitting for tube Ø8
C Straight fitting for tube Ø8
D Fitting for silencer G1/8
E Fitting for silencer G1/4

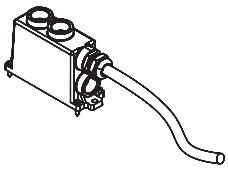
Electrical connections

TSCF000



- female connector
  25 poles D-sub
  without cable

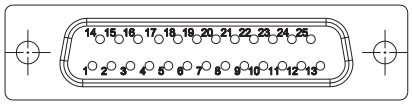
TSCF24S0300
TSCF24S0500
TSCF24S1000



- flying female connector sub D
  according to CEI 20-22 O.R. II
  (upon request)
  prewired for 24 coils
  M3 x 12 fixing screws

Colour identification according to standard **DIN 47100**

Female connector **D-SUB 25 poles**
for **12+12 coils**



			TSCF16D		TSCF24S	
PIN N°	**Operator side**	**Valve N°**	**Colour**	**Coil**	**Colour**	**Coil**
1	14	1	white	1	white	1
2	12	1	brown	2	brown	2
3	14	2	green	3	green	3
4	12	2	grey	4	yellow	4
5	14	3	pink	5	grey	5
6	12	3	blue	6	pink	6
7	14	4	violet	7	blue	7
8	12	4	grey-pink	8	red	8
9	14	5	red-blue	9	black	9
10	12	5	white-green	10	violet	10
11	14	6	brown-green	11	grey-pink	11
12	12	6	white-yellow	12	red-blue	12
13	14	7	yellow-brown	13	white-green	13
14	12	7	white-grey	14	brown-green	14
15	14	8	grey-brown	15	white-yellow	15
16	12	8	white-pink	16	yellow-brown	16
17	14	9	white-brown	-	white-grey	17
18	12	9	white-blue	-	grey-brown	18
19	14	10	black	com 0V	white-pink	19
20	12	10	black	com 0V	pink-brown	20
21	14	11	red	24V INP	white-blue	21
22	12	11	red	24V INP	brown-blue	22
23	14	12	yellow	com 0V	white-red	23
24	-	-	yellow	com 0V	brown-red brown-black shield	com 0V com 0V shield
25	12	12	shield	shield	white-black	24

Subject to change