

P15

15 mm COMPACT valves - threaded and for sub-base body

- Low standard power consumption (0,32W): low power consumption electropilot B10 (standard version with LED)
- Quick response times
- High flow rate: the development of the traditional UNIVER spool technology permits high flow rate values
- Compact design: the valve body (15 mm) allows reduced overall dimensions
- Complete solution
- Threaded body (P15F) and body for sub-base (P15B) 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 (singles and doubles) for a high versatility in the composition of valve manifolds
- Simplified installation
- Easy installation of tubes and fittings thanks to connections being all on the same side



TECHNICAL CHARACTERISTICS

Ambient temperature	-5 ÷ +50 °C
Fluid temperature	max +50 °C
Fluid	filtered air 10 µm not dehumidified, lubricated or not
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	P15F: G1/8, P15B: G1/8 - tube Ø 4-6-8
Nominal flow rate (NI/min)	5/2 = 800 5/3 = 720 3/2+3/2 = 720

CONSTRUCTIVE CHARACTERISTICS

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

ELECTRIC CHARACTERISTICS

Electropilot	B10
Voltage	24 V DC (± 10%)
Power consumption	holding 0,32 W, pick-up 5,5 W (25 ms)
Protection degree	IP65
Manual override	button with tool

CODIFICATION KEY

P	1	5	F	2	4	4	2	4	D
	1			2	3	4	5		6

1 Series	2 Type	3 Control 14
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- | | | |
|------------------------------|--------------------------|--------------------------------|
| P15F = threaded valve | 2 = 5/2 | 3 = pneumatic amplified |
| P15B = valve for base | 3 = 5/3 c.c. | 4 = electric amplified |
| | 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 | |

4 Return 12	5 Voltage	6 Variant
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- | | | |
|------------------------------------|---------------------|--|
| 0 = pneumomechanical spring | 24 = 24 V DC | D = external servo-assistance of the pilot on valve body (P15 = M5) |
| 1 = mechanical spring | | |
| 3 = pneumatic amplified | | |
| 4 = electric amplified | | |

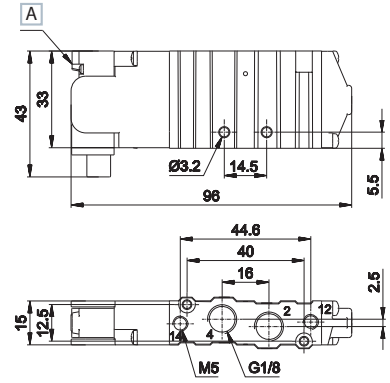
o.c. = open centres c.c. = closed centres p.c. = pressurized centres

Single electric impulse



Weight (Kg): 0,138

	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					Ecc.	Dis.	
5/2		electric amplified	pneumo mechanical spring	1,9÷9	15	24	P15F24024
5/2		electric amplified	mechanical spring	2÷9	12	21	P15F24124



A Manual override

2 - 4 = Use
14 = Control
12 = Return

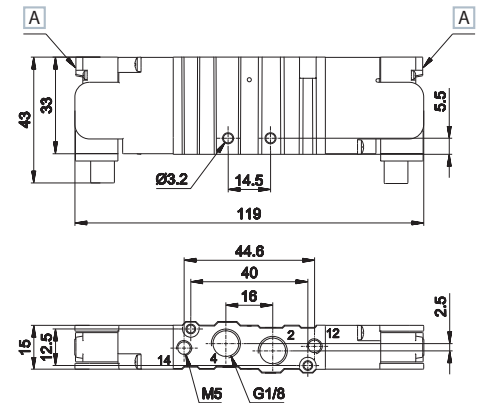
Double electric impulse



Weight (Kg): 0,158

	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					Ecc.	Dis.	
5/2		electric amplified	electric amplified	0,7÷9	11	11	P15F24424
5/3 c.c.		electric amplified	electric amplified	1,6÷9	11	35	P15F34424
5/3 o.c.		electric amplified	electric amplified	1,6÷9	11	35	P15F44424
5/3 p.c.		electric amplified	electric amplified	1,6÷9	11	35	P15F54424
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,5÷9	14	16	P15F64424
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,5÷9	14	16	P15F74424
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,5÷9	14	16	P15F84424

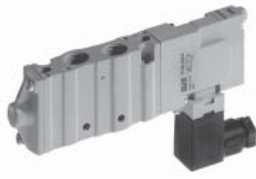
o.c. = open centres c.c. = closed centres p.c. = pressurized centres



A Manual override

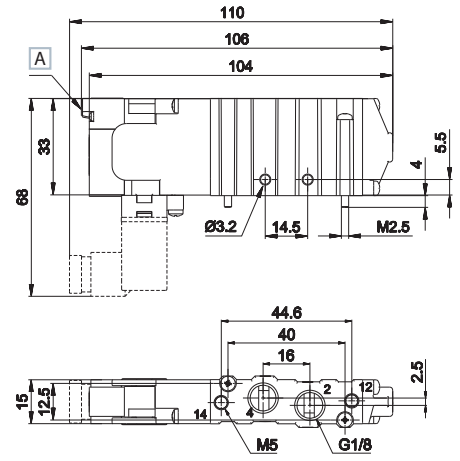
2 - 4 = Use
14 = Control
12 = Return

Single electric impulse



Weight (Kg): 0,142

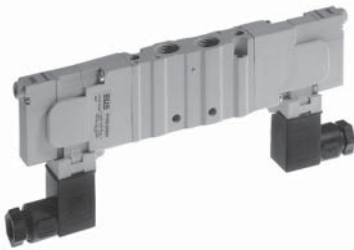
	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					En.	De-en.	
5/2		electric amplified	pneumo mechanical spring	1,9÷9	15	24	P15D24024
5/2		electric amplified	mechanical spring	2÷9	12	21	P15D24124



A Manual override

2 - 4 = Use
14 = Control
12 = Return

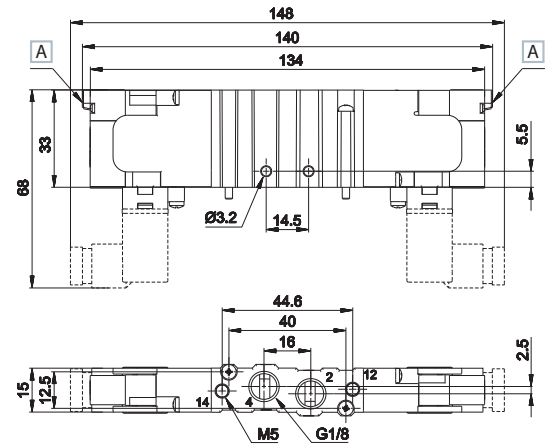
Double electric impulse



Weight (Kg): 0,166

> AM-5109 connector not included

	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					En.	De-en.	
5/2		electric amplified	electric amplified	0,7÷9	16	16	P15D24424
5/3 c.c.		electric amplified	electric amplified	1,6÷9	11	35	P15D34424
5/3 o.c.		electric amplified	electric amplified	1,6÷9	11	35	P15D44424
5/3 p.c.		electric amplified	electric amplified	1,6÷9	11	35	P15D54424
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,5÷9	14	16	P15D64424
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,5÷9	14	16	P15D74424
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,5÷9	14	16	P15D84424



A Manual override

2 - 4 = Use
14 = Control
12 = Return

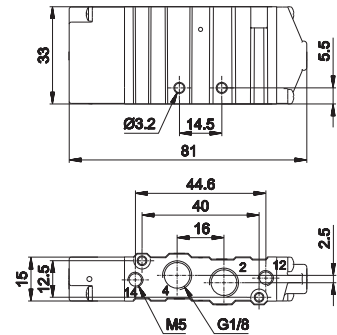
o.c. = open centres c.c. = closed centres p.c. = pressurized centres

Single electric impulse



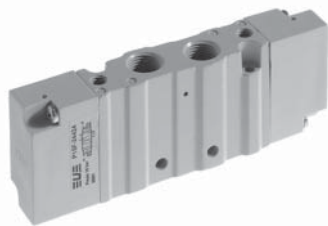
Weight (Kg): 0,042

	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					En.	De-en.	
5/2		pneumatic amplified	pneumo mechanical spring	1,9÷10	11	15	P15F230
5/2		pneumatic amplified	mechanical spring	2÷10	10	14	P15F231



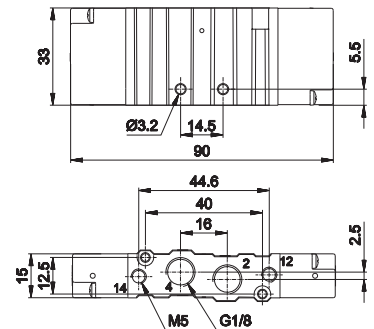
2 - 4 = Use
14 = Control
12 = Return

Double electric impulse



Weight (Kg): 0,044

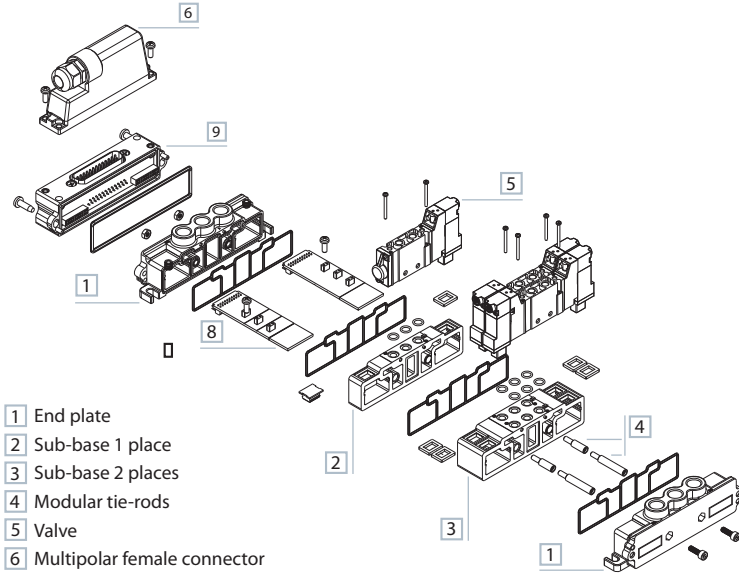
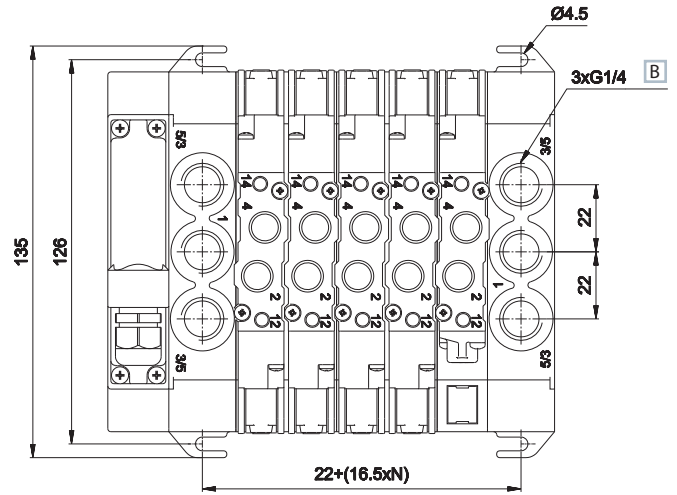
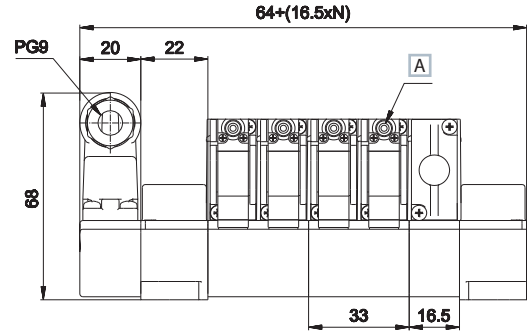
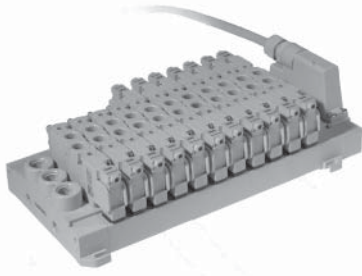
	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					En.	De-en.	
5/2		pneumatic amplified	pneumatic amplified	0,7÷10	10	10	P15F233
5/3 c.c.		pneumatic amplified	pneumatic amplified	1,6÷10	9	21	P15F333
5/3 o.c.		pneumatic amplified	pneumatic amplified	1,6÷10	9	21	P15F433
5/3 p.c.		pneumatic amplified	pneumatic amplified	1,6÷10	9	21	P15F533
3/2 NC + 3/2 NC		pneumatic amplified	pneumatic amplified	1,3÷10	10	14	P15F633
3/2 NC + 3/2 NO		pneumatic amplified	pneumatic amplified	1,3÷10	10	14	P15F733
3/2 NO + 3/2 NO		pneumatic amplified	pneumatic amplified	1,3÷10	10	14	P15F833



2 - 4 = Use
14 = Control
12 = Return

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

Integrated electric connection

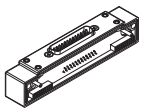


- 1 End plate
- 2 Sub-base 1 place
- 3 Sub-base 2 places
- 4 Modular tie-rods
- 5 Valve
- 6 Multipolar female connector
- 7 Single connector
- 8 Bus connection card
- 9 Multipole connection module

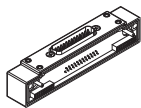
- 1 = Supply port
 - 2 - 4 = Use
 - 3 - 5 = Exhaust
 - 14 = Control
 - 12 = Return
- A Manual override
 - B Tightening torque
- G1/4 = max 10 Nm

N = Number of valve places

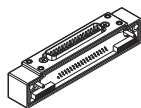
TIM1524 TIM151806 TIM1536 P15SF100 P15SF110 P15SF200 P15SF210



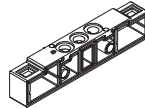
connection module
25 poles male
12+12 coils
type D-sub
weight: 0,047 Kg



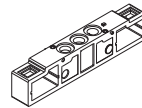
connection module
25 poles male
18 coils, side 14
6 coils, side 12
type D-sub
weight: 0,055 Kg



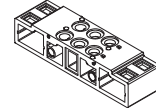
connection module
37 poles male
16+16 coils
type D-sub
weight: 0,057 Kg



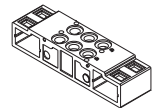
sub-base 1 place
weight: 0,037 Kg



sub-base 1 place
1-3-5 closed
weight: 0,038 Kg

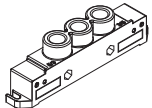


sub-base 2 places
weight: 0,073 Kg

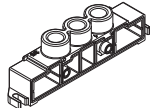


sub-base 2 places
1-3-5 closed
weight: 0,074 Kg

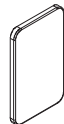
P15SF500 P15SF505 P15SF550 P15SF560 P15SF570 P15SS01MC P15SS**..M**



supply plate G1/4 left
for TIM module
weight: 0,064 Kg



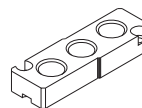
supply plate G1/4 right
weight: 0,065 Kg



supply pressure
separator plate
weight: 0,003 Kg



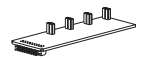
covering plate for
unused valve place
weight: 0,007 Kg



intermediate supply plate
for threaded version
weight: 0,011 Kg

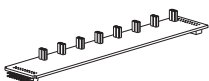


U-bus connection
card, male
** = side 14 or 12
weight: 0,004 Kg

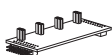


bus connection
card, male
** = side 14 or 12
.. = 04, 06, 08 places
weight: 0,009 Kg 04 places
0,010 Kg 06 places
0,013 Kg 08 places

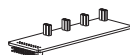
P15SS08MF P15SS**04MFP P15SS**04MP P15STR01 P15STR02 P15STR05**



bus connection card
male/female
** = side 14 or 12
weight: 0,014 Kg



bus connection card
male/female
extension
** = side 14 or 12
weight: 0,008 Kg



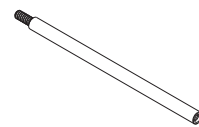
bus card
extension
** = side 14 or 12
weight: 0,006 Kg



modular tie-rods
1 valve place
(package 100 pcs.)
weight: 0,003 Kg



modular tie-rods
2 valve places
(package 100 pcs.)
weight: 0,007 Kg

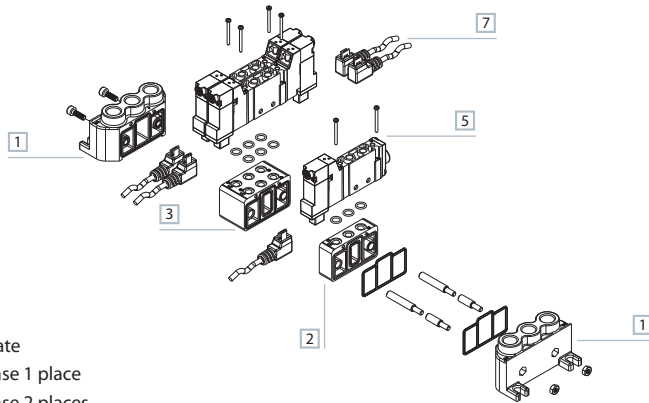
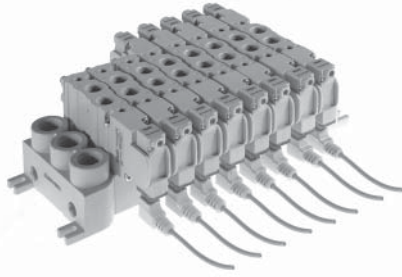


modular tie-rods
5 valve places
(package 100 pcs.)
weight: 0,018 Kg

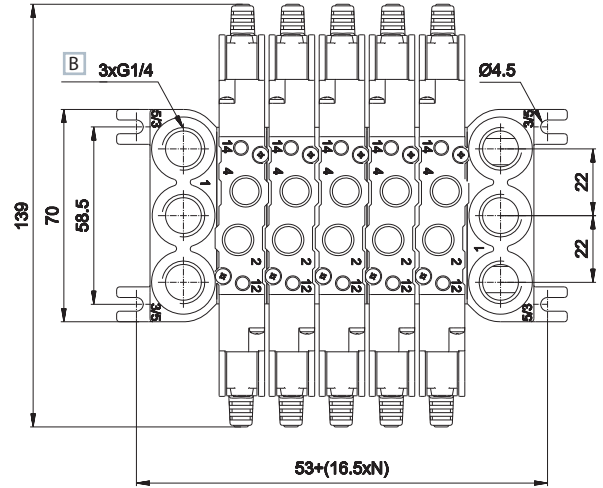
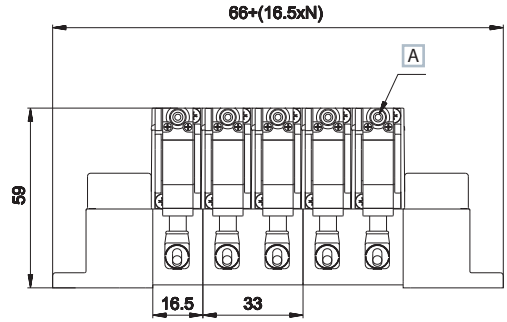
AZ4-SN004A
100 nuts M4 for tie-rods

AZ4-VN0414
100 screws 4x14 for tie-rods

Electric connection with external connector



- 1 End plate
- 2 Sub-base 1 place
- 3 Sub-base 2 places
- 4 Modular tie-rods
- 5 Valve
- 6 Multipolar female connector
- 7 Single connector
- 8 Bus connection card
- 9 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
- G1/4 = max 10 Nm

P15SF300	P15SF310	P15SF400	P15SF410	P15SF515	P15SF550	P15SF560

sub-base 1 place weight: 0,023 Kg	sub-base 1 place 1-3-5 closed weight: 0,024 Kg	sub-base 2 places weight: 0,046 Kg	sub-base 2 places 1-3-5 closed weight: 0,048 Kg	supply plate right/left G1/4 weight: 0,050 Kg	supply pressure separator plate weight: 0,001 Kg	covering plate for unused valve place weight: 0,007 Kg
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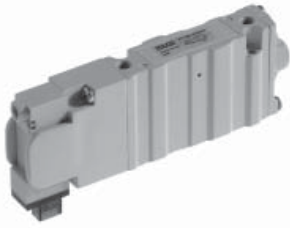
P15SF570	P15STR01	P15STR02	P15STR05

intermediate supply plate for threaded version weight: 0,009 Kg	modular tie-rods 1 valve place (package 100 pcs.) weight: 0,003 Kg	modular tie-rods 2 valve places (package 100 pcs.) weight: 0,007 Kg	modular tie-rods 5 valve places (package 100 pcs.) weight: 0,018 Kg
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AZ4-SN004A
100 nuts M4 for tie-rods

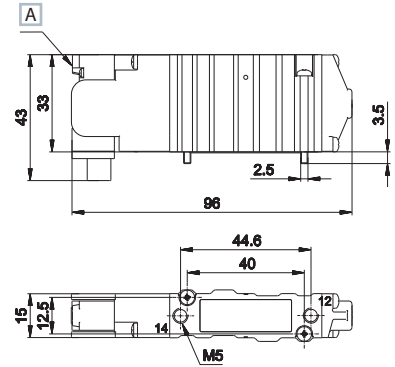
AZ4-VN0414
100 screws 4x14 for tie-rods

Single electric impulse



Weight (Kg): 0,138

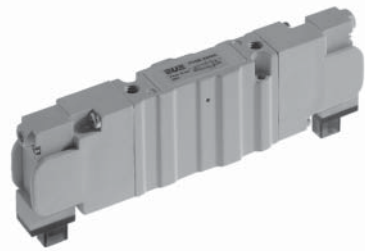
	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					En.	De-en.	
5/2		electric amplified	pneumo mechanical spring	1,9÷9	15	24	P15B24024
5/2		electric amplified	mechanical spring	2÷9	12	21	P15B24124



A Manual override

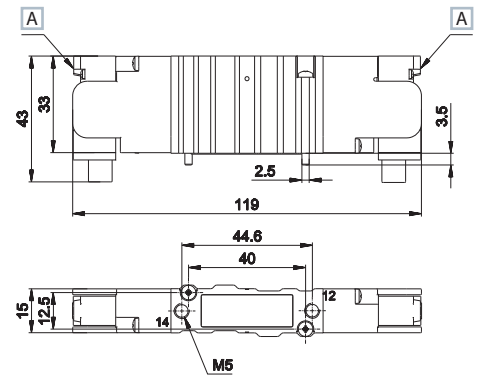
14 = Control
12 = Return

Double electric impulse



Weight (Kg): 0,158

	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					En.	De-en.	
5/2		electric amplified	electric amplified	0,7÷9	11	11	P15B24424
5/3 c.c.		electric amplified	electric amplified	1,6÷9	11	35	P15B34424
5/3 o.c.		electric amplified	electric amplified	1,6÷9	11	35	P15B44424
5/3 p.c.		electric amplified	electric amplified	1,6÷9	11	35	P15B54424
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,5÷9	14	16	P15B64424
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,5÷9	14	16	P15B74424
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,5÷9	14	16	P15B84424



A Manual override

14 = Control
12 = Return

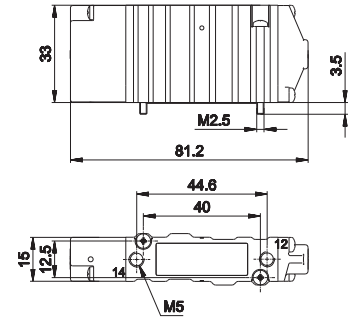
o.c. = open centres c.c. = closed centres p.c. = pressurized centres

Single pneumatic impulse



Weight (Kg): 0,127

	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					En.	De-en.	
5/2		pneumatic amplified	pneumo mechanical spring	1,9÷9	11	15	P15B230
5/2		pneumatic amplified	mechanical spring	2÷9	10	14	P15B231



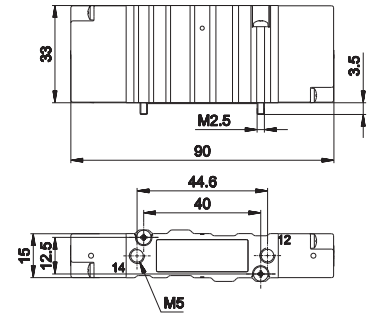
14 = Control
12 = Return

Double pneumatic impulse



Weight (Kg): 0,132

	Symbol	Control	Return	Pressure bar	Times (ms)		Part no.
					En.	De-en.	
5/2		pneumatic amplified	pneumatic amplified	0,7÷9	10	10	P15B233
5/3 c.c.		pneumatic amplified	pneumatic amplified	1,6÷9	9	21	P15B333
5/3 o.c.		pneumatic amplified	pneumatic amplified	1,6÷9	9	21	P15B433
5/3 p.c.		pneumatic amplified	pneumatic amplified	1,6÷9	9	21	P15B533
3/2 NC + 3/2 NC		pneumatic amplified	pneumatic amplified	1,3÷9	10	14	P15B633
3/2 NC + 3/2 NO		pneumatic amplified	pneumatic amplified	1,3÷9	10	14	P15B733
3/2 NO + 3/2 NO		pneumatic amplified	pneumatic amplified	1,3÷9	10	14	P15B833



14 = Control
12 = Return

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

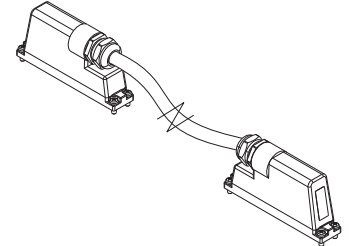
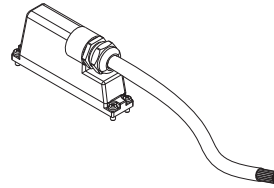
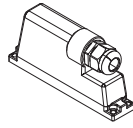
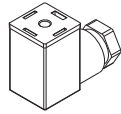
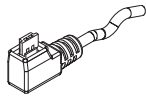
D-535U40300
D-535U40500

AM-5109

TSCFN24S000
TSCFN36S000

TSCFN24S0300
TSCFN24S0500
TSCFN24S1000
TSCFN32S0300
TSCFN32S0500
TSCFN32S1000

TSCFN16D0300
TSCFN16D0500
TSCFN16D1000



■ single connector with cable 3-5 m

■ 15 mm connector

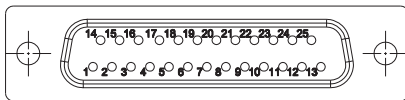
■ female connector 25/37 poles type D-sub no cable M3 x 8 fixing screws

■ female connector 25/37 poles type D-sub with cable 3-5-10 m M3 x 8 fixing screws

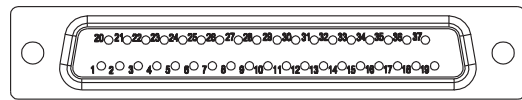
■ flying male/female connector sub D (upon request) prewired for 24 coils with cable Ø 8 mm (3-5-10 m length) suitable for mobile laying M3 x 8 fixing screws

Colour identification according to standard DIN 47100

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



Female D-SUB 37 poles for connection 16+16 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 brown-black shield		-	-	-
25	white-black	24	12	14	12

PIN No.	Colour	Coil	Control side		Valve No.
			TIM1536		
1	white	1	14		1
2	brown	2	12		1
3	green	3	14		2
4	yellow	4	12		2
5	grey	5	14		3
6	pink	6	12		3
7	blue	7	14		4
8	red	8	12		4
9	black	9	14		5
10	violet	10	12		5
11	grey-pink	11	14		6
12	red-blue	12	12		6
13	white-green	13	14		7
14	brown-green	14	12		7
15	white-yellow	15	14		8
16	yellow-brown	16	12		8
17	white-grey	17	14		9
18	grey-brown	18	12		9
19	white-pink	19	14		10
20	pink-brown	20	12		10
21	white-blue	21	14		11
22	brown-blue	22	12		11
23	white-red	23	14		12
24	brown-red	24	12		12
25	white-black	25	14		12
26	brown-black	26	12		13
27	grey-green	27	14		14
28	yellow-grey	28	12		14
29	pink-green	29	14		15
30	yellow-pink	30	12		15
31	green-blue	31	14		16
32	yellow-blue	32	12		16
33	-	not used	-		-
34	-	not used	-		-
35	-	not used	-		-
36	yellow-black	common	-		-
37	yellow-red shield	common law	-		-