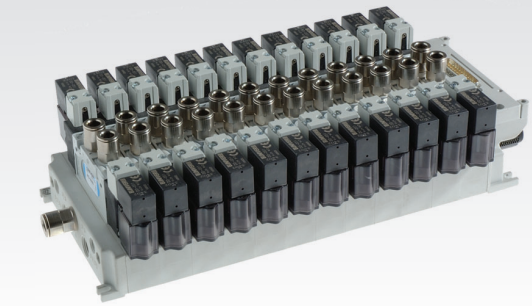
G-6

20 mm Valves and Solenoid Valves - Threaded body G1/8

- G1/8 threaded valve body with traditional Univer spool system
- Version with integrated electrical connection and esternal connection
- Compact design
- High flow rate
- Versions available: 5/2 - 5/3 - 3/2+3/2

Available ATEX version upon request



TECHNICAL CHARACTERISTICS

Ambient temperature	-5 ÷ +50 °C
Fluid temperature	Max +50 °C
Fluid	50 µm filtered air, with or without lubrication
Commutation system	spool
Ways/Positions	**5/2, 5/3, 3/2+3/2**
Pressure	1,5 ÷ 9 bar
Control	indirect electro-pneumatic, pneumatic
Return	mechanical spring, pneumomechanical spring
Connections	G1/8
Nominal Ø	5 mm
Nominal flow rate (Nl/min)	5/2 = **770** 5/3 = **700** 3/2+3/2 = **670**

CONSTRUCTIVE CHARACTERISTICS

Valve body	zamak
Seals	nitrile rubber
Subbase and actuators	self-extinguishing technopolymer
Spool	aluminum

ELECTRIC CHARACTERISTICS

Electropilot/coil	A series/U05 - B series/U04
Voltage	24 V DC -12 V DC - 24 V AC - 110 V AC - 230 V AC (only for version with integrated electrical connection)
Power consumption	U05 = 2 W (DC) 2,3 VA (AC) U04 = 1,2 W (DC)
Protection degree	IP65
Manual override	recessed button – 1 position

CODIFICATION KEY

G	-	6	6	4	4		
1			2	3	4	5	6

1 Series

G-6 = 20 mm Valves and solenoid valves - threaded body G1/8

2 Type

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

3 = Pneumatic amplified
4 = Electrical amplified DC
5 = Electrical amplified DC/AC
6 = Electrical amplified DC (B series 10mm electropilot)

4 Return 12

0 = Pneumomechanical spring
1 = Mechanical spring
3 = Pneumatic amplified
4 = Electrical amplified DC
5 = Electrical amplified DC/AC
6 = Electrical amplified DC (B series 10 mm electropilot)

5 Option

D = External servoassisted pilot

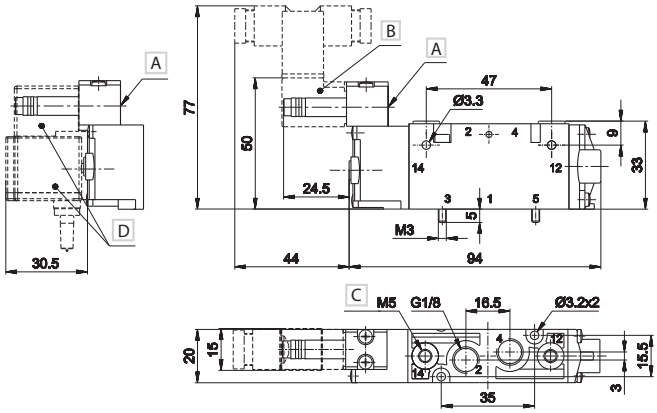
6 ATEX version

X = Atex (upon request)

See ATEX Catalogue for types and versions

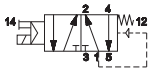
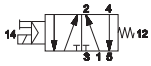
o.c. = open centres **c.c.** = closed centres **p.c.** = pressurized centres

Single electric impulse

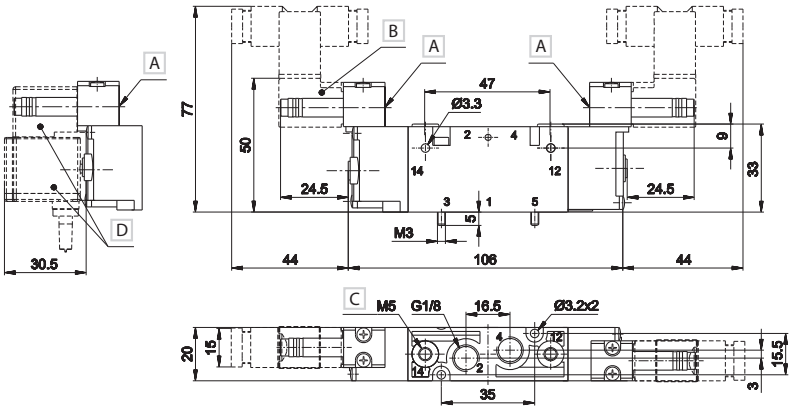


A Manual override
B Coil with connector for single connection
C External servoassisted pilot
D Coil with intergrated connector for multipolar version **DD-051-2C/DD-040-2C**

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

	Symbol	Control 14	Return 12	Flow rate (Nl/min)	Pressure bar	Resp. Time (ms) En.	Resp. Time (ms) De-en.	Weight Kg	Part no.
5/2		electrical amplified	pneumomechanical spring	770	1,5÷9	21	30	0,112	G-6240 G-6250
5/2		electrical amplified	mechanical spring	770	1,5÷9	18	64	0,112	G-6241 G-6251

Double electric impulse



A Manual override
B Coil with connector for single connection
C External servoassisted pilot
D Coil with intergrated connector for multipolar version **DD-051-2C/DD-040-2C**

1 = Supply port
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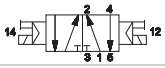
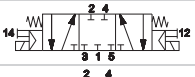
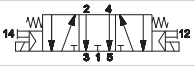
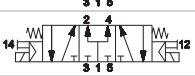
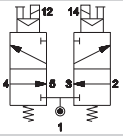
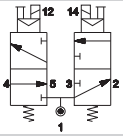
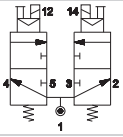
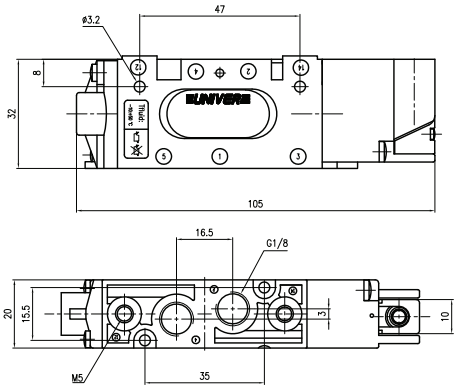
	Symbol	Control 14	Return 12	Flow rate (Nl/min)	Pressure bar	Resp. Time (ms) En.	Resp. Time (ms) De-en.	Weight Kg	Part no.
5/2		electrical amplified	electrical amplified	770	0,6÷9	16	16	0,143	G-6244 G-6255
5/3 c.c.		electrical amplified	electrical amplified	700	1,9÷9	16	47	0,148	G-6344 G-6355
5/3 o.c.		electrical amplified	electrical amplified	700	2,0÷9	16	47	0,148	G-6444 G-6455
5/3 p.c.		electrical amplified	electrical amplified	700	1,9÷9	16	47	0,148	G-6544 G-6555
3/2 NC + 3/2 NC		electrical amplified	electrical amplified	670	1,5÷9	14	17	0,140	G-6644 G-6655
3/2 NC + 3/2 NO		electrical amplified	electrical amplified	670	1,5÷9	14	17	0,140	G-6744 G-6755
3/2 NO + 3/2 NO		electrical amplified	electrical amplified	670	1,5÷9	14	17	0,140	G-6844 G-6855

o.c. = open centres **c.c.** = closed centres **p.c.** = pressurized centres
Solenoid valves are supplied without coil and connector

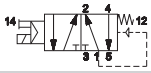
Single electric impulse



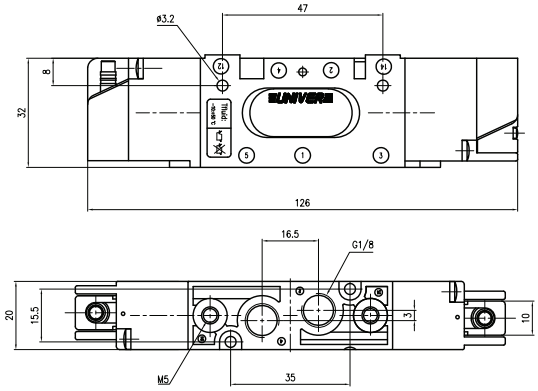
A Manual override
B Coil with connector for single connection
C External servoassisted pilot

1 = Supply port
2 - 4 = Use
3 - 5 = Exhaust

14 = Control
12 = Return

	Symbol	Control 14	Return 12	Flow rate (Nl/min)	Pressure bar	Resp. Time (ms) En.	Resp. Time (ms) De-en.	Weight Kg	Part no.
5/2		electrical amplified	pneumomechanical spring	770	1,5÷9	21	30	0,112	**G-6260** **G-6261**

Double electric impulse



A Manual override
B Coil with connector for single connection
C External servoassisted pilot

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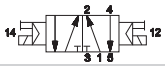
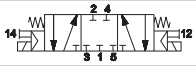
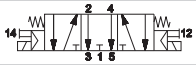
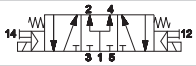
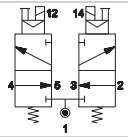
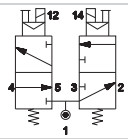
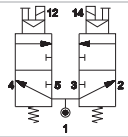
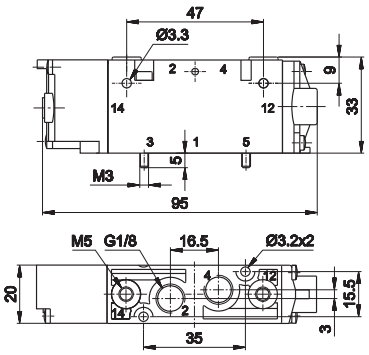
14 = Control
12 = Return

	Symbol	Control 14	Return 12	Flow rate (Nl/min)	Pressure bar	Resp. Time (ms) En.	Resp. Time (ms) De-en.	Weight Kg	Part no.
5/2		electrical amplified	electrical amplified	770	0,6÷9	16	16	0,143	**G-6266**
5/3 c.c.		electrical amplified	electrical amplified	700	1,9÷9	16	47	0,148	**G-6366**
5/3 o.c.		electrical amplified	electrical amplified	700	2,0÷9	16	47	0,148	**G-6466**
5/3 p.c.		electrical amplified	electrical amplified	700	1,9÷9	16	47	0,148	**G-6566**
3/2 NC + 3/2 NC		electrical amplified	electrical amplified	670	1,5÷9	14	17	0,140	**G-6666**
3/2 NC + 3/2 NO		electrical amplified	electrical amplified	670	1,5÷9	14	17	0,140	**G-6766**
3/2 NO + 3/2 NO		electrical amplified	electrical amplified	670	1,5÷9	14	17	0,140	**G-6866**

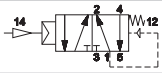
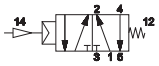
o.c. = open centres **c.c.** = closed centres **p.c.** = pressurized centres

Solenoid valves are supplied without coil and connector

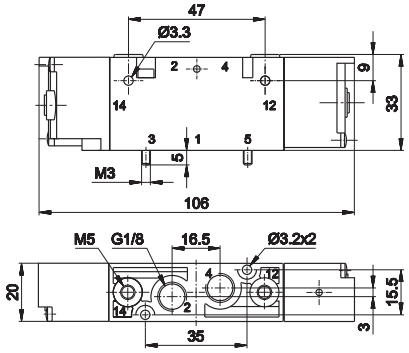
Single pneumatic impulse



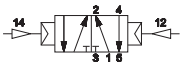
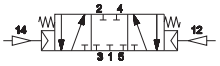
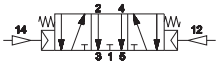
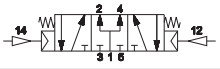
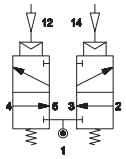
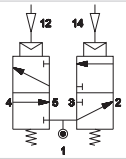
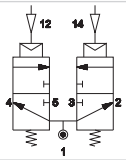
1 = Supply port
2 - 4 = Use
3 - 5 = Exhaust
14 = Control
12 = Return

	Symbol	Control 14	Return 12	Flow rate (Nl/min)	Pressure bar	Resp. Time (ms) En.	Resp. Time (ms) De-en.	Weight Kg	Part no.
5/2		pneumatic amplified	pneumomechanical spring	770	1,5÷10	7	16	0,092	**G-6230**
5/2		pneumatic amplified	mechanical spring	770	1,5÷10	6	18	0,092	**G-6231**

Double pneumatic impulse



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

	Symbol	Control 14	Return 12	Flow rate (Nl/min)	Pressure bar	Resp. Time (ms) En.	Resp. Time (ms) De-en.	Weight Kg	Part no.
5/2		pneumatic amplified	pneumatic amplified	770	0,7÷10	5	5	0,103	**G-6233**
5/3 c.c.		pneumatic amplified	pneumatic amplified	700	1,9÷9	6	19	0,192	**G-6333**
5/3 o.c.		pneumatic amplified	pneumatic amplified	700	2,0÷9	6	19	0,192	**G-6433**
5/3 p.c.		pneumatic amplified	pneumatic amplified	700	1,9÷9	6	19	0,192	**G-6533**
3/2 NC + 3/2 NC		pneumatic amplified	pneumatic amplified	670	1,5÷9	3	14	0,188	**G-6633**
3/2 NC + 3/2 NO		pneumatic amplified	pneumatic amplified	670	1,5÷9	3	14	0,188	**G-6733**
3/2 NO + 3/2 NO		pneumatic amplified	pneumatic amplified	670	1,5÷9	3	14	0,188	**G-6833**

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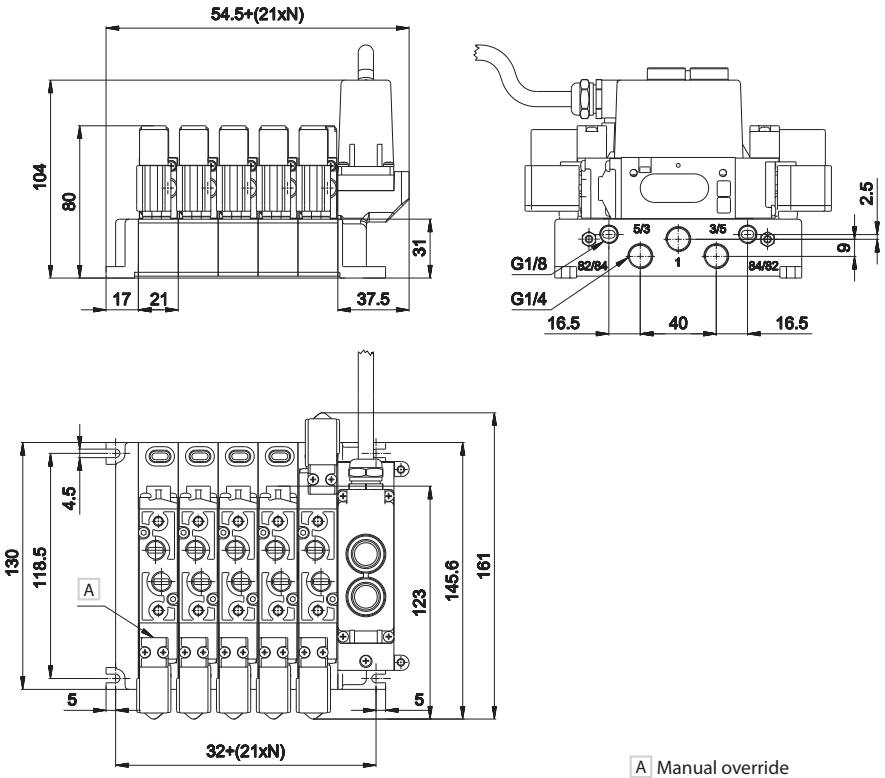
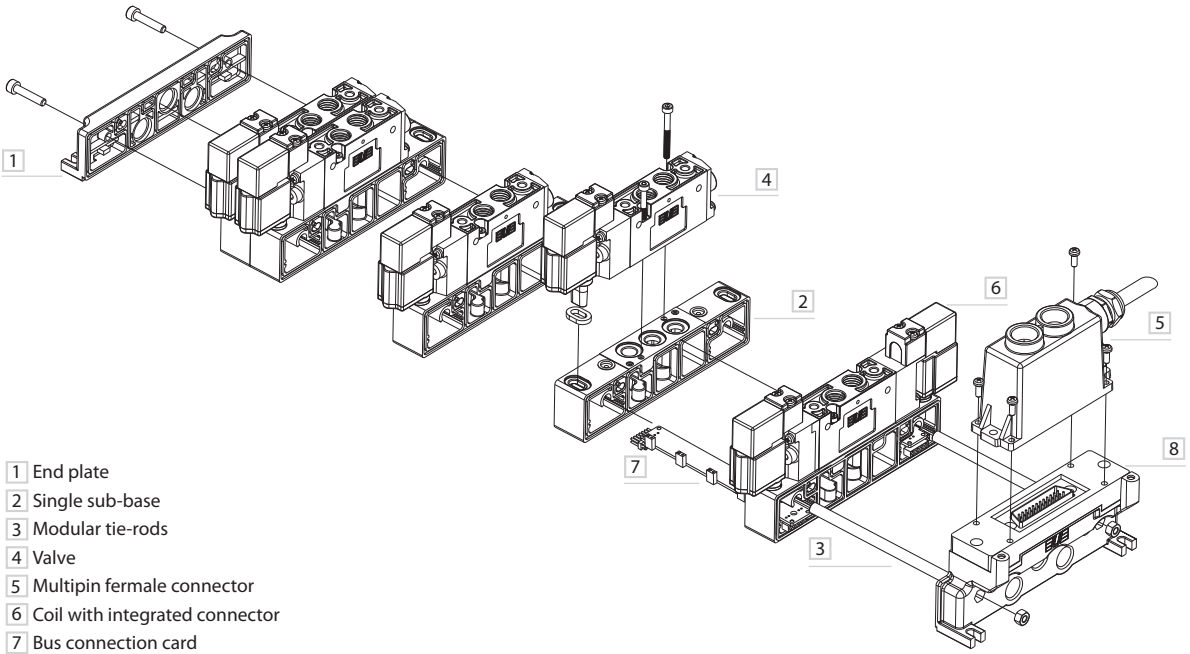
Multipin electrical connection



A Manual override

1 = Supply port
5/3 - 3/5 = Exhaust G1/4
82/84 - 84/82 = Electropilot exhaust G1/8

N = Number of valve positions

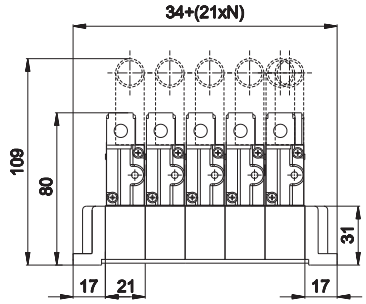


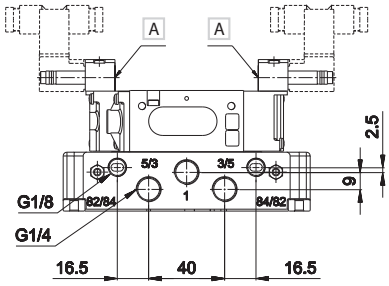
1 End plate
2 Single sub-base
3 Modular tie-rods
4 Valve
5 Multipin fermale connector
6 Coil with integrated connector
7 Bus connection card
8 End plate with modular connection

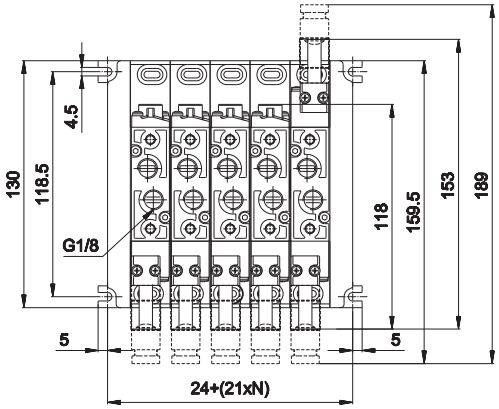
Tightening torque for fittings

Thread	Max torque (Nm)
M5	3
M7	3
G1/8	3
G1/4	10

Electrical connection with external connector



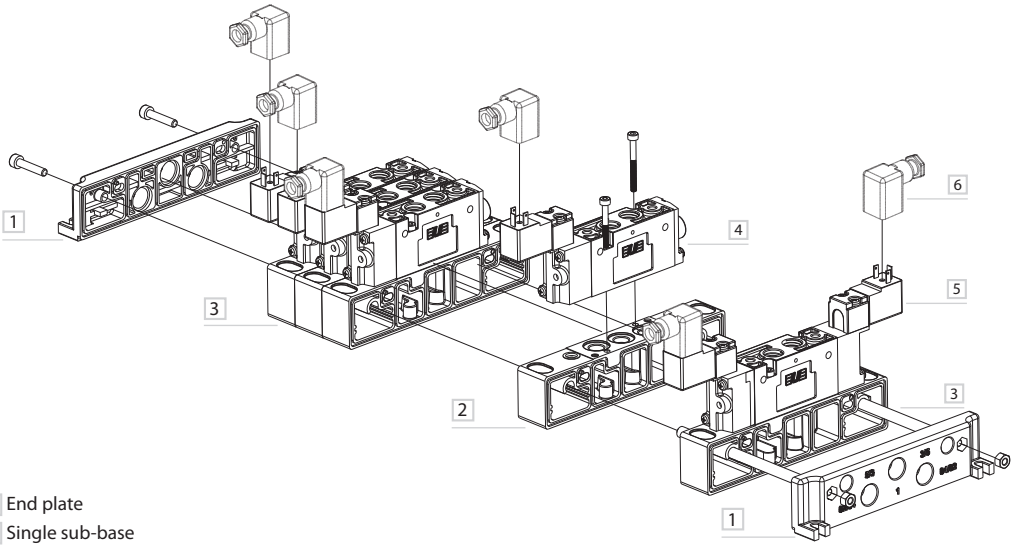




A Manual override

1 = Supply port
5/3 - 3/5 = Exhaust G1/4
82/84 - 84/82 = Electropilot exhaust G1/8

N = Number of valve positions

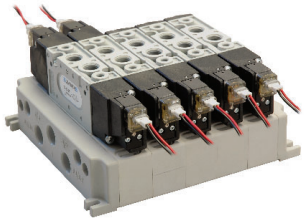


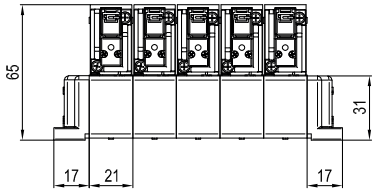
1 End plate
2 Single sub-base
3 Modular tie-rods
4 Valve
5 Coil
6 Single connector

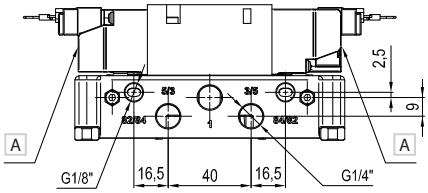
Tightening torque for fittings

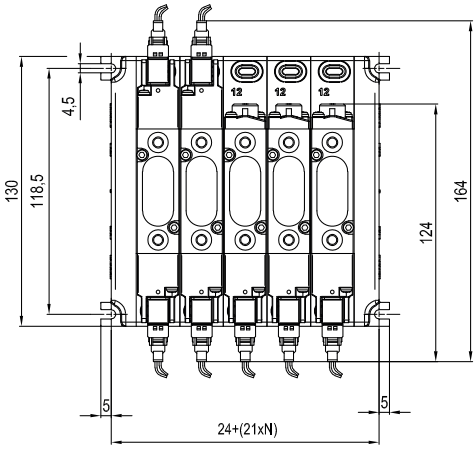
Thread	Max torque (Nm)
M5	3
M7	3
G1/8	3
G1/4	10

Electrical connection with loose cables





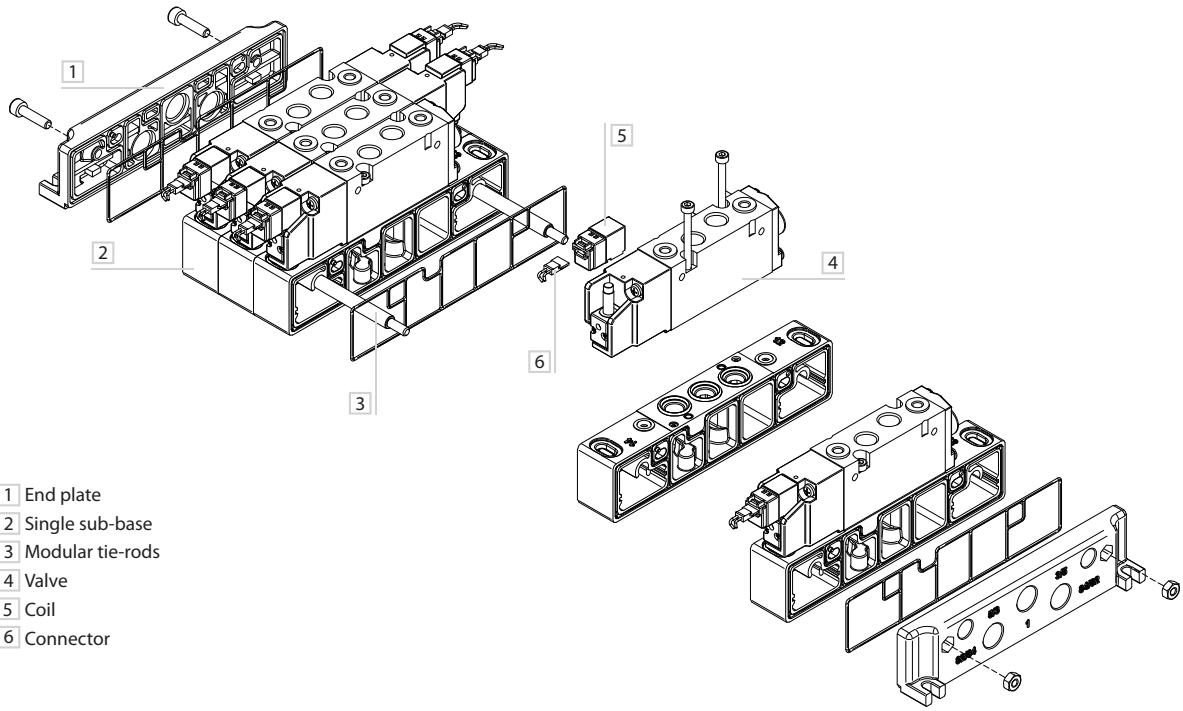




A Manual override

1 = Supply port
5/3 - 3/5 = Exhaust G1/4
82/84 - 84/82 = Electropilot exhaust G1/8

N = Number of valve positions

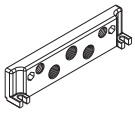


1 End plate
2 Single sub-base
3 Modular tie-rods
4 Valve
5 Coil
6 Connector

Tightening torque for fittings

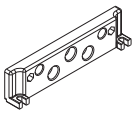
Thread	Max torque (Nm)
M5	3
M7	3
G1/8	3
G1/4	10

GP-6100



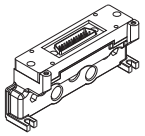
threaded end plate
weight: 0,046 Kg

GP-6110



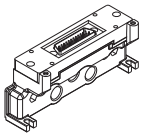
blank end plate
weight: 0,050 Kg

GP-611212



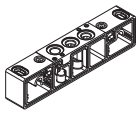
threaded end plate with
male connector
25 poles 12+12 coils
control 12-14
weight: 0,100 Kg

GP-611806



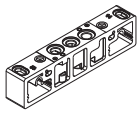
threaded end plate with
male connector
25 poles
18 coils control 14
6 coils control 12
(only for control 14
more than 12 coils max 18)
weight: 0,102 Kg

GP-6310/1/2



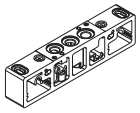
sub-base with
open diaphragms
GP-6310 without
electrical connection
GP-6311 monostable
GP-6312 bistable
weight: 0,060 Kg

GP-6320/1/2



sub-base with
closed diaphragms
GP-6320 without
electrical connection
GP-6321 monostable
GP-6322 bistable
weight: 0,062 Kg

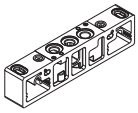
GP-6330/1/2



3 1 5

sub-base with
closed supply and
open exhausts
GP-6330 without
electrical connection
GP-6331 mostable
GP-6332 bistable
weight: 0,062 Kg

GP-6340/1/2



3 1 5

sud-base with
open supply and
closed exhausts
GP-6340 without
electrical connection
GP-6341 mostable
GP-6342 bistable
weight: 0,062 Kg

GP-6380

intermediate supply plate
(to be used only with
GP-63... series sub-base)
weight: 0,036 Kg

GP-6385

closing plate for
unused station
weight: 0,018 Kg

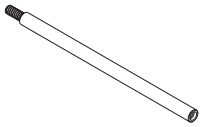
GP-6400-1

modular tie-rod
1 valve place
weight: 0,004 Kg
(package100 pcs.)

GP-6400-2

modular tie-rod
2 valve places
weight: 0,010 Kg
(package100 pcs.)

GP-6400-5



modular tie-rod
5 valve places
weight: 0,022 Kg
(package100 pcs.)

AZ4-VN0416 screw M04x16 for tie-rods (package100 pcs.)
AZ4-SN004A hexagonal nut M4 (package100 pcs.)

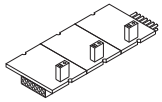
GP-6512-01/..MF

BUS connection card
control side 12 with 12 pin
GP-6512-01MF 1 place
GP-6512-02MF 2 places
GP-6512-03MF 3 places
GP-6512-05MF 5 places
GP-6512-06MF 6 places
weight: 0,003 Kg
(for each place)

GP-6514-01/..MF

BUS connection card
control side 14 with 12 pin
GP-6514-01MF 1 place
GP-6514-02MF 2 places
GP-6514-03MF 3 places
GP-6514-05MF 5 places
GP-6514-06MF 6 places
weight: 0,003 Kg
(for each place)

GP-651418



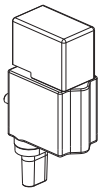
BUS connection card
control side 14 with 18 pins
(only 12 places)
for manifolds with
control 14 and more than 12
coils up to 18 coils use
GP-651418 card 12 places
and then **GP-6514-...**
weight: 0,003 Kg
(for each place)

upon request customized solutions up to 12 places

DD-...

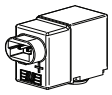
24 V CC 2 W coil
for single connection
weight: 0,019 Kg

DD-051-2C/DD-040-2C



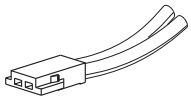
24 V CC 2 W coil
with integrated connector
for multipin version
weight: 0,028 Kg

DE-652I



24 V DC 1,35 W coil
with in-line connector
with protection for a
complete tightness
weight: 0,013 Kg

D-530-30/50/200

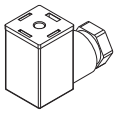


Miniature connector with loose cables

D-530-30 = wire length 300 mm
D-530-50 = wire length 500 mm
D-530-200 = wire length 2000 mm

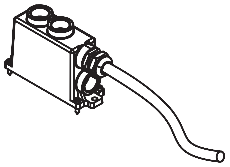
Electrical connections

AM-5109



15 mm connector

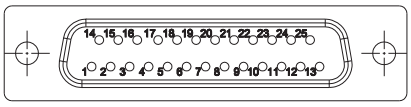
TSCF24S0300
TSCF24S0500
TSCF24S1000



flying fermale 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**



PIN No.	Colour	Coil	Control side GP-611212	Control side GP-611806	Valve No.
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