

GL-6

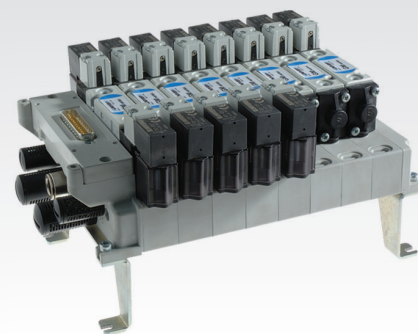
20 mm G1/8 Valves and solenoid valves for base assembly

- Valve body for base assembly with traditional Univer spool system
- Version with integrated electrical connection and external connection
- Compact design
- High flow rate
- Versions available: 5/2 - 5/3 - 3/2+3/2

Available ATEX version upon request

CE Ex II 2Gc IIC T5 II 2Dc T100°C

CE Ex II 3 GD c nA II T5-10°C ≤ Ta ≤ 45°C



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	sub-base interface			
Nominal Ø (mm)	5 mm			
Nominal flow rate (NI/min) according to the type of fittings		5/2	5/3	3/2+3/2
	straight tube Ø8 mm	740	670	640
	90° tube Ø8 mm	620	550	520
	straight tube Ø6 mm	510	510	510
	90° tube Ø6 mm	370	370	370
	straight tube Ø4 mm	200	200	200
	90° tube Ø4 mm	140	140	140

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 version with external 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

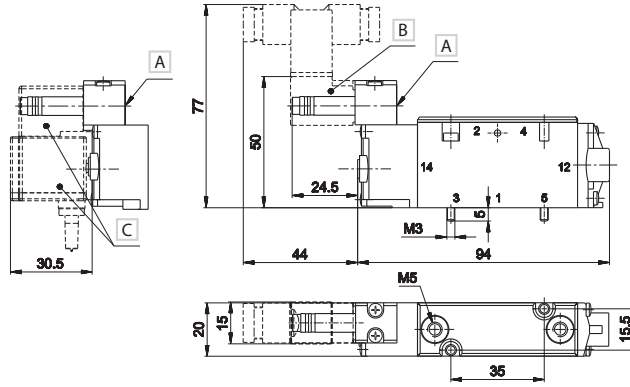
G	L	-	6	6	4	4		
	1		2	3	4	5	6	

1 Series GL-6 = 20 mm Valves and Solenoid Valves for sub-base mounting	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
Subject to change

Single electric impulse

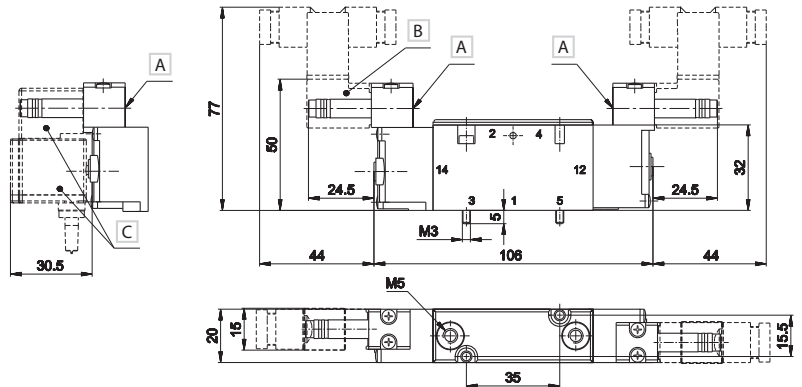
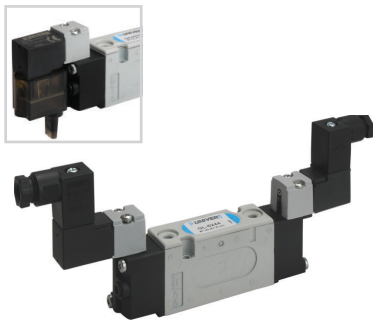


- A Manual override
- B Coil with connector for single connection
- C Coil with intergrated connector for multipolar version DD-051-2C/DD-040-2C

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

	Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Resp. Time (ms)		Weight Kg	Part no.
		14	12			En.	De-en.		
5/2		electrical amplified	spring pneumomechanical	740	1,5÷9	21	30	0,112	GL-6240 GL-6250
5/2		electrical amplified	spring mechanical	740	1,5÷9	18	64	0,112	GL-6241 GL-6251

Double electric impulse



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

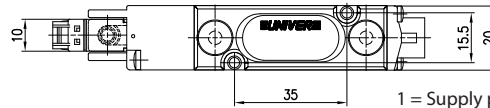
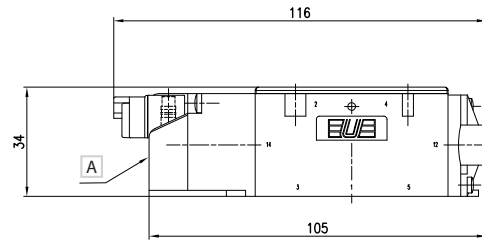
- 1 = Supply port
- 2 - 4 = Use
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- 14 = Control
- 12 = Return

	Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Resp. Time (ms)		Weight Kg	Part no.
		14	12			En.	De-en.		
5/2		electrical amplified	electrical amplified	740	0,6÷9	16	16	0,143	GL-6244 GL-6255
5/3 c.c.		electrical amplified	electrical amplified	670	1,5÷9	16	47	0,148	GL-6344 GL-6355
5/3 o.c.		electrical amplified	electrical amplified	670	2,0÷9	16	47	0,148	GL-6444 GL-6455
5/3 p.c.		electrical amplified	electrical amplified	670	1,5÷9	16	47	0,148	GL-6544 GL-6555
3/2 NC + 3/2 NC		electrical amplified	electrical amplified	640	1,5÷9	14	17	0,140	GL-6644 GL-6655
3/2 NC + 3/2 NO		electrical amplified	electrical amplified	640	1,5÷9	14	17	0,140	GL-6744 GL-6755
3/2 NO + 3/2 NO		electrical amplified	electrical amplified	640	1,5÷9	14	17	0,140	GL-6844 GL-6855

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

3

Single electric impulse

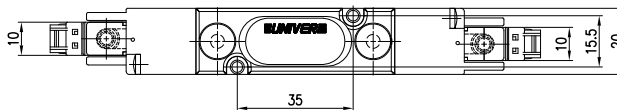
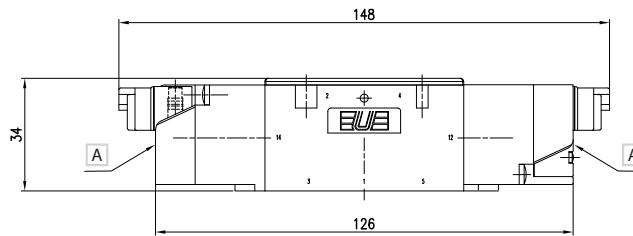


A Manual override

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

Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Resp. Time (ms)		Weight Kg	Part no.
	14	12			En.	De-en.		
5/2	electrical amplified	pneumomechanical spring	740	1,5÷9	21	30	0,112	GL-6260 GL-6261

Double electric impulse



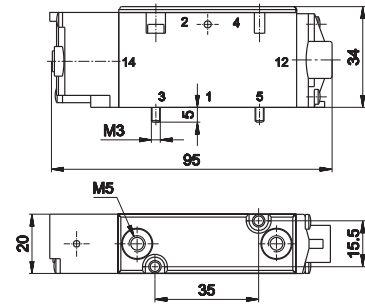
A Manual override

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

Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Resp. Time (ms)		Weight Kg	Part no.
	14	12			En.	De-en.		
5/2	electrical amplified	electrical amplified	740	0,6÷9	16	16	0,143	GL-6266
5/3 c.c.	electrical amplified	electrical amplified	670	1,5÷9	16	47	0,148	GL-6366
5/3 o.c.	electrical amplified	electrical amplified	670	2,0÷9	16	47	0,148	GL-6466
5/3 p.c.	electrical amplified	electrical amplified	670	1,5÷9	16	47	0,148	GL-6566
3/2 NC + 3/2 NC	electrical amplified	electrical amplified	640	1,5÷9	14	17	0,140	GL-6666
3/2 NC + 3/2 NO	electrical amplified	electrical amplified	640	1,5÷9	14	17	0,140	GL-6766
3/2 NO + 3/2 NO	electrical amplified	electrical amplified	640	1,5÷9	14	17	0,140	GL-6866

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

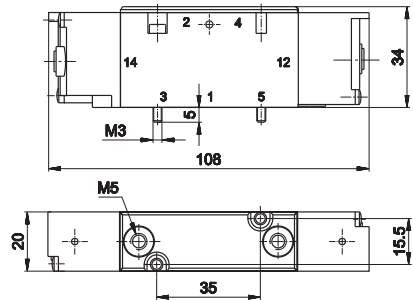
Single pneumatic impulse



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

	Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Resp. Time (ms)		Weight Kg	Part no.
						En.	De-en.		
5/2		pneumatic amplified	pneumomechanical spring	740	1,5÷10	7	16	0,092	GL-6230
5/2		pneumatic amplified	mechanical spring	740	0,9÷10	6	18	0,092	GL-6231

Double pneumatic impulse



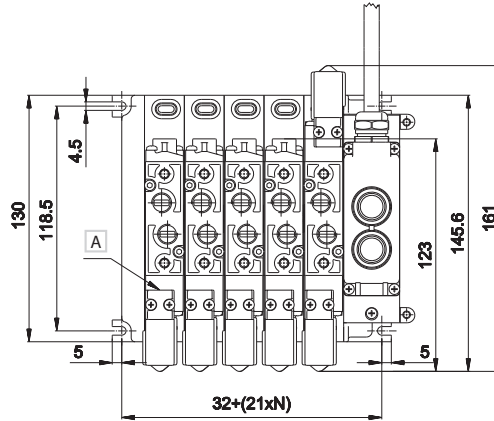
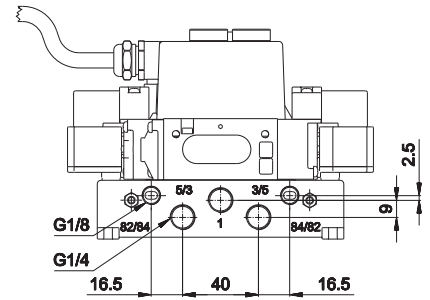
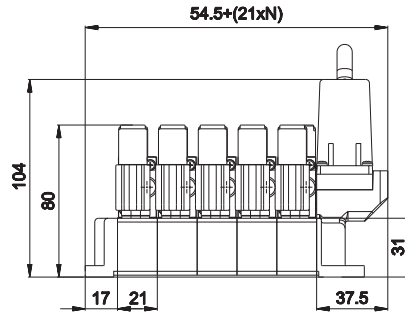
1 = Supply port 14 = Control
2 - 4 = Use 12 = Return
3 - 5 = Exhaust

	Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Resp. Time (ms)		Weight Kg	Part no.
						En.	De-en.		
5/2		pneumatic amplified	pneumatic amplified	740	0,7÷10	5	5	0,103	GL-6233
5/3 c.c.		pneumatic amplified	pneumatic amplified	670	1,5÷9	6	19	0,192	GL-6333
5/3 o.c.		pneumatic amplified	pneumatic amplified	670	2,0÷9	6	19	0,192	GL-6433
5/3 p.c.		pneumatic amplified	pneumatic amplified	670	1,5÷9	6	19	0,192	GL-6533
3/2 NC + 3/2 NC		pneumatic amplified	pneumatic amplified	640	1,5÷9	3	14	0,188	GL-6633
3/2 NC + 3/2 NO		pneumatic amplified	pneumatic amplified	640	1,5÷9	3	14	0,188	GL-6733
3/2 NO + 3/2 NO		pneumatic amplified	pneumatic amplified	640	1,5÷9	3	14	0,188	GL-6833

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

3

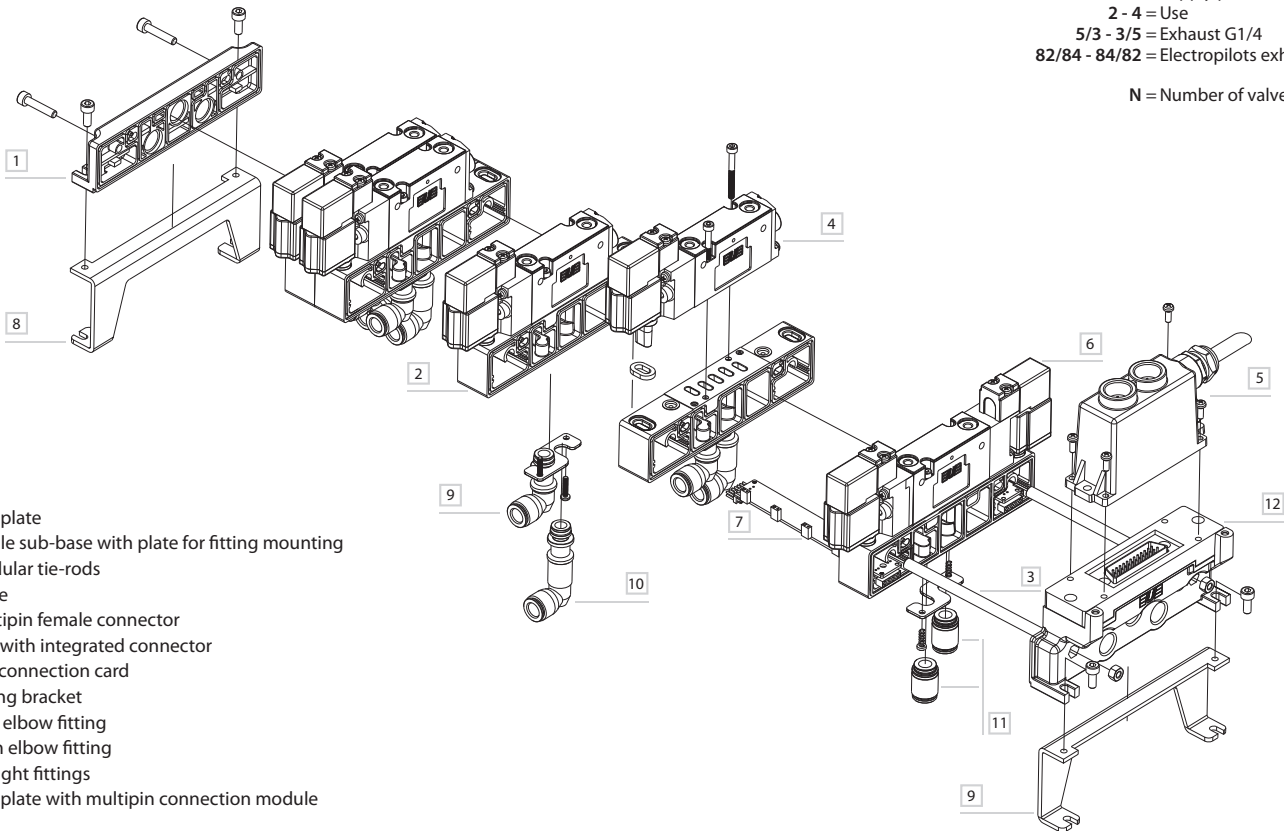
Multipin electrical connection



A Manual override

- 1 = Supply port
- 2 - 4 = Use
- 5/3 - 3/5 = Exhaust G1/4
- 82/84 - 84/82 = Electropilots exhaust G1/8

N = Number of valve positions



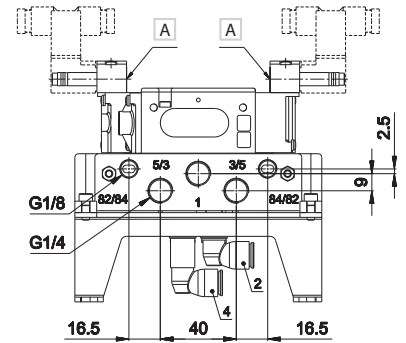
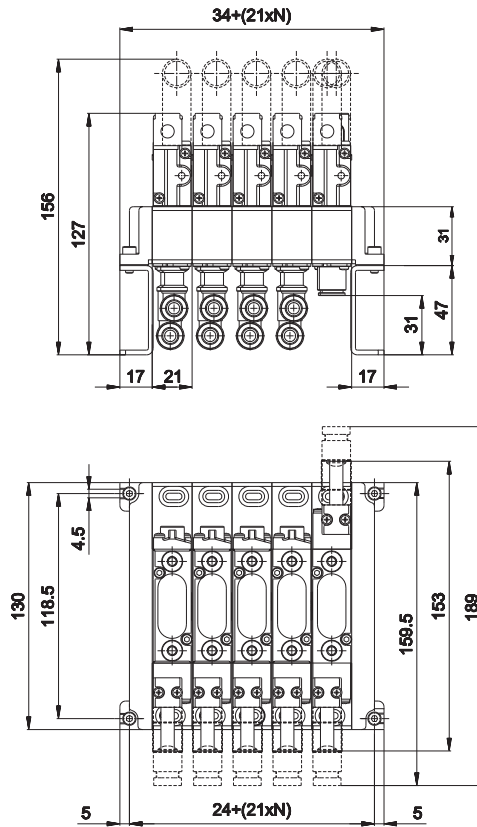
- 1 End plate
- 2 Single sub-base with plate for fitting mounting
- 3 Modular tie-rods
- 4 Valve
- 5 Multipin female connector
- 6 Coil with integrated connector
- 7 Bus connection card
- 8 Lifting bracket
- 9 Low elbow fitting
- 10 High elbow fitting
- 11 Straight fittings
- 12 End plate with multipin connection module

Tightening torque for fittings

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

Subject to change

Electrical connection with external connector

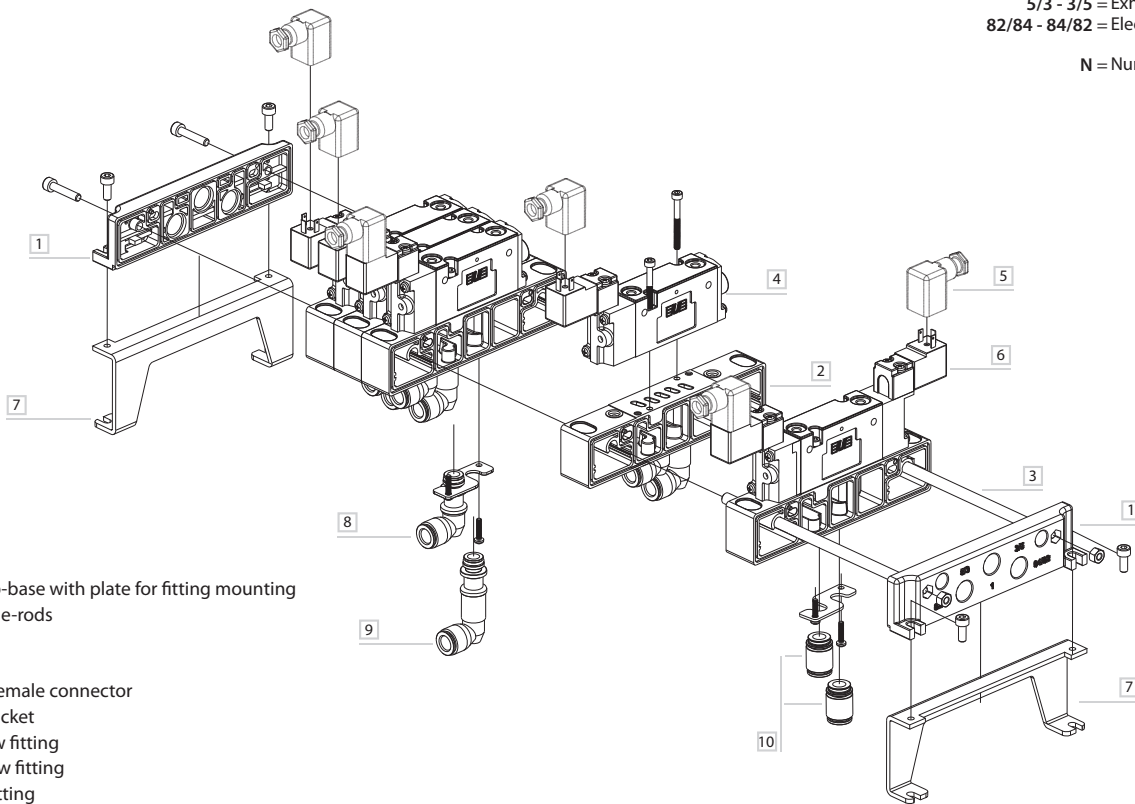


A Manual override

- 1 = Supply port
- 2 - 4 = Use
- 5/3 - 3/5 = Exhaust G1/4
- 82/84 - 84/82 = Electropilot exhaust G1/8

N = Number of valve position

3

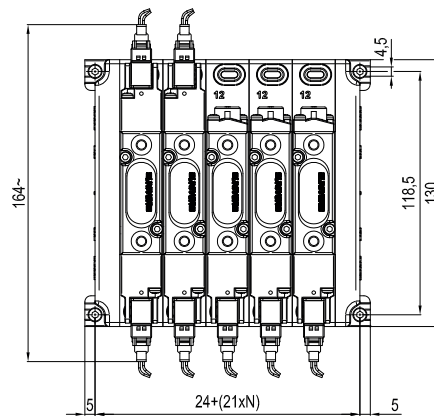
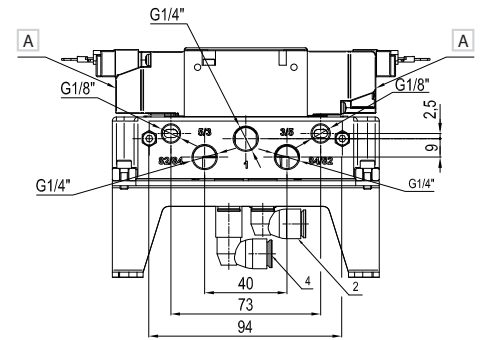
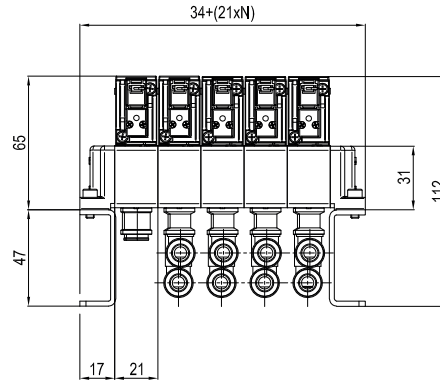
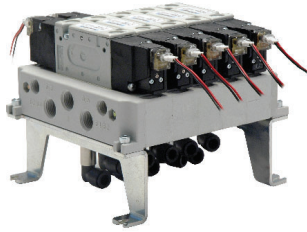


- 1 End plate
- 2 Single sub-base with plate for fitting mounting
- 3 Modular tie-rods
- 4 Valve
- 5 Coil
- 6 Multipin female connector
- 7 Lifting bracket
- 8 Low elbow fitting
- 9 High elbow fitting
- 10 Straight fitting

Tightening torque for fittings

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

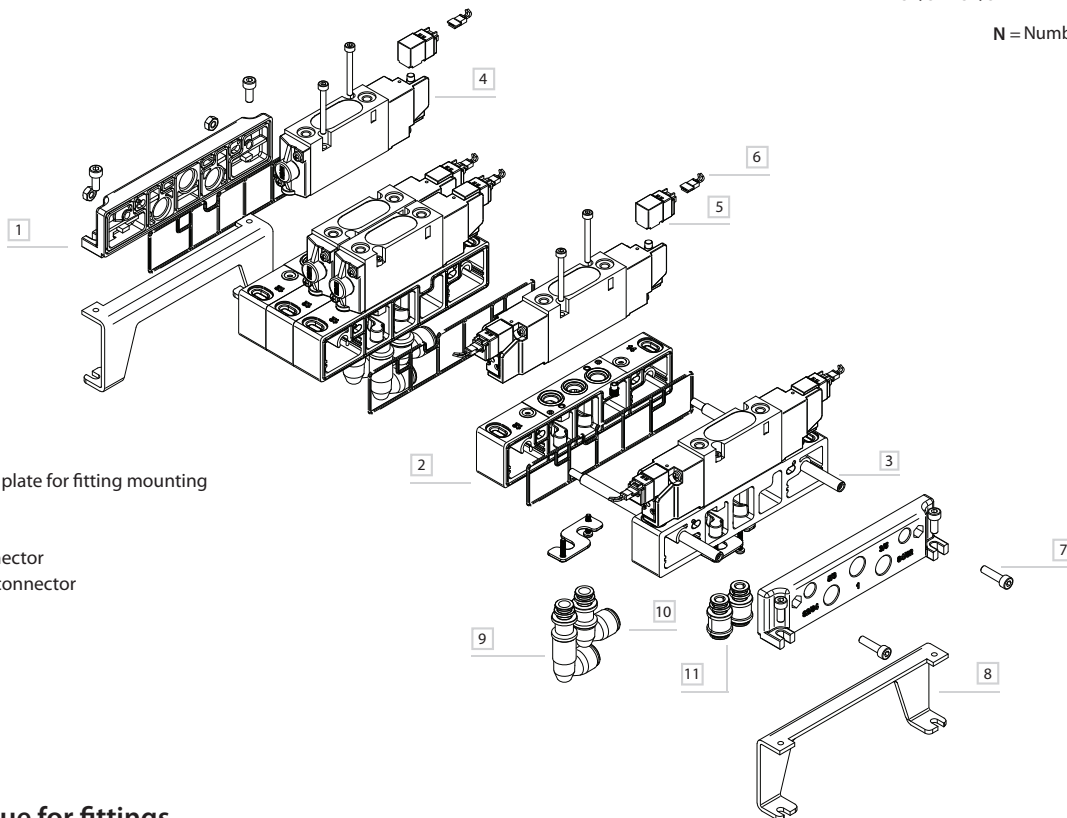
Electrical connection with loose cables



A Manual override

- 1 = Supply port
- 2 - 4 = Use
- 5/3 - 3/5 = Exhaust G1/4
- 82/84 - 84/82 = Electropilots exhaust G1/8

N = Number of valve positions



- 1 End plate
- 2 Single sub-base with plate for fitting mounting
- 3 Modular tie-rods
- 4 Valve
- 5 Multipin female connector
- 6 Coil with integrated connector
- 7 Bus connection card
- 8 Lifting bracket
- 9 Low elbow fitting
- 10 High elbow fitting
- 11 Straight fittings

Tightening torque for fittings

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

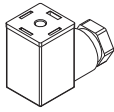
Subject to change

GP-6100	GP-6110	GP-611212	GP-611806	GP-6210/1/2	GP-6220/1/2
threaded end plate weight: 0,046 Kg	blank end plate weight: 0,050 Kg	end plate with male connector 25 poles 12+12 coils control 12-14 weight: 0,100 Kg	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	sub-base with open diaphragms GP-6210 without electrical connection GP-6211 monostable GP-6212 bistable weight: 0,060 Kg	sub-base with closed diaphragms GP-6220 without electrical connection GP-6221 monostable GP-6222 bistable weight: 0,062 Kg
GP-6230/1/2	GP-6240/1/2	GP-6380	GP-6285	GP-6411	
sub-base with closed supply and open exhausts GP-6230 without electrical connection GP-6231 mostable GP-6232 bistable weight: 0,062 Kg	sud-base with open supply and closed exhausts GP-6240 without electrical connection GP-6241 mostable GP-6242 bistable weight: 0,062 Kg	intermediate supply plate (to be used only with GP-63... series sub-base) weight: 0,036 Kg	closing plate for unused station weight: 0,018 Kg	lifting bracket weight: 0,086 Kg	
GP-6400-1	GP-6400-2	GP-6400-5	GP-6512-01/..MF	GP-6514-01/..MF	GP-651418
modular tie-rod 1 valve place weight: 0,004 Kg (package 100 pcs.)	modular tie-rod 2 valve places weight: 0,010 Kg (package 100 pcs.)	modular tie-rod 5 valve places weight: 0,022 Kg (package 100 pcs.)	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)	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)	BUS connection card control side 14 with 18 pin (only 12 places) for manifold assemblies with control 14 with more than 12 coils up to 18 coils use card GP-651418 12 places and then GP-6514-... weight: 0,003 Kg (for each place)
AZ4-VN0416 screw M04x16 for tie-rods (package 100 pcs.) AZ4-SN004A hexagonal nut M4 (package 100 pcs.)			upon request customized solutions up to 12 places		
GZR-100	GZR-V10004/6/8	GZR-V20004/6/8	GZR-V20L004/6/8		
blanking plug weight: 0,010 Kg	straight fitting (package 50 pcs.) GZR-V10004 tube: 4 mm GZR-V10006 tube: 6 mm GZR-V10008 tube: 8 mm weight: 0,010 Kg	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	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		
DD-..	DD-051-2C/DD-040-2C	DE-652I	D-530-30/50/200		
24 V CC 2 W coil for single connection weight: 0,019 Kg	24 V CC 2 W coil with integrated connector for multipolar version weight: 0,028 Kg	24 V DC 1,35 W coil with in-line connector with protection for a complete tightness weight: 0,013	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		

For sub-bases suitable for servoassistance add "S" to the part number (ex. GP-6210S)

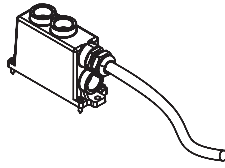
Electrical connections

AM-5109



■ 15 mm connector

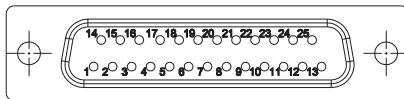
TSCF24S0300
TSCF24S0500
TSCF24S1000



■ 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



PIN No.	Colour	Coil	Control side		Valve No.
			GP-611212	GP-611806	
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	common low	-	-	-
25	white-black	24	12	14	12