

# G6

## 20 mm - G 1/8 Valves and solenoid valves

- G1/8 threaded valve body 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



### TECHNICAL CHARACTERISTICS

Ambient temperature	-20 ÷ +50 °C
Fluid temperature	max +50 °C
Fluid	filtered air 50 µm not dehumidified, lubricated or not
Commutation system	spool
Ways/Positions	<b>5/2, 5/3, 3/2+3/2</b>
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 (NI/min)	5/2 = <b>770</b> 5/3 = <b>700</b> 3/2+3/2 = <b>670</b>

### CONSTRUCTIVE CHARACTERISTICS

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

### ELECTRIC CHARACTERISTICS

Electropilot/coil	A/U05 series
Voltage	24 V DC standard, upon request 12 V DC 24 V AC - 110 V AC - 230 V AC (only for version with integrated electrical connection)
Power consumption	for direct current 2 W (2,3 VA)
Protection degree	IP65
Manual override	with button with tool 1 position

### CODIFICATION KEY

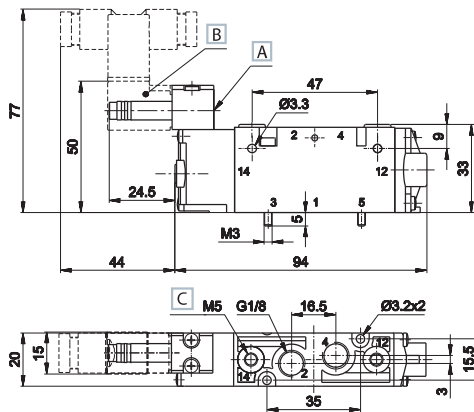
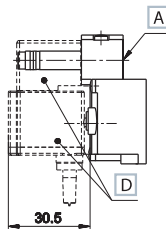
<b>G</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>D</b>
1	2	3	4	5	

1 Series	2 Type	3 Control 14
<b>G6</b> = G1/8 threaded body (except coils and connectors)	<b>2</b> = 5/2 <b>3</b> = 5/3 c.c. <b>4</b> = 5/3 o.c. <b>5</b> = 5/3 p.c. <b>6</b> = 3/2+3/2 NC-NC <b>7</b> = 3/2+3/2 NC-NO <b>8</b> = 3/2+3/2 NO-NO	<b>3</b> = pneumatic amplified <b>4</b> = electrical amplified DC <b>5</b> = electrical amplified DC/AC

4 Return 12	5 Option
<b>0</b> = pneumomechanical spring <b>1</b> = mechanical spring <b>3</b> = pneumatic amplified	<b>4</b> = electrical amplified DC <b>5</b> = electrical amplified DC/AC <b>D</b> = external servoassisted pilot

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

Single electric impulse

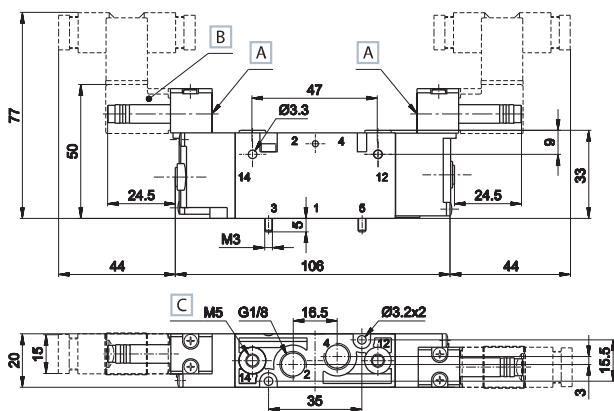
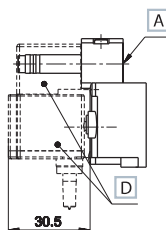


- A Manual override
- B Coil with connector for single connection
- C External servoassisted pilot
- D Coil with intergrated connector for multipolar version DD-051\*\*C

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

Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Times (ms)		Weight Kg	Part no.
					En.	De-en.		
	electrical amplified	pneumomechanical spring	770	1,5÷9	21	30	0,112	G-6240 G-6250
	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\*\*C

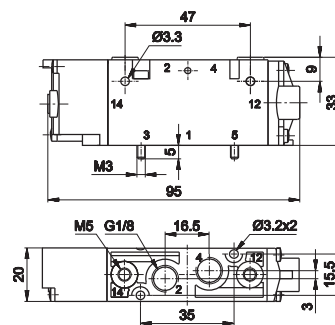
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12 = Return

Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Times (ms)		Weight Kg	Part no.
					En.	De-en.		
	electrical amplified	electrical amplified	770	0,6÷9	16	16	0,143	G-6244 G-6255
	electrical amplified	electrical amplified	700	1,9÷9	16	47	0,148	G-6344 G-6355
	electrical amplified	electrical amplified	700	2,0÷9	16	47	0,148	G-6444 G-6455
	electrical amplified	electrical amplified	700	1,9÷9	16	47	0,148	G-6544 G-6555
	electrical amplified	electrical amplified	670	1,5÷9	14	17	0,140	G-6644 G-6655
	electrical amplified	electrical amplified	670	1,5÷9	14	17	0,140	G-6744 G-6755
	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

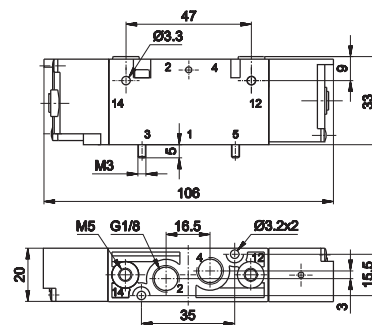
Single pneumatic impulse



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

	Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Times (ms)		Weight Kg	Part no.
						En.	De-en.		
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

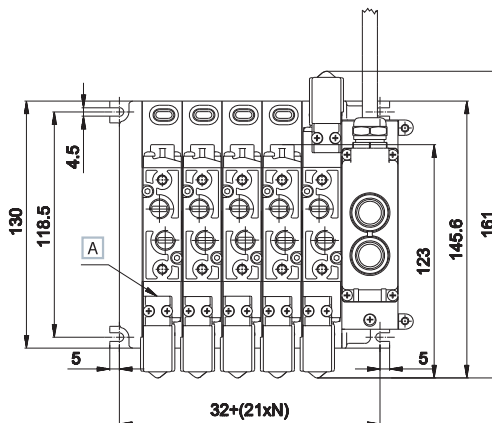
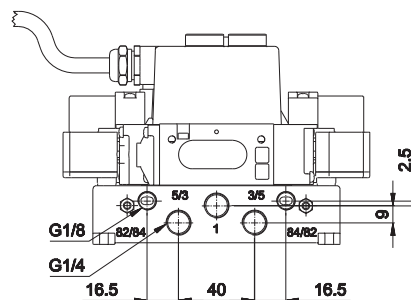
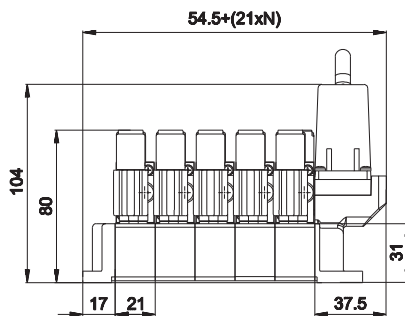


1 = Supply port      14 = Control  
 2 - 4 = Use          12 = Return  
 3 - 5 = Exhaust

	Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Times (ms)		Weight Kg	Part no.
						En.	De-en.		
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

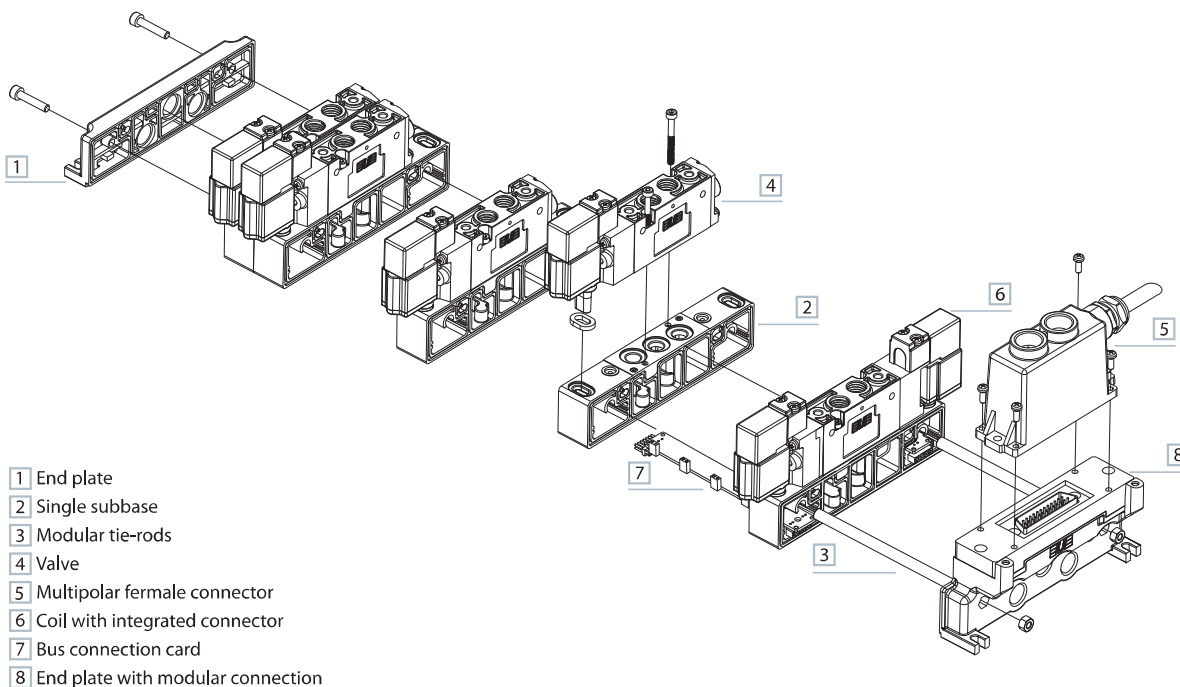
o.c. = open centres    c.c. = closed centres    p.c. = pressurized centres

Multipolar 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

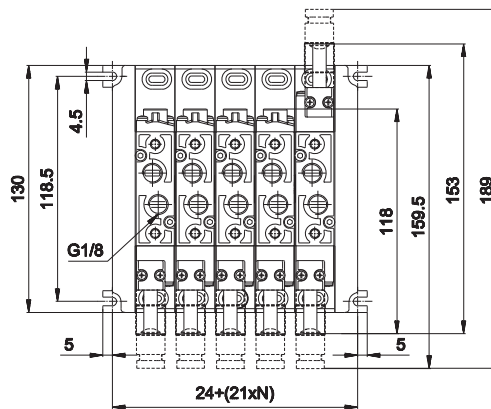
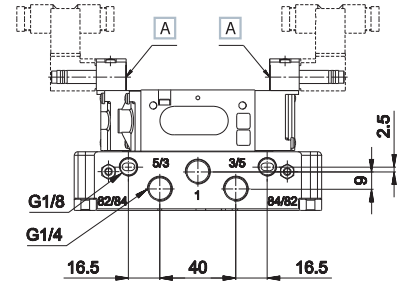
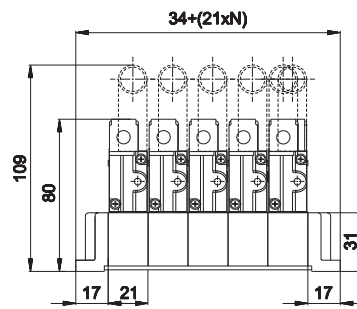


- 1 End plate
- 2 Single subbase
- 3 Modular tie-rods
- 4 Valve
- 5 Multipolar female connector
- 6 Coil with integrated connector
- 7 Bus connection card
- 8 End plate with modular connection

Tightening torque for fittings

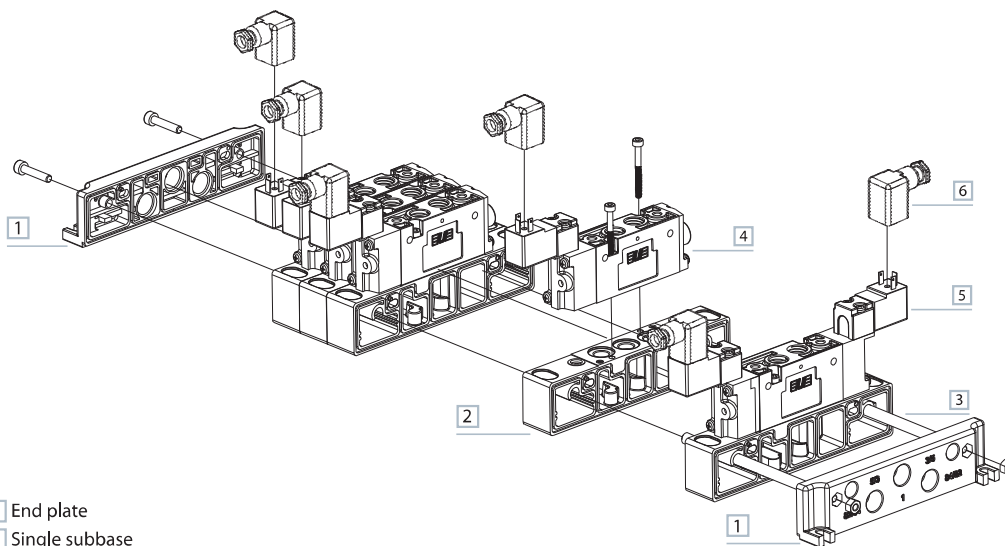
Thread	max pair (Nm)
M5	3
M7	3
G1/8	3
G1/4	10

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

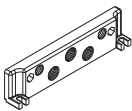


- 1 End plate
- 2 Single subbase
- 3 Modular tie-rods
- 4 Valve
- 5 Coil
- 6 Single connector

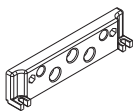
Tightening torque for fittings

Thread	max pair (Nm)
M5	3
M7	3
G1/8	3
G1/4	10

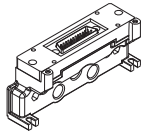
**GP-6100      GP-6110      GP-611212      GP-611806      GP-6310/1/2      GP-6320/1/2**



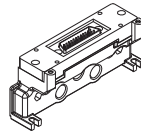
threaded end plate  
weight: 0,046 Kg



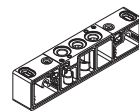
blank end plate  
weight: 0,050 Kg



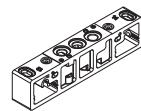
threaded end plate with male connector  
25 poles 12+12 coils  
control 12-14  
weight: 0,100 Kg



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

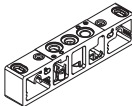


sub-base with open diaphragms  
GP-6310 without electrical connection  
GP-6311 monostable  
GP-6312 bistable  
weight: 0,060 Kg

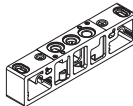


sub-base with closed diaphragms  
GP-6320 without electrical connection  
GP-6321 monostable  
GP-6322 bistable  
weight: 0,062 Kg

**GP-6330/1/2      GP-6340/1/2      GP-6380      GP-6385**



**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



**3 1 5**  
sub-base with open supply and closed exhausts  
GP-6340 without electrical connection  
GP-6341 mostable  
GP-6342 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

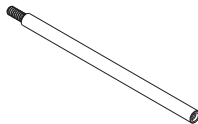
**GP-6400-1      GP-6400-2      GP-6400-5      GP-6512-01/..MF      GP-6514-01/..MF      GP-651418**



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.)



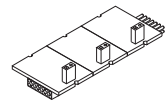
modular tie-rod  
5 valve places  
weight: 0,022 Kg  
(package 100 pcs.)



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 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)

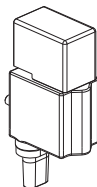
AZ4-VN0416 screw M04x16 for tie-rods (package 100 pcs.)  
AZ4-SN004A hexagonal nut M4 (package 100 pcs.)

upon request customized solutions up to 12 places

**DD-051      DD-051\*\*C**



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

# GL6

## 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



### TECHNICAL CHARACTERISTICS

Ambient temperature	-20 ÷ +50 °C			
Fluid temperature	max +50 °C			
Fluid	filtered air 50 µm not dehumidified, lubricated or not			
Commutation system	spool			
Ways/Positions	<b>5/2, 5/3, 3/2+3/2</b>			
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		<b>5/2</b>	<b>5/3</b>	<b>3/2+3/2</b>
	streight tube Ø8 mm	740	670	640
	90° tube Ø8 mm	620	550	520
	streight tube Ø6 mm	510	510	510
	90° tube Ø6 mm	370	370	370
	streight 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/U05 series	
Voltage	24 V DC standard, upon request 12 V DC	24 V AC - 110 V AC - 230 V AC (only version with external connection)
Power consumption	for direct current 2 W (2,3 VA)	
Protection degree	IP65	
Manual override	button with tool 1 position	

### CODIFICATION KEY

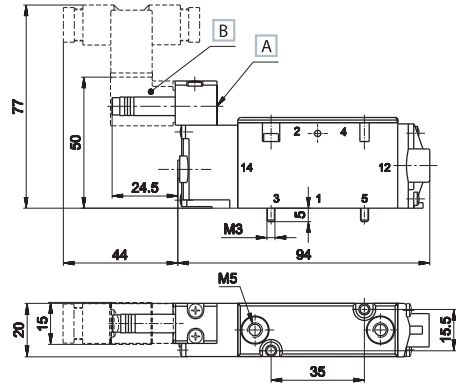
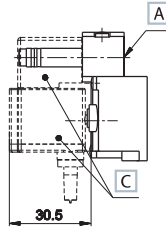
GL	6	6	4	4	D
1	2	3	4	5	

<b>1 Series</b>	<b>2 Type</b>	<b>3 Control 14</b>
<b>GL6</b> = valve body for except base assembly (coils and connectors)	<b>2</b> = 5/2 <b>3</b> = 5/3 c.c. <b>4</b> = 5/3 o.c. <b>5</b> = 5/3 p.c. <b>6</b> = 3/2+3/2 NC-NC <b>7</b> = 3/2+3/2 NC-NO <b>8</b> = 3/2+3/2 NO-NO	<b>3</b> = pneumatic amplified <b>4</b> = electrical amplified DC <b>5</b> = electrical amplified DC/AC

<b>4 Return 12</b>	<b>5 Option</b>
<b>0</b> = pneumomechanical spring <b>1</b> = mechanical spring <b>3</b> = pneumatic amplified	<b>4</b> = electrical amplified DC <b>5</b> = electrical amplified DC/AC <b>D</b> = external servoassisted pilot

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

Single electric impulse

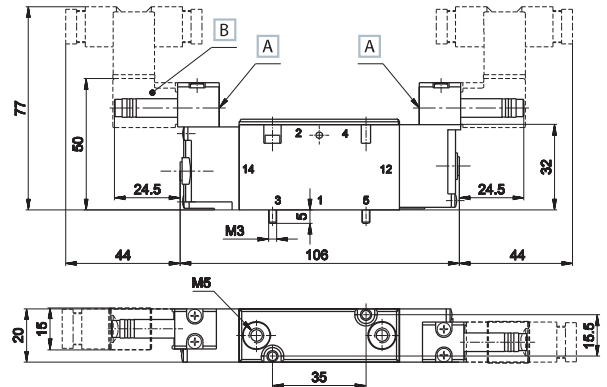
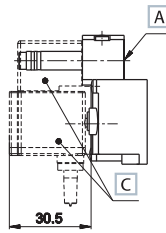


- A Manual override
- B Coil with connector for single connection
- C Coil with intergrated connector for multipolar version **DD-051\*\*C**

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

Symbol	Control	Return	Flow rate (Nl/min)	Pressure bar	Times (ms)		Weight Kg	Part no.
					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\*\*C**

- 1 = Supply port
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- 12 = Return

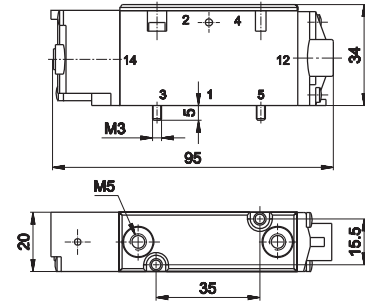
Symbol	Control	Return	Flow rate (Nl/min)	Pressure bar	Times (ms)		Weight Kg	Part no.
					En.	De-en.		
5/2	electrical amplified	electrical amplified	740	0,6÷9	16	16	0,143	GL-6244 GL-6255
5/3 c.c.	electrical amplified	electrical amplified	670	1,5÷9	16	47	0,148	GL-6344 GL-6355
5/3 o.c.	electrical amplified	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



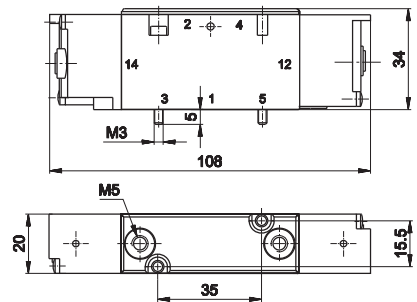
Single pneumatic impulse



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

	Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Times (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

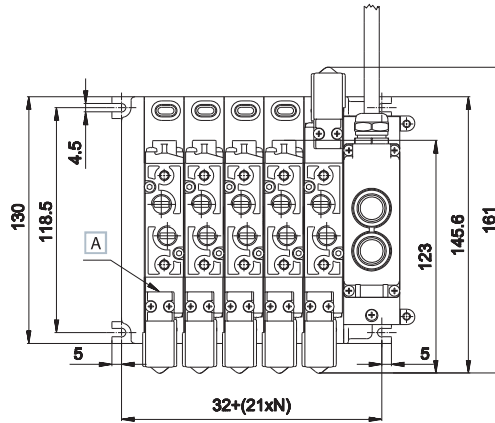
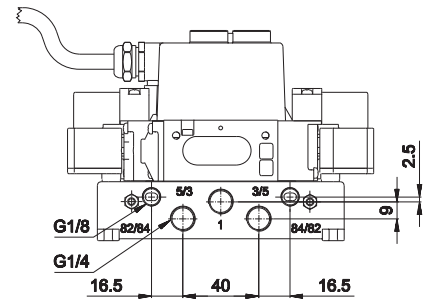
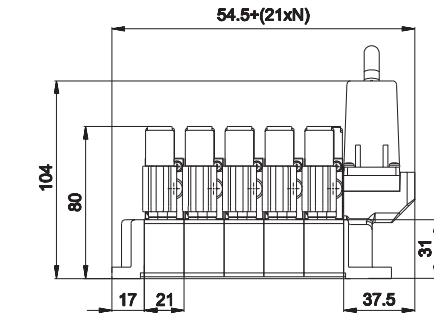


1 = Supply port      14 = Control  
 2 - 4 = Use          12 = Return  
 3 - 5 = Exhaust

	Symbol	Control	Return	Flow rate (NI/min)	Pressure bar	Times (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

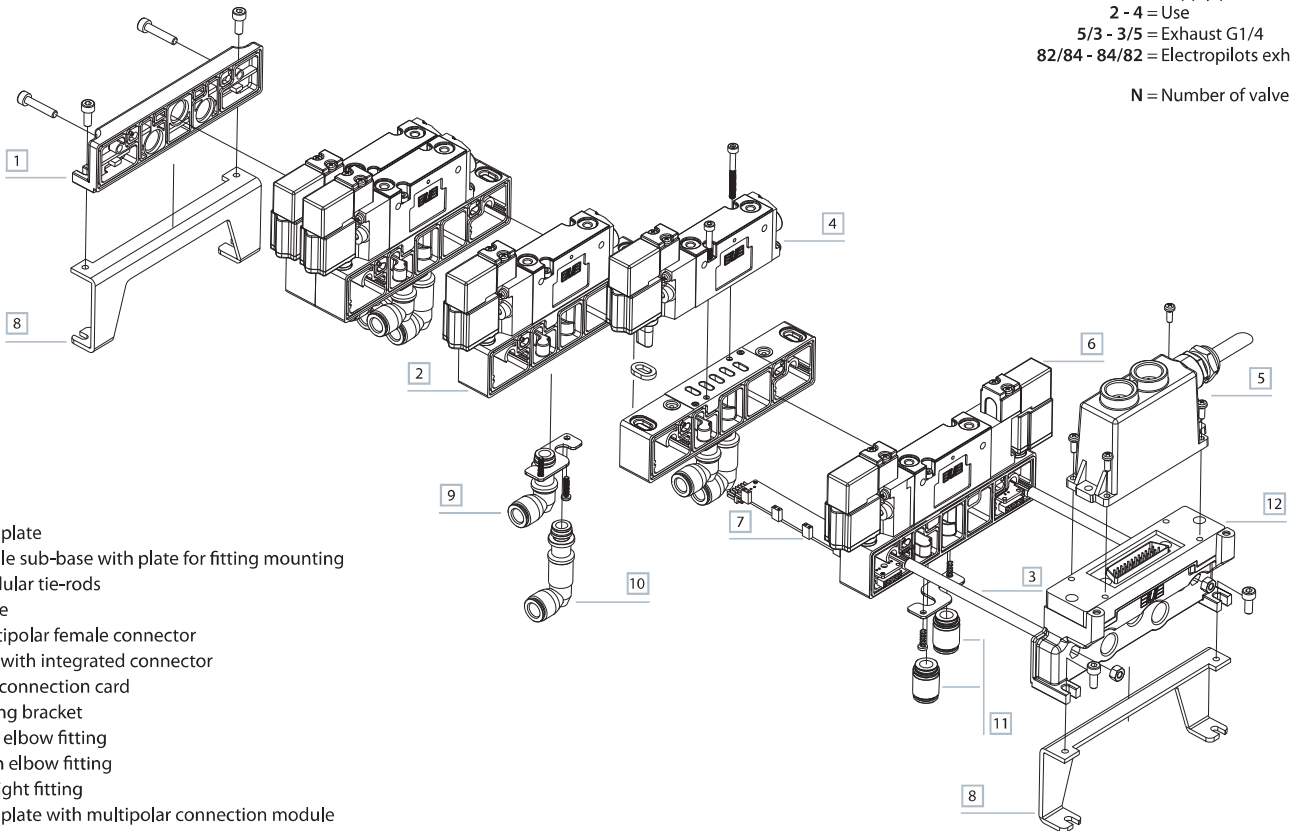
Multipolar electrical connection



A Manual override

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

N = Number of valve positions

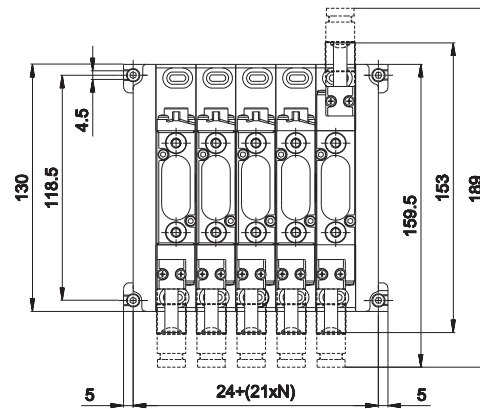
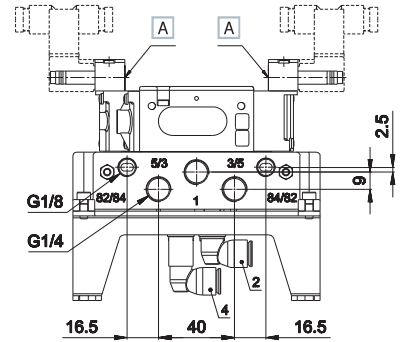
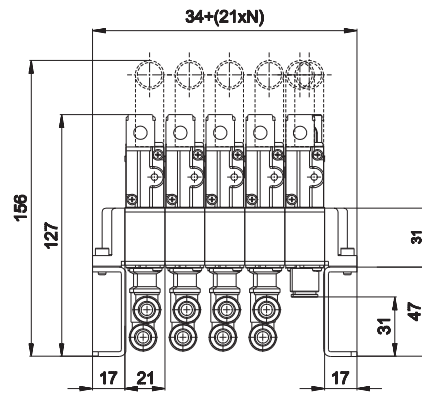


- 1 End plate
- 2 Single sub-base with plate for fitting mounting
- 3 Modular tie-rods
- 4 Valve
- 5 Multipolar female connector
- 6 Coil with integrated connector
- 7 Bus connection card
- 8 Lifting bracket
- 9 Low elbow fitting
- 10 High elbow fitting
- 11 Straight fitting
- 12 End plate with multipolar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

Tightening torque for fittings

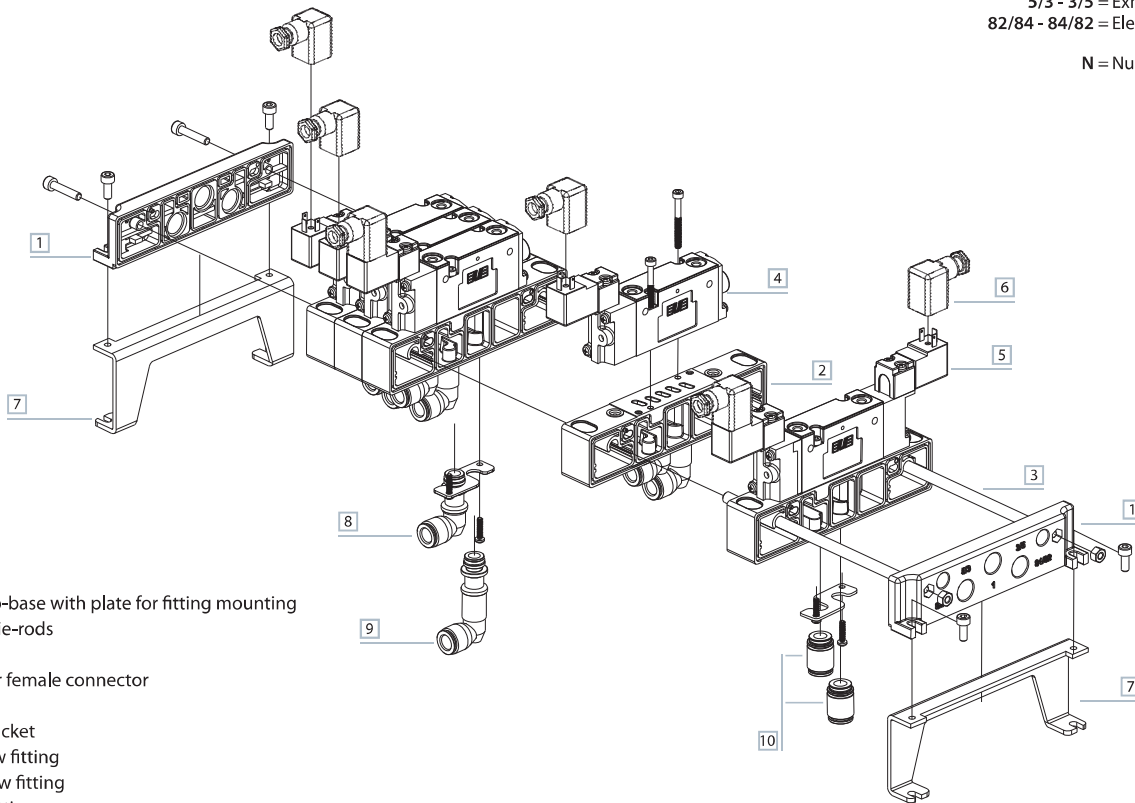
Thread	max pair (Nm)
M5	3
M7	3
G1/8	3
G1/4	10

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



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

Coppia di serraggio raccordi

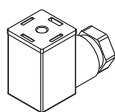
Thread	max pair (Nm)
M5	3
M7	3
G1/8	3
G1/4	10

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-6310 without electrical connection GP-6311 monostable GP-6312 bistable weight: 0,060 Kg	sub-base with closed diaphragms GP-6320 without electrical connection GP-6321 monostable GP-6322 bistable weight: 0,062 Kg
GP-6230/1/2	GP-6240/1/2	GP-6380	GP-6385	GP-6411	
sub-base with closed supply and open exhausts GP-6330 without electrical connection GP-6331 mostable GP-6332 bistable weight: 0,062 Kg	sub-base with open supply and closed exhausts GP-6340 without electrical connection GP-6341 mostable GP-6342 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-051	DD-051**C				
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				

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

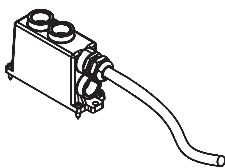
Electrical connections

AM-5109



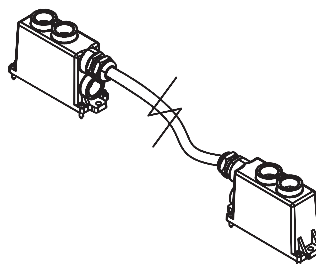
■ 15 mm connector

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

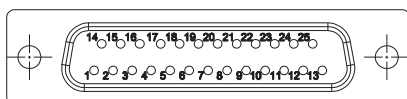
TSCF16D0300  
TSCF16D0500  
TSCF16D1000



■ flying male/female connector sub D according to CEI 20-22 O.R. II (upon request) prewired for 24 coils with cable Ø8 mm of 3-5-10 m length suitable for mobile laying 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-11212	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		-	-	-
25	white-black	24	12	14	12

