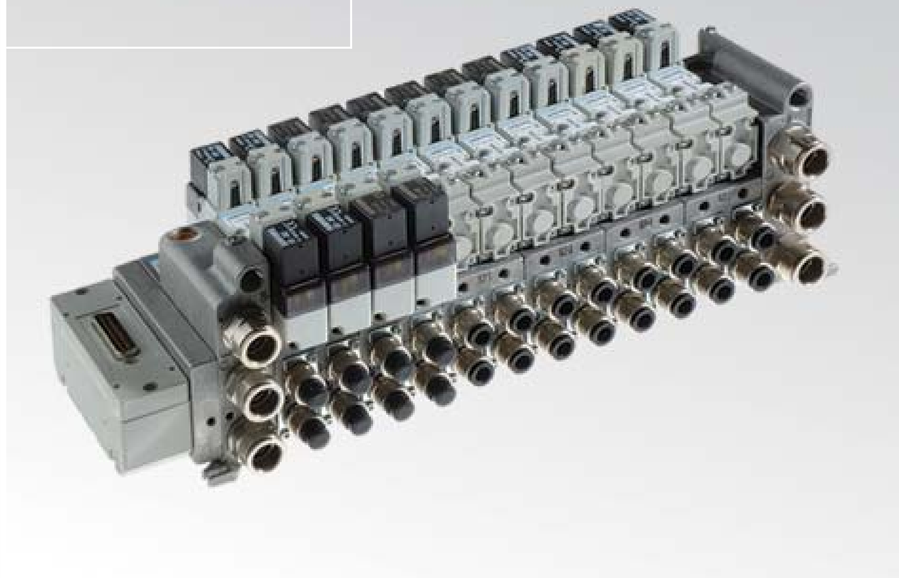
GRANZOW®

BD

ISO 15407-1/2 (VDMA 24563)
ISO 02 (18 mm) - ISO 01 (26 mm) Valves

BDE = solenoid valves ISO 15407/2 with integrated electric connection including 24 V DC coils and connector
BDB = solenoid valves ISO 15407/1 with external electric connection with M12 connector including 24 V DC coils and connector
BDA = valves and solenoid valves ISO 15407/1 (without coils and connectors to be ordered separately)

- TC - TX Serial communication system available for BDE series
- Modular sub-base ISO-VDMA
- Sub-base with increased capacity



TECHNICAL CHARACTERISTICS

Ambient temperature	-20 ÷ +50 °C
Fluid temperature	max +50 °C
Fluid	50 µm filtered and not dehumidified air, lubricated or not
Commutation system	spool
Ways/Positions	**3/2+3/2, 5/2, 5/3**
Pressure	**electric control** = 9 bar max
	pneumatic control = 10 bar max
Control	indirect electro - pneumatic, pneumatic
Return	mechanical spring, pneumomechanical spring
Nominal Ø (mm)	**18 mm** = 6 , **26 mm** = 8

Nominal flow rate (Nl/min) for valves and solenoid valves side18 mm

Sub-base in die-cast aluminium according to standard

	VDMA-ISO			Oversize		
Fittings:	**Ø4**	**Ø6**	**Ø8**	**Ø4**	**Ø6**	**Ø8**
5/2	200	440	620	200	480	800
5/3	200	440	580	200	460	720
3/2+3/2	200	440	600	200	460	720

Nominal flow rate (Nl/min) for valves and solenoid valves side 26 (b)

Sub-base in die-cast aluminium according to standard

	VDMA-ISO				Oversize			
Fittings:	**Ø6**	**Ø8**	**Ø10**	**Ø12(c)**	**Ø6**	**Ø8**	**Ø10**	**Ø12(c)**
5/2	500	950	1200	1250	500	1050	1500	1700
5/3	500	900	1100	1150	500	1050	1300	1400
3/2+3/2	500	950	1150	1250	500	1050	1450	1650

(a) = manifold sub-base 2 valve places and end plates with side connections in aluminium and fixing plate for fittings standard supplied with sub-base.
(b) = manifold sub-base 1 valve place and end plates with side connections in aluminium and fixing plate for fittings standard supplied with sub-base.
(c) = the external Ø of the G 3/8 fitting for tube Ø12 mm must not exceed 20 mm

CONSTRUCTIVE CHARACTERISTICS

Body valve	acetalic resin
Cover	zamak
Seals	nitrile rubber
Sub-base	die-cast alluminium
Actuators	technopolymer
Spool	aluminium

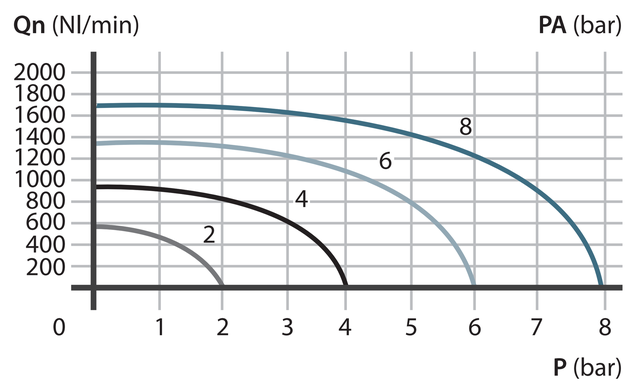
ELECTRIC CHARACTERISTICS

Electropilot	DD series (U05)
Voltage	24 V DC (± 10%), 12 V DC upon request
Power consumption	2 W
Protection degree	IP65
Manual override	with button with tool 1 position

Flow rate characteristics

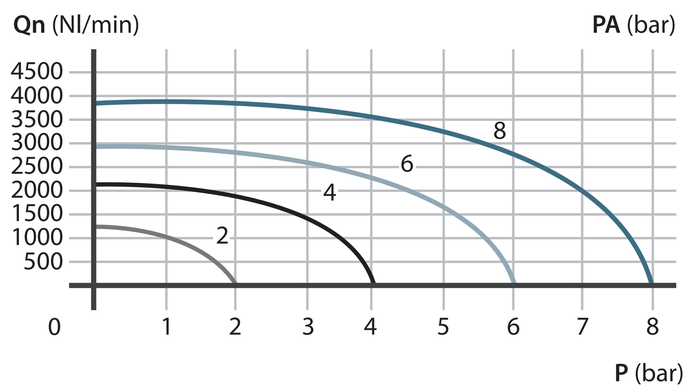
>> Valves and solenoid valves side **18 mm**

5/2 Oversize sub-base for Ø8 mm tube



>> Valves and solenoid valves side **26 mm**

5/2 Increased sub-base for Ø12 mm tube



P = Working pressure
PA = Supply pressure
Qn = Nominal flow rate

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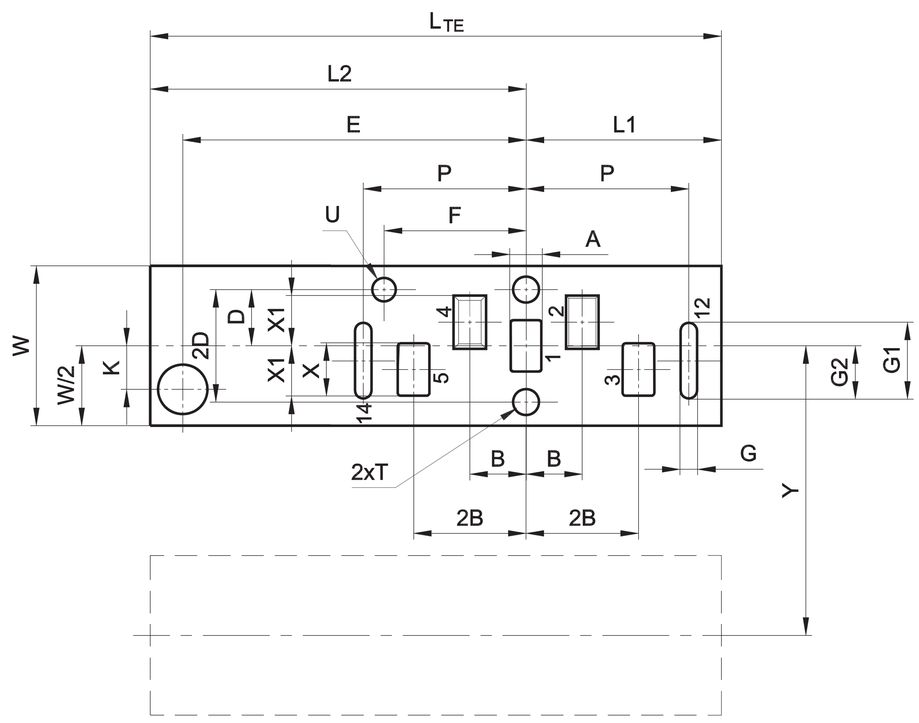
ISO 15407 specifications

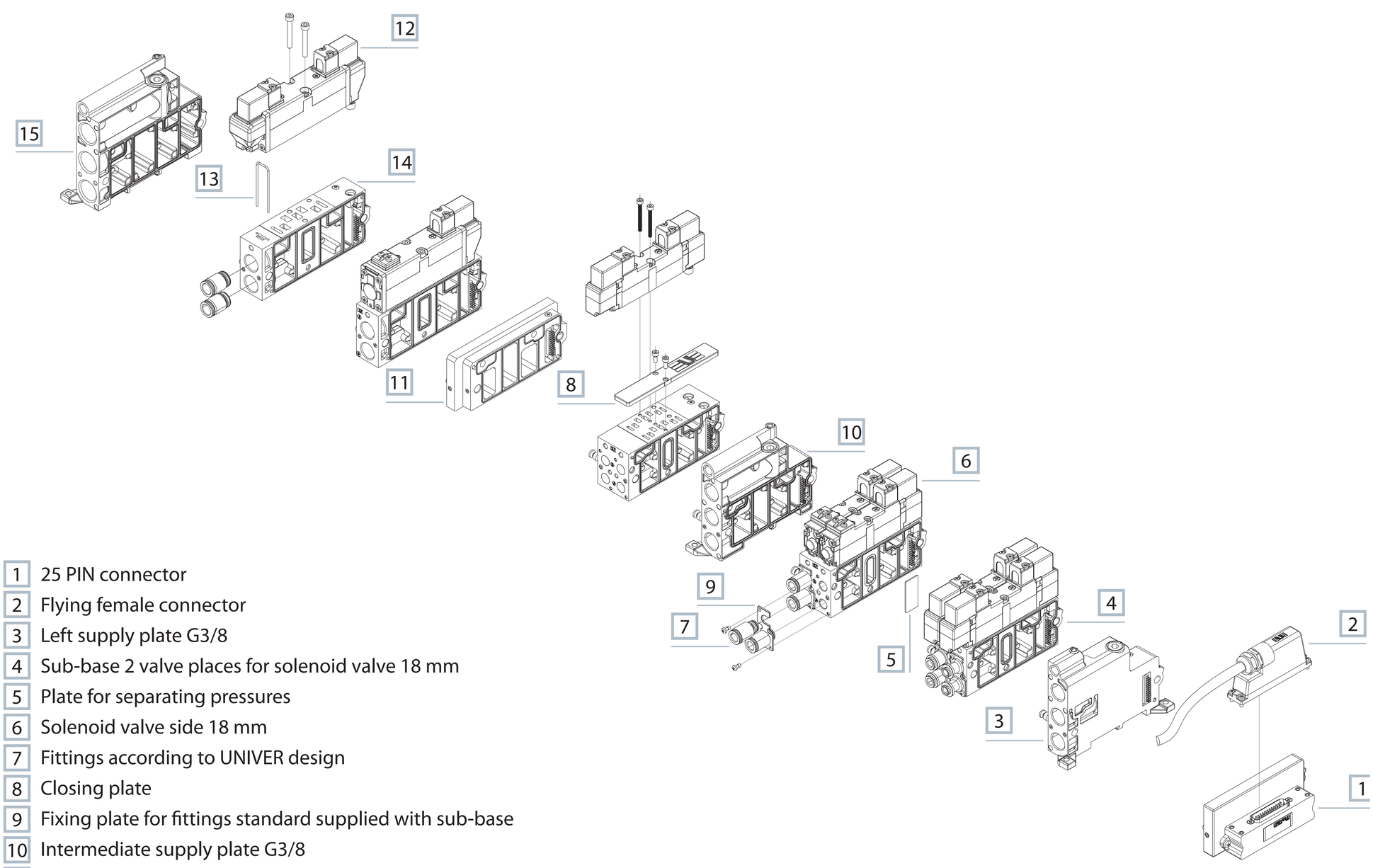
They establish the dimensions of the bearing surface and the minimum distance between two valve places, guaranteeing the interchangeability and possibility to include any valve providing it complies with above specifications.

>> Dimensioning of the bearing surface according to ISO 15407-1/2 specification with integrated electric connector



Y = Min. distance between two interface axes of the same dimension mounting on the same manifolds
U = Position bore, depth **V**

	A	B	D	E	F	G	G1	G2	K	L1	L2	LTE	P	T	U	V	W	X	X1	Y
										min.	min.	min.					min.			
18 mm	3,5	7	6,25	50	17	2	8	6	3,35	25	55,5	80,5	20	M3	3,2	4	18	6,5	5,25	19
26 mm	5,5	9,5	9,5	58	24	3	13	9	7,35	33	63,5	96,5	27,5	M4	3,2	4	26	9	8,5	27



1 25 PIN connector
2 Flying female connector
3 Left supply plate G3/8
4 Sub-base 2 valve places for solenoid valve 18 mm
5 Plate for separating pressures
6 Solenoid valve side 18 mm
7 Fittings according to UNIVER design
8 Closing plate
9 Fixing plate for fittings standard supplied with sub-base
10 Intermediate supply plate G3/8
11 Interface for connecting valves side 18/26 mm
12 Solenoid valve side 26 mm
13 Clamping fork for fittings
14 Sub-base 1 valve place for solenoid valve 26 mm
15 Right supply plate G1/2

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Codification key

B	D	_	3	3	4	4	2	4	D
1			2	3	4	5	6		7

1 Series

BDE = solenoid valves with integrated electric connection 24 V DC (including coil and connector)
BDB = solenoid valves with integrated electric connection 24 V DC, with M12 connector (including coil and connector)

2 Size

3 = side 18 mm
4 = side 26 mm

3 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

4 Control 14

4 = electric amplified

5 Return 12

0 = pneumomechanical spring
1 = mechanical spring
4 = electric amplified
7 = electric not amplified

6 Coil voltage

24 = 24 V DC (standard)
12 = 12 V DC (upon request)

7 Options

D = externally servoassisted electropilot

B	D	A	3	3	4	4	D
1			2	3	4	5	6

1 Series

BDA = valves and solenoid valves (without coil and connectors to be ordered separately)

2 Size

3 = side 18 mm
4 = side 26 mm

3 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

4 Control 14

3 = pneumatic amplified
4 = electric amplified only DC
5 = electric amplified DC and AC

5 Return 12

0 = pneumomechanical spring
1 = mechanical spring
2 = pneumatic not amplified
3 = pneumatic amplified
4 = electric amplified only direct current
5 = electric amplified direct and alternating current
7 = electric non amplified only direct current
8 = electric non amplified direct and alternating current

6 Options

D = externally servoassisted electropilot

>> Coils U05 side15 mm

Part no.	Nominal voltage		Frequency	Power consumption			
				CCW		CA	VA
	DC v	AC v	HZ	rating	start	rating	start
DD-040	-	24	50/60	-	-	2,3	3,2
DD-042	12	-	-	2,5	2,5	-	-
DD-050	-	48	50/60	-	-	2,3	3,2
DD-051	24	-	-	2	2	-	-
DD-052	24	-	-	2,5	2,5	-	-
DD-060	-	110	50/60	-	-	3,5	3,2
DD-070	-	230	50/60	-	-	2,3	3,2

LED connector AM-5109/AM5105 24V DC 50/60 Hz
It can rotate by 180° on the coil - IP65 - cable connection PG9

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

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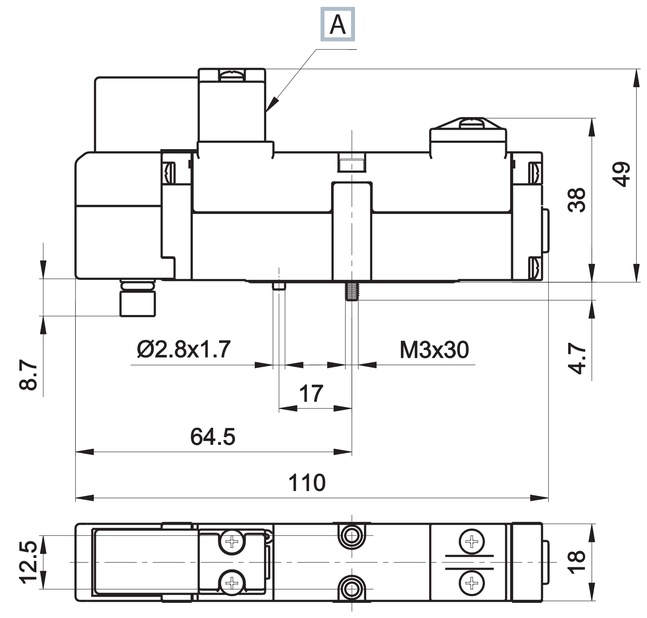
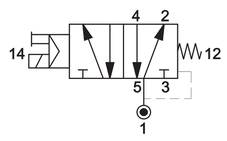
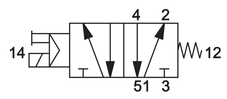
Single **electric** impulse**18 mm**

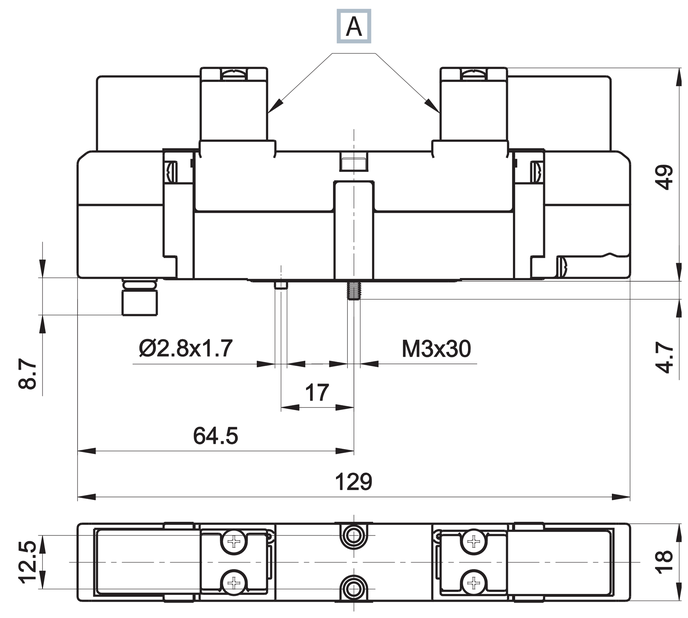


A Manual override

Weight (Kg): 0,112

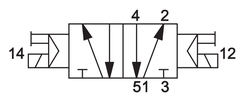
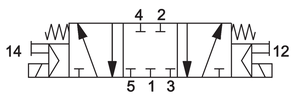
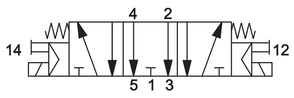
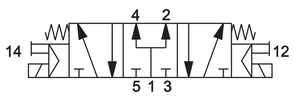
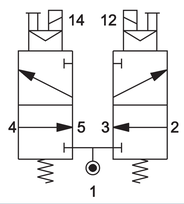
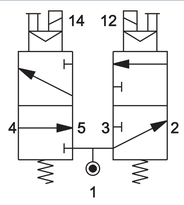
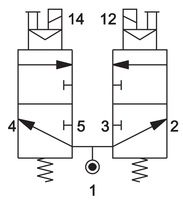
	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	pneumo mechanical spring	1,8÷9	15	25	**BDE-324024**
5/2		electric amplified	mechanical spring	2,5÷9	14	37	**BDE-324124**

Double **electric** impulse **18 mm**



A Manual override

Weight (Kg): 0,131

	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	electric amplified	0,8÷9	16	16	**BDE-324424**
5/3 c.c.		electric amplified	electric amplified	2,1÷9	14	31	**BDE-334424**
5/3 o.c.		electric amplified	electric amplified	2,1÷9	14	31	**BDE-344424**
5/3 p.c.		electric amplified	electric amplified	2,1÷9	31	14	**BDE-354424**
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,8÷9	17	22	**BDE-364424**
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,8÷9	17	22	**BDE-374424**
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,8÷9	17	22	**BDE-384424**

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

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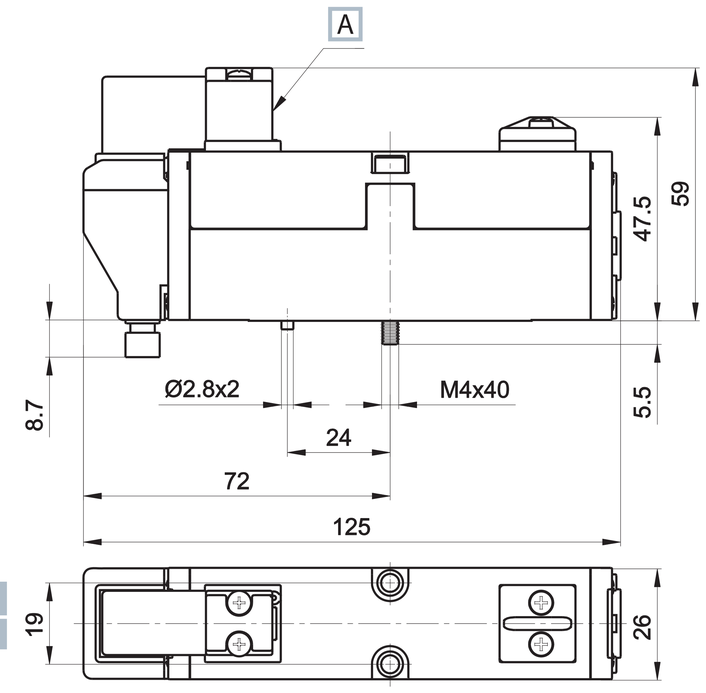
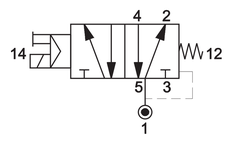
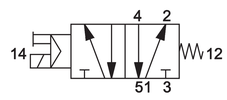
Single **electric** impulse **26 mm**

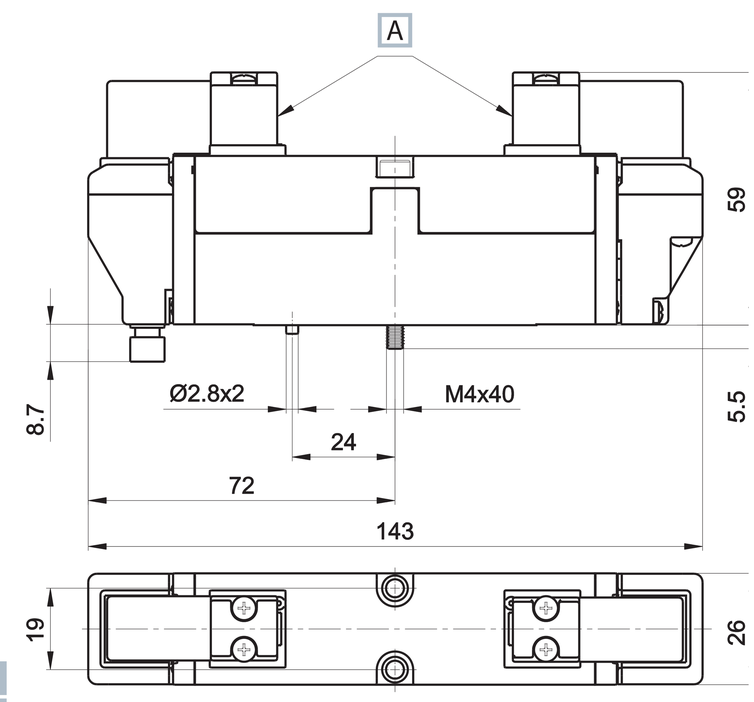


A Manual override

Weight (Kg): 0,205

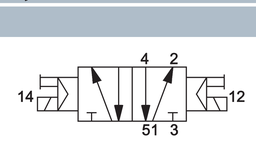
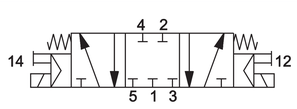
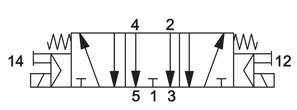
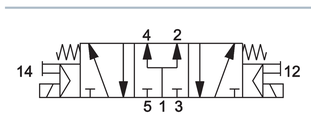
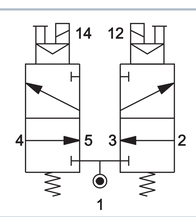
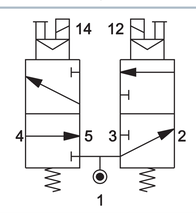
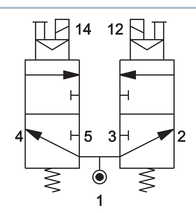
	Symbol	Control	Return	Pressure bar	Time (ms) En	Time (ms) De-en.	Part no.
5/2		electric amplified	pneumo mechanical spring	1,8÷9	21	40	**BDE-424024**
5/2		electric amplified	mechanical spring	2,5÷9	20	50	**BDE-424124**

Double **electric** impulse **26 mm**



A Manual override

Weight (Kg): 0,232

	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	electric amplified	0,8÷9	17	17	**BDE-424424**
5/3 c.c.		electric amplified	electric amplified	2,1÷9	16	54	**BDE-434424**
5/3 o.c.		electric amplified	electric amplified	2,1÷9	16	54	**BDE-444424**
5/3 p.c.		electric amplified	electric amplified	2,1÷9	63	16	**BDE-454424**
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,8÷9	20	27	**BDE-464424**
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,8÷9	20	27	**BDE-474424**
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,8÷9	20	27	**BDE-484424**

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

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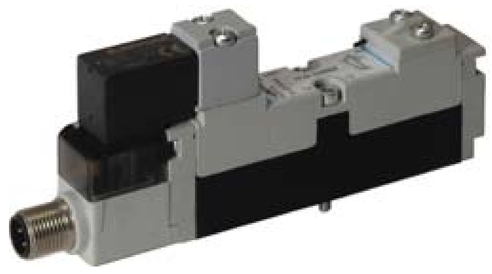
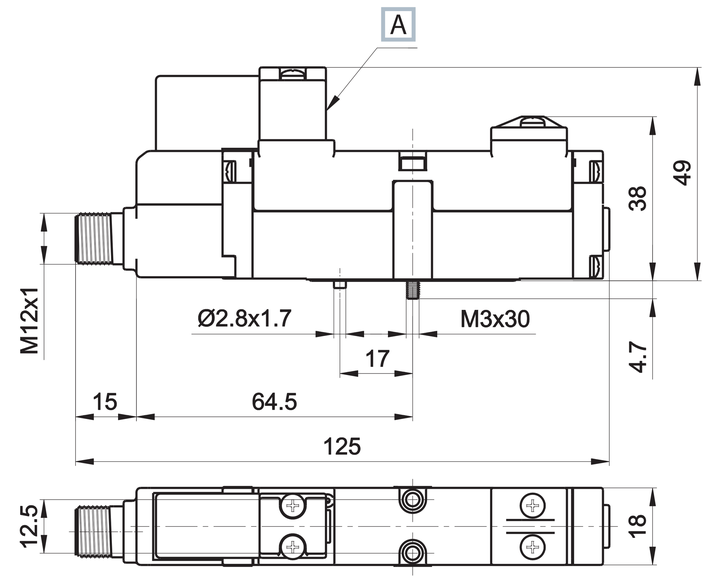
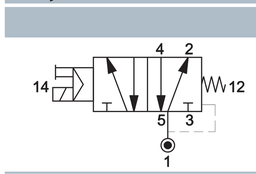
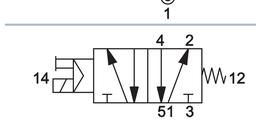
Single **electric** impulse**18 mm**



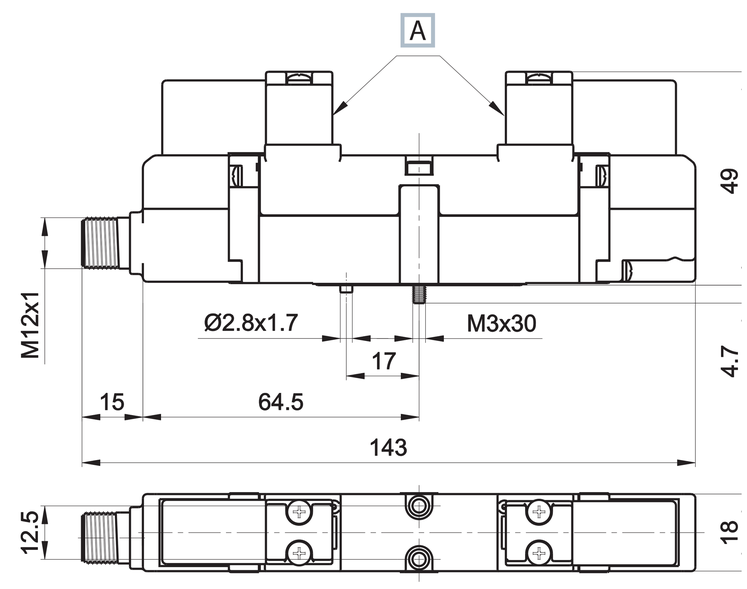


Weight (Kg): 0,117

A Manual override

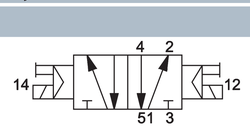
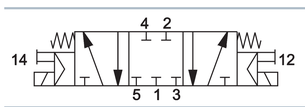
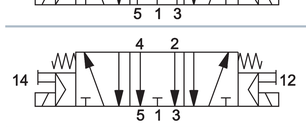
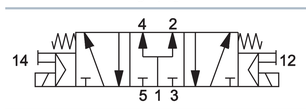
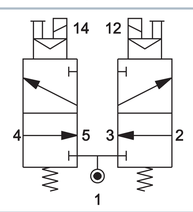
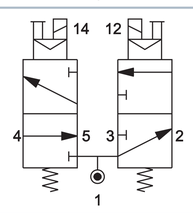
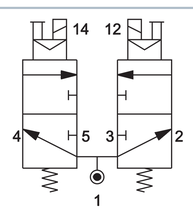
	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	pneumo mechanical spring	1,8÷9	15	25	**BDB-324024**
5/2		electric amplified	mechanical spring	2,5÷9	14	37	**BDB-324124**

Double **electric** impulse**18 mm**



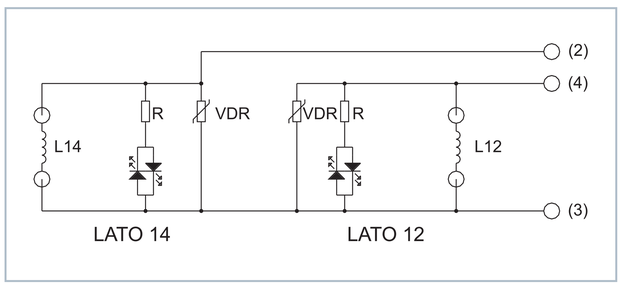
Weight (Kg): 0,136

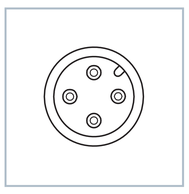
A Manual override

	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	electric amplified	0,8÷9	16	16	**BDB-324424**
5/3 c.c.		electric amplified	electric amplified	2,1÷9	14	31	**BDB-334424**
5/3 o.c.		electric amplified	electric amplified	2,1÷9	14	31	**BDB-344424**
5/3 p.c.		electric amplified	electric amplified	2,1÷9	31	14	**BDB-354424**
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,8÷9	17	22	**BDB-364424**
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,8÷9	17	22	**BDB-374424**
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,8÷9	17	22	**BDB-384424**

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

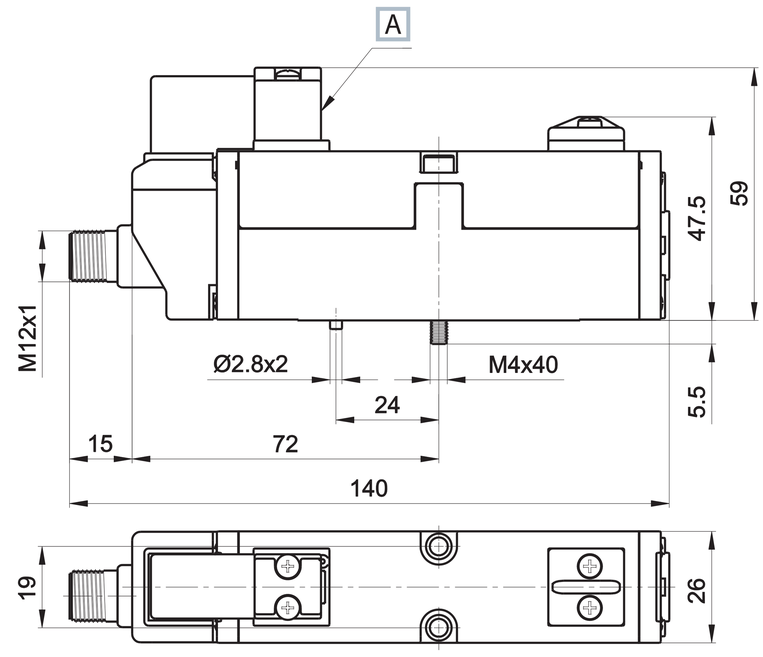
ELECTRIC FEATURES
Central electric connector M12x1
IP 65 protection degree
24 V DC voltage
2,5 W nominal power
DD-052** series coil (without faston)
ED 100%
LED indicator
Available upon request other voltages
max 48V DC





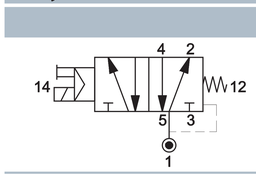
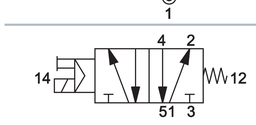
GRANZOW®

Single **electric** impulse **26 mm**

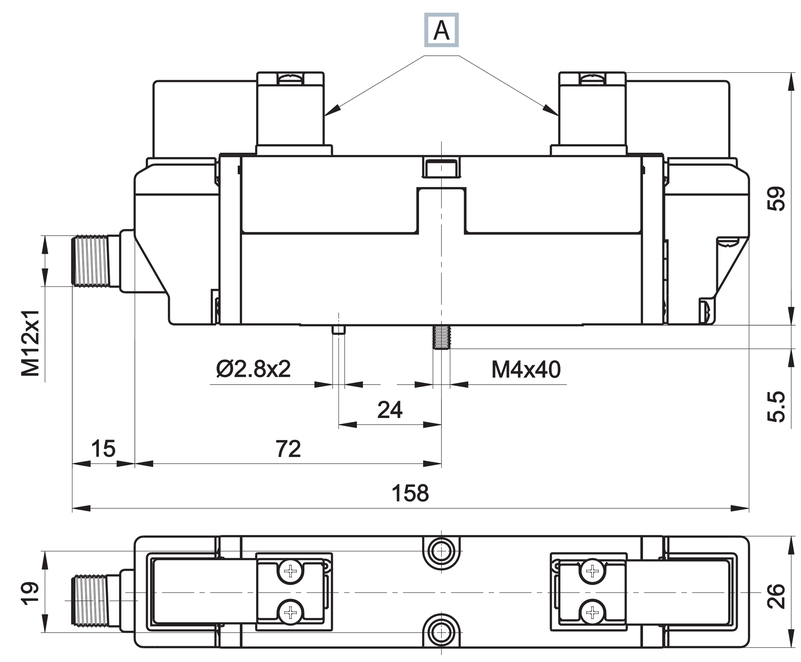


Weight (Kg):	0,205

A Manual override

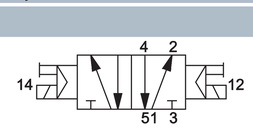
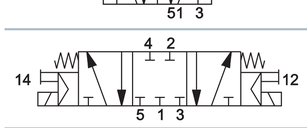
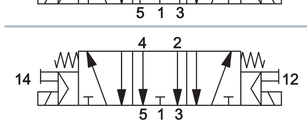
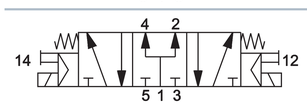
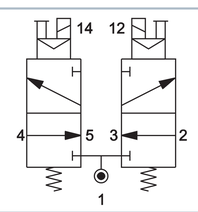
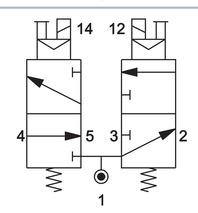
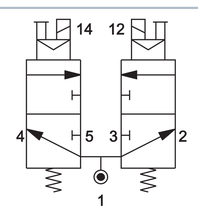
	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	molla pneumo mechanical	1,8÷9	21	40	**BDB-424024**
5/2		electric amplified	molla mechanical	2,5÷9	20	50	**BDB-424124**

Double **electric** impulse **26 mm**



Weight (Kg):	0,236

A Manual override

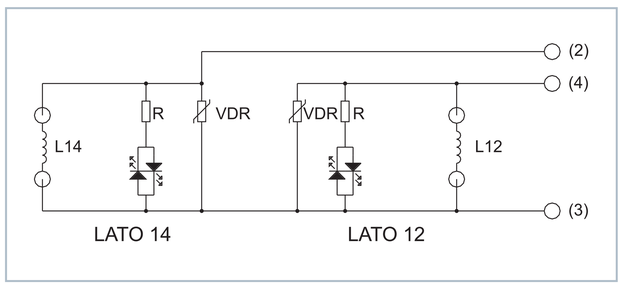
	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	electric amplified	2,5÷9	17	17	**BDB-424424**
5/3 c.c.		electric amplified	electric amplified	2,1÷9	16	54	**BDB-434424**
5/3 o.c.		electric amplified	electric amplified	2,1÷9	16	54	**BDB-444424**
5/3 p.c.		electric amplified	electric amplified	2,1÷9	63	16	**BDB-454424**
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,8÷9	20	27	**BDB-464424**
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,8÷9	20	27	**BDB-474424**
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,8÷9	20	27	**BDB-484424**

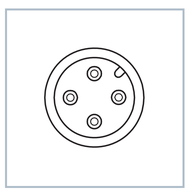
o.c. = open centres **c.c.** = closed centres **p.c.** = pressurize centres

ELECTRIC FEATURES

- Central electric connector M12x1
- IP 65 protection degree
- 24 V DC voltage
- 2,5 W nominal power
- DD-052** series coil (without faston)
- ED 100%
- LED indicator

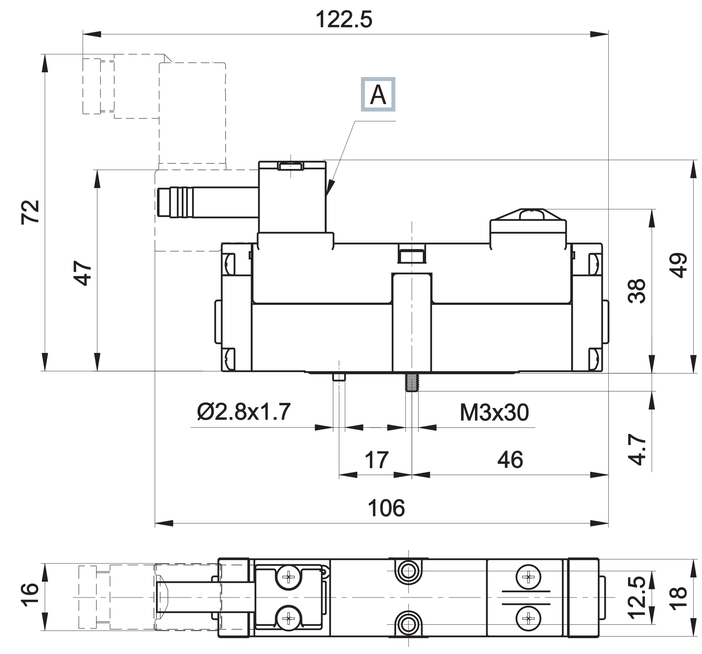
Available upon request other voltages max 48V DC





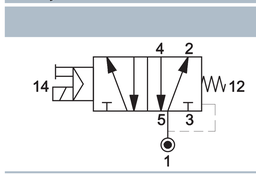
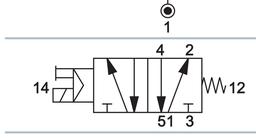
GRANZOW®

Single **electric** impulse**18 mm**

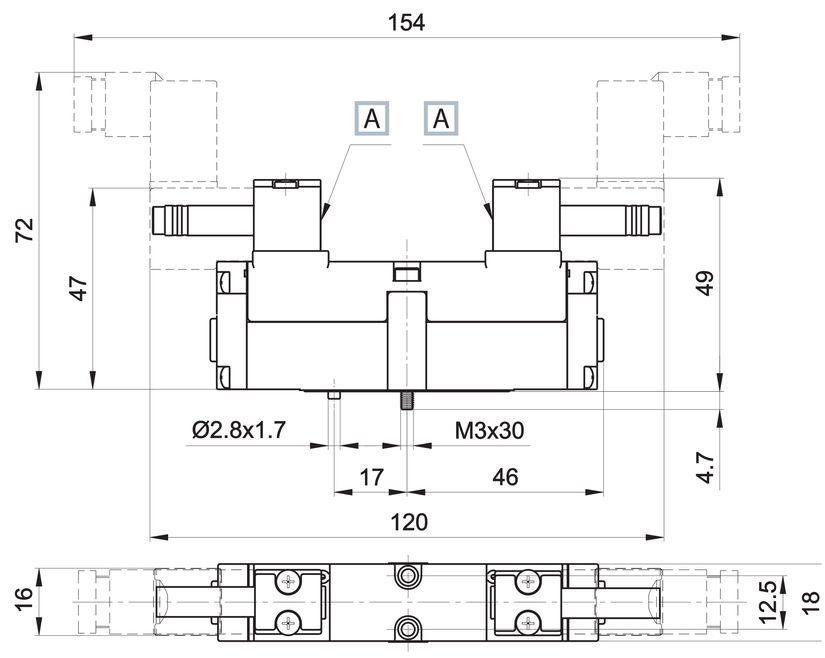


A Manual override

Weight (Kg): 0,107

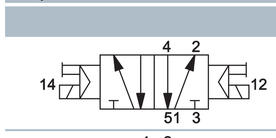
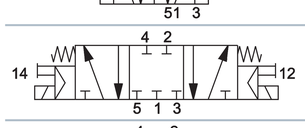
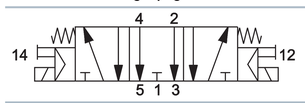
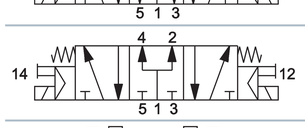
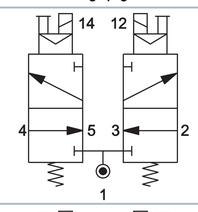
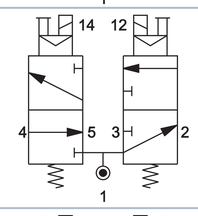
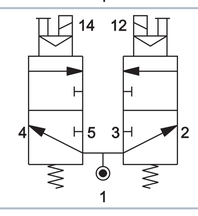
	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	pneumo mechanical spring	1,8÷9	15	25	**BDA-3240**
5/2		electric amplified	mechanical spring	2,5÷9	14	37	**BDA-3241**

Double **electric** impulse**18 mm**



A Manual override

Weight (Kg): 0,123

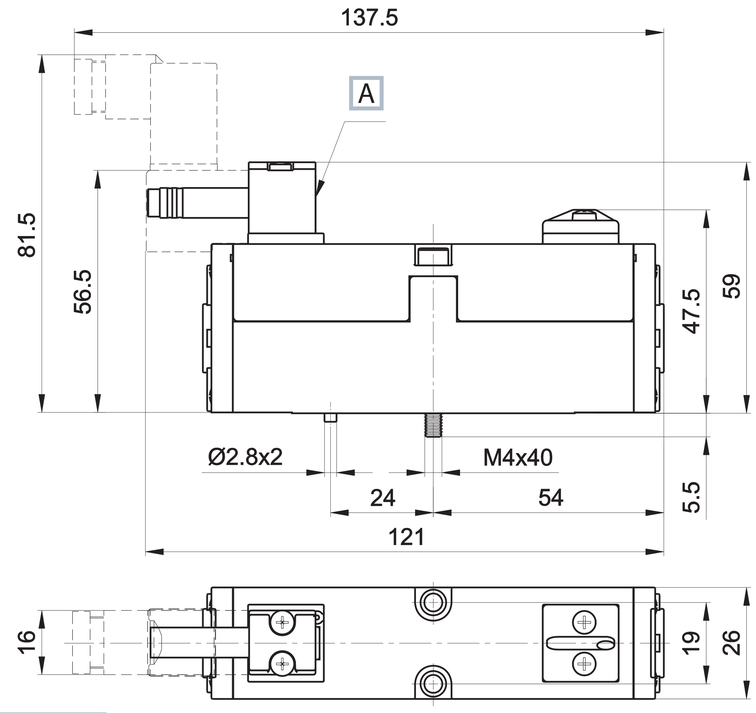
	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	electric amplified	0,8÷9	16	16	**BDA-3244**
5/3 c.c.		electric amplified	electric amplified	2,1÷9	14	31	**BDA-3344**
5/3 o.c.		electric amplified	electric amplified	2,1÷9	14	31	**BDA-3444**
5/3 p.c.		electric amplified	electric amplified	2,1÷9	31	14	**BDA-3544**
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,8÷9	17	22	**BDA-3644**
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,8÷9	17	22	**BDA-3744**
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,8÷9	17	22	**BDA-3844**

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

BDA solenoid valves are supplied without coils and connectors

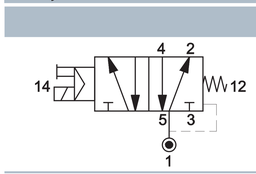
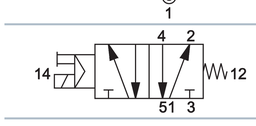
GRANZOW®

Single **electric** impulse **26 mm**

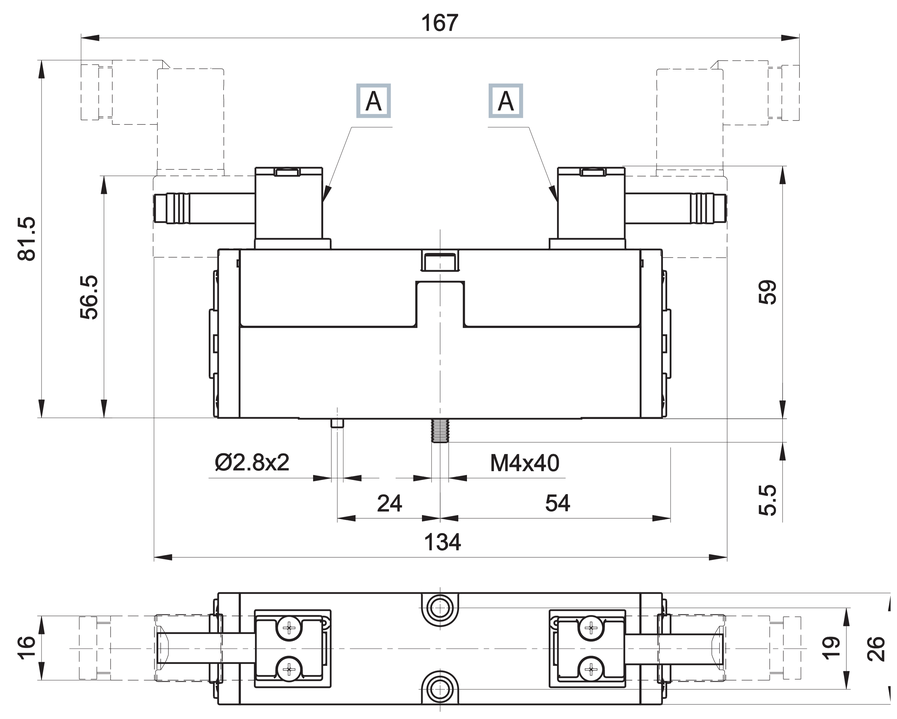


A Manual override

Weight (Kg): 0,197

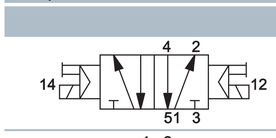
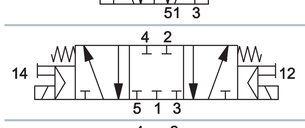
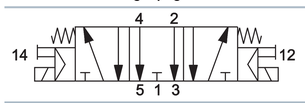
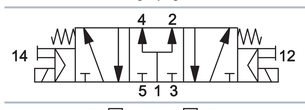
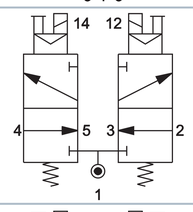
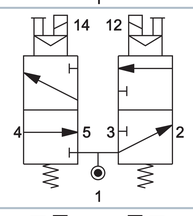
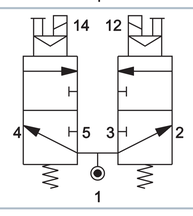
	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	pneumo mechanical spring	1,8÷9	21	40	**BDA-4240**
5/2		electric amplified	mechanical spring	2,5÷9	20	50	**BDA-4241**

Double **electric** impulse **26 mm**



A Manual override

Weight (Kg): 0,218

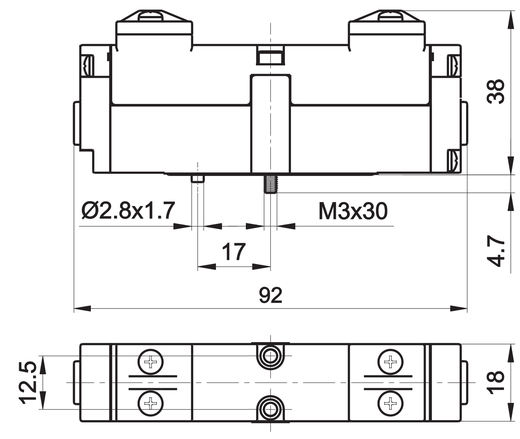
	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		electric amplified	electric amplified	1,2÷9	17	17	**BDA-4244**
5/3 c.c.		electric amplified	electric amplified	2,1÷9	16	54	**BDA-4344**
5/3 o.c.		electric amplified	electric amplified	2,1÷9	16	54	**BDA-4444**
5/3 p.c.		electric amplified	electric amplified	2,1÷9	63	16	**BDA-4544**
3/2 NC + 3/2 NC		electric amplified	electric amplified	1,8÷9	20	27	**BDA-4644**
3/2 NC + 3/2 NO		electric amplified	electric amplified	1,8÷9	20	27	**BDA-4744**
3/2 NO + 3/2 NO		electric amplified	electric amplified	1,8÷9	20	27	**BDA-4844**

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

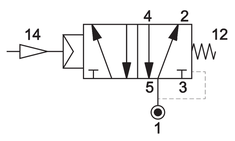
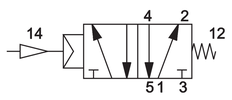
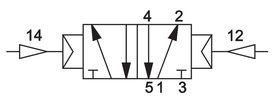
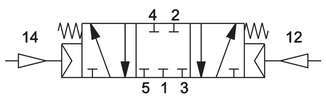
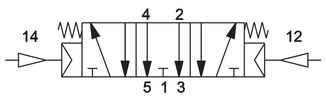
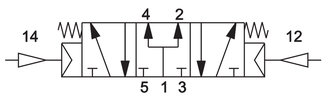
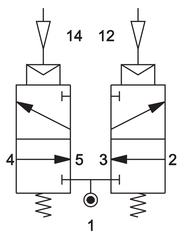
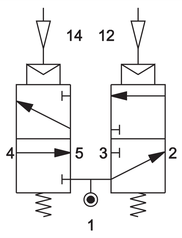
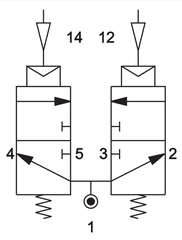
BDA solenoid valves are supplied without coils and connectors

GRANZOW®

Single/double **pneumatic** impulse **18 mm**



Weight (Kg): 0,092/0,098

	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		pneumatic amplified	pneumo mechanical spring	1,8÷10	13	30	**BDA-3230**
5/2		pneumatic amplified	mechanical spring	2,5÷10	11	35	**BDA-3231**
5/2		pneumatic amplified	pneumatic amplified	0,8÷10	8	8	**BDA-3233**
5/3 c.c.		pneumatic amplified	pneumatic amplified	2,1÷10	9	15	**BDA-3333**
5/3 o.c.		pneumatic amplified	pneumatic amplified	2,1÷10	9	15	**BDA-3433**
5/3 p.c.		pneumatic amplified	pneumatic amplified	2,1÷10	9	15	**BDA-3533**
3/2 NC + 3/2 NC		pneumatic amplified	pneumatic amplified	1,8÷10	5	14	**BDA-3633**
3/2 NC + 3/2 NO		pneumatic amplified	pneumatic amplified	1,8÷10	5	14	**BDA-3733**
3/2 NO + 3/2 NO		pneumatic amplified	pneumatic amplified	1,8÷10	5	14	**BDA-3833**

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

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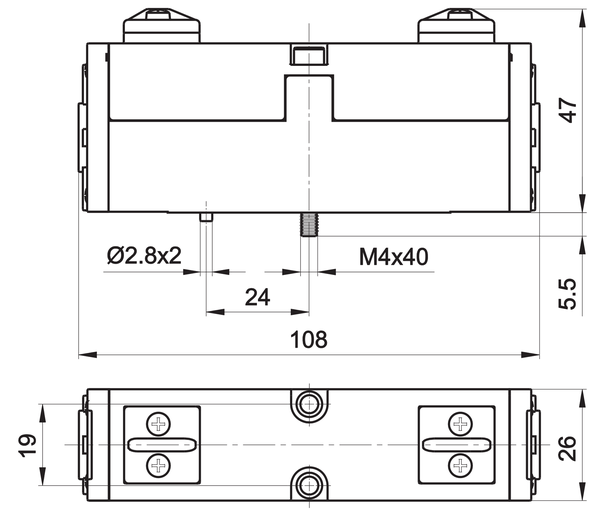
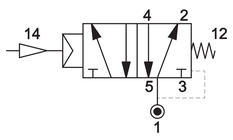
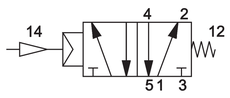
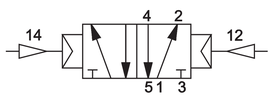
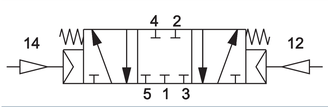
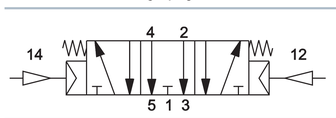
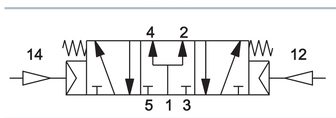
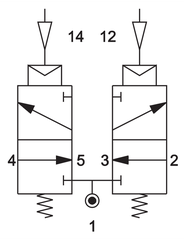
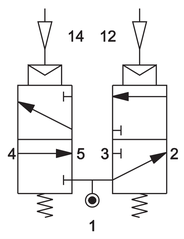
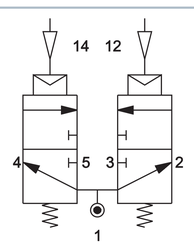
Single/double **pneumatic** impulse **26 mm**



Weight (Kg): 0,185/0,204

	Symbol	Control	Return	Pressure bar	Time (ms) En.	Time (ms) De-en.	Part no.
5/2		pneumatic amplified	pneumo mechanical spring	1,8÷10	15	33	**BDA-4230**
5/2		pneumatic amplified	mechanical spring	2,5÷10	13	38	**BDA-4231**
5/2		pneumatic amplified	pneumatic amplified	1,2÷10	10	10	**BDA-4233**
5/3 c.c.		pneumatic amplified	pneumatic amplified	1,2÷10	14	18	**BDA-4333**
5/3 o.c.		pneumatic amplified	pneumatic amplified	1,2÷10	14	18	**BDA-4433**
5/3 p.c.		pneumatic amplified	pneumatic amplified	1,2÷10	14	18	**BDA-4533**
3/2 NC + 3/2 NC		pneumatic amplified	pneumatic amplified	1,8÷10	8	14	**BDA-4633**
3/2 NC + 3/2 NO		pneumatic amplified	pneumatic amplified	1,8÷10	8	14	**BDA-4733**
3/2 NO + 3/2 NO		pneumatic amplified	pneumatic amplified	1,8÷10	8	14	**BDA-4833**

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

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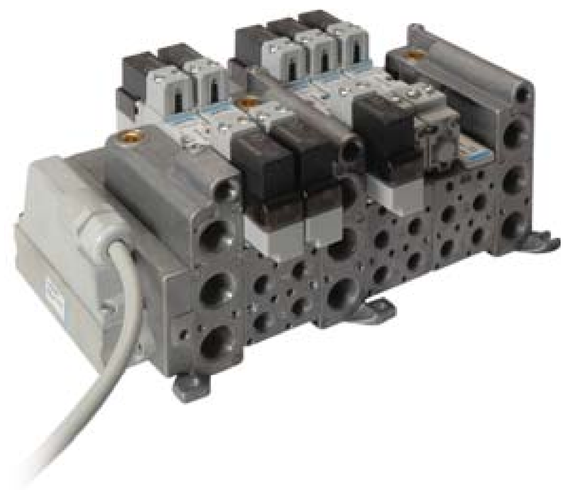
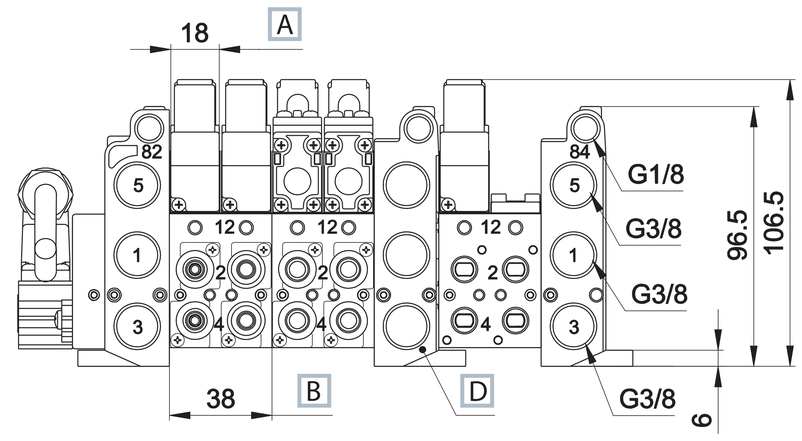
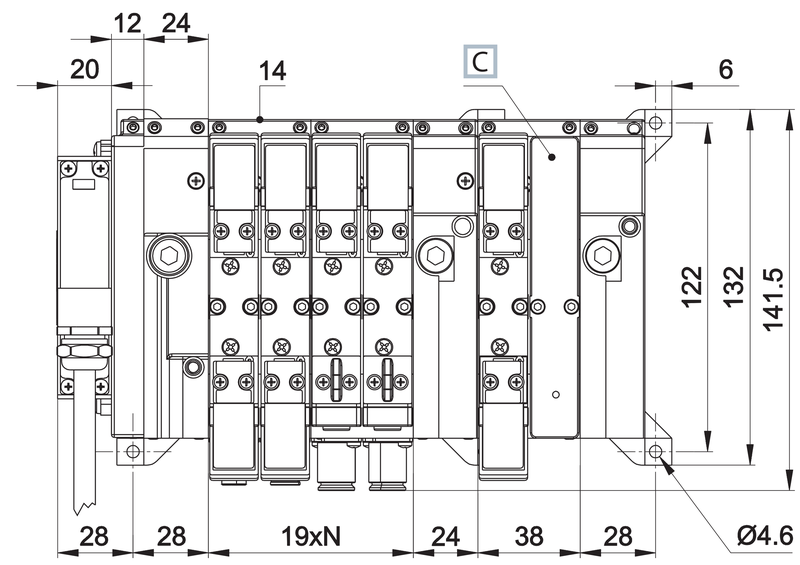
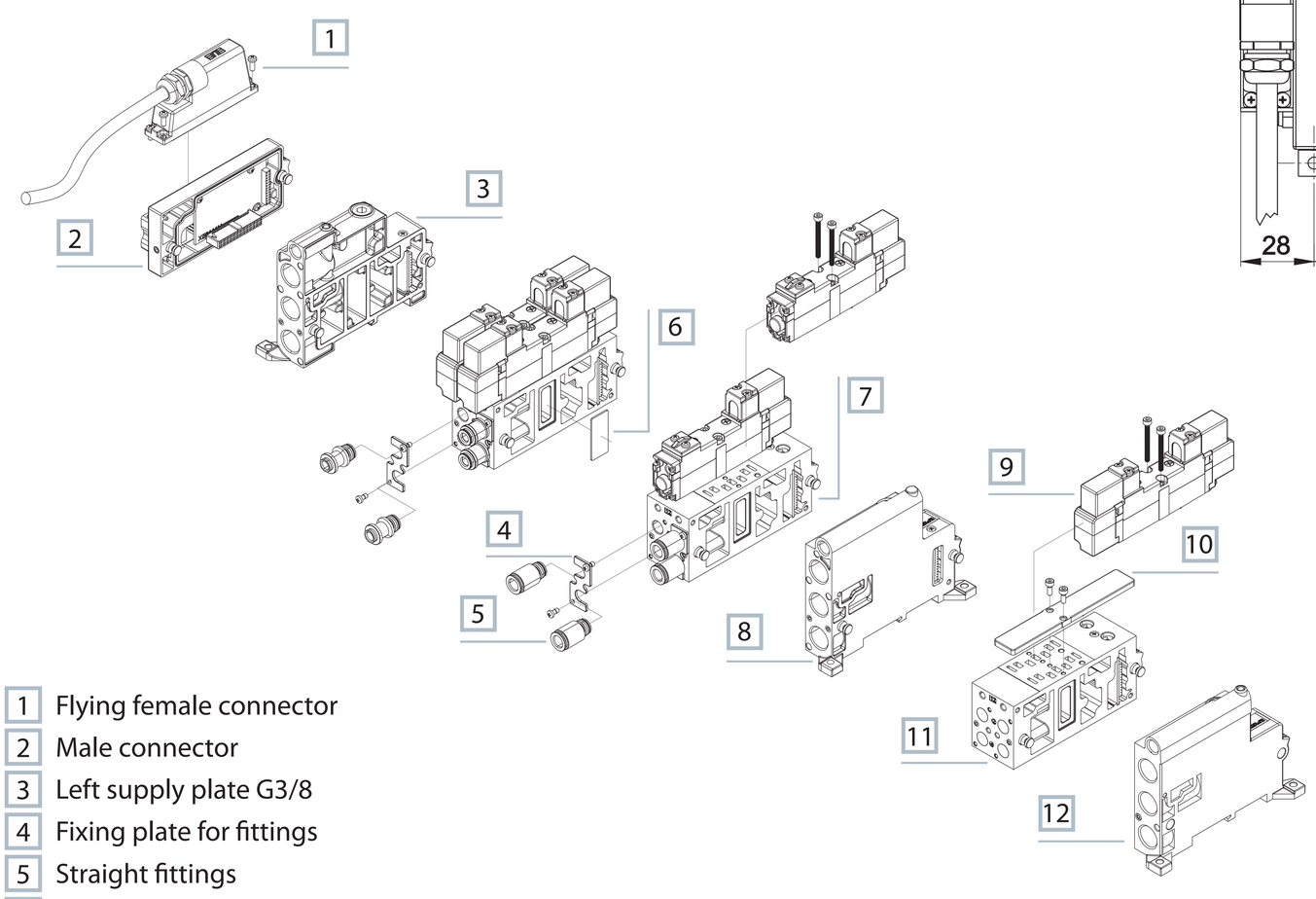
Integrated electric connection side 18 mm







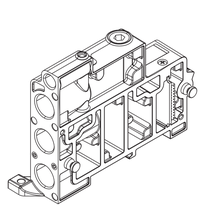
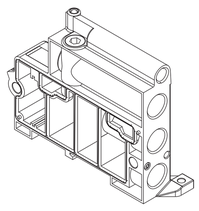
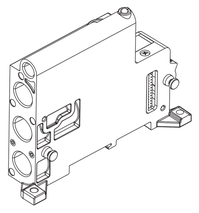
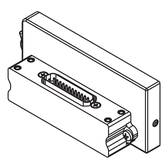
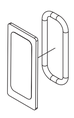
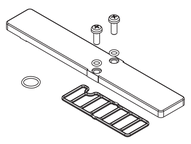
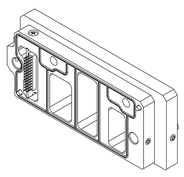


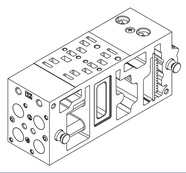
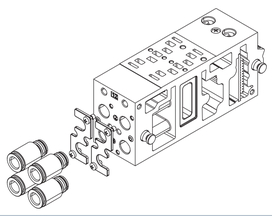
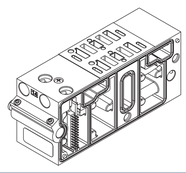
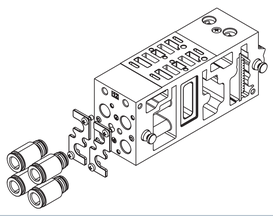
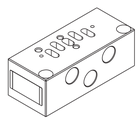
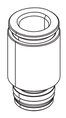
A Valve thickness
B Sub-base 2 places valve
C Closing plate for unused valve place BDF-3185
D Intermediate supply plate

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

N = Number of valve places

1 Flying female connector
2 Male connector
3 Left supply plate G3/8
4 Fixing plate for fittings
5 Straight fittings
6 Plate for separating pressures
7 Integrated electric connection
8 Intermediate supply plate G3/8
9 Solenoid vale side 18 mm
10 Closing plate
11 Sub-base 2 valve places
12 Right supply plate G3/8

BDF-3100	BDF-3115	BDF-3120	BDF-3140TIM	BDF-3180	BDF-3185	BDF-3190
						
left supply plate G3/8 with integrated electric connection weight: 0,292 Kg	right supply plate G3/8 weight: 0,276 Kg	intermediate supply plate G3/8 with integrated electric connection weight: 0,29 Kg	multiway connection module, 25 poles male type D side 18 mm weight: 0,158 Kg	plate for separating supply pressures weight: 0,002 Kg	plate for closing unused valve place weight: 0,038 Kg	interface for connecting valves side 18-26 mm with integrated electric connection weight: 0,216 Kg

BDF-3210 (b)	BDF-3230 (a) - (b)	BDF-3310 (b)	BDF-3330 (a) - (b)	BDF-3400	GZR-100	GZR-V10004/06/08
						
sub base 2 places according to VDMA-ISO specifications flow rate 620 Nl/min G1/8 connections weight: 0,324 Kg	sub base 2 places according to VDMA-ISO specifications flow rate 620 Nl/min for fittings Ø 4-6-8 mm weight: 0,334 Kg	sub base 2 places with increased capacity 800 Nl/min G1/8 connections weight: 0,322 Kg	sub base 2 places with increased capacity 800 Nl/min for fittings Ø 4-6-8 mm weight: 0,334 Kg	single sub-base 1 place with increased capacity G1/8 connections weight: 0,12 Kg	screw plug weight: 0,01 Kg	fittings according to UNIVER design (package 50 pcs.) **GZR-V10004** Ø4 mm **GZR-V10006** Ø6 mm **GZR-V10008** Ø8 mm weight: 0,01 Kg each.

(a) = sub-base including fixing plates for fittings (fittings excluded) (b) = part no. codification: **0 = electric integrated**

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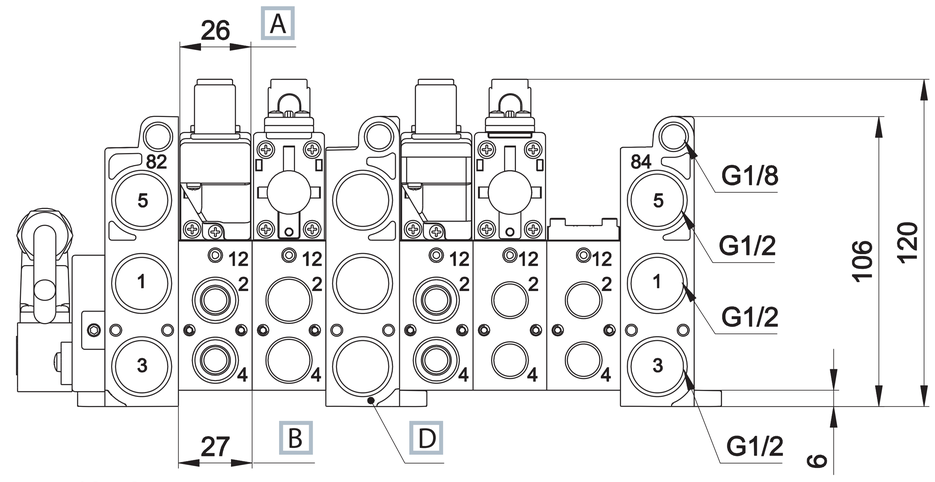
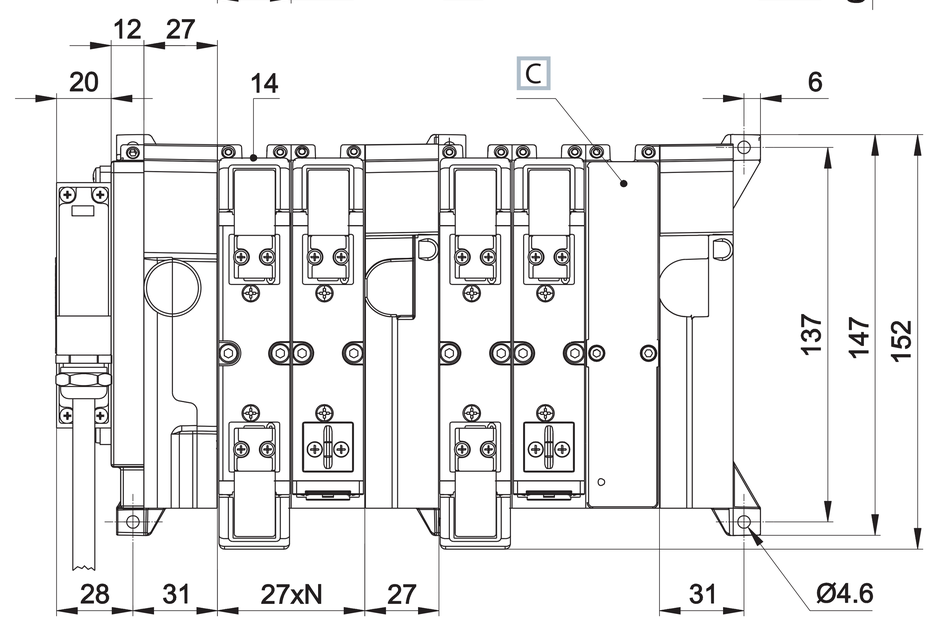
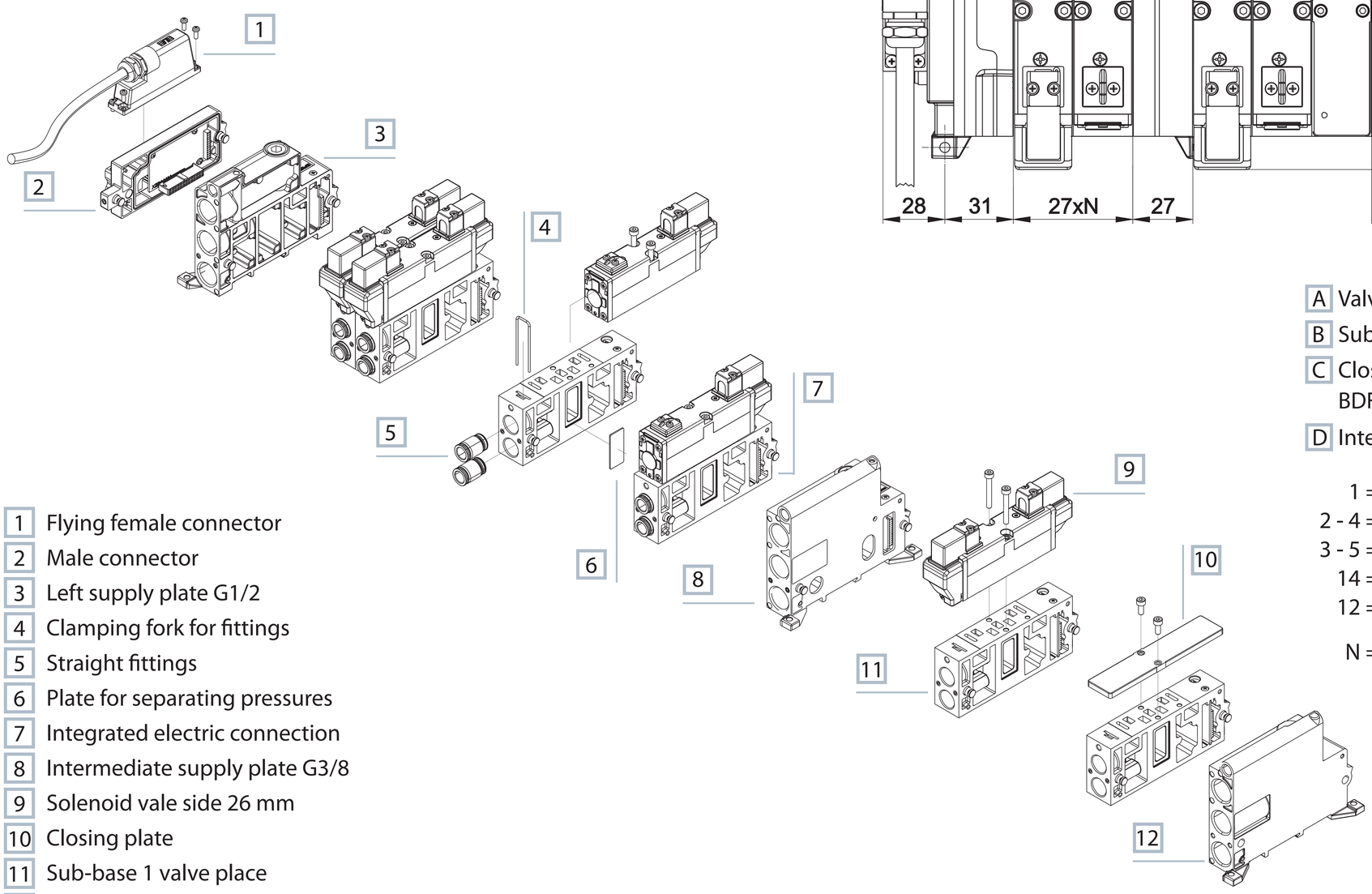
Integrated electric connection side 26 mm





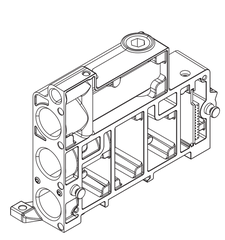
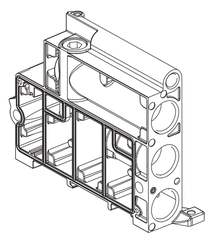
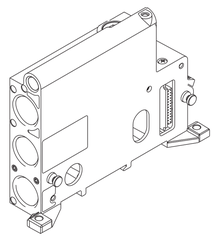
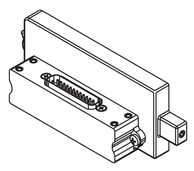
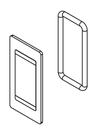
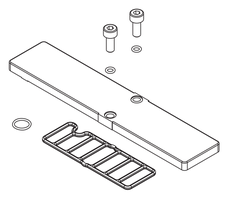


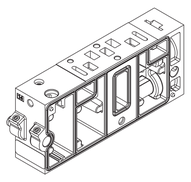
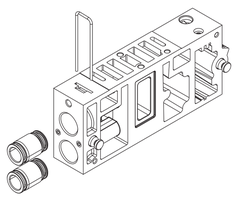
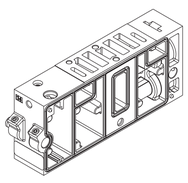
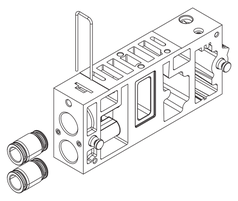
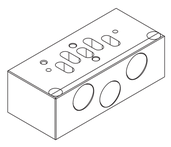
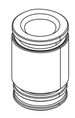
1 Flying female connector
2 Male connector
3 Left supply plate G1/2
4 Clamping fork for fittings
5 Straight fittings
6 Plate for separating pressures
7 Integrated electric connection
8 Intermediate supply plate G3/8
9 Solenoid vale side 26 mm
10 Closing plate
11 Sub-base 1 valve place
12 Right supply plate G1/2

A Valve thickness
B Sub-base1 place valve
C Closing plate for unused valve place BDF-4185
D Intermediate supply plate

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

N = Number of valve place

BDF-4100	BDF-4115	BDF-4120	BDF-4140TIM	BDF-4180	BDF-4185
					
left supply plate G1/2 with integrated electric connection weight: 0,396 Kg	right supply plate G1/2 weight: 0,418 Kg	intermediate supply plate G1/2 with integrated electric connection weight: 0,396 Kg	multiway connection module, 25 poles male type D side 26 mm weight: 0,158 Kg	plate for separating supply pressures weight: 0,002 Kg	plate for closing unused valve place weight: 0,08 Kg

BDF-4210/20 (b)	BDF-4230 (a) - (b)	BDF-4310/20 (b)	BDF-4330/31/32 (a) - (b)	BDF-4400	GZR-VV1006/08/10
					
sub base 1 place according to VDMA-ISO specification flow rate 1250 Nl/min G1/4 connections **BDF-4210** weight: 0,254 Kg G3/8 connections **BDF-4220** weight: 0,246 Kg	sub base 1 place according to VDMA-ISO specification flow rate 1250 Nl/min for fittings Ø 6-8-10 mm **BDF-4230** weight: 0,23 Kg	sub base 1 place with increased capacity flow rate 1700 Nl/min G1/4 connections **BDF-4310** weight: 0,254 Kg G3/8 connections **BDF-4320** weight: 0,246 Kg	sub base 1 place with increased capacity flow rate 1700 Nl/min for fittings Ø 6-8-10 mm **BDF-4330** weight: 0,23 Kg	single sub-base 1 place with increased capacity G3/8 connections weight: 0,226 Kg	fittings according to UNIVER design (package 50 pcs.) **GZR-VV1006** Ø 6mm **GZR-VV1008** Ø 8mm **GZR-VV1010** Ø 10mm weight: 0,014 Kg each.

(a) = sub-base including fixing plates for fittings (fittings excluded) (b) = part no. codification: **0 = electric integrated**

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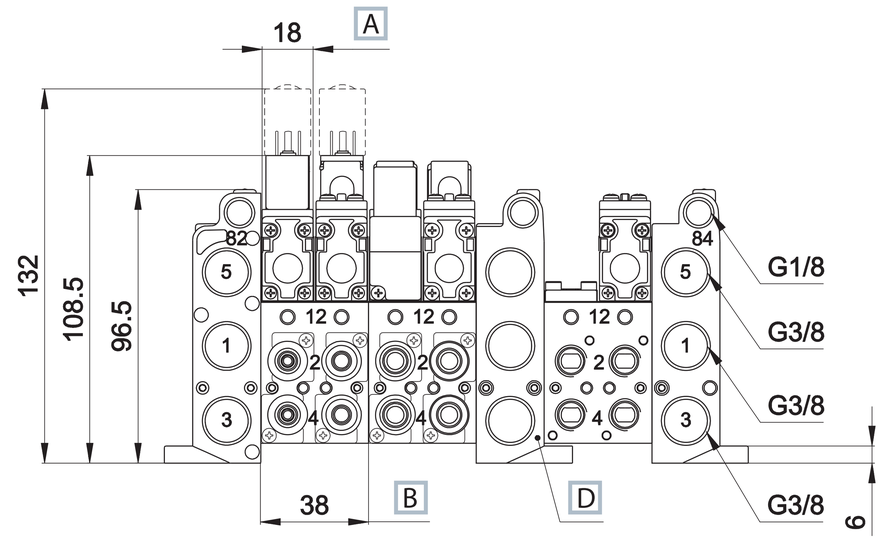
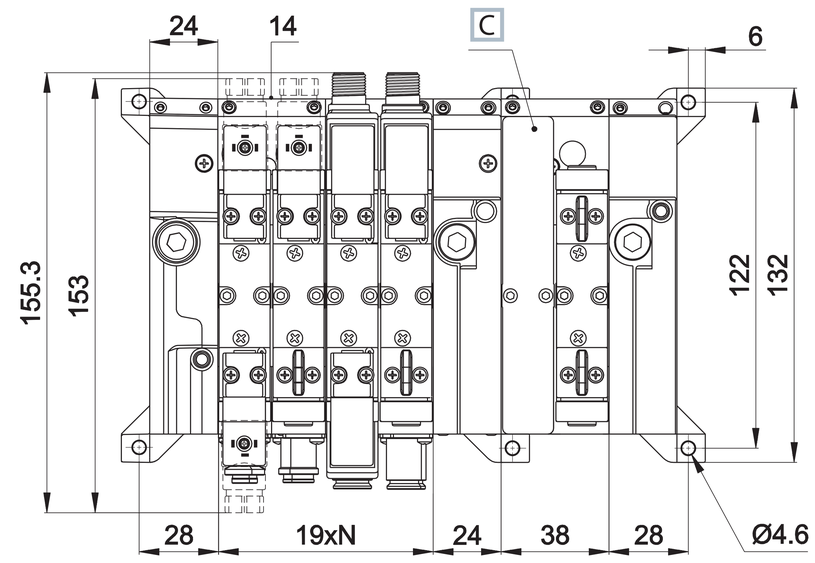
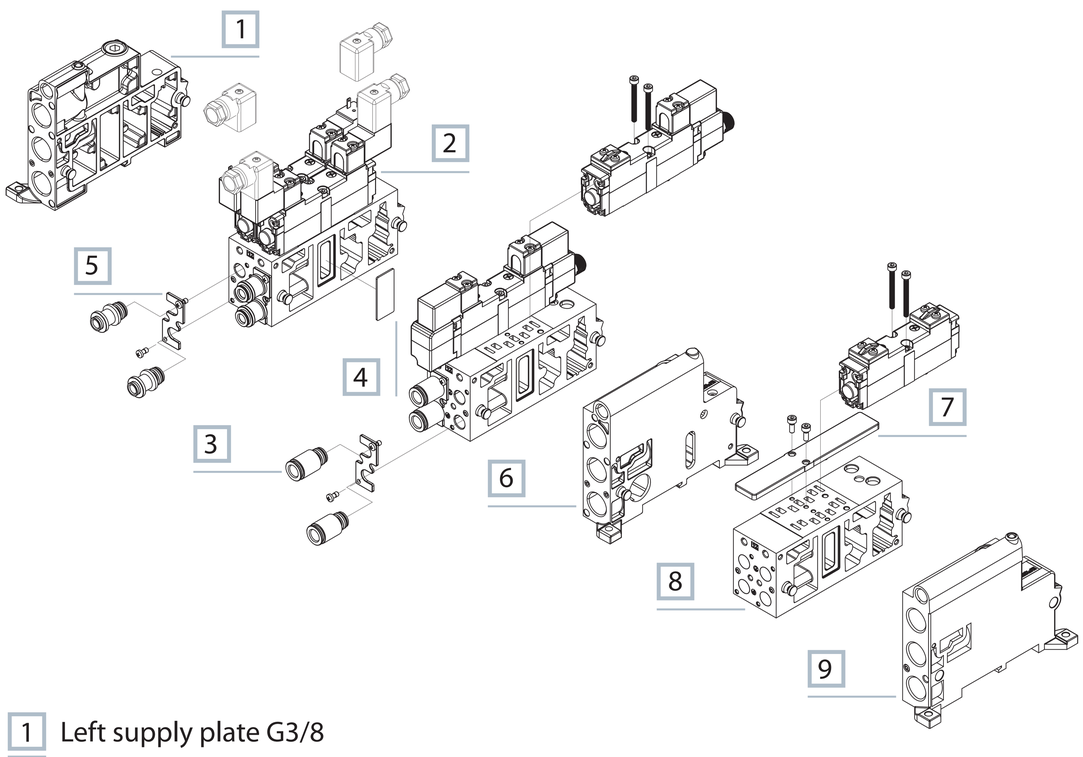
Electric connection with external connector side 18 mm





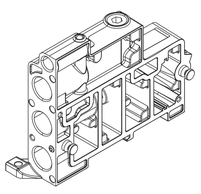
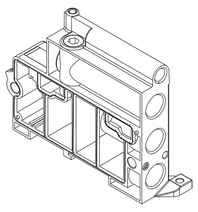
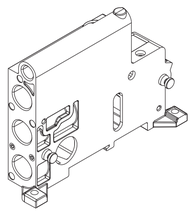
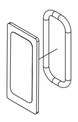
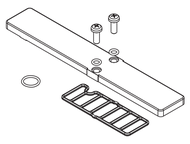
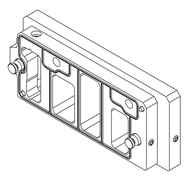
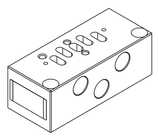


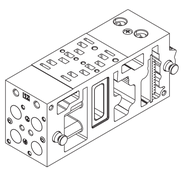
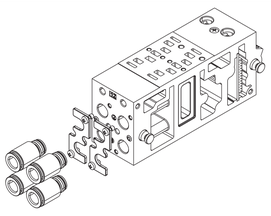
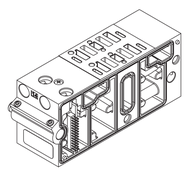
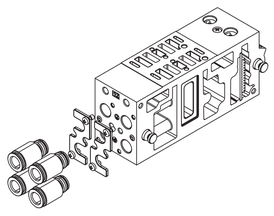
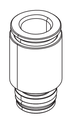
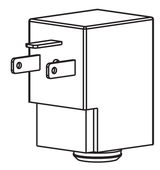
A Valve thickness
B Sub-base 2 places valve
C Closing plate for unused valve place BDF-3185
D Intermediate supply plate

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

N = Number of valve places

1 Left supply plate G3/8
2 Solenoid valve
3 Straight fittings
4 Plate for separating pressures
5 Fixing plate for fittings
6 Intermediate supply plate G3/8
7 Closing plate
8 Sub-base 2 valve places
9 Right supply plate G3/8

BDF-3110	BDF-3115	BDF-3125	BDF-3180	BDF-3185	BDF-3191	BDF-3400
						
left supply plate G3/8 weight: 0,288 Kg	right supply plate G3/8 weight: 0,276 Kg	intermediate supply plate G3/8 without integrated electric connection weight: 0,31 Kg	plate for separating pressures weight: 0,002 Kg	plate for closing unused valve place weight: 0,038 Kg	interface for connecting valves side 18-26 mm with integrated electric connection weight: 0,212 Kg	single sub-base 1 place with increased capacity G1/8 connections weight: 0,12 Kg

BDF-3210/1/2 (b)	BDF-3230/1/2 (a) - (b)	BDF-3310/1/2 (b)	BDF-3330/1/2 (a) - (b)	GZR-100	GZR-V10004/6/8	DD-051/..
						
sub base 2 places according to VDMA-ISO specifications flow rate 620 Nl/min G1/8 connections **BDF-3210** **BDF-3211** **BDF-3212** weight: 0,316 Kg	sub base 2 places according to VDMA-ISO specifications flow rate 620 Nl/min for fittings Ø 4-6-8 mm **BDF-3230** **BDF-3231** **BDF-3232** weight: 0,326 Kg	sub base 2 places with increased capacity 800 Nl/min attacchi G1/8 **BDF-3310** **BDF-3311** **BDF-3312** weight: 0,316 Kg	sub base 2 places with increased capacity flow rate 800 Nl/min for fittings Ø 4-6-8 mm **BDF-3330** **BDF-3331** **BDF-3332** weight: 0,326 Kg	screw plug weight: 0,01 Kg	fittings according to UNIVER design (package 50 pcs.) **GZR-V10004** Ø4 mm **GZR-V10006** Ø6 mm **GZR-V10008** Ø8 mm weight: 0,01 Kg cad.	U05 coil side15 mm (for technical features refer to section **"Accessories>Coils"**) weight: 0,019 Kg

(a) = sub-base including fixing plates for fittings (fittings excluded)
(b) = part no. codification: **0 = electric integrated** **1 = electric non integrated** **2 =only pneumatic**

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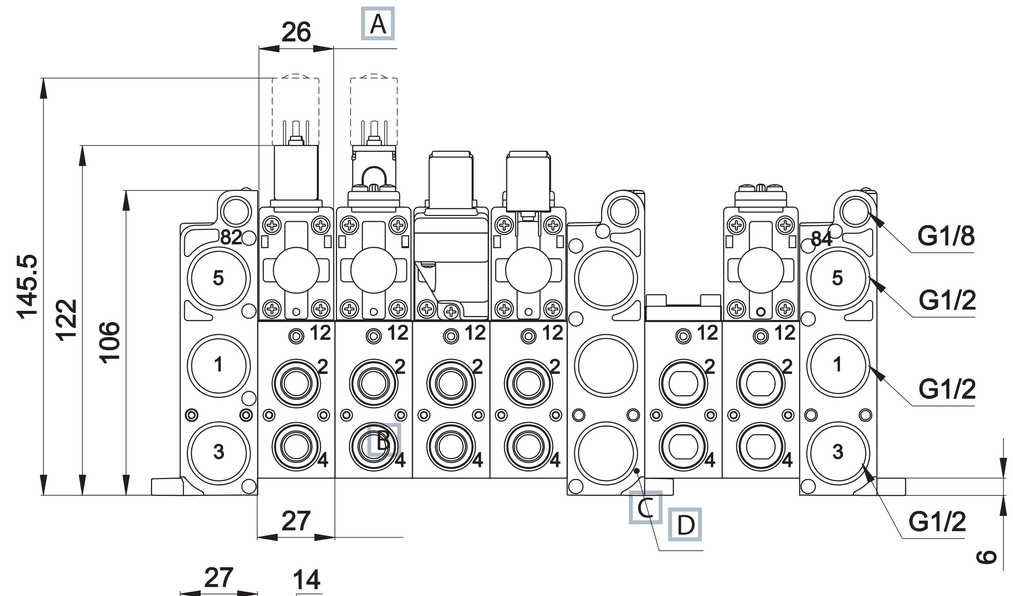
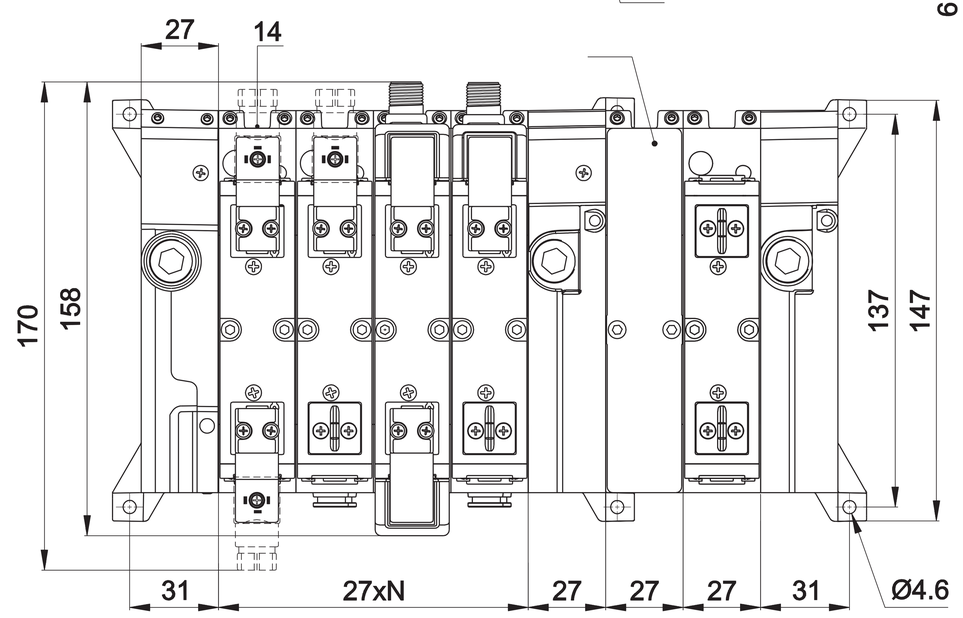
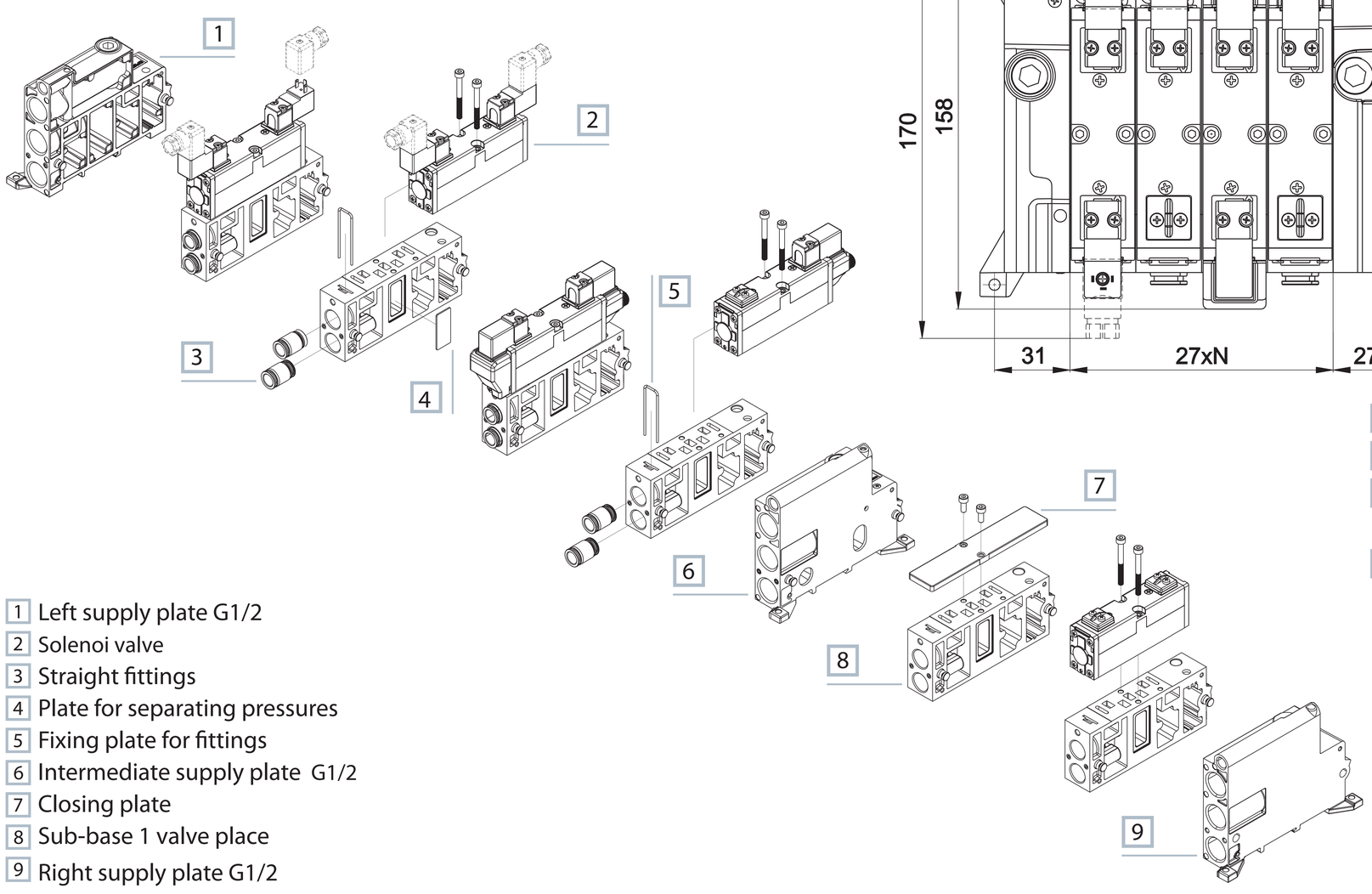
Electric connection with external connector side 26 mm





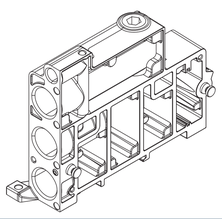
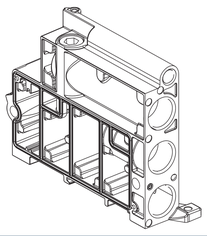
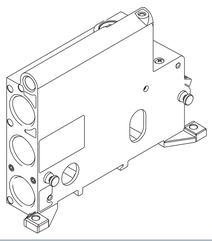
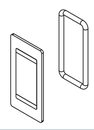
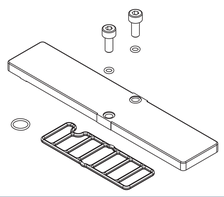
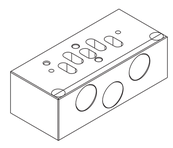


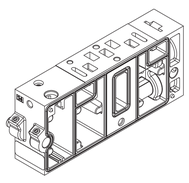
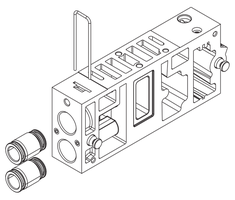
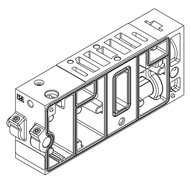
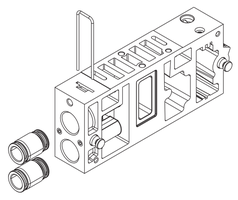
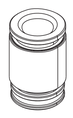
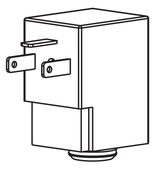
1 Left supply plate G1/2
2 Solenoi valve
3 Straight fittings
4 Plate for separating pressures
5 Fixing plate for fittings
6 Intermediate supply plate G1/2
7 Closing plate
8 Sub-base 1 valve place
9 Right supply plate G1/2

A Valve thickness
B Sub-base 1 places valve
C Closing plate for unused valve place BDF-4185
D Intermediate supply plate

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

N = Number of valve places

BDF-4110	BDF-4115	BDF-4125	BDF-4180	BDF-4185	BDF-4400
					
left supply plate G1/2 weight: 0,428 Kg	right supply plate G1/2 weight: 0,418 Kg	left supply plate G1/2 without integrated electric connection weight: 0,42 Kg	plate for separating supply pressures weight: 0,002 Kg	plate for closing unused valve place weight: 0,08 Kg	single sub-base 1 place with increased capacity G3/8 connections weight: 0,226 Kg

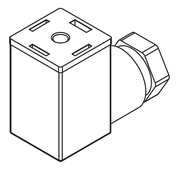
BDF-4210/.. (b)	BDF-4230/1/2 (a) - (b)	BDF-4311/.. (b)	BDF-4330/1/2 (a) - (b)	GZR-VV1006/8/10	DD-051/..
					
sub base 1 place according to VDMA-ISO specification flow rate 1250 Nl/min G1/4 connect. G3/8 connect. **BDF-4210** **BDF-4220** **BDF-4211** **BDF-4221** **BDF-4212** **BDF-4222**	sub base 1 place according to VDMA-ISO specification flow rate 1250 Nl/min for fittings Ø 6-8-10 mm **BDF-4230** **BDF-4231** **BDF-4232** weight: 0,22 Kg	sub base 1 place with increased capacity 1700 Nl/min G1/4 connect. G3/8 connect. **BDF-4310** **BDF-4320** **BDF-4311** **BDF-4321** **BDF-4312** **BDF-4322** weight: 0,244 Kg weight: 0,236 Kg	sub base 1 place with increased capacity 1700 Nl/min for fittings Ø 6-8-10 mm **BDF-4330** **BDF-4331** **BDF-4332** weight: 0,22 Kg	fittings according to UNIVER design (package 50 pcs.) **GZR-VV1006** Ø 6mm **GZR-VV1008** Ø 8mm **GZR-VV1010** Ø 10mm weight: 0,014 Kg cad.	U05 coil side 15 mm (for technical features refer to section **"Accessories>Coils"**) weight: 0,019 Kg

(a) = sub-base including fixing plates for fittings (fittings excluded)
(b) = part no. codification: **0 = electric integrated** **1 =electric non integrated** **2 = only pneumatic**

GRANZOW®

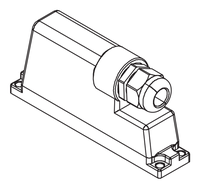
Electric connection

AM-5109



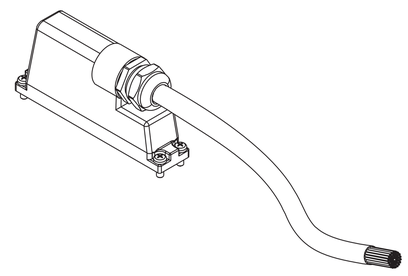
- 15 mm connector

TSCFN24S000



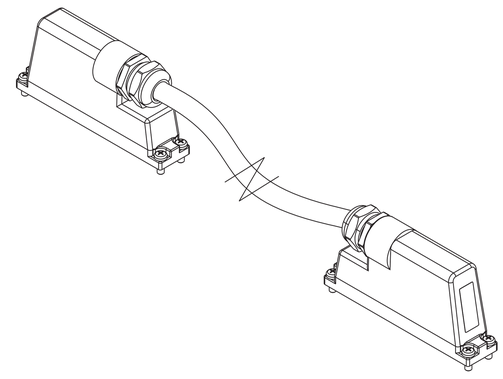
- famale connector
  25 poles type D-sub
  no cable
  M3 x 8 fixing screws

TSCFN24S0300
TSCFN24S0500
TSCFN24S1000



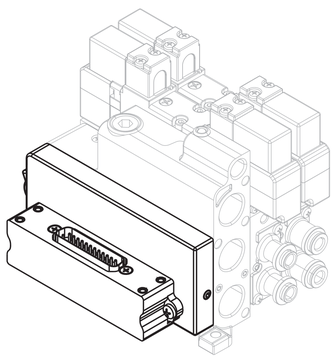
- famale connector
  25 poles type D-sub
  cable 3-5-10 m
  M3 x 8 fixing screws

TSCFN16D0300
TSCFN16D0500
TSCFN16D1000



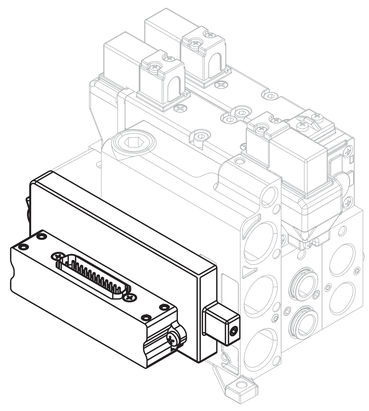
- male/famale flying connector
  sub D (upon request)
  prewired for 24 coils with
  cable Ø 8 mm (3-5-10 m lenght)
  suitable for mobile laying
  M3 x 8 fixing screws

BDF-3140 TIM



- multiway connection module
  25 poles male type D
  side 18 mm

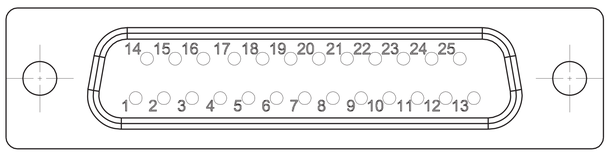
BDF-4140 TIM



- multiway connection module
  25 poles male type D
  side 26 mm

>>Colour identification according to standard **DIN 47100**

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



PIN No.	Control side	Valve N°	Colour	Coil
1	14	1	white	1
2	12	1	brown	2
3	14	2	green	3
4	12	2	yellow	4
5	14	3	grey	5
6	12	3	pink	6
7	14	4	blue	7
8	12	4	red	8
9	14	5	black	9
10	12	5	violet	10
11	14	6	grey-pink	11
12	12	6	red-blue	12
13	14	7	white-green	13
14	12	7	green-brown	14
15	14	8	white-yellow	15
16	12	8	yellow-brown	16
17	14	9	white-grey	17
18	12	9	grey-brown	18
19	14	10	white-pink	19
20	12	10	pink-brown	20
21	14	11	white-blue	21
22	12	11	brown-blue	22
23	14	12	white-red	23
24	-	-	brown-red brown-black shield	common low
25	12	12	white-black	24