



BD

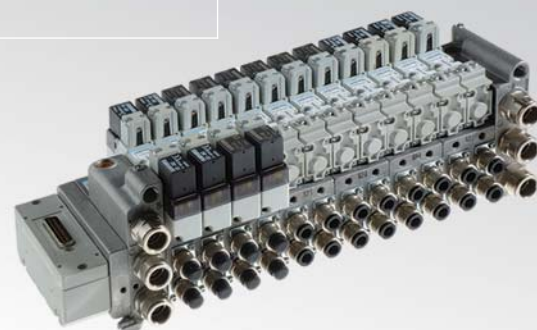
ISO 15407-1/2 (VDMA 24563) ISO 02 (18 mm) - ISO 01 (26 mm) Valves

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 (NI/min) for valves and solenoid valves side 18 mm

Sub-base in die-cast aluminium according to standard

Fittings:	VDMA-ISO			Oversize		
	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 (NI/min) for valves and solenoid valves side 26 (b)

Sub-base in die-cast aluminium according to standard

Fittings:	VDMA-ISO				Oversize			
	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

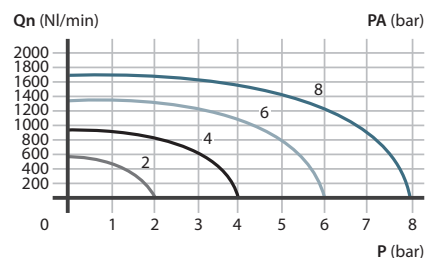
ELECTRIC CHARACTERISTICS

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

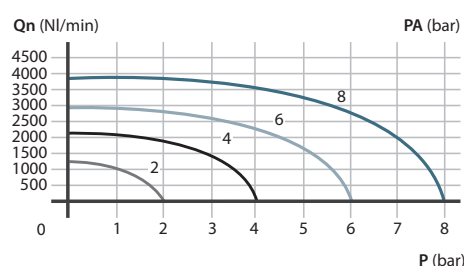
>> Valves and solenoid valves side 18 mm

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

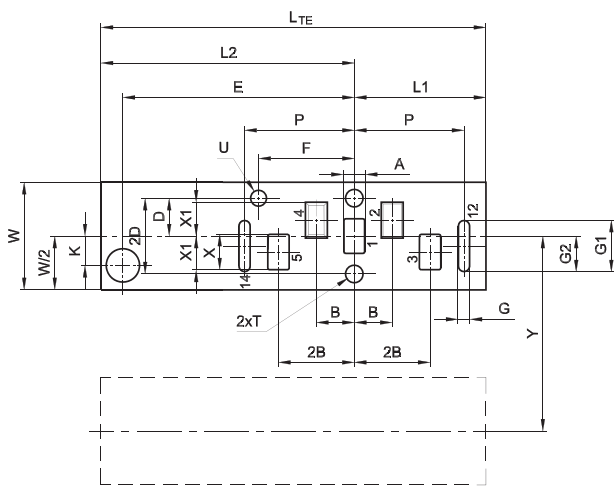
Standardized valves

2

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.

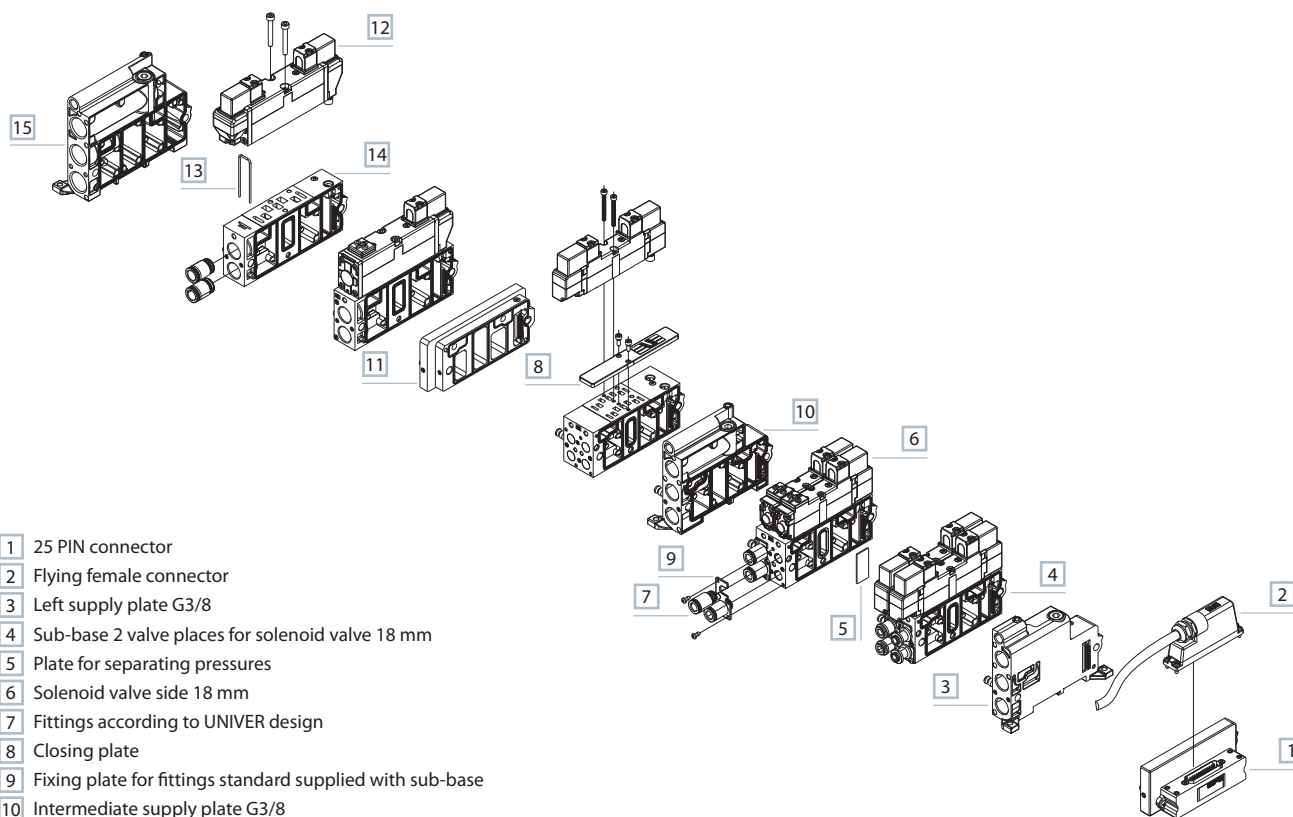
>> Dimensioning of the bearing surface according to ISO 15407-1/2 specification with integrated electric connector



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	L _{TE}	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

BD

ISO 15407-1/2 valves



Codification key

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

1 Series	2 Size	3 Type
BDE = solenoid valves with integrated electric connection 24 V DC (including coil and connector)	3 = side 18 mm 4 = side 26 mm	2 = 5/2 3 = 5/3 c.c. 4 = 5/3 o.c. 5 = 5/3 p.c.
BDB = solenoid valves with integrated electric connection 24 V DC, with M12 connector (including coil and connector)		6 = 3/2+3/2 NC-NC 7 = 3/2+3/2 NC-NO 8 = 3/2+3/2 NO-NO

4 Control 14	5 Return 12	6 Coil voltage
4 = electric amplified	0 = pneumomechanical spring 1 = mechanical spring 4 = electric amplified 7 = electric not amplified	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	2 Size	3 Type
BDA = valves and solenoid valves (without coil and connectors to be ordered separately)	3 = side 18 mm 4 = side 26 mm	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	5 Return 12	6 Options
3 = pneumatic amplified 4 = electric amplified only DC 5 = electric amplified DC and AC	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	D = externally servoassisted electropilot

>> Coils U05 side 15 mm

Part no.	Nominal voltage		Frequency	Power consumption			
	DC v	AC v		HZ	CCW rating	CA start	VA rating
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

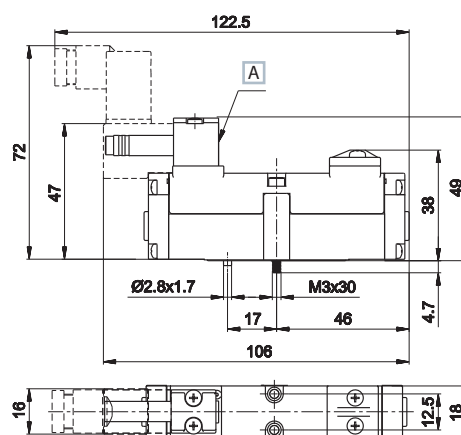
o.c. = open centres c.c. = closed centres p.c. = pressurized centre

2
Standardized valves

BDA ISO 15407-1/2 valves and solenoid valves



Single electric impulse 18 mm

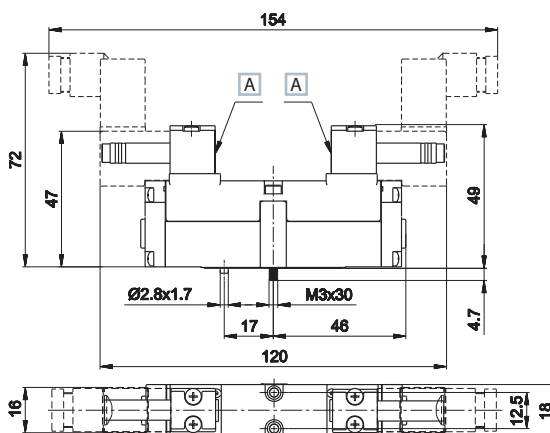


A Manual override

Weight (Kg): 0,107

	Symbol	Control	Return	Pressure bar	Time (ms)		Part no.
					En.	De-en.	
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)		Part no.
					En.	De-en.	
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

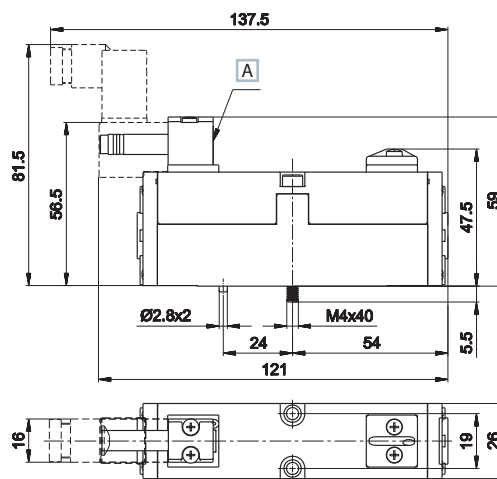
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BDA solenoid valves are supplied without coils and connectors

BDA ISO 15407-1/2 valves and solenoid valves



Single electric impulse 26 mm

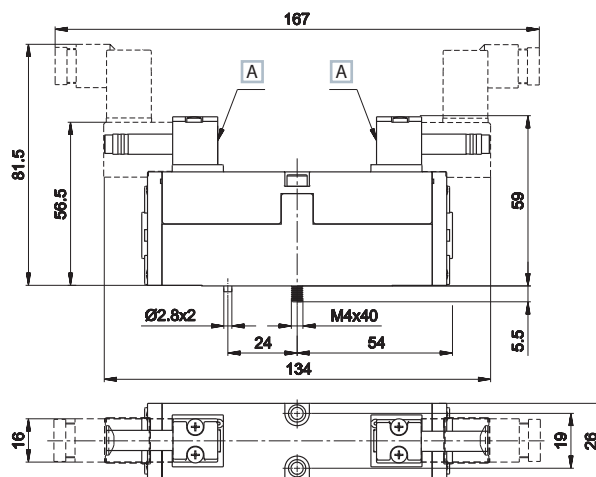


Weight (Kg): 0,197

	Symbol	Control	Return	Pressure bar	Time (ms)		Part no.
					En.	De-en.	
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

A Manual override

Double electric impulse 26 mm



Weight (Kg): 0,218

	Symbol	Control	Return	Pressure bar	Time (ms)		Part no.
					En.	De-en.	
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

A Manual override

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

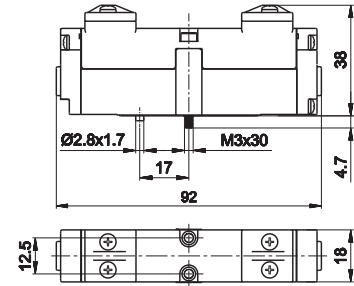
BDA solenoid valves are supplied without coils and connectors

2
Standardized valves

BDA ISO 15407-1/2 valves and solenoid valves



Single/double **pneumatic impulse 18 mm**



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

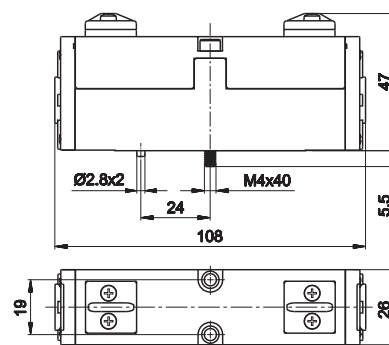
	Symbol	Control	Return	Pressure bar	Time (ms)		Part no.
					En.	De-en.	
5/2		pneumatic amplified	pneumo mechanical spring	1,8÷10	13	30	BDA-3230
5/2		pneumatic amplified	mechanical spring	2,5÷10	11	35	BDA-3231
5/2		pneumatic amplified	pneumatic amplified	0,8÷10	8	8	BDA-3233
5/3 c.c.		pneumatic amplified	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

BDA ISO 15407-1/2 valves and solenoid valves



Single/double **pneumatic impulse 26 mm**



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

	Symbol	Control	Return	Pressure		Time (ms)		Part no.
				bar		En.	De-en.	
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

2
Standardized valves