

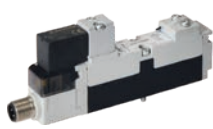
BDE

Integrated electrical connection
(ISO 15407/2)



BDB

M12 connector (Automotive)



BDA

Single electrical
connection (ISO 15407/1)

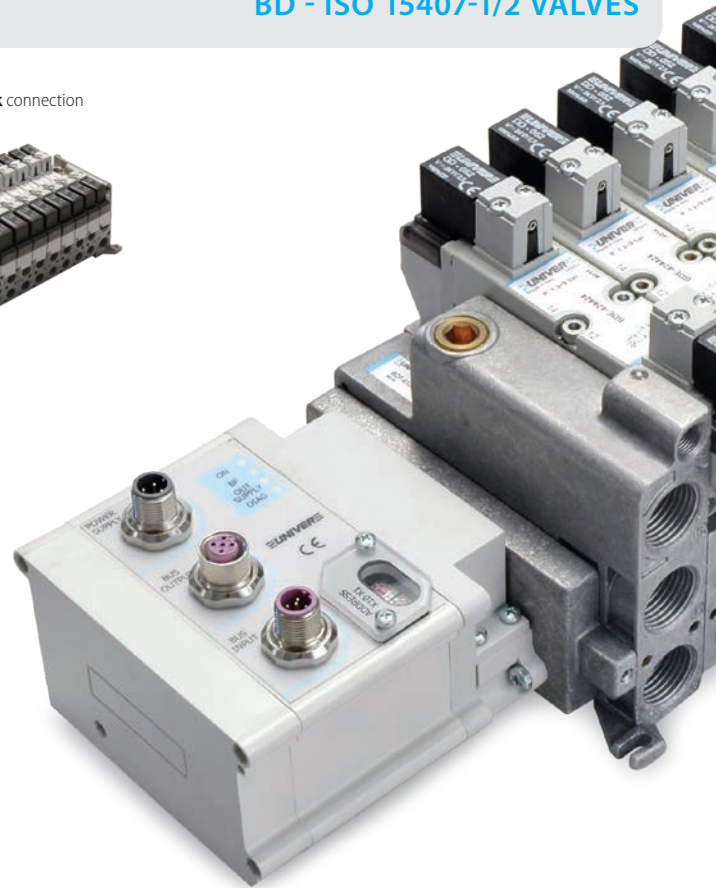
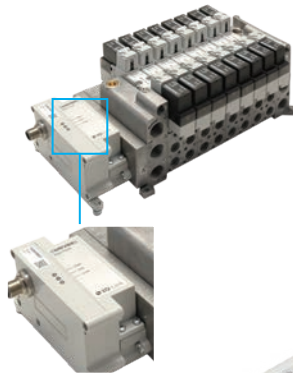


BDA

Pneumatic connection
(ISO 15407/1)

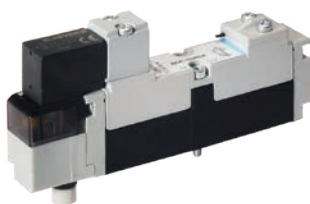


Available with **IO-Link** connection



ISO 02

18 mm



Interface ISO



OVERSIZED interface
(UNIVER original)



620 NI/min



800 NI/min



ISO 01

26 mm



Interface ISO



OVERSIZED interface
(UNIVER original)



1250 NI/min



1700 NI/min





Reference standard

ATEX
2014/34/UE



Pressure

9 bar (0.9 MPa) electrical
10 bar (1 MPa) pneumatic

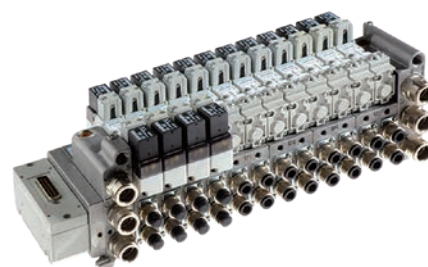


Temperature

-20 °C
+ 50 °C

CHARACTERISTICS

Fluid	50 µm filtered air, with or without lubrication	
Commutation system	spool	
Connections	interface ISO 15407-1/2	
Nominal bore (mm)	6 (18 mm)	8 (26 mm)
Nominal flow rate (l/min)	see table below	
Valve body	acetalic resin with aluminium cover	
Seals	NBR	
Spool	aluminium	
Electropilot/Coil	Series A/U05	
Voltage	12 V DC - 24 V AC/DC - 48 V AC - 110 V AC - 230 V AC	
Power consumption	2 W	
Manual override	recessed button - 1 position	
Protection degree	IP65	



Series	Size	Type	Control 14	Return 12	Voltage coil	Variant
B D E	3	3	4	4	2 4	
BDE Solenoid valves with integrated electrical connection 24 V DC	3 = 18 mm 4 = 26 mm	2 = 5/2 3 = 5/3 c.c. 4 = 5/3 c.a. 5 = 5/3 c.p. 6 = 3/2+3/2 NC-NC 7 = 3/2+3/2 NC-NO 8 = 3/2+3/2 NO-NO	4 Electrical amplified	0 Pneumomechanical spring 1 Mechanical spring 4 Electrical amplified 7 Electrical unamplified (differential)	24 = 4 V DC (standard) 12 = 12 V DC (on request)	D = External pilot supply
BDB Electrovalves conPower consumption 24 V DC with Connector M12						

Series	Size	Type	Control 14	Return 12	Variant
B D A	3	3	4	4	
BDA Valves and solenoid valves	3 = 18 mm 4 = 26 mm	2 = 5/2 3 = 5/3 c.c. 4 = 5/3 c.a. 5 = 5/3 c.p. 6 = 3/2+3/2 NC-NC 7 = 3/2+3/2 NC-NO 8 = 3/2+3/2 NO-NO	3 Pneumatic amplified 4 Electrical amplified only DC 5 Electrical amplified DC/AC	0 Pneumomechanical spring 1 Mechanical spring 2 Pneumatic unamplified (differential) 3 Pneumatic amplified 4 Electrical amplified only DC 5 DC/AC amplified electric 7 Unamplified DC electric (differential) 8 Unamplified electric DC/AC (differential)	D = External pilot supply
Coils and connectors not included, to be purchased separately					

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

U05 Coils side 15 mm

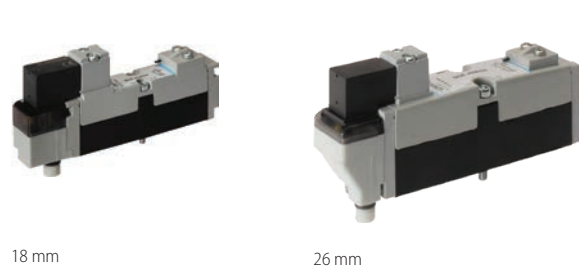
Code	Voltage nominal		Frequency	Power consumption			
				DC W		AC VA	
	V DC	V AC		HZ	hold	speed-up	hold
DD-040	-	24	50/60	-	-	2,3	3,2
DD-041	12	-	-	2	2	-	-
DD-050	-	48	50/60	-	-	2,3	3,2
DD-051	24	-	-	2	2	-	-
DD-060	-	110	50/60	-	-	2,3	3,2
DD-070	-	230	50/60	-	-	2,3	3,2

Nominal flow rate (l/min)

BD 18 mm	VDMA-ISO			Oversized		
	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

BD 26 mm	VDMA-ISO				Oversized			
	Ø6	Ø8	Ø10	Ø12	Ø6	Ø8	Ø10	Ø12
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

BDE Impulse electrical - Solenoid valve with integrated electrical connection

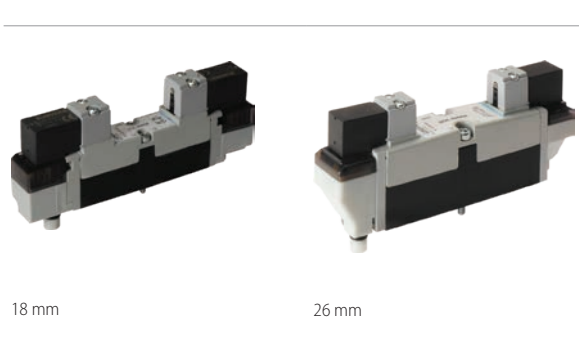


18 mm

26 mm

Single impulse

	BDE-324024 18 mm		BDE-324124 18 mm
	BDE-424024 26 mm		BDE-424124 26 mm



18 mm

26 mm

Double impulse

	BDE-324424 18 mm		BDE-364424 18 mm BDE-464424 26 mm
	BDE-424424 26 mm		
	BDE-334424 18 mm		BDE-374424 18 mm BDE-474424 26 mm
	BDE-434424 26 mm		
	BDE-344424 18 mm		BDE-384424 18 mm BDE-484424 26 mm
	BDE-444424 26 mm		
	BDE-354424 18 mm		
	BDE-454424 26 mm		

BDB Impulse electrical - Solenoid valve with connector M12



18 mm

26 mm

Single impulse

	BDB-324024 18 mm		BDB-324124 18 mm
	BDB-424024 26 mm		BDB-424124 26 mm



18 mm

26 mm

Double impulse

	BDB-324424 18 mm		BDB-364424 18 mm BDB-464424 26 mm
	BDB-424424 26 mm		
	BDB-334424 18 mm		BDB-374424 18 mm BDB-474424 26 mm
	BDB-434424 26 mm		
	BDB-344424 18 mm		BDB-384424 18 mm BDB-484424 26 mm
	BDB-444424 26 mm		
	BDB-354424 18 mm		
	BDB-454424 26 mm		

BDA Impulse pneumatic

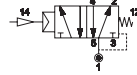


18 mm



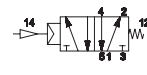
26 mm

Single/double impulse



BDA-3230 18 mm

BDA-4230 26 mm



BDA-3231 18 mm

BDA-4231 26 mm



BDA-3233 18 mm

BDA-4233 26 mm



BDA-3333 18 mm

BDA-4333 26 mm



BDA-3433 18 mm

BDA-4433 26 mm



BDA-3533 18 mm

BDA-4533 26 mm



BDA-3633 18 mm

BDA-4633 26 mm



BDA-3733 18 mm

BDA-4733 26 mm

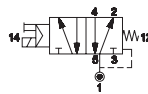


BDA-3833 18 mm

BDA-4833 26 mm

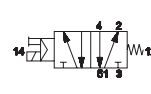
BDA Impulse electrical - External electrical connection

Single impulse



BDA-3240 18 mm

BDA-4240 26 mm



BDA-3241 18 mm

BDA-4241 26 mm

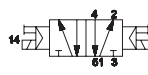


18 mm



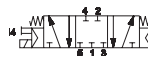
26 mm

Double impulse



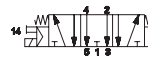
BDA-3244 18 mm

BDA-4244 26 mm



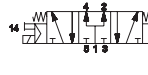
BDA-3344 18 mm

BDA-4344 26 mm



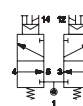
BDA-3444 18 mm

BDA-4444 26 mm



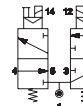
BDA-3544 18 mm

BDA-4544 26 mm



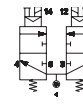
BDA-3644 18 mm

BDA-4644 26 mm



BDA-3744 18 mm

BDA-4744 26 mm

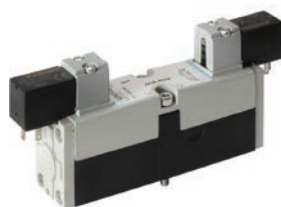


BDA-3844 18 mm

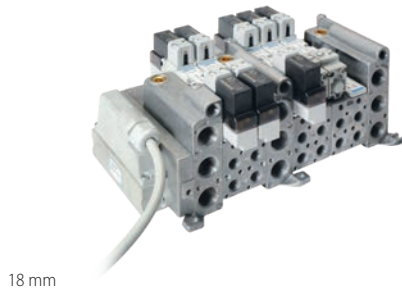
BDA-4844 26 mm



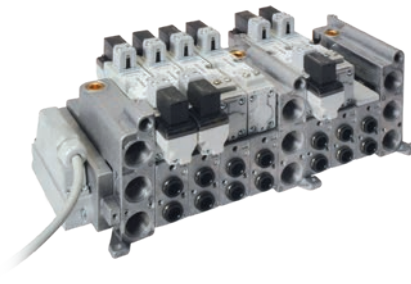
18 mm



26 mm



18 mm



26 mm

18 mm						
BDF-3100	BDF-3115	BDF-3120	BDF-3140TIM	BDF-3180	BDF-3185	BDF-3190
left supply plate G3/8	right supply plate G3/8	intermediate supply plate G3/8	multipolar male connection module: 25 poles, type D	pressure separator	closing plate for unused valve place	connecting interface for valves side 18-26 mm

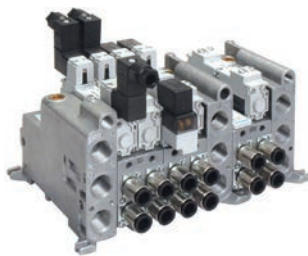
18 mm						
BDF-3210	BDF-3230(a)	BDF-3310	BDF-3330 (a)	BDF-3400	GZR-100	GZR-V10004/06/08
two-place sub-base in compliance with VDMA-ISO flow rate 620 NI/min G1/8 connections	two-place sub-base in compliance with VDMA-ISO flow rate 620 NI/min fittings Ø 4-6-8 mm	two-place sub-base with increased flow rate 800 NI/min G1/8 connections	two-place sub-base with increased flow rate 800 NI/min fittings Ø 4-6-8 mm	single one-place sub-base with increased flow rate	blanking plug	UNIVER designed fittings GZR-V10004 Ø4 mm GZR-V10006 Ø6 mm GZR-V10008 Ø8 mm

26 mm						
BDF-4100	BDF-4115	BDF-4120	BDF-4140TIM	BDF-4180	BDF-4185	
left supply plate G1/2	right supply plate G1/2	intermediate supply plate G1/2	multipolar male connection module: 25 poles, type D	plate for separating supply pressures	closing plate for unused valve place	

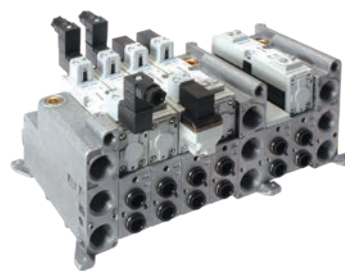
26 mm					
BDF-4210/20	BDF-4230 (a)	BDF-4310/20	BDF-4330 (a)	BDF-4400	GZR-VV1006/08/10
one-place sub-base in compliance with VDMA-ISO flow rate 1250 NI/min BDF-4210 G1/4 connections BDF-4220 G3/8 connections	one-place sub-base in compliance with VDMA-ISO flow rate 1250 NI/min fittings Ø 6-8-10 mm	one-place sub-base with increased flow rate 1700 NI/min BDF-4310 G1/4 connections BDF-4320 G3/8 connections	one-place sub-base with increased flow rate 1700 NI/min fittings Ø 6-8-10 mm	single one-place sub-base with increased flow rate	UNIVER designed fittings GZR-VV1006 Ø6 mm GZR-VV1008 Ø8 mm GZR-VV1010 Ø10 mm

Electrical connection				Connection IO-LINK
TSCFN24S000	TSCFN24S0300	TSCFN16D0300	TCXLKA	
	TSCFN24S0500	TSCFN16D0500	TCXLKB	
	TSCFN24S1000	TSCFN16D1000		
female connector 25 poles sub-D type no cable - M3x8 fixing screws	female connector: 25 poles, sub-D type, prewired for 26 coils (3-5-10m length) M3x8 fixing screws	sub-D type male/female flying connector (on request) prewired for 16 coils with cable Ø 8 mm (3-5-10 m length) suitable for dynamic laying - M3 x 8 fixing screws	connection module IO-LINK (port class A/B)	

(a) = Sub-base including fixing plate for fittings (fittings excluded)



18 mm



26 mm

18 mm						
BDF-3110	BDF-3115	BDF-3125	BDF-3180	BDF-3185	BDF-3191	BDF-3400
left supply plate G3/8	right supply plate G3/8m v	intermediate supply	pressure separator plate G3/8	closing plate for unused valve place	interface for connecting valves side 18-26 mm	single one-place sub-base with increased flow rate G1/8

18 mm						
BDF-3211/2(b)	BDF-3231/2(a) (b)	BDF-3311/2(b)	BDF-3331/2 (a) (b)	GZR-100	GZR-V10004/6/8	DD-...
two-place sub-base in compliance with VDMA-ISO flow rate 620 NI/min G1/8 connections	two-place sub-base in compliance with VDMA-ISO flow rate 620 NI/min fittings Ø 4-6-8 mm	two-place sub-base with increased flow rate 800 NI/min G1/8 connections	two-place sub-base with increased flow rate 800 NI/min fittings Ø 4-6-8 mm	blanking plug	UNIVER designed fittings GZR-V10004 Ø4 mm GZR-V10006 Ø6 mm GZR-V10008 Ø8 mm	U05 coil side 15 mm

26 mm						
BDF-4110	BDF-4115	BDF-4125	BDF-4180	BDF-4185	BDF-4400	
left supply plate G1/2	right supply plate G1/2	intermediate supply plate G1/2	pressure separator	closing plate for unused valve place	single one-place sub-base with increased flow rate G3/8	

26 mm						
BDF-4211/..(b)	BDF-4231/2 (a)(b)	BDF-4311/.. (b)	BDF-4331/2 (a)(b)	GZR-VV1006/8/10	DD-...	AM-5109
one-place sub-base in compliance with VDMA-ISO flow rate 1250 NI/min G1/4 connect. G3/8 connect. G1/4 BDF-4211 BDF-4212 connect. G3/8 BDF-4221 BDF-4222	one-place sub-base in compliance with VDMA-ISO flow rate 1250 NI/min fittings Ø 6-8-10 mm BDF-4231 BDF-4232	one-place sub-base with increased flow rate 1700 NI/min connect. G1/4 BDF-4311 BDF-4312 connect. G3/8 BDF-4321 BDF-4322	one-place sub-base with increased flow rate 1700 NI/min fittings Ø 6-8-10 mm	UNIVER designed fittings GZR-VV1006 Ø6 mm GZR-VV1008 Ø8 mm GZR-VV1010 Ø10 mm	U05 coil side 15 mm	Electrical connection Connector 15 mm

(a) = Sub-base including fixing plate for fittings (fittings excluded)
(b) = Part No. ending: 1 = electrical non integrated 2 = only pneumatic