

**G1/8 ÷ G1 1/2 Poppet Valves
for Compressed Air**



AF

Pg. 19.3

**G1/8 ÷ G1 1/2 Poppet Valves
for Vacuum**



AG

Pg. 19.13

**Mixed Threaded Valves
G1/8 - G 1/4 - G1/2**



AC

Pg. 19.25

Namur Valves



AC-N

Pg. 19.35

Solenoid and Connectors



Coils & Connectors

Pg. 19.41

POPPET VALVES



Poppet Valves Series

AF - POPPET VALVES 1/8" ÷ 1 1/2"

The AF series valves are based on a proven poppet valve design, recognized for their high reliability and consistent performance over time.

Designed for demanding industrial applications, they provide high flow rates, fast switching, and long service life even in harsh operating environments, helping to reduce downtime and maintenance requirements.

WIDE RANGE

1/8" ÷ 1 1/2" 2/2 - 3/2 NC-NO

COMPRESSED AIR VERSION

HIGH FLOW RATE

Up to 35000 NI/min (1 1/2")



AF NI/min
Compressed air



1/8"
(Ø 5,5)

580



1/4"
(Ø 8)

1100

3/8"
(Ø 10)

1500



1/2"
(Ø 15)

5400

3/4"
(Ø 19)

6500



1"
(Ø 25)

13500



1 1/2"
(Ø 39)

35000

Original poppet valve
system since 1973



SERIES AF - POPPET VALVES FOR COMPRESSED AIR



Poppet valves for compressed air Wide range: 1/8" - 1/4" - 3/8" - 1/2" - 3/4" - 1" - 1 1/2"

- Original Univer poppet system recognized by the market over the years
- Suitable for applications requiring high flow rates and a high number of cycles
- 1" - 2/2 version for bag filter cleaning



Fluid	Filtered air 50 µm, with or without lubrication
Pressure	Max 145 psi (10 bar)
Temperature Ambient	+122 °F
Temperature fluid	+23 ÷ +140 °F
Commutation system	Poppet
Vie/Position	2/2 NC (on request), 3/2 NC, 3/2 NO, 3/2 NC-NO
Control	Pneumatic, indirectly operated electro-pneumatic
Return	Pneumo-mechanical spring
Manual override	Impulse screw-operated, 2 positions
Valve Body	Zamak (1/8" to 1"), aluminum (1 1/2") BSPP version upon request
Seals	Conical poppets in polyurethane and Vulkollan diaphragm
Operators	Zamak (1/8" to 1"), aluminum (1 1/2")
Spool	Aluminum (1/8" to 3/8"), steel + plastic (1/2" to 1 1/2")
Voltage	12 V DC - 24 V DC - 24 V AC - 110 V AC - 230 V AC



Reference standard

II 2G Ex h IICT5 Gb



II 2D Ex h IICT100°C Db



II 3 GD c nA II T5 -10 °C ≤ Ta ≤ 45°C IP65



CHARACTERISTICS

Connections	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/2"
Nominal bore inch (mm)	.217 (5.5)	.315 (8)	.394 (10)	.591 (15)	.748 (19)	.984 (25)	1.535 (39)
Nominal flow rate (NI/min)	580	1100	1500	5400	6500	13500	35000
Electropilot	AA			AB			
Coil	U1 - UDA			U2 - UDB			
Power consumption	3,5 W (DC) - 5 VA (AC)			11 W (DC) - 10 VA (AC)			
Connector	CONU 1			CONU 3			

SOLENOID VALVES



1/8"

UAF 2500

UAF 2501



1/4"

UAF 2510

UAF 2517

UAF 2511

UAF 2518

3/8"

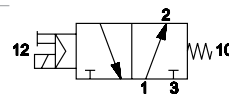
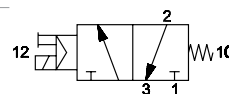
UAF 2520

UAF 2524

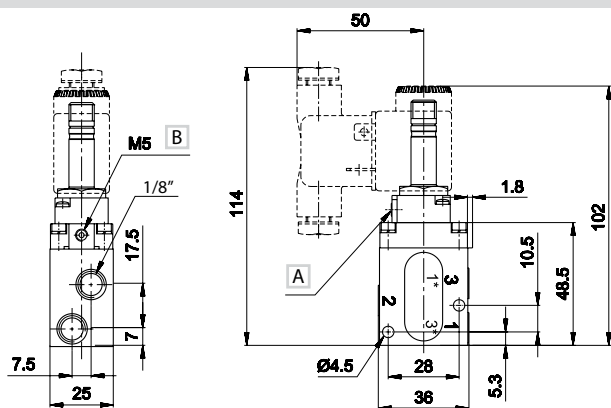
UAF 2521

UAF 2525

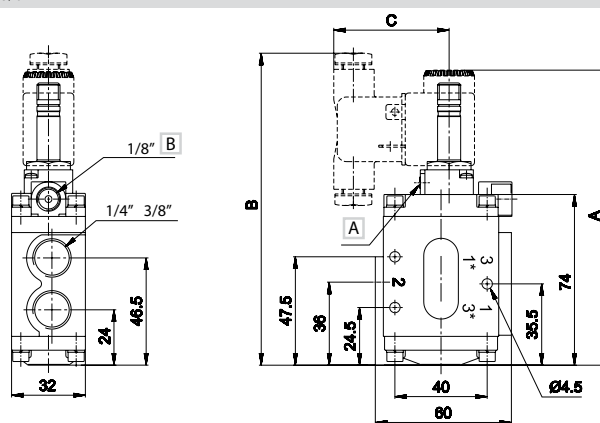
Code	Way	Spool	Control 12	Return 10	Flow rate (NI/min)	Ø inch (mm)	Resp. time (ms) En. De-en.		Pressure psi (bar) min. max.		Weight lb (Kg)	Coil	
UAF 2500	N = NPT = BSPP	3/2 NC	1/8"	electric amplified	pneumatic + spring	580	.217 (5.5)	15	20	22 (1.5)	145 (10)	0.55 (0.25)	U1
UAF 2510			1/4"	electric amplified	pneumatic + spring	1100	.315 (8)	20	23	23 (1.6)	145 (10)	1.28 (0.58)	U1
UAF 2520			3/8"	electric amplified	pneumatic + spring	1500	.394 (10)	20	23	23 (1.6)	145 (10)	1.23 (0.56)	U1
UAF 2501	N = NPT = BSPP	3/2 NO	1/8"	electric amplified	pneumatic + spring	580	.217 (5.5)	15	20	22 (1.5)	145 (10)	0.55 (0.25)	U1
UAF 2511			1/4"	electric amplified	pneumatic + spring	1100	.315 (8)	15	20	23 (1.6)	145 (10)	1.28 (0.58)	U1
UAF 2521			3/8"	electric amplified	pneumatic + spring	1500	.394 (10)	15	20	23 (1.6)	145 (10)	1.23 (0.56)	U1



1/8"



1/4" - 3/8"



	A	B	C
U1	129	136	50
U2	140,5	150	51,5

1 = Supply port
2 = Use
3 = Exhaust

A Manual override
B External servoassistance of the pilot

1 = Supply port
2 = Use
3 = Exhaust

A Manual override
B External servoassistance of the pilot

Upon request:
- external servoassistance of the pilot
- 1/4 - 3/8 U2 without manual override
- for 2/2 version put a plug into the exhaust
Electrovalves are supplied without coil, connector

SOLENOID VALVES



1/2"

UAF 2530

UAF 2531

3/4"

UAF 2540

UAF 2541

1"

UAF 2545

UAF 2546

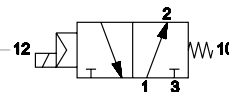
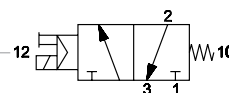


1 1/2"

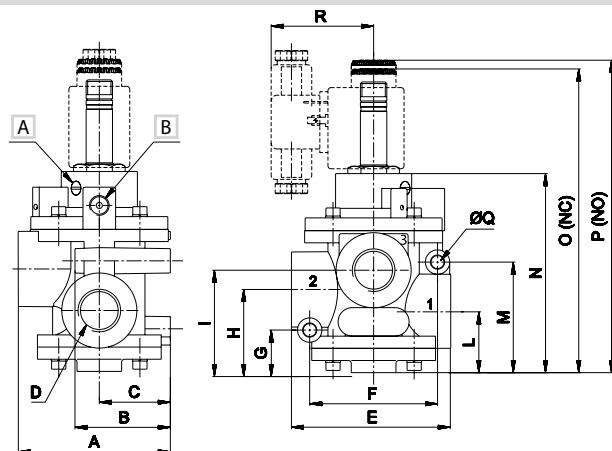
UAF 2565

UAF 2561

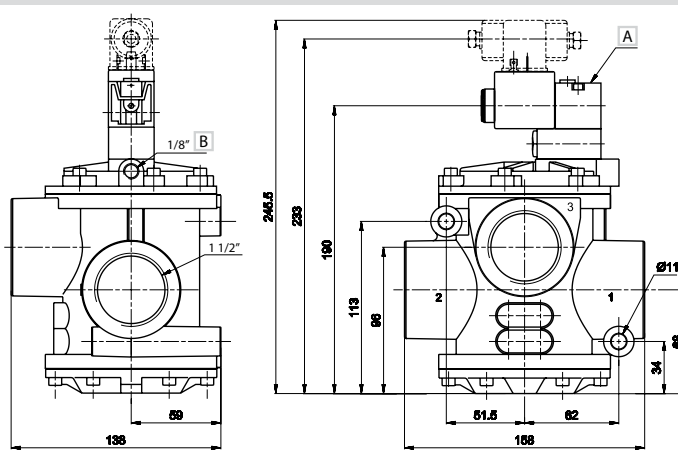
Code	Way	Spool	Control	Return	Flow rate	Ø	Resp. time (ms)		Pressure psi (bar)		Weight	Coil
							En.	De-en.	min.	max.		
			12	10	(NI/min)	inch (mm)					lb (Kg)	
UAF 2530	N = NPT = BSPP 3/2 NC	1/2"	electric amplified	pneumatic + spring	5400	.591 (15)	17	27	29 (2)	145 (10)	2.62 (1.19)	U2
UAF 2540		3/4"	electric amplified	pneumatic + spring	6500	.748 (19)	17	27	29 (2)	145 (10)	2.49 (1.13)	U2
UAF 2545		1"	electric amplified	pneumatic + spring	13500	.984 (25)	20	32	32 (2.2)	145 (10)	3.57 (1.62)	U2
UAF 2565		1 1/2"	electric amplified	pneumatic + spring	35000	1.535 (39)	47	22	36 (2.5)	145 (10)	5.00 (2.27)	U2
UAF 2531	N = NPT = BSPP 3/2 NO	1/2"	electric amplified	pneumatic + spring	5400	.591 (15)	22	22	44 (3)	145 (10)	2.62 (1.19)	U2
UAF 2541		3/4"	electric amplified	pneumatic + spring	6500	.748 (19)	22	22	44 (3)	145 (10)	2.49 (1.13)	U2
UAF 2546		1"	electric amplified	pneumatic + spring	13500	.984 (25)	23	23	44 (3)	145 (10)	3.57 (1.62)	U2
UAF 2561		1 1/2"	electric amplified	pneumatic + spring	35000	1.535 (39)	20	20	44 (3)	145 (10)	5.00 (2.27)	U2



1/2" - 3/4" - 1"



1 1/2"



	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
1/2"	75	47	35	1/2"	78,5	63	21	41	50,5	30	54,5	100	150	154	6,4	50,5
3/4"	75	47	35	3/4"	78,5	63	21	41	50,5	30	54,5	100	150	154	6,4	50,5
1"	89	55	40	1"	101	76	25,5	51	64	38	62,5	115	167	175	8,4	50

1 = Supply port

2 = Use

3 = Exhaust

A Manual override

B External servoassistance of the pilot

1 = Supply port

2 = Use

3 = Exhaust

A Manual override

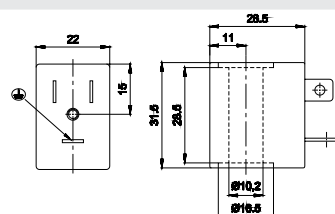
B External servoassistance of the pilot

Upon request:

- external servoassistance of the pilot

Electrovalves are supplied without coil and connector

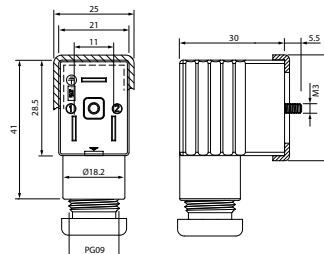
U1 22 MM COIL



22 mm

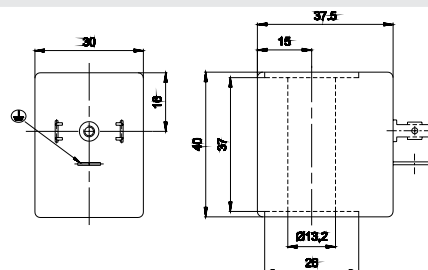
10 mm

Code	Duty cycle ED (a) %	Power consumption W		Tolerance tension %	Rated voltage	Weight lb (Kg)
		Hold	Inrush			
UDA 0050	100	3,5	3,5	±10	12 V DC	0.13 (0.06)
UDA 0051	100	3,5	3,5	±10	24 V DC	0.13 (0.06)
UDA 0106	100	5,4 VA (Max)	7,8 VA (Max)	±10	24 V AC/50-60 HZ	0.13 (0.06)
UDA 0108	100	5,4 VA (Max)	7,8 VA (Max)	±10	110 V AC/50-60 HZ	0.13 (0.06)
UDA 0124	100	5,4 VA (Max)	7,8 VA (Max)	±10	230 V AC/50-60 HZ	0.13 (0.06)



Code	Size	Colour	Characteristics
* CONU1 000 01	CULUS .866 (22 mm)	BLACK	2 PINS
* CONU2 024 00	CULUS .866 (22 mm)	TRANSPARENT	LED + VDR 0 - 24V
* CONU2 110 00	CULUS .866 (22 mm)	TRANSPARENT	LED + VDR 110V
* CONU2 250 00	CULUS .866 (22 mm)	TRANSPARENT	LED + VDR 220V
*: UL 1977 AND CAN/CSA C22.2 NO. 182.3			VDR: Fitted with varistors as surge protection device.

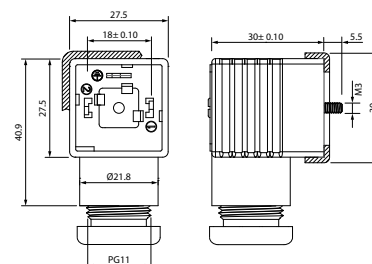
U2 30 MM COIL



30 mm

13 mm

Code	Duty cycle ED(a) %	Power consumption W		Tension tolerance %	Rated voltage	Weight lb (Kg)
		Hold	Hold			
UDB 0501	100	11	11	±10	12 V DC	0.13 (0.06)
UDB 0502	100	11	11	±10	24 V DC	0.13 (0.06)
UDB 0507	100	10 VA (Max)	16 VA (Max)	±10	24 V AC/50-60 HZ	0.13 (0.06)
UDB 0509	100	10 VA (Max)	16 VA (Max)	±10	110 V AC/50-60 HZ	0.13 (0.06)
UDB 0510	100	10 VA (Max)	16 VA (Max)	±10	230 V AC/50-60 HZ	0.13 (0.06)



Code	Size	Colour	Characteristics
* CONU3 100 01	CULUS 30 - 36 mm	BLACK	2 PINS
* CONU3 202 40	CULUS 30 - 36 mm	TRANSPARENT	LED + VDR 0 - 24V
* CONU3 211 00	CULUS 30 - 36 mm	TRANSPARENT	LED + VDR 110V
* CONU3 225 00	CULUS 30 - 36 mm	TRANSPARENT	LED + VDR 220V
*: UL 1977 AND CAN/CSA C22.2 NO. 182.3			VDR: Fitted with varistors as surge protection device.

(a) = 110V - 230V solenoid valves must be built-in (EN-60204-1)

Under continuous service a maximum temperature will not compromise the functioning of the coil provided that the working position is ventilated

SERVO VALVE



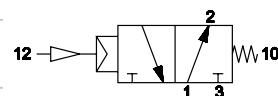
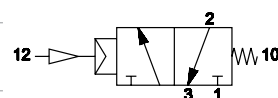
1/8"
UAF 2600
UAF 2700



1/4"
UAF 2601
UAF 2701

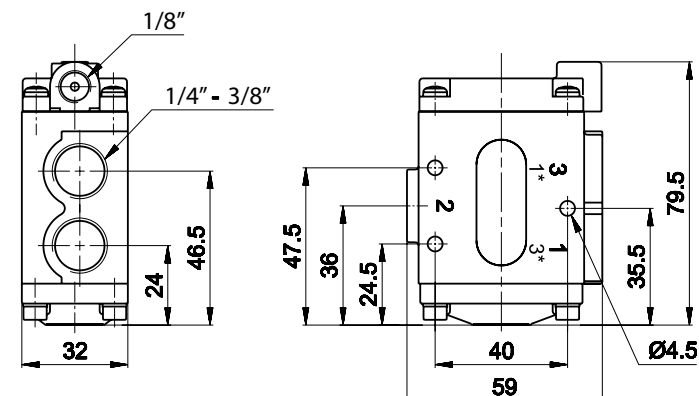
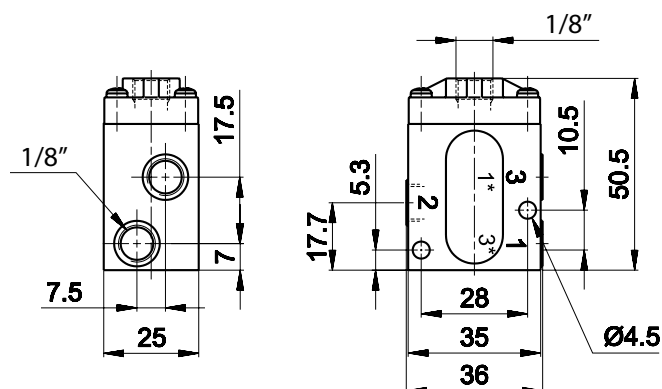
3/8"
UAF 2606
UAF 2706

Code	Way	Spool	Control	Return	Flow rate	Ø	Resp. time (ms)	Pressure psi (bar)	Weight			
			12	10	(NI/min)	inch (mm)	En.	De-en.	supply	control	lb (Kg)	
UAF 2600	N = NPT = BSPP	3/2 NC	1/8"	pneumatic amplified	pneumatic + spring	580	.217 (5.5)	5	8	87 (6)	51 (3.5)	0.46 (0.21)
UAF 2601			1/4"	pneumatic amplified	pneumatic + spring	1100	.315 (8)	5	7	87 (6)	58 (4)	1.19 (0.54)
UAF 2606			3/8"	pneumatic amplified	pneumatic + spring	1500	.394 (10)	5	7	87 (6)	58 (4)	1.15 (0.52)
UAF 2700	N = NPT = BSPP	3/2 NO	1/8"	pneumatic amplified	pneumatic + spring	580	.217 (5.5)	5	8	87 (6)	51 (3.5)	0.46 (0.21)
UAF 2701			1/4"	pneumatic amplified	pneumatic + spring	1100	.315 (8)	5	7	87 (6)	58 (4)	1.19 (0.54)
UAF 2706			3/8"	pneumatic amplified	pneumatic + spring	1500	.394 (10)	5	7	87 (6)	58 (4)	1.15 (0.52)



1/8"

1/4" - 3/8"



1 = Supply port
2 = Use
3 = Exhaust

1 = Supply port
2 = Use
3 = Exhaust

Upon request:
- 2/2-way and pneumatic servo-controlled versions available
- For the 2/2-way version, fit a plug to the outlet

SERVO VALVE



1/2"
UAF 2603

3/4"
UAF 2610

1"
UAF 2615

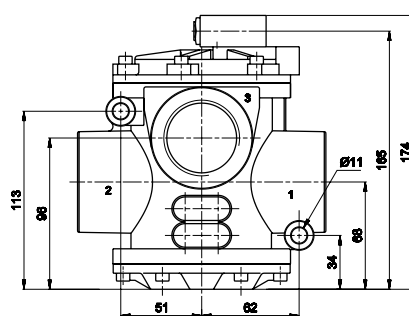
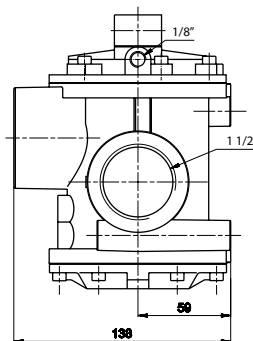
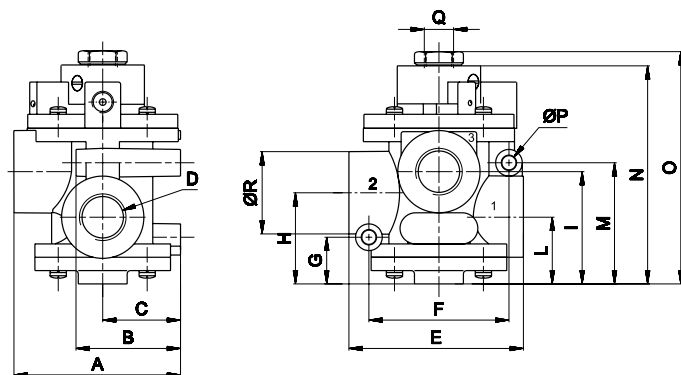


1 1/2"
UAF 2620

Code	Way	Spool	Control	Return	Flow rate	Ø	Resp. time (ms)	Pressure bar	Weight	
			12	10	(NI/min)	inch (mm)	En. De-en.	supply control	Kg	
UAF 2603		1/2"	pneumatic amplified	pneumatic + spring	5400	.591 (15)	7 10	87 (6) 58 (4)	2.80 (1.27)	
UAF 2610	N = NPT = BSPP	3/4"	pneumatic amplified	pneumatic + spring	6500	.748 (19)	7 10	87 (6) 58 (4)	2.43 (1.10)	
UAF 2615		1"	pneumatic amplified	pneumatic + spring	13500	.984 (25)	10 12	87 (6) 58 (4)	3.51 (1.59)	
UAF 2620		1 1/2"	pneumatic amplified	pneumatic + spring	35000	1.535 (39)	36 15	87 (6) 58 (4)	4.83 (2.19)	

1/2" - 3/4" - 1"

1 1/2"



	A	B	C	D	E	F	G	H	I	L	M	N	O	P	Q	R
1/2"	75	47	35	1/2"	78,5	63	21	41	50,5	30	54,5	100	105	6,4	1/4"	37
3/4"	75	47	35	3/4"	78,5	63	21	41	50,5	30	54,5	100	105	6,4	1/4"	37
1"	88,5	55	40	1"	101	76	25,5	51	64	38	62,5	115	120,5	8,4	1/4"	45

1 = Supply port
2 = Use
3 = Exhaust

1 = Supply port
2 = Use
3 = Exhaust

Upon request:
- external pilot power supply
Electrovalves are supplied without coil and connector

2/2 SOLENOID VALVE FOR BLOWING



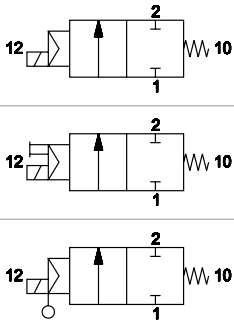
1"

UAF 2550

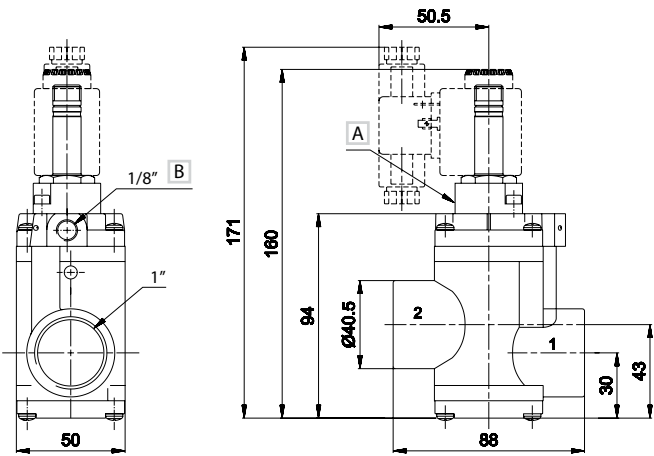
UAF 2551

UAF 2552

Code	Way	Spool	Control	Return	Flow rate	Ø	Resp. time (ms)			Pressure bar			Weight	Coil
							En.	De-en.	min.	max.	supply	control		
				12	10	(NI/min)	inch (mm)						lb (Kg)	
UAF 2550		1"	electric amplified	pneumatic + spring	1600	.984 (25)	23	55	29 (2)	145 (10)	-	-	2.34 (1.06)	U2
UAF 2551	N = NPT = BSPP	2 / 2 NC	1"	electric amplified	pneumatic + spring	1600	.984 (25)	23	55	29 (2)	145 (10)	-	2.34 (1.06)	U2
UAF 2552		1"	electric amplified	pneumatic + spring	1600	.984 (25)	23	35	-	-	87 (6)	58 (4)	2.34 (1.06)	U2



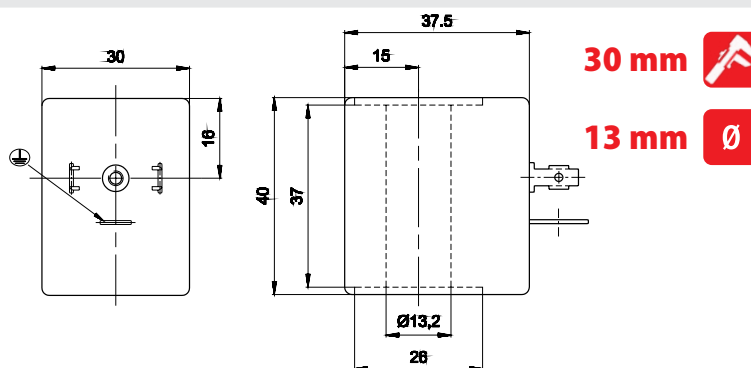
1"



1 = Supply port
2 = Use

- A** Manual override **UAF 2551**
- B** External servoassistance of the pilot **UAF 2552**

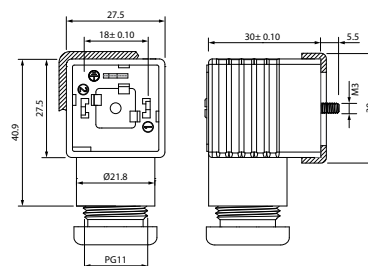
U2 30 MM COIL



Code	Duty cycle ED(a) %	Power consumption W Hold	Tension tolerance %	Rated voltage	Weight lb (Kg)
UDB 0501	100	11	±10	12 V DC	0.13 (0.06)
UDB 0502	100	11	±10	24 V DC	0.13 (0.06)
UDB 0507	100	10 VA (Max)	±10	24 V AC/50-60 HZ	0.13 (0.06)
UDB 0509	100	10 VA (Max)	±10	110 V AC/50-60 HZ	0.13 (0.06)
UDB 0510	100	10 VA (Max)	±10	230 V AC/50-60 HZ	0.13 (0.06)

(a) = 110V - 230V solenoid valves must be built-in (EN-60204-1)

Under continuous service a maximum temperature will not compromise the functioning of the coil provided that the working position is ventilated



	Size	Colour	Characteristics
* CONU3 100 01	30 - 36 mm	BLACK	2 PINS
* CONU3 202 40	30 - 36 mm	TRANSPARENT	LED + VDR 0 - 24V
* CONU3 211 00	30 - 36 mm	TRANSPARENT	LED + VDR 110V
* CONU3 225 00	30 - 36 mm	TRANSPARENT	LED + VDR 220V

*: UL 1977 AND CAN/CSA C22.2 NO. 182.3

VDR: Fitted with varistors as surge protection device.

2/2 PNEUMATIC VALVE FOR BLOWING WITH EXT. SUPPLY



1"

UAF 2617

Code	Way	Spool	Control	Return	Flow rate	Ø	Resp. time (ms)		Pressure bar		Weight
			12	10	(NI/min)	inch (mm)	En.	De-en.	supply	control	lb (Kg)

UAF 2617

N = NPT
= BSPP

2 / 2 NC

1"

pneumatic
amplified

pneumatic
+ spring

1600

.984 (25)

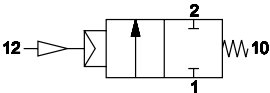
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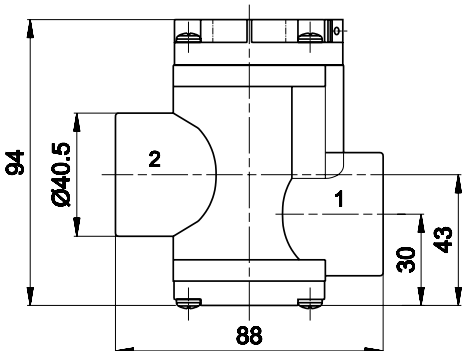
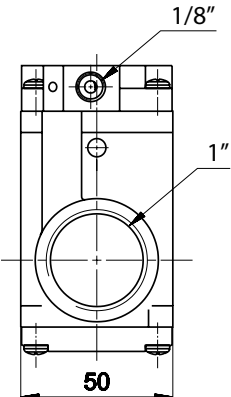
6

4

2.20 (1)



1"



1 = Supply port
2 = Use