

Series AE

Univer[®] Valves:

Valves for Sub-Base Assembly; Light Series

**Acetalic resin, die-cast
aluminum cover**

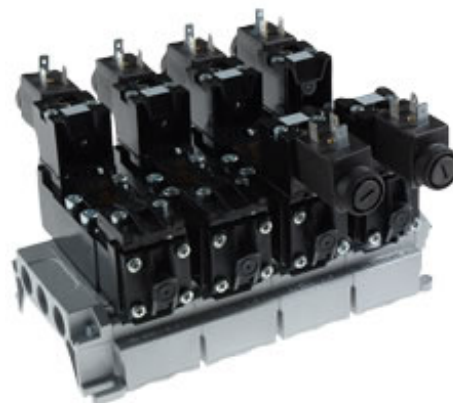
Body

0-145 psi

Operating pressure

14-113°F

Ambient temperature



ABOUT UNIVER[®] SERIES AE

This is a new line of valves for ISO sub-bases. These valves are identical in aspect and dimensions, but have two different internal switching systems, which fulfill the widest range of needs in pneumatic energy control. These two systems maintain the basic characteristics of each product (high capacity, short internal stroke, no lubrication). These valves can be used for millions of cycles in heavy duty environments, while guaranteeing maximum safety and reliability.

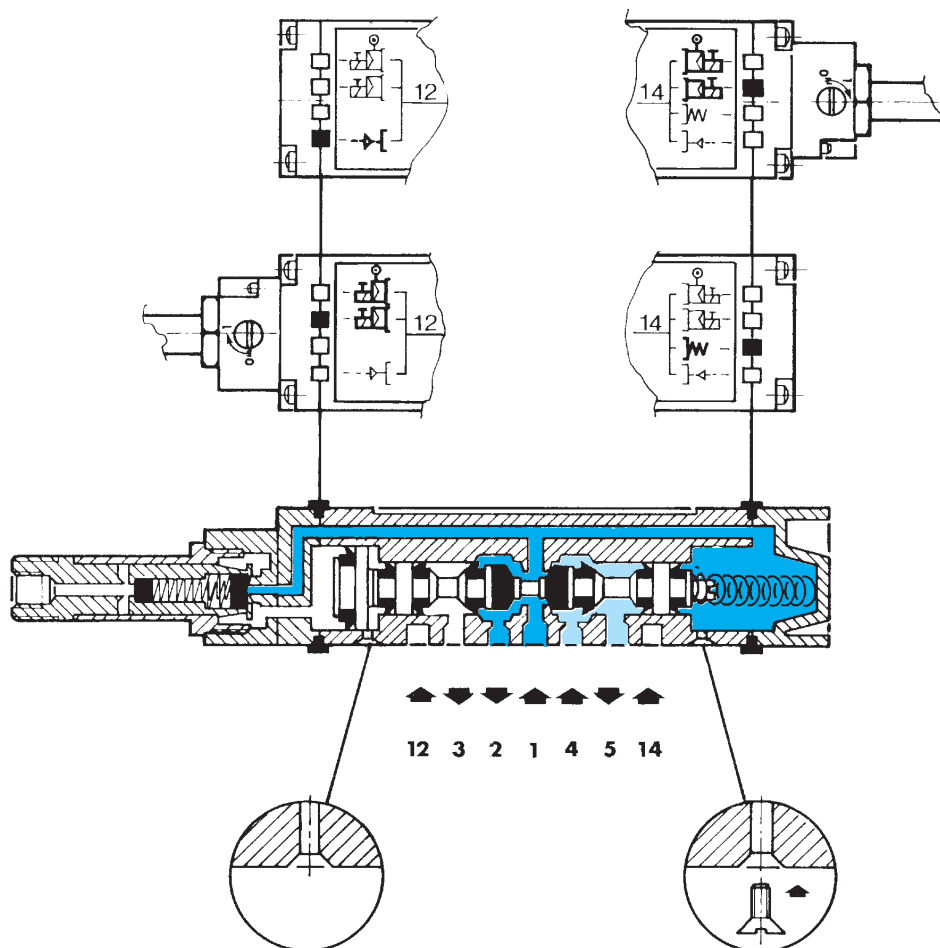
Technical Characteristics

Body:	Acetalic resin, die-cast aluminum cover
Operating pressure:	0-145 psi
Ambient temperature:	14-113°F
Fluid:	Filtered air 50µm
Fluid temperature:	-4-122°F
Nominal diameter:	8/10/15/19 mm
Flow rate:	1480/2300/4200/6600 NI/min.
Switching system:	Mixed or spool
Response time:	16-115 m/s
Coils:	Series DC (Series DA on request)

For more information about our complete product line of Univer[®] Valves, visit our web site at:
<http://www.granzow.com/univer/valves/>

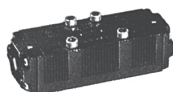
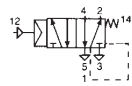
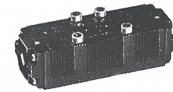
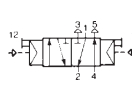
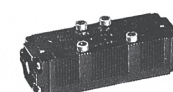
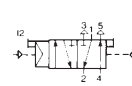
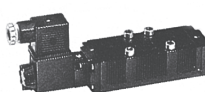
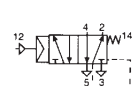

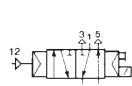
VALVES FOR SUB-BASE MOUNTING - LIGHT SERIES

This is a well-known series which has been produced for quite some time now and which has been well received by customers for its interesting characteristics, but above all for its high-level performances. The well-proved internal spool poppet system, the use of special compound for the seals, the advanced technology which permits the realisation of the valve body in light material (plastics) allow long life, quick adaptations, high flow rates and lubrication-free operation. If we consider that relating to its performance it is very convenient from the economic point of view, the main reasons of its success are easily understood. In cases where the specification are not binding, it might be convenient to choose this series of valves for sub-base mounting. These latter, in fact, are not according to specifications, as the positions of control/return are inverted and as they do not follow all specifications which allow complete interchangeability of electrical parts. The drawing below shows the characteristics of the valve: multifunction obtained by positioning selective seals, the necessity to replace the electric cover by the pneumatic one, if passing from electropneumatic to pneumatic functions electropilot with manual override. It also shows the inversion of the positions of the control (which is in 12) and return (which is in 14) and the necessity to use the screw for closing the exhaust port where the piston of the amplified control is not used.



If rules are not binding, these valves are an inexpensive and reliable solution.
They are characterized by a mixed internal system, which has been tested for years now, seals in special compounds and plastic valve body.
These valves guarantee a long life, high flow rates, fast switching and may work without lubrication.

* System: M = Mixed

Type	Symbol	Control (14)	Return (12)	Ways	Ø mm	Capacity NI/min	Size system*	Time ms energ. (14) de-energ. (12)		Mass kg	Part number
		Pneum.	Pneumo. mechanic.	5/2	8	1480	1 M	5	10	0,17	AE-1009
					10	2300	2 M	8	10	0,80	AE-1120
		Pneum.	Pneum.	5/2	8	1480	3 M	3	3	0,17	AE-1010
					10	2300	4 M	3	3	0,21	AE-1121
		Pneum.	Pneum. differen.	5/2	8	1480	1 M	3	10	0,17	AE-1010F
					10	2300	2 M	3	8	0,21	AE-1121F
		Electrical	Pneumo. mechanic.	5/2	8	1480	1 M	18	24	0,25	AE-1000
					10	2300	2 M	22	18	0,29	AE-1100
		Electrical	Electrical	5/2	8	1480	1 M	16	16	0,33	AE-1003
					10	2300	2 M	24	24	0,35	AE-1103

Control curves

Size 1

Size 2

Single pneumatic impulse

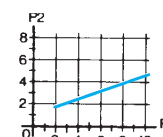
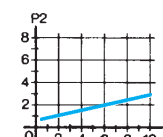
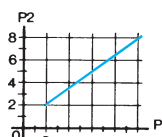
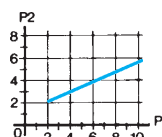
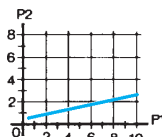
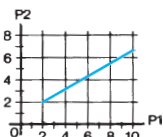
Double amplified pneumatic impulse

Double differential pneumatic impulse

Single pneumatic impulse

Double amplified pneumatic impulse

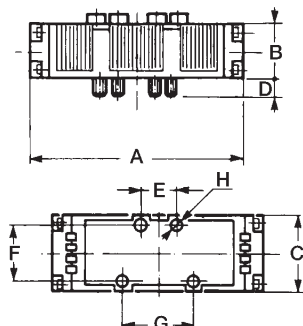
Double differential pneumatic impulse



P1 = supply pressure
P2 = pilot pressure

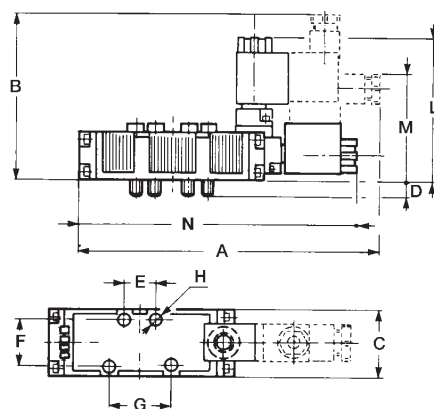
The part numbers of valves do not include coils

Single/double pneumatic impulse



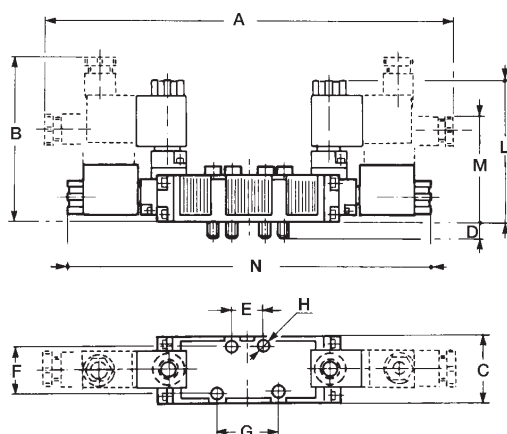
	Size 1	Size 2
A	108	120
B	28	28
C	38	50
D	7	7
E	18	24
F	28	38
G	36	48
H	M5 x 35	M6 x 35

Single electrical impulse



	Size 1	Size 2
A	108	120
B	98	98
C	38	50
D	7	7
E	18	24
F	28	38
G	36	48
H	M5 x 35	M6 x 35
I	7,5	7,5
L	83	83
M	64	64
N	161	176

Double electrical impulse



	Size 1	Size 2
A	234	258
B	98	98
C	38	50
D	7	7
E	18	24
F	28	38
G	36	48
H	M5 x 35	M6 x 35
I	7,5	7,5
L	83	83
M	64	64
N	208	233





NOTE: U1 coils quotas

Mixed system

Valve part number	Ways	Internal system	Control (14)	Return (12)	Size	Spare kit part number
AE-1000	5/2	mixed	electrical	spring	ISO 1	AE-1047
AE-1009	5/2	mixed	pneumatic	spring		
AE-1003	5/2	mixed	electrical	electrical		AE-1048
AE-1010	5/2	mixed	pneumatic	pneumatic		
AE-1100	5/2	mixed	electrical	spring	ISO 2	AE-1142
AE-1120	5/2	mixed	pneumatic	spring		
AE-1103	5/2	mixed	electrical	electrical		AE-1143
AE-1121	5/2	mixed	pneumatic	pneumatic		

When assembling and disassembling act as shown in the figure. Reassemble the half spools by using locktight. The spare part kits include all internal particulars for the single and double impulse. To replace the electropilot, order part number AA-0400.

Spare parts

Valve part number	Ways	Internal system	Control (14)	Return (12)	Size	electropilot	spring	piston	piston
									
						AA-0184	BE-3999-01	AE-1046	AE-1146
AE-1000	5/2	mixed	electrical	spring	ISO 1	1	1	1	–
AE-1009	5/2	mixed	pneumatic	spring		–	1	1	–
AE-1003	5/2	mixed	electrical	electrical		2	–	2	–
AE-1010	5/2	mixed	pneumatic	pneumatic		–	–	2	–
AE-1100	5/2	mixed	electrical	spring	ISO 2	1	1	–	1
AE-1120	5/2	mixed	pneumatic	spring		–	1	–	1
AE-1103	5/2	mixed	electrical	electrical		2	–	–	2
AE-1121	5/2	mixed	pneumatic	pneumatic		–	–	–	2