

# AE

## Light series valves for ISO 5599/1 sub-base mounting

**Light series:** technopolymer valve body with metall cover  
**Interchangeability:** ISO 5599/1 sub-base mounting (size 1 and 2)  
**Reliability:** the mixed internal system (poppet-spool) guarantees long life  
**Performance:** high flow rate (size 1 = 1480 NI/min - size 2 = 2300 NI/min), fast commutation, functioning without lubrication  
**Multifunction:** possibility to get different functions just changing the position of the selective seal

Available ATEX version upon request  
 CE Ex II 2Gc IIC T5 II 2Dc T100°C

### TECHNICAL CHARACTERISTICS

Ambient temperature	-10 ÷ +50 °C	
Fluid temperature	+50 °C Max	
Fluid	50 µm filtered air, with or without lubrication	
Commutation system	mixed system	
Ways/Positions	5/2	
Pressure	max 10 bar	
Control	indirect electro - pneumatic and pneumatic	
Return	pneumomechanical spring	
Connections	ISO 5599/1 interface (BF series sub-base)	
	size 1	size 2
Nominal Ø (mm)	8	10
Nominal flow rate (NI/min)	1480	2300

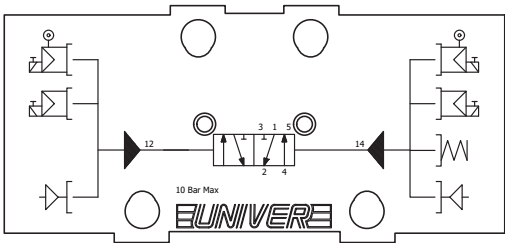
### CONSTRUCTIVE CHARACTERISTICS

Valve body	acetalic resin
Seals	nitrile rubber - polyurethane
Spool	Aluminum
Cover	zamak

### ELECTRIC CHARACTERISTICS

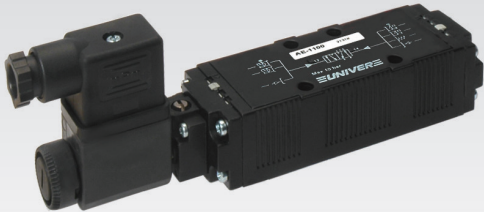
Electropilot	U1 - AA series
Coil	DA series
Power consumption	3,5 W (DC) - 5 VA (AC)
Voltage	12 V DC - 24 V DC - 24 V AC - 110 V AC - 230 V AC
Connector	AM-5110
Manual override	impulse screw - 2 positions

### MULTIFUNCTIONAL SYSTEM

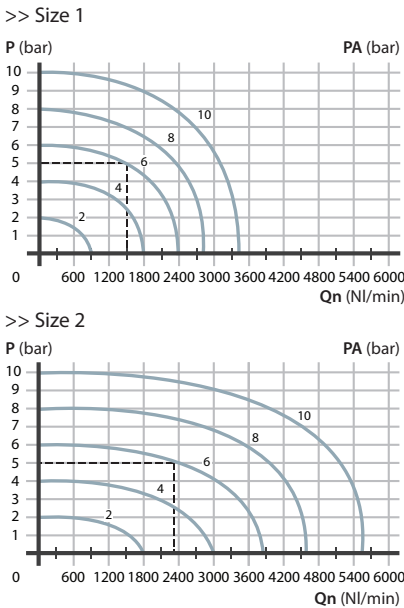


For technical details, see page 3.2-16

Subject to change

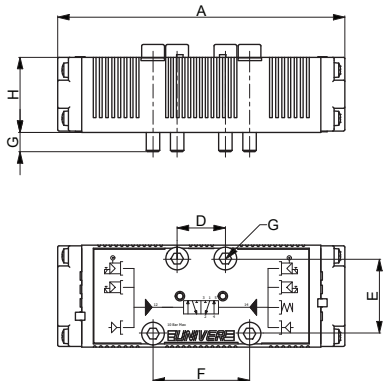


### Flow rate characteristics



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

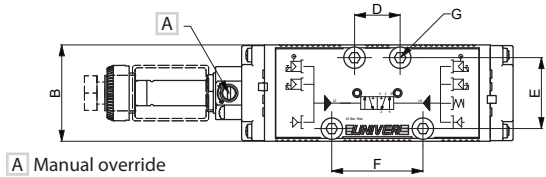
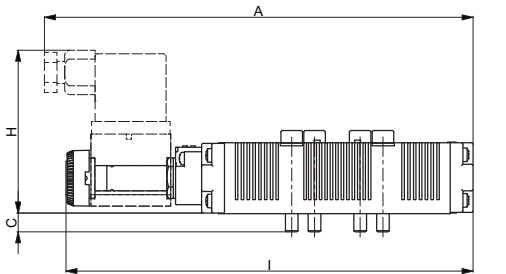
Single/double pneumatic impulse



	A	B	C	D	E	F	G	H
size 1	108	38	7	18	28	36	M5x35	28
size 2	120	50	7	24	38	48	M6x35	28

	Symbol	Control		Return	Size	Pressure bar	Response Time (ms)		Weight Kg	Part no.
		14	12				En.	De-en.		
5/2		pneumatic amplified	pneumomechanical spring		1	2÷10	5	10	0,17	AE-1009
					2	2,3÷10	8	10	0,80	AE-1120
5/2		pneumatic amplified	pneumatic amplified		1	1÷10	3	3	0,17	AE-1010
					2	1÷10	3	3	0,21	AE-1121

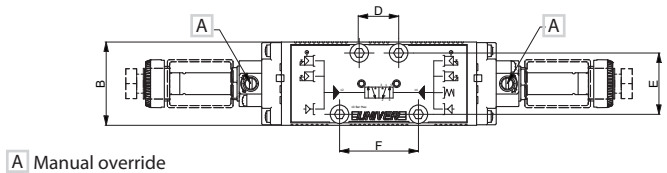
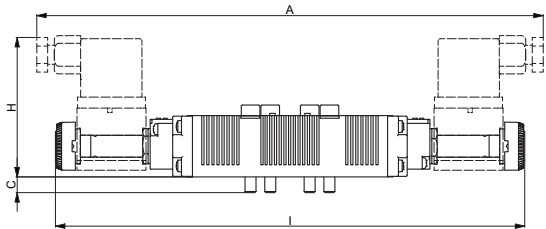
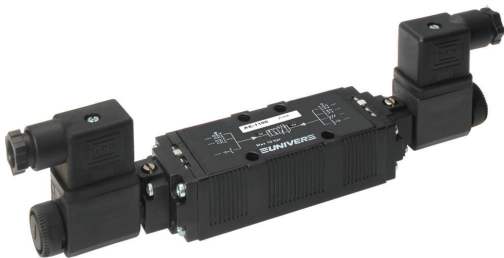
Single electric impulse



	A	B	C	D	E	F	G	H	I
size 1	171	38	7	18	28	36	M5x35	64	161
size 2	183	50	7	24	38	48	M6x35	64	173

	Symbol	Control		Return	Size	Pressure bar	Response Time (ms)		Weight Kg	Part no.
		14	12				En.	De-en.		
5/2		electric amplified	pneumomechanical spring		1	2÷10	18	24	0,23	AE-1000
					2	2,3÷10	22	18	0,27	AE-1100

Double electric impulse

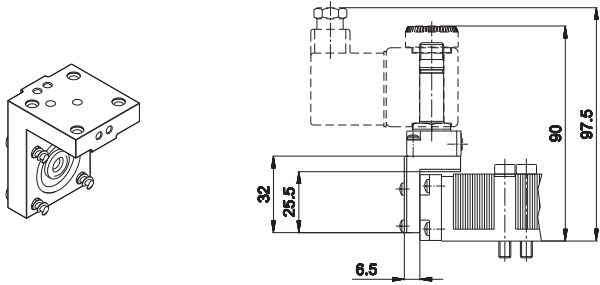


	A	B	C	D	E	F	G	H	I
size 1	234	38	7	18	28	36	M5x35	64	208
size 2	246	50	7	24	38	48	M6x35	64	220

	Symbol	Control		Return	Size	Pressure bar	Response Time (ms)		Weight Kg	Part no.
		14	12				En.	De-en.		
5/2		electric amplified	electric amplified		1	1÷10	16	16	0,28	AE-1003
					2	1÷10	24	24	0,30	AE-1103











Electrovalves are supplied without coil, connector and locking ring

AM-5151



"H" option solenoid square  
weight: 0,035 Kg

>> ISO 1 - ISO 2 sub-base

				
<p><b>ISO 1</b> - single sub-base, side connections <b>BF-1060</b> G1/8 in-line connections <b>BF-1061</b> G1/4 in-line connections</p>	<p><b>ISO 1</b> - single modular or Manifold subbase, dorsal connections with separate exhausts <b>BF-1062</b> G1/8 dorsal connections <b>BF-1063</b> G1/4 dorsal connections</p>	<p><b>ISO 1</b> - Manifold universal system sub-base, dorsal and side connections conveyed exhausts <b>BF-1071</b> G1/8 dorsal and side connections <b>BF-1071S</b> G1/8 side pneumatic impulse <b>BF-1072</b> G1/4 dorsal and side connections <b>BF-1072S</b> G1/4 side pneumatic impulse</p>	<p><b>ISO 1</b> - Manifold universal system inlet plate <b>BF-1064</b> G3/8 in-line connections <b>BF-1065</b> G3/8 on top connections <b>BF-1066</b> G3/8 dorsal connections <b>BF-1068</b> G3/8 only in-line connections</p>	<p><b>ISO 1</b> - Manifold universal system diaphragm <b>BF-1070</b></p>
				
<p><b>ISO 2</b> - single sub-base, side connections <b>BF-1150</b> G1/4 in-line connections <b>BF-1151</b> G3/8 in-line connections</p>	<p><b>ISO 2</b> - single sub-base, dorsal connections <b>BF-1152</b> G1/4 dorsal connections <b>BF-1153</b> G3/8 dorsal connections</p>	<p><b>ISO 2</b> - Manifold universal system sub-base, dorsal and side connections conveyed exhausts <b>BF-1160</b> G1/4 dorsal and side connections <b>BF-1161</b> G3/8 dorsal and side connections</p>	<p><b>ISO 2</b> - Manifold universal system inlet plate <b>BF-1154</b> G1/2 in-line connections <b>BF-1155</b> G1/2 dorsal connections</p>	<p><b>ISO 2</b> - Manifold universal system diaphragm <b>BF-1162</b></p>

For sub-base dimensions refer to section "Standardized valves>BE/BE12"

Subject to change

MULTIFUNCTIONAL SYSTEM

This is a well-known series which has been produced for quite long time now, and which has been well received by customers. The well-proved internal spool-poppet system, the use of special compound for the seals, the advanced technology which permits the production of the valve body in light material (plastics) allow long life, quick commutation, high flow rates without lubrication at reasonable costs.

In cases where the specifications are not binding, it might be convenient to choose this series of valve for sub-base mounting. The drawing below shows the characteristics of the valve: multifunction system obtained by positioning selective seals and the possibility to replace the electric cover by the pneumatic one, if passing from electropneumatic to pneumatic functions. It is also shown 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.

