SERIES AA - MINIATURE ELECTROPILOTS

Reference Standard

ATEX 2014/34/UE

Temperature

- 10 °C
+ 50 °C

TECHNICAL CHARACTERISTICS

Adjustable coil	(360°) separated from the mechanical part
Way/Positions	2/2 NC, 3/2 NC, 2/2 NO, 3/2 NO(a)
Sub-base	original Univer Speed modular valves
Fluid temperature	Max +95 °C
Fluid	50 µm filtered air, with or without lubrication, neutral gases
	(other fluids can be intercepted on request)
Switching system	direct-acting shutter with cushioned seals
Pressure	0 ÷ 10 bar (2/2, 3/2 NC), 3 ÷ 10 bar (3/2 NO)
Control	electric
Return	mechanical spring
Connections	on sub-base or with threaded connections on the body, with CNOMO interface
Nipple	AA

CE Ex II 2Gc IIT5 II2Dc T100°C

	Sub-base	G 1/8	M5	CNOMO
Nominal Ø (mm)	1,2 ÷ 1,5	1 ÷ 1,5	1 ÷ 1,5	1,2 ÷ 1,5
Nominal flow rate (Nl/min)	30 ÷ 60	28 ÷ 60	30 ÷ 60	33 ÷ 45

ELECTRIC CHARACTERISTICS

Series Coils	U1	U3
Coil	DA	DC
Power consumption	3,5 W (DC) - 5 VA (AC)	2,5 W (DC) - 3,3 VA (AC)
Connector	AM-5110	AM-5111
Voltage	12 V DC - 24 V DC - 24 V AC - 110 V AC - 230 V AC	
Protection degree	IP65	

C US

Certification CSA/UL

(a) = Mechanical part designed to keep the air supply always from the body
(useful when multiple NC or NO pilots are connected in series to have a single power supply)

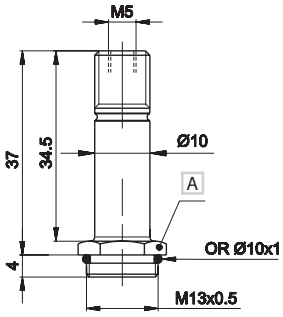
Sleeves AA - with moving core

Material:	
Sleeve	treated brass / stainless steel on request
Cores and spring	stainless steel
Seals	nitrile rubber /FKM on request

Code	Function	Exhaust Ø mm	Pressure bar	Weight Kg
AA-0150	3/2 NO	1,2	3÷10	0,024
AA-0157	3/2 NC	1,5	0÷10	0,022
AA-0170	2/2 NC	-	0÷10	0,022

Upon request viton seals and stainless steel sleeves (only NC versions)

NC



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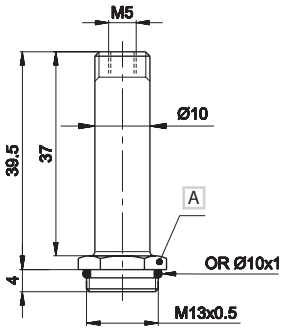
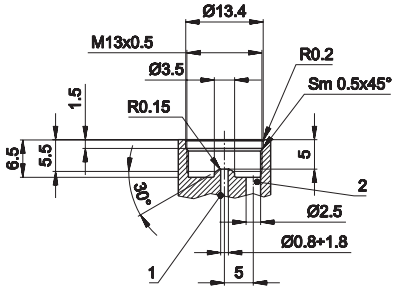


A - Wrench 14

Detail of machining

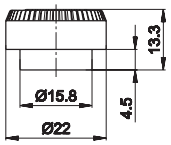


1 = Supply port

2 = Use

Locking rings for coils on sleeves

1



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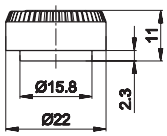

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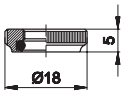
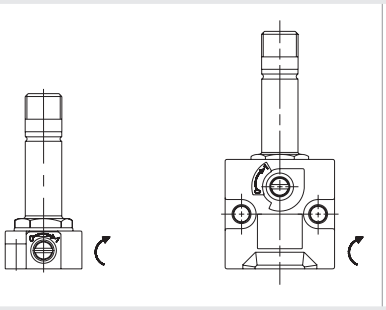


	Code	Function	Version	Material	Coil
1	AM-5213A	3/2 NO	= radial exhausts	technopolymer	Series U1
2	AM-5211A	3/2 NC	= radial exhausts	technopolymer	Series U1
3	AM-5211B (a richiesta)	2/2 NC	= open exhausts	brass	Series U1

In order to convey exhausts, use version 3

Standard manual overrides

1



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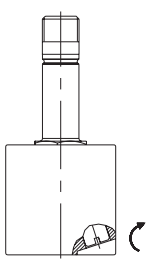

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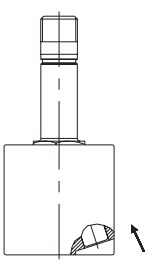

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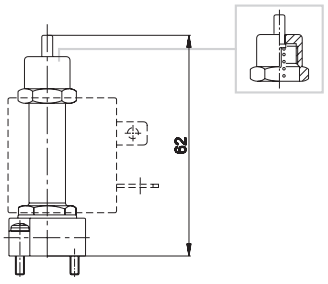


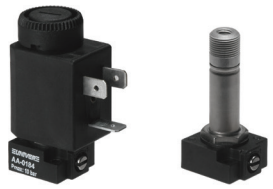
	Functionig	Suitable for sleeves	Symbol/Code
1	= with 2 position screw	all NC U1 electropilots that can use manual override	⊖
2	= with impulse 1-2 position screw	only CNOMO NC U1 electropilots	⊖
3	= with button with tool	only CNOMO NC U1 electropilots	→
4	= with button, 1 position	U1 3/2 NO electropilots	AM-5201(a)

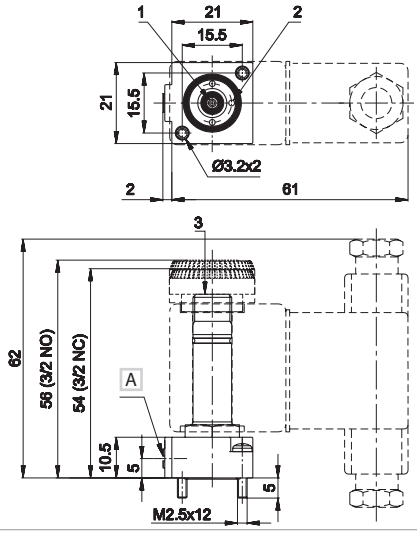
(a) = montato sull'estremità del cannotto 3/2 NO

⊖ = with 2 position screw

→ = with button with tool

AA 2/2 - 3/2 Electropilot for assembling on sub-base





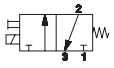
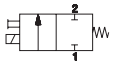
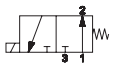
Material:

valve body	technopolymer
sleeve	treated brass
core and spring	stainless steel
seals	nitrile rubber

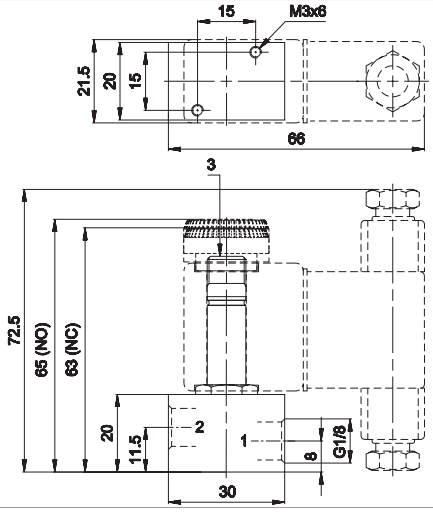
Use SPEED subbase to build Manifolds, see following pages.
Available upon request: brass valve body (without manual override), zamak valve body, stainless steel sleeve, other inner diameters.

A - Manual override

1 = Supply port
2 = Use
3 = Exhaust

	Code	Function	Ø (d) mm	Flow rate (Nl/min) 1 → 2	Flow rate (Nl/min) 2 → 3	Resp. Time (ms) En.	Resp. Time (ms) De-en	Manual override	Weight kg
	AA-0184	3/2 NC	1,5	60	80	12	12	⊖	0,027
	AA-0186	2/2 NC	1,3	50	-	16	-	⊖	0,027
	AA-0188	3/2 NO (b)	1,2	30	70	11	10	(c)	0,030

Electropilot AA 2/2 - 3/2 G1/8

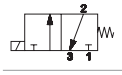
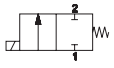
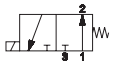


Material:

valve body	brass
sleeve	treated brass
core and spring	stainless steel
seals	nitrile rubber

Electropilot to be used alone.
Brass body suitable for intercepting non-aggressive luiquids. No manual override.
Available upon request: stainless steel sleeve - other inner diameters.

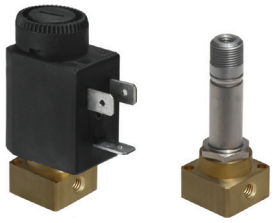
1 = Supply port
2 = Use
3 = Exhaust

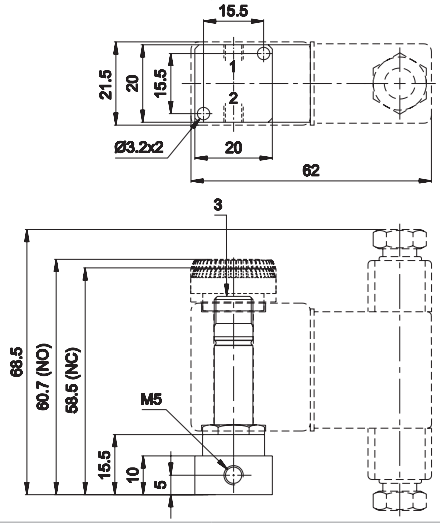
	Code	Function	Ø (d) mm	Flow rate (Nl/min) 1 → 2	Flow rate (Nl/min) 2 → 3	Resp. Time (ms) En.	Resp. Time (ms) De-en	Manual override	Weight kg
	AA-0211	3/2 NC	1,5	60	85	12	12	-	0,105
	AA-0219	2/2 NC	1,3	60	-	16	-	-	0,105
	AA-0213	3/2 NO(b)	1,2	28	75	11	9	(c)	0,105

(b) = close the exhaust of the 3/2 NO electropilot to get the 2/2 NO one
(c) = manual override on AM-5201 ring nut
(d) = the Ø shown on the 3/2 valves refers to the exhhaust

⊖ = with 2 position screw
Electropilots are supplied without coil and connector

Electropilot AA 2/2 - 3/2 M5



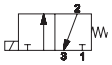
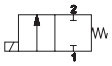
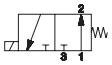


Material:

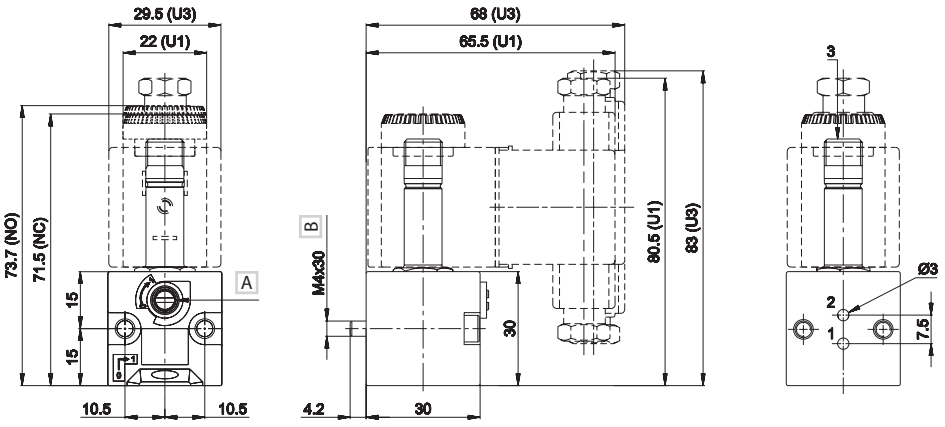
valve body	brass
sleeve	treated brass
core and spring	stainless steel
seals	nitrile rubber

Electropilot to be used alone.
Brass body suitable for intercepting non-aggressive luiquids. No manual override.
Available upon request: stainless steel sleeve - other inner diameters.

1 = Supply port
2 = Use
3 = Exhaust

	Code	Function	Ø (d) mm	Flow rate (Nl/min) 1 → 2	Flow rate (Nl/min) 2 → 3	Resp. Time (ms) En.	Resp. Time (ms) De-en	Manual override	Weight kg
	AA-0231	3/2 NC	1,5	60	80	12	12	-	0,065
	AA-0239	2/2 NC	1,3	50	-	16	-	-	0,065
	AA-0233	3/2 NO(b)	1,2	30	70	11	10	(c)	0,065

Electropilot AA 2/2 - 3/2 CNOMO for mounting on sub-bases SPEED CROMO



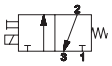
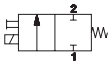
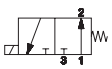
Material:

valve body	technopolymer
sleeve	treated brass
core and spring	stainless steel
seals	nitrile rubber

Available upon request: zamak valve body, stainless steel sleeve, other inner diameters.

A - Manual override
B - ISO 4762

1 = Supply port
2 = Use
3 = Exhaust

	Code	Function	Ø (d) mm	Flow rate (Nl/min) 1 → 2	Flow rate (Nl/min) 2 → 3	Resp. Time (ms) En.	Resp. Time (ms) De-en	Manual override	Weight kg
	AA-0400 AA-0400U	3/2 NC	1,5 1,5	45 45	77 77	12 12	12 12	⊖ →	0,052 0,052
	AA-0402	2/2 NC	1,3	42	-	18	-	⊖	0,052
	AA-0404	3/2 NO(b)	1,2	33	77	11	10	(c)	0,060

(b) = close the exhaust of the 3/2 NO electropilot to get the 2/2 NO one
(c) = manual override on AM-5201 ring nut
(d) = the Ø shown on the 3/2 valves refers to the exhhaust
⊖ = with 2 position screw
Electropilots are supplied without coil and connector

Modular sub-base "SPEED" "SPEED CNOMO" G1/8

SPEED G1/8

SPEED CROMO G1/8

Advantages
The original UNIVER "Speed" series was designed to solve some operational problems

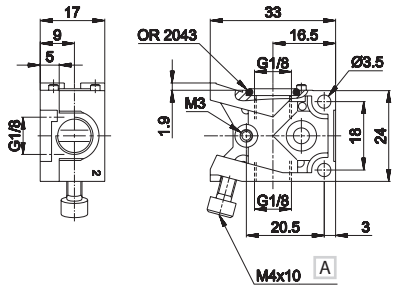
- Possibility of defining the number of sub-bases at the moment of use
- Possibility of freely increasing or reducing the number of elements
- Quick assembly with special screw (built-in) standard supplied
- Reduction of stock holding
- Easy technical intervention

Air supply is rotated by 90° in comparison with side consumption

Standard (built-in) screw and O-Ring

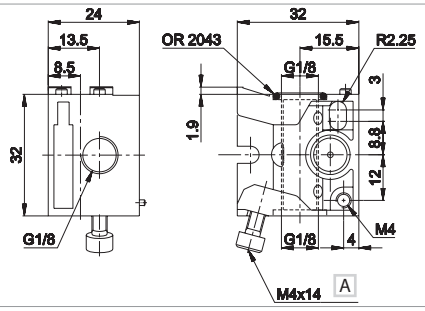
When assembling the manifold, put the bases on a flat surface and tighten the screw until the manifold is perfectly aligned.

SPEED G1/8



A - ISO 4762

SPEED CROMO

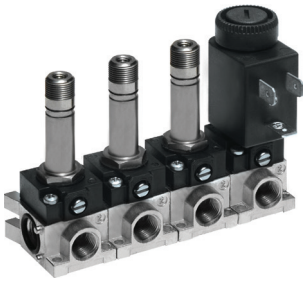


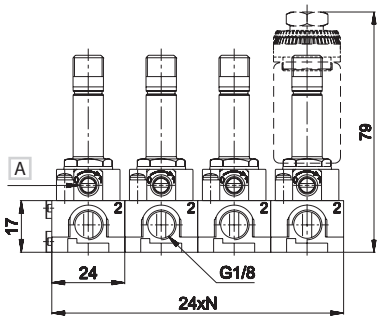
A - ISO 4762

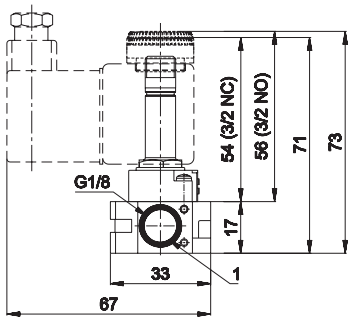
Code	Electropilot	Connections	Material	Weight kg
AA-0450	sub-base SPEED	G 1/8	zama	0,037
AB-0900	sub-base CNOMO	G 1/8	zama	0,075

(b) = close the exhaust of the 3/2 NO electropilot to get the 2/2 NO one
(c) = manual override on AM-5201 ring nut
(d) = the Ø shown on the 3/2 valves refers to the exhhaust
⊖ = with 2 position screw
Electropilots are supplied without coil and connector

Sub-base SPEED G1/8



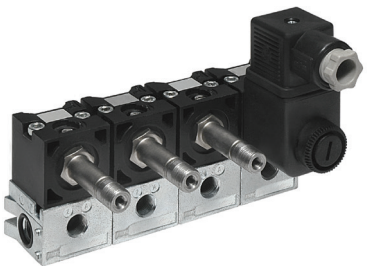


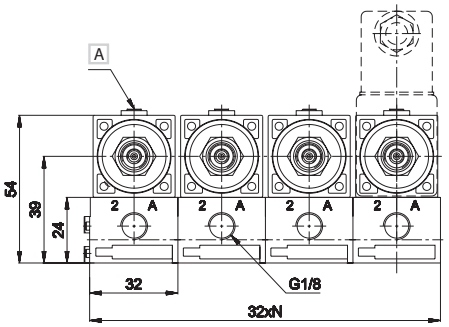


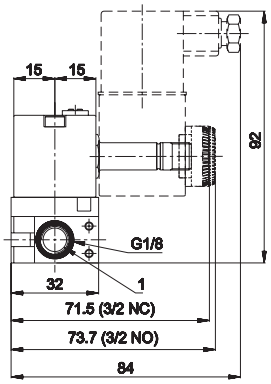
A - Manual override

1 = Supply port
2 = Use
N = Number of valve positions

Sub-base SPEED CNOMO G1/8







A - Manual override

1 = Supply port
2 - A = Use
N = Number of valve positions

Coils

CSA/UL

Possibility of replacement without intervention in the pneumatic circuit

Other voltages available upon request

360° rotation on the pilot. Coil winding: H class

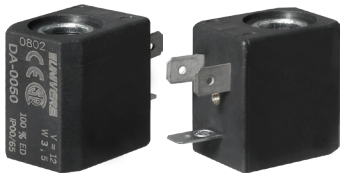
Ambient temperature: -10 ÷ +45 °C. Fluid temperature: -10 ÷ +95 °C.

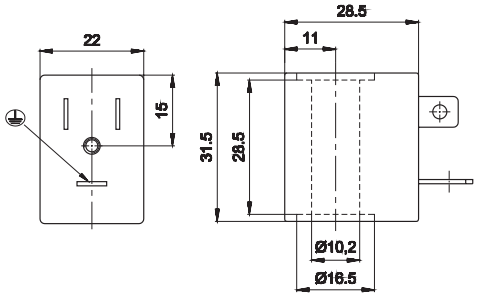
The solenoid valves functioning with 100V-230V must be incorporated (EN60204-1)

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

Protection class IP65, if used with connector.

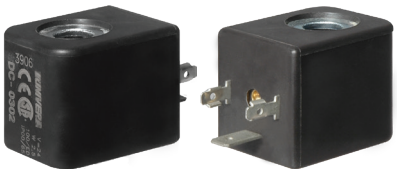
U1 22 mm coil to be used with AA electropilot

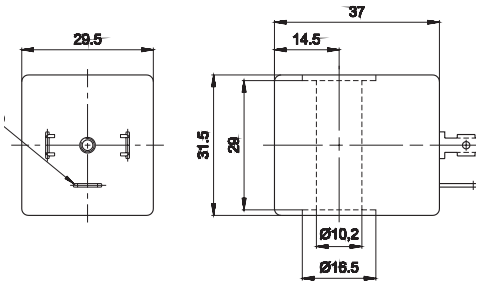




Code	Duty cycle ED (a) %	Power consumption W		Tolerance tension %	Rated voltage	Weight Kg
		Hold	Inrush			
DA-0050	100	3,5	3,5	±10	12 V DC	0,06
DA-0051	100	3,5	3,5	±10	24 V DC	0,06
DA-0106	100	5,4 VA (Max)	7,8 VA (Max)	±10	24 V AC/50-60 HZ	0,06
DA-0108	100	5,4 VA (Max)	7,8 VA (Max)	±10	110 V AC/50-60 HZ	0,06
DA-0124	100	5,4 VA (Max)	7,8 VA (Max)	±10	230 V AC/50-60 HZ	0,06

U3 30 mm coil to be used with AA electropilot



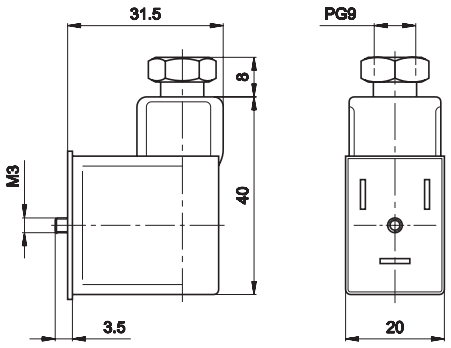


Code	Duty cycle ED (a) %	Power consumption W		Tolerance tension %	Rated voltage	Weight Kg
		Hold	Inrush			
DC-0301	100	2,5	2,5	±10	12 V DC	0,08
DC-0302	100	2,5	2,5	±10	24 V DC	0,08
DC-0307	100	3,3 VA (Max)	5 VA (Max)	±10	24 V AC/50-60 HZ	0,08
DC-0309	100	3,3 VA (Max)	5 VA (Max)	±10	110 V AC/50-60 HZ	0,08
DC-0310	100	3,3 VA (Max)	5 VA (Max)	±10	230 V AC/50-60 HZ	0,08

(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

Connector for coil U1

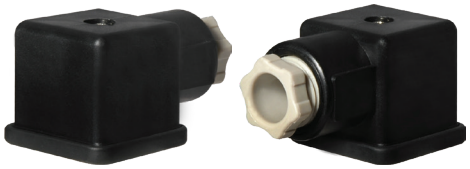


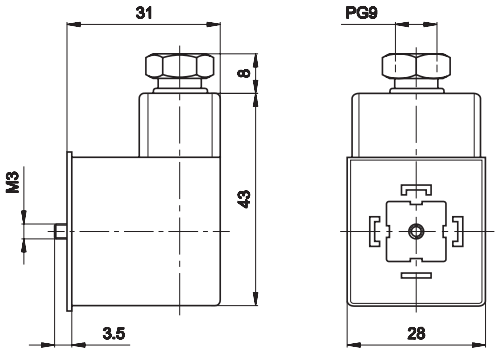
Coil series U1

AM-5110 Protection according to IP 65. PG9 cable connection. 180° rotation on the coil

LED available upon request.

Connector DIN 43650 for coil series U3





Coil series U3

AM-5111 Protection according to IP 65. PG9 cable connection. 360° rotation on the coil.

LED available upon request.