The constant quality, original design, wide range, and the right quality-price ratio comply with all possible needs of the user. Careful choice of materials reduce residual magnetism to a minimum and eliminate seal swelling. The availability of sub-bases ("SPEED" series) allows quick manifold connection of these solenoid valves, increasing their versatility and field of application.

TECHNICAL CHARACTERISTICS

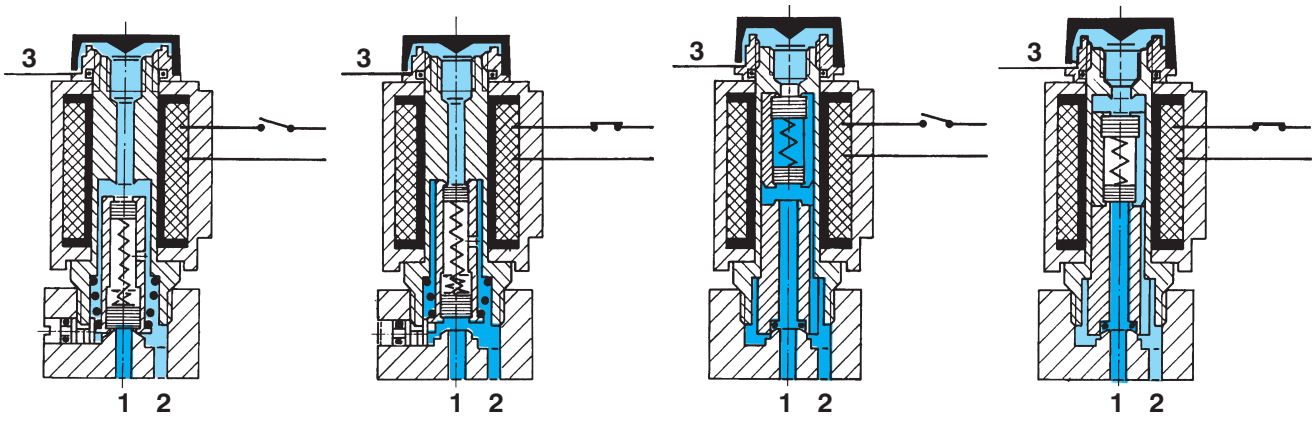
Direct intervention poppet valve system with cushioned seals.
Assembly on sub-base or with threaded connections on the body.
Body in zamak and brass; upon request in stainless steel
Core in stainless steel (with minimum residual magnetism).
Sleeve in treated brass; upon request in stainless steel.
Springs in stainless steel.
Seals in nitrile rubber.
NC (normally closed) function.
NO (normally open) function with a mechanical part designed to maintain the air supply always from the body (useful in case of assembly of more NC-NO pilots in series in order to have a unique air supply).

NC/NO function (NO inputs from above)
Fluid: filtered air 50 μm, with or without lubrication, neutral gases.
Upon request other fluids can be used.
Ambient temperature: -10°C +50°C.
Fluid temperature: +95°C max.
Coil U1, DA series (U3 DC series), U2 DB series
Section accessories page 13 - V

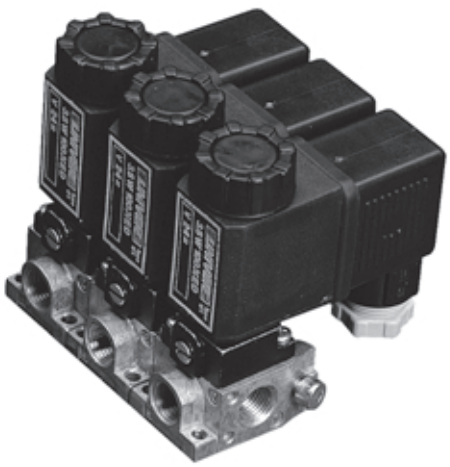
NOTE: an indicative estimate of the factor "CV" can be obtained by dividing the capacity values expressed in Nl/min by "962"

FUNCTIONING PRINCIPLE

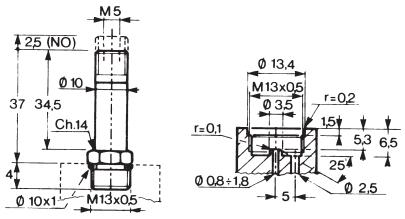
NC Function **NO Function**



1 = Supply
2 = Consumption
3 = Exhausts

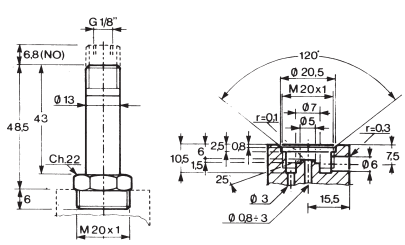


U1 SLEEVES - With moving core



Type	Overall dimensions	Ways	Function	Ø mm	Pressure bar	Material	Mass kg	Part number
		3/2	NO	1,2	3÷10	sleeve treated brass	0,030	**AA-0150**
		3/2	NC	1,5	0÷10		0,030	**AA-0157**
		2/2	NC	-	0÷10	cores and springs stainless steel	0,030	**AA-0170**
		3/2	NC/NO*	-	-	seals nitrile rubber	0,030	**AA-0180**

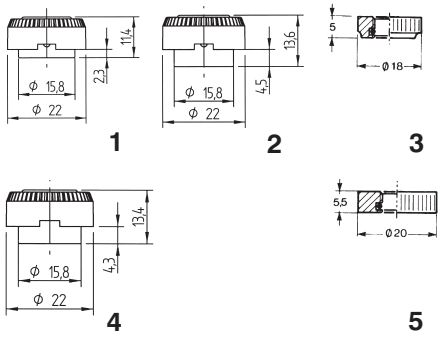
U2 SLEEVES - With moving core



Type	Overall dimensions	Ways	Function	Ø mm	Pressure bar	Material	Mass kg	Part number
		3/2	NO	2	3÷10	sleeve treated brass	0,060	**AB-0600**
		3/2	NC	2,4	0÷10		0,060	**AB-0613**
		2/2	NC	-	0÷10	cores and springs stainless steel	0,060	**AA-0640**
		2/2	NC ✧	-	0÷10		0,070	**AA-0643**
		3/2	NC/NO*	2	-	seals nitrile rubber	0,060	**AA-0673**

Seals in viton and sleeves in stainless steel (only NC options) upon request
✧ Suitable for sub-bases with diameter from 3 ÷ 6 mm

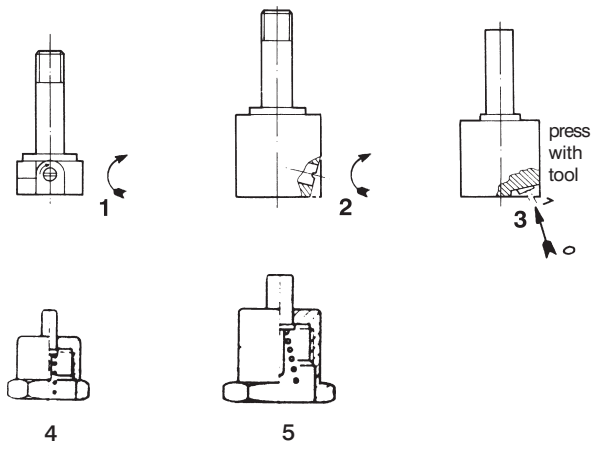
Rings for loking coils on sleeves



Type	Overall dimensions	Option	Suitable for sleeves	Coils	Part number
		1. radial exhausts	NC 3/2	U1	**AM-5211A**
		2. radial exhausts	NO 3/2	U1	**AM-5213A**
		3. open exhausts	NC 2/2	U1	**AM-5211B**
		4. radial exhausts	NC 3/2	U2	**AM-5212A**
			NO 3/2	U2	**AM-5214A**
		5. open exhausts	NC 2/2	U2	**AM-5212B**

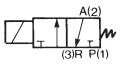
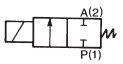
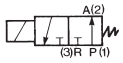
In order to convey exhausts while connecting, the open option must be used.

Examples of available manual overrides integrated in the references of electropilots



Functioning	Suitable for sleeves	Symbol
1. with 2 position screw	all NC U1-U2 electropilots that can use manual override	⊖
2. with impulse 1-2 position screw	only Cnomo NC U1-U2 electropilots	⊖
3. with button with tool		→
Functioning	**Suitable for sleeves**	**Part number**
4. with button, 1 position	electropilots U1 3/2 NO	**AM-5201**
5. with button, 1 position	electropilots U2 3/2 NO	**AM-5203**

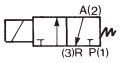
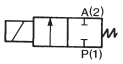
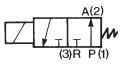
U1 electropilot - for assembling on sub-base - 2/2-3/2

Type	Symbol	Ways	Ø mm	Capacity Nl/min P-A-1-2 A-R-2-3		Pressure bar	Times ms energ.	Times ms de-energ.	Material	Manual override	Mass kg	Part number
		3/2 NC	1,5	60	80	0 ÷ 10	12	12	valve body zamak sleeve treated brass core and spring stainless steel seals nitrile rubber	⊖	0,050	**AA-0184**
		2/2 NC	1,3	50	–	0 ÷ 10	16	–		⊖	0,050	**AA-0186**
		3/2 NO *	1,2	30	70	3 ÷ 10	11	10		G	0, 050	**AA-0188**

To be used when several electropilots must be assembled and both length and depth are limited. It is fit for SPEED U1 base. It is supplied as a standard with 2position slot. Available upon request: brass body valve (no manual override) stainless steel sleeve - other inner diameters.

⊖ = With 2 position screw

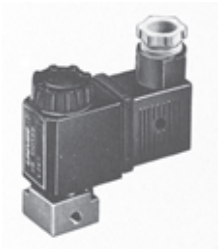
U1 electropilot - CNOMO for assembling on sub-base Speed U2 - 2/2 - 3/2

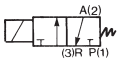
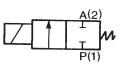
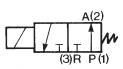
Type	Symbol	Ways	Ø mm	Capacity Nl/min P-A-1-2 A-R-2-3		Pressure bar	Times ms energ.	Times ms de-energ.	Material	Manual override	Mass kg	Part number
		3/2 NC	1,5	45	77	0 ÷ 10	12	12	valve body zamak sleeve treated brass core and spring stainless steel seals nitrile rubber	⊖ →	0,130	**AA-0400** **AA-0400U**
		2/2 NC	1,3	42	–	0 ÷ 10	18	–		⊖	0,130	**AA-0402**
		3/2 NO *	1,2	33	77	3 ÷ 10	12	11		G	0,135	**AA-0404**

To be used when several elements must be assembled in a manifold assembly. This electropilot complies with the CNOMO rules. Very useful for interchangeability in case of maintenance, it has a limited height and can be assembled with SPEED 2 sub-base. Available upon request: stainless steel sleeve - other inner diameters.

⊖ = With 2 position screw
→ = Push-button with tool

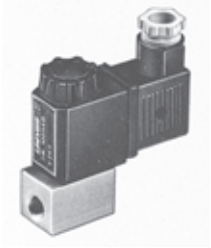
U1 electropilot - Threaded connections M5 - 2/2 - 3/2

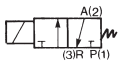
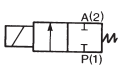
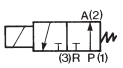


Type	Symbol	Ways	Ø mm	Capacity Nl/min P-A-1-2 A-R-2-3		Pressure bar	Times ms energ.	Times ms de-energ.	Material	Manual override	Mass kg	Part number
		3/2 NC	1,5	60	80	0 ÷ 10	12	12	valve body brass sleeve treated brass core and spring stainless steel seals nitrile rubber	–	0,060	**AA-0231**
		2/2 NC	1,3	50	–	0 ÷ 10	16	–		–	0,060	**AA-0239**
		3/2 NO *	1	30	70	3 ÷ 10	11	10		G	0, 065	**AA-0233**

To be used when the electropilot is used alone and dimensions are extremely reduced. The brass body allows the use of non-aggressive liquids. No manual override. Available upon request: stainless steel sleeve - other inner diameters.

U1 electropilot - Threaded connections G 1/8 - 2/2 - 3/2 ways



Type	Symbol	Ways	Ø mm	Capacity Nl/min P-A-1-2 A-R-2-3		Pressure bar	Times ms energ.	Times ms de-energ.	Material	Manual override	Mass kg	Part number
		3/2 NC	1,5	60	85	0 ÷ 10	12	12	valve body brass sleeve treated brass core and spring stainless steel seals nitrile rubber	–	0,100	**AA-0211**
		2/2 NC	1,3	60	–	0 ÷ 10	16	–		–	0,100	**AA-0219**
		3/2 NO *	1	28	75	3 ÷ 10	11	9		G	0, 105	**AA-0213**

Basic features are the same as the previous item; however, this item is larger and it has G 1/8 threaded connections. Available upon request: stainless steel body and sleeve - other inner diameters.

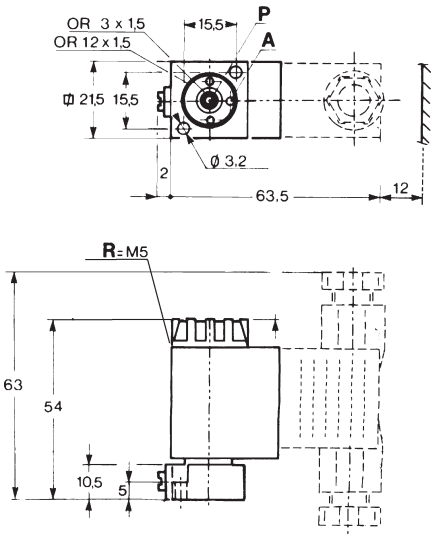
* The 2/2 way NO electropilot is achieved by applying a cap on the exhaust of the 3/2 way electropilot.
NO electropilots with 0,7 ÷ 10 bar can be supplied upon request.
The Ø indicated on the valves 3/2 refers to the exhaust.

The part numbers of valves do not include coils.

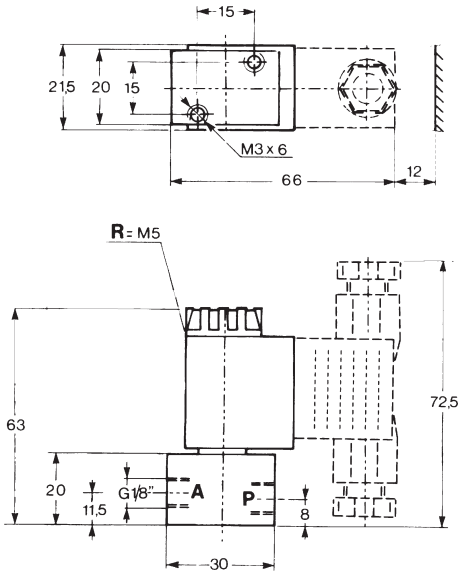
✧ = Manual override on ring (page 14-AM-5201)

Valves

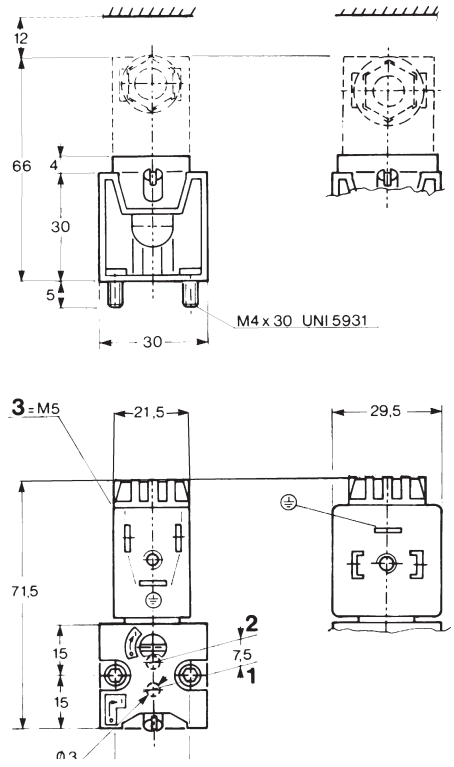
U1 Electropilot for mounting on sub-base



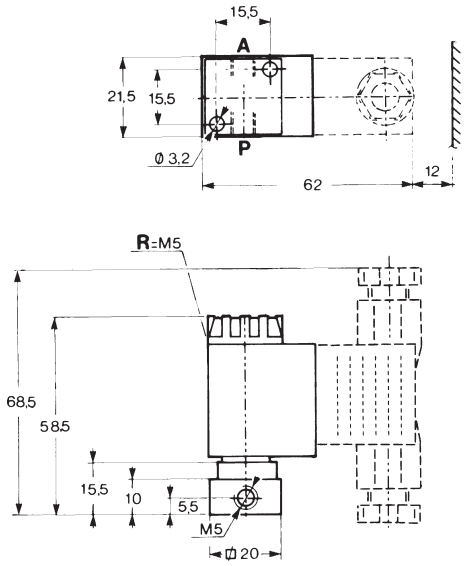
U1 Electropilot - G 1/8 threaded connections



U1 Electropilot
Cnomo for mounting on U2 base Speed

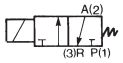
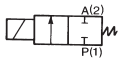
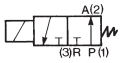


U1 Electropilot - M5 threaded connections



NOTE: by assembling two 3/2 (1 NC + 1 NO) electropilots, 5/2 function is obtained, to operate small-sized cylinders (6 ÷ 32 mm) with pressure up to 10 bar.

U2 Electropilot - for mounting on sub-bases 2/2 - 3/2

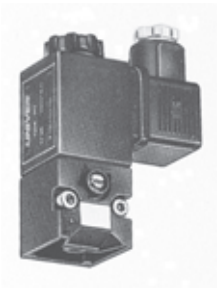
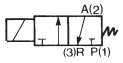
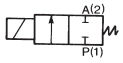
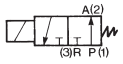
Type	Symbols	Ways	Ø mm	Capacity Nl/min P→A/1→2	Capacity Nl/min A→R/2→3	Pressure bar	Times ms energ.	Times ms de-energ.	Material	Manual override	Mass kg	Part number
		3/2 NC	2,4	150	160	0 ÷ 10	13	10	valve body zamak sleeve treated brass core and spring stainless steel seals nitrile rubber	– ⊖	0,120	**AB-0681 AB-0687**
		2/2 NC	2,1	130	–	0 ÷ 10	13	–		– ⊖	0,120	**AB-0722 AB-0728**
		3/2 NO *	2	92	148	3 ÷ 10	14	10		✧	0,125	**AB-0685**

To be employed when assembling multiple electropilots with reduced overall length and depth.
Suitable for speed U2 base.
Available upon request: stainless steel sleeve, other inner diametres.

⊖ = With 2 position screw

✧ = Manual override on ring (page 14-AM-5203)

U2 CNOMO Electropilot - for mounting on sub-bases Speed U2 2/2 - 3/2

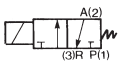
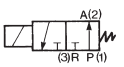
Type	Symbols	Ways	Ø mm	Capacity Nl/min P→A/1→2	Capacity Nl/min A→R/2→3	Pressure bar	Times ms energ.	Times ms de-energ.	Material	Manual override	Mass kg	Part number
		3/2 NC	2,4	110	170	0 ÷ 10	13	12	valve body zamak sleeve treated brass core and spring stainless steel seals nitrile rubber	⊖	0,150	**AB-0885**
		2/2 NC	2,1	115	-	0 ÷ 10	12	-		⊖	0,150	**AB-0886**
		3/2 NO *	2,1	92	148	3 ÷ 10	13	10		✧	0,155	**AB-0888**

Assembled with SPPED U2 sub-base to obtain electropilot assemblies, this electropilot allows for reduced overall height and meets the CNOMO standards (very usefull in case of maintenance replacement).
Available upon request: stainless steel sleeve - other internal diametres.

⊖ = With 2 position screw

✧ = Manual override on ring (page 14-AM-5203)

U2 Electropilot - G 1/4 threaded connections

Type	Symbols	Ways	Ø mm	Capacity Nl/min P→A/1→2	Capacity Nl/min A→R/2→3	Pressure bar	Times ms energ.	Times ms de-energ.	Material	Manual override	Mass kg	Part number
		3/2 NC	2,1	200	210	0 ÷ 10	13	11	valve body brass sleeve treated brass core and spring stainless steel	–	0,220	**AB-0822**
		3/2 NO *	2,1	95	160	3 ÷ 10	12	10		✧	0,025	**AB-0819**

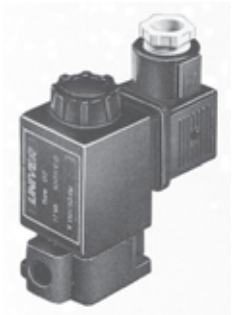
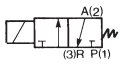
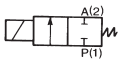
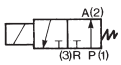
It is recommended if the G 1/4 threaded connection must be used and for non-aggressive liquids.
Available upon request: body and sleeve in stainless steel.

✧ = Manual override on ring (page 14-AM-5203)

* The 2/2 way NO electropilot is achieved by applying a cap on the exhaust of the 3/2 way electropilot.
NO electropilots with 0,7 ÷ 10 bar can be supplied upon request.
3/2 - 2/2 NC electropilots for direct vacuum with G 1/4 and G 1/2 AG-3... Series are available. They are fit for operation in 0 ÷ 759 mm Hg vacuum conditions.
Please contact our commercial office.

The part numbers of valves do not include coils.

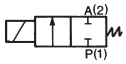
U2 Electropilot - G 1/8 threaded connections - 2/2 - 3/2

Type	Symbols	Ways	Ø mm	Capacity Nl/min P→A/1→2 | A→R/2→3	Pressure bar	Times ms energ.	Times ms de-energ.	Material	Manual override	Mass kg	Part number
		3/2 NC	2,4	155	210	0 ÷ 10	13	10	valve body brass sleeve treated brass core and spring stainless steel seals nitrile rubber	– ⊖	0,140	**AB-0751 AB-0757**
		2/2 NC	2,1	155	–	0 ÷ 10	12	–		– ⊖	0,140	**AB-0765 AB-0771**
		3/2 NO *	2,1	100	150	3 ÷ 10	14	11		G	0, 145	**AB-0755**

To be employed when the electropilot is used on its own.
Upon request: stainless steel sleeve - other internal diametres.

⊖ = With 2 position screw
✧ = Manual override on ring (page 14-AM-5203)

U2 Electropilot - G 1/4 threaded connections - 2/2

Type	Symbols	Ways	Ø mm	Capacity Nl/min	Pressure bar	Times ms energ.	Times ms de-energ.	Material	Mass kg	Part number
 • Coil U2 - 17 VA		2/2 NC	1,6	108	0 ÷ 30	6	-	valve body brass sleeve treated brass core and spring stainless steel seals nitrile rubber	0,220	**AB-0824**
		2/2 NC	2	165	0 ÷ 20	9	-		0,220	**AB-0825**
		2/2 NC	2,4	210	0 ÷ 15	11	-		0,220	**AB-0826**
		2/2 NC	3	280	0 ÷ 10	12	-		0,220	**AB-0827**
		2/2 NC	3,5	350	0 ÷ 9	-	10		0,220	**AB-0828**
		2/2 NC	4	450	0 ÷ 8	-	13		0,220	**AB-0829**
		2/2 NC	4,5	500	0 ÷ 7	-	13		0,220	**AB-0830**
		2/2 NC	5	550	0 ÷ 6,5	-	16		0,220	**AB-0831**
		2/2 NC	5,5	600	0 ÷ 6	-	21		0,220	**AB-0832**
		2/2 NC	6	650	0 ÷ 5	-	29		0,220	**AB-0833**

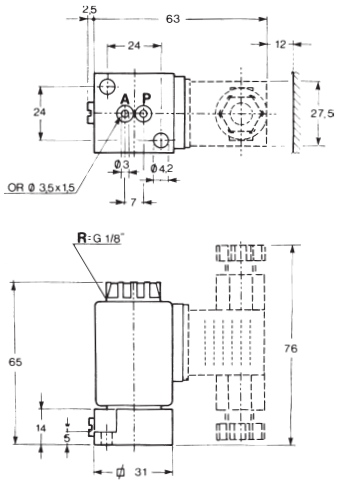
Tension	Part number
24/50-60Hz	DB-0607
110/50-60Hz	DB-0608
220/50-60Hz	DB-0610

Particularly fit for non-aggressive liquids.
• To be used together with 2/2 - 3/2 G 1/4 and G 1/2 electropilot for air and direct vacuum.

* The 2/2 way NO electropilot is achieved by applying a cap on the exhaust of the 3/2 way electropilot.
NO electropilots with 0,7÷ 10 bar can be supplied upon request.
3/2 - 2/2 NC electropilots for direct vacuum with G 1/4 and G 1/2 AG-3... Series are available. They are fit for operation in 0÷759 mm Hg vacuum conditions. Please contact our commercial office.

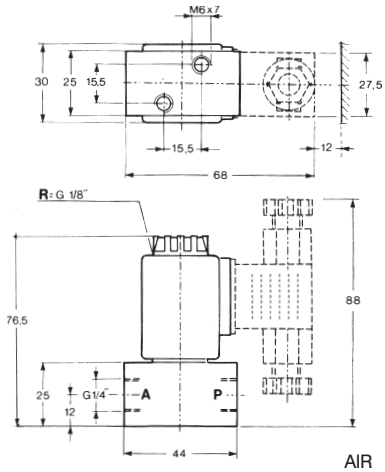
The part numbers of valves do not include coils.

U2 electropilot for mounting on base



1-P = Supply
2-A = Consumption
3-R = Exhaust

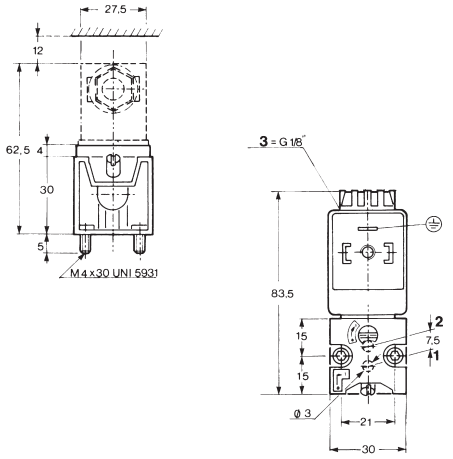
U2 electropilot - G 1/4 threaded connections for air and vacuum



VACUUM
1-P = Pump
2-A = Consumption
3-R = Exhaust

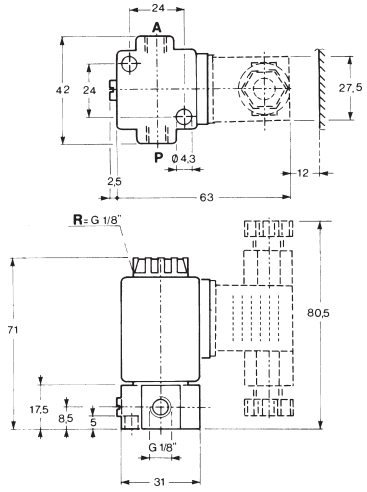
AIR
1-P = Supply
2-A = Consumption
3-R = Exhaust

U2 CNOMO electropilot for mounting on U2 Speed base



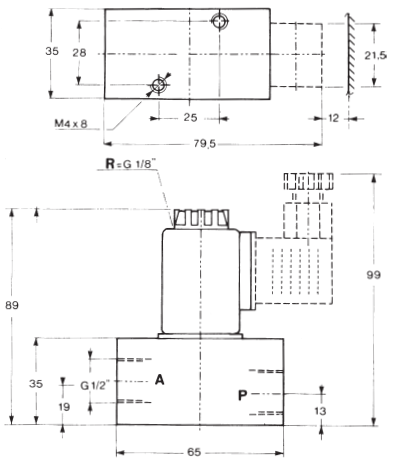
1-P = Supply
2-A = Consumption
3-R = Exhaust

U2 electropilot - G 1/8 threaded connections



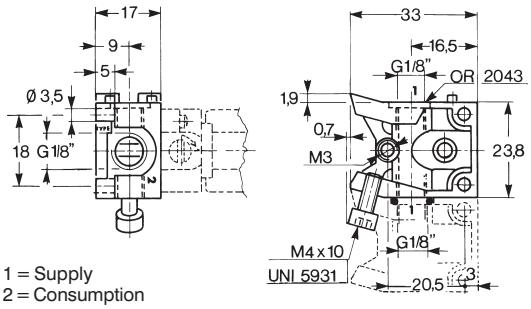
1-P = Supply
2-A = Consumption
3-R = Exhaust

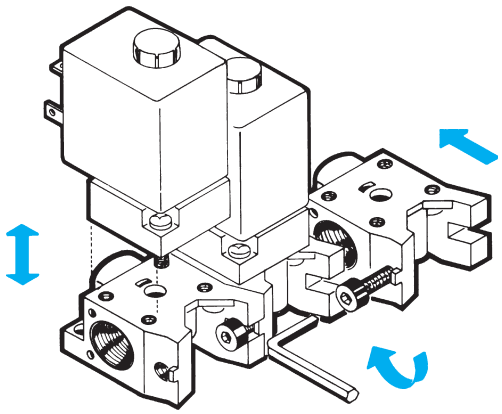
U2 electropilot for vacuum - G 1/2 threaded connections



1-P = Supply
2-A = Consumption
3-R = Exhaust

NOTE: by assembling two 3/2 (1 NC + 1 NO) electropilots, 5/2 function is obtained, to operate small-sized cylinders (6 ÷ 32 mm) with pressure up to 10 bar.

Type	Overall dimensions	Remarks	Connec-tions	Material	Mass kg	Part number
Sub-base "SPEED" U1 Series G 1/8 side connections						
	 1 = Supply 2 = Consumption	side entry and consumption	G 1/8	zamak	0,037	**AA-0450**



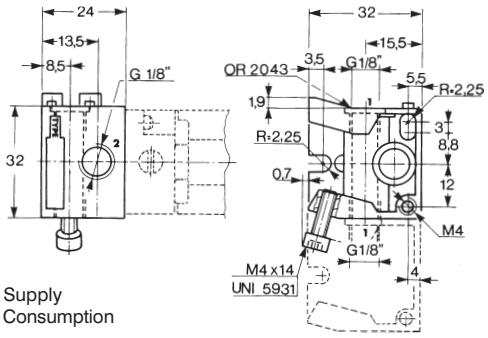
Advantages

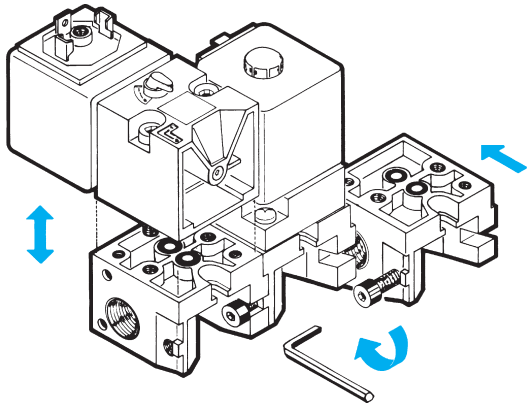
The "Speed" series was realized and patented keeping in mind some existing problems:

- 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.

U1 electropilot only

Air supply is rotated by 90° in comparison with side consumption.
Standard (built-in) screw and O-Ring.
When ordering specify: with or without mounted electropilot.

Type	Overall dimensions	Remarks	Connec-tions	Material	Mass kg	Part number
Sub-base "SPEED" U2 Series G 1/8 side connections						
	 1 = Supply 2 = Consumption	side entry and consumption	G 1/8	zamak	0,075	**AB-0900**



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- reduction of stock holding
- easy technical intervention.

UNIVER U1 - U2 and CNOMO electropilots only

Air supply is rotated by 90° in comparison with side consumption.
Standard (built-in) screw and O-Ring.
When ordering specify: with or without mounted electropilot.

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