

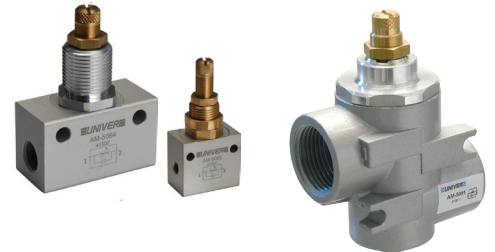


Flow control valves

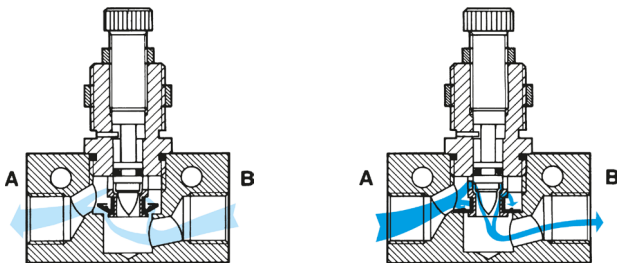
- Mainly used to regulate piston speed in single- and double-acting pneumatic cylinders.
- Also used whenever air flow regulation is required.
- The unidirectional flow regulator allows flow adjustment in one direction only, indicated on the device.
- The bidirectional flow regulator allows flow adjustment in both directions.



Max operating pressure	12 bar
Ambient temperature	-20 ÷ +80 °C
Body	anodized aluminum / zamak
Needle	brass



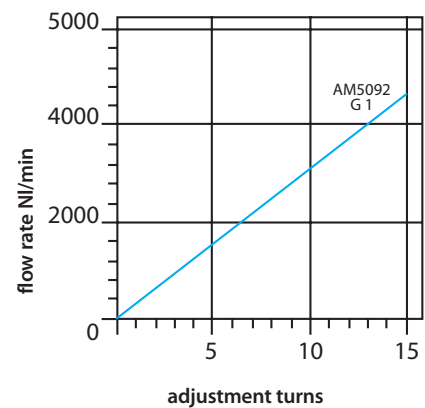
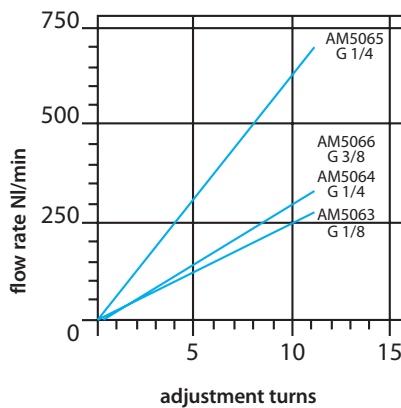
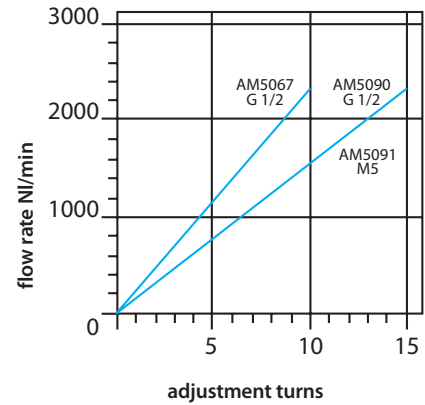
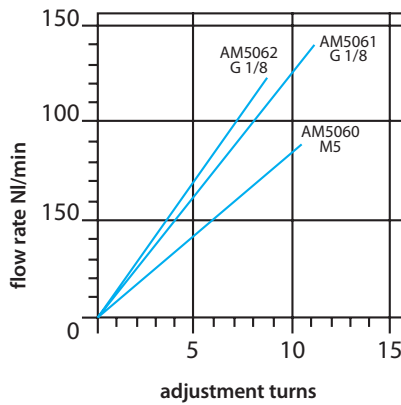
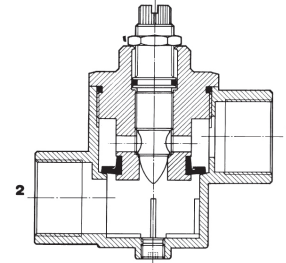
Flow regulators with M5 - G 1/8 - G 1/4 - G 3/8 - G 1/2



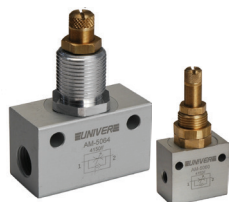
free flow

regulated flow

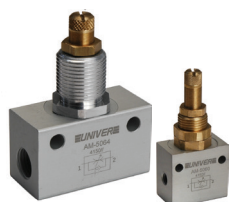
Flow regulators with G 1/2 - G 3/4 - G 1



Code	Ports	Flow rate NI/min		Ø Passaggio		Pressure bar	Weight Kg	
		Regulated	Free	Regulated	Free			

UNIDIRECTIONAL FLOW REGULATOR


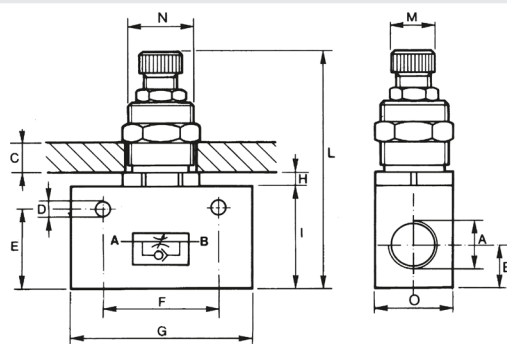
AM-5060	M5	99	125	1	2	0 ÷ 12	0,06	
AM-5061	G1/8	140	410	1	5	0 ÷ 12	0,05	
AM-5062	G1/8	120	470	2,25	5	0 ÷ 12	0,05	
AM-5063	G1/8	280	520	3,5	5	0 ÷ 12	0,05	
AM-5064	G1/4	350	890	5	7	0 ÷ 12	0,12	
AM-5065	G1/4	700	900	6	7	0 ÷ 12	0,12	
AM-5066	G3/8	350	980	6	7	0 ÷ 12	0,11	
AM-5067	G1/2	2200	2800	9	12	0 ÷ 12	0,22	

BIDIRECTIONAL FLOW REGULATORS


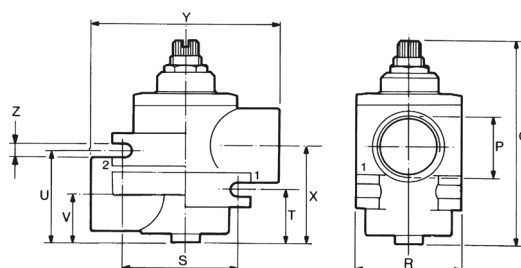
AM-5070	M5	99		1		0 ÷ 12	0,06	
AM-5071	G1/8	140		1		0 ÷ 12	0,05	
AM-5072	G1/8	120		2,25		0 ÷ 12	0,05	
AM-5074	G1/4	350		5		0 ÷ 12	0,12	
AM-5076	G3/8	350		6		0 ÷ 12	0,11	
AM-5077	G1/2	2200		9		0 ÷ 12	0,22	

UNIDIRECTIONAL FLOW REGULATORS


AM-5090	G1/2	2300	4500	9	15		0,42	
AM-5091	G3/4	2300	4500	9	15		0,35	
AM-5092	G1	4200	5500	12	24		0,83	

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW REGULATORS M5 - G 1/8 - G 1/4 - G 3/8 - G 1/2


A	B	C	D	E	F	G	H	I	L	M	N	O
Ports		max							min - max			
M5	10	6	3,5	17	19	25	4	23	48-55	7	M 12x1	15
G1/8	8	6	4,5	18	25	35	4	23	48-55	7	M 12x1	15
G1/4	11	14	6,3	23,5	35	52	4	30	69-76	10	M 20x1,5	25
G3/8	11	14	6,3	23,5	35	52	4	30	69-76	10	M 20x1,5	25
G1/2	18,5	18	6,5	35	44	65	5	40	82-92	15	M 20x1,5	30

UNIDIRECTIONAL FLOW REGULATORS G 1/2 - G 3/4 - G 1


P	Q	R	S	T	U	V	X	Y	Z
Ports	min - max								
G1/2 - G3/4	92 - 102	40	43	25	41	22	47	67	6,25
G1	108 - 121	57	58	30	50	26	53	101	8,25



Avviatore progressivo

- Ideale per circuiti pneumatici in cui è necessario evitare avviamenti bruschi.
- Consente un ripristino graduale della pressione dopo un'interruzione.
- Riduce il rischio di danni a macchinari e attrezzature causati da riavvii improvvisi.
- Contribuisce a migliorare la sicurezza e l'affidabilità dell'impianto.



Fluid	filtered air, with or without lubrication
Max operating pressure	10 bar
Ambient temperature	-20 ÷ +80 °C
Body	die-cast zamak



Operating principle

The soft-start valve is a 2-way valve that, at rest, allows a regulated flow of air to pass through.

Once the working pressure is reached, it fully opens the air passage and remains open until a pressure drop of 2–2.5 bar occurs.

Combined with a normally-open (NO) electrical switch, it simultaneously provides pneumatic and electrical enable signals.

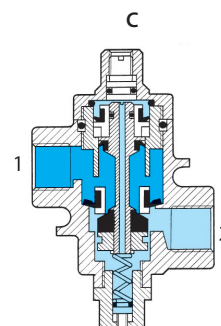
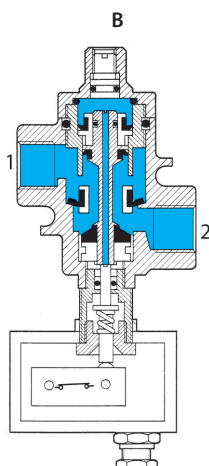
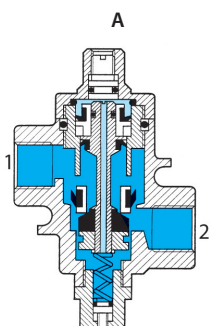
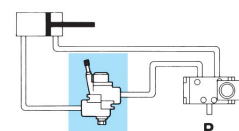
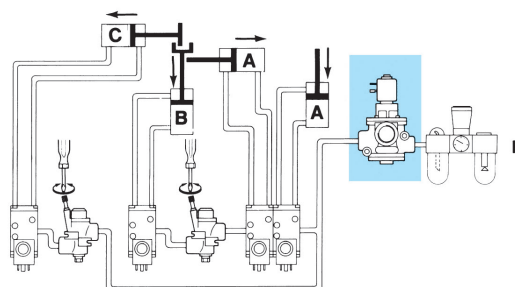
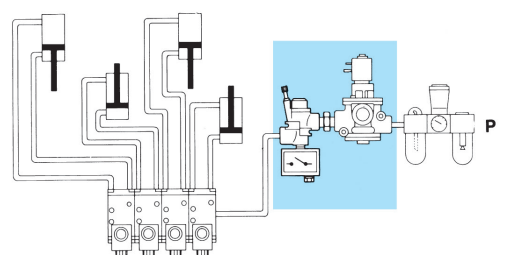
When the supply is interrupted, the air is exhausted.

The soft-start valve prevents injuries and machine damage, reduces wear on pneumatic components, and synchronizes actuator movement.

It can also be installed on existing systems without modification.

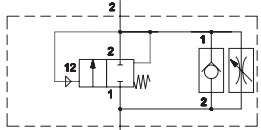
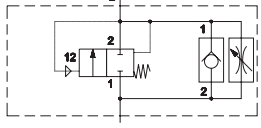
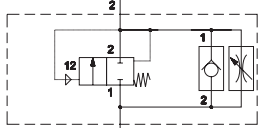
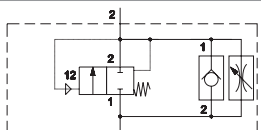
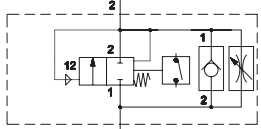
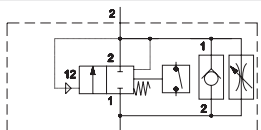
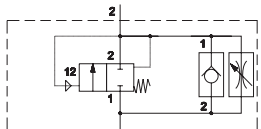
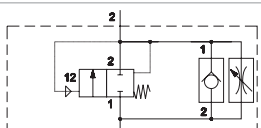
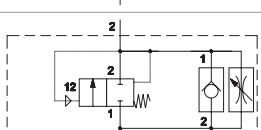
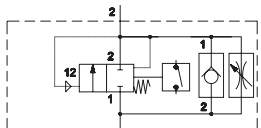
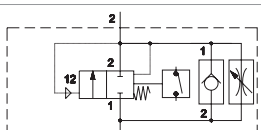
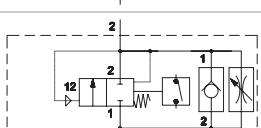
Installed after a 3-way valve, it allows gradual positioning of the cylinders. With the electrical enable signal, it indicates full opening, allowing the machine to start safely. It can also be used as a system selector, managing a preset sequence.

If mounted between the valve and the cylinder, the rod advances gradually up to maximum stroke, at which point full pressure is delivered.

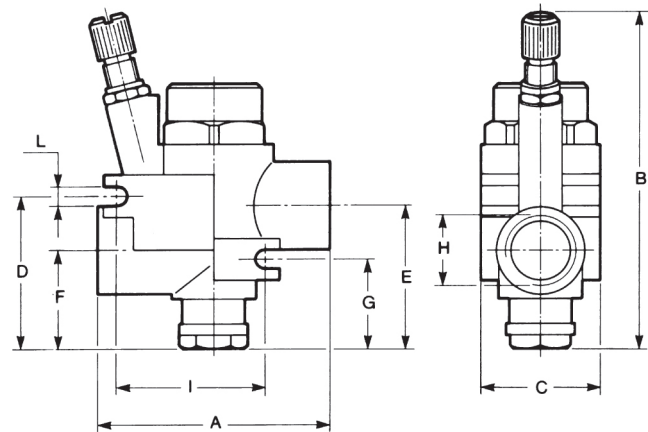


1 = supply
2 = use

SOFT-START VALVE: PRODUCT TABLE

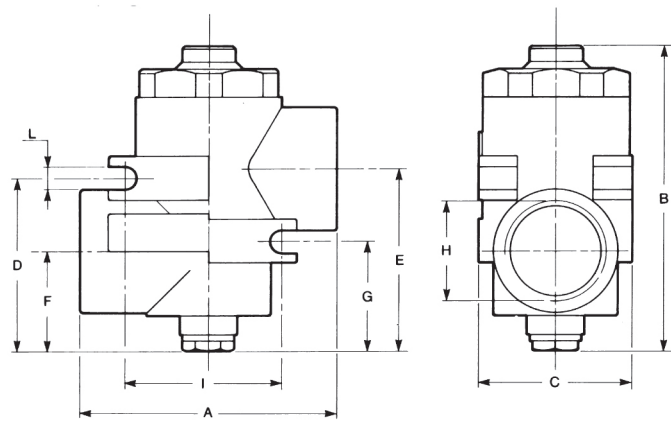
	Code	Ports	Ø mm	Flow rate NI/min regulated	Weight Kg	
	AM-5240	G1/8	6,5	620	0,12	
	AM-5241	G1/4	6,5	620	0,11	
	AM-5242	G1/4	9,5	2100	0,18	
	AM-5243	G3/8	9,5	2100	0,16	
	AM-5242E	G1/4	9,5	2100	0,18	
	AM-5243E	G3/8	9,5	2100	0,16	
	AM-5254	G1/2	15	3500	0,37	
	AM-5255	G3/4	15	3500	0,33	
	AM-5256	G1	24	6800	0,75	
	AM-5259	G1/2	15	3500	0,51	
	AM-5260	G3/4	15	3500	0,47	
	AM-5261	G1	24	6800	0,75	

SOFT-START VALVE WITH G 1/8 - G 1/4 PORTS



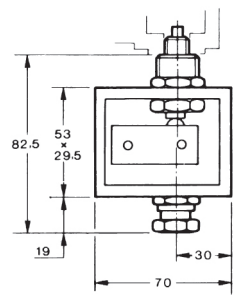
A	B	C	D	E	F	G	H	I	L
46	61 ÷ 67	24	31	29	20	18,5	G 1/8 - G 1/4	31	4,25

SOFT-START VALVES WITH G 1/4 - G 3/8 - G 1/2 - G 3/4 - G 1 PORTS



A	B	C	D	E	F	G	H	I	L
50	64 ÷ 71	28	35	38	21	24,5	G 1/4 - G 3/8	37	5,25
67	86	40	46	48	27	28,5	G 1/2 - G 3/4	42	6,25
101	107	56,5	54	57,5	30	33,5	G 1	59,5	8,25

ELECTRICAL SWITCH





Energy Saver for Pneumatic Systems

- Enables energy savings in pneumatic systems
- Available with connections from G 1/8 to G 1
- Functions as a pressure reducer in one flow direction up to 5 bar, with free return flow in the opposite direction

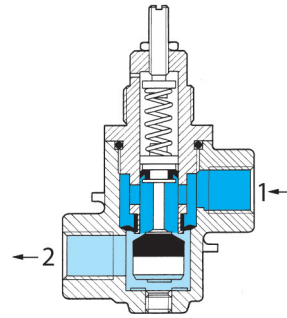
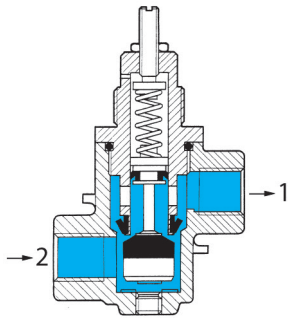
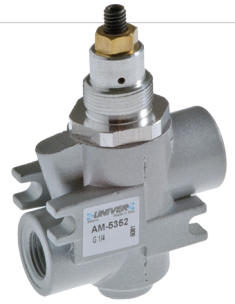


Applications

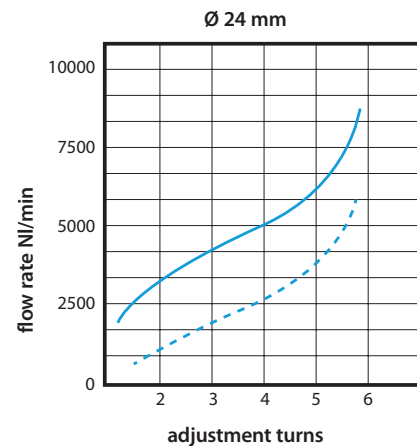
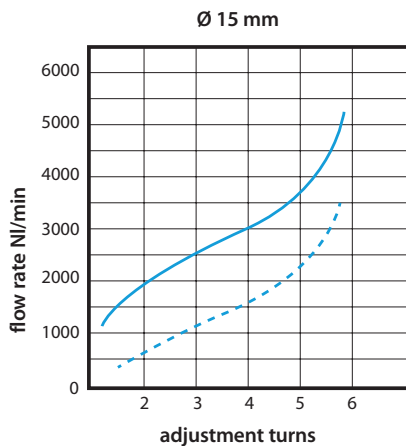
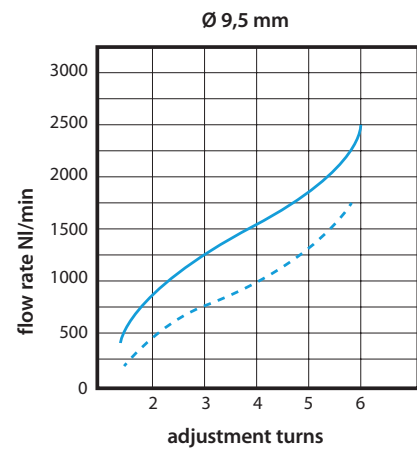
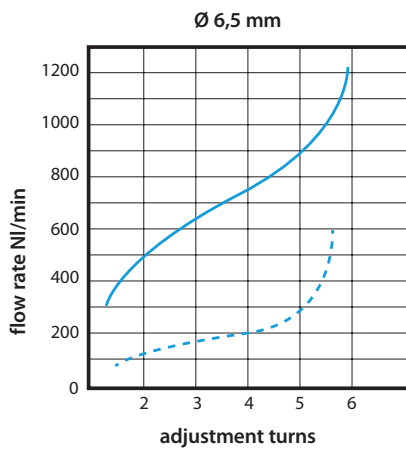
- Cylinders with differing thrust requirements.
- Pneumatic clamping
- Pneumatic presses
- Elimination of the single-acting cylinder by converting to double-acting



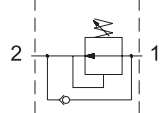
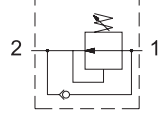
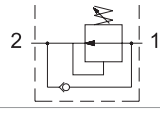
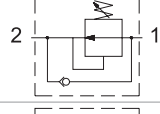
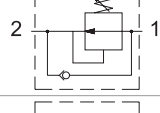
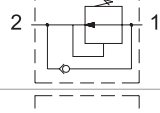
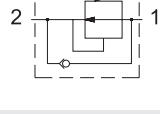
Max operating pressure	1 to 5 bar
Low pressure and differential pressure	0,5 ÷ 2 bar

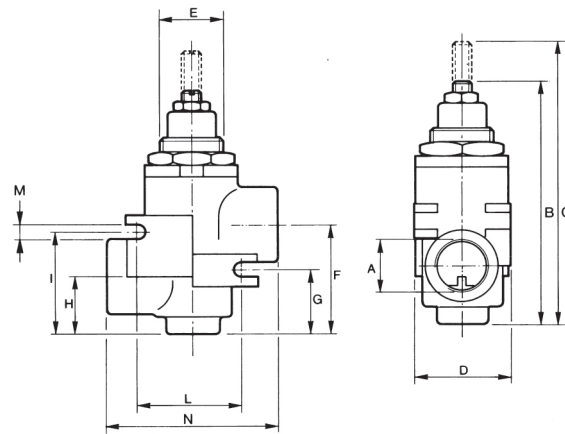


1 = Supply (valve side)
2 = Use (cylinder side)



ENERGY SAVER

	Code	Ports	Version	Ø mm	Flow l/min	Weight Kg	
	AM-5350	G1/8	Manual adjustment	6,5	700 - 900	0,10	
	AM-5351	G1/4	Manual adjustment	6,5	700 - 900	0,10	
	AM-5352	G1/4	Manual adjustment	9,5	1200 - 2000	0,17	
	AM-5353	G3/8	Manual adjustment	9,5	1200 - 2000	0,16	
	AM-5354	G1/2	Manual adjustment	15	3500 - 5000	0,33	
	AM-5355	G3/4	Manual adjustment	15	3500 - 5000	0,34	
	AM-5356	G1	Manual adjustment	24	5200 - 7500	0,84	

DIMENSIONS


A	B	C	D	E	F	G	H	I	L	M	N
G1/8 - G1/4	82	102	23,5	M 14X1	25	14	15,5	26,5	31	4,25	46
G1/4 - G3/8	94	106	27,5	M 18X1	34	20	17	30,5	37	5,25	50
G1/2 - G3/4	105	125	40	M 22X1	44	24,5	22	41,5	42	6,25	67
G1	139	155	56,5	M 40X1	53	28,5	26	50	49,5	8,25	101

A mounting locknut is available (not included as standard) for panel mounting

AM-5230 (G 1/8 - G 1/4)

AM-5231 (G 1/4 - G 3/8)

AM-5232 (G 1/2 - G 3/4)

AM-5233 (G 1)



Shut-off valves

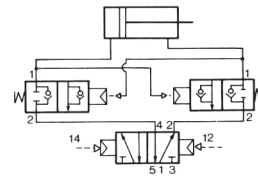
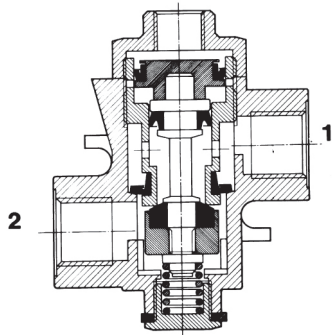
- Unidirectional shut-off valves: lock the cylinder rod in the event of a pressure loss.
- Bidirectional shut-off valves: lock the rod when both pilots of the 5/2 bistable valve are deactivated.
- Result: bidirectional valves provide a function equivalent to a 5/3 valve.



Fluid	filtered air, with or without lubrication
Max operating pressure	10 bar
Ambient temperature	-20 ÷ +80 °C
Max fluid temperature	50°C
Body	die-cast zamak
Seals	NBR

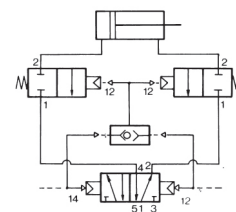
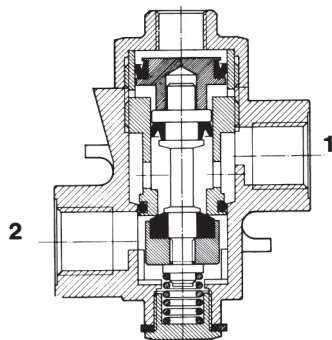


UNIDIRECTIONAL SHUT-OFF VALVE



At rest, the valve allows air to pass from 2 to 1; flow from 1 to 2 occurs only with a command signal. Mounted on the cylinder, it locks the rod in the event of a supply loss

BIDIRECTIONAL SHUT-OFF VALVE



The valve allows air to pass between 1 and 2 only when it receives a command signal. Mounted on the cylinder ports, it provides a 3-position (closed center) function when used with a 5/2 valve.

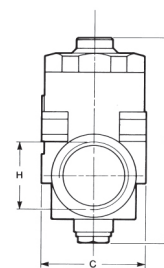
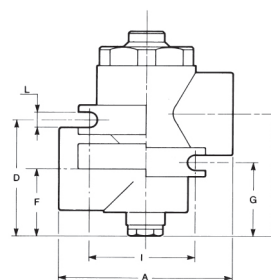
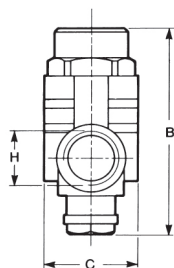
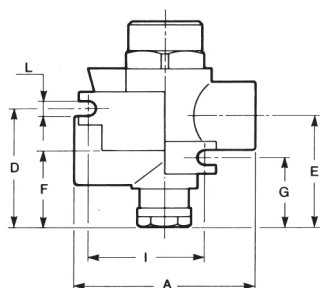
	Code	Ports	Flow rate NI/min	Ø mm	Pressure bar	Weight Kg	
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UNIDIRECTIONAL SHUT-OFF VALVE


AM-5500	G1/8	620	6,5	1,5 ÷ 10	0,110	
AM-5501	G1/4	620	6,5	1,5 ÷ 10	0,110	
AM-5502	G1/4	2100	9,5	1,5 ÷ 10	0,110	
AM-5503	G3/8	2100	9,5	1,5 ÷ 10	0,150	
AM-5504	G1/2	3500	15	1,5 ÷ 10	0,360	

BIDIRECTIONAL SHUT-OFF VALVE


AM-5510	G1/8	620	6,5	1,5 ÷ 10	0,110	
AM-5511	G1/4	620	6,5	1,5 ÷ 10	0,110	
AM-5512	G1/4	2100	9,5	1,5 ÷ 10	0,110	
AM-5513	G3/8	2100	9,5	1,5 ÷ 10	0,150	
AM-5514	G1/2	3500	15	1,5 ÷ 10	0,360	

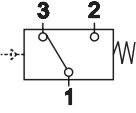
DIMENSIONS UNIDIRECTIONAL SHUT-OFF VALVE G1/8 G1/4
DIMENSIONS BIDIRECTIONAL SHUT-OFF VALVE G1/4 G3/8 G1/2


A	B	C	D	E	F	G	H	I	L
46	58	24	31	29	20	18,5	G1/8 - G1/4	31	4,25
50	65	28	35	38	21	24,5	G1/4 - G3/8	37	5,25
67	81	40	46	48	27	28,5	G1/2	42	6,25



Pneumo-electric transducer

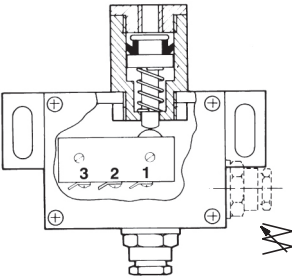
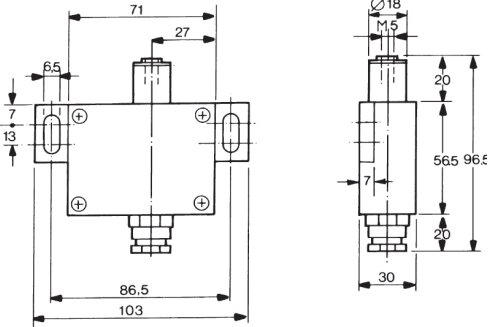
The pneumo-electric transducer converts a pneumatic signal into an ON-OFF electrical signal. It is used to control solenoid valves or other electrical devices when the system pressure falls within the operating range.

	Code	Function	Flow rate NI/min	Temp. Ambient	Pressure bar	Weight Kg	
	AM-5200	NC - NO depending on connected terminals	16* A - 250 V 50 Hz 5** A - 250 V 50 Hz 3 A - 30 V c.c.	-20 ÷ 80°C	0,8 ÷ 10	0,143	

Body made of dielectric material, wall-mounted. Protection rating IP65.

* resistive load

** inductive load

FUNCTION	DIMENSIONS
	

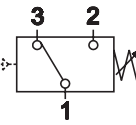
Terminal connections:

1 = common terminal, 2 = NO terminal, 3 = NC terminal



Adjustable pressure switch

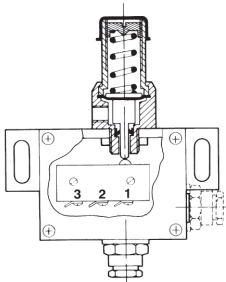
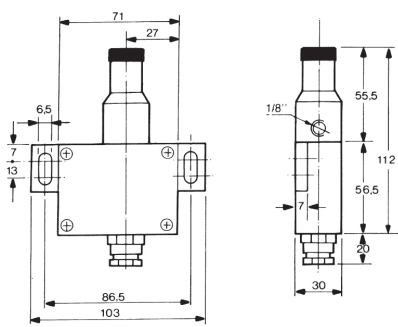
The device generates an ON-OFF electrical signal once a set pressure is reached. The trip value is adjustable from 1 to 8 bar via an adjustment screw.

	Code	Function	Flow rate NI/min	Temp. Ambient	Pressure bar	Weight Kg	
	AM-5220	NC - NO depending on connected terminals	16* A - 250 V 50 Hz 5** A - 250 V 50 Hz 3 A - 30 V c.c.	-20 ÷ 80°C	1 ÷ 8 (max 10)	0,200	

Body made of dielectric material, wall-mounted. Protection rating IP65.

* resistive load

** inductive load

FUNCTION	DIMENSIONS
	

Terminal connections:

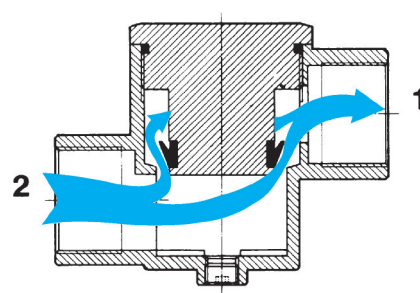
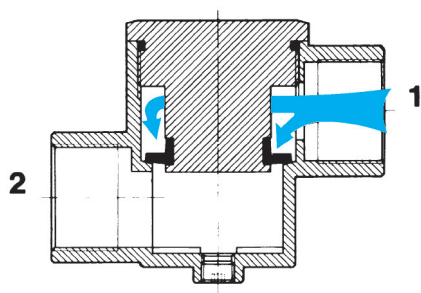
1 = common terminal, 2 = NO terminal, 3 = NC terminal


Check valves

Check valves are devices that allow compressed air to pass in one direction only.



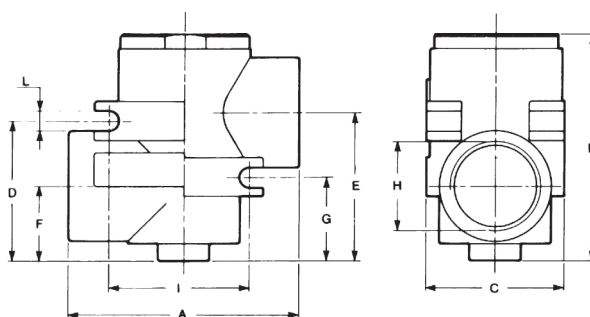
Fluid	filtered air
Max operating pressure	10 bar
Ambient temperature	-20 ÷ +80 °C
Max fluid temperature	50°C
Body	die-cast zamak
Seals	NBR



1 = use
2 = pressure

CHECK VALVES

	Code	Ports	Ø mm	Flow rate NI/min	Pressure bar	Weight Kg	
	AM-5400	G1/2	15	4500	0 ÷ 10	0,354	2 —<○— 1
	AM-5401	G3/4	15	4500	0 ÷ 10	0,312	2 —<○— 1
	AM-5402	G1	24	7500	0 ÷ 10	0,740	2 —<○— 1

DIMENSIONS


A	B	C	D	E	F	G	H	I	L
67	67	40	46	48	27	28,5	G1/2 - G3/4	42	6,25
101	80	56,5	54	57,5	30	33,5	G1	59,5	8,25


Signal processing valves

Valves for power or control circuits that generate an output signal based on the presence of both inputs (AND function) or of only one (OR function). Available with G 1/8 threaded connections or Ø4x2 push-in fittings for various applications.



Fluid	air and neutral gases
Max operating pressure	1,5 ÷ 8 bar
Ambient temperature	-10 ÷ +75 °C
Max fluid temperature	50°C
Flow at 6 bar	300 NI/min (threaded body G1/8 version, nominal bore 3.5 mm); 110 NI/min (push-in fitting 4x2 version, nominal bore 2 mm).
Seals	NBR


SIGNAL PROCESSING VALVES

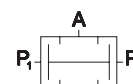
Code	Ports	Operating principle
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"AND" VALVES

AM-5160

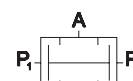
Threaded body G1/8

A = P₁ / P₂
P₁ - P₂ = Pressure
A = Outlet


AM-5161

Push-in fittings Ø4

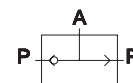
A = P₁ / P₂
P₁ - P₂ = Pressure
A = Outlet


"OR" VALVE

AM-5162

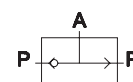
Threaded body G1/8

A = P + P
P = Pressure
A = Outlet


AM-5163

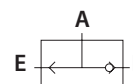
Push-in fittings Ø4

A = P + P
P = Pressure
A = Outlet


AM-5164

Threaded body G1/4

A = E + E
E = Pressure
A = Outlet


G 1/8 THREADED FITTINGS
QUICK-CONNECT FITTINGS Ø 4
