

The job of the progressive starter is to feed air into the circuit gradually with controlled flow. It comes in two versions with solenoid or pneumatic actuation.

Both control signals cause the valve to open, which allows the air controlled by the flow regulator to flow slowly towards the downstream circuit. In the APR, when the pressure in the downstream circuit reaches 50%-60% of the upstream pressure, the valve opens the main inlet duct connecting it directly to the output duct. This supplies the circuit with the maximum pressure and flow rate available upstream. The time elapsing between starting and opening the valve can be adjusted via the built-in flow regulator.

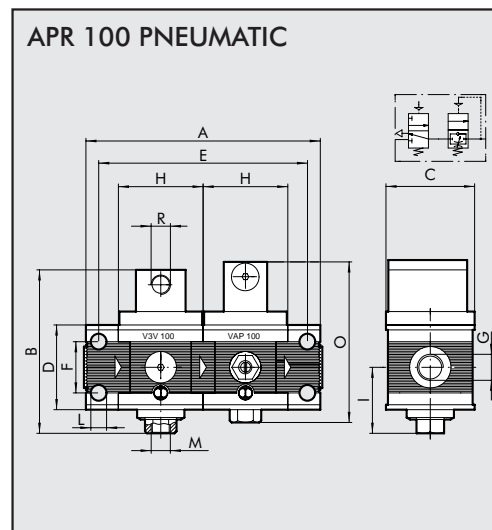
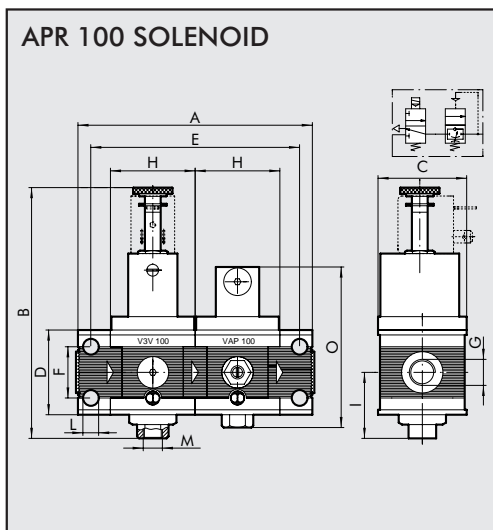
If it is necessary to relieve the downstream circuit quickly, merely operate the control valve which cuts off air flow in the pipe. This closes the valve and starts relieving the downstream circuit.

The progressive starter acts both as an actuator positioner, which eliminates the risk of sudden kickback, and as a safety valve that relieves the circuit quickly when the remote control is operated.



TECHNICAL DATA	APR 100	APR 100	APR 200	APR 200	APR 200	APR 300	APR 300	APR 300
Threaded port	G 1/4	G 3/8	G 1/4	G 3/8	G 1/2	G 1/2	G 3/4	G 1"
Min. inlet pressure	0.3MPa - 3bar - 43.5psi		0.3MPa - 3bar - 43.5psi			0.4MPa - 4bar - 58psi		
Max. inlet pressure*	1.5MPa - 15bar - 217psi		1.3MPa - 13bar - 188.5psi			1.3MPa - 13bar - 188.5psi		
Flow rate at 6.3 bar (0.63 MPa-91 psi)	NI/min	1300	2000			2400		
ΔP 0.5 bar (0.05 MPa - 7 psi)	scfm	46	71			85		
Flow rate at 6.3 bar (0.63 MPa-91 psi)	NI/min	2000	3200			3600		
ΔP 1 bar (0.1 MPa - 14 psi)	scfm	71	113			127		
Fluid	Filtered, lubricated or unlubricated compressed air. Lubrication, if used, must be continuous							
Max temperature	°C	50	50			50		
	°F	122	122			122		
Weight	Kg	0.8 ~	0.9 ~			1.5 ~		
Wall fixing screws		M4 x 50	M5 x 60			M5 x 70		
Mounting	In any position							
Type of control	Pneumatic Solenoid		Pneumatic Solenoid CNOMO solenoid			CNOMO solenoid Microsol solenoid Pneumatic		
Notes	For the pneumatic version 200 the pilot pressure must range between the inlet P and the inlet P + 2 bar					For pneumatic version 300, the pilot pressure must be greater or equal to the input pressure		
* 1 MPa - 10 bar - 145 psi for solenoid version								

## APR 100 DIMENSIONS

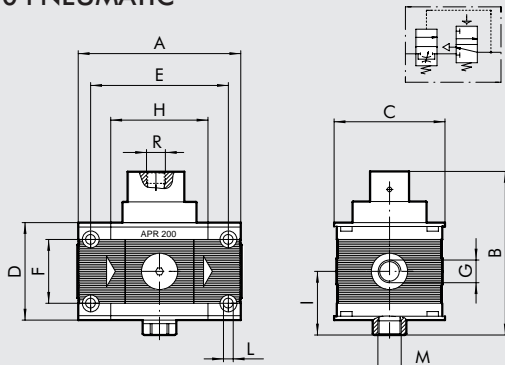


	APR 100
Threaded port	G 1/4   G 3/8
A	121
B APR 100 solenoid	128
APR 100 pneumatic	83
C	50
D	43
E	106
F	26
G	G 1/4   G 3/8
H	43
I	34.5
L	M4 hole
M (relief)	G 1/8
O	89
R (pilot pneumatic version)	G 1/8



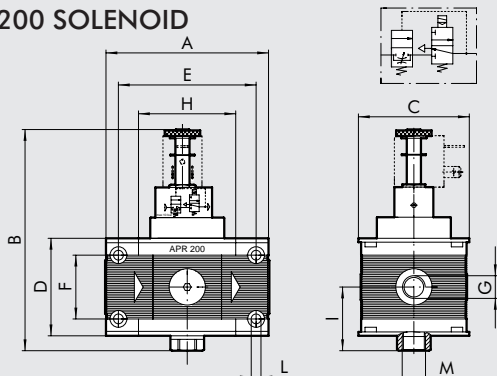
### APR 200 DIMENSIONS

#### APR 200 PNEUMATIC

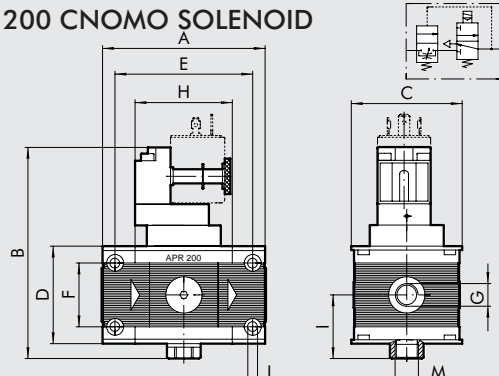


APR 200 PN	APR 200 ELPN			APR 200 ELPN CNOMO					
	G 1/4	G 3/8	G 1/2	G 1/4	G 3/8	G 1/2	G 1/4	G 3/8	G 1/2
Threaded port	G 1/4	G 3/8	G 1/2	G 1/4	G 3/8	G 1/2	G 1/4	G 3/8	G 1/2
A				93.5					
B	92			125			120		
C				63					
D				55					
E				78.5					
F				36					
G	G 1/4	G 3/8	G 1/2	G 1/4	G 3/8	G 1/2	G 1/4	G 3/8	G 1/2
H				55.5					
I				36					
L				M5 hole					
M (relief)				G 1/4					
R (pilot)	G 1/8			-			-		

#### APR 200 SOLENOID

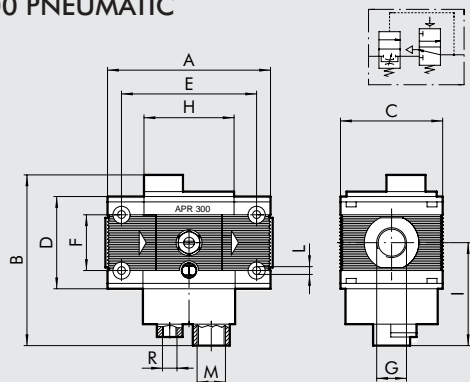


#### APR 200 CNOMO SOLENOID



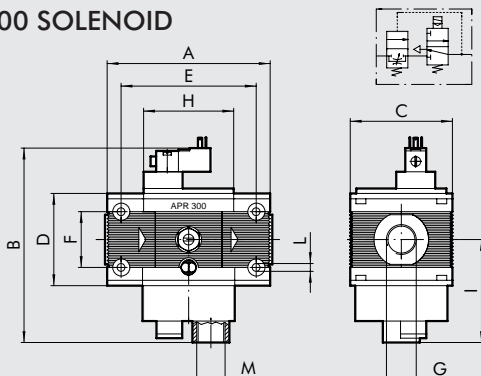
### APR 300 DIMENSIONS

#### APR 300 PNEUMATIC

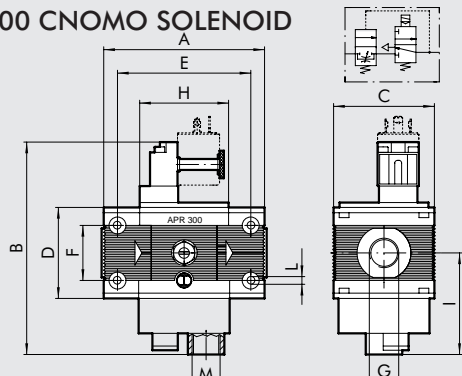


APR 300 PN	APR 300 ELPN MICRO			APR 200 ELPN CNOMO					
	G 1/2	G 3/4	G 1"	G 1/2	G 3/4	G 1"	G 1/2	G 3/4	G 1"
Threaded port	G 1/2	G 3/4	G 1"	G 1/2	G 3/4	G 1"	G 1/2	G 3/4	G 1"
A	110		112	110		112	110		112
B	122			142			152		
C				72					
D				65					
E				92					
F				42					
G	G 1/2	G 3/4	G 1"	G 1/2	G 3/4	G 1"	G 1/2	G 3/4	G 1"
H				65					
I				74					
L				M5 hole					
M (relief)				G 1/2					
R (pilot)	G 1/4			-			-		

#### APR 300 SOLENOID



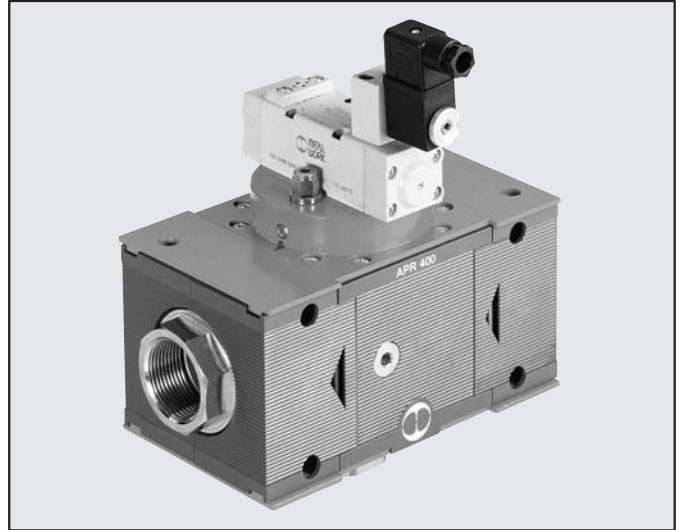
#### APR 300 CNOMO SOLENOID



# Skillair® 400 PROGRESSIVE STARTER

In the 400 series, an ISO1 monostable solenoid valve acts as solenoid actuator. With pneumatic actuation, the valve is the monostable pneumatic type and it is operated via the M5 thread in the plate.

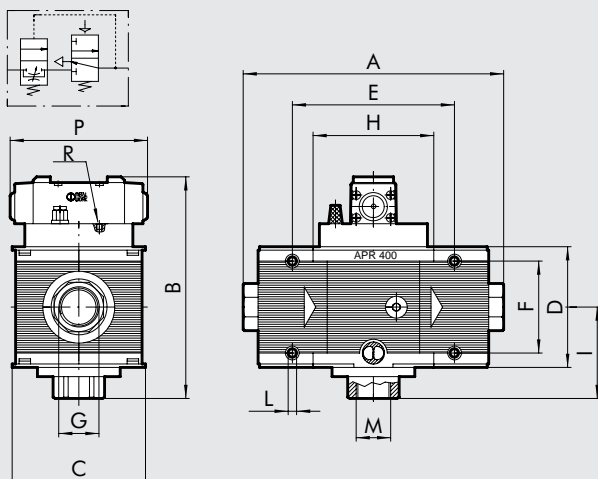
N.B. With size 400, when the APR is mounted upstream of the regulator, the pilot regulator must be piloted at a pressure taken upstream of the APR, otherwise when the system is relieved, most of the air downstream will be relieved by the regulator and not the APR relief port. For connecting instruction see page 3.1/15.



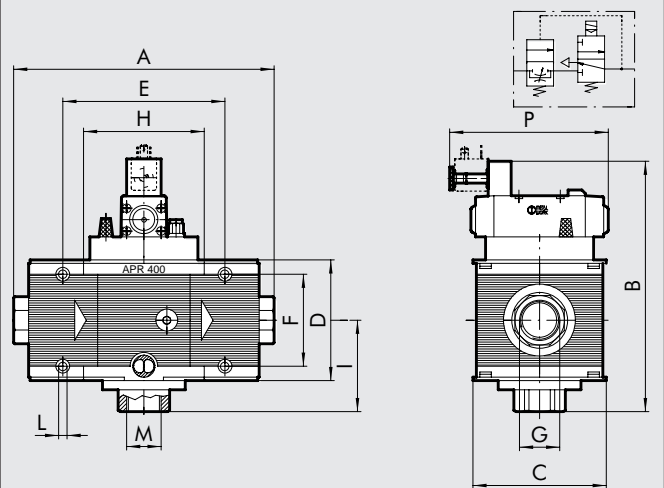
TECHNICAL DATA		APR 400			
Threaded port		G 1"	G 1"1/4"	G 1"1/2"	G 2"
Inlet pressure range	MPa	0.3 to 1.3			
	bar	3-13			
	psi	43.5-188.52			
Flow rate at 6.3 bar (0.63 MPa-91 psi)		13000 NI/min	14000 NI/min		
ΔP 0.5 bar (0.05 MPa – 7 psi)		460 scfm	494 scfm		
Fluid		Filtered, lubricated or unlubricated compressed air.			
		Lubrication, if used, must be continuous			
Max temperature	°C	50			
	°F	122			
Weight	Kg	5.6	6.4		
Wall fixing screws		M6x110			
Mounting		In any position			
Type of control		Pneumatic/solenoid			

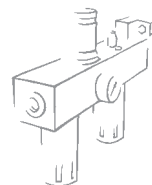
Th. p.	DIMENSIONS APR 400 PN				DIMENSIONS APR 400 SOLENOID			
	G 1"	G 1"1/4"	G 1"1/2"	G 2"	G 1"	G 1"1/4"	G 1"1/2"	G 2"
A	225-255		283-313		225-255		283-313	
B	193				218			
C					116			
D					105			
E					141.4			
F					80			
G	G 1"	G 1"1/4"	G 1"1/2"	G 2"	G 1"	G 1"1/4"	G 1"1/2"	G 2"
H					105.4			
I					80			
L					M6 hole			
M					G 1"			
(relief)								
P	119				138			
R	M5							
(pilot)								

## APR 400 PNEUMATIC



## APR 400 SOLENOID





## KEY TO CODES

APR ELEMENT	100 SIZE	1/4 THREADED PORT	PNEUMATIC TYPE OF CONTROL
APR	100	1/4	PNEUMATIC  SOLENOID
		3/8	
	200	1/4	
		3/8	
		1/2	
	300	1/2	
		3/4	
	400	1	
		1 1/4	
		1 1/2	
		2	

## ORDERING CODES

Code	Description	Code	Description
<b>PROGRESSIVE STARTER 100</b>		<b>PROGRESSIVE STARTER 300</b>	
3267001A	APR 100 PNEUMATIC WITHOUT END PLATES	4471906A	APR 300 SOLENOID MICRO 24V DC WITHOUT END PLATES
3267051A	APR 100 SOLENOID WITHOUT END PLATES	4471907A	APR 300 SOLENOID MICRO 24V 50/60 HZ WITHOUT END PLATES
3267001	APR 100 1/4 PNEUMATIC	4471908A	APR 300 SOLENOID MICRO 110V 50/60 HZ WITHOUT END PLATES
3267051	APR 100 1/4 SOLENOID	4471909A	APR 300 SOLENOID MICRO 220V 50/60 HZ WITHOUT END PLATES
3367001	APR 100 3/8 PNEUMATIC	4471901A	APR 300 SOLENOID CONTROL CNOMO WITHOUT END PLATES
3367051	APR 100 3/8 SOLENOID	4471900A	APR 300 PNEUMATIC WITHOUT END PLATES
<b>PROGRESSIVE STARTER 200</b>		4471900	APR 300 1/2 PNEUMATIC
3471000A	APR 200 PNEUMATIC WITHOUT END PLATES	4471906	APR 300 1/2 SOLENOID MICRO 24V DC
3471001A	APR 200 SOLENOID WITHOUT END PLATES	4471907	APR 300 1/2 SOLENOID MICRO 24V 50/60 HZ
3471004A	APR 200 SOLENOID CNOMO CONTROL WITHOUT END PLATES	4471908	APR 300 1/2 SOLENOID MICRO 110V 50/60 HZ
3471000	APR 200 1/4 PNEUMATIC	4471909	APR 300 1/2 SOLENOID MICRO 220V 50/60 HZ
3471001	APR 200 1/4 SOLENOID	4471901	APR 300 1/2 SOLENOID CONTROL CNOMO
3471004	APR 200 1/4 SOLENOID CNOMO CONTROL	4571900	APR 300 3/4 PNEUMATIC
3571000	APR 200 3/8 PNEUMATIC	4571906	APR 300 3/4 SOLENOID MICRO 24V DC
3571001	APR 200 3/8 SOLENOID	4571907	APR 300 3/4 SOLENOID MICRO 24V 50/60 HZ
3571004	APR 200 3/8 SOLENOID CNOMO CONTROL	4571908	APR 300 3/4 SOLENOID MICRO 110V 50/60 HZ
3671000	APR 200 1/2 PNEUMATIC	4571909	APR 300 3/4 SOLENOID MICRO 220V 50/60 HZ
3671001	APR 200 1/2 SOLENOID	4571901	APR 300 3/4 SOLENOID CONTROL CNOMO
3671004	APR 200 1/2 SOLENOID CNOMO CONTROL	4671900	APR 300 1 PNEUMATIC
		4671906	APR 300 1 SOLENOID MICRO 24V DC
		4671907	APR 300 1 SOLENOID MICRO 24V 50/60 HZ
		4671908	APR 300 1 SOLENOID MICRO 110V 50/60 HZ
		4671909	APR 300 1 SOLENOID MICRO 220V 50/60 HZ
		4671901	APR 300 1 SOLENOID CONTROL CNOMO
		<b>PROGRESSIVE STARTER 400</b>	
		6171002A	APR 400 PNEUMATIC WITHOUT END PLATES
		6171003A	APR 400 SOLENOID WITHOUT END PLATES
		6171002	APR 400 1 PNEUMATIC
		6171003	APR 400 1 SOLENOID
		6271002	APR 400 1"1/4 PNEUMATIC
		6271003	APR 400 1"1/4 SOLENOID
		6371002	APR 400 1"1/2 PNEUMATIC
		6371003	APR 400 1"1/2 SOLENOID
		6471002	APR 400 2" PNEUMATIC
		6471003	APR 400 2" SOLENOID