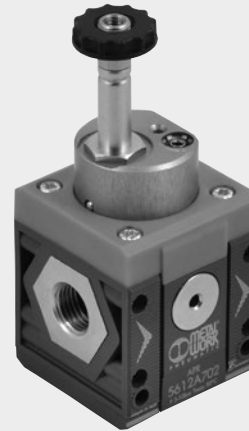


The progressive starter is a pneumatic component that allows air enter the circuit gradually, thereby avoiding excessive pressure bursts.

A sophisticated system of internal valves allows two separate stages of operation. During the first stage, a quantity of air that can be regulated via a pin flows from the APR. The second stage starts when the downstream pressure reached 40÷60% of the upstream pressure, during which full-port flow is achieved. When the mechanism is deactivated, the air flow is cut off and the downstream circuit is relieved.

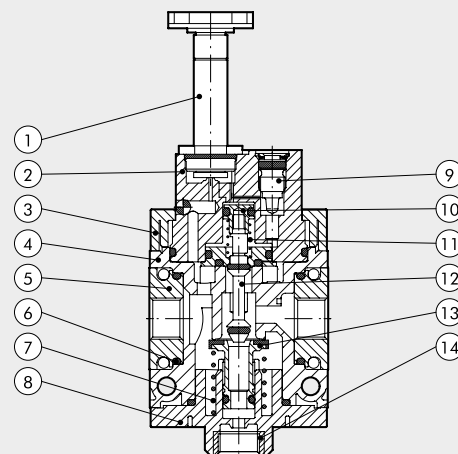
The progressive starter is particularly useful on machinery where it is important to prevent actuators from moving rapidly and out of control, or where, for safety reasons, the air in-feed needs to be gentle and gradual. It, however, there is a major leak in the downstream system, it may never be possible to achieve the pressure required to open the valve completely.



TECHNICAL DATA	APR SY1			APR SY2				
	1/8" NPT	1/4" NPT	3/8" NPT	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT	
Threaded port	1/8" NPT	1/4" NPT	3/8" NPT	3/8" NPT	1/2" NPT	3/4" NPT	1" NPT	
Threaded discharge port		1/8" NPT				1/4" NPT		
Type of control		Solenoid		Solenoid - Cnomo solenoid				
Inlet pressure	bar	3 - 10				3 - 10		
	MPa	0.3 - 1				0.3 - 1		
	psi	43 - 145				43 - 145		
Flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 0.5 bar (0.05 MPa; 7.25 psi)	Nl/min	900	1000	1100	2800	3600	3600	
	scfm	32	39	39	99	127	127	
Flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14.5 psi)	Nl/min	1250	1500	1600	4400	4800	4800	
	scfm	44	53	57	156	170	170	
Drain flow rate at 6.3 bar (0.63 MPa; 91 psi)	Nl/min		500			2700		
	scfm		18			96		
Maximum flow rate start-up, at 6.3 bar (0.63 MPa; 91 psi) with regulation pin completely unscrewed	Nl/min		170			700		
	scfm		6			25		
Min/max temperature at 10 bar; 1 MPa; 145 psi	°C		From -10 to +50			From -10 to +50		
	°F		From 14 to +122			From 14 to +122		
Weight	pounds	0.45	0.44	0.42	1.1	1.09	1.04	1.01
Fluid		Compressed air or other inert gases						
Mounting position		In any position						
Additional air take-off, for pressure gauges or fittings		1/8" BSPP, front and rear			1/4" BSPP, front and rear			
Additional air take-off flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14.5 psi)	Nl/min	500			1500			
	scfm	18			53			
Wall fixing screws		N. 8-32 unc x 2			N. 10-24 unc x 2			
Bobbin capacity	W	12 VDC and 24 VDC = 2W; 24 VAC, 110 VAC and 220 VAC = 3.5 VA for Cnomo versions: 24 VDC = 4W; 24 VAC, 110 VAC, 220 VAC = 4 VA						
Manual control		Bistable: horizontal = OFF, vertical = ON						

COMPONENTS

- ① Sleeve ø8 mm
- ② Anodized aluminium upper block
- ③ Technopolymer flange
- ④ Technopolymer body
- ⑤ IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium
- ⑥ O-ring NBR gasket
- ⑦ Stainless steel valve spring
- ⑧ Technopolymer bottom plug
- ⑨ OT58 brass progressive start regulation pin
- ⑩ OT58 brass internal valve
- ⑪ Stainless steel spring stem recoveryng
- ⑫ OT58 brass stem
- ⑬ OT58 brass main valve with vulcanized gasket
- ⑭ OT58 brass threaded insert



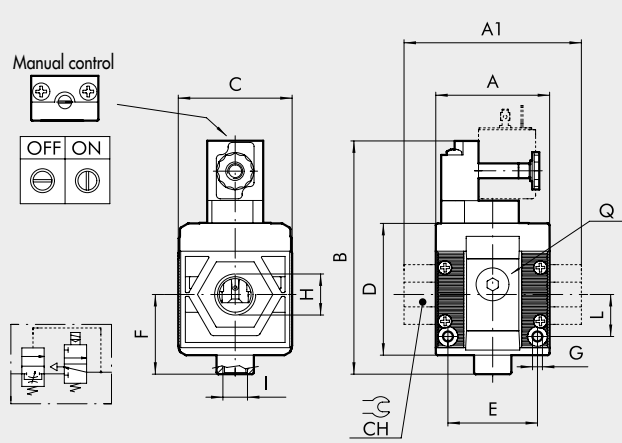
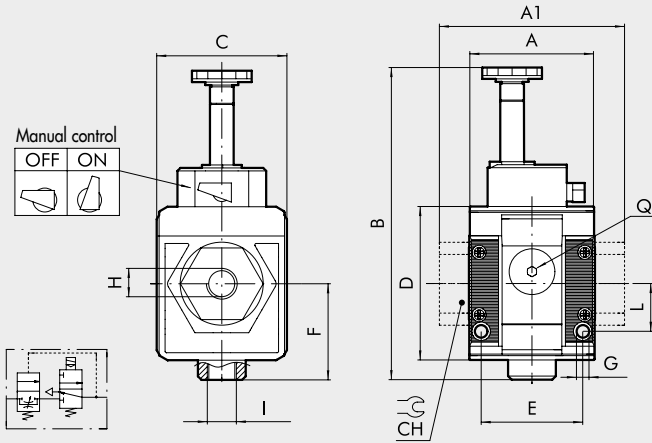
DIMENSIONS

SOLENOID

SY1-SY2

CNOMO SOLENOID

SY2



		SOLENOID SIZE 1			SOLENOID / CNOMO SOLENOID SIZE 2			
H (threaded port)	NPT	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
A			1.65				2.38	
A1		-	-	1.73	-	-	3.74	3.74
B			4.14				5.16	
	Cnomo		-				4.92	
C			1.73				2.4	
CH			-		-	-	1.26	1.41
D			2.03				2.77	
E			1.32				1.87	
F			1.02				1.68	
G			0.165				0.21	
I (exhaust)			1/8" NPT				1/4" NPT	
L			0.63				0.89	
Q (no. 2 additional air takes-off)			1/8" BSPP				1/4" BSPP	

KEY TO CODES

5U SYNTESI	1 SIZE	1 THREADED INPUT CONNECTION	A ELEMENT	70 TYPE	1 THREADED OUTPUT CONNECTION
5U Syntesi NPT	1 Size 1	0 Without bushing 1 1/8" NPT port 2 1/4" NPT port 3 3/8" NPT port	A Progressive starter APR	70 Solenoid * 71 Cnomo solenoid	0 Without bushing 1 1/8" NPT port 2 1/4" NPT port 3 3/8" NPT port
	2 Size 2	0 Without bushing 3 3/8" NPT port 4 1/2" NPT port 5 3/4" NPT port 6 1" NPT port			0 Without bushing 3 3/8" NPT port 4 1/2" NPT port 5 3/4" NPT port 6 1" NPT port

* Only for size 2

PURCHASE ORDER CODES HAVING A MORE FREQUENT USE

N.B. Besides the below mentioned codes, you can order elements composed at your will according to the key to codes.

Code	Description	Code	Description	Code	Description
Syntesi® SY1 PROGRESSIVE STARTER			Syntesi® SY2 PROGRESSIVE STARTER		
5U10A700	APR SY1 solenoid NPT without bushings	5U20A700	APR SY2 solenoid NPT without bushings	5U20A710	APR SY2 Cnomo solenoid NPT without bushings
5U11A701	APR SY1 1/8 solenoid NPT	5U23A703	APR SY2 3/8 solenoid NPT	5U23A713	APR SY2 3/8 Cnomo solenoid NPT
5U12A702	APR SY1 1/4 solenoid NPT	5U24A704	APR SY2 1/2 solenoid NPT	5U24A714	APR SY2 1/2 Cnomo solenoid NPT
5U13A703	APR SY1 3/8 solenoid NPT	5U25A705	APR SY2 3/4 solenoid NPT	5U25A715	APR SY2 3/4 Cnomo solenoid NPT
		5U26A706	APR SY2 1 solenoid NPT	5U26A716	APR SY2 1 Cnomo solenoid NPT