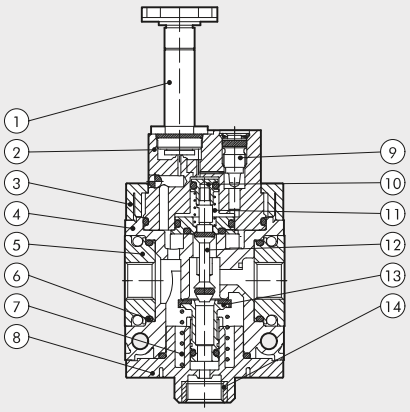
The progressive starter is a pneumatic component that allows air enter the circuit gradually, thereby avoiding excessive pressure bursts.
A sophisticated system of internal valves allows two separate stages of operation. During the first stage, a quantity of air that can be regulated via a pin flows from the APR. The second stage starts when the downstream pressure reached 40 to 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			
Threaded port		1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
Threaded discharge port		1/8"			1/4"			
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 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 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)	Nl/min	170			700			
with regulation pin completely unscrewed	scfm	6			25			
Min/max temperature at 10 bar; 1 MPa; 145 psi	°C	From -10 to +50			From -10 to +50			
Weight	g	203	198	189	503	476	472	460
Fluid		Compressed air or other inert gases						
Mounting position		In any position						
Additional air take-off, for pressure gauges or fittings		1/8", front and rear			1/4", front and rear			
Additional air take-off flow rate at 6.3 bar	Nl/min	500			1500			
(0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14 psi)	scfm	18			53			
Wall fixing screws		No. 2 M4 screws			No. 2 M5 screws			
Bobbin capacity for electro-pneumatic version	W	12 VDC and 24 VDC = 2W; 24 VAC, 110 VAC and 220 VAC = 3.5 VA						
		for Cnomo versions: 12 VDC and 24 VDC = 2W; 24 VAC, 110 VAC and 220 VAC = 3.5 VA						
Manual control		24 VDC = 4W; 24 VAC, 110 VAC, 220 VAC = 4 VA						
		Bistable: horizontal = OFF, vertical = ON						

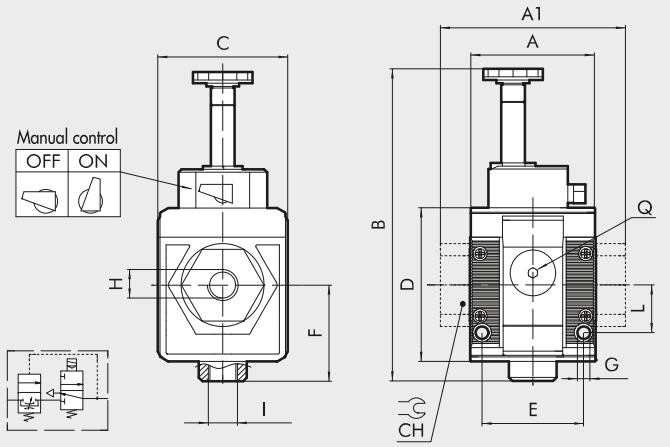
COMPONENTS

① Sleeve ø8
② Anodized aluminium upper block
③ Technopolymer flange
④ Technopolymer body
⑤ IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium for 3/4" - 1"
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

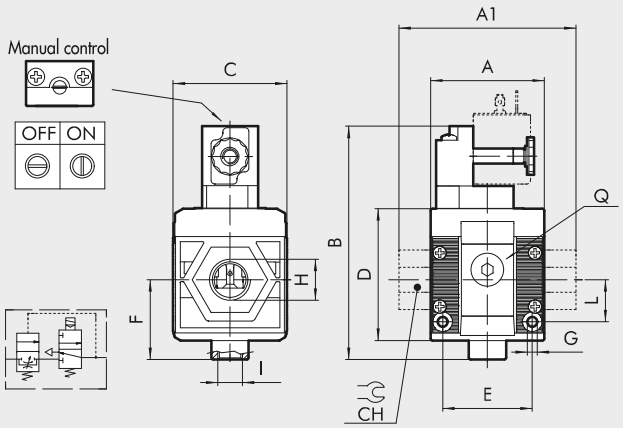


DIMENSIONS

SOLENOID **SY1-SY2**



CNOMO SOLENOID **SY2**



	SOLENOID SIZE 1			SOLENOID / CNOMO SOLENOID SIZE 2			
H (threaded port)	1/8″	1/4″	3/8″	3/8″	1/2″	3/4″	1″
A		42			61		
A1	-	-	44	-	-	95	95
B		105			131		
Cnomo		-			125		
C		44			61		
CH		-		-	-	32	36
D		51.5			70.5		
E		33.5			47.5		
F		32.2			42.7		
G		Hole for M4 screws			Hole for M5 screws		
I (exhaust)		1/8″			1/4″		
L		16			22.5		
Q (no. 2 additional air takes-off)		1/8″			1/4″		

KEY TO CODES

56	1	1	A	70	1
SYNTESI	**SIZE**	**THREADED INPUT CONNECTION**	**ELEMENT**	**TYPE**	**THREADED OUTPUT CONNECTION**
56 Syntesi	**1** Size 1	**0** Without bushing **1** 1/8″ port **2** 1/4″ port **3** 3/8″ port	**A** Progressive starter APR	**70** Solenoid * **71** Cnomo solenoid	**0** Without bushing **1** 1/8″ port **2** 1/4″ port **3** 3/8″ port
	2 Size 2	**0** Without bushing **3** 3/8″ port **4** 1/2″ port **5** 3/4″ port **6** 1″ port			**0** Without bushing **3** 3/8″ port **4** 1/2″ port **5** 3/4″ port **6** 1″ 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
Syntesi® SY1 PROGRESSIVE STARTER	
5610A700	APR SY1 elpn without bushings
5611A701	APR SY1 1/8 elpn
5612A702	APR SY1 1/4 elpn
5613A703	APR SY1 3/8 elpn

Code	Description
Syntesi® SY2 PROGRESSIVE STARTER	
5620A700	APR SY2 elpn without bushings
5623A703	APR SY2 3/8 elpn
5624A704	APR SY2 1/2 elpn
5625A705	APR SY2 3/4 elpn
5626A706	APR SY2 1 elpn

Code	Description
Syntesi® SY2 PROGRESSIVE STARTER	
5620A710	APR SY2 elpn Cnomo without bushings
5623A713	APR SY2 3/8 elpn Cnomo
5624A714	APR SY2 1/2 elpn Cnomo
5625A715	APR SY2 3/4 elpn Cnomo
5626A716	APR SY2 1 elpn Cnomo