

Syntesi pressure regulator is based on the rolling diaphragm principle, which offers numerous advantages compared to systems using a flat diaphragm:

- Increased stroke, allowing wider valve aperture and hence greater flow rate.
 - Decreased dynamic and pick-up friction, and hence quicker response and enhanced sensitivity.
 - Greater accuracy in maintaining the pressure setting, both with both variable flow rates and different supply pressures.

The regulator includes a compensation system that keeps the pressure setting virtually constant, even when the upstream pressure changes. This is achieved mainly by the design of the valve, which is pneumatically balanced.

If the downstream pressure rises above the threshold value, the air is discharged (relief valve) until it drops below the maximum value. A special device relieves downstream pressure rapidly when the upstream pressure drops to zero. This means the regulator can be positioned between a valve and a cylinder because the air can flow in both directions, towards the cylinder with regulated pressure, or return towards the valve during relief.

The knob is the push-lock type – once the pressure has been set, press it and it locks in position. In this position you can pull out the plate and attach two padlocks on size 1 or three padlocks on size 2 in order to avoid possible tampering. On the front and back there is a port (1/8" for size 1 and 1/4" size 2) that can be used with pressure gauges, pressure switches or as an additional regulated air intake.



TECHNICAL DATA		REG SY1			REG SY2			
		1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1"
Threaded port								
Max. inlet pressure	bar		15				13	
	MPa			1.5			1.3	
	psi			217			188	
Flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 0.5 bar (0.05 MPa; 7 psi)	Nl/min	570	1600	2900	3000	4300		4700
(inlet pressure 10 bar)	scfm	20	57	103	106	152		166
Flow rate at 6.3 bar (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14 psi)	Nl/min	1200	2800	3350	5300	7400		7600
(inlet pressure 10 bar)	scfm	42	99	119	188	261		267
Relief valve flow rate at 6.3 bar (0.63 MPa; 91 psi)	Nl/min		70				100	
	scfm			2.5			3.5	
Min/ max temperature at 10 bar; 1 MPa; 145 psi	°C		From -10 to +50			From -10 to +50		
Full outflow with zero inlet pressure			Included			Included		
Padlockable knob			Included					
Upstream pressure compensation			Included, via balanced valve					
Weight	g	193	188	179	546	519	515	503
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 (0.63 MPa; 91 psi) ΔP 1 bar (0.1 MPa; 14 psi)	Nl/min		500				1400	
	scfm		18				50	
Wall fixing screws			No. 2 M4 screws			No. 2 M5 screws		
Notes on use			The pressure must always be set upwards. For increased sensitivity, use a pressure regulator with a rated pressure as close as possible to the required value.			On request version without overpressure exhaust		