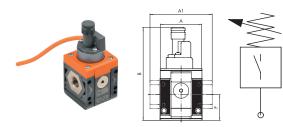


Pressure switch

»SYNTESI« series



Art. No. 144963 Type No. 5626S206



Exemplary illustration

Syntesi pressure switches feature a high degree of miniaturisation and a modern attractive design. As modular components in the Syntesi range, they can be installed either facing up or down.

They come ready assembled with a 2 metre cable or an M8 connector with a 300 mm cable.

The contact is the switching type, which means it can be used as a normally open or normally closed contact. It can be regulated via a knurled push-lock handle.

On the front and back there is a port (G 1/8 for size 1 and G 1/4 for size 2) that can be used with pressure gauges, pressure switches or as an additional air outlet.

Technical data

Series	Syntesi
Size	2
Function	Changeover
Max. input pressure	13 bar
Adjustment range	0.5 - 10 bar
Temperature range	-10 to 50 °C
Input	G 1
Output	G 1
Electrical connection	M8 connector on 300mm cable
Protection IP	IP65
Voltage max.	250 V
Max. load	2 A
Hysteresis min. (not adjustable)	0.4 bar
Hysteresis max. (not adjustable)	0.8 bar
Medium	Compressed air or other neutral gases
Housing	Technopolymer
A	60.5 mm
A1	95,0 mm
В	101.0 mm
F	32.5 mm



Commercial data

Customs tariff number	84818099
Country of origin	П
eCl@ss 5.1.4	27371814
eCl@ss 9.0	27371814
UNSPSC_Code_v190501	39122210
UNSPSC_CodeDesc_v190501	Pressure switch



RIEGLER

SU∏TESi. PRESSURE SWITCHES



Syntesi $_{\tiny{\textcircled{\tiny 0}}}$ pressure switches feature a high degree of miniaturisation and a modern attractive design.

As they are extremely modular, the Syntesi® series can be installed facing up or down.

They come ready assembled with a 2-metre cable or an M8 connector with a 300-mm cable.

The contact is the switching type, which means it can be normally open or normally closed.

It can be regulated via a knurled push-lock handle.

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 or as an additional air intake.



TECHNICAL DATA		SY1 PRESSURE SWITCH	HES	SY	2 PRESSUE	RE SWITCH	ES
Threaded port		1/8" 1/4" 3	/8"	3/8"	1/2"	3/4"	1″
Adjustable pressure interval	bar	0.5 to 10			0.5 t	o 10	
Hysteresis (not adjustable)	bar		From 0.4 to	0.8 (See di	iagram)		
Maximum pressure	bar	15			1	3	
	MPa	1.5			1.	.3	
	psi	217			18	38	
Min/Max temperature at 10 bar; 1 MPa; 145 psi	°C	From -10 to 50			From -	10 to 50	
Maximum current	A	2			2	2	
Maximum voltage	V	250		250			
Outside diameter of cable	mm	4.9		4.9			
Number of wires and cross section		$3 \times 0.5 \text{ mm}^2$		3 x 0.5 mm ²			
Contacts		Normally-Open (NO) and Normally-Closed (NC)					
Protection		IP65 IP65					
Number of switchings		5 x 10 ⁶			5 x	106	
Fluid		Filtered lubricated or unlubric	ated compre	essed air. Lu	brication, if u	sed, must be	continuous
Mounting position			In a	iny position			
Additional air take-off, for pressure gauges or fittings		1/8", front and rear			1/4", fror	nt and rear	
Additional air take-off flow rate at 6.3 bar	NI/min						
(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 M	5 screws	
Weight	g	255 250 2	241	443	416	412	400

COMPONENTS

- Technopolymer adjusting "push lock" handle

 Total brass adjusting screw

 Steel piston spring

 Technopolymer body

 IN/OUT bushing made of OT58 nickel-plated brass or passivated aluminium for 3/4" 1"

 Technopolymer bottom plug

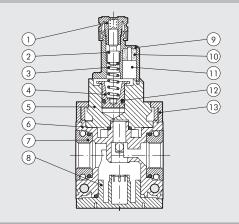
 Technopolymer pressure switch body

 Resin finish for IP65

 Electrical contact

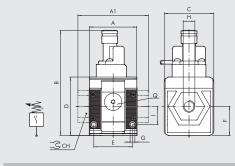
 Oring NBR gasket

- O-ring NBR gasket
- 13 Technopolymer flange



Syntesi® PRESSURE SWITCHES





		SIZE 1					
H (threaded port)	1/8"	1/4"	3/8"	3/8"	1/2"	3/4"	1″
A		42		60.5			
A1	-	-	44	-	-	95	95
В		93			10	01	
С	44 61					1	
CH		-		-	-	32	36
D		51.5		70.5			
E		33.5		47.5			
F		25.6			32	2.5	
G	Hole	for M4 so	rews	Hole for M5 screws			
1		16			22	2.5	
Q (no. 2 additional		1/8"			1/	4"	
air takes-off)							

HYSTERESIS GRAPH

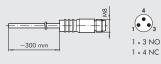
DIMENSIONS

psi 140 130 120 110 100 90 80 70 60 50 40 30 20 High switching pressure (bar) 10 bar 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 psi Low switching pressure (bar)





VERSION WITH M8 CONNECTOR



KEY TO CODES

UNITS

Syntesi® PRESSURE SWITCHES

56	1	1	S	10	1
SYNTESI	SIZE	THREADED INPUT CONNECTION	ELEMENT	TYPE	THREADED OUTPUT CONNECTION
56 Syntesi	1 Size 1 2 Size 2	0 Without bushing 1 1/8" port 2 1/4" port 3 3/8" port 0 Without bushing 3 3/8" port 4 1/2" port 5 3/4" port 6 1" port	\$ Pressure switches	10 2 m cable 20 300 mm cable with M8 connector	0 Without bushing 1 1/8" port 2 1/4" port 3 3/8" port 0 Without bushing 3 3/8" port 4 1/2" port 5 3/4" port 6 1" port

PURCHASE ORDER CODES HAVING A MORE FREQUENT USE

N.B. Besides	the below mentioned codes, you can order eler	ments compose	d at your will according to the key to codes
Code	Description	Code	Description
Syntesi _® SY1	PRESSURE SWITCHES	Syntesi _® SY2	PRESSURE SWITCHES
5610\$100	Pressure switch 2 m cable SY1 without bushings	5620\$100	Pressure switch 2 m cable SY2 without bushing
5611\$101	Pressure switch 2 m cable SY1 1/8	5623\$103	Pressure switch 2 m cable SY2 3/8
	the state of the s		

5624S204

5625\$205

5626S206

56115101	Pressure switch 2 m cable SY1 1/8
5612\$102	Pressure switch 2 m cable SY1 1/4
5613\$103	Pressure switch 2 m cable SY1 3/8
5610\$200	Pressure switch M8 SY1 connector without bushings
56115201	Pressure switch M8 connector SY1 1/8
56125202	Pressure switch M8 connector SY1 1/4
5613\$203	Pressure switch M8 connector SY1 3/8

4040	2000
Syntesi _® SY2	PRESSURE SWITCHES
5620S100	Pressure switch 2 m cable SY2 without bushings
5623\$103	Pressure switch 2 m cable SY2 3/8
5624\$104	Pressure switch 2 m cable SY2 1/2
5625\$105	Pressure switch 2 m cable SY2 3/4
5626S106	Pressure switch 2 m cable SY2 1
5620S200	Pressure switch M8 SY2 connector without bushings
5623\$203	Pressure switch M8 connector SY2 3/8

Pressure switch 2 m cable SY2 3/4	Cod
Pressure switch 2 m cable SY2 1	920
Pressure switch M8 SY2 connector without by	oushings NC
Pressure switch M8 connector SY2	3/8 swi
Pressure switch M8 connector SY2	1/2 pre
Pressure switch M8 connector SY2	3/4 pos
Pressure switch M8 connector SY2	1 sec

ACCESSOIRES: SECURITY KNOB



Code	Description
9200703	Security knob APR / pressure switch

OTE: Pull outwards to remove the knob from the pressure vitch on the unit. Insert the security knob and regulate the essure switch. Then press the handle firmly to lock it in osition. If the pressure switch needs to be reset, remove the curity knob by forcing it laterally with a screwdriver.



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GENERAL TECHNICAL DATA SUNTESI.

Syntesie is an important milestone achieved by Metal Work, the result of thirty years' experience producing air-treatment units. It has been studied in minute detail to obtain the best possible performance in a reduced space and with limited weight. The capacity is much higher than that of other units of the same size.

This modular unit features a very simple yet effective system that requires no brackets, stay bolts or yoke for assembling the elements. The basic version of Syntesi® incorporates numerous functions that are not provided or are only optional with traditional units. Examples are padlockable knobs, additional pneumatic ports on the front and back, flow options from left to right or vice versa, regulators with compensation system - which are accurate even when the upstream pressure changes, with rapid downstream pressure relief - full indelible marking, automatic condensate drain even in size 1, and 360° visual inspection of oil and condensate levels. The basic materials, technopolymer and nickel-plated brass have excellent corrosion resistance. An anti-corrosion version

is available with stainless steel components (screws, plates) or Geomet®-



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GENERAL TECHNICAL DATA Syntesi®

TECHNICAL DATA			SIZE 1			SIZ	ZE 2	
Threaded port		1/8″	1/4"	3/8"	3/8"	1/2"	3/4"	1"
Max. input pressure	bar		15			1	13	,
	MPa		1.5			1	.3	
	psi		217			1	88	
Flow rate	.			See catal	ogue of the various	elements		
Min/max temperature at 10 bar; 1 MPa; 145 psi	°C		from -10 to +50				0 to +50	
Padlockable knob		Tİ	ne knobs of the re	gulators, filter regul			can all be padlo	cked
Fluid					ssed air or other in			
Mounting position					ogue of the various			
Direction of flow					ons right to left or v			
Additional air take-off, for pressure gauges or fittings		1/8", fro	ont and rear, on a			1/4", front and r		es
Wall fixing screws			No. 2 M4 screw	-			15 screws	
Certification for potentially explosive atmosphere				(EX) II 3G Ex h I	IIC T5 Gc -10°C <	Ta < 50°C		
according to Atex 2014/34/EU rule				△ II 3D Ex h I	IIC T100 °C Dc			

ANTI-CORROSION VERSION

reated ones (regulator springs).

Differences compared to the standard version:

- stainless steel screws
- stainless steel plate for R, FR, V3V knobs
- Geomet®-treated regulator spring and filter-regulator

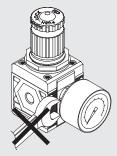
C1.4

RIEGLER

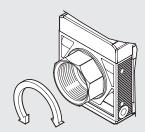
FIXING TO FRONT PORTS

ROTARY BUSHINGS

LASER MARKING







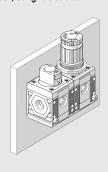


The following is marked indelibly on the body:
- Metal Work trademark

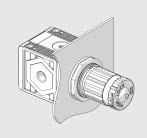
- Code
- Maximum pressure and temperature Degree of filtration or pressure range, where relevant
- Week and year of manufacture
- Atex categoryMade in Italy

MOUNTING OPTIONS

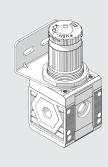
On the wall, using two screws



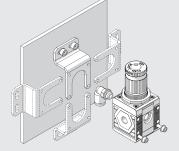
On a panel



Using knob bracket

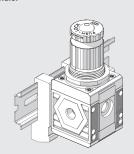


Using a bracket



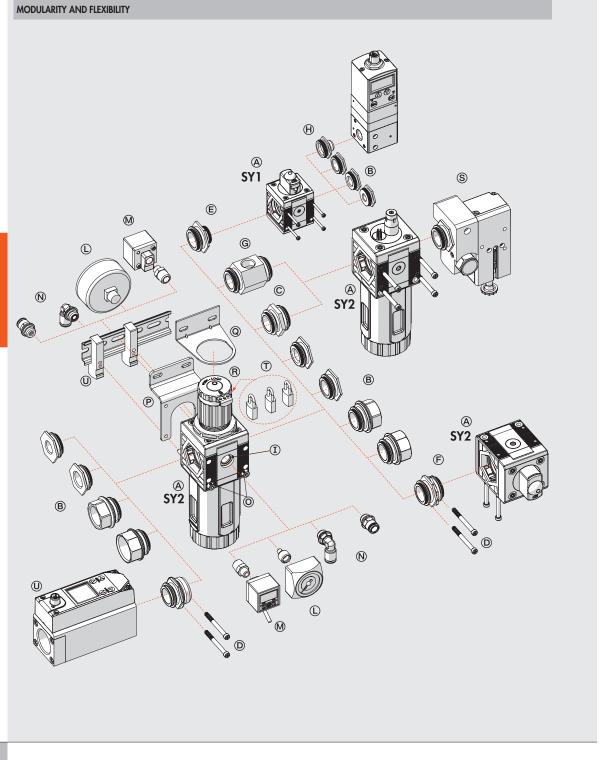
The bracket can be secured in any position, and the fittings can be mounted on the pressure gauge air intake at the back of the unit.

On a DIN EN50022 bar with the apposite adaptator



Page 6 of 10

GENERAL TECHNICAL DATA Syntesi®



C1 A





The various elements of Syntesie (a) can be connected to the air feed and delivery circuit using pneumatic nickel brass or passivated aluminium ports (B) and can be fixed together using nipples ©.

The nipples and ports are easy to remove by unscrewing the two front screws [®]. This solution has numerous advantages:

- Reduced overall dimensions.
- Free composition of multiple elements, without the need for brackets, stay bolts or yoke.
- The threads for the fittings are metallic, allowing high tightening torques, also for tapered threads.

 Maximum flexibility: a unit can be transformed at any time by adding an element or replacing a port with another one, e.g. 1/4" instead of 1/8".

- The air intake port can be the same or different from the outlet port, as desired. Standard Syntesi⊕ ports are: 1/8", 1/4", 3/8" for size 1; 3/8", 1/2", 3/4", 1" for size 2.

It may be necessary to use a vice to insert the bushes into size 2.

The nipples have different functions:

- Nipple © joins two elements of the same size together.
- Size adaptor © can be used to connect an element in the Syntesi® 2 series with one in the Syntesi® 1 series.
- The 90° adaptor (E) can be used to connect two 90° angled elements. For example, it can help directing the regulator knob or the control knob of a sectioning valve towards the user.
- The two-way air intake @ is a simple and cost-effective system which, besides connecting two elements together, has 2 opposing threaded air intakes.

- The adaptor for Regtronic ® can be used to fix the Regtronic 1/4" proportional valve to a Syntesi® size 1 element.

Additional ports ©. On the front and back of ALL Syntesi® elements there is a port (1/8" for size 1, 1/4" for size 2) that can be used for pressure gauges ©, pressure switches @ or, given the high flow rate, as additional air take-off @. These ports are downstream of the element, so, for example, a regulator port can supply air at a set pressure or a filter port can supply filtered air (not valid for activated carbon filter and depurator).

Wall fixing. Only two through screws @ are needed. No bulky brackets or additional flanges are required. The bracket @ can be used to separate

the unit from the fixing wall, e.g. to mount a fitting to the rear port.

Fixing on a DIN EN50022 bar. Can be done using the bracket kit ①.

Regulator fixing bracket ②. Regulators and filter-regulators can also be fixed using a steel bracket ③ that embraces the bell.

Padlockable knob ®. The knobs of regulators, filter-regulator and sectioning valves can all be padlocked. The steel plate is included in the supply. You can insert up to two 3 mm diameter padlocks ® on size 1 and three padlocks on size 2. As an alternative, the sectioning valve can have a steel plate suitable for a single 6 mm diameter padlock.

Safety valve (S). The unit can incorporate a series 70 SAFE AIR® safety valve.

Flowmeter series FLUX 1-2 (1). The unit can incorporate a series FLUX 1 or FLUX 2 flow meter.



UNITS

Syntesi® KEY TO CODES

SUNTESI: KEY TO CODES

KEY TO CODES S	SINGLE ELEMEN	NT			
56	1	1	F	10	1
SYNTESI	SIZE	THREADED INPUT CONNECTION	ELEMENT	TYPE	THREADED OUTPUT CONNECTION
56 Syntesi 5X Syntesi anti-corrosion	1 Size 1 2 Size 2	O Without bushing 1 1/8" port 2 1/4" port 3 3/8" port O Without bushing 3 3/8" port 4 1/2" port 5 3/4" port 6 1" port	F Filter D Depurator C Active carbon filter R Pressure regulator B Filter-regulator L Lubricator ● V Shur off valve A A Progressive starter A S Pressure switches P Air take-off	Varies from element to element	O Without bushing 1 1/8" port 2 1/4" port 3 3/8" port O Without bushing 3 3/8" port 4 1/2" port 5 3/4" port 6 1" port

- The anti-corrosion version of this element is only available with manual actuation.
 Not available in the anti-corrosion version.

56	1	1	٧	10	В	24	L	10	1
SYNTESI	SIZE	THREADED INPUT CONNECTION	ELEMENT 1	TYPE	ELEMENT 2	TYPE	ELEMENT 3	TYPE	THREADED OUTPUT CONNECTIO
Syntesi (Syntesi anti-corrosion	1 Size 1 2 Size 2	1 1/8" port 2 1/4" port 3 3/8" port 3 3/8" port 4 1/2" port 5 3/4" port 6 1" port	F Filter D Depurator C Active carbon filter R Pressure regulator B Filter- regulator L Lubricator ● V Shut off valve A Progressive starter A S Pressure switches P Air Take-off	Varies from element to element	F Filter D Depurator C Active carbon filter R Pressure regulator B Filter- regulator L Ubricator ● V Shut off valve ▲ A Progressive starter A S Pressure switches P Air Take-off	Varies from element to element	F Filter D Depurator C Active carbon filter R Pressure regulator B Filter- regulator L Lubricator ● V Shut off valve ▲ A Progressive starter A S Pressure switches P Air Take-of	Varies from element to element	1 1/8" por 2 1/4" por 3 3/8" por 4 1/2" por 5 3/4" por 6 1" port

- \blacktriangle Not available in the anti-corrosion version.



Accessories

	Art. No.	Type No.	
Mounting bracket, size 2, standard and anti-corr.	145659	9200717X	
Adapter for DIN rail, size 1 and size 2	145660	9200718X	
M8 socket, 3-pole, 1 m cable, High Flex CL6	145497	02400A0100	
M8 socket, 3-pole, 2,5 m cable, High Flex CL6	145498	02400A0250	
M8 socket, 3-pole, 5 m cable, High Flex CL6	145499	02400A0500	
M8 socket, 3-pole, 10 m cable, High Flex CL6	145500	02400A1000	
Anti-tampering handle	145559	9200703	

Spareparts

	Art. No.	Type No.
Threaded port bushing, size 2, G 1	144694	9210014