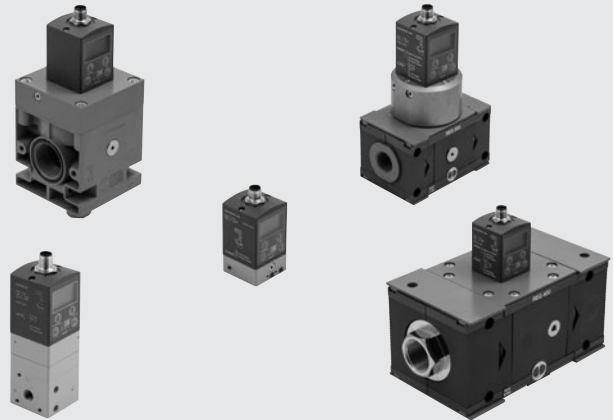


PROPORTIONAL PRECISION PRESSURE REGULATOR REGTRONIC SERIES

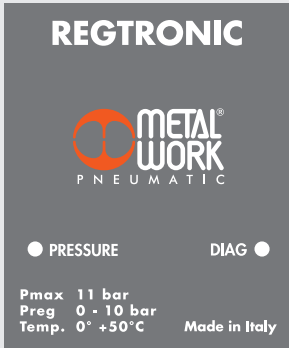
Proportional pressure regulators series REGTRONIC have the job of precisely regulating the pressure in a system, the variables depending on the input command. Remote control regulators are controlled by means of an M12x1 cable and connector and can have Volt, mA, RS232 control or via IO-Link. Regulators with a display can be controlled via a cable or directly using the keys below the display. The pressure value and a series of information and diagnostics are visible at all times on the graphic display. The user-display interface, LEDs and buttons are all on one side. The programming and reading software is comprehensive, simple and intuitive. Pressure control takes place in a "closed-loop" with an electronic precision pressure sensor that measures the downstream pressure, a control system that compares it with the desired pressure, and two mini solenoid valves that adjust the pressure to reach the target value. The Wireless versions are able to communicate with Ethernet networks (MQTT communication) and mobile devices, such as smartphones and tablets with Bluetooth® connection through a dedicated APP. With the Metal Work RegUp App, it is possible to set and view the regulated pressure in real time, set all operating parameters and view pressure trend graphs.



TECHNICAL DATA	REGTRONIC			REGTRONIC NEW DEAL		REGTRONIC 300			REGTRONIC 400			
	M5	1/8"	1/4"	3/4"	1"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"
Threaded port	M5											
Fluid	Filtered, unlubricated air.											
	The air must be filtered at least 10 µm and without condensation.											
MIN inlet pressure	bar Regulation pressure + 1 bar											
MAX inlet pressure	bar 11											
Temperature range	°C from 0 to 50											
Pressure regulation range	bar from 0.05 to 10 (settable full scale and minimum pressure)											
Flow rate at 6.3 bar ΔP 0.5	10	1300	1500	10000	4500	18000	20000					
Flow rate at 6.3 bar ΔP 1	10	1450	1700	13000	7000	-	-					
Exhaust flow rate at 6.3 bar with 0.1 bar overpressure	2	600	1300	1800	250	400	400					
Exhaust flow rate at 6.3 bar with 0.5 bar overpressure	9	1000	1500	2000	500	850	850					
Response time with ΔP = 1 bar	100	100	1000	100	1000	1000	1000	1000	1000	1000	1000	1000
from 6 to 7 bar	s	0.5	0.1	0.15	0.1	0.15	0.27	0.25	0.2	0.2	0.2	0.2
from 7 to 6 bar	s	0.55	0.1	0.15	0.1	0.15	0.27	0.33	0.35	0.35	0.35	0.35
Weight	kg	0.2	0.38	0.38	1.3	1.5	5	5.8				
Class of protection	IP 65											
Supply voltage range IO-Link version	VDC	from 18 to 30										
Current absorption		Max 150 mA at 18VDC										
Supply voltage range analog version	VDC	12 -10% 24 +30%										
Minimum operating voltage	VDC	10.8										
Maximum operating voltage	VDC	31.2										
Maximum admissible voltage	VDC	32 *										
Current absorption		max 220 mA at 12VDC										
Input signal (input impedance)	Voltage	0 to 5 VDC, 0 to 10 VDC (approx. 6.3 KΩ)										
	Current	4 to 20 mA (approx. 100 Ω)										
	Serial ports	RS 232										
	Manual	Keypad										
Output signal	Analog version voltage	0 to 10 VDC (1 VDC = 1 bar) - 1 mA max										
	Analog version current	4 to 20 mA (4 mA = 0 bar, 20 mA = 10 bar)										
	Digital	PNP open collector output: max 24VDC 60 mA NPN open collector output: max 24VDC 60 mA										
Hysteresis		± 0.2% (Full scale)										
Repeatability		± 0.2% (Full scale)										
Sensitivity/Dead-band		setting range 10 to 300 mbar										
Output pressure (display version)	Accuracy	± 0.3% (Full scale)										
	Unit of measurement	bar, MPa, psi										
	Minimum resolution	0.01 bar - 0.001 MPa - 0.01 psi										
Analog output accuracy		± 0.1% of the reading										
Temperature characteristics		max 2 mbar / °C										
Installation position		In any position										
Notes	The features shown refer to the static condition only. With air consumption on the output side, the pressure may vary. On all analog versions you can set the parameters using the software "MWRregtronic" downloadable from the website www.metalwork.eu; to connect the PC to Regtronic you can use the cable code W0970513019.											

* IMPORTANT! Voltage greater than 32VDC will damage the system irreparably.

REMOTE-CONTROL VERSION



DISPLAY VERSION



PROGRAMMABLE AND FLEXIBLE

Setting options:

- LANGUAGE
- UNIT OF MEASUREMENT
- TYPE OF INPUT
- TYPE OF DIGITAL OUTPUT
- DEAD-BAND
- FULL SCALE
- MINIMUM PRESSURE

The remote-control version of the Regtronic has two diagnostic LEDs.

The display version also has buttons for entering the various parameters.

PRECISION

Linearity
± 0.5 % (full scale)

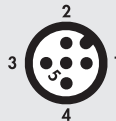
Hysteresis
± 0.2 % (full scale)

Repeatability
± 0.2 % (full scale)

Sensitivity
range 10 to 300 mbar

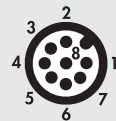
IO-Link CONNECTOR 5-PIN M12x1

IO-Link



Pin	Signal	Description of Class A Port	Lead colour
1	L+	+24 VDC power supply	Brown
2	NC	/	White
3	L-	0 VDC power supply	Blue
4	C/Q	IO-Link communication	Black
5	NC	/	Gray

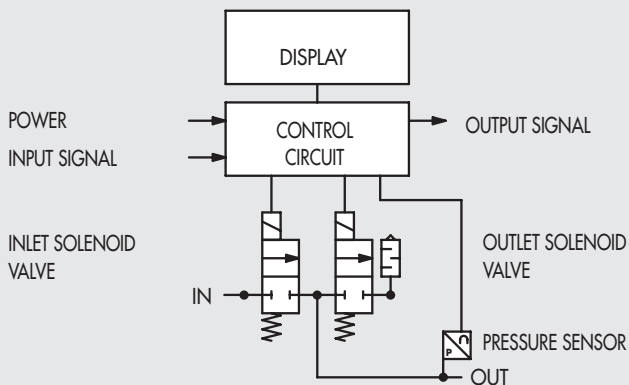
ANALOG CONNECTOR 8-PIN M12x1



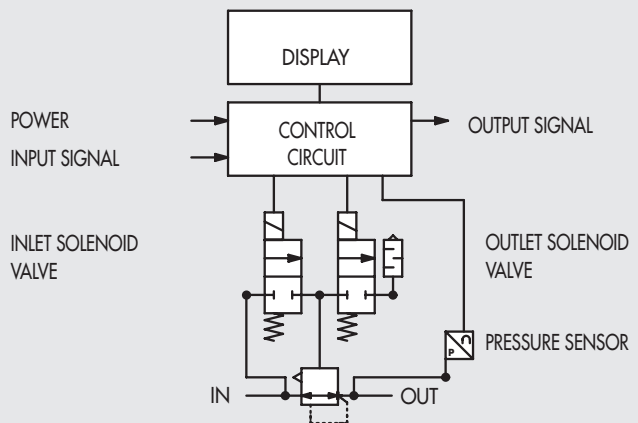
Pin	Signal	Description	Lead colour
1	TX	RS232	White
2	RX	RS232	Brown
3	Pressure set	0 to 10 VDC / 0 to 5 VDC / 4 to 20 mA	Green
4	Digital out	NPN	Yellow
5	Analog out	Voltage version 0 to 10 VDC Current version 4 to 20 mA	Gray
6	Digital out	PNP	Pink
7	0 VDC	Power supply	Blue
8	+ VDC	Power supply	Red

FUNCTION DIAGRAM

REGTRONIC M5



REGTRONIC 1/8" - 1/4" - SK300 - SK400 - NEW DEAL

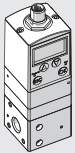


WIRELESS CONNECTION

With the Wireless version of Regtronic, you can establish a connection to a Wi-Fi network via an access point or gateway to monitor and collect all the measured gas values.

Connection to a MQTT Broker via an Access point

MQTT



Broker MQTT



Gathering data from the field makes it possible to:

- carry out a predictive diagnosis of the system;
- monitor the operating parameters at all times and optimize the operation of the machines and the pneumatic system.

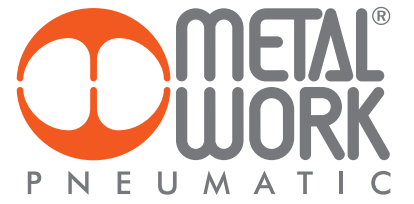
The software can be implemented with analysis functions that provide:

- machine efficiency monitoring;
- to check the pressure trends and long-term forecasting (plant improvement evaluation).



The Metal Work RegUp App can be used for connection via Bluetooth to Metal Work proportional pressure regulators in the REGTRONIC series with a wireless interface, from Android smartphone and iOS.

With the Metal Work RegUp App, it is possible to set and view the regulated pressure in real time, set all operating parameters and view pressure trend graphs.



NOTES

A large rectangular area with horizontal grey lines, intended for handwritten notes.

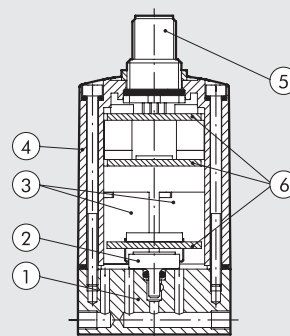
UNITS

REGTRONIC M5

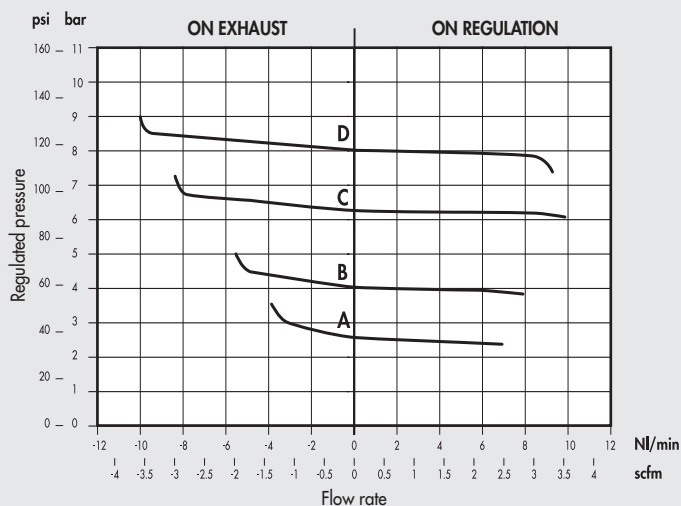
COMPONENTS



- ① BODY: painted aluminium
- ② PRESSURE SENSOR
- ③ SOLENOID VALVE: 10 mm series PLT-10
- ④ SHELL: technopolymer
- ⑤ CONNECTOR M12
- ⑥ ELECTRONIC BOARDS

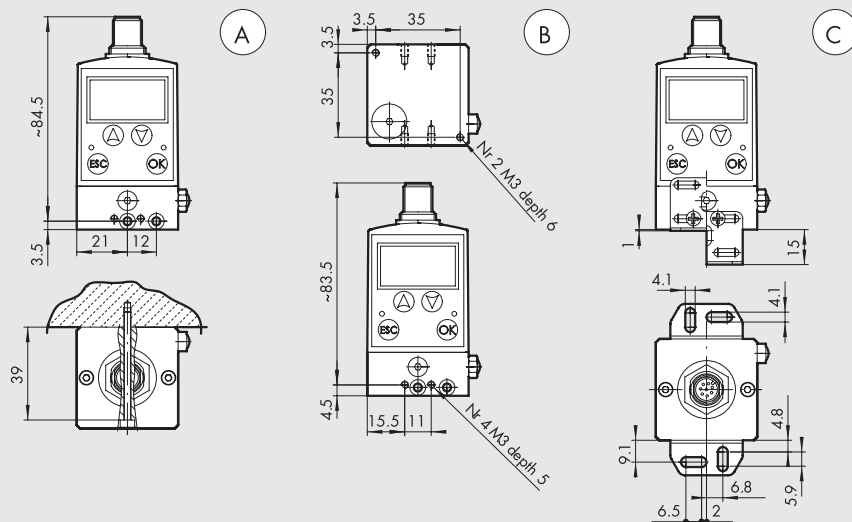


FLOW CHARTS



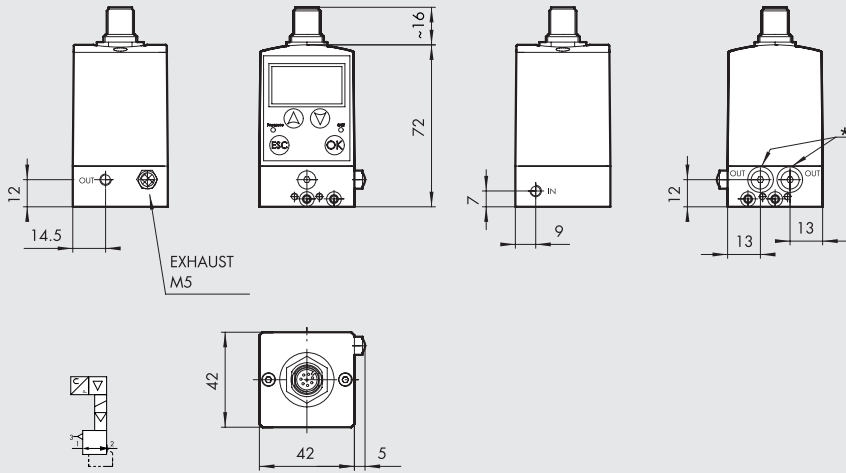
- A = 2.5 bar
- B = 4 bar
- C = 6.3 bar
- D = 8 bar
- Pm = 10 bar

FIXING OPTIONS



- Ⓐ On the wall with 2 M3 screws, with through holes
- Ⓑ On the wall using the M3 threaded holes on the front, rear and underside
- Ⓒ On the wall with legs code 9200711

DIMENSIONS AND ORDERING CODES



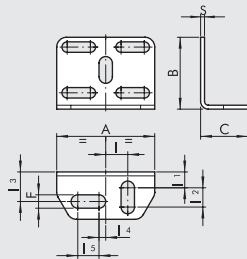
Code	Description
5520500	REGTRONIC M5 with display OUT 0-10 V
5520502	REGTRONIC M5 remote control OUT 0-10 V
5540500	REGTRONIC M5 with display OUT 4-20 mA
5540502	REGTRONIC M5 remote control OUT 4-20 mA

5530500	REGTRONIC IO-Link M5 with display
5530502	REGTRONIC IO-Link M5 remote control

* alternative outputs, removing the M5 cap

ACCESSORIES

FIXING BRACKET KIT



Code	Description									
9200711	Regtronic M5 Fixing bracket kit									
A	B	C	F	I	I1	I2	I3	I4	I5	S
30	22	14.5	4.2	6.8	4.8	5.9	9.1	2	6.5	1.2

Note: supplied complete with four M3x6 screws

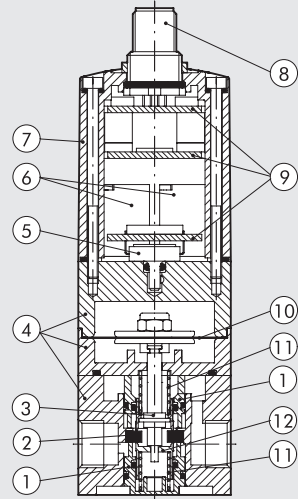
NOTES

REGTRONIC 1/8"; 1/4"



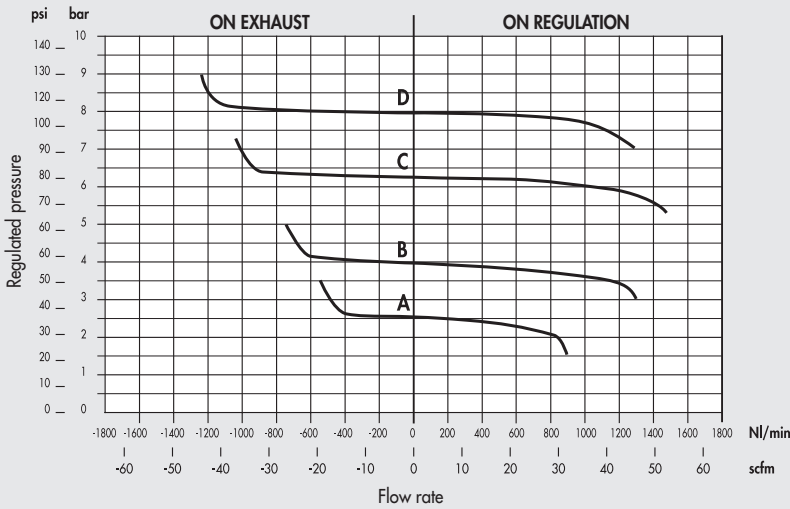
COMPONENTS

- ① CARTRIDGES: nickel-plated brass
- ② RING: vulcanized NBR
- ③ ROD: steel
- ④ BODIES: painted aluminium
- ⑤ PRESSURE SENSOR
- ⑥ SOLENOID VALVE: 10 mm series PLT-10
- ⑦ SHELL: technopolymer
- ⑧ CONNECTOR M12
- ⑨ ELECTRONIC BOARDS
- ⑩ CONTROL DIAPHRAGM: anti-oil rubber
- ⑪ SPRING: stainless steel
- ⑫ POPPET: nickel-plated brass



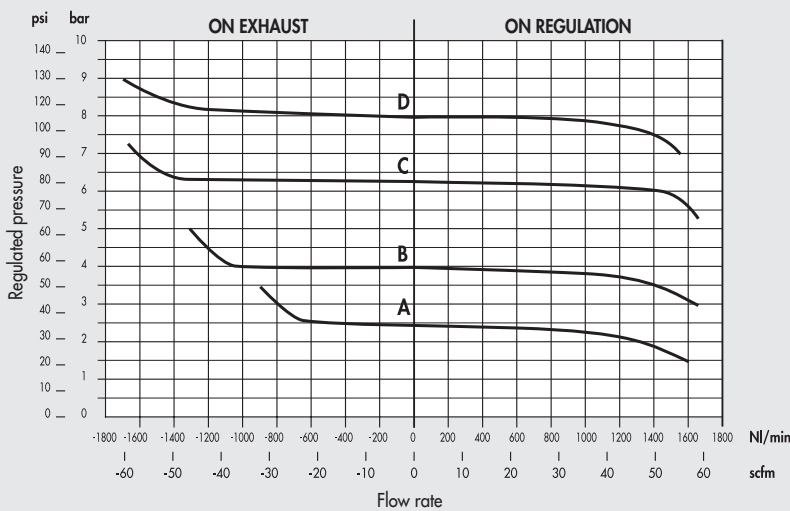
FLOW CHARTS

REGTRONIC 1/8"



A = 2.5 bar
 B = 4 bar
 C = 6.3 bar
 D = 8 bar
 Pm = 10 bar

REGTRONIC 1/4"

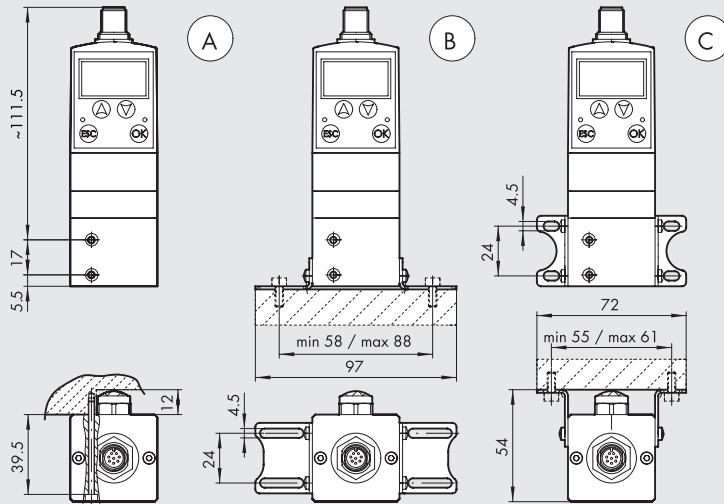


A = 2.5 bar
 B = 4 bar
 C = 6.3 bar
 D = 8 bar
 Pm = 10 bar

UNITS

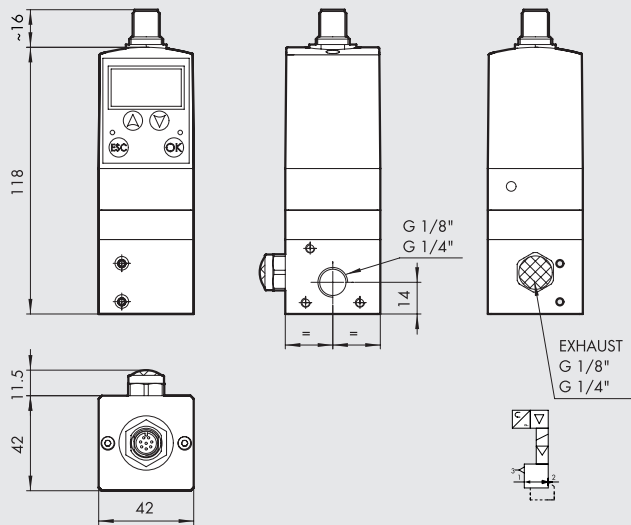
REGTRONIC 1/8"; 1/4"

FIXING OPTIONS



- Ⓐ On the wall with 2 M3 screws
- Ⓑ On the base with legs code 9200710
- Ⓒ On the wall with legs code 9200710

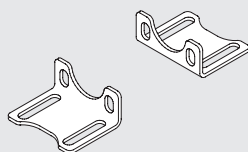
DIMENSIONS AND ORDERING CODES



Code	Description
5521500	REGTRONIC 1/8 with display OUT 0-10 V
5521502	REGTRONIC 1/8 remote control OUT 0-10 V
5522500	REGTRONIC 1/4 with display OUT 0-10 V
5522502	REGTRONIC 1/4 remote control OUT 0-10 V
5541500	REGTRONIC 1/8 with display OUT 4-20 mA
5541502	REGTRONIC 1/8 remote control OUT 4-20 mA
5542500	REGTRONIC 1/4 with display OUT 4-20 mA
5542502	REGTRONIC 1/4 remote control OUT 4-20 mA
5531500	REGTRONIC IO-Link 1/8 with display
5531502	REGTRONIC IO-Link 1/8 remote control
5531510	REGTRONIC IO-Link 1/8 with display and Wi-Fi
5532500	REGTRONIC IO-Link 1/4 with display
5532502	REGTRONIC IO-Link 1/4 remote control
5532510	REGTRONIC IO-Link 1/4 with display and Wi-Fi

ACCESSORIES

FIXING BRACKET KIT



Code	Description
9200710	Fixing bracket kit

Note: supplied complete with four M4x6 screws

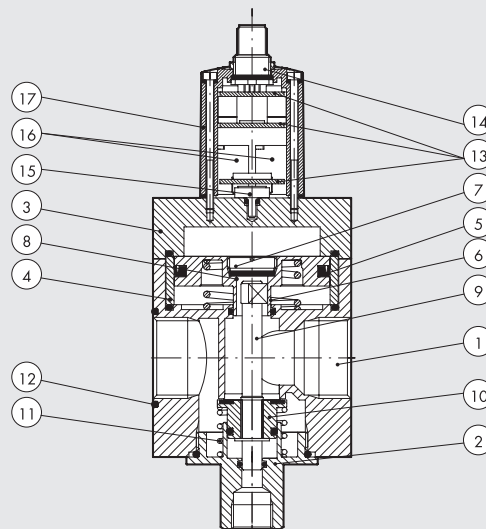
NOTES

REGTRONIC Newdeal

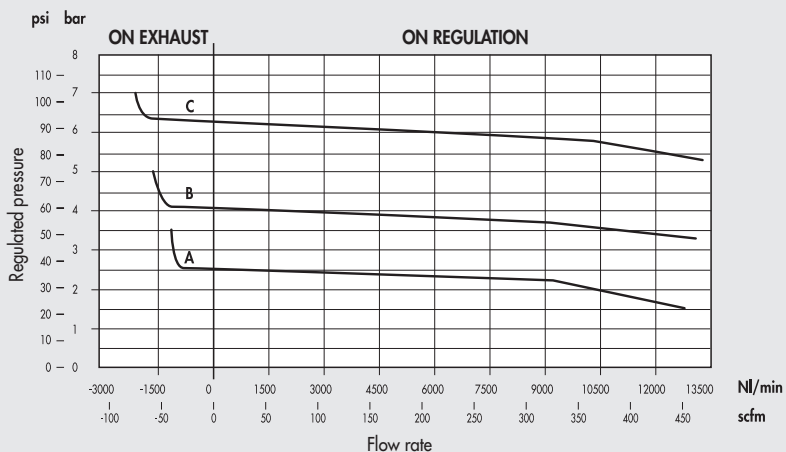


COMPONENTS

- ① REGULATOR BODY: aluminium
- ② LOWER CAP: aluminium
- ③ UPPER PLATE: aluminium
- ④ SPACER: aluminium
- ⑤ GASKET: NBR
- ⑥ PISTON ROD: aluminium
- ⑦ CAP FOR PLAIN GASKET: OT58 brass
- ⑧ PLAIN GASKET: NBR
- ⑨ ROD: OT58 brass
- ⑩ VALVE: OT58 brass
- ⑪ VALVE SPRING: steel
- ⑫ GASKETS: NBR
- ⑬ ELECTRONIC BOARDS
- ⑭ CONNECTOR M12
- ⑮ PRESSURE SENSOR
- ⑯ SOLENOID VALVE: 10 mm series PLT-10
- ⑰ SHELL: tecnopolymer

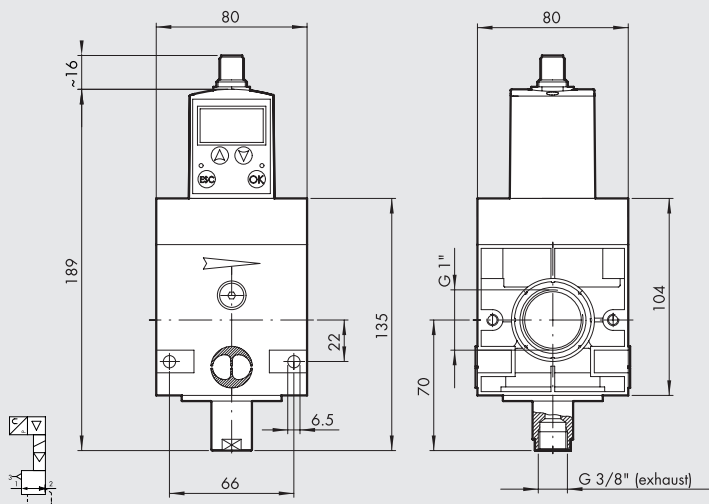


FLOW CHARTS



A = 2.5 bar
 B = 4 bar
 C = 6.3 bar
 Pm = 10 bar

DIMENSIONS AND ORDERING CODES



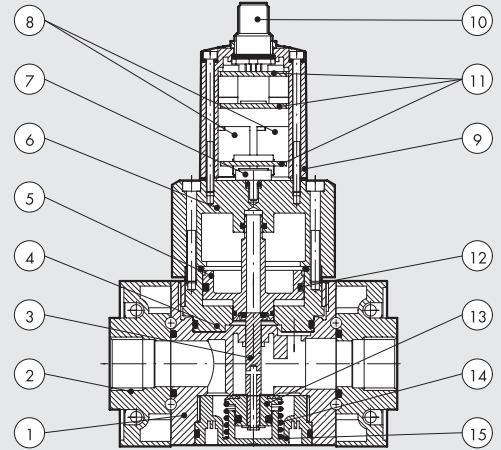
Code	Description
1520003	REGTRONIC New Deal 3/4 with display OUT 0-10 V
1520004	REGTRONIC New Deal 3/4 remote control OUT 0-10 V
1620003	REGTRONIC New Deal 1 with display OUT 0-10 V
1620004	REGTRONIC New Deal 1 remote control OUT 0-10 V
1520043	REGTRONIC New Deal 3/4 with display OUT 4-20 mA
1520044	REGTRONIC New Deal 3/4 remote control OUT 4-20 mA
1620043	REGTRONIC New Deal 1 with display OUT 4-20 mA
1620044	REGTRONIC New Deal 1 remote control OUT 4-20 mA
1520033	REGTRONIC IO-Link New Deal 3/4 with display
1520034	REGTRONIC IO-Link New Deal 3/4 remote control
1620033	REGTRONIC IO-Link New Deal 1 with display
1620034	REGTRONIC IO-Link New Deal 1 remote control

REGTRONIC 300

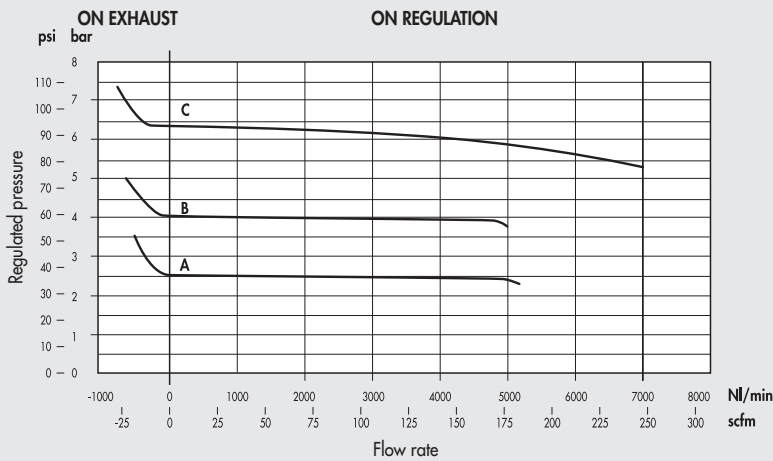
COMPONENTS



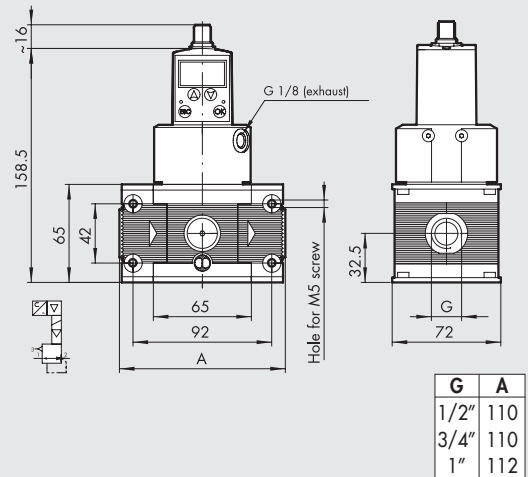
- ① BODY: tecnopolymer
- ② END PLATE: zamak
- ③ STEM: OT58 brass
- ④ UPPER CUP: aluminium
- ⑤ PISTON: OT58 brass
- ⑥ CUP: aluminium
- ⑦ PRESSURE SENSOR
- ⑧ SOLENOID VALVE: 10 mm series PLT-10
- ⑨ SHELL: tecnopolymer
- ⑩ CONNECTOR M12
- ⑪ ELECTRONIC BOARDS
- ⑫ GASKET: NBR
- ⑬ VALVE WITH NBR VULCANIZED GASKET
- ⑭ VALVE SPRING: stainless steel
- ⑮ LOWER CUP: tecnopolymer



FLOW CHARTS



DIMENSIONS



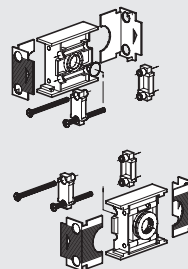
UNITS
REGTRONIC 300

ORDERING CODES

Code	Description
4402012A	REGTRONIC 300 with display without end plates OUT 0-10 V
4402013A	REGTRONIC 300 remote control without end plates OUT 0-10 V
4402012	REGTRONIC 300 1/2 with display OUT 0-10 V
4402013	REGTRONIC 300 1/2 remote control OUT 0-10 V
4502012	REGTRONIC 300 3/4 with display OUT 0-10 V
4502013	REGTRONIC 300 3/4 remote control OUT 0-10 V
4602012	REGTRONIC 300 1 with display OUT 0-10 V
4602013	REGTRONIC 300 1 remote control OUT 0-10 V
4402412A	REGTRONIC 300 with display without end plates OUT 4-20 mA
4402413A	REGTRONIC 300 remote control without end plates OUT 4-20 mA
4402412	REGTRONIC 300 1/2 with display OUT 4-20 mA
4402413	REGTRONIC 300 1/2 remote control OUT 4-20 mA
4502412	REGTRONIC 300 3/4 with display OUT 4-20 mA
4502413	REGTRONIC 300 3/4 remote control OUT 4-20 mA
4602412	REGTRONIC 300 1 with display OUT 4-20 mA
4602413	REGTRONIC 300 1 remote control OUT 4-20 mA
4402312A	REGTRONIC IO-Link 300 with display without end plates
4402313A	REGTRONIC IO-Link 300 remote control without end plates
4402312	REGTRONIC IO-Link 300 1/2 with display
4402313	REGTRONIC IO-Link 300 1/2 remote control
4502312	REGTRONIC IO-Link 300 3/4 with display
4502313	REGTRONIC IO-Link 300 3/4 remote control
4602312	REGTRONIC IO-Link 300 1 with display
4602313	REGTRONIC IO-Link 300 1 remote control

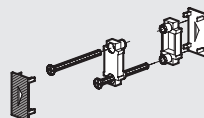
ACCESSORIES

INPUT/OUTPUT END PLATE KIT FOR SKILLAIR



Code	Description
9430701	IN/OUT end plates kit 300 1/2
9530901	IN/OUT end plates kit 300 3/4
9531001	IN/OUT end plates kit 300 1

CONNECTOR KIT FOR SKILLAIR CODE A



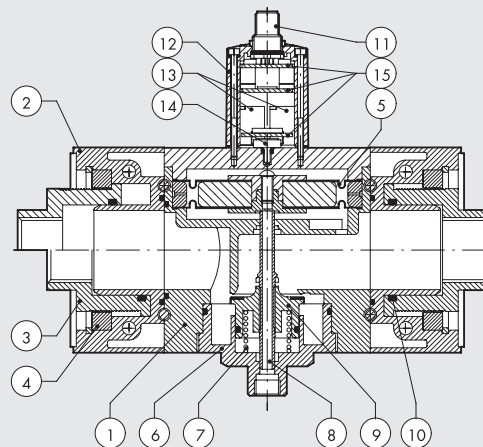
Code	Description
9430301	Connector kit 300

REGTRONIC 400



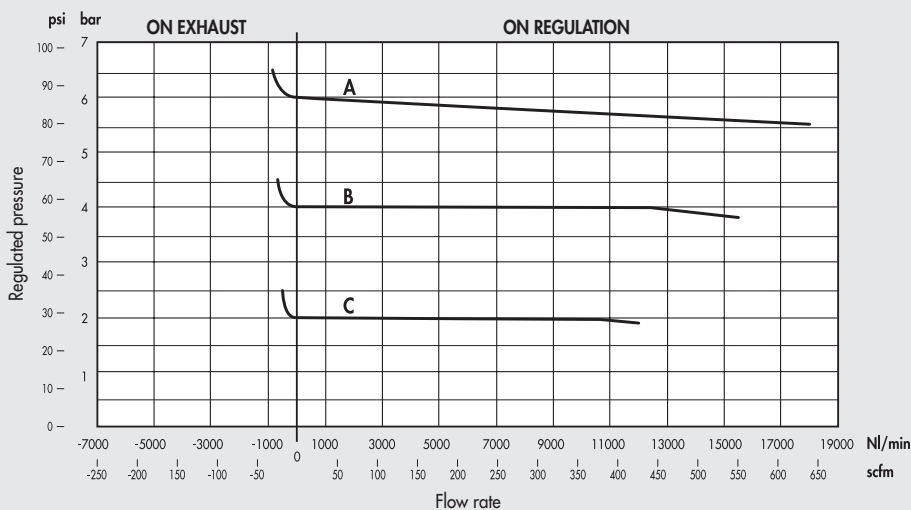
COMPONENTS

- ① BODY: Aluminium
- ② END PLATE: Aluminium
- ③ THREADED BUSH, AXIAL
ADJUSTMENT: anodized aluminium
- ④ RETAINING RING: OT58 brass
- ⑤ ROLLING DIAPHRAGM
- ⑥ BRASS PLUG: anodized aluminium
- ⑦ VALVE SPRING: Stainless steel
- ⑧ STEM: OT58 brass with air relief hole
- ⑨ VALVE WITH NBR VULCANIZED
GASKET
- ⑩ GASKETS: NBR
- ⑪ CONNECTOR M12
- ⑫ SHELL: technopolymer
- ⑬ SOLENOID VALVE: 10 mm series
PLT-10
- ⑭ PRESSURE SENSOR
- ⑮ ELECTRONIC BOARDS



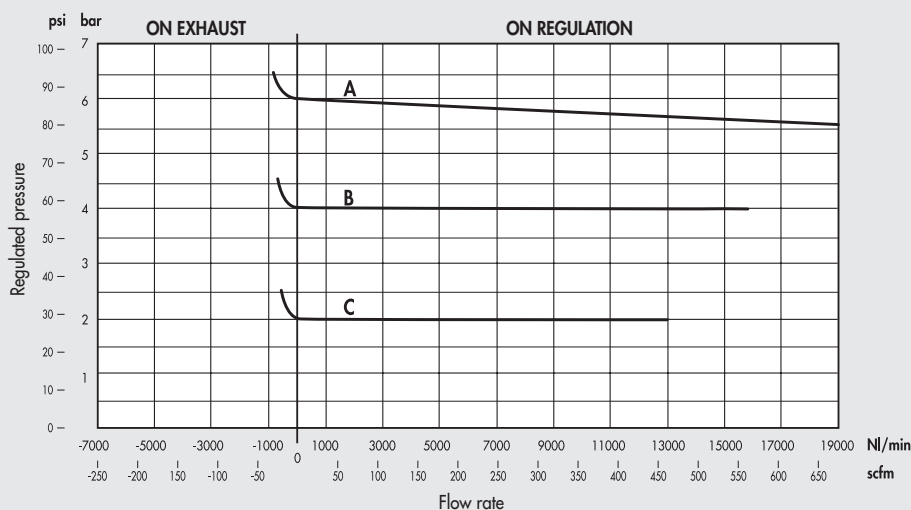
FLOW CHARTS

REGTRONIC 400 1" to 1 1/2"



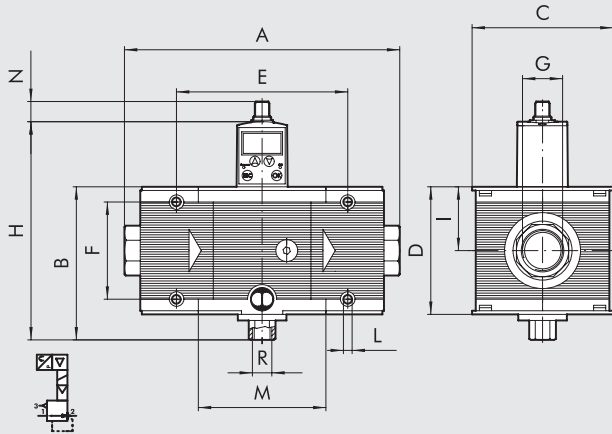
A = 6 bar
 B = 4 bar
 C = 2 bar
 Pm = 7 bar

REGTRONIC 400 2"



A = 6 bar
 B = 4 bar
 C = 2 bar
 Pm = 7 bar

DIMENSIONS



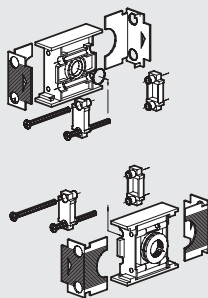
Threaded port G	REGTRONIC 400			
	1"	1 1/4"	1 1/2"	2"
A		225 to 255		283 to 313
B			127	
C			116	
D			105	
E			141.4	
F			80	
G	1"	1 1/4"	1 1/2"	2"
H			182	
I			52.5	
L			Hole for M6 screws	
M			105.4	
N			~16	
R (exhaust)			1/4"	

ORDERING CODES

Code	Description	Code	Description
6102012A	REGTRONIC 400 with display without end plates OUT 0-10 V	6102312A	REGTRONIC IO-Link 400 with display without end plates
6102013A	REGTRONIC 400 control remote without end plates OUT 0-10 V	6102313A	REGTRONIC IO-Link 400 remote control without end plates
6102012	REGTRONIC 400 1 with display OUT 0-10 V	6102312	REGTRONIC IO-Link 400 1 with display
6102013	REGTRONIC 400 1 control remote OUT 0-10 V	6102313	REGTRONIC IO-Link 400 1 remote control
6202012	REGTRONIC 400 1 1/4 with display OUT 0-10 V	6202312	REGTRONIC IO-Link 400 1 1/4 with display
6202013	REGTRONIC 400 1 1/4 control remote OUT 0-10 V	6202313	REGTRONIC IO-Link 400 1 1/4 remote control
6302012	REGTRONIC 400 1 1/2 with display OUT 0-10 V	6302312	REGTRONIC IO-Link 400 1 1/2 with display
6302013	REGTRONIC 400 1 1/2 control remote OUT 0-10 V	6302313	REGTRONIC IO-Link 400 1 1/2 remote control
6402012	REGTRONIC 400 2 with display OUT 0-10 V	6402312	REGTRONIC IO-Link 400 2 with display
6402013	REGTRONIC 400 2 control remote OUT 0-10 V	6402313	REGTRONIC IO-Link 400 2 remote control
6102412A	REGTRONIC 400 with display without end plates OUT 4-20 mA		
6102413A	REGTRONIC 400 control remote without end plates OUT 4-20 mA		
6102412	REGTRONIC 400 1 with display OUT 4-20 mA		
6102413	REGTRONIC 400 1 control remote OUT 4-20 mA		
6202412	REGTRONIC 400 1 1/4 with display OUT 4-20 mA		
6202413	REGTRONIC 400 1 1/4 control remote OUT 4-20 mA		
6302412	REGTRONIC 400 1 1/2 with display OUT 4-20 mA		
6302413	REGTRONIC 400 1 1/2 control remote OUT 4-20 mA		
6402412	REGTRONIC 400 2 with display OUT 4-20 mA		
6402413	REGTRONIC 400 2 control remote OUT 4-20 mA		

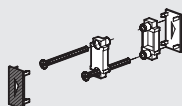
ACCESSORIES

INPUT/OUTPUT END PLATE KIT FOR SKILLAIR



Code	Description
9631001	IN/OUT end plates kit 400 1
9631101	IN/OUT end plates kit 400 1 1/4
9631201	IN/OUT end plates kit 400 1 1/2
9631301	IN/OUT end plates kit 400 2

CONNECTOR KIT FOR SKILLAIR CODE A



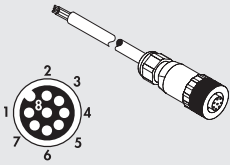
Code	Description
9630301	Connector kit 400

ACCESSORIES REGTRONIC

ANALOG VERSION

IO-Link VERSION

CONNECTOR M12x1, 8-PIN, A-CODED, FEMALE, STRAIGHT

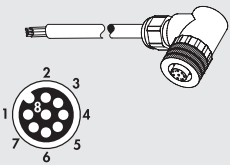


Code W0970513010
Description Connector M12x1, 8-pin, A-coded, female, straight, with cable L = 5 m

Note: can only be used for analog version

Pin	Cable color
1	White
2	Brown
3	Green
4	Yellow
5	Grey
6	Pink
7	Blue
8	Red

CONNECTOR M12x1, 8-PIN, A-CODED, FEMALE, 90°, WITH CABLE

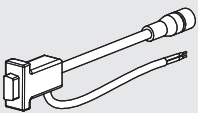


Code W0970513011
Description Connector M12x1, 8-pin, A-coded, female, 90°, with cable L = 5 m

Note: can only be used for analog version

Pin	Cable color
1	White
2	Brown
3	Green
4	Yellow
5	Grey
6	Pink
7	Blue
8	Red

CONFIGURATION CABLE



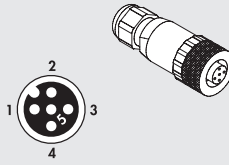
Code W0970513019
Description Configuration cable Regtronic

The cable consists of:
 - M12 8-PIN female connector to be connected to Regtronic
 - RS232 serial connector to be connected to PC
 - 2 wires to supply 24VDC power
 The package also includes a RS232-USB adapter

Note: can only be used for analog version

NOTES

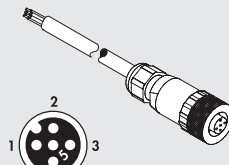
CONNECTOR M12x1, 5-PIN, A-CODED, FEMALE, STRAIGHT



Code W0970513001
Description Connector M12x1, 5-pin, A-coded, female, straight

Note: can only be used for version IO-Link

CONNECTOR M12x1, 5-PIN, A-CODED, FEMALE, STRAIGHT

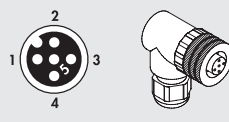


Code W0970513002
Description Connector M12x1, 5-pin, A-coded, female, straight, with cable L = 5 m

Note: can only be used for version IO-Link

Pin	Cable color
1	Brown
2	White
3	Blue
4	Black
5	Gray

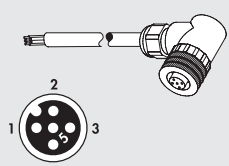
CONNECTOR M12x1, 5-PIN, A-CODED, FEMALE, 90°



Code W0970513003
Description Connector M12x1, 5-pin, A-coded, female, 90°

Note: can only be used for version IO-Link

CONNECTOR M12x1, 5-PIN, A-CODED, FEMALE, 90°, WITH CABLE



Code W0970513004
Description Connector M12x1, 5-pin, A-coded, female, 90°, with cable L = 5 m

Note: can only be used for version IO-Link

Pin	Cable color
1	Brown
2	White
3	Blue
4	Black
5	Gray