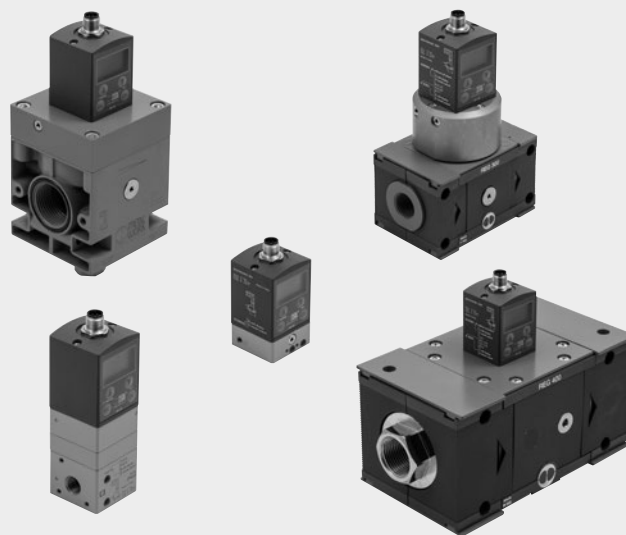


PROPORTIONAL PRECISION PRESSURE REGULATOR REGTRONIC SERIES

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 or RS232 control. 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.



TECHNICAL DATA		REGTRONIC			REGTRONIC NEW DEAL		REGTRONIC 300			REGTRONIC 400				
Threaded port		M5	1/8"	1/4"	3/4"	1"	1/2"	3/4"	1"	1"	1 1/4"	1 1/2"	2"	
Fluid		Filtered, unlubricated air. The air must be filtered at least 10 µm												
MIN inlet pressure		bar	Regulation pressure + 1 bar											
MAX inlet pressure		bar	11											
Temperature range		°C	0 - 50											
Pressure regulation range		bar	0.05 - 10 (settable full scale and minimum pressure)											
Flow rate at 6.3 bar ΔP 0.5		Nl/min	10	770	1490	10000		4500		18000		20000		
Flow rate at 6.3 bar ΔP 0.1		Nl/min	10	1050	1700	13000		7000		-		-		
Exhaust flow rate at 6.3 bar with 0.1 bar overpressure		Nl/min	2	320	500	1800		250		400		400		
Exhaust flow rate at 6.3 bar with 0.5 bar overpressure		Nl/min	9	650	1200	2000		500		850		850		
Weight		kg	0.2	0.38	0.38	1.3		1.5		5		5.8		
Class of protection			65											
Power supply			24 Vcc +10% -5% I max 110 mA											
Input signal (input impedance)		Voltage	0 - 5 Vcc, 0 -10 Vcc (approx. 6.3 KΩ)											
		Current	4 - 20 mA (approx. 100 Ω)											
	Serial ports		RS 232											
	Manual		Keypad											
Output signal		Analog	0 - 10 Vcc (1 V=1bar) - 1 mA max											
	Digital		PNP open collector output: max 24V 60 mA											
			NPN open collector output: max 24V 60 mA											
Linearity			≤ ± 0.5% (Full scale)											
Hysteresis			≤ ± 0.2% (Full scale)											
Repeatability			≤ ± 0.2% (Full scale)											
Sensitivity/Dead-band			setting range 10 - 100 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			≤ ± 0.4% (Full scale)											
Temperature characteristics			max 2 mbar / °C											
Response time with ΔP =1 bar			volume 100 cc			volume 1000 cc								
from 6 to 7 bar		s	0.5	0.2		0.3	0.45			0.35				
from 7 to 6 bar		s	0.55	0.3		0.3	0.45			0.7				
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 versions you can set the parameters using the software "MWRegtronic" downloadable from the website www.metalwork.eu. To connect the PC to Regtronic you can use the cable code W0970513019.											

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 LED message lines.

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

PRECISION

Linearity

$\pm 0.5\%$ (full scale)

Hysteresis

$\pm 0.2\%$ (full scale)

Repeatability

$\pm 0.2\%$ (full scale)

Sensitivity

range **10 to 100** mbar

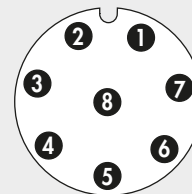
M12 x 1 CONNECTOR



8-pin connector
- standard
- available from the trade

CONFIGURATION OF THE M12X1 8-PIN CONNECTOR

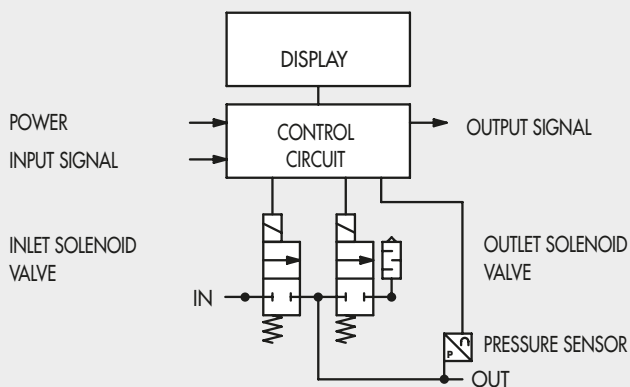
- | | |
|----------------------------------|----------|
| 1 = TX (RS232) | (White) |
| 2 = RX (RS232) | (Brown) |
| 3 = set 0-10 V / 0-5 V / 4-20 mA | (Green) |
| 4 = digital out 0-24 V NPN | (Yellow) |
| 5 = analog out 0-10 V | (Grey) |
| 6 = digital out 0-24 V PNP | (Pink) |
| 7 = 0 V (GND) | (Blue) |
| 8 = power supply +24V | (Red) |



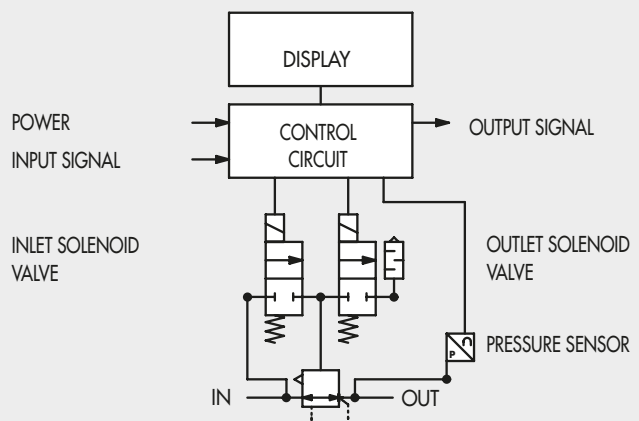
Regulator connector viewed from above

SCHEMA FUNCTION DIAGRAM

REGTRONIC M5



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

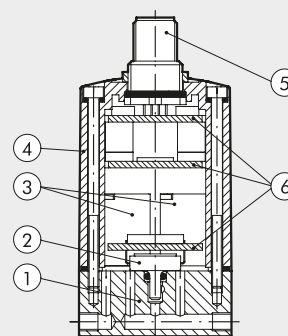


REGTRONIC M5

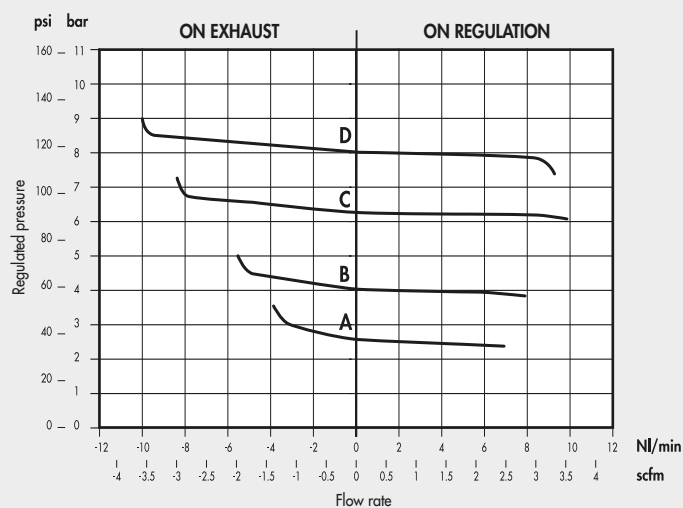


COMPONENTS

- ① BODY: painted aluminium
- ② PRESSURE SENSOR
- ③ SOLENOID VALVE: 10 mm series PLT-10
- ④ SHELL: technopolymer
- ⑤ CONNECTOR M12 8 pin
- ⑥ ELECTRONIC BOARDS



FLOW CHARTS



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

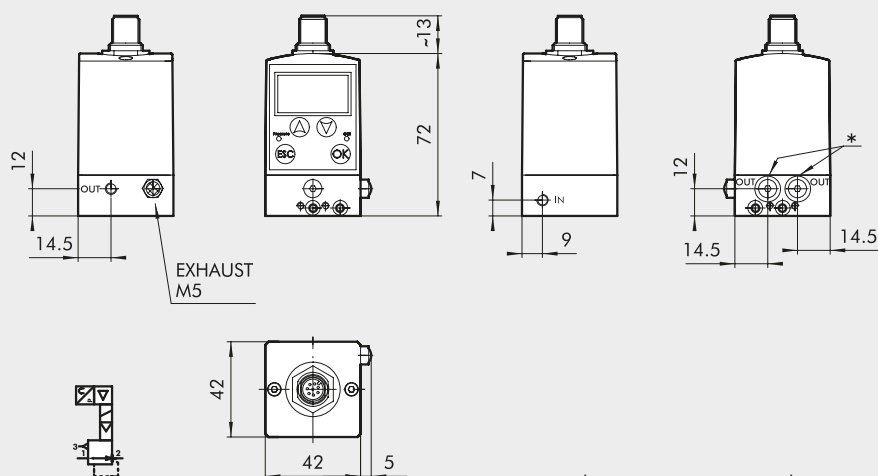
Technical drawings of the M3000 pressure transmitter showing three views: front (A), side (B), and top (C).

View A (Front): Shows the front panel with a display, 'Pressure' and 'OUT' labels, and 'ESC' and 'OK' buttons. Dimensions include a total height of 81.5, a mounting flange thickness of 3.5, and a base width of 21 and 12.

View B (Side): Shows the side profile with a total height of 80.5 and a base width of 15.5 and 11. It indicates two M3 mounting holes: 'Nr 2 M3 depth 6' and 'Nr 4 M3 depth 5'.

View C (Top): Shows the top view with a central hexagonal port. Dimensions include a total width of 4.1, a central port diameter of 4.8, and a base width of 6.5 and 6.8.

- ## DIMENSIONS AND ORDERING CODES



* alternative outputs, removing the M5 cap

Code	Code
5520500	REGTRONIC M5 with display
5520502	REGTRONIC M5 remote control

UNITS

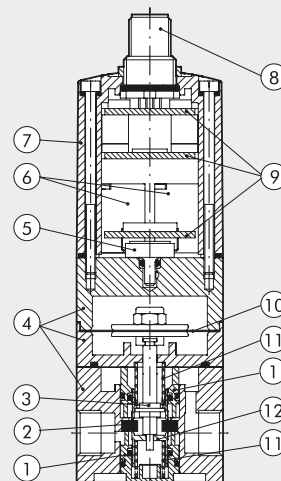
REGTRONIC M5

REGTRONIC 1/8"; 1/4"



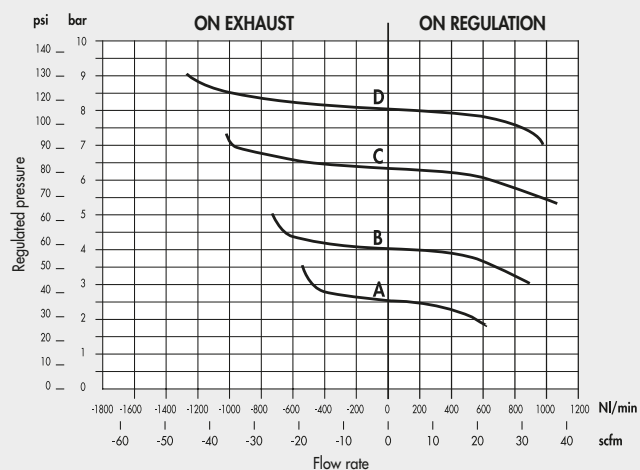
COMPONENTS

- 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 8 pin
- ⑨ ELECTRONIC BOARDS
- ⑩ CONTROL DIAPHRAGM: anti-oil rubber
- ⑪ SPRING: stainless steel
- ⑫ POPPET: nickel-plated brass



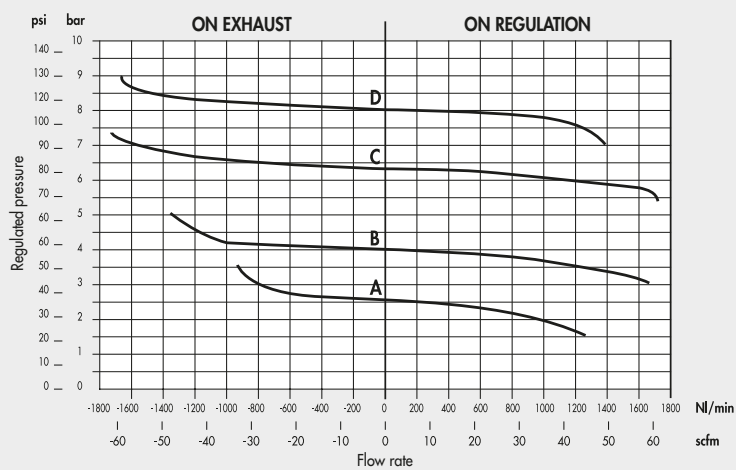
FLOW CHARTS

1/8"



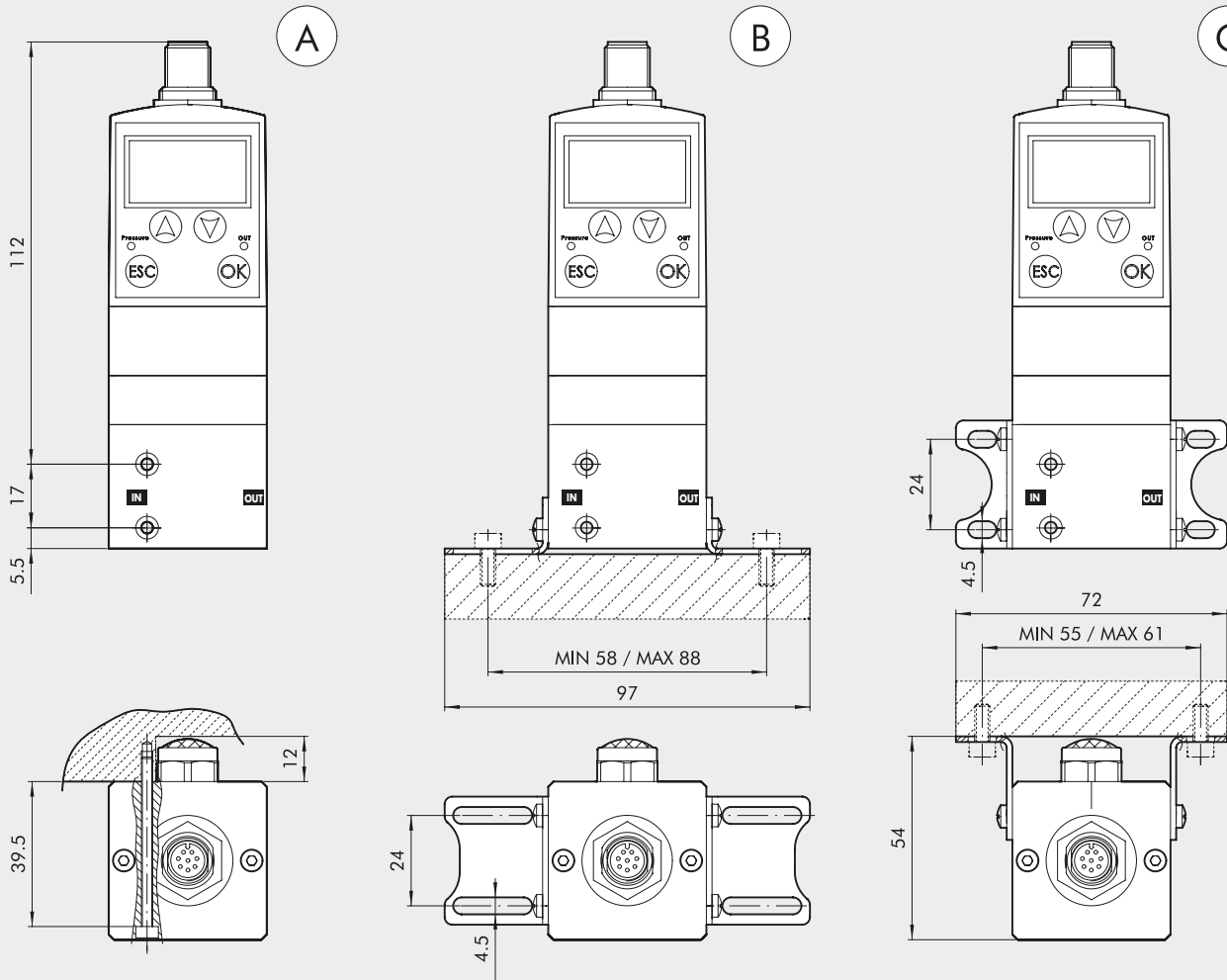
A = 2.5 bar B = 4 bar C = 6.3 bar D = 8 bar

1/4"



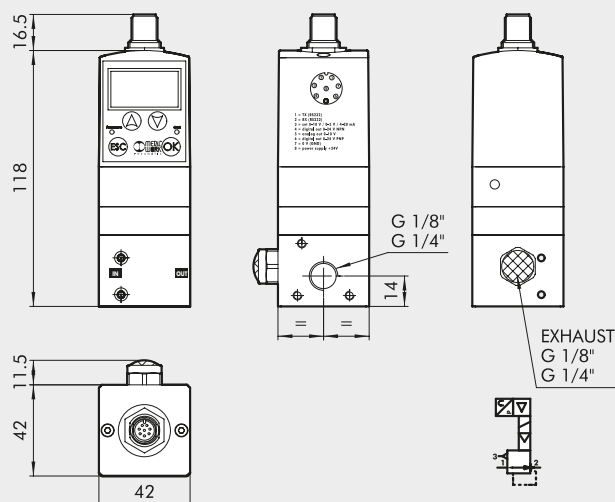
Pm = 10 bar

INSTALLATION



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

DIMENSIONS AND ORDERING CODES



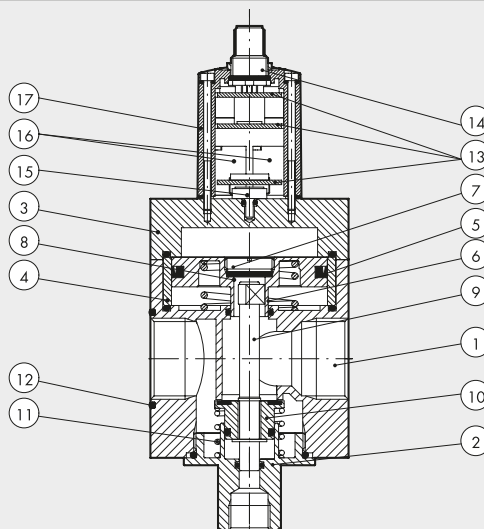
Code	Description
5521500	REGTRONIC 1/8 with display
5521502	REGTRONIC 1/8 remote control
5522500	REGTRONIC 1/4 with display
5522502	REGTRONIC 1/4 remote control

REGTRONIC Newdeal

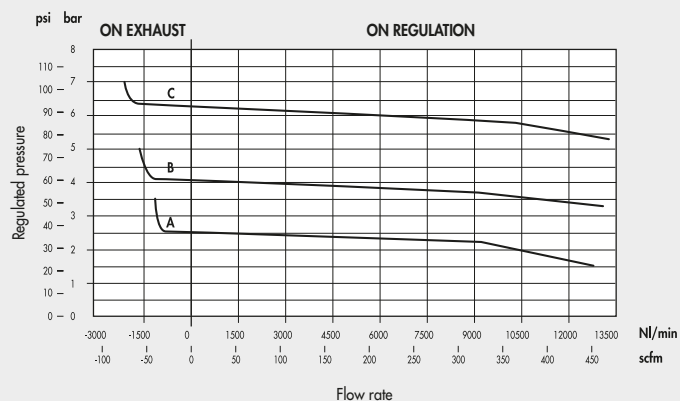


COMPONENTS

- 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 8 PIN
- ⑮ PRESSURE SENSOR
- ⑯ SOLENOID VALVE: 10 mm series PLT-10
- ⑰ SHELL: tecnopolymer

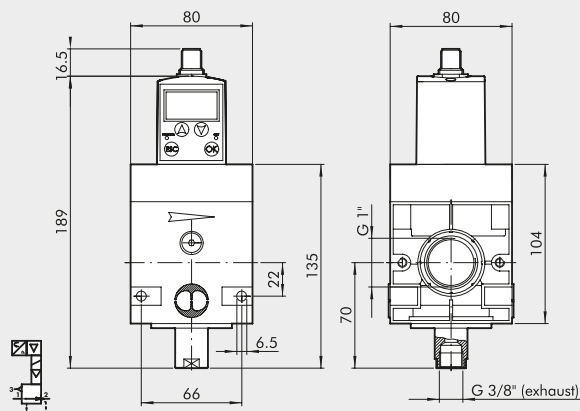


FLOW CHARTS



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

DIMENSIONS AND ORDERING CODES



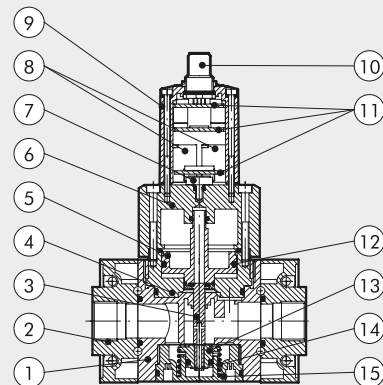
Code	Description
1520003	REGTRONIC 3/4 with display
1520004	REGTRONIC 3/4 remote control
1620003	REGTRONIC 1 with display
1620004	REGTRONIC 1 remote control

REGTRONIC 300

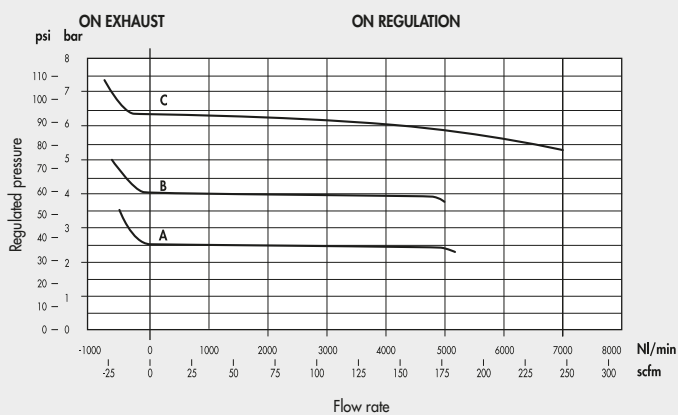


COMPONENTS

- 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 8 PIN
- ⑪ ELECTRONIC BOARDS
- ⑫ GASKET: NBR
- ⑬ VALVE WITH NBR VULCANIZED GASKET
- ⑭ VALVE SPRING: stainless steel
- ⑮ LOWER CUP: tecnopolymer

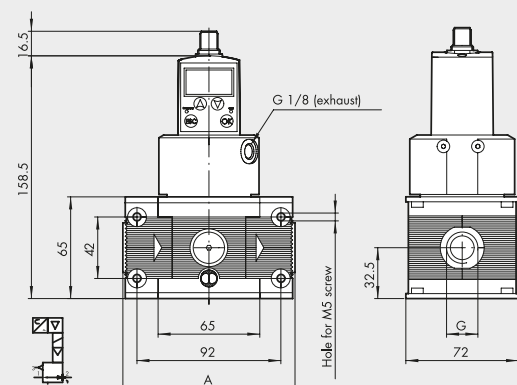


FLOW CHARTS



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

DIMENSIONS AND ORDERING CODES



G	A
1/2"	110
3/4"	110
1"	112

Code	Description
4402012A	REGTRONIC 300 with display without end plates
4402013A	REGTRONIC 300 remote control without end plates
4402012	REGTRONIC 300 1/2 with display
4402013	REGTRONIC 300 1/2 remote control
4502012	REGTRONIC 300 3/4 with display
4502013	REGTRONIC 300 3/4 remote control
4602012	REGTRONIC 300 1 with display
4602013	REGTRONIC 300 1 remote control