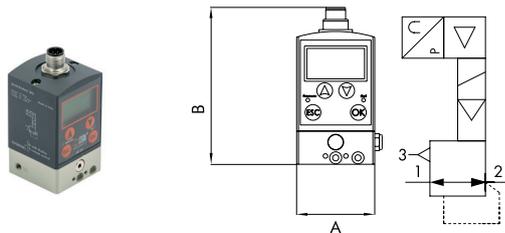# Proportional precision pressure regulator

REGTRONIC series

MAX

Art. No. 152332

Type No. 5530500

Exemplary illustration

Proportional precision 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. 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.

Advantages:
- All analogue versions come with the comprehensive, simple and intuitive "MWRegtronic" programming and reading software. This software can be used to set the parameters. It can be downloaded from the website www.metalwork.eu. To connect the PC to REGTRONIC, use the PC connection cable article no. 153061.
- The version with display can show a wide range of information and diagnostics. The user interface with the display, LEDs and buttons are all on one side.
- The wireless versions can communicate with Ethernet networks via the MQTT protocol and with mobile devices via Bluetooth® using the dedicated 'Metal Work RegUp' app.
- The REGTRONIC 300 / REGTRONIC 400 series can be combined at will with the SKILLAIR FRL units.

ATEX version on request!

Technical data

Series	REGTRONIC
Version	IO-Link
Analogue output	without
Display	with
Input signal	IO-Link / keyboard
Thread	M5 IT
Electrical connection	M12 male connector, 5-pin
Medium	filtered, unlubricated compressed air, max. particle size 10 µm, free of condensate
Min. input pressure	pressure to be regulated +1 bar

Technical data

|	
Max. input pressure	11 bar
Control range	0,05 - 10 bar
Temperature range	0 to 50 °C
Flow rate measurement 1	flow rate at 6.3 bar and Δp 0.5 bar
Flow rate 1	10 Nl/min
Flow rate measurement 2	flow rate at 6,3 bar and Δp 1 bar
Flow rate 2	10 Nl/min
Hysteresis	±0,2 % (full scale)
Repeatability	±0.2 % (full scale)
Sensitivity/dead-band	adjustment range: 10 - 300 mbar
Display - accuracy	±0.3 % (full scale)
Display - unit of measurement	bar, MPa, psi
Display - minimum resolution	0.01 bar / 0.001 MPa / 0.01 psi
Temperature characteristics	max. 2 mbar / °C
Supply voltage range	18 to 30 V DC
Operating voltage min.	18 V DC
Operating voltage max.	30 V DC
Max. admissible voltage	32 V DC*
Current consumption	max. 150 mA at 18 V DC
WiFi	without
Compatible with app	no
Mounting position	any
Housing	aluminium
Protection IP	IP 65
A	47 mm
B	88 mm

*IMPORTANT! Voltages above 32 V DC will cause irreparable damage to the system.

Commercial data

Customs tariff number	84811099
Country of origin	IT
eCl@ss 5.1.4	27292301
eCl@ss 9.0	27292301
UNSPSC_Code_v190501	40141603
UNSPSC_CodeDesc_v190501	Pneumatic valves

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26.09.2025   The specified data do not represent legally guaranteed properties.

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. Through the dedicated "Metal Work RegUp" App, the wireless versions can communicate with Ethernet networks (via MQTT protocol) and mobile devices (smartphones and tablets) via Bluetooth®.
Through this App it is possible to view and modify the regulated pressure in real time, set all the operating parameters and view the pressure trend graphs.
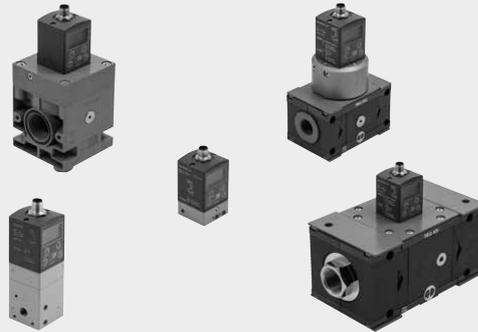
UNITS

PROPORTIONAL PRECISION PRESSURE REGULATOR REGTRONIC SERIES

TECHNICAL DATA

TECHNICAL DATA	Unit	REGTRONIC			REGTRONIC NEW DEAL		REGTRONIC 300			REGTRONIC 400			
Threaded port		M5	1/8"	1/4"	3/4"	1"	1/2"	3/4"	1"	1"	1¼"	1½"	2"
Flow rate at 6.3 bar ΔP 0.5	Nl/min	10	1300	1500	10000		4500			18000		20000	
Flow rate at 6.3 bar ΔP 1	Nl/min	10	1450	1700	13000		7000			-		-	
Exhaust flow rate at 6.3 bar with 0.1 bar overpressure	Nl/min	2	600	1300	1800		250			400		400	
Exhaust flow rate at 6.3 bar with 0.5 bar overpressure	Nl/min	9	1000	1500	2000		500			850		850	
Response time with ΔP =1 bar — Volume [cc]		100	100	1000	100	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	
from 7 to 6 bar	s	0.55	0.1	0.15	0.1	0.15	0.27	0.33		0.35		0.35	
Weight	kg	0.2	0.38		0.38		1.3	1.5		5		5.8	

Parameter		Value
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)
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 impedence)	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 and keyboard 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 anolog 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.**

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

C6.6

REMOTE-CONTROL VERSION

REGTRONIC

METAL WORK
PNEUMATIC

● PRESSURE   DIAG ●

Pmax 11 bar
Preg   0 - 10 bar
Temp. 0° +50°C   Made in Italy

DISPLAY AND KEYBOARD VERSION

6.50 bar

● PRESSURE   DIAG ●

METAL WORK
PNEUMATIC

ESC   OK

SET UP

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 to10 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

DISPLAY

POWER
INPUT SIGNAL

CONTROL CIRCUIT

OUTPUT SIGNAL

INLET SOLENOID VALVE

IN

OUTLET SOLENOID VALVE

PRESSURE SENSOR

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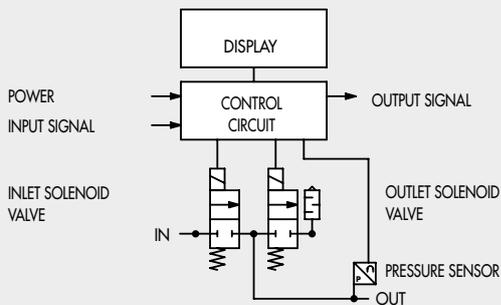
REGTRONIC 1/8" - 1/4" - SK300 - SK400 - NEW DEAL

DISPLAY

POWER
INPUT SIGNAL

CONTROL CIRCUIT

OUTPUT SIGNAL

INLET SOLENOID VALVE

IN

OUTLET SOLENOID VALVE

PRESSURE SENSOR

OUT

UNITS

PROPORTIONAL PRECISION PRESSURE REGULATOR REGTRONIC SERIES

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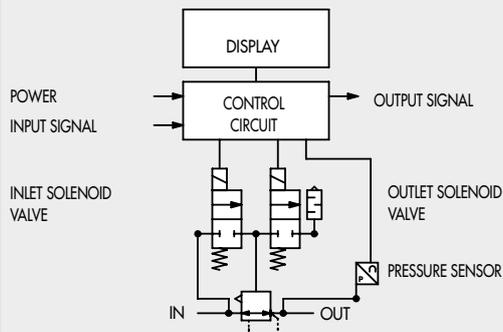
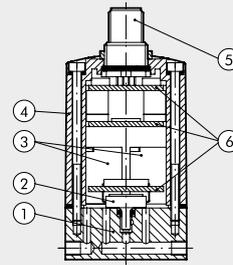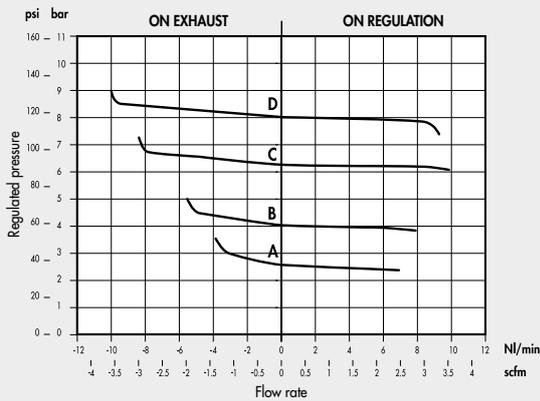# REGTRONIC M5

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

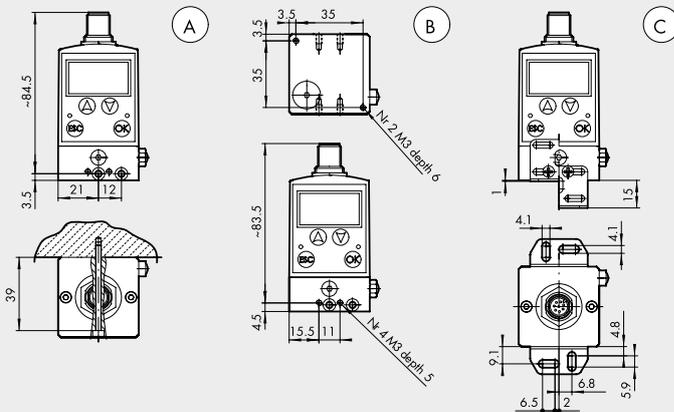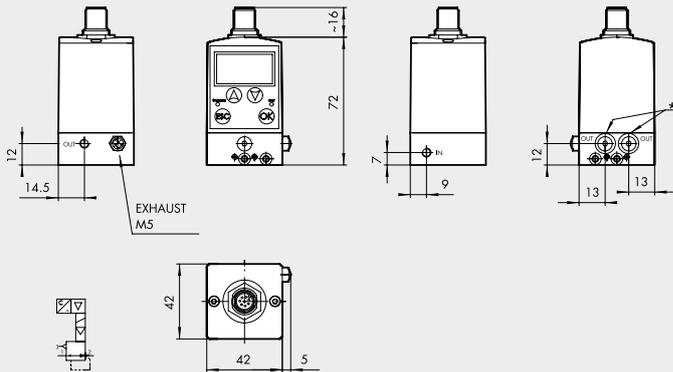## FLOW CHARTS

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 dispaly and keyboard OUT 0-10 V
5520502	REGTRONIC M5 remote control OUT 0-10 V
5540500	REGTRONIC M5 with dispaly and keyboard OUT 4-20 mA
5540502	REGTRONIC M5 remote control OUT 4-20 mA
5530500	REGTRONIC IO-Link M5 with dispaly and keyboard
5530502	REGTRONIC IO-Link M5 remote control

EXHAUST M5

* alternative outputs, removing the M5 cap

ACCESSORIES

FIXING BRACKET KIT
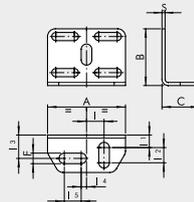
Code	Description
9200711	Regtronic M5 Fixing bracket kit

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
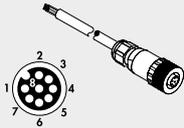
NOTES

UNITS

REGTRONIC M5

C6.11

ACCESSORIES REGTRONIC

ANALOG VERSION

IO-Link VERSION
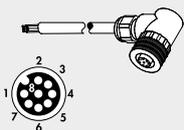
CONNECTOR M12x1, 8-PIN, A-CODED, FEMALE, STRAIGHT

Code	Description
W0970513010	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	Description
W0970513011	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
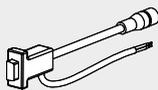
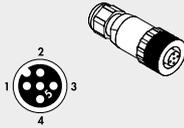| Code	Description
W0970513019	Configuration cable Regtronic

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

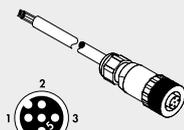Note: can only be used for analog version

NOTES

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

Code	Description
W0970513001	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	Description
W0970513002	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	Description
W0970513003	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	Description
W0970513004	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

Accessories

	Art. No.	Type No.
Fixing brackets, 2 pieces incl. 4 M3 x 6 mm screws, for proportional prec. pressure regulator REGTRONIC, M5	153050	9200711
Straight socket M12 x 1 mm, 5-pin, for electrical connection cable	148191	W0970513001
Electrical connection cable with straight socket and 5 m cable, 5-wire, for service unit »ONE«	101132	533.901
90° angle socket M12 x 1 mm, 5-pin, for electrical connection cable	148239	W0970513003
Electrical connection cable with 90° angle socket and 5 m cable, 5-wire, for service unit »ONE«	101133	533.902

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