

SPR 300 / 400



*ELECTRONIC PRESSURE REGULATOR
PNEUMATIC DIVISION*

MATRIX
mechatronics

EPR 100 is an electronically-controlled pressure regulator equipped with an 8-bit microcontroller. The control signal can be analogic, digital via RS232 or digital from the keyboard. It is converted into a proportional pressure signal by means of solenoid valves. The regulator can be used alone within the indicated flow values, or in combination with a pilot-operated pressure regulator (power stage).

The advantages are:

- Integration with analogic or digital control systems (PC, PLC, etc.).
- Extremely fast response times.
- Excellent repeatability and reliability.
- Low power absorption.

Version A, with analogic control via voltage or RS232 serial line.

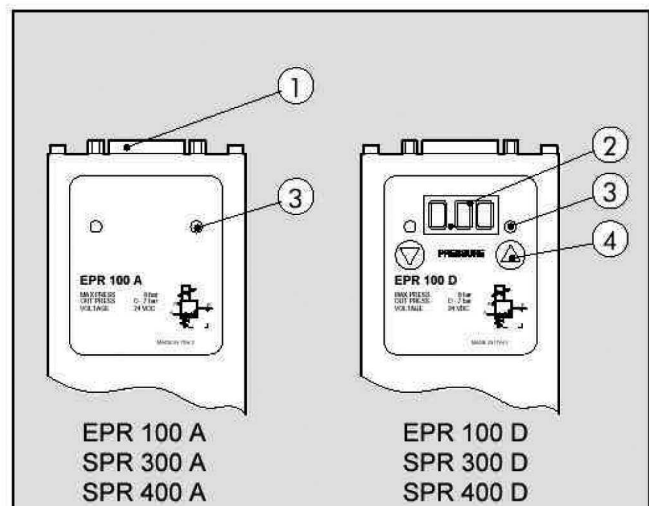
Version D, with control via RS232 serial line or keyboard or voltage, with display of the set and regulated pressures.



| TECHNICAL DATA | | EPR 100 A and D | SPR 300 A and D | SPR 400 A and D |
|--|--------|---|-----------------|-----------------|
| Setting range | MPa | | 0.03 - 0.7 | |
| | bar | | 0.3 - 7 | |
| | psi | | 4 - 100 | |
| Control pressure | MPa | | 0.1 - 0.8 | |
| | bar | | 1 - 8 | |
| | psi | | 15 - 115 | |
| Temperature range | °C | | -10°C to +50°C | |
| | °F | | 14 - 122 | |
| Degree of protection | | IP 60 | IP 65 | IP 65 |
| Weight | Kg | 0.4 | 1.9 | 5.6 |
| Fluid | | 20 µm filtered air, de-humidified and unlubricated. | | |
| Supply voltage | | 24 V DC | | |
| Max. absorbed power | W | 2 | | |
| Control | | 0-5V / 0-10V / RS 232 | | |
| Flow rate at 6.3 bar ΔP 0.5 bar | Nl/min | 60 | 4500 | 18000 |
| Reaction time | ms | < 5 | - | - |
| Response time - rise time* | ms | 60 | - | - |
| Response time - fall time** | ms | 100 | - | - |
| * Volume 30 cm ³ Pal = 8bar, from 2 to 4 bar | | | | |
| ** Volume 30 cm ³ Pal = 8bar, from 4 to 2 bar | | | | |

COMPONENTS

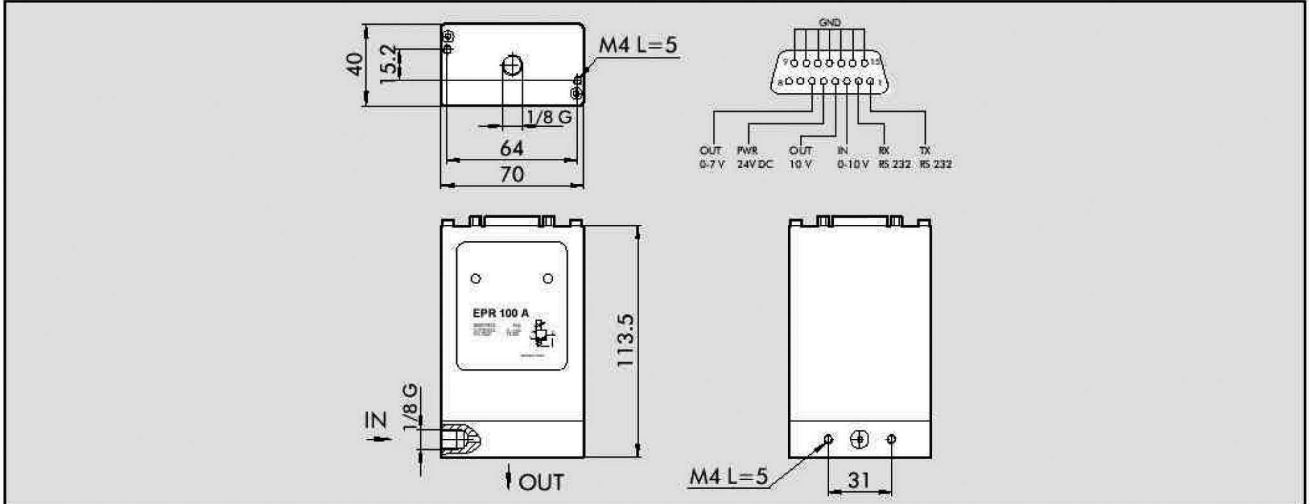
- ① Connection for power supply and serial line
- ② 3-digit digital display
- ③ Led
- ④ Instrument configuration and pressure setting keys



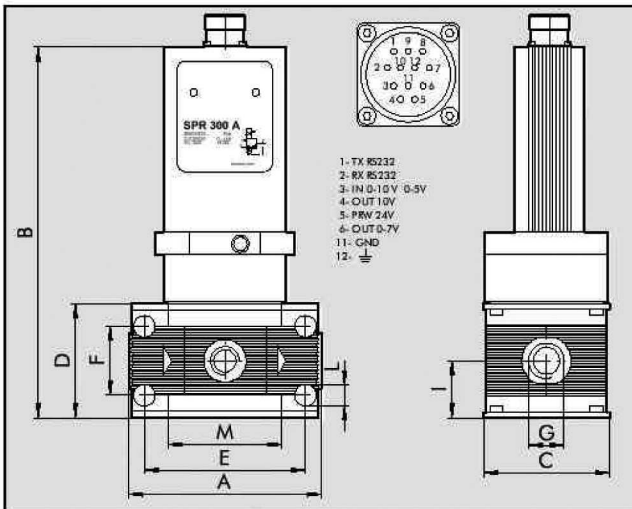
EPR 100 A/D
 SPR 300 A/D
 SPR 400 A/D

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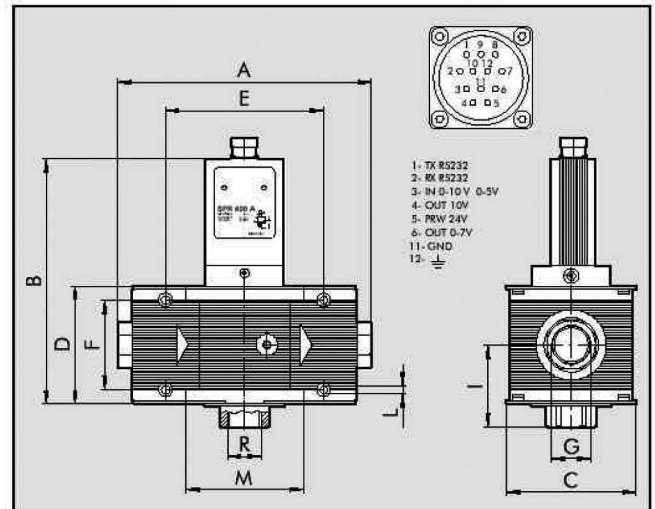
EPR 100 A/D



SPR 300 A/D



SPR 400 A/D



DIMENSIONS

| Threaded port | SPR 300 | | | SPR 400 | | | |
|---------------|---------|-------|-----|---------|---------|---------|----|
| | G1/2" | G3/4" | G1" | G1" | G1"1/4" | G1"1/2" | G2 |
| A | 110 | 110 | 112 | 225÷255 | | 283÷313 | |
| B | 227 | | | 234 | | | |
| C | 72 | | | 116 | | | |
| D | 65 | | | 105 | | | |
| E | 92 | | | 141.4 | | | |
| F | 42 | | | 80 | | | |
| G | G1/2" | G3/4" | G1" | G1" | G1"1/4" | G1"1/2" | G2 |
| I | 32.5 | | | 74.5 | | | |
| L | M5 hole | | | M6 hole | | | |
| M | 65 | | | 105.4 | | | |