

Vacuum regulators are used to adjust the pre-set vacuum level, keeping it constant (secondary vacuum), regardless of the capacity and the oscillations of the network vacuum level (primary vacuum).

Their operation is with a membrane-piston and they exploit the pressure differential between the secondary vacuum and the atmospheric pressure. Unlike the vacuum adjusting valves, regulators do not introduce air into the circuit, thus producing more gripping points with different vacuum values, from only one vacuum source.

The vacuum level is adjusted by rotating the special reeded screw clockwise to increase it, and anti-clockwise to reduce it.

Technical features

- Operation:membrane-piston regulator.

- Adjustable operating pressure: from 800 to 1 mbar abs.

- Capacity: from 2 to 160 cum/h.

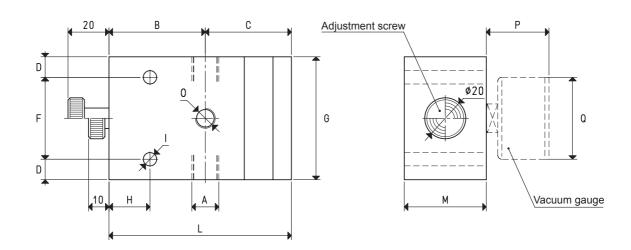
- Room temperature: from -10 to +80 °C.

- Installation position: any.

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Vacuum regulators are mainly used on centralised plants where, regardless of the plant vacuum level, each grip can be adjusted within that value.

Moreover, they are necessary whenever the working vacuum must be lower than the primary vacuum.





| Α | Max. capacity | В | С | D | F | G | Н | - 1 | L | M | 0 | P | Q | Art. | Weight |
|---------|---------------------------------------|---|--|---|--|---|--|---|---|---|--|--|---|--|---|
| Ø | cum/h | | | | | | | Ø | | | Ø | | Ø | pressure gau | ige Kg |
| G1/4" | 6 | 47 | 42.0 | 10 | 40 | 60 | 20 | 6.5 | 89.0 | 40 | G1/8" | 30 | 40 | 09 03 15 | 0.60 |
| G3/8" | 10 | 47 | 42.0 | 10 | 40 | 60 | 20 | 6.5 | 89.0 | 40 | G1/8" | 30 | 40 | 09 03 15 | 0.58 |
| G1/2" | 20 | 53 | 52.0 | 15 | 55 | 85 | 25 | 8.5 | 105.0 | 50 | G1/4" | 36 | 63 | 09 03 10 | 1.15 |
| G3/4" | 40 | 55 | 55.5 | 15 | 70 | 100 | 30 | 8.5 | 110.5 | 50 | G1/4" | 36 | 63 | 09 03 10 | 1.39 |
| G1" | 80 | 60 | 58.0 | 15 | 90 | 120 | 30 | 8.5 | 118.0 | 60 | G1/4" | 36 | 63 | 09 03 10 | 2.08 |
| G1" 1/2 | 160 | 54 | 77.5 | 15 | 130 | 160 | 20 | 8.5 | 131.5 | 99 | G1/4" | 36 | 63 | 09 03 10 | 5.49 |
| | Ø G1/4" G3/8" G1/2" G3/4" | 0 cum/h G1/4" 6 G3/8" 10 G1/2" 20 G3/4" 40 G1" 80 | 0 cum/h G1/4" 6 47 G3/8" 10 47 G1/2" 20 53 G3/4" 40 55 G1" 80 60 | Ø cum/h G1/4" 6 47 42.0 G3/8" 10 47 42.0 G1/2" 20 53 52.0 G3/4" 40 55 55.5 G1" 80 60 58.0 | Ø cum/h G1/4" 6 47 42.0 10 G3/8" 10 47 42.0 10 G1/2" 20 53 52.0 15 G3/4" 40 55 55.5 15 G1" 80 60 58.0 15 | Ø cum/h G1/4" 6 47 42.0 10 40 G3/8" 10 47 42.0 10 40 G1/2" 20 53 52.0 15 55 G3/4" 40 55 55.5 15 70 G1" 80 60 58.0 15 90 | Ø cum/h G1/4" 6 47 42.0 10 40 60 G3/8" 10 47 42.0 10 40 60 G1/2" 20 53 52.0 15 55 85 G3/4" 40 55 55.5 15 70 100 G1" 80 60 58.0 15 90 120 | Ø cum/h G1/4" 6 47 42.0 10 40 60 20 G3/8" 10 47 42.0 10 40 60 20 G1/2" 20 53 52.0 15 55 85 25 G3/4" 40 55 55.5 15 70 100 30 G1" 80 60 58.0 15 90 120 30 | Ø cum/h Ø G1/4" 6 47 42.0 10 40 60 20 6.5 G3/8" 10 47 42.0 10 40 60 20 6.5 G1/2" 20 53 52.0 15 55 85 25 8.5 G3/4" 40 55 55.5 15 70 100 30 8.5 G1" 80 60 58.0 15 90 120 30 8.5 | Ø cum/h Ø G1/4" 6 47 42.0 10 40 60 20 6.5 89.0 G3/8" 10 47 42.0 10 40 60 20 6.5 89.0 G1/2" 20 53 52.0 15 55 85 25 8.5 105.0 G3/4" 40 55 55.5 15 70 100 30 8.5 110.5 G1" 80 60 58.0 15 90 120 30 8.5 118.0 | Ø cum/h Ø G1/4" 6 47 42.0 10 40 60 20 6.5 89.0 40 G3/8" 10 47 42.0 10 40 60 20 6.5 89.0 40 G1/2" 20 53 52.0 15 55 85 25 8.5 105.0 50 G3/4" 40 55 55.5 15 70 100 30 8.5 110.5 50 G1" 80 60 58.0 15 90 120 30 8.5 118.0 60 | Ø cum/h Ø Ø G1/4" 6 47 42.0 10 40 60 20 6.5 89.0 40 G1/8" G3/8" 10 47 42.0 10 40 60 20 6.5 89.0 40 G1/8" G1/2" 20 53 52.0 15 55 85 25 8.5 105.0 50 G1/4" G3/4" 40 55 55.5 15 70 100 30 8.5 110.5 50 G1/4" G1" 80 60 58.0 15 90 120 30 8.5 118.0 60 G1/4" | Ø cum/h Ø Ø G1/4" 6 47 42.0 10 40 60 20 6.5 89.0 40 G1/8" 30 G3/8" 10 47 42.0 10 40 60 20 6.5 89.0 40 G1/8" 30 G1/2" 20 53 52.0 15 55 85 25 8.5 105.0 50 G1/4" 36 G3/4" 40 55 55.5 15 70 100 30 8.5 110.5 50 G1/4" 36 G1" 80 60 58.0 15 90 120 30 8.5 118.0 60 G1/4" 36 | Ø cum/h Ø Ø Ø Ø G1/4" 6 47 42.0 10 40 60 20 6.5 89.0 40 G1/8" 30 40 G3/8" 10 47 42.0 10 40 60 20 6.5 89.0 40 G1/8" 30 40 G1/2" 20 53 52.0 15 55 85 25 8.5 105.0 50 G1/4" 36 63 G3/4" 40 55 55.5 15 70 100 30 8.5 110.5 50 G1/4" 36 63 G1" 80 60 58.0 15 90 120 30 8.5 118.0 60 G1/4" 36 63 | Ø cum/h Ø Ø Ø Ø pressure gate G1/4" 6 47 42.0 10 40 60 20 6.5 89.0 40 G1/8" 30 40 09 03 15 G3/8" 10 47 42.0 10 40 60 20 6.5 89.0 40 G1/8" 30 40 09 03 15 G1/2" 20 53 52.0 15 55 85 25 8.5 105.0 50 G1/4" 36 63 09 03 10 G3/4" 40 55 55.5 15 70 100 30 8.5 110.5 50 G1/4" 36 63 09 03 10 G1" 80 60 58.0 15 90 120 30 8.5 118.0 60 G1/4" 36 63 09 03 10 |

Note: Pressure gauges are not integral part of the regulators, therfore, they must be ordered seperately.

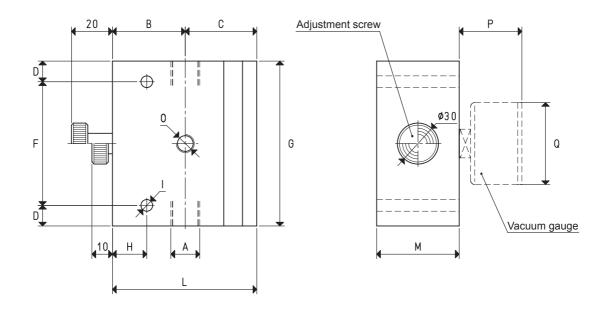
The regulators described in this page are based on the same operation principle as the ones described in the previous page and have the same function. The only difference is that in these ones the minimum adjustable vacuum level is close to the atmospheric pressure value. The vacuum level is adjusted by rotating the special reeded screw clockwise to increase it, and anti-clockwise to reduce it. Technical features

- Operation:membrane-piston regulator.
- Adjustable operating pressure: from 980 to 1 mbar abs.
- Capacity: from 20 to 160 cum/h.
- Room temperature: from -10 to +80 °C.
- Installation position: any.

Use

These regulators are used as the previously described ones, but they offer the additional advantage of regulating even vacuum levels close to the atmospheric pressure.







| Art. | Α | Max. capacity | В | С | D | F | G | Н | l | L | M | 0 | Р | Q | Art. | Weight |
|----------|---------|---------------|----|------|----|-----|-----|----|-----|-------|-----|-------|----|----|--------------|--------------|
| Arti | Ø | cum/h | | | | | | | Ø | | | Ø | | Ø | pressure gau | ge Kg |
| 11 03 50 | G1/2" | 20 | 53 | 52.0 | 15 | 90 | 120 | 25 | 8.5 | 105.0 | 60 | G1/4" | 36 | 63 | 09 03 10 | 2.07 |
| 11 05 50 | G1" | 80 | 60 | 58.0 | 15 | 90 | 120 | 30 | 8.5 | 118.0 | 100 | G1/4" | 36 | 63 | 09 03 10 | 3.74 |
| 11 06 50 | G1" 1/2 | 160 | 54 | 77.5 | 15 | 130 | 160 | 20 | 8.5 | 131.5 | 99 | G1/4" | 36 | 63 | 09 03 10 | 5.54 |

Note: Pressure gauges are not integral part of the regulators, therfore, they must be ordered seperately

VACUUM REGULATORS WITH PNEUMATIC ADJUSTMENT

Vacuum regulators with pneumatic adjustment differ from the previous ones for the way they adjust the vacuum level; in fact, instead of acting manually on the adjustment screw, it is necessary to act on the pneumatic cylinder compressed air supply: the higher the pressure, and the higher the vacuum level and viceversa.

Vacuum regulators are used to adjust the pre-set vacuum level and keep it constant (secondary vacuum), regardless of the pump vacuum level (primary vacuum). Unlike the vacuum adjusting valves, regulators do not introduce air into the circuit, thus producing more gripping points with different vacuum values, from only one vacuum

Their operating principle is based on the contrasting action between a pneumatic cylinder with short stroke and a fluctuating piston driven by the pressure differential existing between the secondary vacuum and the atmospheric pressure Technical features

- Operation: membrane-piston regulator. - Supply pressure: from 0 to 3 bar (g) for regulators art. 11 .. 30;

from 0 to 5 bar (g) for regulators art. 11 .. 80.

- Adjustable working pressure: from 800 to 1 mbar abs. for regulators art. 11 .. 30;

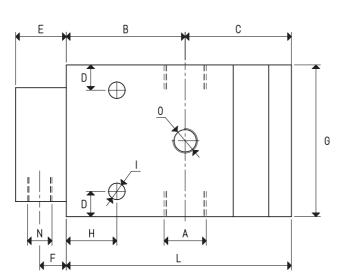
from 980 to 1 mbar abs. for regulators art. 11 .. 80:

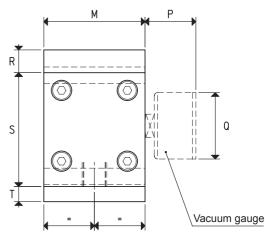
- Capacity: from 2 to 160 cum/h.

- Room temperature: from -10 to +80 °C.

- Installation position: any.

Vacuum regulators are mainly used on centralised plants where, regardless of the plant vacuum level, each grip can be adjusted within that value. Moreover, they are necessary whenever the working vacuum must be lower than the primary vacuum and kept constant. Vacuum regulators with pneumatic adjustment can be installed away from the control point, since it is sufficient to have a pressure regulator on the control panel to act on them.



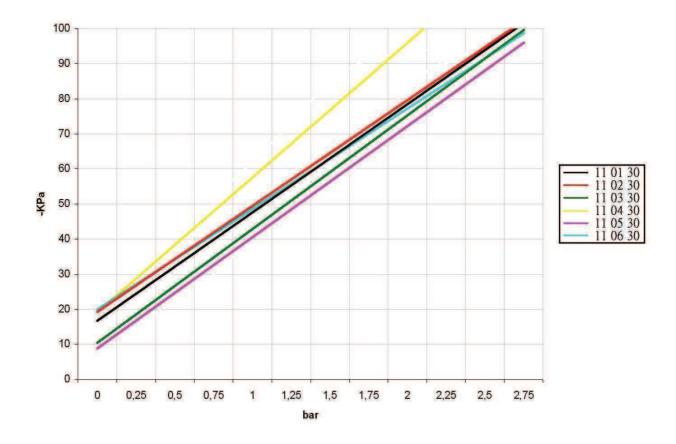


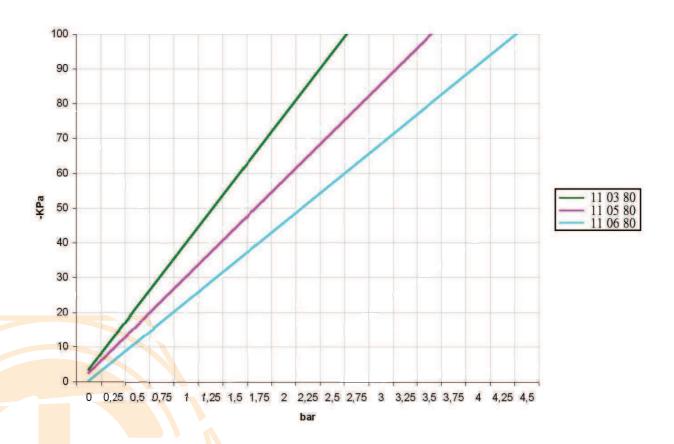


| Art. | Α | Max. capacity. | В | С | D | Е | F | G | Н | - 1 | L | M | N | 0 | Р | Q | R | S | T | Art. | Weight |
|----------|---------|----------------|----|------|----|----|------|-----|----|-----|-------|-----|-------|-------|----|----|------|----|------|-------------|--------------|
| AI L | Ø | cum/h | | | | | | | | Ø | | | Ø | Ø | | Ø | | | pi | ressure gau | ge Kg |
| 11 01 30 | G1/4" | 6 | 47 | 42.0 | 10 | 20 | 10.5 | 60 | 20 | 6.5 | 89.0 | 40 | G1/8" | G1/8" | 30 | 40 | 9.0 | 45 | 6.0 | 09 03 15 | 0.71 |
| 11 02 30 | G3/8" | 10 | 47 | 42.0 | 10 | 20 | 10.5 | 60 | 20 | 6.5 | 89.0 | 40 | G1/8" | G1/8" | 30 | 40 | 9.0 | 45 | 6.0 | 09 03 15 | 0.69 |
| 11 03 30 | G1/2" | 20 | 53 | 52.0 | 15 | 26 | 16.5 | 85 | 25 | 8.5 | 105.0 | 50 | G1/8" | G1/4" | 36 | 63 | 16.5 | 58 | 10.5 | 09 03 10 | 1.32 |
| 11 04 30 | G3/4" | 40 | 55 | 55.5 | 15 | 26 | 16.5 | 100 | 30 | 8.5 | 110.5 | 50 | G1/8" | G1/4" | 36 | 63 | 24.0 | 58 | 18.0 | 09 03 10 | 1.94 |
| 11 05 30 | G1" | 80 | 60 | 58.0 | 15 | 26 | 16.5 | 120 | 30 | 8.5 | 118.0 | 60 | G1/8" | G1/4" | 36 | 63 | 34.0 | 58 | 28.0 | 09 03 10 | 2.35 |
| 11 06 30 | G1" 1/2 | 160 | 54 | 77.5 | 15 | 30 | 19.5 | 160 | 20 | 8.5 | 131.5 | 99 | G1/4" | G1/4" | 36 | 63 | 37.5 | 80 | 42.5 | 09 03 10 | 5.56 |
| | | | | | | | | | | | | | | | | | | | | | |
| 11 03 80 | G1/2" | 20 | 53 | 52.0 | 15 | 26 | 16.5 | 120 | 25 | 8.5 | 105.0 | 60 | G1/8" | G1/4" | 36 | 63 | 34.0 | 58 | 28.0 | 09 03 10 | 2.28 |
| 11 05 80 | G1" | 80 | 60 | 58.0 | 15 | 26 | 16.5 | 120 | 30 | 8.5 | 118.0 | 100 | G1/8" | G1/4" | 36 | 63 | 34.0 | 58 | 28.0 | 09 03 10 | 3.96 |
| 11 06 80 | G1" 1/2 | 160 | 54 | 77.5 | 15 | 30 | 19.5 | 160 | 20 | 8.5 | 131.5 | 99 | G1/4" | G1/4" | 36 | 63 | 37.5 | 80 | 42.5 | 09 03 10 | 5.60 |

Note: Pressure gauges are not integral part of the regulators, therfore, they must be ordered seperately.

DIAGRAMS REFERRING TO THE VACUUM LEVEL ACCORDING TO THE SERVO-CONTROL SUPPLY PRESSURE





Note: The values shown in these tables are purely indicative, since they depend on the atmospheric pressure, on the capacity of the vacuum source and on the quality of the compressed air supply.