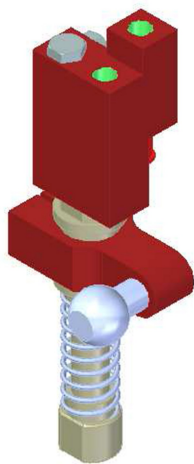


# Vacuum Check Valve VT-1H COAX® with level compensator, G threads, Ball joint, Right hand connection

Article number: 0121021



- Two-stage COAX® cartridge MINI Pi12-2 integrated.
- Check valve that traps vacuum in sealed applications for safe operation.
- Built-in blow off check valve for fast release of object.
- Available in lock pin 16, 19 or ball joint mountings, industry standard.
- Available with level compensator to compensate for differences in level of object.
- Recommend using 4mm (5/32") tubing and no more than 80 psi for blow off.
- Recommend using 6mm (1/4") tubing and no more than 80 psi for vacuum.
- Equal line lengths from common manifold should be used for both blow-off and vacuum.
- Maximum of (12) units per tool.

Technical data

| Description              | Unit   | Value                                               |
|--------------------------|--------|-----------------------------------------------------|
| Material                 | -      | Al. Ceramic. CuZn. Nitrile (NBR). PA. PP. SS. Steel |
| Load, vertical, max.     | N      | 700                                                 |
| Temperature, max.        | °C     | 80                                                  |
| Temperature, min.        | °C     | -10                                                 |
| Weight, max.             | g      | 987                                                 |
| Weight, min.             | g      | 943                                                 |
| Feed pressure, max.      | MPa    | 0.55                                                |
| Feed pressure, min.      | MPa    | 0.25                                                |
| Noise level, max.        | dBA    | 68                                                  |
| Noise level, min.        | dBA    | 66                                                  |
| Vacuum flow, range, max. | NI/s   | 0.68                                                |
| Life span                | cycles | 10000000                                            |
| Volume, internal         | cm³    | 13.8                                                |
| Action range             | °      | 0-360                                               |
| Action range/Stroke      | mm     | 50                                                  |
| Spring force, max.       | N      | 66.7                                                |

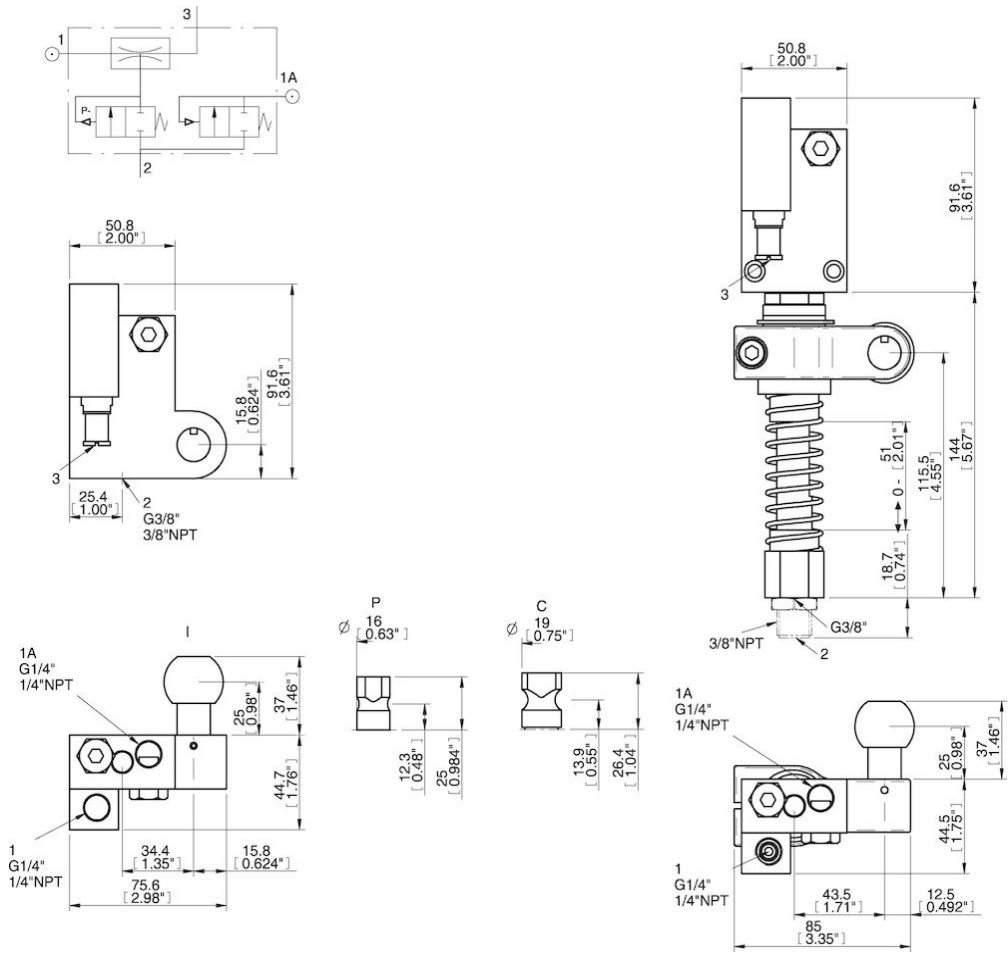
Performance

| Feed pressure | Air consumption | Vacuum flow (NI/s) at different vacuum levels (-kPa) |      |      |      |      |      |      |      |    |      |    |    |    |     | Max vacuum |
|---------------|-----------------|------------------------------------------------------|------|------|------|------|------|------|------|----|------|----|----|----|-----|------------|
| MPa           | NI/s            | 0                                                    | 10   | 20   | 30   | 40   | 50   | 60   | 70   | 75 | 80   | 90 | 95 | 99 | kPa |            |
| 0.17          | 0.29            | 0.57                                                 | 0.4  | 0.22 | 0.15 | 0.07 | 0    | 0    | 0    | 0  | 0    | 0  | 0  | 0  | ≥49 |            |
| 0.22          | 0.34            | 0.64                                                 | 0.48 | 0.29 | 0.2  | 0.14 | 0.08 | 0.02 | 0    | 0  | 0    | 0  | 0  | 0  | ≥64 |            |
| 0.314         | 0.44            | 0.68                                                 | 0.6  | 0.44 | 0.27 | 0.19 | 0.14 | 0.1  | 0.06 | 0  | 0.03 | 0  | 0  | 0  | ≥90 |            |
| 0.4           | 0.53            | 0.66                                                 | 0.6  | 0.52 | 0.39 | 0.24 | 0.12 | 0.1  | 0.06 | 0  | 0.02 | 0  | 0  | 0  | ≥84 |            |

| Feed pressure | Air consumption | Evacuation time (s/l) to reach different vacuum levels (-kPa) |      |      |      |     |     |     |     |    |    |    |      |       | Max vacuum |
|---------------|-----------------|---------------------------------------------------------------|------|------|------|-----|-----|-----|-----|----|----|----|------|-------|------------|
| MPa           | N/s             | 10                                                            | 20   | 30   | 40   | 50  | 60  | 70  | 80  | 90 | 95 | 99 | 99.5 | 100.3 | kPa        |
| 0.17          | 0.29            | 0.28                                                          | 0.56 | 1.13 | 2.13 | 0   | 0   | 0   | 0   | 0  | 0  | 0  | 0    | 0     | ≥49        |
| 0.22          | 0.34            | 0.2                                                           | 0.42 | 0.85 | 1.5  | 2.3 | 3   | 0   | 0   | 0  | 0  | 0  | 0    | 0     | ≥64        |
| 0.314         | 0.44            | 0.17                                                          | 0.32 | 0.58 | 1.1  | 1.8 | 2.7 | 4   | 6.4 | 0  | 0  | 0  | 0    | 0     | ≥90        |
| 0.4           | 0.53            | 0.18                                                          | 0.33 | 0.54 | 0.85 | 1.5 | 2.5 | 3.8 | 7.1 | 0  | 0  | 0  | 0    | 0     | ≥84        |

| Feed pressure | Air consumption | Blow flow (NI/s) at different pressure levels (-kPa) |       |      |       |      |       |      |      |      |      |      |     |      |      |      |     | Max pressure |
|---------------|-----------------|------------------------------------------------------|-------|------|-------|------|-------|------|------|------|------|------|-----|------|------|------|-----|--------------|
| MPa           | NI/s            | 0                                                    | 10    | 20   | 30    | 40   | 50    | 60   | 70   | 80   | 90   | 100  | 110 | 120  | 130  | 140  | kPa |              |
| 0.6           | 0.75            | 1.37                                                 | 1.365 | 1.36 | 1.345 | 1.33 | 1.225 | 1.12 | 1.03 | 1.03 | 1.03 | 1.03 | 1   | 0.95 | 0.86 | 0.79 | ≥0  |              |

Dimensional drawings



Values specified in this datasheet are tested at (unless otherwise stated):

- Room temperature (20°C [68°F] ± 3°C [5.5°F]).
- Standard atmosphere (101.3 [29.9 inHg] ± 1.0 kPa [0.3 inHg]).
- Compressed air quality, DIN ISO 8573-1 class 4.

Tolerance and accuracy:

- Feed pressure tolerance ±0.02 MPa [2.9 psi]
- Vacuum flow/evacuation time accuracy ±10%.