

VTC 3031/3021 Series

- Max. vacuum level : -93 kPa (-27.46 inHg)
- Max. flow rate : 341 NI/min (12.04 scfm)
- Supply air pressure : 3 ~ 6 bar, max 7 bar
(43.5~87 psi, max 101.5 psi)
- Air consumption : 97~152 NI/min (3.43~5.37 scfm)
- Supply air type : Dry compressed air
- Working temperature : -20°C to +80°C
- Noise level : 50~60 dBA



Main advantages

- Patented design.
- High operational reliability despite fluctuating or low compressed-air pressure.
- Integrated high dirt holding capacity pleated filter.
- VMECA Twofold Silencer^{PT} assures low noise levels.
- Optional Air-Saving(AS) kit available to minimize energy consumption.
- Optional factory installed Air control/Vacuum release valves and Vacuum switch available.
- Compact size and light weight.
- Easily mountable and interchangeable vacuum cartridge.

Order No.

VTC 3031 - 2 - AS - A3 R3 - CL - S2 N V

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Model

VTC 3021 - Two stage nozzle

- **VTC 3031(P)** - Three stage nozzle

※ Remark...(P)

↳ G3/8"Exhaust Port

② Filter element & Connection port

| Material | Connection port |
|---------------------------|-----------------|
| • 2 Polyester (PE) | BSP Thread(G) |

③ Air saving kit (108)

No mark - Standard

- **AS** - Air saving kit

④ Voltage of air supply control valve

A1 - AC110V

A2 - AC220V

- **A3** - DC24V

D1* - AC110V

D2* - AC220V

D3* - DC24V

* D. : Double solenoid valve is available only with 'DN' or 'DL', section ⑥

⑤ Voltage of vacuum release control valve

R1 - AC110V

R2 - AC220V

- **R3** - DC24V

⑦ Vacuum switch

No mark - Vacuum gauge.

- **S2(P)** - Digital display output 2points, No analog supply M8-4Pin Connector type 0.3m lead wire.

SG2(P) - Digital display output 2 points, No analog supply Grommet type 4-Core 2m lead wire.

SG3(P) - Digital display output 2 points, Analog supply Grommet type 5-Core 2m lead wire.

※ Remark: ① S..(P)

↳ Output type :PNP open collector

② VCM8 42 : M8-4Pin connector wire. Only for type S2 or S2(P).

⑧ Non-return valve

No mark - Standard

- **N** - Non-return valve.

⑨ Sealing

No mark - Standard

- **V** - Viton[®]

E - EPDM

⑥ Solenoid Terminal

DN - DIN type without lead wire

DL - DIN type with lamp without lead wire

- **CL*** - Connector type with lamp & 0.3 m lead wire

2B* - DIN type with '2 in 1' BUS cable
(Air control v/v + Vacuum release v/v)

3B* - DIN type with '3 in 1' BUS cable
(Air control v/v + Vacuum release v/v + Digital switch)

* Can not available with double solenoid valve

※ Remark

CL : Available only with DC24V

3B : Available only with DC24V

Available only with 'S2' or 'S2P', section ⑦

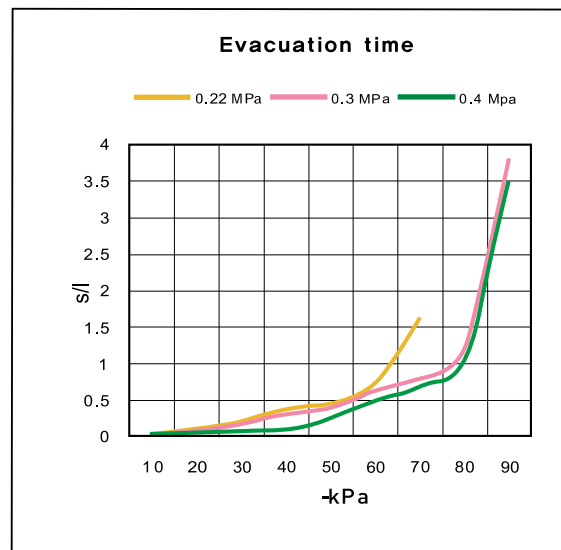
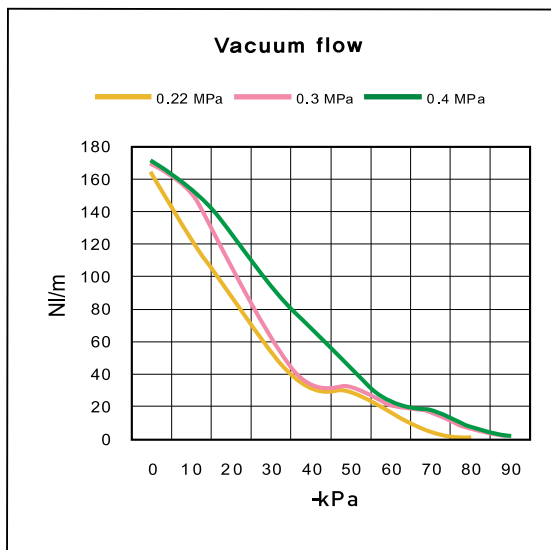
☞ **About 'BUS cable'** (340, 341)

Performance Data

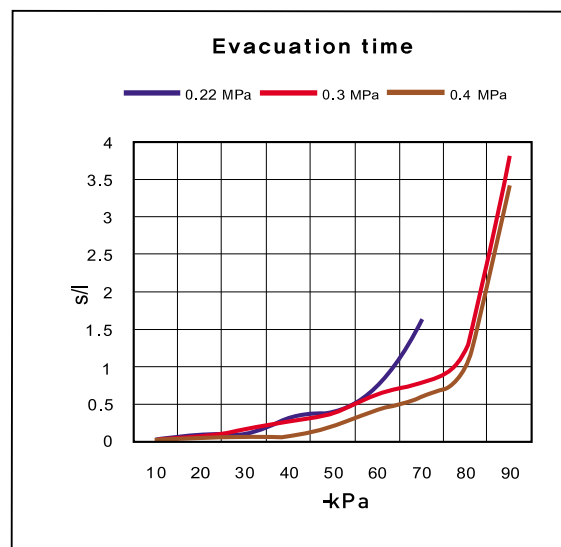
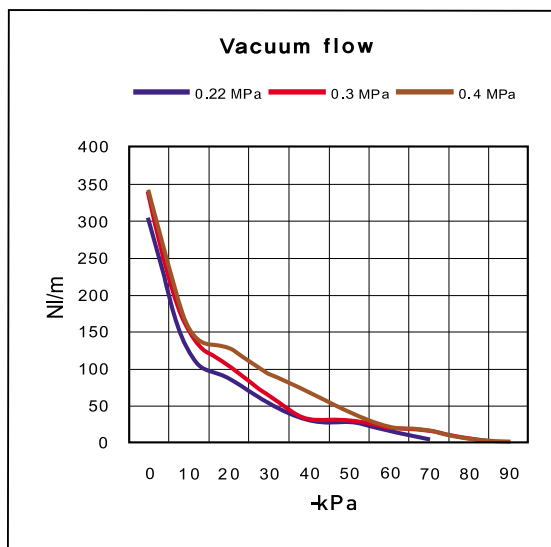
| Model | MAX. Vacuum (-kPa) | Feed pressure (MPa) | Vacuum flow (NI/min) at different vacuum level -kPa(-mmHg) | | | | | | | | | |
|-----------|--------------------|---------------------|--|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | | 0 (0) | 10 (75) | 20 (150) | 30 (225) | 40 (300) | 50 (375) | 60 (450) | 70 (525) | 80 (600) | 90 (675) |
| VTC3021.. | 75 | 0.22 | 164 | 122.5 | 88 | 53 | 31.4 | 28.5 | 16.5 | 4.6 | - | - |
| | 93 | 0.3 | 170 | 152 | 106 | 64 | 33 | 32 | 22 | 16.5 | 6.4 | 1.9 |
| | 93 | 0.4 | 171 | 154 | 127.5 | 94 | 69 | 43 | 23.3 | 17.3 | 6.9 | 2.1 |
| VTC3031.. | 75 | 0.22 | 302 | 122.5 | 88 | 53 | 31.4 | 28.5 | 16.5 | 4.6 | - | - |
| | 93 | 0.3 | 338 | 152 | 106 | 64 | 33 | 32 | 22 | 16.5 | 6.4 | 1.9 |
| | 93 | 0.4 | 341 | 154 | 127.5 | 94 | 69 | 43 | 23.3 | 17.3 | 6.9 | 2.1 |

| Model | Feed pressure (MPa) | Air consumption (NI/min) | Time, s/l, to evacuate a volume to different vacuum level -kPa (-mmHg) | | | | | | | | | |
|-----------|---------------------|--------------------------|--|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | | | 10 (75) | 20 (150) | 30 (225) | 40 (300) | 50 (375) | 60 (450) | 70 (525) | 80 (600) | 90 (675) | |
| VTC3021.. | 0.22 | 97 | 0.03 | 0.12 | 0.21 | 0.38 | 0.47 | 0.73 | 1.62 | - | - | |
| | 0.3 | 118 | 0.027 | 0.1 | 0.19 | 0.3 | 0.4 | 0.64 | 0.8 | 1.2 | 3.8 | |
| | 0.4 | 152 | 0.026 | 0.058 | 0.09 | 0.1 | 0.25 | 0.5 | 0.69 | 1.05 | 3.5 | |
| VTC3031.. | 0.22 | 97 | 0.019 | 0.09 | 0.1 | 0.32 | 0.42 | 0.73 | 1.62 | - | - | |
| | 0.3 | 118 | 0.015 | 0.07 | 0.18 | 0.28 | 0.38 | 0.64 | 0.8 | 1.2 | 3.8 | |
| | 0.4 | 152 | 0.01 | 0.048 | 0.07 | 0.09 | 0.2 | 0.42 | 0.6 | 1 | 3.4 | |

▼ VTC-3021..



▼ VTC-3031..



VACUUM PUMPS

VTCL 3031/3021 Series

- Max. vacuum level : -75 kPa (-22.15 inHg)
- Max. flow rate : 362 NI/min (12.79 scfm)
- Supply air pressure : 4 ~ 6 bar, max 7 bar
(58~87 psi, max 101.5 psi)
- Air consumption : 70~104 NI/min (2.47~3.67 scfm)
- Supply air type : Dry compressed air
- Working temperature : -20°C to +80°C
- Noise level : 50~60 dBA



Main advantages

- Patented design.
- High operational reliability despite fluctuating or low compressed-air pressure.
- Integrated high dirt holding capacity pleated filter.
- VMECA Twofold Silencer^{PT} assures low noise levels.
- Optional Air-Saving(AS) kit available to minimize energy consumption.
- Optional factory installed Air control/Vacuum release valves and Vacuum switch available.
- Compact size and light weight.
- Easily mountable and interchangeable vacuum cartridge.

Order No.

VTCL 3031 - 2 - AS - A3 R3 - CL - S2 N V

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Model

VTCL 3021 - Two stage nozzle

- **VTCL 3031(P)** - Three stage nozzle

※ Remark...(P)

↳ G3/8"Exhaust Port

② Filter element & Connection port

| Material | Connection port |
|---------------------------|-----------------|
| • 2 Polyester (PE) | BSP Thread(G) |

③ Air saving kit (108)

No mark - Standard

- **AS** - Air saving kit

④ Voltage of air supply control valve

A1 - AC110V

A2 - AC220V

- **A3** - DC24V

D1* - AC110V

D2* - AC220V

D3* - DC24V

* D. : Double solenoid valve is available only with 'DN' or 'DL', section ⑥

⑤ Voltage of vacuum release control valve

R1 - AC110V

R2 - AC220V

- **R3** - DC24V

⑥ Solenoid Terminal

DN - DIN type without lead wire

DL - DIN type with lamp without lead wire

- **CL*** - Connector type with lamp & 0.3 m lead wire

2B* - DIN type with '2 in 1' BUS cable
(Air control v/v + Vacuum release v/v)

3B* - DIN type with '3 in 1' BUS cable
(Air control v/v + Vacuum release v/v + Digital switch)

* Can not available with double solenoid valve

※ Remark

CL : Available only with DC24V

3B : Available only with DC24V

Available only with 'S2' or 'S2P', section ⑦

☞ About 'BUS cable' (340, 341)

⑦ Vacuum switch

No mark - Vacuum gauge.

- **S2(P)** - Digital display output 2points, No analog supply M8-4Pin Connector type 0.3m lead wire.

SG2(P) - Digital display output 2 points, No analog supply Grommet type 4-Core 2m lead wire.

SG3(P) - Digital display output 2 points, Analog supply Grommet type 5-Core 2m lead wire.

※ Remark: ① S..(P)

↳ Output type :PNP open collector

② VCM8 42 : M8-4Pin connector wire.
Only for type S2 or S2(P).

⑧ Non-return valve

No mark - Standard

- **N** - Non-return valve.

⑨ Sealing

No mark - Standard

- **V** - Viton®

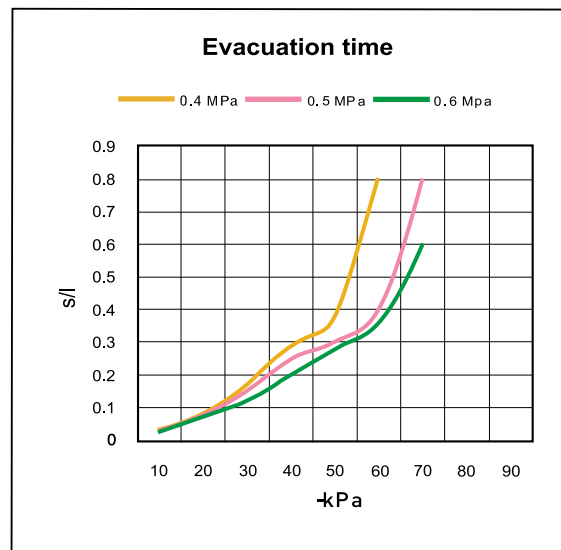
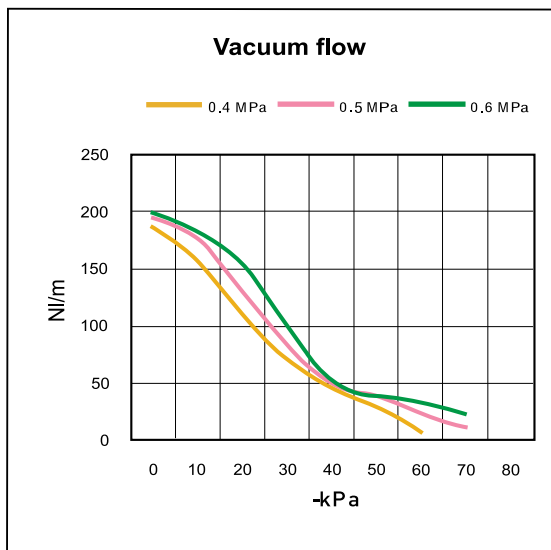
E - EPDM

Performance Data

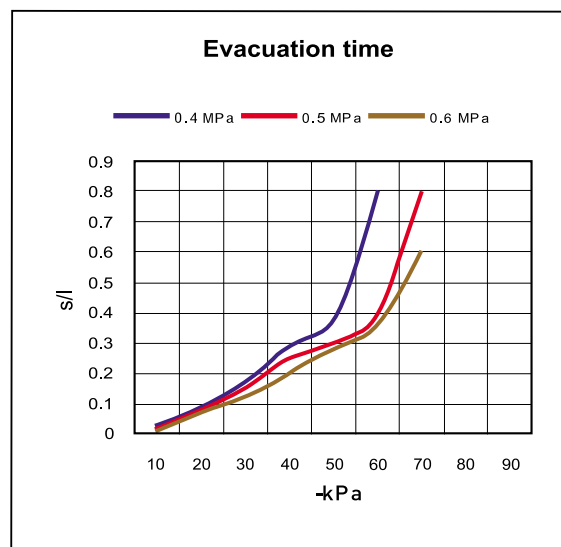
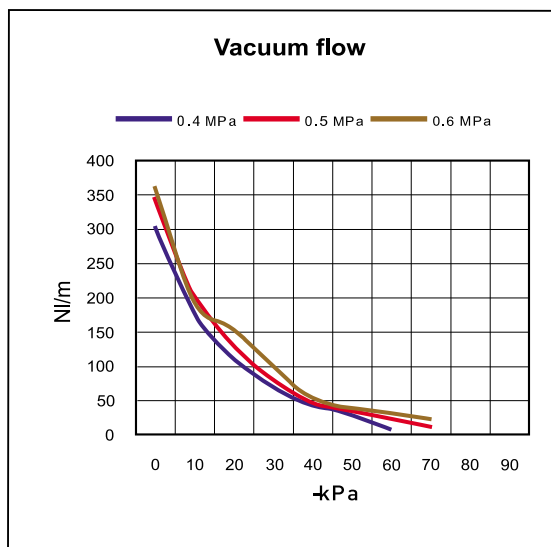
| Model | MAX. Vacuum (-kPa) | Feed pressure (MPa) | Vacuum flow (NI/min) at different vacuum levels -kPa (-mmHg) | | | | | | | | | |
|------------|--------------------|---------------------|--|---------|----------|----------|----------|----------|----------|----------|----------|----------|
| | | | 0 (0) | 10 (75) | 20 (150) | 30 (225) | 40 (300) | 50 (375) | 60 (450) | 70 (525) | 80 (600) | 90 (675) |
| VTCL3021.. | 60 | 0.4 | 188 | 158 | 110 | 70 | 46 | 28 | 6.8 | - | - | - |
| | 70 | 0.5 | 195 | 176 | 130 | 82 | 50 | 37.5 | 23 | 11.3 | - | - |
| | 75 | 0.6 | 200 | 183 | 154 | 100 | 52 | 38 | 32 | 22 | - | - |
| VTCL3031.. | 60 | 0.4 | 302 | 176 | 110 | 70 | 46 | 28 | 6.8 | - | - | - |
| | 70 | 0.5 | 344 | 200 | 130 | 82 | 50 | 37.5 | 23 | 11.3 | - | - |
| | 75 | 0.6 | 362 | 194 | 154 | 100 | 52 | 38 | 32 | 22 | - | - |

| Model | Feed pressure (MPa) | Air consumption (NI/min) | Time, s/l, to evacuate a volume to different vacuum levels -kPa (-mmHg) | | | | | | | | | |
|------------|---------------------|--------------------------|---|----------|----------|----------|----------|----------|----------|----------|----------|--|
| | | | 10 (75) | 20 (150) | 30 (225) | 40 (300) | 50 (375) | 60 (450) | 70 (525) | 80 (600) | 90 (675) | |
| VTCL3021.. | 0.4 | 70 | 0.035 | 0.084 | 0.17 | 0.29 | 0.38 | 0.8 | - | - | - | |
| | 0.5 | 85 | 0.027 | 0.08 | 0.15 | 0.25 | 0.3 | 0.4 | 0.8 | - | - | |
| | 0.6 | 104 | 0.028 | 0.08 | 0.12 | 0.2 | 0.28 | 0.36 | 0.6 | - | - | |
| VTCL3031.. | 0.4 | 70 | 0.028 | 0.09 | 0.17 | 0.29 | 0.38 | 0.8 | - | - | - | |
| | 0.5 | 85 | 0.013 | 0.08 | 0.15 | 0.25 | 0.3 | 0.4 | 0.8 | - | - | |
| | 0.6 | 104 | 0.012 | 0.07 | 0.12 | 0.2 | 0.28 | 0.36 | 0.6 | - | - | |

▼ VTCL-3021..



▼ VTCL-3031..



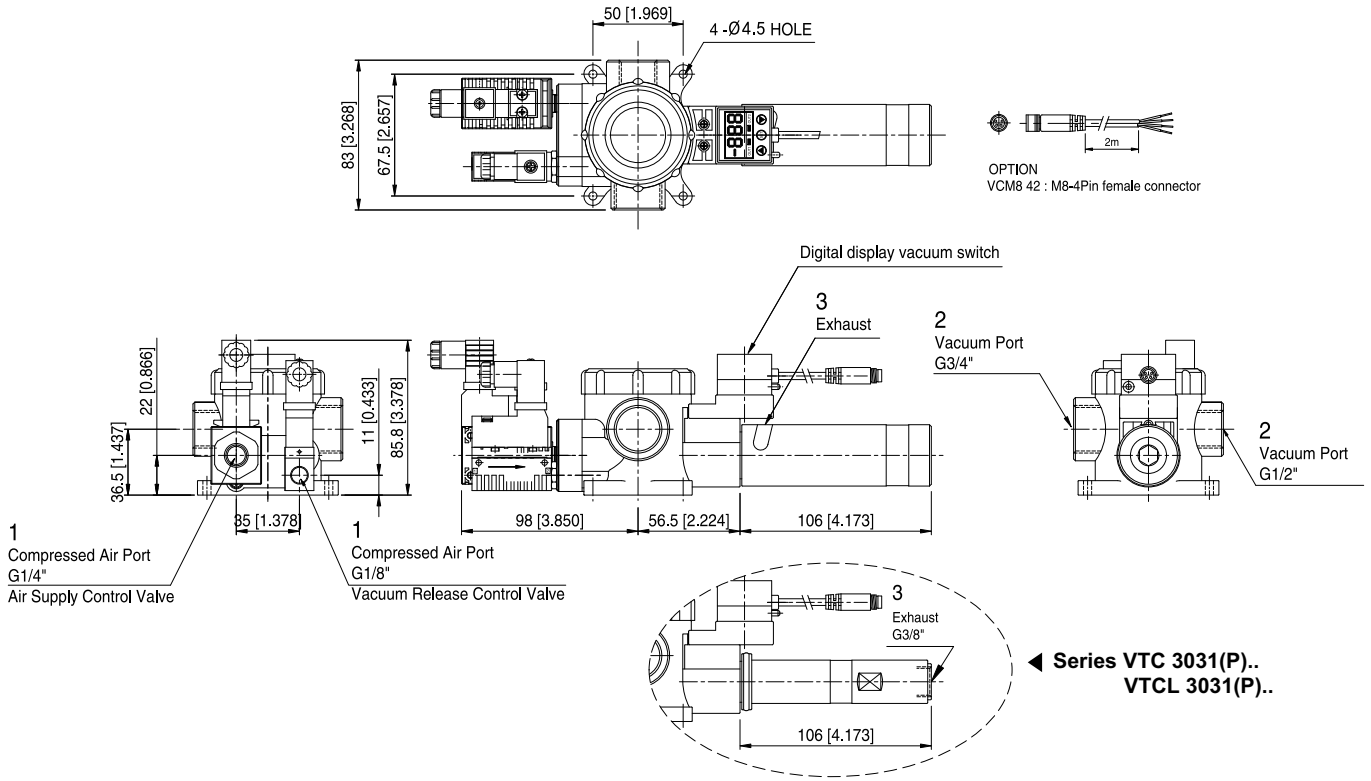
VACUUM PUMPS



Dimensional Information

With Air Control valve, Vacuum Release Control valve and Digital Vacuum Switch

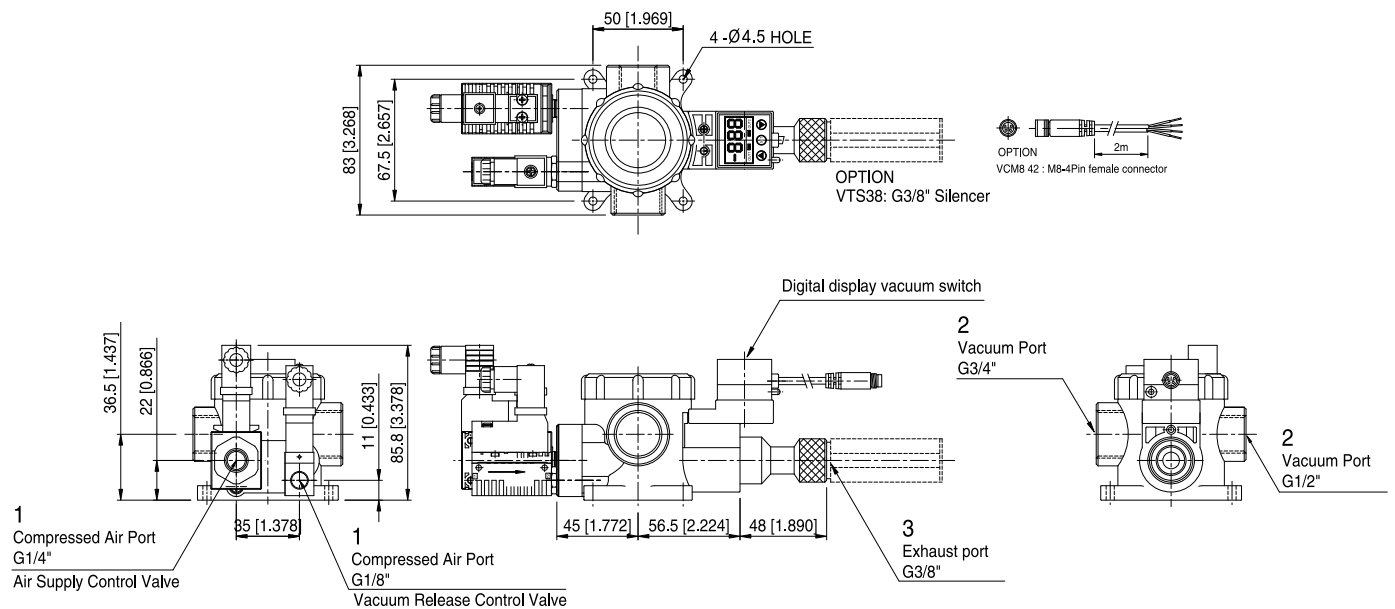
Series VTC 3031.. / VTCL 3031..



Measure unit : mm [in]

With Air Control valve, Vacuum Release Control valve and Digital Vacuum Switch

Series VTC 3021.. / VTCL 3021..

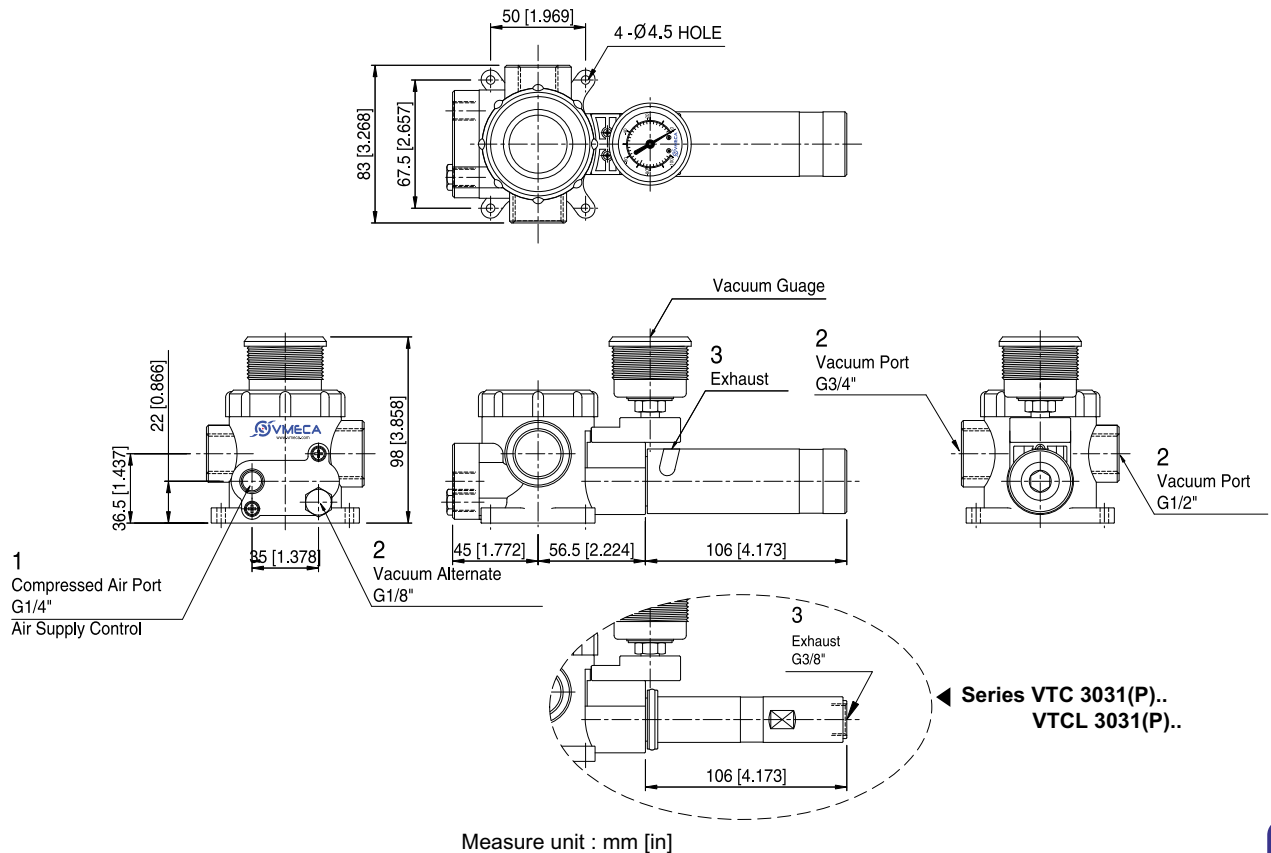


Measure unit : mm [in]

Dimensional Information

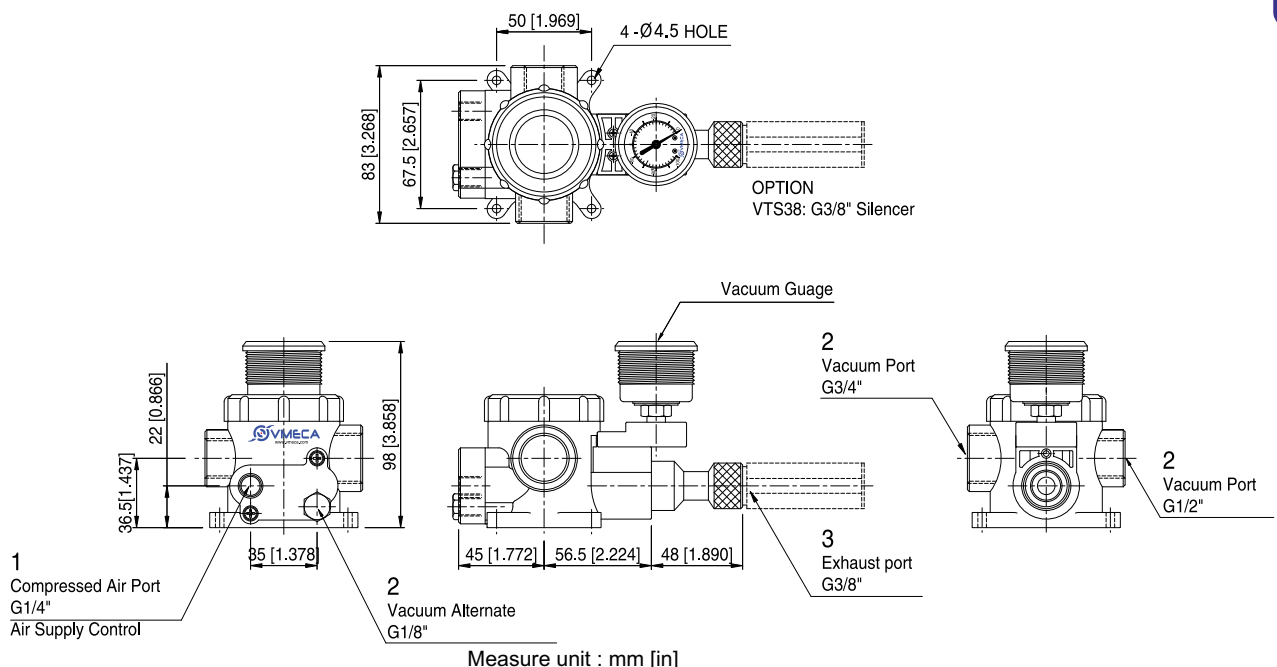
Standard

Series VTC 3031.. / VTCL 3031..



Standard

Series VTC 3021.. / VTCL 3021..



VACUUM PUMPS