

FEATURES

- > Maintenance free
- > Oil-less
- > Compact
- > Pulsation free
- > High flow
- > Low vibration
- > No valves
- > Reversible

TYPICAL APPLICATIONS

- > Automotive
- > Medical
- > Analysis
- > Automation
- > Fuel Cell

BASE MODEL

- G01
- G02
- BL-G 02
- G 04
- G 045
- G 07
- G 08
- G 09



Rotary

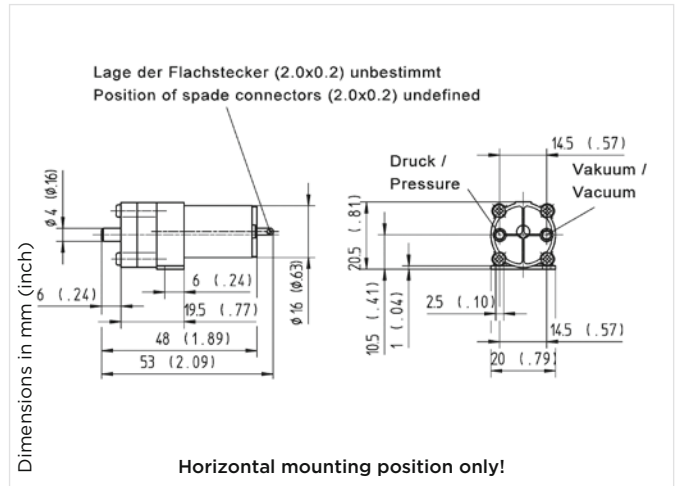
Rotary Vane Vacuum and Pressure Pumps

PRODUCT OVERVIEW

| Model | Flow | Max. pressure | Max. vacuum | Page |
|-------------------|------------|---------------|-------------|-----------|
| G 01-K-LCL | 2,0 l/min | 55 mbar | 5.5 % | 3 |
| G 01-K-EB | 1,4 l/min | 40 mbar | 4 % | 4 |
| G 01 EB | 1,6 l/min | 180 mbar | 20 % | 5 |
| G 01-4 EB | 1,4 l/min | 280 mbar | 29 % | 6 |
| G 02 EB | 3,6 l/min | 190 mbar | 19 % | 7 |
| G 02-4 EB | 3,7 l/min | 310 mbar | 31 % | 8 |
| G 02-8 | 2,7 l/min | 410 mbar | 37 % | 9 |
| BL-G 02-4 | 2,1 l/min | 200 mbar | 19 % | 10 |
| G 04 EB | 6,8 l/min | 150 mbar | 16 % | 11 |
| G 04-4 EB | 5,1 l/min | 240 mbar | 26 % | 12 |
| G 04-8 | 4,4 l/min | 260 mbar | 25 % | 13 |
| G 045-LC | 6,5 l/min | 750 mbar | 63 % | 14 |
| G 045 | 6,1 l/min | 750 mbar | 70 % | 15 |
| G 07 | 21 l/min | 1400 mbar | 77 % | 16 |
| G 08 | 15,5 l/min | 1400 mbar | 83 % | 17 |
| G 08-T | 36 l/min | 1400 mbar | 93 % | 18 |
| G 09 | 11 l/min | 370 mbar | 35 % | 19 |

Rotary Vane Pump G 01-K-EB

| | |
|----------------------|------------------|
| Flow | 1.4 l/min |
| Max. pressure | 40 mbar |
| Max. vacuum | 4 % |



PNEUMATIC DATA

| Description | G 6/01-K-EB12 | G 6/01-K-EB9L | G 6/01-K-EB9 | G 12/01-K-EB18L |
|----------------------------|---------------|---------------|--------------|-----------------|
| Part number | 50251 | 50094 | 50250 | 50080 |
| Max. flow | 0.9 l/min | 1.2 l/min | 1.4 l/min | 1.2 l/min |
| Max. intermittent pressure | 20 mbar | 25 mbar | 40 mbar | 18 mbar |
| Max. continuous pressure | - | 10 mbar | - | 10 mbar |
| Max. intermittent vacuum | 2 % | 2.8 % | 4 % | 1.8 % |
| Max. continuous vacuum | - | 1 % | - | 1 % |

ELECTRICAL DATA

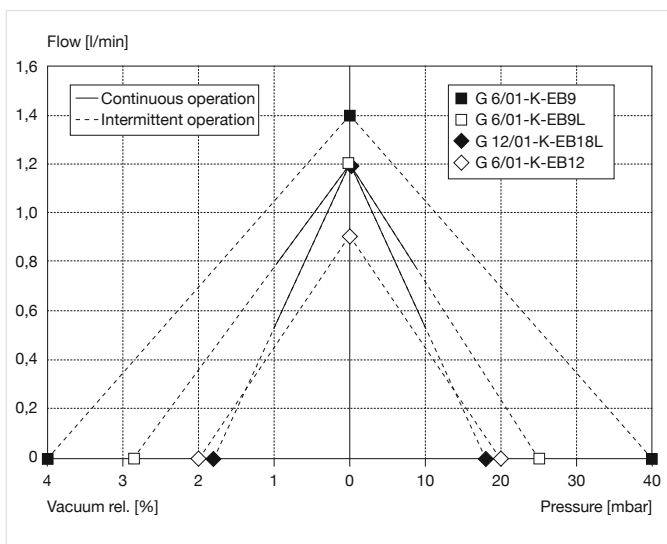
| Motor type | Ironless Core DC | Ironless Core DC | Ironless Core DC | Ironless Core DC |
|--------------------------|------------------|------------------|------------------|------------------|
| Nominal voltage | 6 V DC | 6 V DC | 6 V DC | 12 V DC |
| Min. current consumption | 18 mA | 36 mA | 50 mA | 25 mA |
| Max. current consumption | 30 mA | 65 mA | 70 mA | 48 mA |
| Protection class | IP50 | IP50 | IP50 | IP50 |
| Motor bearing | Sleeve bearing | Sleeve bearing | Sleeve bearing | Sleeve bearing |

GENERAL DATA

| Ambient temperature | -20 to 40 °C | -20 to 40 °C | -20 to 40 °C | -20 to 40 °C |
|-----------------------|--------------|--------------|--------------|--------------|
| Weight | 0.04 kg | 0.04 kg | 0.04 kg | 0.04 kg |
| Direction of rotation | cw/ccw | cw/ccw | cw/ccw | cw/ccw |

All listed values are measured at standard atmospheric conditions.

FLOW CURVES

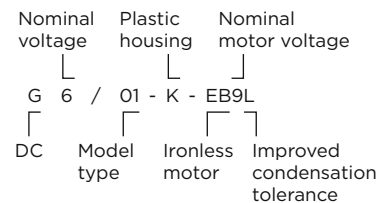


CURRENT CONSUMPTION

50... Stock programme

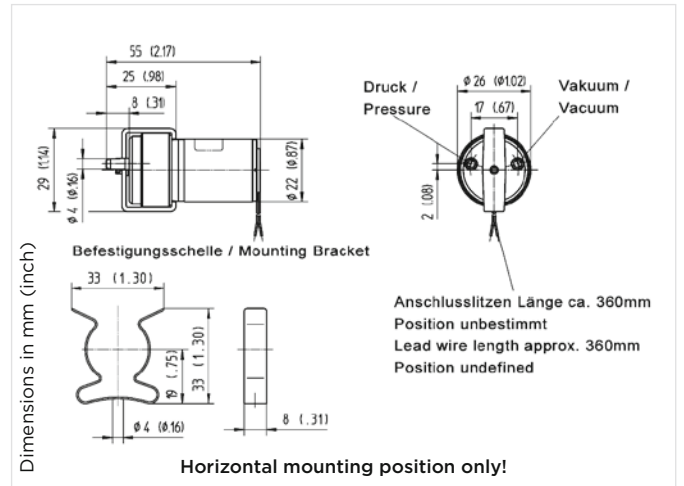
Min.: at open flow
Max.: at max. intermittent operation

Model key:



Rotary Vane Pump G 01 EB

| | |
|---------------|-----------|
| Flow | 1.6 l/min |
| Max. pressure | 180 mbar |
| Max. vacuum | 20 % |



PNEUMATIC DATA

| Description | G 3/01 EB | G 6/01 EB | G 12/01 EB | G 24/01 EB |
|----------------------------|-----------|-----------|--------------|------------|
| Part number | 50083 | 50081 | 50096 | 50099 |
| Max. flow | 0.9 l/min | 1.0 l/min | 1.4 l/min | 1.6 l/min |
| Max. intermittent pressure | 90 mbar | 120 mbar | 150 mbar | 180 mbar |
| Max. continuous pressure | 80 mbar | 80 mbar | 100 mbar | 100 mbar |
| Max. intermittent vacuum | 9 % | 12 % | 16 % | 20 % |
| Max. continuous vacuum | 8 % | 8 % | 10 % | 10 % |

ELECTRICAL DATA

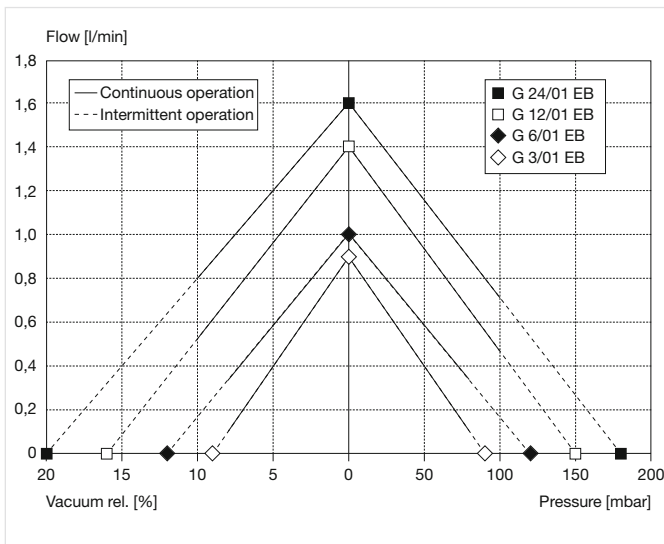
| Motor type | Ironless Core DC | Ironless Core DC | Ironless Core DC | Ironless Core DC |
|--------------------------|------------------|------------------|------------------|------------------|
| Nominal voltage | 3 V DC | 6 V DC | 12 V DC | 24 V DC |
| Min. current consumption | 0.12 A | 0.07 A | 0.09 A | 0.05 A |
| Max. current consumption | 0.28 A | 0.19 A | 0.20 A | 0.13 A |
| Protection class | IP50 | IP50 | IP50 | IP50 |
| Motor bearing | Sleeve bearing | Sleeve bearing | Sleeve bearing | Sleeve bearing |

GENERAL DATA

| Ambient temperature | -30 to 50 °C | -30 to 50 °C | -30 to 50 °C | -30 to 50 °C |
|-----------------------|--------------|--------------|--------------|--------------|
| Weight | 0.1 kg | 0.1 kg | 0.1 kg | 0.1 kg |
| Direction of rotation | cw | cw | cw | cw |

Pumps include mounting bracket.
All listed values are measured at standard atmospheric conditions.

FLOW CURVES



CURRENT CONSUMPTION

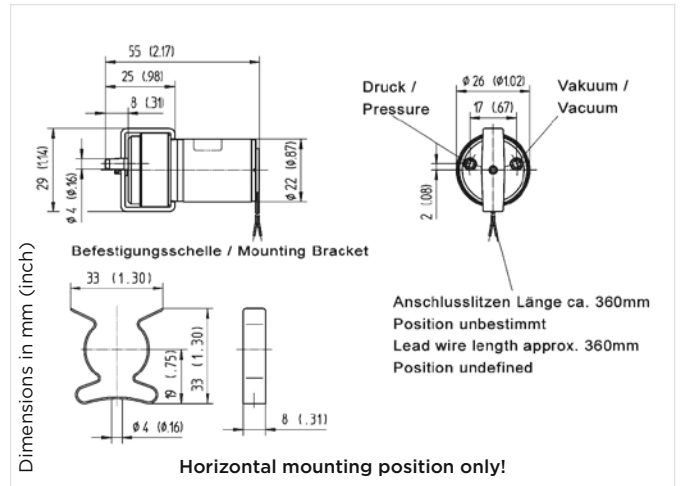
500... Stock programme

Min.: at open flow
Max.: at max. intermittent operation

Model key:
Nominal voltage Ironless motor
G 6 / 01 - EB
DC Model type

Rotary Vane Pump G 02 EB

| | |
|---------------|-----------|
| Flow | 3.6 l/min |
| Max. pressure | 190 mbar |
| Max. vacuum | 19 % |



PNEUMATIC DATA

| Description | G 3/02 EB | G 6/02 EB | G 12/02 EB | G 24/02 EB |
|----------------------------|-----------|-----------|------------|------------|
| Part number | 50084 | 50103 | 50095 | 50098 |
| Max. flow | 2.4 l/min | 2.6 l/min | 3.6 l/min | 3.6 l/min |
| Max. intermittent pressure | 110 mbar | 120 mbar | 180 mbar | 190 mbar |
| Max. continuous pressure | 90 mbar | 80 mbar | 100 mbar | 100 mbar |
| Max. intermittent vacuum | 11 % | 12 % | 18 % | 19 % |
| Max. continuous vacuum | 9 % | 8 % | 10 % | 10 % |

ELECTRICAL DATA

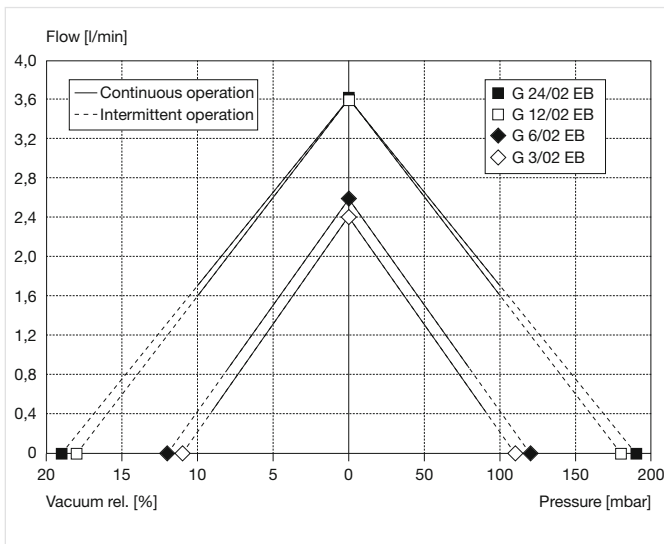
| Motor type | Ironless Core DC | Ironless Core DC | Ironless Core DC | Ironless Core DC |
|--------------------------|------------------|------------------|------------------|------------------|
| Nominal voltage | 3 V DC | 6 V DC | 12 V DC | 24 V DC |
| Min. current consumption | 0.16 A | 0.09 A | 0.09 A | 0.07 A |
| Max. current consumption | 0.53 A | 0.30 A | 0.33 A | 0.18 A |
| Protection class | IP50 | IP50 | IP50 | IP50 |
| Motor bearing | Sleeve bearing | Sleeve bearing | Sleeve bearing | Sleeve bearing |

GENERAL DATA

| Ambient temperature | -30 to 50 °C | -30 to 50 °C | -30 to 50 °C | -30 to 50 °C |
|-----------------------|--------------|--------------|--------------|--------------|
| Weight | 0.1 kg | 0.1 kg | 0.1 kg | 0.1 kg |
| Direction of rotation | cw | cw | cw | cw |

Pumps include mounting bracket.
All listed values are measured at standard atmospheric conditions.

FLOW CURVES



CURRENT CONSUMPTION

50... Stock programme

Min.: at open flow
Max.: at max. intermittent operation

Model key:

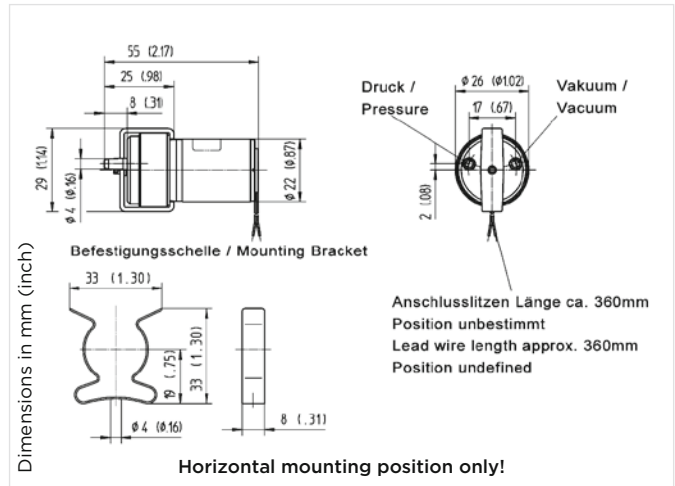
Nominal voltage Ironless motor

DC Model type

G 6 / 02 - EB

Rotary Vane Pump G 02-4-EB

| | |
|----------------------|------------------|
| Flow | 3.7 l/min |
| Max. pressure | 310 mbar |
| Max. vacuum | 31 % |



PNEUMATIC DATA

| Description | G 6/02-4 EB | G 12/02-4 EB | G 24/02-4 EB |
|----------------------------|--------------|--------------|--------------|
| Part number | 50089 | 50091 | 50093 |
| Max. flow | 2.6 l/min | 3.5 l/min | 3.7 l/min |
| Max. intermittent pressure | 230 mbar | 310 mbar | 310 mbar |
| Max. continuous pressure | 100 mbar | 100 mbar | 100 mbar |
| Max. intermittent vacuum | 23 % | 31 % | 31 % |
| Max. continuous vacuum | 10 % | 10 % | 10 % |

ELECTRICAL DATA

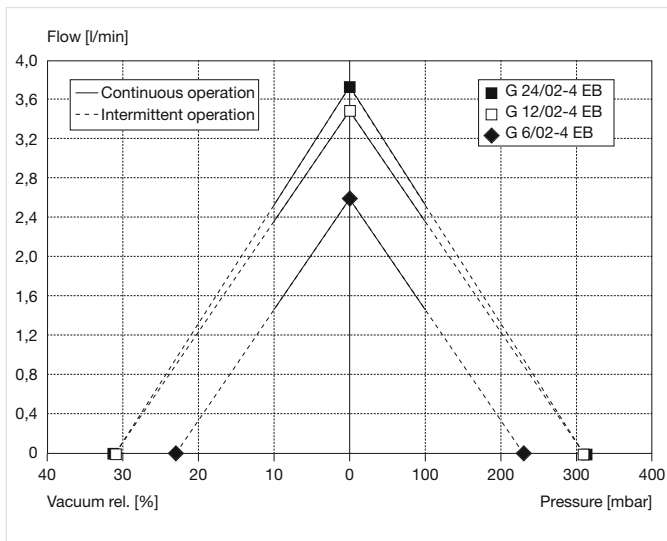
| Motor type | Ironless Core DC | Ironless Core DC | Ironless Core DC |
|--------------------------|------------------|------------------|------------------|
| Nominal voltage | 6 V DC | 12 V DC | 24 V DC |
| Min. current consumption | 0.13 A | 0.15 A | 0.09 A |
| Max. current consumption | 0.53 A | 0.51 A | 0.27 A |
| Protection class | IP50 | IP50 | IP50 |
| Motor bearing | Sleeve bearing | Sleeve bearing | Sleeve bearing |

GENERAL DATA

| Ambient temperature | -30 to 50 °C | -30 to 50 °C | -30 to 50 °C |
|-----------------------|--------------|--------------|--------------|
| Weight | 0.1 kg | 0.1 kg | 0.1 kg |
| Direction of rotation | cw/ccw | cw/ccw | cw/ccw |

Pumps include mounting bracket.
All listed values are measured at standard atmospheric conditions.

FLOW CURVES

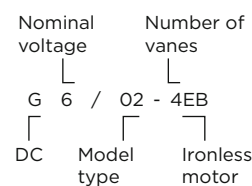


CURRENT CONSUMPTION

500... Stock programme

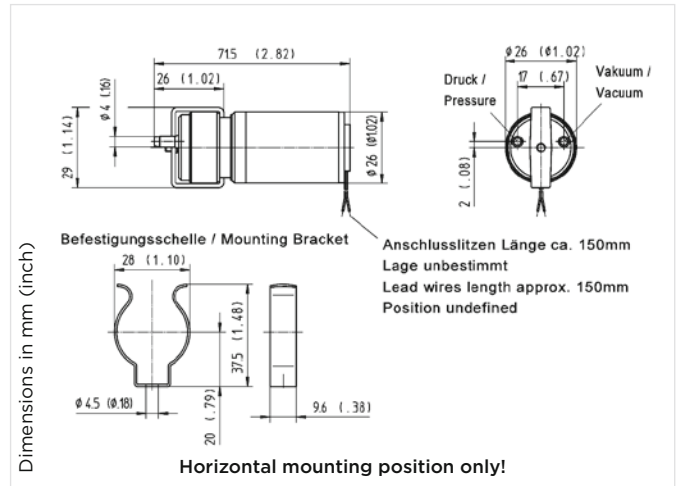
Min.: at open flow
Max.: at max. intermittent operation

Model key:



Rotary Vane Pump G 02-8

| | |
|---------------|-----------|
| Flow | 2.7 l/min |
| Max. pressure | 410 mbar |
| Max. vacuum | 37 % |



PNEUMATIC DATA

| Description | G 6/02-8 | G 12/02-8 |
|----------------------------|-----------|--------------|
| Part number | 50163 | 50165 |
| Max. flow | 2.6 l/min | 2.7 l/min |
| Max. intermittent pressure | 410 mbar | 410 mbar |
| Max. continuous pressure | 200 mbar | 200 mbar |
| Max. intermittent vacuum | 37 % | 37 % |
| Max. continuous vacuum | 20 % | 20 % |

ELECTRICAL DATA

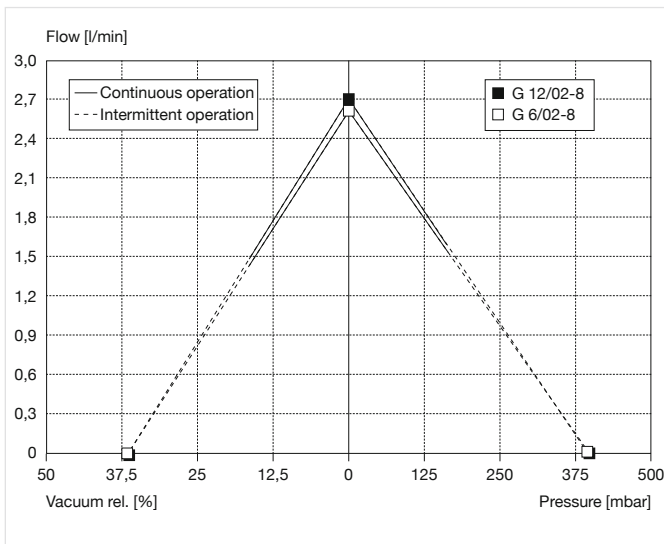
| Motor type | Ironless Core DC | Ironless Core DC |
|--------------------------|------------------|------------------|
| Nominal voltage | 6 V DC | 12 V DC |
| Min. current consumption | 0.23 A | 0.11 A |
| Max. current consumption | 0.70 A | 0.35 A |
| Protection class | IP50 | IP50 |
| Motor bearing | Ball bearing | Ball bearing |

GENERAL DATA

| Ambient temperature | -30 to 50 °C | -30 to 50 °C |
|-----------------------|--------------|--------------|
| Weight | 0.13 kg | 0.13 kg |
| Direction of rotation | cw/ccw | cw/ccw |

Pumps include mounting bracket.
All listed values are measured at standard atmospheric conditions.

FLOW CURVES



CURRENT CONSUMPTION

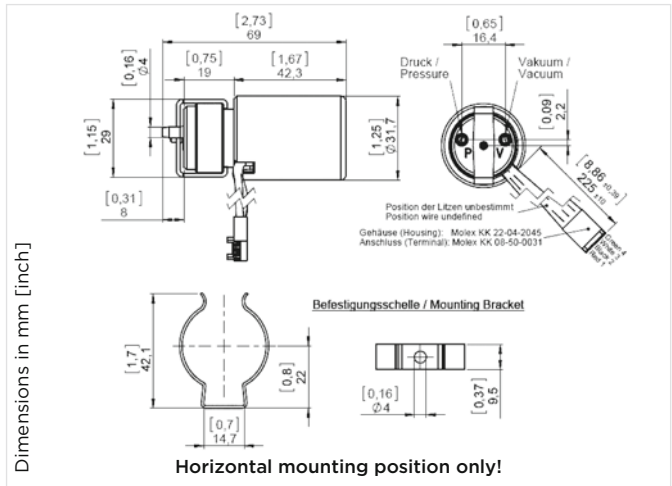
501... Stock programme

Min.: at open flow
Max.: at max. intermittent operation

Model key:
Nominal voltage: DC
Number of vanes: 8
Model type: G 6 / 02 - 8

Rotary Vane Pump BL-G 02-4

| | |
|----------------------|------------------|
| Flow | 2.4 l/min |
| Max. pressure | 200 mbar |
| Max. vacuum | 22 % |



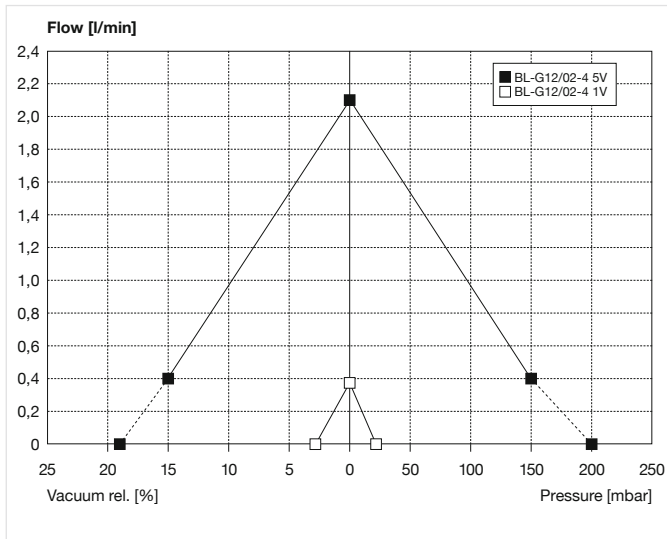
| PNEUMATIC DATA | |
|----------------------------|--------------|
| Description | BL-G 12/02-4 |
| Part number | 50180 |
| Max. flow | 2.1 l/min |
| Max. intermittent pressure | 200 mbar |
| Max. continuous pressure | 150 mbar |
| Max. intermittent vacuum | 19 % |
| Max. continuous vacuum | 15 % |

| ELECTRICAL DATA | |
|--------------------------|---|
| Motor type | Brushless DC |
| Nominal voltage | 12 V DC |
| Drive electronics | integrated with reverse supply voltage protection |
| Min. current consumption | 0.16 A |
| Max. current consumption | 0.33 A |
| Protection class | IPO0 |
| Motor bearing | Ball bearing |
| Connector | Housing: Molex KK 22-01-2045 Terminal: Molex KK 08-50-0031 |

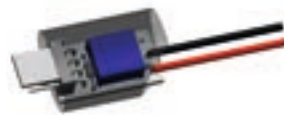
| GENERAL DATA | |
|-----------------------|------------|
| Ambient temperature | 0 to 50 °C |
| Weight | 0.13 kg |
| Direction of rotation | cw |

Pumps include mounting bracket.
Above performance values are based on max. control voltage 5V.
All listed values are measured at standard atmospheric conditions and at 50Hz.

FLOW CURVES



| WIRING DIAGRAM | | | |
|----------------|---------------|--------|--|
| | Function | Colour | Control |
| Pin 1 | V Supply | Red | 12 V DC (max. voltage range: 10..18 V DC) 24 V DC (max. voltage range: 10..28 V DC) |
| Pin 2 | Ground | Black | Ground for V supply (PIN 1) and Speed Control (PIN 3) |
| Pin 3 | Speed Control | White | analog: 0..5 V DC (max. 28V) PWM: 6..20 kHz - 14..96% Speed voltage input threshold: 0.2 V |
| Pin 4 | Tacho out | Green | 18 pulses per revolution Pulse time „LOW“: 195 µs Output level „LOW“: 0 / max. 0.5 V Output level „HIGH“: min. 4 V / max. 5 V |

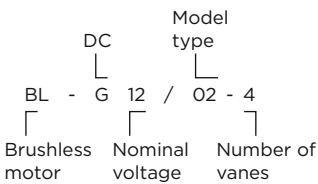


Optional: Adapter for 2-wire duty incl. potentiometer for speed adjustment part number 29011932

CURRENT CONSUMPTION

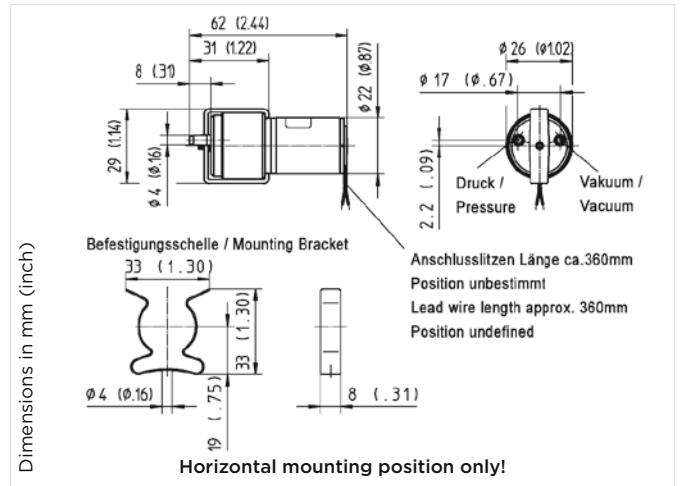
Min.: at open flow
Max.: at max. intermittent operation

Model key:



Rotary Vane Pump G 04 EB

| | |
|---------------|-----------|
| Flow | 6.8 l/min |
| Max. pressure | 150 mbar |
| Max. vacuum | 16 % |



PNEUMATIC DATA

| Description | G 3/04 EB | G 6/04 EB | G 12/04 EB | G 24/04 EB |
|----------------------------|-----------|--------------|--------------|--------------|
| Part number | 50085 | 50102 | 50097 | 50104 |
| Max. flow | 4.5 l/min | 4.7 l/min | 6.2 l/min | 6.8 l/min |
| Max. intermittent pressure | 100 mbar | 110 mbar | 140 mbar | 150 mbar |
| Max. continuous pressure | 50 mbar | 50 mbar | 50 mbar | 40 mbar |
| Max. intermittent vacuum | 11 % | 12 % | 15 % | 16 % |
| Max. continuous vacuum | 5 % | 5 % | 5 % | 4 % |

ELECTRICAL DATA

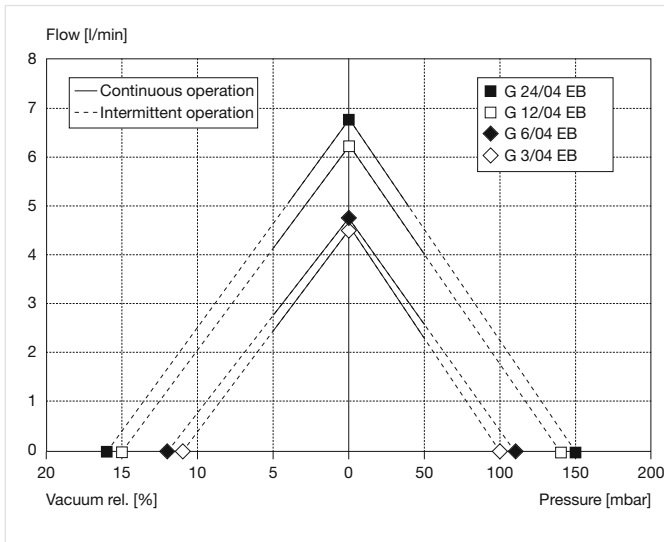
| Motor type | Ironless Core DC | Ironless Core DC | Ironless Core DC | Ironless Core DC |
|--------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Nominal voltage | 3 V DC | 6 V DC | 12 V DC | 24 V DC |
| Min. current consumption | 0.26 A | 0.16 A | 0.18 A | 0.11 A |
| Max. current consumption | 0.80 A | 0.48 A | 0.47 A | 0.26 A |
| Protection class | IP50 | IP50 | IP50 | IP50 |
| Motor bearing | Ball bearing/ Sleeve bearing | Ball bearing/ Sleeve bearing | Ball bearing/ Sleeve bearing | Ball bearing/ Sleeve bearing |

GENERAL DATA

| Ambient temperature | -30 to 50 °C | -30 to 50 °C | -30 to 50 °C | -30 to 50 °C |
|-----------------------|--------------|--------------|--------------|--------------|
| Weight | 0.1 kg | 0.1 kg | 0.1 kg | 0.1 kg |
| Direction of rotation | cw | cw | cw | cw |

Pumps include mounting bracket.
All listed values are measured at standard atmospheric conditions.

FLOW CURVES



CURRENT CONSUMPTION

Min.: at open flow
Max.: at max. intermittent operation

Model key:

Nominal voltage: DC
Ironless motor: EB
Model type: G 6 / 04 - EB

50... Stock programme

Rotary Vane Pump G 04-8

| | |
|---------------|-----------|
| Flow | 4.4 l/min |
| Max. pressure | 260 mbar |
| Max. vacuum | 25 % |



PNEUMATIC DATA

| | |
|----------------------------|-----------|
| Description | G 12/04-8 |
| Part number | 50119 |
| Max. flow | 4.4 l/min |
| Max. intermittent pressure | 260 mbar |
| Max. continuous pressure | 100 mbar |
| Max. intermittent vacuum | 25 % |
| Max. continuous vacuum | 10 % |

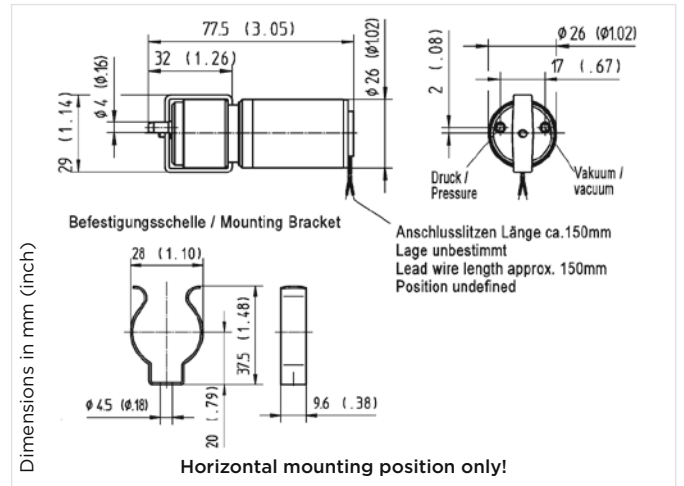
ELECTRICAL DATA

| | |
|--------------------------|------------------|
| Motor type | Ironless Core DC |
| Nominal voltage | 12 V DC |
| Min. current consumption | 0.21 A |
| Max. current consumption | 0.51 A |
| Protection class | IP50 |
| Motor bearing | Ball bearing |

GENERAL DATA

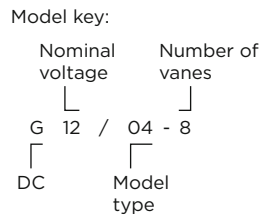
| | |
|-----------------------|--------------|
| Ambient temperature | -30 to 50 °C |
| Weight | 0.14 kg |
| Direction of rotation | cw/ccw |

Pumps include mounting bracket.
All listed values are measured at standard atmospheric conditions.

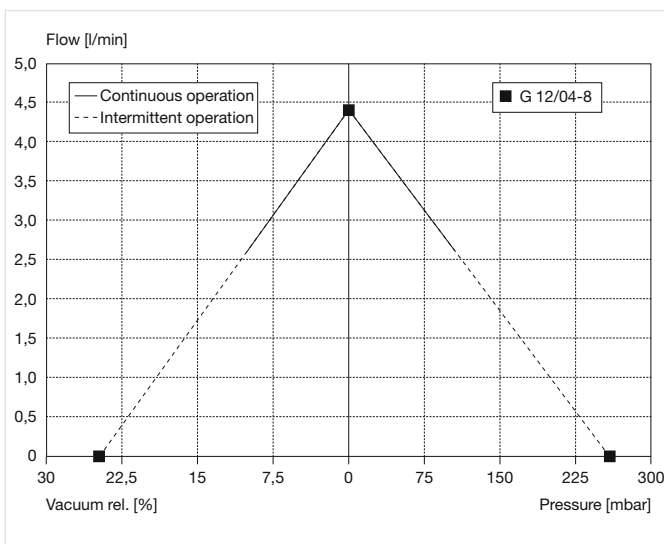


CURRENT CONSUMPTION

Min.: at open flow
Max.: at max. intermittent operation

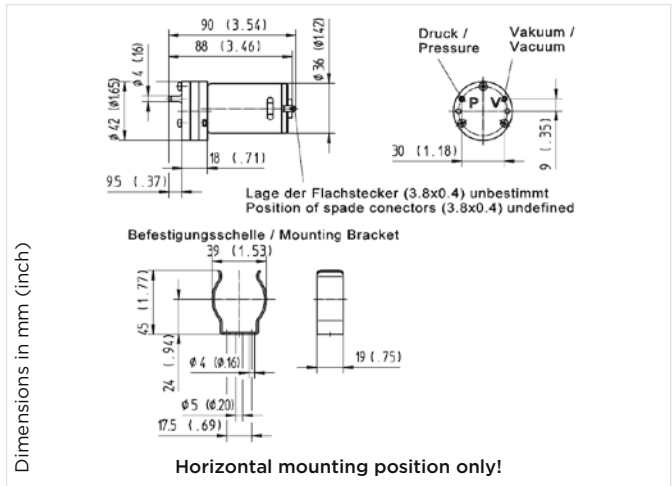


FLOW CURVES



Rotary Vane Pump G 045-LC

| | |
|----------------------|------------------|
| Flow | 7.5 l/min |
| Max. pressure | 900 mbar |
| Max. vacuum | 63 % |



PNEUMATIC DATA

| | |
|----------------------------|--------------|
| Description | G 12/045-LC |
| Part number | 50213 |
| Max. flow | 6.5 l/min |
| Max. intermittent pressure | 750 mbar |
| Max. continuous pressure | 100 mbar |
| Max. intermittent vacuum | 63 % |
| Max. continuous vacuum | 10 % |

ELECTRICAL DATA

| | |
|--------------------------|-----------------------------|
| Motor type | Permanent magnet |
| Nominal voltage | 12 V DC |
| Min. current consumption | 1.8 A |
| Max. current consumption | 3.5 A |
| Protection class | IP20 |
| Motor bearing | Ball bearing/Sleeve bearing |

GENERAL DATA

| | |
|-----------------------|--------------|
| Ambient temperature | -10 to 40 °C |
| Weight | 0.25 kg |
| Direction of rotation | cw/ccw |

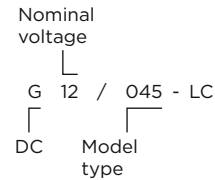
Pumps include mounting bracket.
All listed values are measured at standard atmospheric conditions.

CURRENT CONSUMPTION

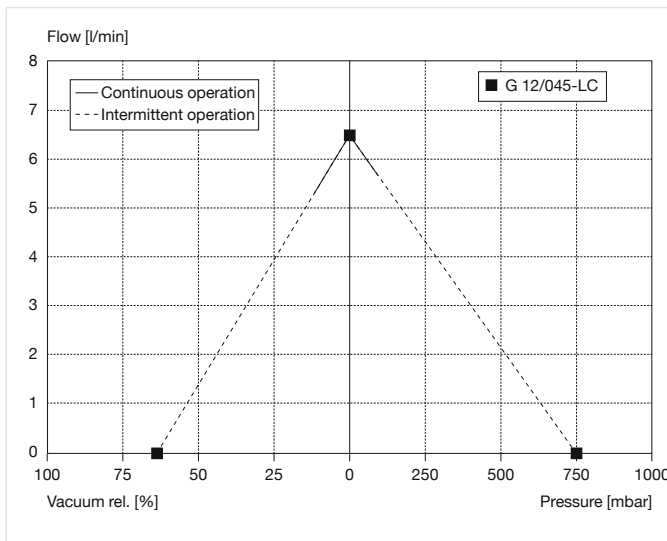
502... Stock programme

Min.: at open flow
Max.: at max. intermittent operation

Model key:

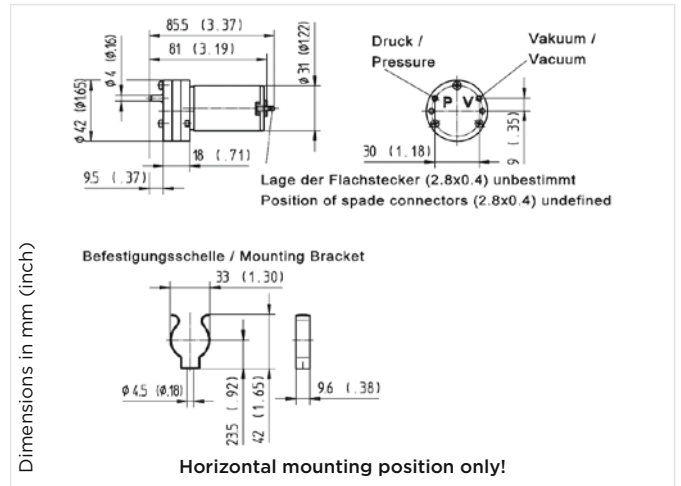


FLOW CURVES



Rotary Vane Pump G 045

| | |
|---------------|-----------|
| Flow | 6.1 l/min |
| Max. pressure | 750 mbar |
| Max. vacuum | 70 % |



PNEUMATIC DATA

| Description | G 12/045 | G 24/045 |
|----------------------------|--------------|--------------|
| Part number | 50200 | 50201 |
| Max. flow | 5.5 l/min | 6.1 l/min |
| Max. intermittent pressure | 650 mbar | 750 mbar |
| Max. continuous pressure | 150 mbar | 150 mbar |
| Max. intermittent vacuum | 58 % | 70 % |
| Max. continuous vacuum | 15 % | 15 % |

ELECTRICAL DATA

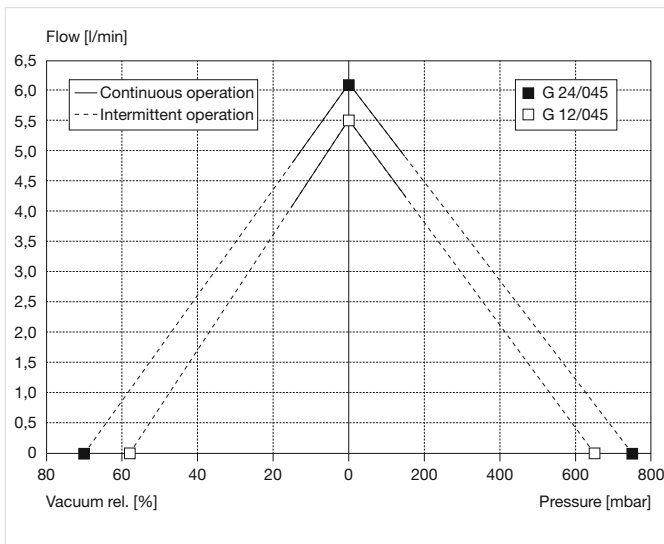
| Motor type | Permanent magnet | Permanent magnet |
|--------------------------|------------------|------------------|
| Nominal voltage | 12 V DC | 24 V DC |
| Min. current consumption | 0.64 A | 0.33 A |
| Max. current consumption | 1.36 A | 0.77 A |
| Protection class | IP30 | IP30 |
| Motor bearing | Ball bearing | Ball bearing |

GENERAL DATA

| Ambient temperature | 10 to 40 °C | 10 to 40 °C |
|-----------------------|-------------|-------------|
| Weight | 0.25 kg | 0.25 kg |
| Direction of rotation | cw/ccw | cw/ccw |

Pumps include mounting bracket.
All listed values are measured at standard atmospheric conditions.

FLOW CURVES



CURRENT CONSUMPTION

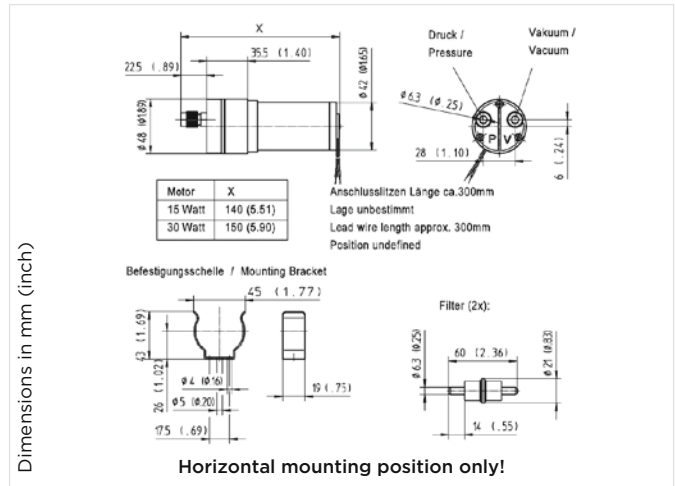
50... Stock programme

Min.: at open flow
Max.: at max. intermittent operation

Model key:
Nominal voltage
G 12 / 045
DC Model type

Rotary Vane Pump G 07

| | |
|----------------------|-----------------|
| Flow | 21 l/min |
| Max. pressure | 1.4 bar |
| Max. vacuum | 77 % |



PNEUMATIC DATA

| Description | G 12/07-15 Watt | G 24/07-15 Watt | G 24/07-30 Watt |
|----------------------------|-----------------|-----------------|-----------------|
| Part number | 50336 | 50218 | 50221 |
| Max. flow | 17.0 l/min | 17.5 l/min | 21.0 l/min |
| Max. intermittent pressure | 1.3 bar | 1.0 bar | 1.4 bar |
| Max. continuous pressure | 0.3 bar | | 0.2 bar |
| Max. intermittent vacuum | 76 % | 75 % | 77 % |
| Max. continuous vacuum | 30 % | | 20 % |

ELECTRICAL DATA

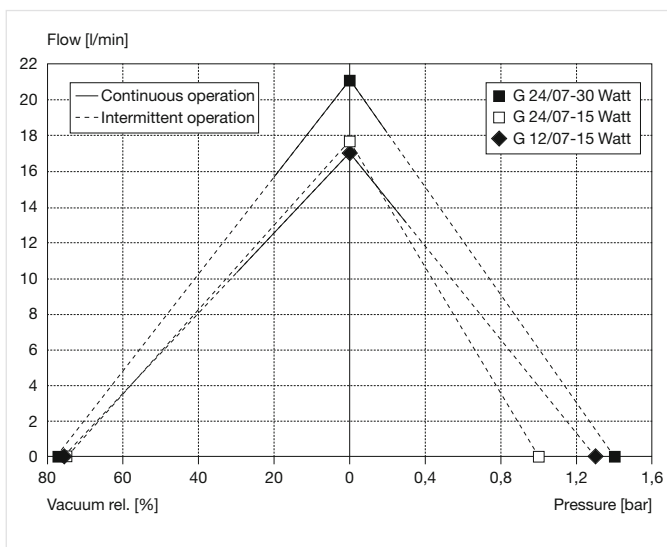
| Motor type | Permanent magnet | Permanent magnet | Permanent magnet |
|--------------------------|------------------|------------------|------------------|
| Nominal voltage | 12 V DC | 24 V DC | 24 V DC |
| Min. current consumption | 1.9 A | 1.1 A | 1.9 A |
| Max. current consumption | 3.2 A | 1.6 A | 2.5 A |
| Protection class | IP40 | IP40 | IP40 |
| Motor bearing | Ball bearing | Ball bearing | Ball bearing |

GENERAL DATA

| Ambient temperature | -10 to 40 °C | -10 to 40 °C | -10 to 40 °C |
|-----------------------|--------------|--------------|--------------|
| Weight | 0.6 kg | 0.6 kg | 0.7 kg |
| Direction of rotation | cw | cw | cw |

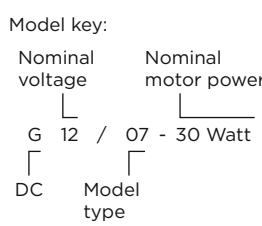
Pumps include tube connector (2x) G 1/8 to tube I.D. 6 mm, mounting bracket and filter (2x).
All listed values are measured at standard atmospheric conditions.

FLOW CURVES



CURRENT CONSUMPTION

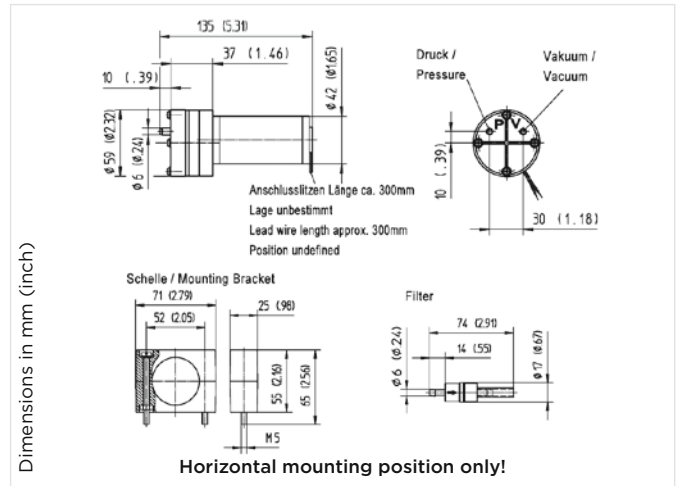
Min.: at open flow
Max.: at max. intermittent operation



50... Stock programme

Rotary Vane Pump G 08

| | |
|---------------|------------|
| Flow | 15.5 l/min |
| Max. pressure | 1.4 bar |
| Max. vacuum | 83 % |



PNEUMATIC DATA

| Description | G 12/08-30 Watt | G 24/08-30 Watt | G 24/08-30 Watt rev. |
|----------------------------|-----------------|-----------------|----------------------|
| Part number | 50325 | 50358 | 50360 |
| Max. flow | 15.5 l/min | 15.5 l/min | 15.5 l/min |
| Max. intermittent pressure | 1.2 bar | 1.4 bar | 1.2 bar |
| Max. continuous pressure | 0.3 bar | 0.3 bar | 0.3 bar |
| Max. intermittent vacuum | 80 % | 83 % | 74 % |
| Max. continuous vacuum | 30 % | 30 % | 30 % |

ELECTRICAL DATA

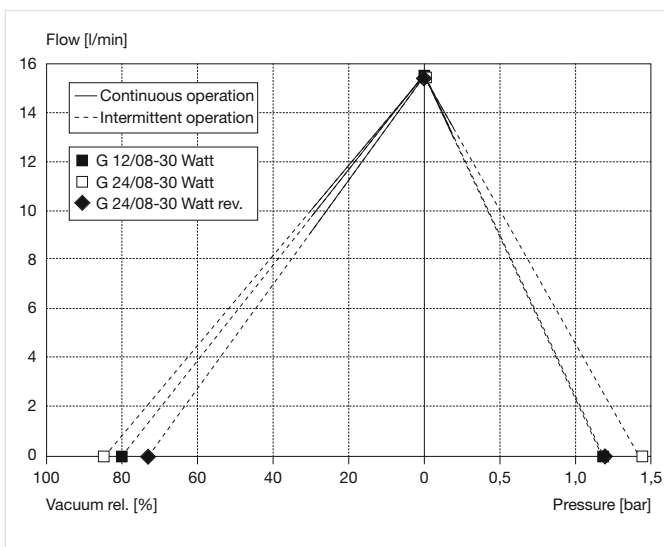
| Motor type | Permanent magnet | Permanent magnet | Permanent magnet |
|--------------------------|------------------|------------------|------------------|
| Nominal voltage | 12 V DC | 24 V DC | 24 V DC |
| Min. current consumption | 1.5 A | 0.8 A | 0.6 A |
| Max. current consumption | 3.2 A | 1.6 A | 1.8 A |
| Protection class | IP40 | IP40 | IP40 |
| Motor bearing | Ball bearing | Ball bearing | Ball bearing |

GENERAL DATA

| Ambient temperature | -10 to 40 °C | -10 to 40 °C | -10 to 40 °C |
|-----------------------|--------------|--------------|--------------|
| Weight | 0.75 kg | 0.75 kg | 0.75 kg |
| Direction of rotation | cw | cw | cw/ccw |

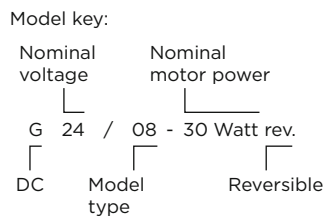
Pumps include mounting bracket and filter.
All listed values are measured at standard atmospheric conditions.

FLOW CURVES



CURRENT CONSUMPTION

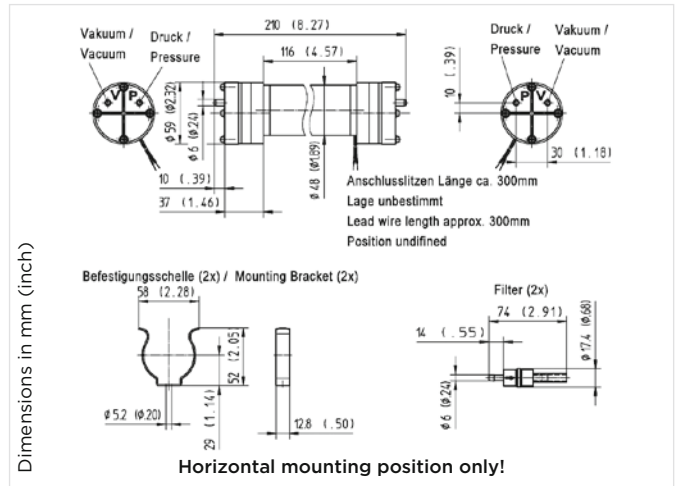
Min.: at open flow
Max.: at max. intermittent operation



503... Stock programme

Rotary Vane Pump G 08-T

| | |
|----------------------|-----------------|
| Flow | 36 l/min |
| Max. pressure | 1.4 bar |
| Max. vacuum | 93 % |



PNEUMATIC DATA

| Description | G 12/08-T | G 12/08-T | G 24/08-T | G 24/08-T |
|----------------------------|---------------------|-----------------------|---------------------|-----------------------|
| Part number | 50241 | 50241 | 50238 | 50238 |
| | connected in series | connected in parallel | connected in series | connected in parallel |
| Max. flow | 17 l/min | 33 l/min | 19 l/min | 36 l/min |
| Max. intermittent pressure | | 1.4 bar | | 1.4 bar |
| Max. intermittent vacuum | 93 % | 84 % | 93 % | 84 % |

ELECTRICAL DATA

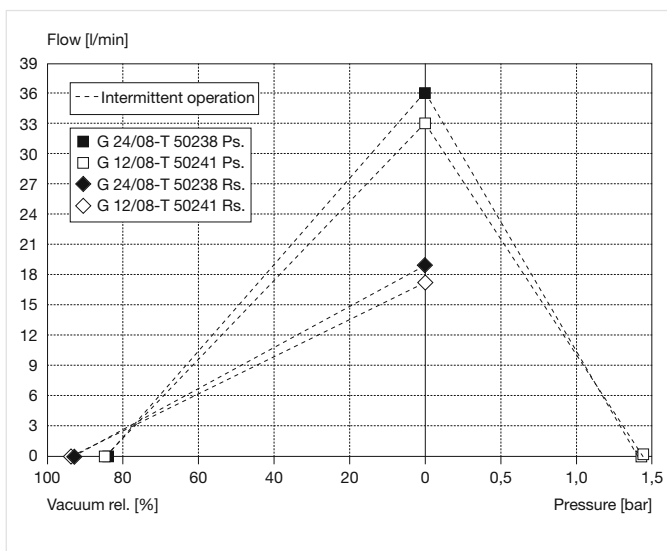
| Motor type | Permanent magnet | Permanent magnet | Permanent magnet | Permanent magnet |
|--------------------------|------------------|------------------|------------------|------------------|
| Nominal voltage | 12 V DC | 12 V DC | 24 V DC | 24 V DC |
| Min. current consumption | 4.0 A | 4.0 A | 2.0 A | 2.0 A |
| Max. current consumption | 5.0 A | 8.0 A | 2.5 A | 4.0 A |
| Protection class | IP40 | IP40 | IP40 | IP40 |
| Motor bearing | Ball bearing | Ball bearing | Ball bearing | Ball bearing |

GENERAL DATA

| Ambient temperature | -10 to 40 °C | -10 to 40 °C | -10 to 40 °C | -10 to 40 °C |
|-----------------------|--------------|--------------|--------------|--------------|
| Weight | 1.3 kg | 1.3 kg | 1.3 kg | 1.3 kg |
| Direction of rotation | cw | cw | cw | cw |

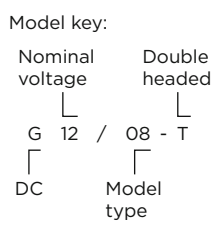
Pumps include mounting bracket (2x) and filter (2x).
 These pumps are **not** suitable for continuous operation.
 All listed values are measured at standard atmospheric conditions.

FLOW CURVES



CURRENT CONSUMPTION

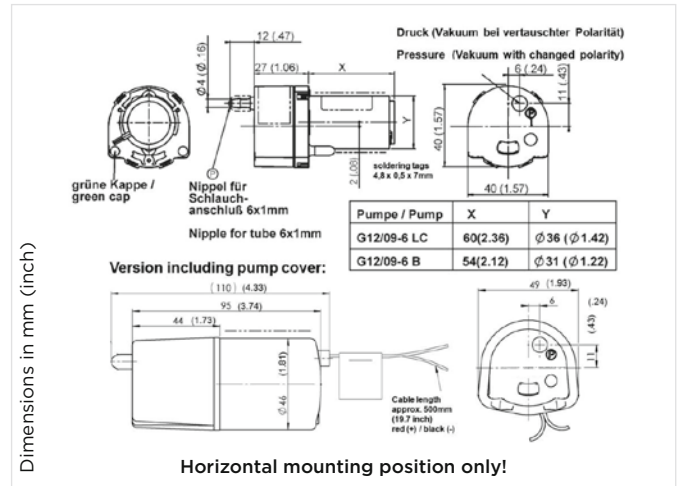
Min.: at open flow
 Max.: at max. intermittent operation



50... Stock programme

Rotary Vane Pump G 09

| | |
|---------------|----------|
| Flow | 11 l/min |
| Max. pressure | 370 mbar |
| Max. vacuum | 35 % |



PNEUMATIC DATA

| Description | G 12/09-6 B | G 12/09-6 LC | G 24/09-6 LC |
|----------------------------|-------------|----------------------------------|----------------------------------|
| Part number | 50330 | 50555/50556 ¹⁾ | 50554/50552 ¹⁾ |
| Max. flow | 11.0 l/min | 9.0 l/min | 9.0 l/min |
| Max. intermittent pressure | 370 mbar | 350 mbar | 350 mbar |
| Max. continuous pressure | 200 mbar | 150 mbar | 150 mbar |
| Max. intermittent vacuum | 32 % | 35 % | 35 % |
| Max. continuous vacuum | 20 % | 15 % | 15 % |

ELECTRICAL DATA

| Motor type | Permanent magnet | Permanent magnet | Permanent magnet |
|--------------------------|------------------|-----------------------------|-----------------------------|
| Nominal voltage | 12 V DC | 12 V DC | 24 V DC |
| Min. current consumption | 0.7 A | 0.7 A | 0.4 A |
| Max. current consumption | 1.8 A | 2.2 A | 1.3 A |
| Protection class | IP30 | IP20 | IP20 |
| Motor bearing | Ball bearing | Ball bearing/Sleeve bearing | Ball bearing/Sleeve bearing |

GENERAL DATA

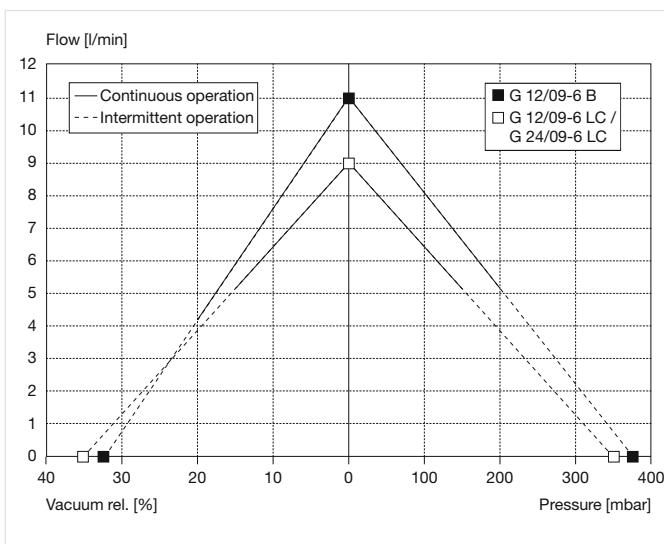
| Ambient temperature | -20 to 50 °C | -20 to 50 °C | -20 to 50 °C |
|-----------------------|--------------|--------------|--------------|
| Weight | 0.24 kg | 0.30 kg | 0.30 kg |
| Direction of rotation | cw/ccw | cw/ccw | cw/ccw |

ACCESSORIES

| Optional mounting bracket (part number) | 31947 | 31911/31914 | 31911/31914 |
|---|-------|-------------|-------------|
|---|-------|-------------|-------------|

¹⁾ Pump including EPDM-cover for sound reduction.
All listed values are measured at standard atmospheric conditions.
For vacuum operation: change electrical polarity.
For noise reduction: do not remove green cap. To optimise flow: remove green cap.
Mounting on motor body only. Do not allow force on pump head.

FLOW CURVES



CURRENT CONSUMPTION

50... Stock programme

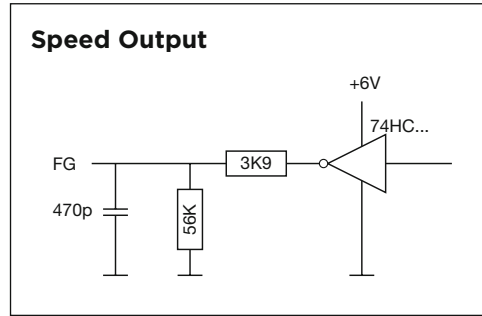
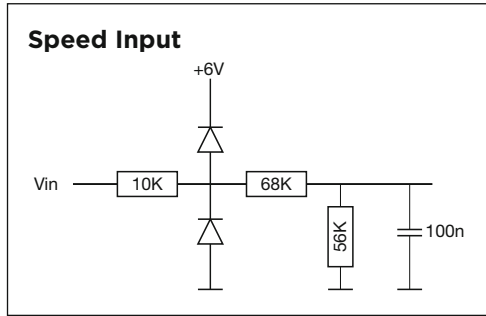
Min.: at open flow
Max.: at max. intermittent operation

Model key:

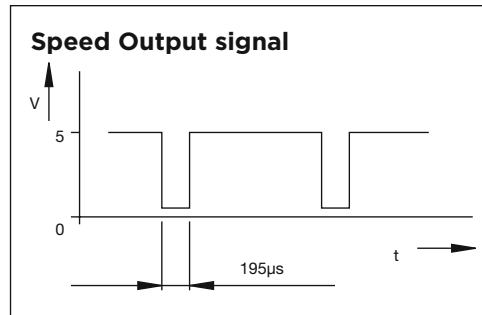
Nominal voltage: G 12 / DC
Number of vanes: 09 - 6 LC
Model type: LC = Low-cost motor, B = Standard motor

Wiring diagram (Brushless DC motor)

| | Function | Colour | Control |
|-------|---------------|--------|---|
| Pin 1 | V Supply | Red | 12 V DC (max. voltage range: 10..18 V DC) 24 V DC (max. voltage range: 10..28 V DC) |
| Pin 2 | Ground | Black | Ground for V supply (PIN 1) and Speed Control (PIN 3) |
| Pin 3 | Speed Control | White | analog: 0..5 V DC (max. 28V) PWM: 6..20 kHz - 14..96% Speed voltage input threshold: 0.2 V |
| Pin 4 | Tacho out | Green | 18 pulses per revolution Pulse time „LOW“: 195 μ s Output level „LOW“: 0 / max. 0.5 V Output level „HIGH“: min. 4 V / max. 5 V |



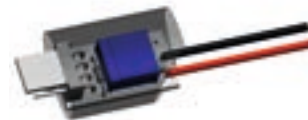
Optional: Adapter for 2-wire duty incl. potentiometer for speed adjustment



Options / Accessories

P/N 29011932 **Adapter for BLDC motor**
4-2 wire w/ manual speed control
12 V DC “red”

P/N 29011933 **Adapter for BLDC motor**
4-2 wire w/ manual speed control
24 V DC “black”



PUMP AND COMPRESSOR SOLUTIONS FOR OEMS WORLDWIDE

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