ROTARY VANE

Rotary Vane Pumps
Miniature Series

OIL-LESS

PRODUCT FEATURES

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

TYPICAL APPLICATIONS

- Automotive
- Medical
- Analysis
- Automation
- Fuell Cell

TÜV SÜD ISO 9001

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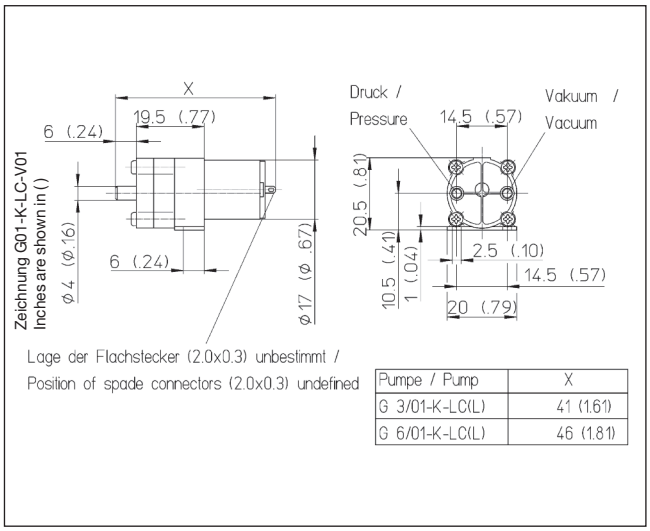
Rotary Vane Vacuum and Pressure Pumps

Product Overview

Model	Flow	Max. pressure	Max. vacuum	Page
G 01-K-LC	2,2 l/min	80 mbar	7 %	**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**
BL-G 01-4	1,0 l/min	135 mbar	13 %	**7**
G 02 EB	3,6 l/min	190 mbar	19 %	**8**
G 02-4 EB	3,7 l/min	310 mbar	31 %	**9**
G 02-8	2,7 l/min	500 mbar	45 %	**10**
BL-G 02-4	2,4 l/min	200 mbar	22 %	**11**
G 04 EB	6,8 l/min	150 mbar	16 %	**12**
G 04-4 EB	5,1 l/min	240 mbar	26 %	**13**
G 04-8	4,4 l/min	260 mbar	25 %	**14**
G 045-LC	7,5 l/min	900 mbar	63 %	**15**
G 045	6,1 l/min	750 mbar	70 %	**16**
G 07	21 l/min	1400 mbar	77 %	**17**
G 07-N	23 l/min	1100 mbar	80 %	**18**
G 08	15,5 l/min	1400 mbar	83 %	**19**
G 08-T	36 l/min	1400 mbar	93 %	**20**
BL-G 085 M	8,5 l/min	450 mbar	50 %	**21**
G 09	11 l/min	370 mbar	35 %	**22**

Rotary Vane Pump G 01-K-LC

Flow	**2,2 l/min**
Max. pressure	**80 mbar**
Max. vacuum	**7 %**



Pumpe / Pump	X
G 3/01-K-LC(L)	41 (1.61)
G 6/01-K-LC(L)	46 (1.81)

Pneumatic Data

Description	G 6/01-K-LCL	G 6/01-K-LC
Part number	50027	50017
Max. flow	2,0 l/min	2,2 l/min
Max. intermittent pressure	60 mbar	80 mbar
Max. continuous pressure	25 mbar	25 mbar
Max. intermittent vacuum	6 %	7 %
Max. continuous vacuum	2,5 %	2,5 %

Electrical Data

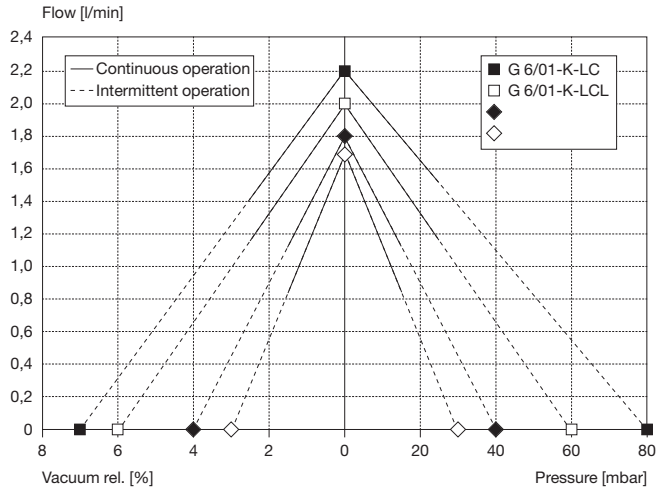
Motor type	Permanent magnet	Permanent magnet
Nominal voltage*	6 V DC	6 V DC
Min. current consumption	0,17 A	0,18 A
Max. current consumption	0,23 A	0,27 A
Protection class	IP40	IP40
Motor bearing	Sleeve bearing	Sleeve bearing

General Data

Ambient temperature	0 to 40 °C	0 to 40 °C
Weight	0,03 kg	0,03 kg
Direction of rotation	cw/ccw	cw/ccw

* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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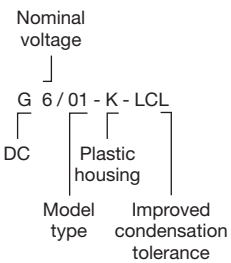

500... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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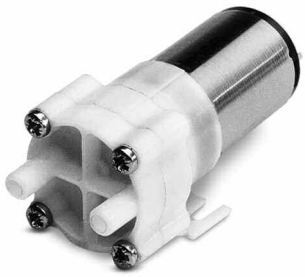
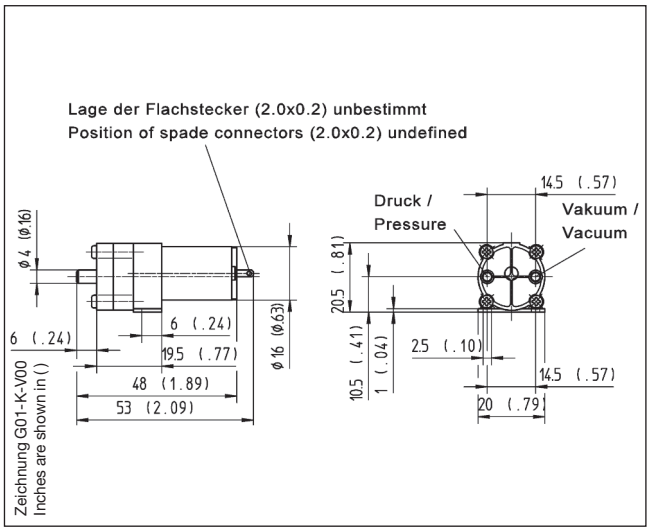
Rotary Vane Pump G 01-K-EB

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	1,3 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	10 mbar	10 mbar
Max. intermittent vacuum	2 %	2,8 %	4 %	1,8 %
Max. continuous vacuum	1 %	1 %	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	60 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

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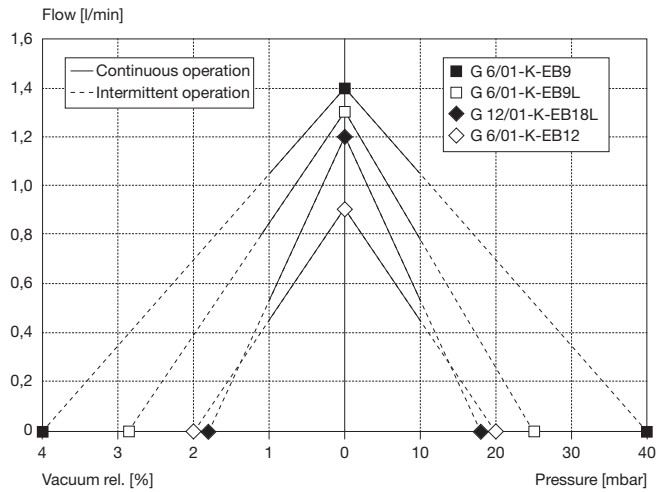
Flow Curves



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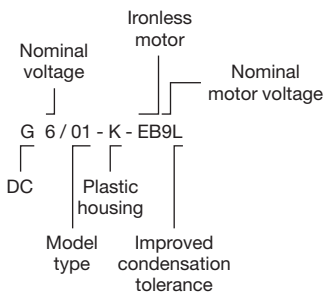

50... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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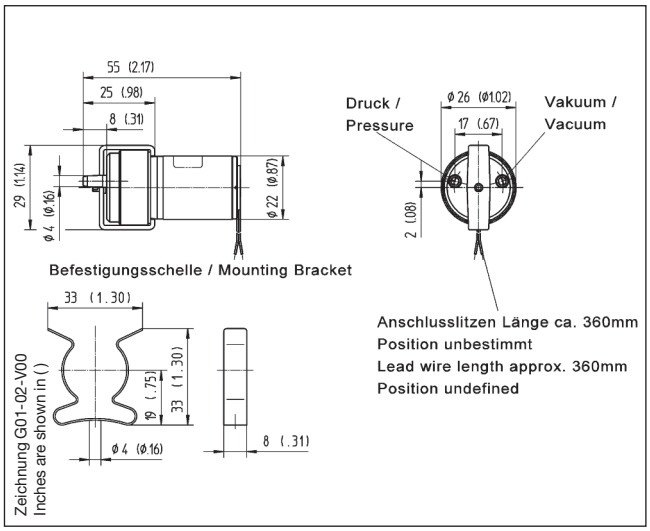
Rotary Vane Pump G 01 EB

Flow	**1,6 l/min**
Max. pressure	**180 mbar**
Max. vacuum	**20 %**



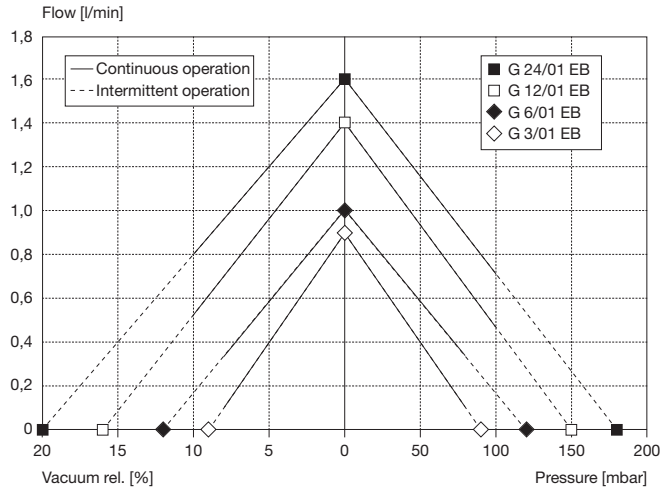
Pneumatic Data				
Description	G 3/01 EB	G 6/01 EB	G 12/01 EB	G 24/01 EB
Part number	50083	50081	50096	50099
Max. flow	0,9 l/min	1,0 l/min	1,4 l/min	1,6 l/min
Max. intermittent pressure	90 mbar	120 mbar	150 mbar	180 mbar
Max. continuous pressure	80 mbar	80 mbar	100 mbar	100 mbar
Max. intermittent vacuum	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.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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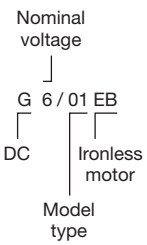

500... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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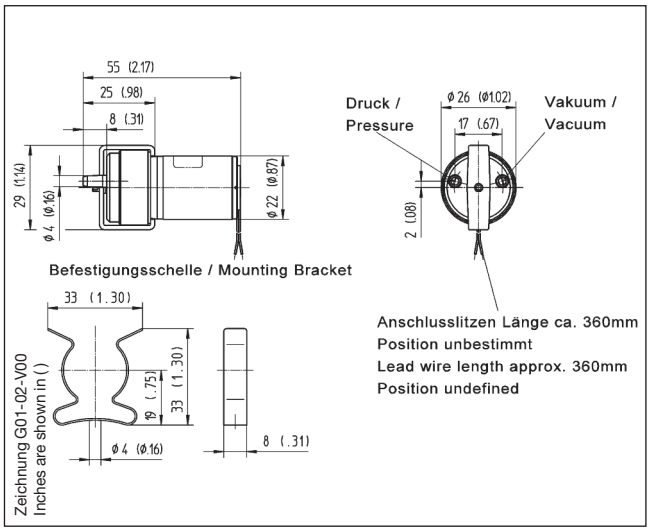
Rotary Vane Pump G 01-4-EB

Flow	**1,4 l/min**
Max. pressure	**280 mbar**
Max. vacuum	**29 %**



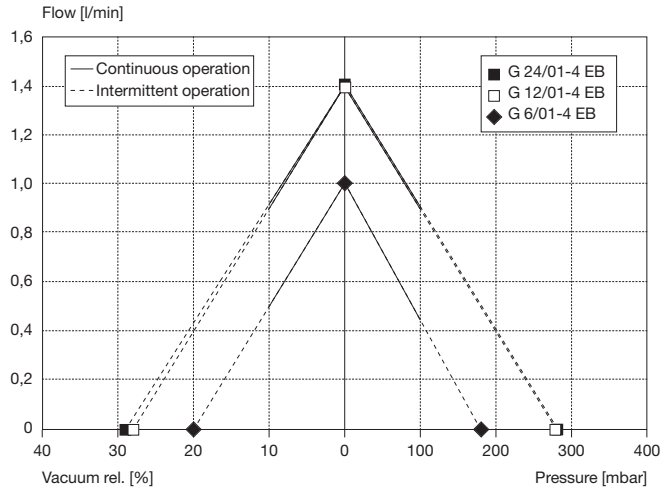
Pneumatic Data			
Description	G 6/01-4 EB	G 12/01-4 EB	G 24/01-4 EB
Part number	50088	50090	50092
Max. flow	1,0 l/min	1,4 l/min	1,4 l/min
Max. intermittent pressure	180 mbar	280 mbar	280 mbar
Max. continuous pressure	100 mbar	100 mbar	100 mbar
Max. intermittent vacuum	20 %	28 %	29 %
Max. continuous vacuum	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	0,10 A	0,11 A	0,06 A
Max. current consumption	0,32 A	0,31 A	0,17 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.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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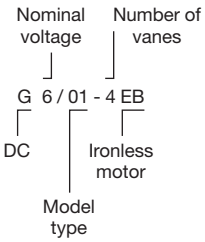

500... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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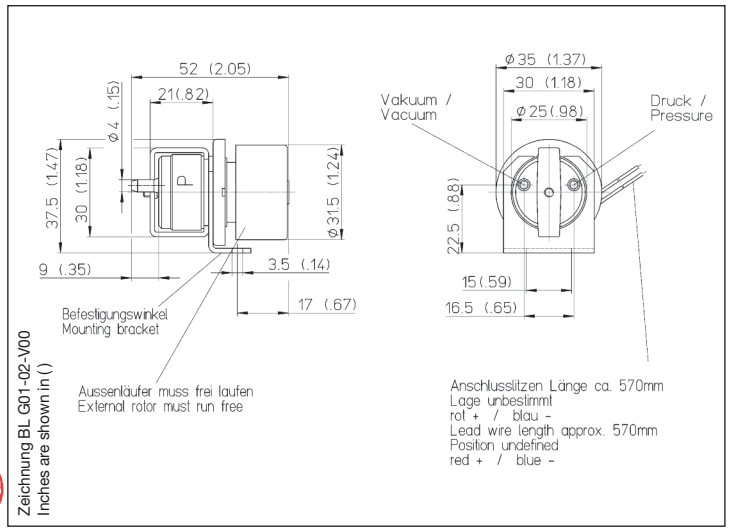
Rotary Vane Pump BL-G 01-4

Flow	**1,0 l/min**
Max. pressure	**135 mbar**
Max. vacuum	**13 %**



OIL-LESS

Pneumatic Data

Description	BL-G 12/01-4
Part number	50130
Max. flow	1,0 l/min
Max. intermittent pressure	135 mbar
Max. continuous pressure	100 mbar
Max. intermittent vacuum	13 %
Max. continuous vacuum	10 %

Electrical Data

Motor type*	Brushless DC
Nominal voltage	12 V DC
Min. current consumption	0,19 A
Max. current consumption	0,22 A
Protection class	IP00
Motor bearing	Ball bearing

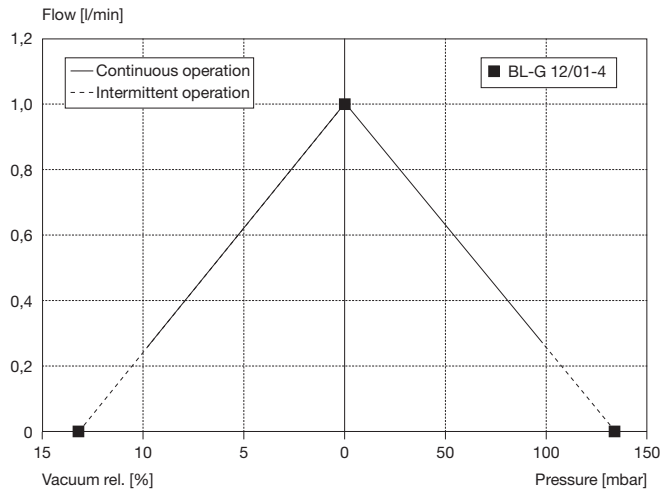
General Data

Ambient temperature	0 to 40 °C
Weight	0,1 kg
Direction of rotation	ccw

* with integrated electronics
All listed values are measured at standard atmospheric conditions.

Warning: reversing polarity will damage electronics.
Mounting on bracket only. Do not allow force on either motor or pump head. Motor bearing can be damaged.

Flow Curves



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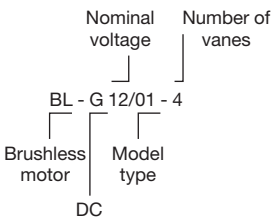

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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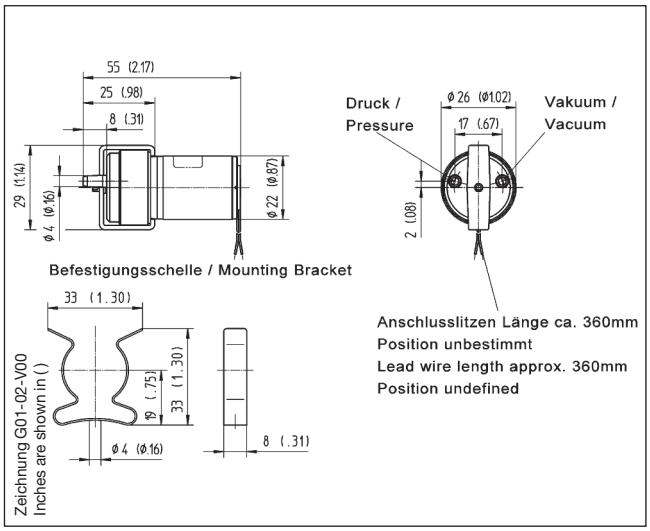
Rotary Vane Pump G 02 EB

Flow	**3,6 l/min**
Max. pressure	**190 mbar**
Max. vacuum	**19 %**



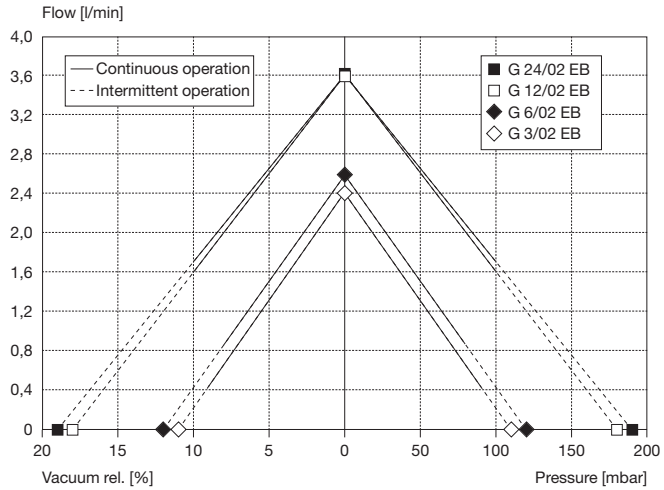
Pneumatic Data				
Description	G 3/02 EB	G 6/02 EB	G 12/02 EB	G 24/02 EB
Part number	50084	50103	50095	50098
Max. flow	2,4 l/min	2,6 l/min	3,6 l/min	3,6 l/min
Max. intermittent pressure	110 mbar	120 mbar	180 mbar	190 mbar
Max. continuous pressure	90 mbar	80 mbar	100 mbar	100 mbar
Max. intermittent vacuum	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.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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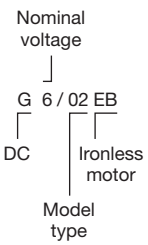

50... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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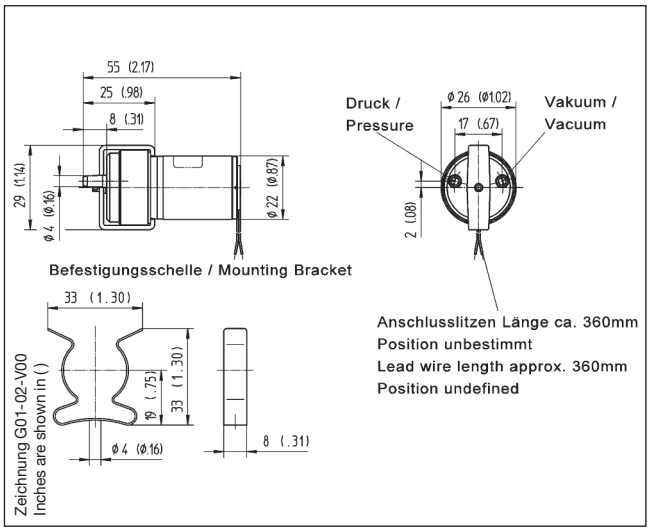
Rotary Vane Pump G 02-4 EB

Flow	**3,7 l/min**
Max. pressure	**310 mbar**
Max. vacuum	**31 %**



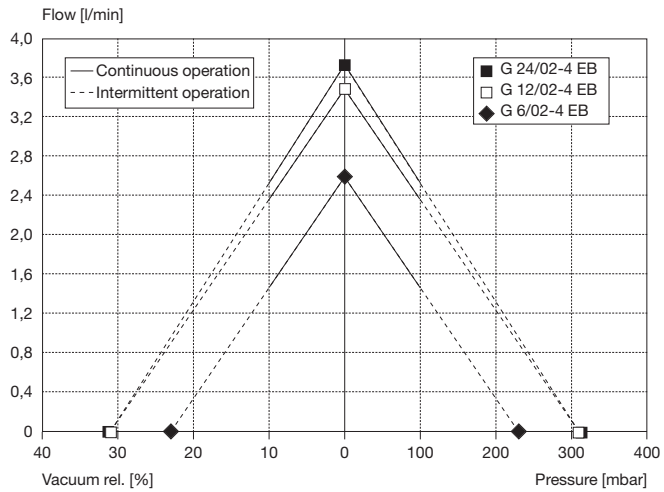
Pneumatic Data			
Description	G 6/02-4 EB	G 12/02-4 EB	G 24/02-4 EB
Part number	50089	50091	50093
Max. flow	2,6 l/min	3,5 l/min	3,7 l/min
Max. intermittent pressure	230 mbar	310 mbar	310 mbar
Max. continuous pressure	100 mbar	100 mbar	100 mbar
Max. intermittent vacuum	23 %	31 %	31 %
Max. continuous vacuum	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.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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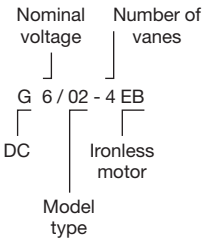

500... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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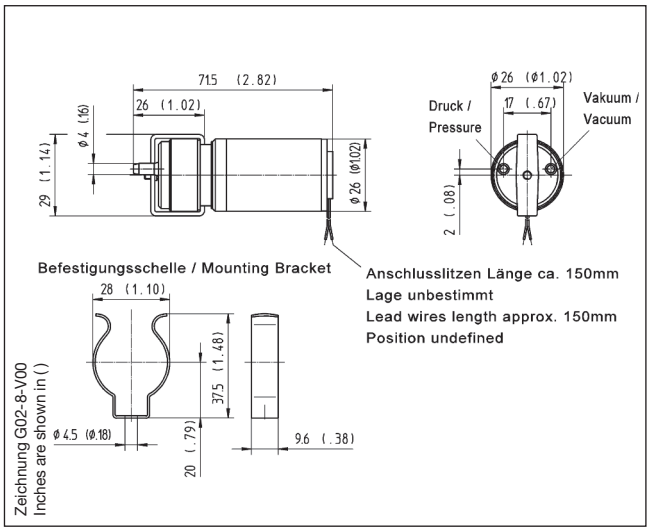
Rotary Vane Pump G 02-8

Flow	**2,7 l/min**
Max. pressure	**500 mbar**
Max. vacuum	**45 %**



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	500 mbar	500 mbar
Max. continuous pressure	200 mbar	200 mbar
Max. intermittent vacuum	45 %	45 %
Max. continuous vacuum	20 %	20 %

Electrical Data

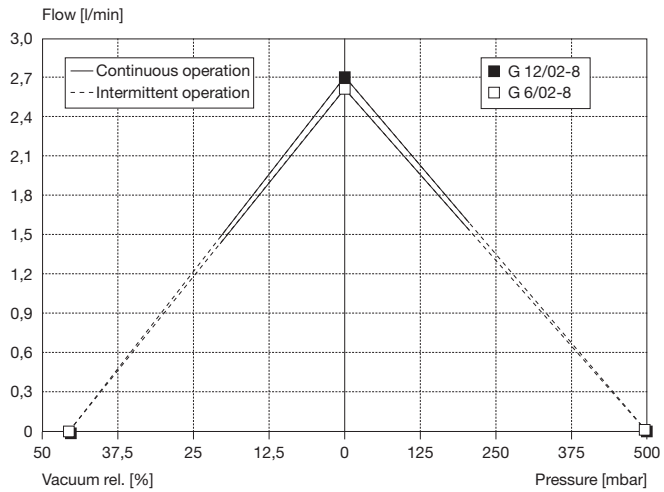
Motor type	Ironless Core DC	Ironless Core DC
Nominal voltage*	6 V DC	12 V DC
Min. current consumption	0,23 A	0,11 A
Max. current consumption	0,70 A	0,32 A
Protection class	IP50	IP50
Motor bearing	Ball bearing	Ball bearing

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.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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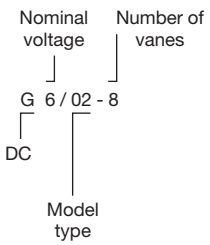

501... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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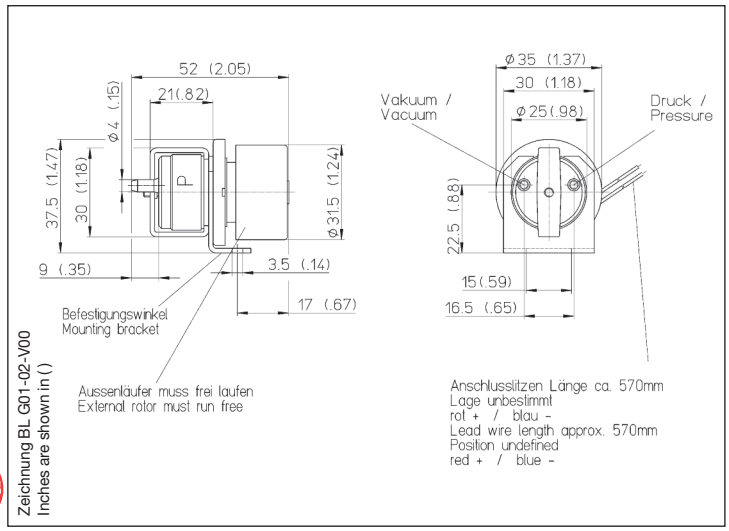
THOMAS
A Gardner Denver Product

Rotary Vane Pump BL-G 02-4

Flow	**2,4 l/min**
Max. pressure	**200 mbar**
Max. vacuum	**22 %**



OIL-LESS

Pneumatic Data

Description	BL-G 12/02-4
Part number	50149
Max. flow	2,4 l/min
Max. intermittent pressure	200 mbar
Max. continuous pressure	100 mbar
Max. intermittent vacuum	22 %
Max. continuous vacuum	10 %

Electrical Data

Motor type*	Brushless DC
Nominal voltage	12 V DC
Min. current consumption	0,22 A
Max. current consumption	0,34 A
Protection class	IP00
Motor bearing	Ball bearing

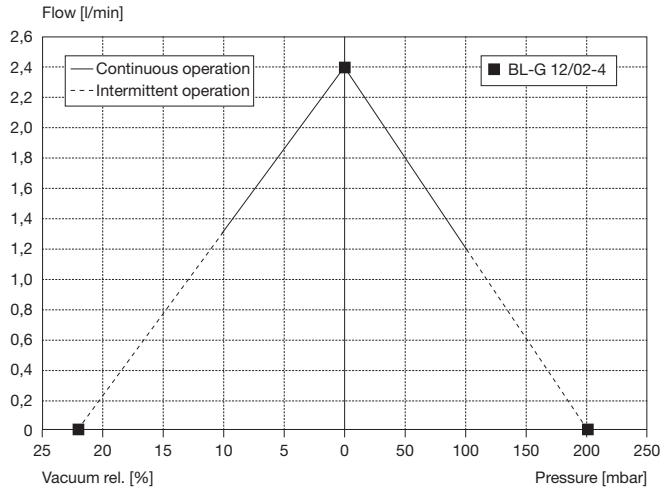
General Data

Ambient temperature	0 to 40 °C
Weight	0,1 kg
Direction of rotation	ccw

* with integrated electronics
All listed values are measured at standard atmospheric conditions.

Warning: reversing polarity will damage electronics.
Mounting on bracket only. Do not allow force on either motor or pump head. Motor bearing can be damaged.

Flow Curves



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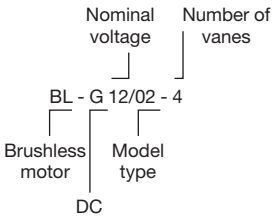

501... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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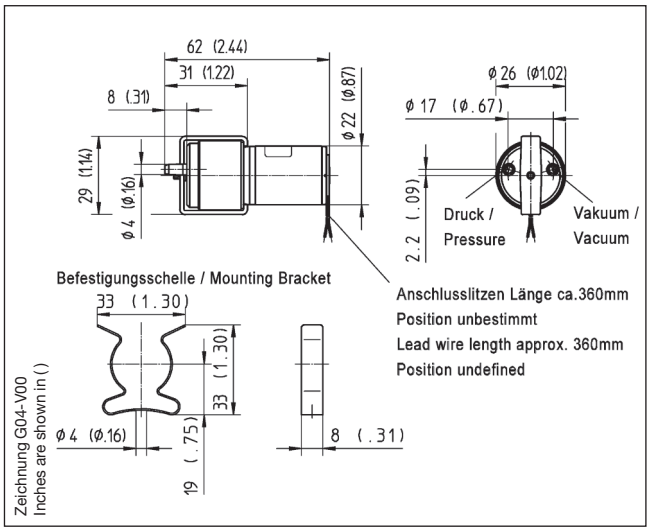
THOMAS
A Gardner Denver Product

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

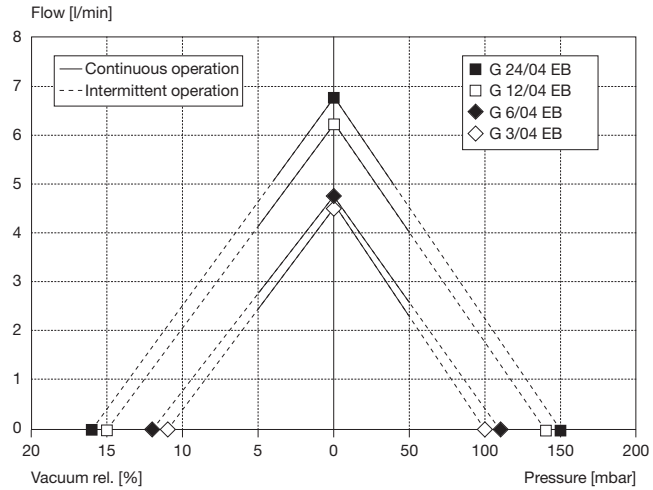
Motor type	Ironless Core DC	Ironless Core DC	Ironless Core DC	Ironless Core DC
Nominal voltage*	3 V DC	6 V DC	12 V DC	24 V DC
Min. current consumption	0,26 A	0,16 A	0,18 A	0,11 A
Max. current consumption	0,80 A	0,48 A	0,47 A	0,26 A
Protection class	IP50	IP50	IP50	IP50
Motor bearing	Ball bearing/Sleeve 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.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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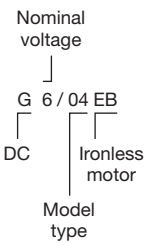

50... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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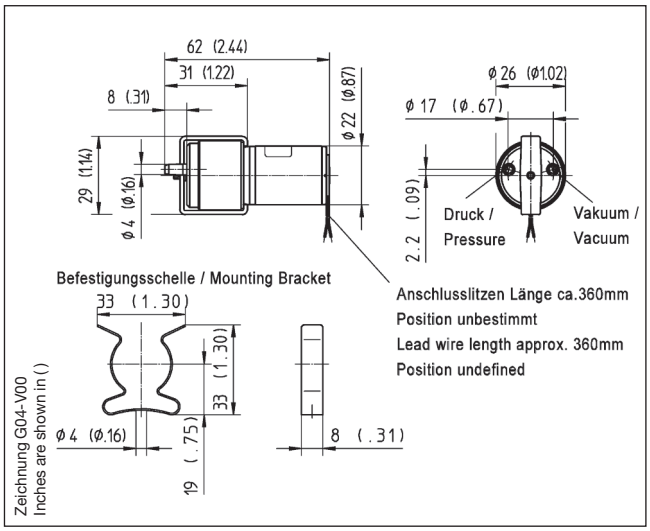
THOMAS
A Gardner Denver Product

Rotary Vane Pump G 04-4-EB

Flow	**5,1 l/min**
Max. pressure	**240 mbar**
Max. vacuum	**26 %**



Pneumatic Data

Description	G 6/04-4 EB	G 12/04-4 EB
Part number	50101	50100
Max. flow	4,0 l/min	5,1 l/min
Max. intermittent pressure	200 mbar	240 mbar
Max. continuous pressure	50 mbar	50 mbar
Max. intermittent vacuum	21 %	26 %
Max. continuous vacuum	50 %	5 %

Electrical Data

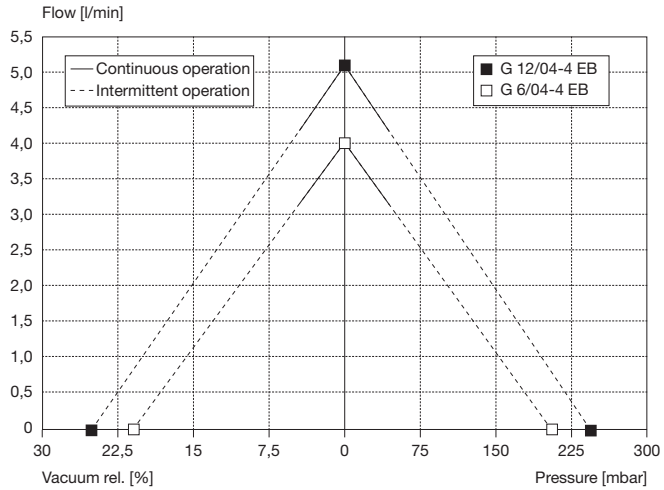
Motor type	Ironless Core DC	Ironless Core DC
Nominal voltage*	6 V DC	12 V DC
Min. current consumption	0,30 A	0,29 A
Max. current consumption	0,85 A	0,70 A
Protection class	IP50	IP50
Motor bearing	Ball bearing/Sleeve bearing	Ball bearing/Sleeve bearing

General Data

Ambient temperature	-30 to 50 °C	-30 to 50 °C
Weight	0,1 kg	0,1 kg
Direction of rotation	cw/ccw	cw/ccw

Pumps include mounting bracket.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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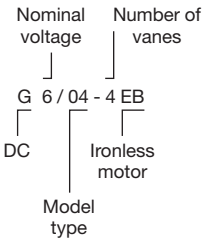

50... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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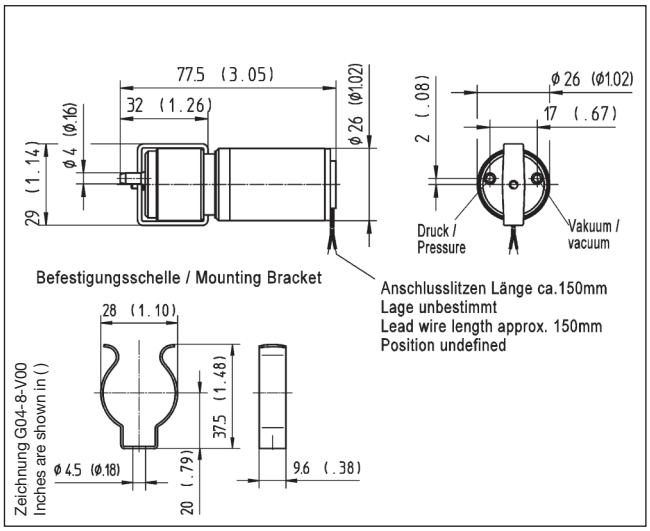
THOMAS
A Gardner Denver Product

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

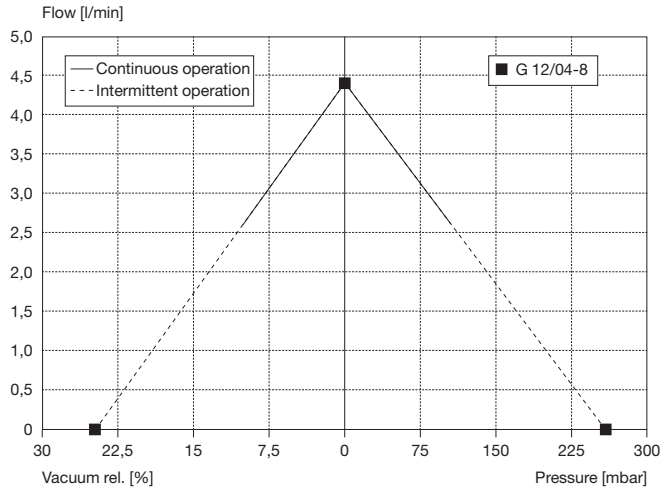
Motor type	Ironless Core DC
Nominal voltage*	12 V DC
Min. current consumption	0,21 A
Max. current consumption	0,51 A
Protection class	IP50
Motor bearing	Ball bearing

General Data

Ambient temperature	-30 to 50 °C
Weight	0,14 kg
Direction of rotation	cw/ccw

Pumps include mounting bracket.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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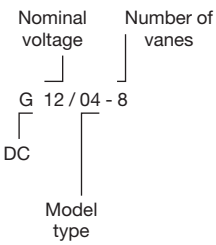

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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THOMAS
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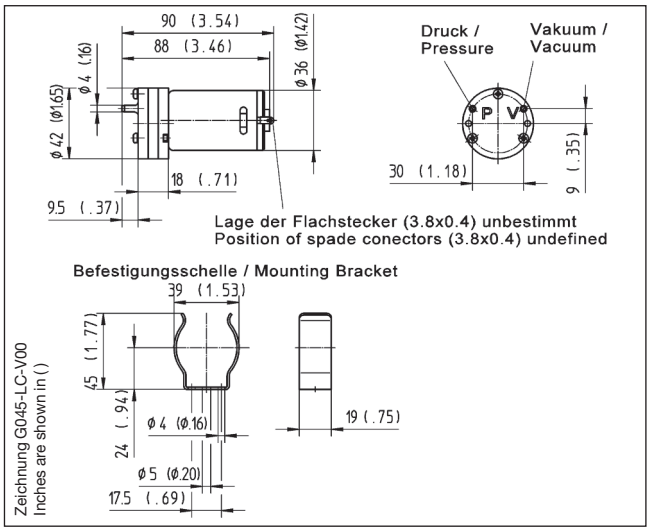
Rotary Vane Pump G 045-LC

Flow	**7,5 l/min**
Max. pressure	**900 mbar**
Max. vacuum	**63 %**



Pneumatic Data

Description	G 12/045-LC
Part number	50202
Max. flow	7,5 l/min
Max. intermittent pressure	900 mbar
Max. continuous pressure	100 mbar
Max. intermittent vacuum	63 %
Max. continuous vacuum	10 %

Electrical Data

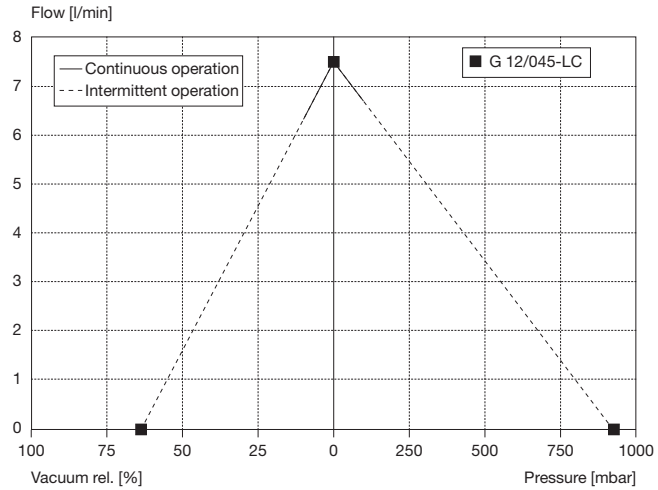
Motor type	Permanent magnet
Nominal voltage*	12 V DC
Min. current consumption	1,8 A
Max. current consumption	3,2 A
Protection class	IP20
Motor bearing	Sleeve bearing

General Data

Ambient temperature	-10 to 40 °C
Weight	0,25 kg
Direction of rotation	cw/ccw

Pumps include mounting bracket.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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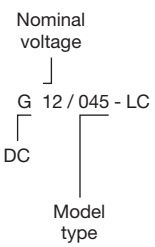

502... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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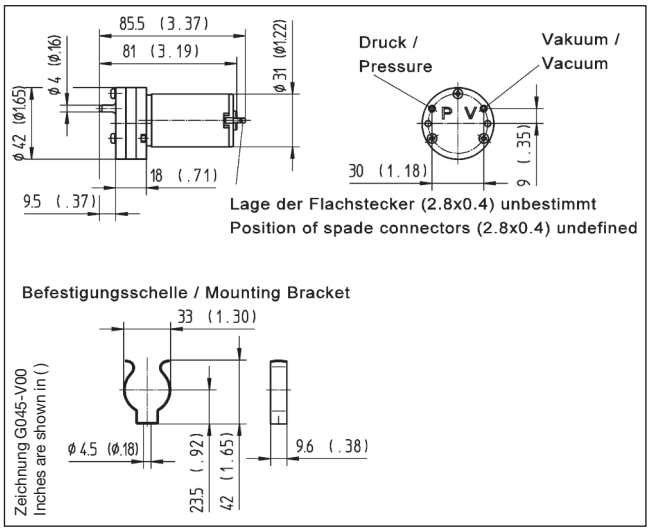
THOMAS
A Gardner Denver Product

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

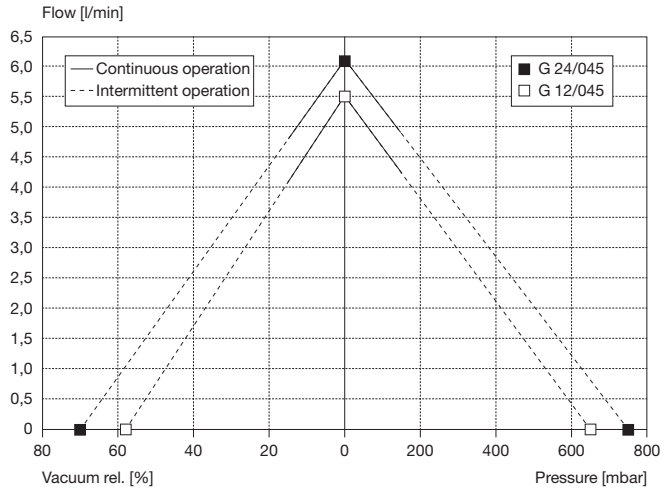
Motor type	Permanent magnet	Permanent magnet
Nominal voltage*	12 V DC	24 V DC
Min. current consumption	0,64 A	0,33 A
Max. current consumption	1,36 A	0,77 A
Protection class	IP30	IP30
Motor bearing	Ball bearing	Ball bearing

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.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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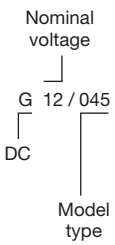

50... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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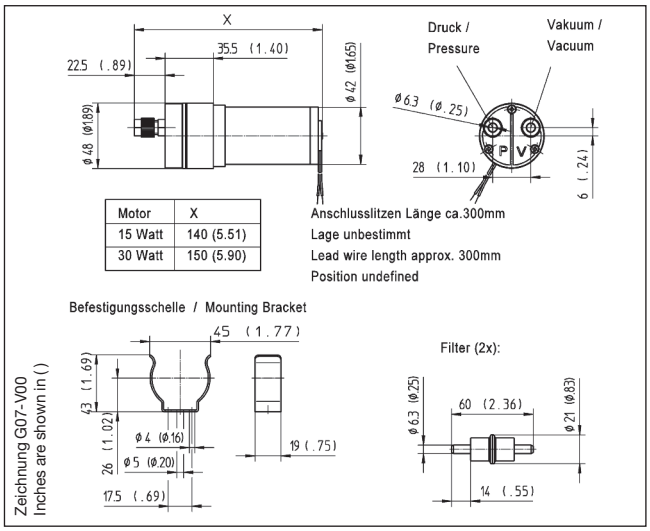
THOMAS
A Gardner Denver Product

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

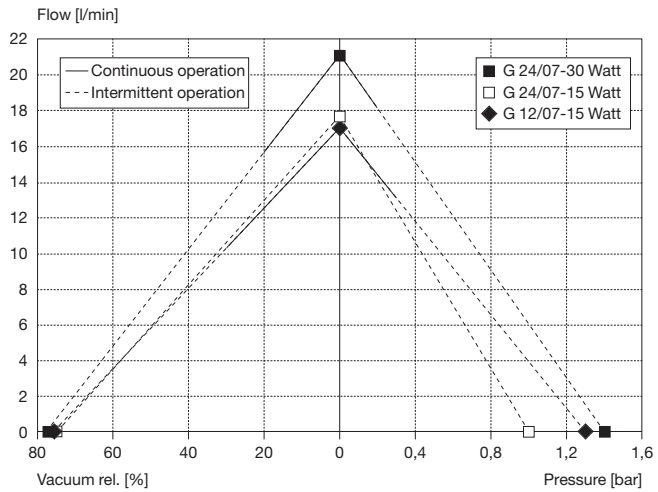
Motor type	Permanent magnet	Permanent magnet	Permanent magnet
Nominal voltage*	12 V DC	24 V DC	24 V DC
Min. current consumption	1,9 A	1,1 A	1,9 A
Max. current consumption	3,2 A	1,6 A	2,5 A
Protection class	IP40	IP40	IP40
Motor bearing	Ball bearing	Ball bearing	Ball bearing

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).
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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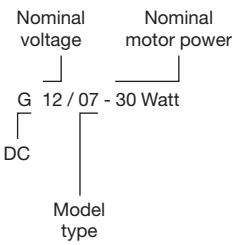

50... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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THOMAS
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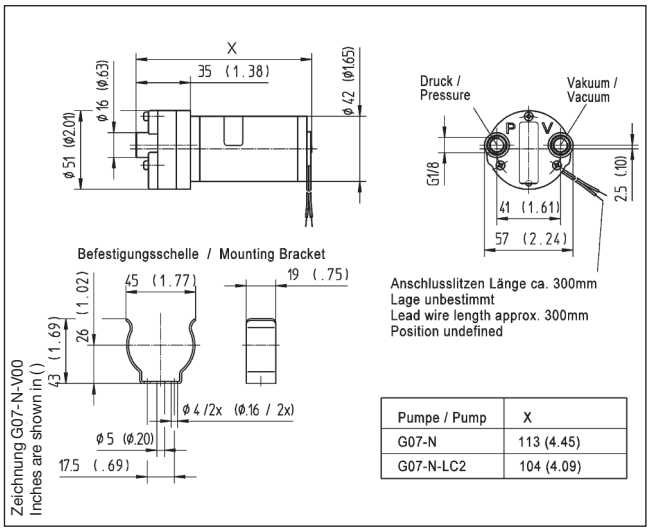
Rotary Vane Pump G 07-N

Flow	**23 l/min**
Max. pressure	**1,1 bar**
Max. vacuum	**80 %**



Pumpe / Pump	X
G07-N	113 (4.45)
G07-N-LC2	104 (4.09)

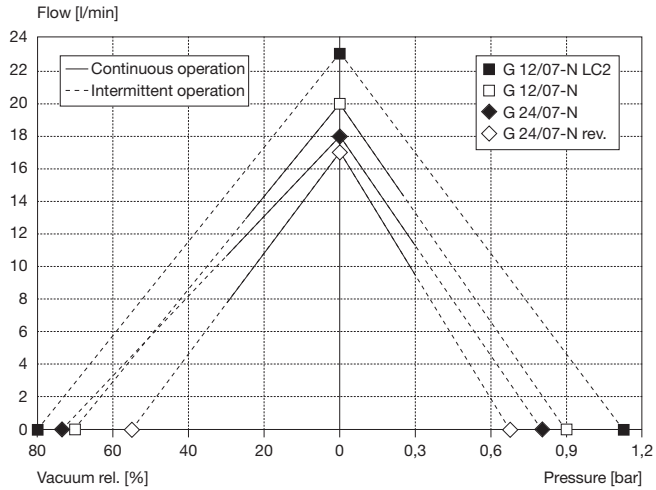
Pneumatic Data				
Description	G 12/07-N	G 24/07-N	G 24/07-N rev.	G 12/07-N LC2
Part number	50316	50311	50220	50300
Max. flow	20 l/min	18 l/min	17 l/min	23 l/min
Max. intermittent pressure	0,90 bar	0,80 bar	0,70 bar	1,10 bar
Max. continuous pressure	0,25 bar	0,30 bar	0,30 bar	
Max. intermittent vacuum	70 %	72 %	55 %	80 %
Max. continuous vacuum	25 %	30 %	30 %	

Electrical Data				
Motor type	Permanent magnet	Permanent magnet	Permanent magnet	Permanent magnet
Nominal voltage*	12 V DC	24 V DC	24 V DC	12 V DC
Min. current consumption	2,6 A	0,8 A	0,9 A	3,7 A
Max. current consumption	4,6 A	1,6 A	2,0 A	7,4 A
Protection class	IP40	IP40	IP40	IP20
Motor bearing	Ball bearing	Ball bearing	Ball bearing	Sleeve bearing

General Data				
Ambient temperature	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C	-10 to 40 °C
Weight	0,5 kg	0,5 kg	0,5 kg	0,4 kg
Direction of rotation	cw	cw	cw/ccw	cw

Pumps include mounting bracket.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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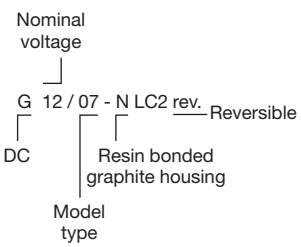

50... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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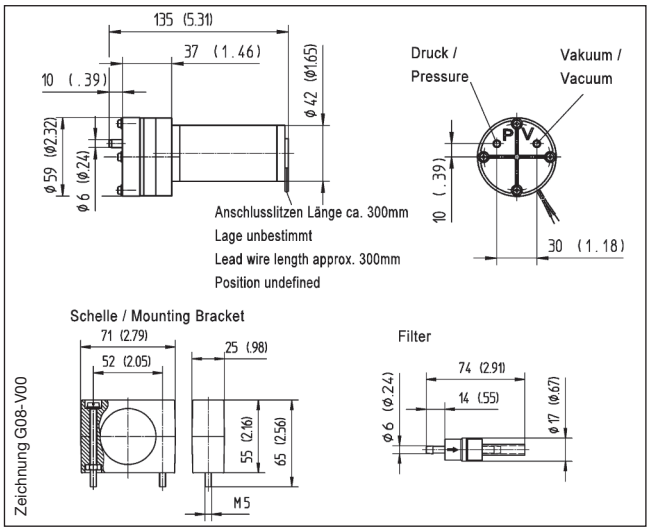
THOMAS
A Gardner Denver Product

Rotary Vane Pump G 08

Flow	**15,5 l/min**
Max. pressure	**1,4 bar**
Max. vacuum	**83 %**

OIL-LESS



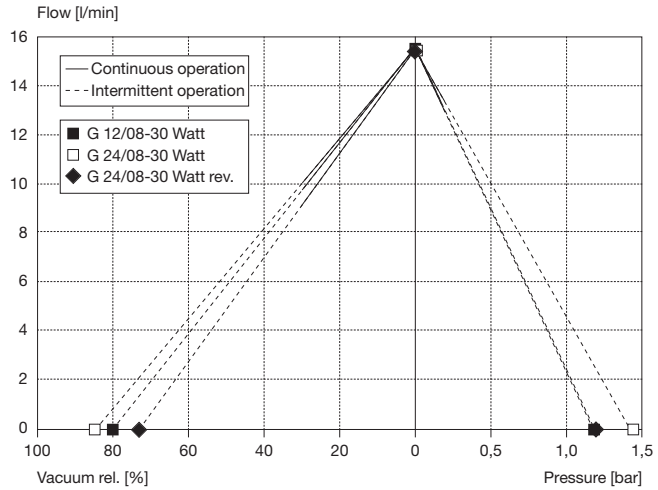
Pneumatic Data			
Description	G 12/08-30 Watt	G 24/08-30 Watt	G 24/08-30 Watt rev.
Part number	50325	50358	50360
Max. flow	15,5 l/min	15,5 l/min	15,5 l/min
Max. intermittent pressure	1,2 bar	1,4 bar	1,2 bar
Max. continuous pressure	0,3 bar	0,3 bar	0,3 bar
Max. intermittent vacuum	80 %	83 %	74 %
Max. 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.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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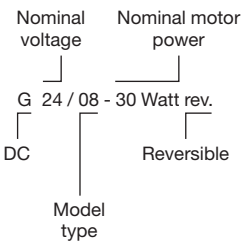

503... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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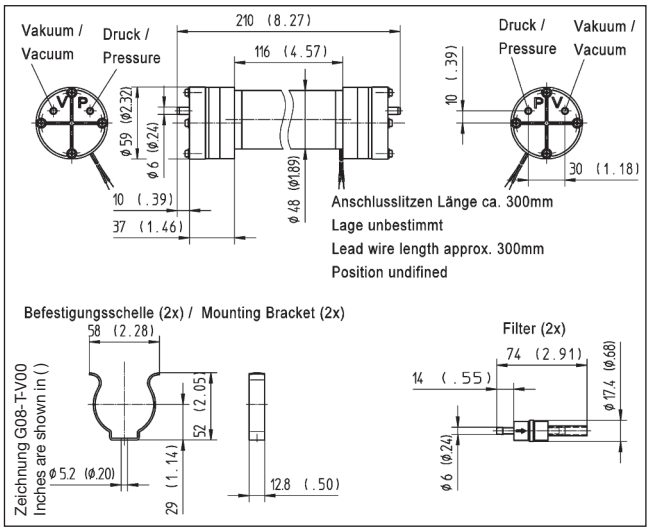
THOMAS
A Gardner Denver Product

Rotary Vane Pump G 08-T

Flow	**36 l/min**
Max. pressure	**1,4 bar**
Max. vacuum	**93 %**



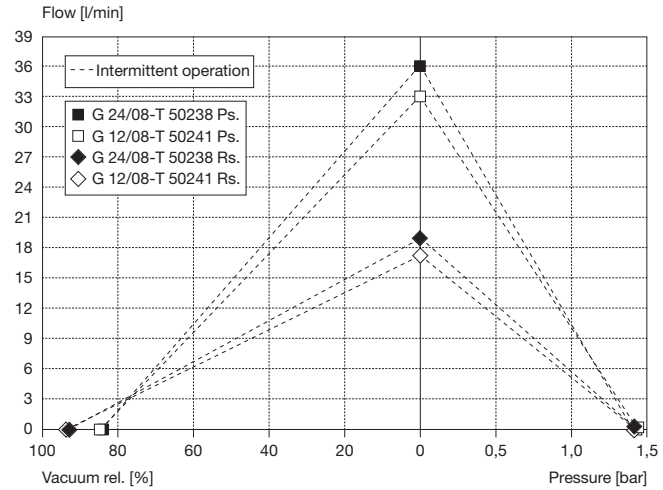
Pneumatic Data				
Description	G 12/08-T	G 12/08-T	G 24/08-T	G 24/08-T
Part number	50241	50241	50238	50238
	connected in series	connected in parallel	connected in series	connected in parallel
Max. flow	17 l/min	33 l/min	19 l/min	36 l/min
Max. intermittent pressure	1,4 bar	1,4 bar	1,4 bar	1,4 bar
Max. 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	3,2 A	3,2 A	1,9 A	1,9 A
Max. current consumption	5,0 A	6,2 A	2,5 A	3,6 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.
* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
All listed values are measured at standard atmospheric conditions.

Flow Curves



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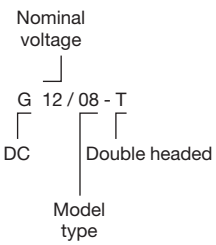

50... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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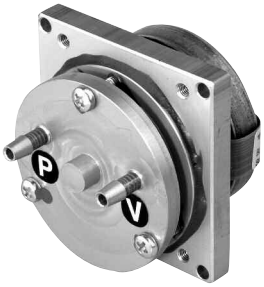
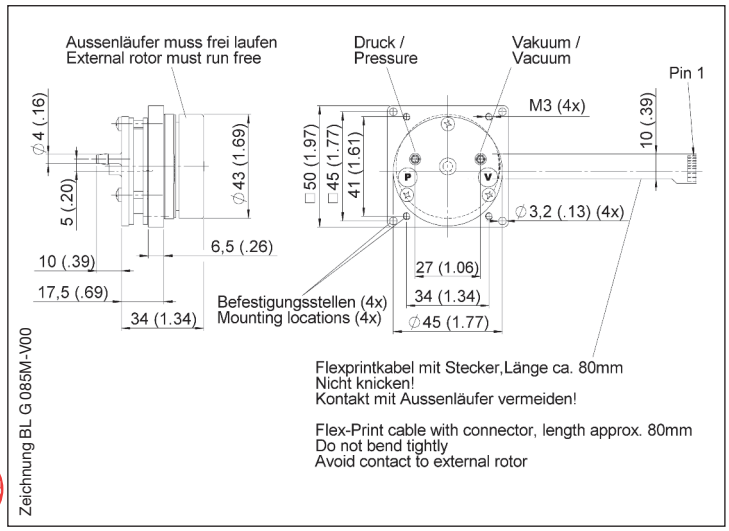
THOMAS
A Gardner Denver Product

Rotary Vane Pump BL-G 085 M

Flow	**8,5 l/min**
Max. pressure	**450 mbar**
Max. vacuum	**50 %**





OIL-LESS

Pneumatic Data

Description	BL-G 12/085 M
Part number	50209
Max. flow	8,5 l/min
Max. intermittent pressure	450 mbar
Max. continuous pressure	150 mbar
Max. intermittent vacuum	50 %
Max. continuous vacuum	15 %

Electrical Data

Motor type*	Brushless DC
Nominal voltage	12 V DC
Min. current consumption	0,7 A
Max. current consumption	2,0 A
Protection class	IP00
Motor bearing	Ball bearing
Electrical connection	Flex-Print connector, 11 poles, pitch 1,0 mm, top contact style

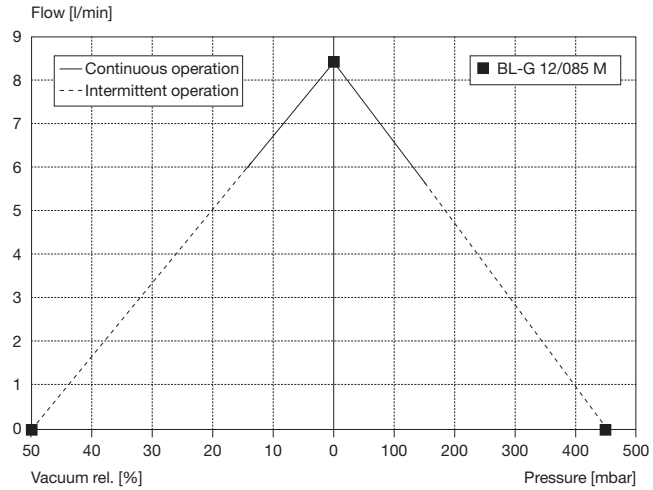
General Data

Ambient temperature	-40 to 60 °C
Weight	0,15 kg
Direction of rotation	cw/ccw

* without electronics
All listed values are measured at standard atmospheric conditions.
Please contact Thomas if further information regarding electrical connection and electronics is required.

Use provided mounting locations only. Do not allow force on either motor or pump head. Motor bearing can be damaged.

Flow Curves



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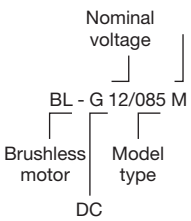

50210 Stock programme
Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

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Pin allocation:

Pin 1 4,5 - 18 VDC
Pin 2 Hall sensor 3
Pin 3 Hall sensor 1
Pin 4 Hall sensor 2
Pin 5 GND
Pin 6 Motor winding 3
Pin 7 Motor winding 2
Pin 8 Motor winding 1

Option:

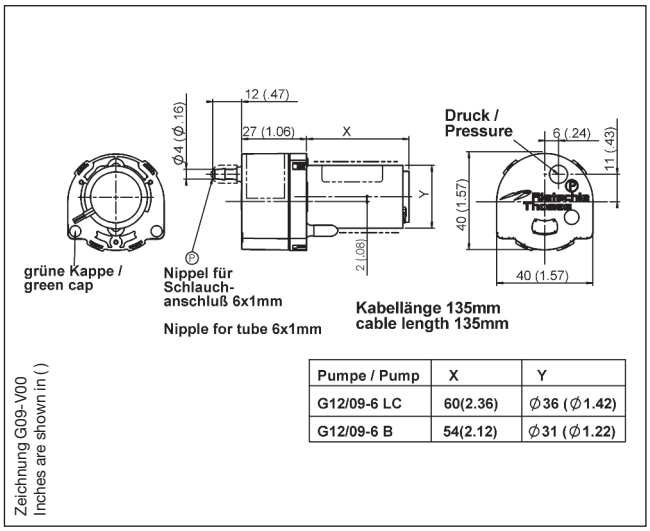
Adaptor for Flex-Print connector to terminal board, part number 63003

BL-G 12/085 M 50210 including external electronics (63002) + adaptor (63003) for Flex-Print connector

THOMAS
A Gardner Denver Product

Rotary Vane Pump G 09

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



Pumpe / Pump	X	Y
G12/09-6 LC	60(2.36)	Ø36 (Ø1.42)
G12/09-6 B	54(2.12)	Ø31 (Ø1.22)

Pneumatic Data

Description	G 12/09-6 LC	G 12/09-6 B
Part number	50532	50330
Max. flow	9,0 l/min	11,0 l/min
Max. intermittent pressure	350 mbar	370 mbar
Max. continuous pressure	150 mbar	200 mbar
Max. intermittent vacuum	35 %	32 %
Max. continuous vacuum	15 %	20 %

Electrical Data

Motor type	Permanent magnet	Permanent magnet
Nominal voltage*	12 V DC	12 V DC
Min. current consumption	0,7 A	0,7 A
Max. current consumption	1,8 A	1,8 A
Protection class	IP20	IP30
Motor bearing	Sleeve bearing	Ball bearing

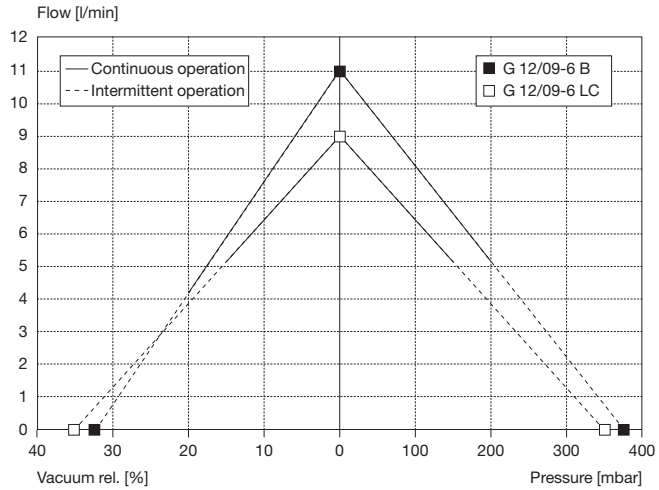
General Data

Ambient temperature	-20 to 50 °C	-20 to 50 °C
Weight	0,30 kg	0,24 kg
Direction of rotation	cw/ccw	cw/ccw

* Please contact Thomas if speed control via Pulse-Width-Modulation is required.
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



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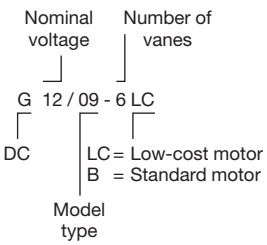

50... Stock programme

Current consumption:
Min.: at open flow
Max.: at max. intermittent vacuum

Option:

G 12/09-6 LC 50533
incl. pump cover for sound reduction.
Mounting bracket:
G 12/09-6 LC P/N 31911
G 12/09-6 LC P/N 31914
with sound reduction cover
G 12/09-6 B P/N 31947

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Notes

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