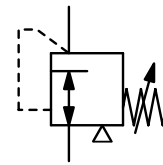


VACUUM PRESSURE REGULATOR

	DESCRIPTION	PRESSURE RANGE		CONNECTION	SERIES	PAGE
		bar				
MINIATURE	max. 22 l/min	-850 ... 0	mbar	1/8"NPT	V800	7.02
	max. 22 l/min	-850 ... 0	mbar	10-32" and flange	V900	7.02
	max. 50 l/min	-1 ... 0.01	bar	1/4"NPT	V480	7.03
PRECISE	max. 70 l/min	-1 ... +0.14 / 10	bar	G1/4	R250	7.04
	max. 330 l/min	-990 ... 0	mbar	G1/4 - G1/2	V170	7.05
	max. 800 l/min	-1 ... +0.7 / 10	bar	G1/2 u. G3/4	R251	7.06
	<u>vacuum adjustment valve</u>	-1 ... -0.3		G1/8 - G1	V04	7.07
	<u>vacuum adjustment valve</u>	-1 ... 0	bar	G1/4 u. G1	V05	7.07
ELECTRICAL	control valves	-1 ... 0	/ +1 bar	G1/8	PQ	10.04
	proportional magnet	-1 ... 0	/ +1 bar	G1/8 - G1	PR	10.09
	digital control	-1 ... 0		G1/8 - G1	PP	10.15
	piezo-operated	-1 ... 1	/+10 bar	G1/8 u. G1/4	PRE	10.25



Description	Miniature precision vacuum regulator with diaphragm and high outlet pressure constancy, small dimensions, low weight. 20-turn hysteresis-free adjustment range allows sensitive pressure setting.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. -1000 mbar		
Accuracy	at supply pressure variation of 170 mbar:	< 4 mbar pressure deviation	
	at supply pressure removal/reapplication:	< 7 mbar pressure deviation	
	setting accuracy:	< 2.5 mbar	
Air consumption	0.3 l/min at -1000 mbar supply pressure		
Adjustment	by plastic knob, adjusting screw or preset		
Gauge port	not available		
Mounting position	any		
Temperature range	4 °C to 66 °C / 39 °F to 151 °F		
Material	Body:	polysulfone	Elastomer: NBR/Buna-N
	Inner valve:	stainless steel and acetal	



10-32" or flangeable
0 ... -350/-850 mbar

Dimensions			Pressure adjustment by	Flow rate l/min	Vacuum range mbar	Order number
A	B	C				
mm	mm	mm				

Vacuum regulator 10-32"			supply pressure max. -1000 mbar, with constant bleed		V900-W	
29	78	8	adjusting knob	22	-350 ... 0	V900-10WK
					-850 ... 0	V900-30WK
29	60	8	adjusting screw	22	-350 ... 0	V900-10WOS
					-850 ... 0	V900-30WOS
29	43	8	preset	22	indicate on order	V901-..

Vacuum reglator with flange			supply pressure max. -1000 mbar, with constant bleed		V900-M	
29	78	8	adjusting knob	22	-350 ... 0	V900-10MWK
					-850 ... 0	V900-30MWK
29	60	8	adjusting screw	22	-350 ... 0	V900-10MWOS
					-850 ... 0	V900-30MWOS
29	43	8	preset	22	indicate on order	V901-.. M

Special options, add the appropriate letter or number

1/8" NPT connection thread, width 40 mm V8...-... .

Accessories, enclosed

mounting bracket made of steel BW15-01



V800-..WK

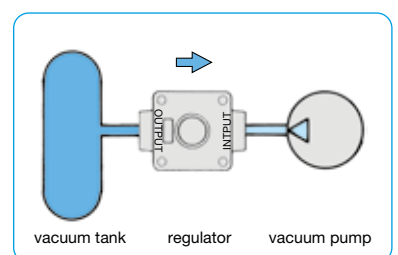
V900-..WK



V900-..WOS



V901-..

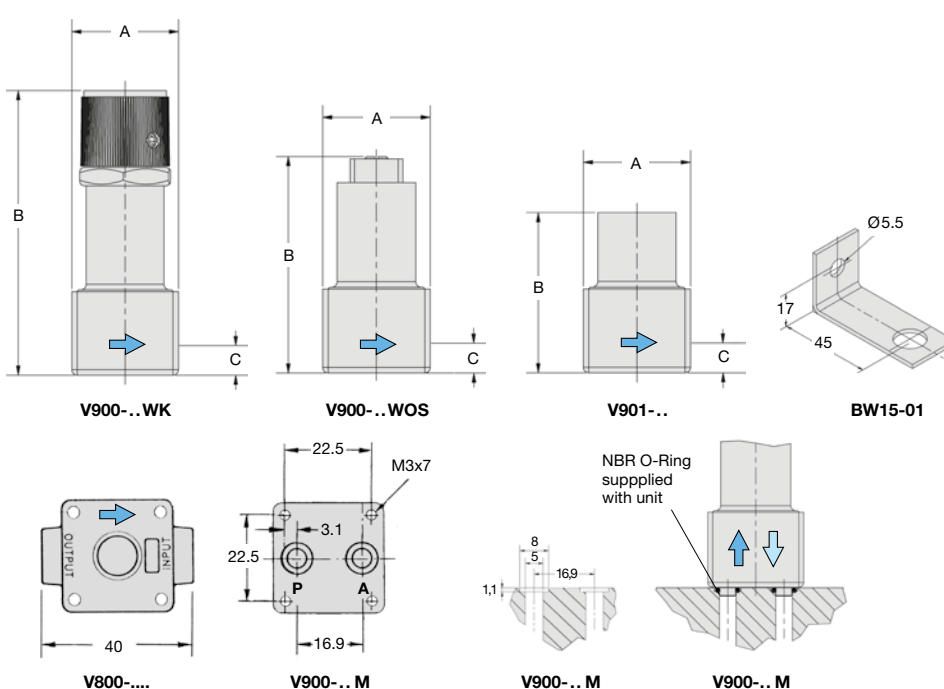


vacuum connection

* Product group

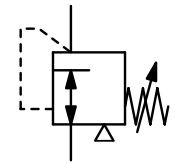


Order example:
V900-10WK



PDF CAD
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Beschreibung	Präziser Membran-Vakuumdruckregler mit großem Volumenstrom. Hohe Regelgenauigkeit, auch bei schwankendem Volumenstrom.		
Medium	Druckluft oder neutrale Gase		
Eingangsdruck:	max. -1000 mbar		
Genauigkeit	Ansprechempfindlichkeit: < 10 mbar		
Eigenluftverbrauch	1,1 l/min		
Einstellung:	mit verrastbarem Einstellknopf		
Manometeranschluss	G1/8 beidseitig, eine Verschlusschraube wird mitgeliefert		
Einbaulage	beliebig		
Temperaturbereich	0 °C bis 60 °C		
Werkstoffe	Gehäuse: Aluminium, Acetal	Innentteile: Aluminium	
	Elastomere: NBR		



1/4" NPT
-1 ... -0,01 bar

Abmessungen			Volumenstrom	Anschluss- gewinde	Druck- Regelbereich bar	Bestell- Nummer	C*
A	B	C					
mm	mm	mm	(m³/h)				

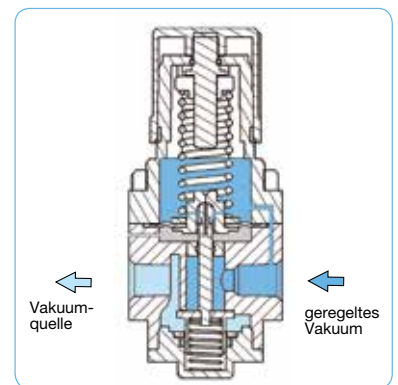
Präzisions-Vakuumdruckregler			Eingangsdruck max -1000 mbar, mit Eigenluftverbrauch		V480
53	124	36	3	50	V480-02C
				1/4"NPT	-1 ... -0,01



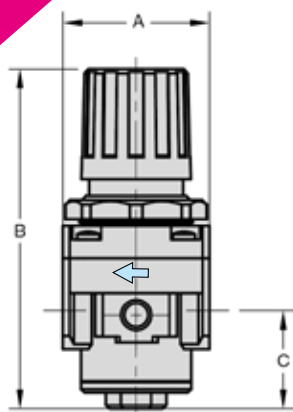
V480

Zubehör, lose beigelegt

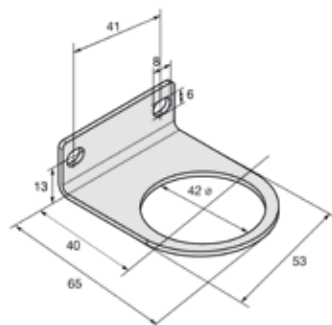
Manometer	Ø 63 mm, -1 bis 0 bar, G1/4	MA6302-00
Anschlusssteile Manometer	aus Messing	AM-04
Befestigungswinkel		BW42-02



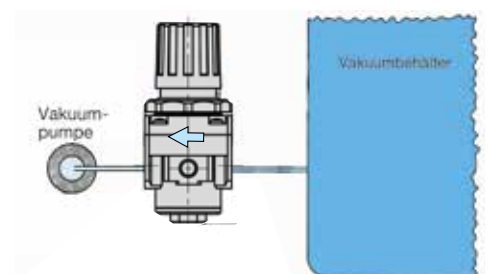
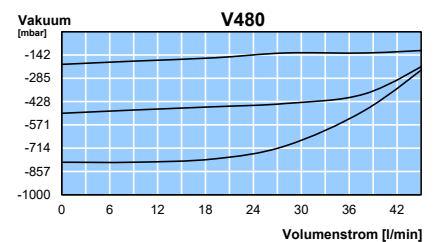
Schnittbild



V480



BW42-02



Anschlussbild

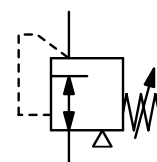
* Produktgruppe

PDF CAD
www.aircom.net



Order example:
V480-02C

Description	Diaphragm vacuum regulator ensuring high precision in both vacuum and positive pressure range.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 17 bar		
Accuracy	response sensitivity: < 2 mbar		
Adjustment	by handwheel with locknut		
Air consumption	max. 2.8 l/min in positive pressure range		
Flow rate	70 l/min*1 in vacuum range, 900 l/min*2 in positive pressure range		
Gauge port	G¼ on both sides of the body, screw plugs supplied		
Mounting position	any		
Temperature range	-40 °C to 90 °C / -40 °F to 194 °F		
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N	Inner valve: stainless steel and brass	



G¼
vacuum ... 0.14/10 bar

Dimensions				K _v value	Flow rate	Connection thread	Vacuum range	Order number
A	B	C	D	m³/h	m³/h*1 l/min*1	G	bar	
mm	mm	mm	mm					



Vacuum pressure regulator

supply pressure max. 17 bar,
with constant bleed

R250

68	184	20	65	0.78	4	70	G¼	-1 ... +0.14	R250-020
								-1 ... +0.7	R250-02A
								-1 ... +2.0	R250-02B
								-1 ... +7.0	R250-02C
								-1 ... +10	R250-02D

Special options, add the appropriate letter

NPT	connection thread	R250-0..N
tamper-proof cap	made of aluminium, adjustment by screwdriver, total height 189 mm	R250-0..T

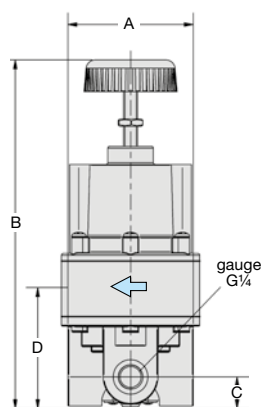


R250

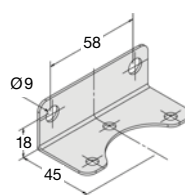
Accessories, enclosed



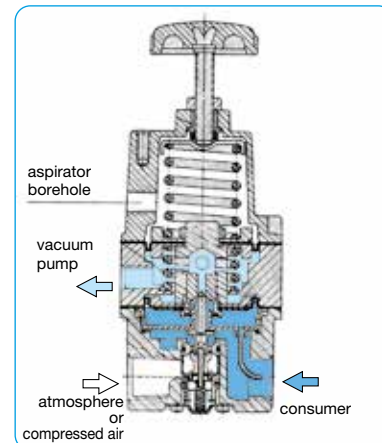
pressure gauge	Ø 63 mm, -1 ... 0 bar, G¼	MA6302-00
mounting bracket	made of steel	BW00-33



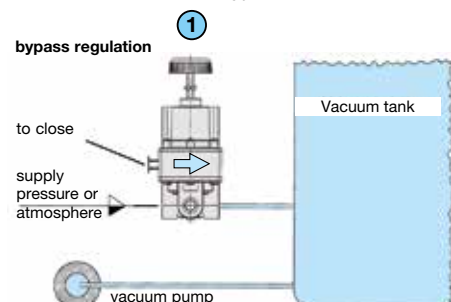
R250



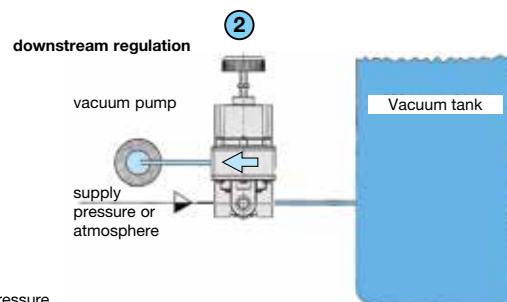
BW00-33



cross-section
connection for downstream regulation



- ① **Bypass regulation**
Upstream installation is preferred when rapid exhaust of a tank or system is required. That way the vacuum pump acts directly upon the tank and is not being throttled by the vacuum regulator.



- ② **Downstream installation** is preferred when rapid exhaust of a tank or system or over-pressure filling is required. The inlet pressure connection can optionally be left open to atmosphere.

*1 for compressed air at -0.98 bar supply pressure and 0 bar outlet pressure
*2 for compressed air at 7 bar supply pressure and 1.4 bar outlet pressure

Gauges: see chapter for measuring devices

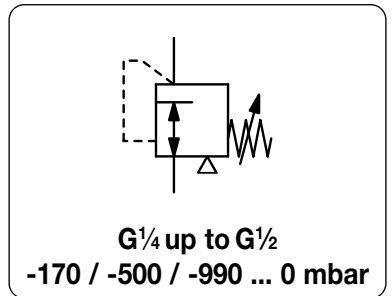
PDF CAD
www.aircom.net

* Product group



Order example:
R250-020

Description	High precision diaphragm vacuum regulator with high flow capacity. A balanced vacuum valve minimizes the effects of variation.		
Media	compressed air or non-corrosive gases		
Accuracy	response sensitivity: < 2 mbar		
Adjustment	by handwheel with locknut		
Gauge port	G $\frac{1}{4}$ on both sides of the body, screw plugs supplied		
Mounting position	any		
Temperature range	0 °C to 90 °C / 32 °F to 194 °F for appropriately conditioned compressed air down to -40 °C / -40°F		
Material	Body: aluminium die-cast Elastomer: NBR/Buna-N, optionally FKM Inner valve: stainless steel, brass, aluminium and steel		



Dimensions			K _v - value	Flow rate		Connection thread	Pressure range	Order number	D*
A	B	C		m ³ /h*1	l/min*1				
mm	mm	mm	(m ³ /h)			G	mbar		

Precision vacuum regulator							supply pressure max. -1000 mbar, without constant bleed	V170
67	152	25	1.1	20	330	G $\frac{1}{4}$	-170 ... 0 -500 ... 0 -990 ... 0	V170-02A V170-02B V170-02C
67	152	25	1.1	20	330	G $\frac{3}{8}$	-170 ... 0 -500 ... 0 -990 ... 0	V170-03A V170-03B V170-03C
67	152	25	1.1	20	330	G $\frac{1}{2}$	-170 ... 0 -500 ... 0 -990 ... 0	V170-04A V170-04B V170-04C



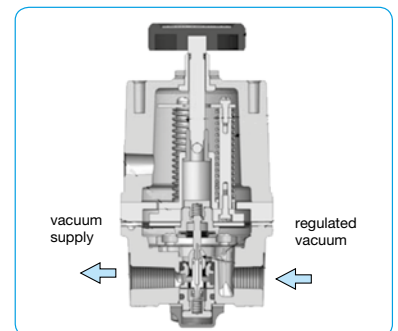
V170

Special options, add the appropriate letter

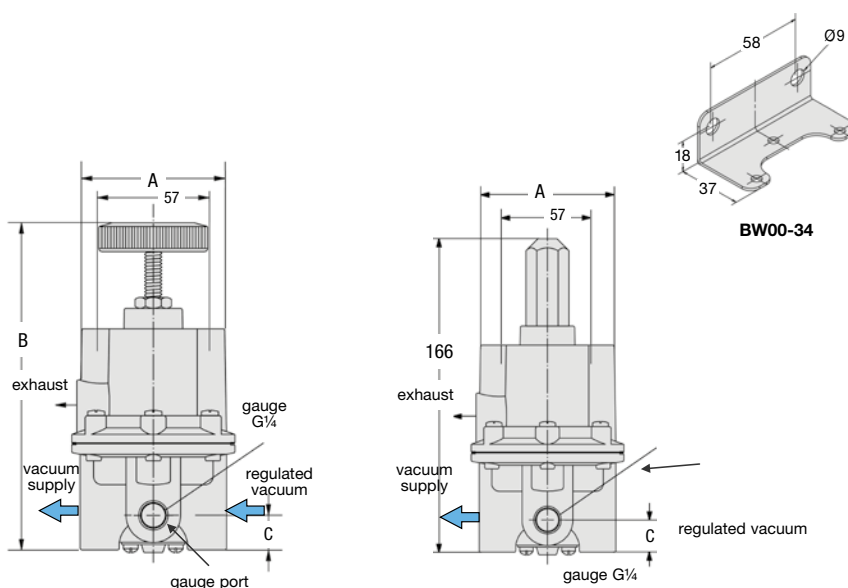
NPT	connection thread	V170-0..N
Verstellsicherung	made of aluminium, adjustment by screwdriver, total height 160 mm	V170-0..T
FKM-Elastomere		V170-0..V

Accessories, enclosed

pressure gauge	Ø 63 mm, -1 bar...0 bar, G $\frac{1}{4}$	MA6302-00
mounting bracket	made of steel	BW00-34



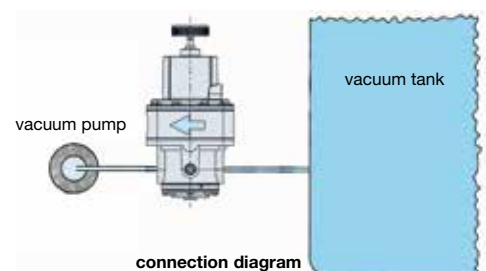
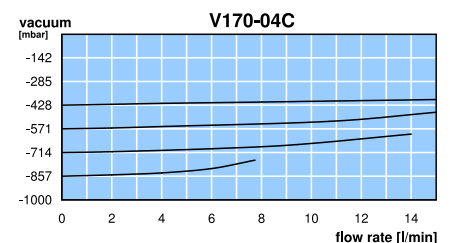
cross-section



V170

with tamper proof cap

*1 for compressed air at -0.98 bar supply pressure and 0 bar outlet pressure



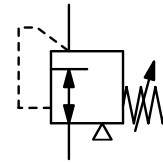
* Product group

Gauges: see chapter for measuring devices

PDF CAD
www.aircom.net



Description	Diaphragm vacuum regulator ensuring high precision in both vacuum and positive pressure range.		
Media	compressed air or non-corrosive gases		
Supply pressure	max. 17 bar		
Accuracy	response sensitivity: < 2.5 mbar		
Adjustment	by handwheel with locknut		
Air consumption	without constant bleed		
Flow rate	800 l/min*1 in vacuum range,	4200 l/min*2 in positive pressure range	
Gauge port	G¼ on both sides of the body, screw plugs supplied		
Mounting position	any		
Temperature range	-40 °C to 90 °C / -40 °F to 194 °F		
Material	Body: aluminium die-cast	Inner valve: stainless steel and brass	
	Elastomer: NBR/Buna-N		



**G $\frac{1}{2}$ and G $\frac{3}{4}$
vacuum ... 0.7/10 bar**

Dimensions				K _v	Flow rate		Connection	Vacuum	Order	
A	B	C	D	value	m ³ /h	l/min*1	thread	range	number	
mm	mm	mm	mm	m ³ /h			G	bar		D*

Vacuum pressure regulator								supply pressure max. 17 bar, without constant bleed	R251
87	238	40	98	2.5	48	800	G $\frac{1}{2}$	-1 ... +0.7 -1 ... +2.0 -1 ... +10	R251-04A R251-04B R251-04D
87	238	40	98	2.5	48	800	G $\frac{3}{4}$	-1 ... +0.7 -1 ... +2.0 -1 ... +10	R251-06A R251-06B R251-06D

Special options, add the appropriate letter

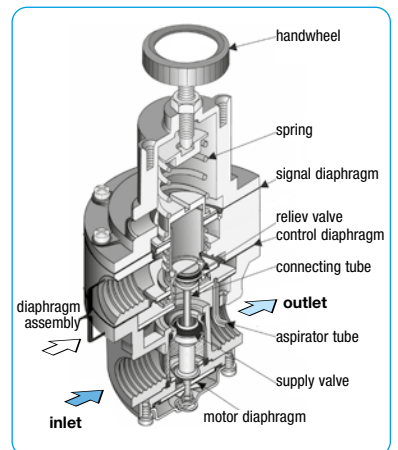
NPT	connection thread	R251-0 . . N
tamper-proof cap	made of aluminium, adjustment by screwdriver, total height 240 mm	R251-0 . . T
FKM elastomer		R251-0 . . V

Accessories, enclosed

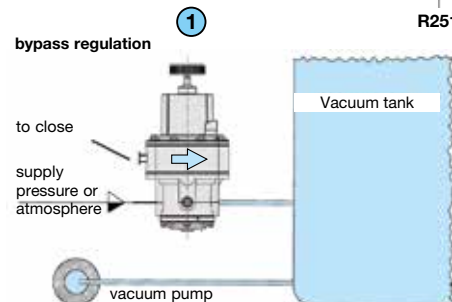
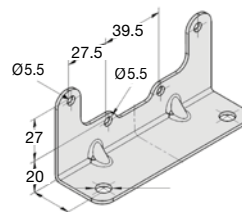
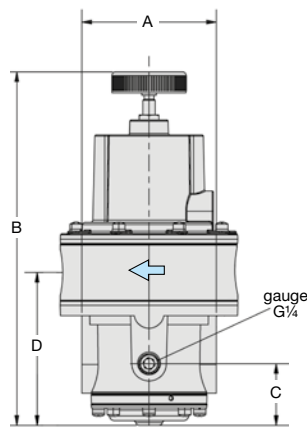
pressure gauge	Ø 63 mm, -1 ... 0 bar, G $\frac{1}{4}$	MA6302-00
mounting bracket	made of steel	BW00-47



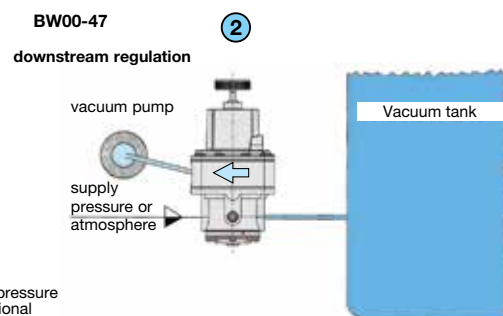
R251



**cross section
connection for downstream regulation**



- 1 Bypass regulation**
Upstream installation is preferred when rapid exhaust of a tank or system is required. That way the vacuum pump acts directly upon the tank and is not being throttled by the vacuum regulator.



- 2 Downstream installation** is preferred when rapid exhaust of a tank or system or over-pressure filling is required. The inlet pressure connection can optionally be left open to atmosphere.

Note
A strainer is provided on the pressure side or atmospheric, an additional filter is recommended.

*1 for compressed air at -0.98 bar supply pressure and 0 bar outlet pressure
*2 for compressed air at 7 bar supply pressure and 1.4 bar outlet pressure

Gauges: see chapter for measuring devices

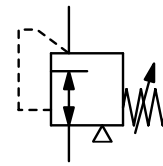
PDF CAD
www.aircom.net

* Product group



**Order example:
R251-04A**

Description	When these valves reach a certain precalibrated vacuum degree, they introduce atmospheric air into the circuit to prevent the increase of the actual value and keep it constant.	
Application	They are used as safety valves on non-commissioned tanks or containers at high vacuum level and on vacuum cup lifting systems.	
Media	compressed air or non-corrosive gases	
Adjustment	V04: by rotating the spindle with lock nut in both directions V05: by knurled head screw or adjusting knob on spindle with fine thread	
Mounting position	any	
Temperature range	-20 °C to 80 °C / -4 °F to 176 °F	
Material	Body: nickel-plated brass Elastomer: NBR/Buna-N	Inner valve: spring steel and brass



G¹/₈ up to G1
vacuum -1 ... 0 bar

Dimensions			Flow rate		Connection thread	Vacuum-range	Order number	
A	B	SW			G	bar		
mm	mm	mm	m³/h	l/min				

Vacuum adjustment valve			Vacuum regulator with external leakage		V04		
45	7	12	4	60	G ¹ / ₈	-1 ... -0.3	V04-01
57	15	24	20	330	G ¹ / ₂	-1 ... -0.3	V04-04
60	12	30	40	660	G ³ / ₄	-1 ... -0.3	V04-06
65	12	35	70	1100	G1	-1 ... -0.3	V04-08



V04-01

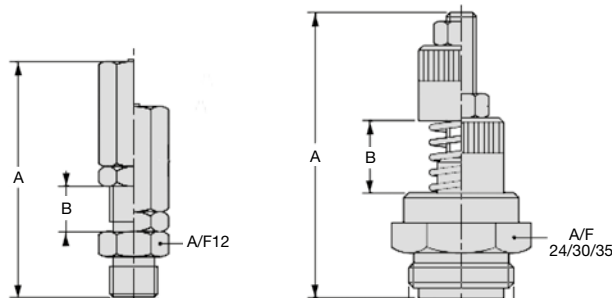
V04-04

Vacuum adjustment valve, precise			Vacuum regulator with external leakage		V05		
63	26	25	4	260	G ¹ / ₄	-1 ... 0	V05-02
82	52	32	20	700	G1	-1 ... 0	V05-08



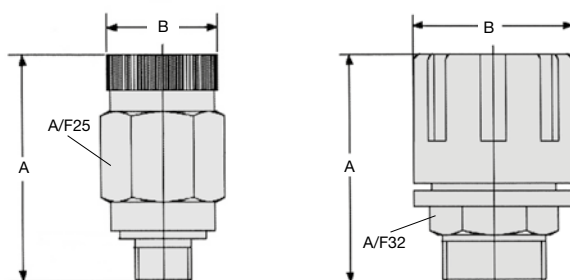
V04-06

V04-08



V04-01

V04-04 / -06 / -08



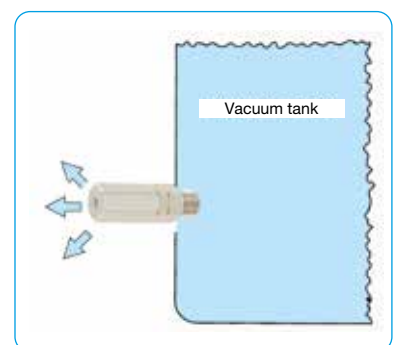
V05-02

V05-08



V05-02

V05-08



* Product group

PDF CAD
www.aircom.net



Order example:
V04-01