

# Booster Regulator Series VBA



## How to Order



VBA **40A** - **04** - **04** - **04**

Symbol	Series	Pressure increase ratio
10A	1/4", Handle-operated type	Twice
20A	3/8", Handle-operated type	
40A	1/2", Handle-operated type	
22A	3/8", Air-operated type	
42A	1/2", Air-operated type	2 to 4 times
43A	1/2", Max. operating pressure 1.6 MPa (232 psi)	
11A	1/4", Handle-operated type	

### Body size

### Semi-standard

Symbol	Semi-standard
Nil	Standard product
Z (Note)	Pressure unit on the product name label and pressure gauge: psi

Note) Thread type: NPT, NPTF  
Under the new measurement law, the pressure unit of "psi" on the pressure gauges cannot be used in Japan.

### Thread type (Note)

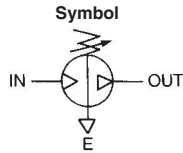
Symbol	Thread type
Nil	Rc
F	G
N	NPT
T	NPTF

Note) Thread types apply to the IN, OUT, and EXH ports of the VBA1□A and to the IN, OUT, EXH, and gauge ports of the VBA2□A and VBA4□A.  
The gauge ports of the VBA1□A are Rc thread type regardless of the thread type indication.

### Option

Symbol	Option
Nil	None
G	Pressure gauge
N	Silencer
S	High-noise reduction silencer (Note)
GN	Pressure gauge, Silencer
GS	Pressure gauge, High-noise reduction silencer (Note)
LN	Elbow silencer (Note)
LS	Elbow high-noise reduction silencer (Note)
GLN	Pressure gauge, Elbow silencer (Note)
GLS	Pressure gauge, Elbow high-noise reduction silencer (Note)

Note) Refer to "Combination of Thread Type and Options."



VBA10A-02

VBA11A-02



VBA20A-03



VBA22A-03



VBA40A-04



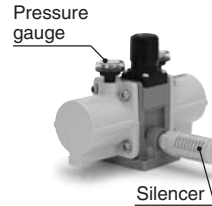
VBA42A-04



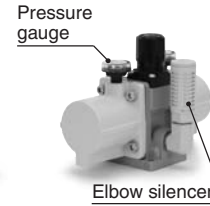
VBA43A-04

### Port size

Symbol	Port size	Applicable series
02	1/4"	VBA1□A
03	3/8"	VBA2□A
04	1/2"	VBA4□A



Silencer



Elbow silencer

### Combination of Thread Type and Options

Body size	Thread type	Option										Semi-standard			
		Nil	G	N	S	GN	GS	LN	LS	GLN	GLS	Nil	-Z		
10A 11A	Nil	●	●	●	●	●	●	●	●	●	●	●	●	●	—
	F	●	●	●	●	●	●	●	●	●	●	●	●	●	—
	N	●	●	●	—	●	—	●	—	●	—	●	●	●	●
	T	●	●	●	—	●	—	●	—	●	—	●	●	●	●
20A 22A	Nil	●	●	●	●	●	●	—	—	—	—	—	—	●	—
	F	●	●	●	●	●	●	—	—	—	—	—	—	●	—
	N	●	●	●	●	●	●	—	—	—	—	—	—	●	●
	T	●	●	●	●	●	●	—	—	—	—	—	—	●	●
40A 42A 43A	Nil	●	●	●	●	●	●	—	—	—	—	—	—	●	—
	F	●	●	●	●	●	●	—	—	—	—	—	—	●	—
	N	●	●	●	●	●	●	—	—	—	—	—	—	●	●
	T	●	●	●	●	●	●	—	—	—	—	—	—	●	●

### Air tank combination chart

Air tank	Booster regulator	
	VBA1□A	VBA2□A
VBAT05A1-X11	●	—
VBAT10A1-X11	●	●

See page 13 for details

## Standard Specifications

Model	VBA10A-02	VBA20A-03	VBA40A-04	VBA22A-03	VBA42A-04	VBA43A-04	VBA11A-02
Fluid	Compressed air						
Pressure increase ratio	Twice					Twice	Twice to 4 times
Pressure adjustment mechanism	Handle-operated with relief mechanism <sup>Note 1)</sup>			Air-operated		Handle-operated with relief mechanism <sup>Note 1)</sup>	
Max. flow rate <sup>Note 2)</sup>	230 L/min (ANR) (8.1 SCFM)	1000 L/min (ANR) (35.3 SCFM)	1900 L/min (ANR) (67.1 SCFM)	1000 L/min (ANR) (35.3 SCFM)	1900 L/min (ANR) (67.1 SCFM)	1600 L/min (ANR) (56.5 SCFM)	70 L/min (ANR) (2.4 SCFM)
Set pressure range	0.2 to 2.0 MPa (29 to 290 psi)	0.2 to 1.0 MPa (29 to 145 psi)		0.2 to 1.0 MPa (29 to 145 psi)		0.2 to 1.6 MPa (29 to 232 psi)	0.2 to 2.0 MPa (29 to 290 psi)
Supply pressure range	0.1 to 1.0 MPa (15 to 145 psi)						
Proof pressure	3 MPa (435 psi)	1.5 MPa (217.5 psi)		1.5 MPa (217.5 psi)		2.4 MPa (348 psi)	3 MPa (435 psi)
Port size (IN/OUT/EXH: 3 locations)	1/4	3/8	1/2	3/8	1/2	1/2	1/4
Pressure gauge port size (IN/OUT: 2 locations)	1/8 Rc	1/8	1/8	1/8	1/8	1/8	1/8 Rc
Ambient and fluid temperature	2 to 50°C (35.6 to 122°F) (No freezing)						
Installation	Horizontal						
Lubrication	Grease (Non-lube)						
Weight	0.84 kg (1.9 lb)	3.9 kg (8.6 lb)	8.6 kg (19 lb)	3.9 kg (8.6 lb)	8.6 kg (19 lb)	8.6 kg (19 lb)	0.89 kg (2.0 lb)

Note 1) If the OUT pressure is higher than the set pressure by the handle, excessive pressure is exhausted from the back of the handle.

Note 2) Flow rate at IN= OUT= 0.5 MPa (72.5 psi). The pressure varies depending on the operating conditions. Refer to "Flow Characteristics" on pages 3 and 4.

## Options/Part No.

### Pressure Gauge, Silencer (When thread type is Rc or G.)

Model		VBA10A-02	VBA20A-03	VBA40A-04	VBA22A-03	VBA42A-04	VBA43A-04	VBA11A-02
Description		VBA10A-F02	VBA20A-F03	VBA40A-F04	VBA22A-F03	VBA42A-F04	VBA43A-F04	VBA11A-F02
Pressure gauge	G	G27-20-01	G36-10-01		KT-VBA22A-7	G36-10-01	G27-20-01	G27-20-01
Silencer	N	AN200-02	AN300-03	AN400-04	AN300-03	AN400-04	AN400-04	AN200-02
High-noise reduction silencer	S	ANA1-02	ANA1-03	ANA1-04	ANA1-03	ANA1-04	ANA1-04	ANA1-02
Elbow for silencer	L	KT-VBA10A-18	—	—	—	—	—	KT-VBA10A-18

Note 1) In the case of options GN, two pressure gauges and one silencer are included in the same container as accessories.

Note 2) KT-VBA22A-7 is a pressure gauge with fitting. (Please order two units when using with IN and OUT.)

### Pressure Gauge, Silencer (When thread type is NPT or NPTF.)

Model		VBA10A-N02*	VBA20A-N03*	VBA40A-N04*	VBA22A-N03*	VBA42A-N04*	VBA43A-N04*	VBA11A-N02*
Description		VBA10A-T02*	VBA20A-T03*	VBA40A-T04*	VBA22A-T03*	VBA42A-T04*	VBA43A-T04*	VBA11A-T02*
		*: when "-Z"	*: when "-Z"	*: when "-Z"	*: when "-Z"	*: when "-Z"	*: when "-Z"	*: when "-Z"
Pressure gauge *: when Nil	G	G27-20-01	G36-10-N01		KT-VBA22A-7N	G36-10-N01	G27-20-N01	G27-20-01
Pressure gauge *: when "-Z" <sup>Note 4)</sup>		G27-P20-01	G36-P10-N01		KT-VBA22A-8N	G36-P10-N01	G27-P20-N01	G27-P20-01
Silencer	N	AN200-N02	AN300-N03	AN400-N04	AN300-N03	AN400-N04	AN400-N04	AN200-N02
High-noise reduction silencer	S	—	ANA1-N03	ANA1-N04	ANA1-N03	ANA1-N04	ANA1-N04	—
Elbow for silencer	L	KT-VBA10A-18N	—	—	—	—	—	KT-VBA10A-18N

Note 1) In the case of options GN, two pressure gauges and one silencer are included in the same container as accessories.

Note 2) KT-VBA22A-7N, KT-VBA22A-8N are pressure gauges with fittings. (Please order two units when using with IN and OUT.)

Note 3) Under the new measurement law, the pressure unit of "psi" on the pressure gauges cannot be used in Japan.

Note 4) Pressure unit on the pressure gauge: psi

## Related Products/Part No.

### Mist Separator, Exhaust Cleaner

Model		For VBA10A-02 For VBA11A-02	For VBA20A-03 For VBA22A-03	For VBA40A-04 For VBA42A-04 For VBA43A-04
Mist separator		AM250C-02	AM450C-04, 06	AM550C-06, 10
Exhaust cleaner		AMC310-03	AMC510-06	AMC610-10

Note) Refer to page 12 for air tanks, Best Pneumatics No. 5 for mist separators and Best Pneumatics No. 6 for exhaust cleaners.

Refer to the separate operation manual for the connection method.

## Design

### Caution

#### 1. System configuration

- The IN port of the booster regulator has metallic mesh to prevent dust from entering the booster regulator. However, it cannot remove dust continuously or separate drainage. Make sure to install a mist separator (AM series) on the inlet side of the booster regulator.
- The booster regulator has a sliding part inside, and it generates dust. Also, install an air purification device such as an air filter or a mist separator on the outlet side as necessary.
- Connect a lubricator to the outlet side, because the accumulated oil in the booster regulator may result in a malfunction.

#### 2. Exhaust air measures

- Provide a dedicated pipe to release the exhaust air from each booster regulator. If exhaust air is converged into a pipe, the back pressure that is created could cause improper operation.
- Depending on the necessity, install a silencer or an exhaust cleaner on the exhaust port of the booster regulator to reduce the exhaust noise.

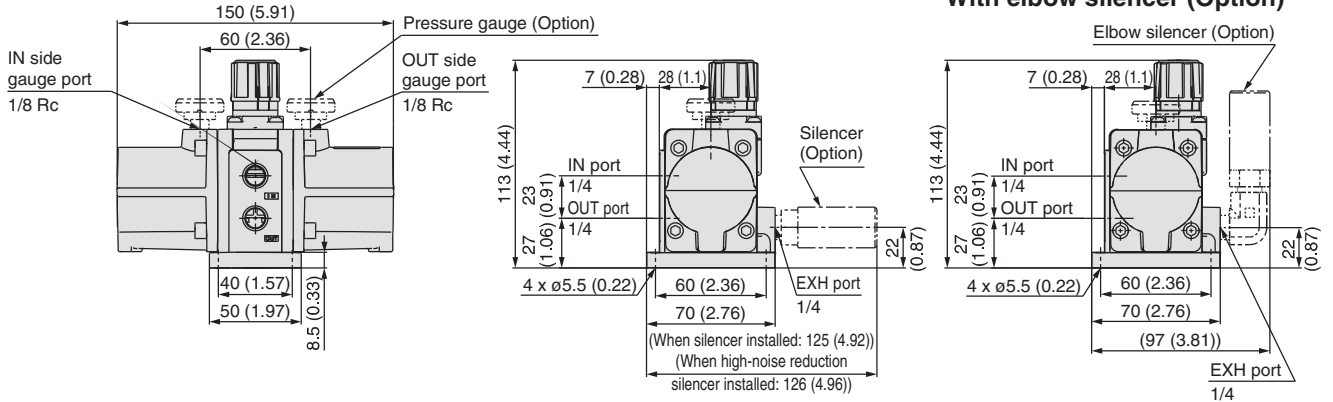
#### 3. Maintenance space

- Allow the sufficient space for maintenance and inspection.

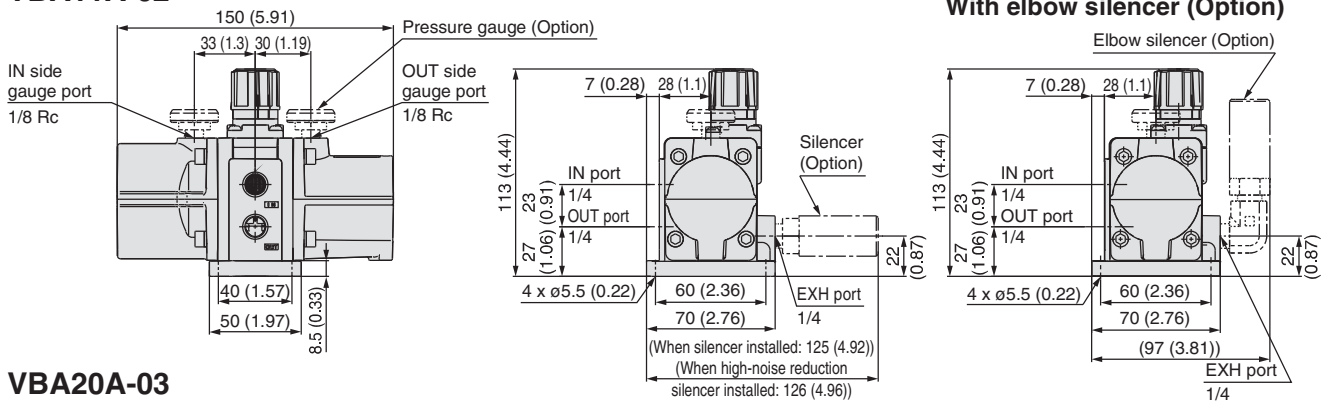
## Dimensions

mm (inch)

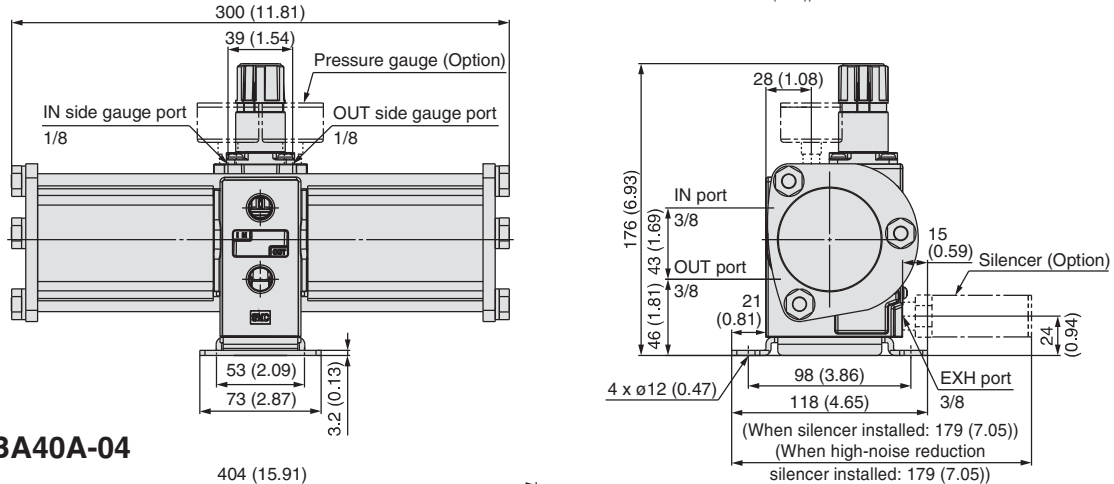
### VBA10A-02



### VBA11A-02



### VBA20A-03



### VBA40A-04

