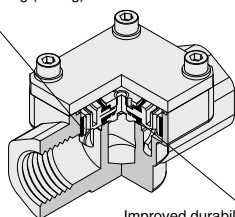


# 5.0 MPa Check Valve Series *VCHC40*

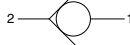
## How to Order

Using NSF-H1 certified grease  
for the guide ring (sliding) section



Improved durability in high-pressure  
environments by using a **polyurethane  
elastomer poppet**

Symbol



**VCHC40 - 06 G**

• Thread type  
(Conforming to ISO1179-1 on the  
pneumatic/hydraulic G thread)

• Port size

|    |     |
|----|-----|
| 06 | 3/4 |
| 10 | 1   |



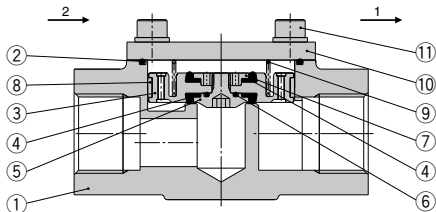
## Specifications

| Model                    | VCHC40                                                                   |
|--------------------------|--------------------------------------------------------------------------|
| Operating pressure       | 0.05 to 5.0 MPa                                                          |
| Cracking pressure        | 0.05 MPa                                                                 |
| Orifice diameter         | ø16                                                                      |
| C value (Effective area) | 28 dm <sup>3</sup> /(s·bar) (140 mm <sup>2</sup> )                       |
| b                        | 0.15                                                                     |
| Cv                       | 7.4                                                                      |
| Fluid                    | Air, Inert gas                                                           |
| Fluid temperature        | 5 to 80°C                                                                |
| Ambient temperature      | 5 to 80°C                                                                |
| Body material            | Brass                                                                    |
| Seal material            | Polyurethane elastomer                                                   |
| Port size                | G3/4, 1 (Conforming to ISO1179-1 on the<br>pneumatic/hydraulic G thread) |
| Mounting orientation     | Unrestricted                                                             |
| Weight                   | 1.02 kg                                                                  |

AS  
TMH  
ASD  
AS  
AS-FE  
KE  
AS-FG  
AS-FP  
AS-FM  
AS-D  
AS-T  
ASP  
ASN  
AQ  
ASV  
AK  
VCHC  
ASS  
ASR  
ASQ

# Series VCHC40

## Construction

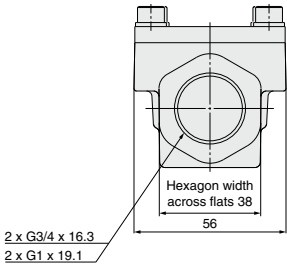
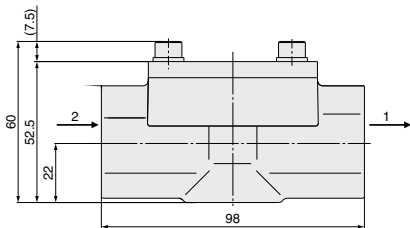
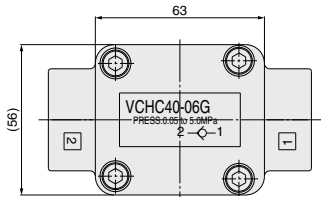


### Component Parts

| No. | Description                             | Material                          |
|-----|-----------------------------------------|-----------------------------------|
| 1   | Body                                    | Brass                             |
| 2   | O-ring                                  | NBR                               |
| 3   | Piston                                  | Aluminum + Hard anodized          |
| 4   | Poppet                                  | Polyurethane elastomer            |
| 5   | Set screw                               | Stainless steel                   |
| 6   | O-ring                                  | NBR                               |
| 7   | Nut                                     | Stainless steel                   |
| 8   | Guide ring                              | Resin                             |
| 9   | Spring                                  | Stainless steel                   |
| 10  | Plate                                   | Steel + Electroless nickel plated |
| 11  | Hexagon socket head cap screw (with SW) | Carbon steel                      |

## Dimensions

### VCHC40





# Series VCHC40

## Specific Product Precautions

Be sure to read this before handling.  
Refer to front matter 56 for Safety Instructions.

### Selection

#### ⚠ Warning

##### 1. Fluid

Corrosive gas

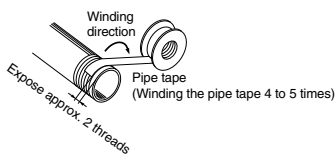
Do not use corrosive gas because it may cause corrosive stress cracks and other problems.

### Piping

#### ⚠ Caution

##### 1. Wrapping of pipe tape

Pipe tape is not necessary since this product uses a pneumatic and hydraulic purpose G thread which conforms to ISO 1179-1. When an R (taper) thread is used, leave 1 to 2 threads at the tip exposed before winding the piping thread around it 4 to 5 times.



Connecting a R thread

##### 2. Always tighten threads with the proper tightening torque.

When attaching fittings to valves, tighten with the proper tightening torque shown below.

#### Tightening Torque for Piping

| Connection threads | Proper tightening torque N · m |
|--------------------|--------------------------------|
| G, Rc 3/4          | 28 to 30                       |
| G, Rc 1            | 36 to 38                       |

### Operating Environment

#### ⚠ Warning

1. Do not use in an explosive atmosphere.
2. In locations where there is contact with water, oil or spatter from soldering, etc., implement suitable protective measures.

### Maintenance

#### ⚠ Caution

##### 1. Storage

In the case of long term storage after use with water, etc., first thoroughly remove all moisture to prevent rust and deterioration of rubber materials.

AS

TMH

ASD

AS

AS-FE  
KE

AS-FG

AS-FP

AS-FM

AS-D  
AS-T

ASP

ASN

AQ

ASV

AK

VCHC

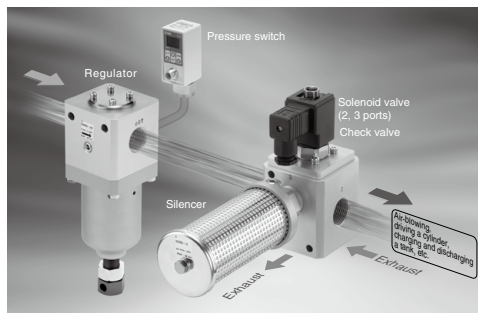
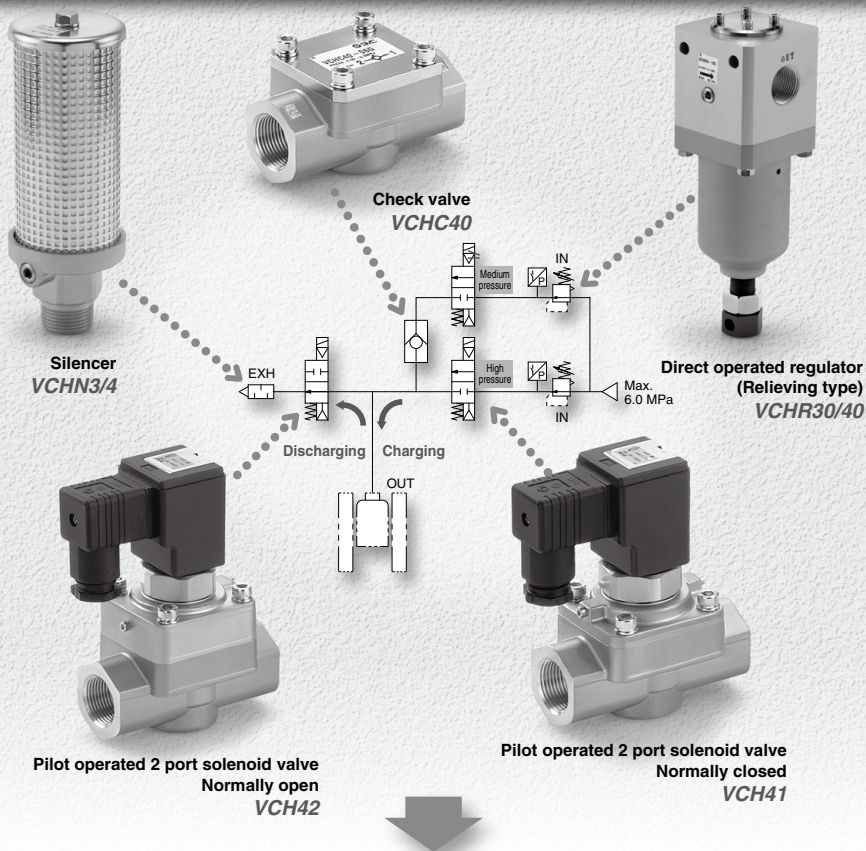
ASS

ASR  
ASQ

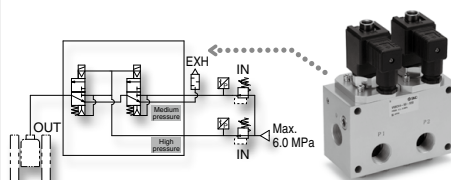
# 5.0 MPa

# Pneumatic

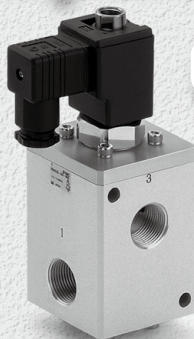
Applications included air-blowing, charging fluid into a vessel, or discharging (Blow-molding equipment, etc.)



Made to Order/Manifold Unit

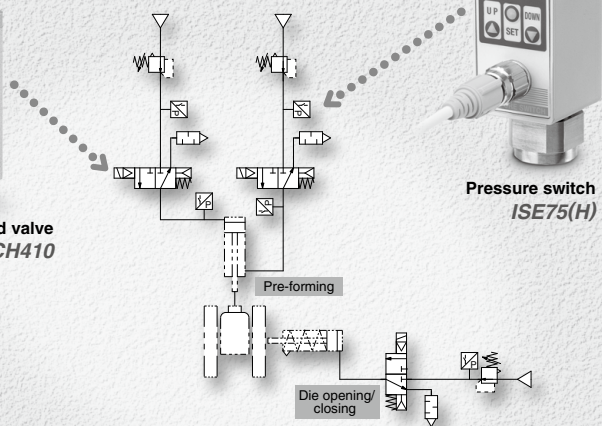


# Equipment Variation



Pilot operated 3 port solenoid valve  
**VCH410**

## Example of driving a cylinder



Pressure switch  
**ISE75(H)**

|  | Description                                | Features                                                                                                                                                      | Maximum operating pressure (MPa)                | Series      | Port size |     |     |   |       |       | Page                 |
|--|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------|-----------|-----|-----|---|-------|-------|----------------------|
|  |                                            |                                                                                                                                                               |                                                 |             | 1/4       | 1/2 | 3/4 | 1 | 1 1/4 | 1 1/2 |                      |
|  | Pilot operated 2 port solenoid valve       | <b>Service life: 10 million cycles</b><br>Adopting a polyurethane elastomer poppet in a valve seat.<br>Improved durability under a high pressure environment. | 5.0                                             | VCH41(N.C.) |           |     | ●   | ● |       |       | Best Pneumatics No.7 |
|  | Check valve                                |                                                                                                                                                               | 5.0                                             | VCH42(N.O.) |           |     | ●   | ● |       |       |                      |
|  | Pilot operated 3 port solenoid valve       |                                                                                                                                                               | 5.0                                             | VCHC40      |           |     | ●   | ● |       |       | Best Pneumatics No.7 |
|  | Direct operated regulator (Relieving type) |                                                                                                                                                               | Inlet pressure 6.0<br>Set pressure 0.5 to 5.0   | VCHR30      |           |     | ●   | ● |       |       | Best Pneumatics No.5 |
|  |                                            |                                                                                                                                                               |                                                 | VCHR40      |           |     |     | ● |       | ●     |                      |
|  | Silencer                                   | <b>Noise reduction 35 dB(A)</b><br>(At supply pressure 4.0 MPa, back pressure 2.0 MPa)<br><b>Clogging-reduction with double-layer construction</b>            | 5.0<br>(Relief valve release pressure: 1.8 MPa) | VCHN3       |           |     | ●   | ● |       |       | P.680                |
|  |                                            |                                                                                                                                                               |                                                 | VCHN4       |           |     |     | ● | ●     | ●     |                      |

### Related Equipment

|  |                 |                                                          |              |           |   |  |  |  |  |  |       |
|--|-----------------|----------------------------------------------------------|--------------|-----------|---|--|--|--|--|--|-------|
|  | Pressure switch | <b>2-color display Metal body</b><br>(Aluminum die-cast) | 10.0<br>15.0 | ISE75 (H) | ● |  |  |  |  |  | P.816 |
|--|-----------------|----------------------------------------------------------|--------------|-----------|---|--|--|--|--|--|-------|

### Made to Order

- 1** 6.0 MPa pilot operated regulator (Air operated type) ..... Best Pneumatics No.7
- 2** 22.0 MPa 2 port air operated valve ..... Best Pneumatics No.7