

## Specification

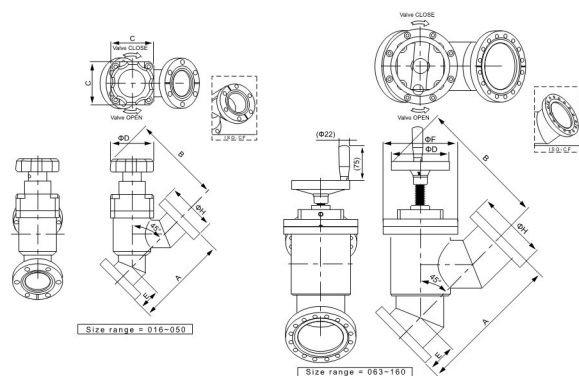
| VYAM-CF series                        |         |      | Vacuum Inline Valve / Manually                                                               |        |        |        |       |    |       |       |     |     |     |
|---------------------------------------|---------|------|----------------------------------------------------------------------------------------------|--------|--------|--------|-------|----|-------|-------|-----|-----|-----|
|                                       |         |      | Bellows STEM seal (A: SUS316L)                                                               |        |        |        |       |    |       |       |     |     |     |
| Valve port                            |         | SIZE | 16                                                                                           | 25     | 40     | 50     | 63    | 80 | 100   | 160   | 200 | 250 | 320 |
| Flange Standards                      | ISO-CF  | CF   | ●                                                                                            | ●      | ●      | ●      | ●     | ×  | ●     | ●     | ×   | ×   | ×   |
|                                       |         |      | 1.33CF                                                                                       | 2.12CF | 2.75CF | 3.38CF | 4.5CF | ×  | 6.0CF | 8.0CF | ×   | ×   | ×   |
| Valve Actuating type                  |         |      | Manual acting                                                                                |        |        |        |       |    |       |       |     |     |     |
| Fluid                                 |         |      | Vacuum in an inert gas system                                                                |        |        |        |       |    |       |       |     |     |     |
| Operating temperature °C              |         |      | ≤120                                                                                         |        |        |        |       |    |       |       |     |     |     |
| Operating pressure Pa (Abs)           |         |      | 1×10 <sup>-6</sup> ~ to atmospheric pressure                                                 |        |        |        |       |    |       |       |     |     |     |
| Conductance L / s <sup>(Note 1)</sup> |         |      | 4.6                                                                                          | 10     | 35     | 62     | 106   | -  | 304   | 778   | -   | -   | -   |
| Leakage Pa·m³/s                       | Inside  |      | Standard material (FKM) 1.0×10 <sup>-10</sup> at room temperature (excluding gas permeation) |        |        |        |       |    |       |       |     |     |     |
|                                       | Outside |      | Standard material (FKM) 1.0×10 <sup>-11</sup> at room temperature (excluding gas permeation) |        |        |        |       |    |       |       |     |     |     |
| Main material                         |         |      | Body: SUS304, Bellows: (SUS316L) Main parts: SUS304, AL-6061, FKM (Standard seal)            |        |        |        |       |    |       |       |     |     |     |
| Open stroke                           |         |      | 14                                                                                           | 14     | 18     | 25     | 30    | -  | 40    | 60    | -   | -   | -   |
| Number of Handle rotation             |         |      | 7                                                                                            | 7      | 9      | 12.5   | 7.5   | -  | 10    | 12    | -   | -   | -   |
| Seal distance (A-Value)               |         |      | 101.6                                                                                        | 127    | 130    | 180    | 211   | -  | 306   | 421.4 | -   | -   | -   |

(Note 1) Conductance is represented by "molecular flow" of elbow of the same dimension.

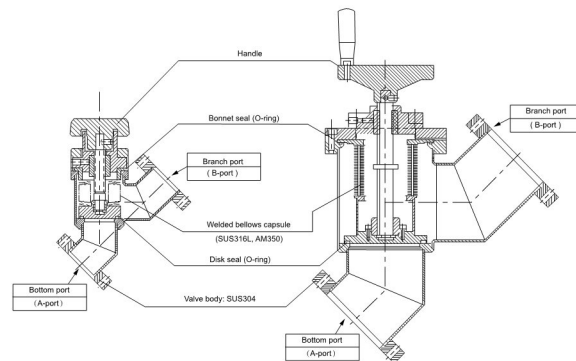
## External dimension table

| SIZE | 16    | 25    | 40    | 50    | 63     | 80 | 100    | 160    |
|------|-------|-------|-------|-------|--------|----|--------|--------|
| A    | 101.6 | 106.7 | 130   | 117.8 | 210    | -  | 305    | 420    |
| B    | 110   | 110   | 125   | 145   | 209    | -  | 277    | 406    |
| C    | 48    | 48    | 60    | 69    | -      | -  | -      | -      |
| D    | Ø63   | Ø63   | Ø63   | Ø63   | Ø100   | -  | Ø125   | Ø200   |
| F    | 16.3  | 18.7  | 21.5  | 27.5  | 40     | -  | 60     | 90     |
| G    | -     | -     | -     | -     | Ø119   | -  | Ø159   | Ø208   |
| H    | Ø33.8 | Ø54   | Ø69.9 | Ø85.7 | Ø114.3 | -  | Ø152.4 | Ø203.2 |

## Dimensional drawing



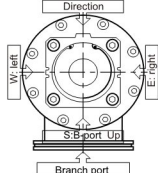
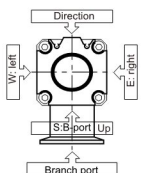
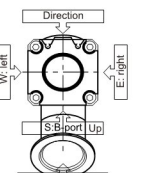
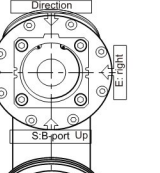
## Internal detail



## How to Order

Valve **VA@C** - ① ② - ③ - ④ - ⑤ ⑥ - (⑦)

Model VLAP - □□□ □□-□□ - □ - □□

|                                                                                  |                     |                             |                                                                                                                               |                                                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|----------------------------------------------------------------------------------|---------------------|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------|-----|---------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------|-----|------|----------------|----------|---------------|----------|--|----------|--|---------|--|---------|--|--------------|--|
| Series                                                                           | A<br>Body shape     | VLⓅC                        | L                                                                                                                             | L-type(Angle valve) 304SS Body                      |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VYⓅC                        | Y                                                                                                                             | Y-type(Inline valve) 304SS Body                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  | B<br>Stem Seal      | VAⓂC                        | A                                                                                                                             | 316L Bellows STEM Seal                              |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VABⓅC                       | B                                                                                                                             | AM350 Bellows STEM Seal                             |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VASⓅC                       | S                                                                                                                             | O-Ring STEM Seal                                    |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  | C<br>Operation type | VABⓅP                       | P                                                                                                                             | Double Acting (Pneumatic)                           |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VABⓅS                       | S                                                                                                                             | Single Acting (N.C.)                                |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VABⓅM                       | M                                                                                                                             | Manual operation                                    |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VABⓅQ                       | Q                                                                                                                             | Double Acting, w/Heater (Pneumatic)                 |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VABⓅR                       | R                                                                                                                             | Single Acting, w/Heater (N.C.)                      |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VABⓅH                       | H                                                                                                                             | Double Acting, Heating model(Pneumatic)             |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VABⓅK                       | K                                                                                                                             | Double Acting, Heating model, w/Heater(Pneumatic)   |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VLⓅD                        | D                                                                                                                             | Double Acting, w/Soft start bypass valve(Pneumatic) |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VLⓅT                        | T                                                                                                                             | Single Acting, w/Soft start bypass valve(N.C.)      |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VLⓅX                        | X                                                                                                                             | Single Acting, w/Soft start integrated valve(N.C.)  |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VLⓅW                        | W                                                                                                                             | Bonnet gasket seal type, Double Acting (Pneumatic)  |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VLⓅY                        | Y                                                                                                                             | Bonnet gasket seal type, Single Acting (N.C.)       |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     | VLⓅZ                        | Z                                                                                                                             | Bonnet gasket seal type, Manual operation           |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
| Port flange                                                                      | Valve size          | ①                           | □□□                                                                                                                           | 016                                                 | 025                                                                                 | 040 | 050                                                                                   | 063            | 080                                                                                   | 100 | 160  | 200            | 250      | 320           |          |  |          |  |         |  |         |  |              |  |
|                                                                                  | Flange Spec.        | ②                           | □□<br>Specific                                                                                                                | KF                                                  |                                                                                     | KQ  |                                                                                       | KC             |                                                                                       | CF  |      | JF             |          |               |          |  |          |  |         |  |         |  |              |  |
| Seal material (Disc, Bonnet, Stem)                                               | ③<br>(Note 1)       | □□                          | N1                                                                                                                            |                                                     | ED                                                                                  |     | S1                                                                                    |                | FS                                                                                    |     | R1   |                | R2       |               | R3       |  | P1       |  | P2      |  | U1      |  |              |  |
|                                                                                  |                     |                             | FKM                                                                                                                           |                                                     | NBR                                                                                 |     | EPDM                                                                                  |                | VMQ                                                                                   |     | FFKM |                | Chemraz® |               | Chemraz® |  | Chemraz® |  | Kalrez® |  | Kalrez® |  | ULTIC ARMOR® |  |
|                                                                                  |                     |                             | SS592                                                                                                                         |                                                     | SS630                                                                               |     | SSE38                                                                                 |                | 4079                                                                                  |     | 9100 |                | UA4640   |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     |                             | Im case of FFKM (FS), please specify a separate material.                                                                     |                                                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
| CDA port position                                                                | ④<br>(Note 2)       | □<br>Branch port Lower part | None                                                                                                                          |                                                     | E                                                                                   |     | S                                                                                     |                | W                                                                                     |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     |                             | Rear                                                                                                                          |                                                     | Right                                                                               |     | Left                                                                                  |                | Same Direction                                                                        |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     |                             |                                            |                                                     |  |     |  |                |  |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     |                             |                                                                                                                               |                                                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
| Sensor                                                                           | ⑤                   | □                           | 0                                                                                                                             |                                                     | 1                                                                                   |     | 2                                                                                     |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  | ⑥                   | □                           | None                                                                                                                          |                                                     | 1 EA                                                                                |     | 2 EA                                                                                  |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
| Solenoid or Heater Mounting                                                      | ⑦                   | (G) or (W)                  | G: Mounting Solenoid valve(Applicable Model) / W:Heater exclude (Not installed)                                               |                                                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
|                                                                                  |                     |                             | VLAP- / VLBP- / VLAS- / VLBS- / VLAD- / VLBD- / VLAT- / VLSP- / VLSS- / VLBT- / VYAP- / VYAS- / VYBP- / VYBS- / VYSP- / VYSS- |                                                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
| Valve                                                                            | (Note 3)            |                             |                                                                                                                               |                                                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
| Modified special                                                                 |                     | ( )                         | ※Please consult our technical department.                                                                                     |                                                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
| w/Solenoid Valve Spec.                                                           | size range          | 016                         | 025                                                                                                                           | 040                                                 | 050                                                                                 | 063 | 080                                                                                   | 100            | 160                                                                                   | 200 | 250  | 320            |          |               |          |  |          |  |         |  |         |  |              |  |
| Single acting                                                                    | [VAⓂS]              | Solenoid                    |                                                                                                                               | RDV412-5DZ-01                                       |                                                                                     |     |                                                                                       | RDS301-5DZ-01A |                                                                                       |     |      | (Note 4)       |          | Not Available |          |  |          |  |         |  |         |  |              |  |
| Double acting                                                                    | [VAⓂP]              | Valve Spec.                 |                                                                                                                               | DS2120-5HZ-01                                       |                                                                                     |     |                                                                                       |                |                                                                                       |     |      | RDS5120-5DZ-03 |          |               |          |  |          |  |         |  |         |  |              |  |
| Solenoid valve maker: TPC / Electric power: DC24V                                |                     |                             |                                                                                                                               |                                                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
| w/Heater Spec.                                                                   | size range          | 016                         | 025                                                                                                                           | 040                                                 | 050                                                                                 | 063 | 080                                                                                   | 100            | 160                                                                                   | 200 | 250  | 320            |          |               |          |  |          |  |         |  |         |  |              |  |
| Type: Silicon Rubber Heater                                                      |                     | 25W                         | 25W                                                                                                                           | 30W                                                 | 45W                                                                                 | 70W | 90W                                                                                   | 150W           | Not Available                                                                         |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |
| Temperature Max.: Amb.~150℃ / TC.sensor control: K-Type / Electric power: AC220V |                     |                             |                                                                                                                               |                                                     |                                                                                     |     |                                                                                       |                |                                                                                       |     |      |                |          |               |          |  |          |  |         |  |         |  |              |  |

(Note 1) For standard products, use sealing material of vacuum secretion as a FKM (flammable O-ring).

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(Note 2) Applies only to the double and single operating valves (except VABM-series)

(Note 3) Specifications that are partially changed in standards or standards other than standard products can be specially designed to meet the customer's needs, so please consult with them.

(Note 4) Solenoid valve specification: RDS301-5DZ-02A