## VSC-VDC

## 2-/3-way Motorized Ball Valves Modulating

| MODELS | DESCRIPTION |
| :---: | :---: |
| VSC2 | Motorized ball valve, 2-way, DN 1/2"; Kvs $4 \mathrm{~m}^{3 / h}$ |
| VSC3 | Motorized ball valve, 2-way, DN 3/4"; Kvs 6,3 m³/h |
| VSC4 | Motorized ball valve, 2-way, DN 1"; Kvs $10 \mathrm{~m}^{3 / h}$ |
| VSC5 | Motorized ball valve, 2-way, DN 1"1/4; Kvs $16 \mathrm{~m}^{3 / h}$ |
| VSC6 | Motorized ball valve, 2-way, DN 1"1/2; Kvs $25 \mathrm{~m}^{3 / h}$ |
| VSC8 | Motorized ball valve, 2-way, DN 2" Kvs $40 \mathrm{~m}^{3 / h}$ |
| VSC8-63 | Motorized ball valve, 2-way, DN 2" Kvs $63 \mathrm{~m}^{3 / h}$ |
| VDC2 | Motorized ball valve, 3-way, DN 1/2"; Kvs $4 \mathrm{~m}^{3 / h}$ |
| VDC3 | Motorized ball valve, 3-way, DN 3/4"; Kvs 6,3 m³/h |
| VDC4 | Motorized ball valve, 3-way, DN 1"; Kvs $10 \mathrm{~m}^{3 / h}$ |
| VDC5 | Motorized ball valve, 3-way, DN 1"1/4; Kvs $16 \mathrm{~m}^{3 / h}$ |
| VDC6 | Motorized ball valve, 3-way, DN 1"1/2; Kvs $25 \mathrm{~m}^{3 / h}$ |
| VDC8 | Motorized ball valve, 3-way, DN 2"; Kvs $40 \mathrm{~m}^{3 / h}$ |
| VDC8-63 | Motorized ball valve, 3-way, DN 2"; Kvs $63 \mathrm{~m}^{3 / \mathrm{h}}$ |



## APPLICATION AND USE

For use in heating, ventilation, heating systems, and air conditioning systems.
Available in 2- and 3-way threaded connections, both provided with either modulating, on/off and 3p actuator (MVS216, MVS416, MVS416F and MVS516 with ISO 5211 F04 flange).

The substances admitted are belonging at the following categories:

- water, from $-10^{\circ} \mathrm{C}$ to $+130^{\circ} \mathrm{C}$
- below $0^{\circ} \mathrm{C}$ only for water with antifreeze additive
- over $100^{\circ} \mathrm{C}$ only with additives that prevent boiling
- mixtures of ethylene glycol or propylene glycol> $20 \%$ and up to $50 \%$

Not suitable for gas 1 and group 2, group 1 liquids (Dir. 2014/68/UE).

## TECHNICAL CHARACTERISTICS

| DESCRIPTION |  | VSC-VDC |
| :---: | :---: | :---: |
| Body |  | PN40 |
| Construction |  | Body |
| Materials | Seat | Prass (EN-12165 CW617N) |
|  | Ball | PTFE |
|  | Sealing leakage |  |
| Connections |  | Chrome plated brass (EN-12164 CW617N) |
| Actuator connection |  | Tight close-off |


| TYPE | MODELS | DN | KVS [M3/H] | THREADED | P MAX | ACTUATORS | FLUID TEMP. |  | $\Delta \mathrm{P}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | MIN | MAX |  |
| $\begin{aligned} & \text { 入̀ } \\ & \stackrel{N}{1} \\ & \end{aligned}$ | VSC2 | 1/2" | 4 | FF | 16 bar | MVS×16 <br> (16 Nm) | $-10^{\circ} \mathrm{C}$ | $+130^{\circ} \mathrm{C}$ | 3.5 bar |
|  | VSC3 | 3/4" | 6,3 | FF |  |  |  |  |  |
|  | VSC4 | $1{ }^{\prime \prime}$ | 10 | FF |  |  |  |  |  |
|  | VSC5 | $11 / 4 "$ | 16 | FF |  |  |  |  |  |
|  | VSC6 | $11 / 2{ }^{\prime \prime}$ | 25 | FF |  |  |  |  |  |
|  | VSC8 | $2^{\prime \prime}$ | 40 | FF |  |  |  |  |  |
|  | VSC8-63 | 2" | 63 | FF |  |  |  |  |  |
| $\begin{aligned} & \text { x } \\ & \substack{3 \\ 3 \\ m} \end{aligned}$ | VDC2 | 1/2" | 4 | FFF |  |  |  |  |  |
|  | VDC3 | 3/4" | 6,3 | FFF |  |  |  |  |  |
|  | VDC4 | $1{ }^{\prime \prime}$ | 10 | FFF |  |  |  |  |  |
|  | VDC5 | $11 / 4{ }^{\prime \prime}$ | 16 | FFF |  |  |  |  |  |
|  | VDC6 | $11 / 2{ }^{\prime \prime}$ | 25 | FFF |  |  |  |  |  |
|  | VDC8 | 2" | 40 | FFF |  |  |  |  |  |
|  | VDC8-63 | $2^{\prime \prime}$ | 63 | FFF |  |  |  |  |  |

## OPERATION

Characteristic Curve



## 2-way Valve



## 3-way Valve



GVSC2 Thermal insulation for VSC2
GVSC3 Thermal insulation for VSC3
GVSC4 Thermal insulation for VSC4
GVSC5 Thermal insulation for VSC5
GVSC6 Thermal insulation for VSC6
GVSC8 Thermal insulation for VSC8 and VSC8-63
GVDC2 Thermal insulation for VDC2
GVDC3 Thermal insulation for VDC3
GVDC4 Thermal insulation for VDC4
GVDC5 Thermal insulation for VDC5
GVDC6 Thermal insulation for VDC6
GVDC8 Thermal insulation for VDC8 and VDC8-63

## INSTALLATION RECOMMENDATIONS

## Operating Conditions

Temperature, nominal pressure and differential pressure on the valve must be within in the specified value.

## Pipe Flushing

An anomalous valve flow action is caused, in almost all cases, by weld slag or foreign bodies entrapped between the valve seat and the plug, often causing damages.
To prevent such inconveniences, it is advisable to use filters upstream of the valve.
Moreover, the pipelines must be thoroughly washed by positioning the valve stem at half stroke; this operation must be performed before start-up and after a prolonged shutdown of the system.

## DIMENSIONS [mm]



