

## Poppet valve with electric actuator Series SEC04, SE14



|                         |                                                                                                                           |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Design type             | Poppet valve or rather Seat control valve with electric actuator, automatic overload protection and End position shut-off |
| Connection              | G1/4"...G2" according to ISO228<br>on request: NPT thread, Weld ends, Tri-Clamp Connection                                |
| Materials               | Body Red brass G1/2"...G2"<br>Stainless steel housing 1.4408 G1/4"...G2"<br>Standard seat seal PTFE                       |
| Application range       | gaseous and liquid media (also slightly contaminated), that do not attack the materials used                              |
| Viscosity of the medium | max. 600mm <sup>2</sup> /s (600cSt)                                                                                       |
| Medium temperature      | -30...+200°C                                                                                                              |
| Ambient temperature     | -10...+60°C                                                                                                               |
| Operating pressure      | Vacuum up to 0,001bar absolute, see table                                                                                 |
| Mounting type           | Installation in rigid piping system                                                                                       |
| Mounting position       | any, except hanging downward                                                                                              |

### Electrical data:

|                       |                                                                                                                       |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------|
| Voltage type          | AC and DC voltage                                                                                                     |
| Standard voltage      | see table "Motor data"                                                                                                |
| Electrical Connection | via cable gland M20x1,5 or rather M12x1,5                                                                             |
| End position shut-off | via internal electronics                                                                                              |
| Duty cycle            | 100% Duty cycle (continuous operation)                                                                                |
| Degree of protection  | IP65 according to EN 60529 with correctly installed cable entry (protection against dust ingress and splashing water) |
| Actuation             | 3-point control, (0)4...20mA or rather (0)2...10V                                                                     |
| Special version       | Control actuator with fail-safe position, 2-point control, other switching times                                      |
| Accessories           | Actuator heater, Limit switch, Position feedback, Feedback via potentiometer                                          |



## Kvs values [m³/h Water]

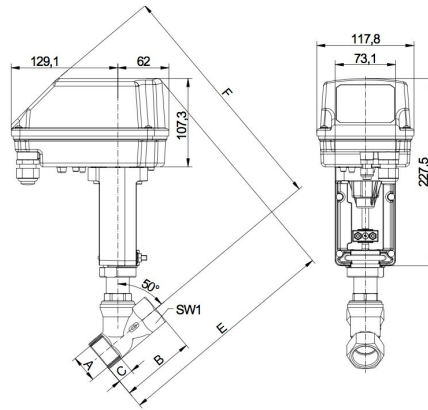
| Characteristic curve    | linear |      |      |     |     | equal percentage |     |     |      |     |      | Open/Close |
|-------------------------|--------|------|------|-----|-----|------------------|-----|-----|------|-----|------|------------|
| Nominal size<br>DN [mm] | 100%   | 40%  | 25%  | 15% | 10% | 100%             | 40% | 25% | 15%  | 10% | 7,5% |            |
| 8                       | 0,6    | 0,24 | 0,15 | -   | -   | 0,6              | -   | -   | -    | -   | -    | 0,95       |
| 15                      | 3,8    | 1,5  | 0,93 | -   | 0,4 | 3                | 1,2 | 0,8 | 0,46 | -   | 0,23 | 3,8        |
| 20                      | 8,8    | 3,5  | 2,2  | -   | -   | 6                | 2,4 | 1,5 | -    | -   | -    | 9          |
| 25                      | 14     | 5,8  | 3,6  | -   | -   | 10               | 4   | 2,6 | -    | -   | -    | 17         |
| 32                      | 20     | 8    | -    | -   | -   | 16               | 6   | -   | -    | -   | -    | 28         |
| 40                      | 27     | 11   | -    | -   | -   | 25               | 10  | -   | -    | -   | -    | 35         |
| 50                      | 37     | -    | -    | -   | -   | -                | -   | -   | -    | -   | -    | 45         |

## Type code

|                                                                      |                                               |              |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------------|-----------------------------------------------|--------------|--|--|--|--|--|--|--|--|--|--|
| Seat control valve SEC04<br>Poppet valve SE14 - N 112 - R T E04 - 01 |                                               |              |  |  |  |  |  |  |  |  |  |  |
| Type                                                                 |                                               |              |  |  |  |  |  |  |  |  |  |  |
| Connection type                                                      | none specification, if female thread ISO228/1 |              |  |  |  |  |  |  |  |  |  |  |
|                                                                      | Weld ends to DIN                              | D            |  |  |  |  |  |  |  |  |  |  |
|                                                                      | Weld ends to ISO                              | I            |  |  |  |  |  |  |  |  |  |  |
|                                                                      | NPT thread                                    | N            |  |  |  |  |  |  |  |  |  |  |
| Connection                                                           | DN8-1/4", only with seat seal PEEK            | 14           |  |  |  |  |  |  |  |  |  |  |
|                                                                      | DN15-1/2"                                     | 12           |  |  |  |  |  |  |  |  |  |  |
|                                                                      | DN20-3/4"                                     | 34           |  |  |  |  |  |  |  |  |  |  |
|                                                                      | DN25-1"                                       | 10           |  |  |  |  |  |  |  |  |  |  |
|                                                                      | DN32-1 1/4"                                   | 114          |  |  |  |  |  |  |  |  |  |  |
|                                                                      | DN40-1 1/2"                                   | 112          |  |  |  |  |  |  |  |  |  |  |
|                                                                      | DN50-2"                                       | 20           |  |  |  |  |  |  |  |  |  |  |
| Materials                                                            | Red brass (DN15 - DN50)                       | R            |  |  |  |  |  |  |  |  |  |  |
|                                                                      | Stainless steel 1.4408 (DN8 - DN50)           | S            |  |  |  |  |  |  |  |  |  |  |
| Seat seal                                                            | EPDM                                          | E            |  |  |  |  |  |  |  |  |  |  |
|                                                                      | PEEK                                          | P            |  |  |  |  |  |  |  |  |  |  |
|                                                                      | NBR                                           | N            |  |  |  |  |  |  |  |  |  |  |
|                                                                      | PTFE                                          | T            |  |  |  |  |  |  |  |  |  |  |
|                                                                      | FKM                                           | V            |  |  |  |  |  |  |  |  |  |  |
| Actuator                                                             | Control drive CA260C                          | EC6          |  |  |  |  |  |  |  |  |  |  |
|                                                                      | Control drive CA24C                           | EC7          |  |  |  |  |  |  |  |  |  |  |
|                                                                      | On-off actuator CA24                          | E04          |  |  |  |  |  |  |  |  |  |  |
|                                                                      | On-off actuator CA260                         | E05          |  |  |  |  |  |  |  |  |  |  |
| Special version                                                      | described in the item text                    | 01,02,03.... |  |  |  |  |  |  |  |  |  |  |



## Dimensions



| Connection<br>A | Nominal<br>size<br>DN [mm] | max. Operating pressure [bar] |                         |                     | B   | C    | E   | F   | SW1 | SW2 | Stroke | Actuation time<br>Open/Close<br>[Seconds] | Weight<br>[approx.<br>kg] |
|-----------------|----------------------------|-------------------------------|-------------------------|---------------------|-----|------|-----|-----|-----|-----|--------|-------------------------------------------|---------------------------|
|                 |                            | Body Red<br>brass             | Housing Stainless steel |                     |     |      |     |     |     |     |        |                                           |                           |
|                 |                            | On-off<br>operation*          | On-off<br>operation     | Normal<br>operation |     |      |     |     |     |     |        |                                           |                           |
| G1/4"           | 8                          | -                             | 40                      | 16                  | 60  | 12   | 258 | 306 | 20  | 30  | 8,5    | 26                                        | 2,3                       |
| G1/2"           | 15                         | 16                            | 40                      | 16                  | 65  | 15   | 263 | 310 | 25  | 30  | 9      | 27                                        | 2,4                       |
| G3/4"           | 20                         | 16                            | 20                      | 16                  | 75  | 16,3 | 270 | 310 | 31  | 30  | 14     | 32                                        | 2,6                       |
| G1"             | 25                         | 12                            | 12                      | 12                  | 90  | 19,1 | 275 | 314 | 39  | 30  | 18     | 54                                        | 2,8                       |
| G1"1/4          | 32                         | 7                             | 7                       | 7                   | 110 | 21,4 | 291 | 330 | 48  | 30  | 21     | 63                                        | 3,2                       |
| G1"1/2          | 40                         | 4,8                           | 4,8                     | 4,8                 | 120 | 21,1 | 295 | 334 | 55  | 30  | 22     | 66                                        | 3,5                       |
| G2"             | 50                         | 2,8                           | 2,8                     | 2,8                 | 150 | 25,7 | 311 | 341 | 68  | 32  | 22     | 66                                        | 4,1                       |

\*Angle seat valves with control cone only available with stainless steel body

## Motor data

| Function   | Rated<br>voltage | Setpoint<br>input      | Burden<br>[Ω] | Position<br>feedback   | external<br>burden<br>[Ω] | Limit switch          | max. Switching<br>capacity | Power<br>[W] | Actuation<br>time<br>[s/mm] | Actuator<br>type |
|------------|------------------|------------------------|---------------|------------------------|---------------------------|-----------------------|----------------------------|--------------|-----------------------------|------------------|
| Open/Close | 24V<br>AC/DC     | 3-point                | -             | optional<br>available  | -                         | optional<br>available | 250V AC/DC<br>1A           | 13           | 3                           | CA24             |
| Open/Close | 90-260V<br>AC    | 3-point                | -             | optional<br>available  | -                         | optional<br>available | 250V AC/DC<br>1A           | 12           | 3                           | CA260            |
| Control    | 24V<br>AC/DC     | (0)4-20mA<br>(0)2-10V* | 500<br>95k    | (0)4-20mA<br>(0)2-10V* | 500<br>>5k                | 2x                    | 24V AC/DC<br>200mA         | 13           | 2                           | CA24C            |
| Control    | 90-260V<br>AC    | (0)4-20mA<br>(0)2-10V* | 500<br>95k    | (0)4-20mA<br>(0)2-10V* | 500<br>>5k                | 2x                    | 24V AC/DC<br>200mA         | 12           | 2                           | CA260C           |

\*(0)2-10V (Switching via a switch on the PCB)



Electrical connection

| On-off actuators |                 |
|------------------|-----------------|
| Actuator CA24    | Actuator CA260  |
|                  |                 |
| Control drives   |                 |
| Actuator CA24C   | Actuator CA260C |
|                  |                 |

| Position | Description         | Note                                                               |
|----------|---------------------|--------------------------------------------------------------------|
| S1       | Bottom limit switch | Standard for control actuators - optional for open-close actuators |
| S2       | Top limit switch    | Standard for control actuators - optional for open-close actuators |
| S3       | Fault message       | Standard for control actuators - max. 0,2A/24V AC/DC               |
| Y        | Setpoint input      | Standard 4-20mA<br>2-10V (Switching via a switch on the PCB)       |
| Z        | Position feedback   | Standard 4-20mA<br>2-10V (Switching via a switch on the PCB)       |

Illustrations non-binding  
Design, dimensional and material changes reserved

Armatures / Valves, butterfly valves and gate valves - automatically operated / Seat valves - electrically operated / Electrical seat valve Series SE14-RTE