



# Control Valve Data Sheet (Sheet 1/2)

Project / EPC:  
End User:  
End User Location:

Quote No: 24/03190  
Customer: CEA

Rev.: 2

Please specify that the valve and actuator and accessories will be full assembly

Filed By :  
Date : 02/08/2024

|             |            |                   |                         |   |
|-------------|------------|-------------------|-------------------------|---|
| <b>Item</b> | Item       |                   | /68/CE) Category B + C2 |   |
|             | Quantity   | 2                 |                         | NACE Not required                               |
|             | TAG        | LCV-0001A_B       |                         | Piping diam. – Schedule 1" / 4" - Schudula 40   |
|             | Service    |                   |                         | Min Ambient Temperature                         |
|             | Valve Type | Globe single seat |                         | Design Press. / Temp. FV - 22 bar.g / -45/120 C |

|             |           |        |
|-------------|-----------|--------|
| Fluid/State | Propylene | Liquid |
|-------------|-----------|--------|

| <b>Service Conditions</b> | Sizing Conditions | Units | Case 1   | Case 2   | Case 3   | #N/D | #N/D | #N/D |
|---------------------------|-------------------|-------|----------|----------|----------|------|------|------|
|                           | Density           | kg/m3 | 437,000  | 437,000  | 437,000  |      |      |      |
|                           | Viscosity         | cP    | 0,069    | 0,069    | 0,069    |      |      |      |
|                           | Flow rate         | kg/h  | 2847,000 | 3273,000 | 1139,000 |      |      |      |
|                           | Inlet pressure    | bar.g | 18,780   | 18,780   | 22,000   |      |      |      |
|                           | Outlet pressure   | bar.g | 3,860    | 3,860    | 3,860    |      |      |      |
|                           | DP                | bar.g | 14,920   | 14,920   | 18,140   |      |      |      |
|                           | Temperature       | C     | 56,000   | 56,000   | 56,000   |      |      |      |

|                        |                        |                        |                        |                        |  |
|------------------------|------------------------|------------------------|------------------------|------------------------|--|
| <b>Service Results</b> | Remarks                | Flashing is occurring; | Flashing is occurring; | Flashing is occurring; | 42,94% of Flashing at control valve outlet |
|                        | Calculated             | Cv                     | 2,605                  | 2,994                  | 0,782                                      |
|                        | Selected               | Cv                     | 3,5                    | 3,5                    | 3,5  |
|                        | Travel                 | %                      | 74,000                 | 85,000                 | 22,000                                     |
|                        | Noise estimated at 1m  | Db                     | 67,701                 | 68,852                 | 78,795                                     |
|                        | Velocity on inlet line | m/s                    | 3,247                  | 3,733                  | 1,299                                      |

Extended bonnet required suitable for 50 mm line insulation

|             |      |                      |                |         |
|-------------|------|----------------------|----------------|---------|
| Valve Model | KA10 | KA13-30-1"-AX24-A1RA | Valve Function | Control |
|-------------|------|----------------------|----------------|---------|

|                      |                    |                       |                    |                   |           |              |         |
|----------------------|--------------------|-----------------------|--------------------|-------------------|-----------|--------------|---------|
| <b>Body / Bonnet</b> | Inlet/Outlet Size  | 1"                    | <b>Accessories</b> | <b>Positioner</b> | Enclosure | OMC          |         |
|                      | Inlet/Outlet conn. | ANSI 300 RF           |                    |                   |           | YT3700L-20   |         |
|                      | Body Material      | ASME SA-352 LCC       |                    |                   |           | Ex ia IIC T6 |         |
|                      | Body Gasket        | SS316L ARMED GRAPHITE |                    |                   |           | Alluminium   |         |
|                      | Studs              | ASME SA-320 L7        |                    |                   |           | Signal Input | 4-20mA  |
|                      | Nuts               | ASME SA-194 4         |                    |                   |           | Feedback     | 4-20mA  |
|                      | Bonnet type        | 17-4PH H900           |                    |                   |           | Connections  | M20x1,5 |

Metal

Material specified for the type

The mentioned model number is Rotork, please clarify OMC  
-Positioner strok max is 150 while the actuator is 200, please clarify  
-positioner output pressure signal to be specified

please clarify the feedback 4~20 mA from which device!

|             |                       |              |                    |                |          |                |            |
|-------------|-----------------------|--------------|--------------------|----------------|----------|----------------|------------|
| <b>Trim</b> | Balancing System      | Not Required | <b>Accessories</b> | <b>Air Set</b> | Protocol | SITECNA        |            |
|             | Cv                    | 3,5          |                    |                |          | Manufacturer   | FR04       |
|             | Seat Type             | Threaded     |                    |                |          | Model          | AISI 316   |
|             | Seat material         | 17-4PH H900  |                    |                |          | Material       | AISI 316   |
|             | Seat size             | 10,0 mm      |                    |                |          | Gauge          | 0,4-10 bar |
|             | Flow action           | To Open      |                    |                |          | Pressure Range | -          |
|             | Stem Material         | 17-4PH H900  |                    |                |          | Manufacturer   | -          |
|             | Flow Divider          | NO           |                    |                |          | Model          | -          |
|             | Flow Divider Material | -            |                    |                |          | Execution      | -          |
|             | Plug Characteristic   | LIN          |                    |                |          | Material       | -          |

Brand to be specified

filter to be added

|                |          |               |                    |                 |              |       |
|----------------|----------|---------------|--------------------|-----------------|--------------|-------|
| <b>Packing</b> | Type     | V-RING        | <b>Accessories</b> | <b>Switches</b> | Manufacturer | -     |
|                | Material | PTFE/GRAPHITE |                    |                 |              | Model |

|                 |                  |              |                    |                       |              |               |   |
|-----------------|------------------|--------------|--------------------|-----------------------|--------------|---------------|---|
| <b>Actuator</b> | Actuator type    | AX24         | <b>Accessories</b> | <b>Volume Booster</b> | Manufacturer | -             |   |
|                 | Air failure      | -            |                    |                       |              | Model         | - |
|                 | Stroke (mm)      | -            |                    |                       |              | Execution     | - |
|                 | Stroke (Psi)     | -            |                    |                       |              | Case material | - |
|                 | Shutoff pressure | 22 bar.g     |                    |                       |              | Enclosure     | - |
|                 | Spring case/Yoke | Carbon Steel |                    |                       |              | Contacts      | - |

Referring to submitted catalog, painted A216 wcb

Actuator size to be specified  
Actuator body material  
Actuator sizing result to be specified  
Stroking time to be specified

To be specified

|              |                   |                      |                           |
|--------------|-------------------|----------------------|---------------------------|
| <b>Extra</b> | Body Paint        | System               | -                         |
|              | Actuator Paint    | System               | -                         |
|              | Tubing & Fittings | Material             | OMC STD ST.STEEL FITTINGS |
|              | Notes             | - Safety factor: 1,6 | Vmech 3.9.5               |

|                        |                          |                                  |   |             |        |                   |      |      |
|------------------------|--------------------------|----------------------------------|---|-------------|--------|-------------------|------|------|
| Quote No: 24/03190     |                          | Rev.: 2                          |   | Filled By : |        | Date : 02/08/2024 |      |      |
| Customer: CEA          |                          |                                  |   |             |        |                   |      |      |
| <b>Item</b>            | Item                     | PED (2014/68/CE) Category B + C2 |   |             |        |                   |      |      |
|                        | Quantity                 | 2                                | NACE Not required                               |             |        |                   |      |      |
| <b>Item</b>            | TAG                      | LCV-0001A_B                      | Piping diam. - Schedule 1"/4" - Schedules 40    |             |        |                   |      |      |
|                        | Service                  |                                  | Min Ambient Temperature                         |             |        |                   |      |      |
|                        | Valve Type               | Globe single seat                | Design Press. / Temp. FV - 22 bar.g / -45/120 C |             |        |                   |      |      |
|                        | Fluid/State              | Propylene                        | Liquid  |             |        |                   |      |      |
|                        | <b>Sizing Conditions</b> | Units                            | Case 1  | Case 2      | Case 3 | #N/D              | #N/D | #N/D |
| <b>Service Results</b> | Calculated               | Cv                               | 2,605   | 2,994       | 0,782  |                   |      |      |
|                        | Selected                 | Cv                               | 3,5   | 3,5         | 3,5    |                   |      |      |
|                        | Travel                   | %                                | 74,000  | 85,000      | 22,000 |                   |      |      |

### Flow Curve

