

# Control Valve



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A MEMBER OF THE ARCA FLOW GROUP

|    |  |  |                        |
|----|--|--|------------------------|
| 1  | Customer:  | ARTES-ref.-no.: 5504246                      |                        |
| 2  | Plant:   | Pos.: 9                                      |                        |
| 3  | Location: control valve BOP                                      | Qty.: 1                                      |                        |
| 4  | TAG No.: 1 LBS11 AA001   | S/N: 3168004.1                               |                        |
| 5  | <b>Pipe - Connection Data</b>                                    | <b>Inlet</b>                                 | <b>Outlet</b>          |
| 6  | Dimensions ØD [mm] x s [mm]                                      | 610,0 x 8,8                                  | 610,0 x 8,8            |
| 7  | Material   | ...  | ...                    |
| 8  | Welding Connection ØD [mm] x s [mm]                              | 610,0 x 8,8                                  | 610,0 x 8,8            |
| 9  | Flange Connection  | --   | --                     |
| 10 | <b>Valve - Design</b>  | <b>Inlet</b>                                 | <b>Outlet</b>          |
| 11 | Nominal Size DN / NPS  | 600  | 600                    |
| 12 | Nominal Pressure PN / class                                      | --   | --                     |
| 13 | Design Pressure bar(g)   | 5  | 5                      |
| 14 | Design Temperature °C  | 150  | 150                    |
| 15 | Material   | 1.0460 (P250GH, C22.8)                       | 1.0460 (P250GH, C22.8) |
| 16 | <b>Operation Data</b>  | <b>Loading Case</b>                          | <b>Loading Case</b>    |
| 17 | Medium : Water/Steam   | 1  | 2                      |
| 18 | Phase  | steam  | steam                  |
| 19 | Flowrate t/h   | 33,57  | 29,95                  |
| 20 | Temperature, Inlet °C  | 132,40                                       | 132,40                 |
| 21 | Pressure, Inlet barA   | 2,50   | 2,50                   |
| 22 | Pressure, Outlet barA  | 0,85   | 0,85                   |
| 23 | kv m³/h  | 1058   | 942                    |
| 24 | Flow Speed, Outlet m/s   | 72,5   | 64,6                   |
| 25 | Sound Pressure Level dB(A)                                       | 89   | 80                     |
| 26 | <b>Type Of Valve</b>   | <b>Control Ball Valve Type GW</b>            |                        |
| 27 | <b>Valve Parameter</b>   | <b>Material</b>                              |                        |
| 28 | Seat Diameter: 350 mm  | Body: 1.0460 (P250GH, C22.8)                 |                        |
| 29 | Pressure Reduction Steps, controlled: 1                          | Seating: 1.4122 (X39CrMo17-1), metal sealing |                        |
| 30 | Pressure Reduction Steps, fix: 0                                 | Ball: 1.4122 (X39CrMo17-1), metal sealing    |                        |
| 31 | kvs 1200 m³/h  | Control disc: 1.0460 (P250GH, C22.8)         |                        |
| 32 | Control Characteristic: equal perc. mod.                         | Seals: O-Rings, EPDM perox.                  |                        |
| 33 | max. Dp für Actuator: 5 bar                                      |  |                        |
| 34 | Installation Length: 1050 mm                                     |  |                        |
| 35 |  |  |                        |
| 36 | <b>Design / Inspection</b>                                       | <b>Final Inspection</b>                      |                        |
| 37 |  | <b>Confirmation acc. to DIN EN 3.1</b>       |                        |
| 38 | Requirements acc. to: EN 12952                                   | <b>10204</b>                                 |                        |
| 39 | Leakage Class: 0,01% of kvs-Value                                |  |                        |
| 40 |  |  |                        |
| 41 | <b>Actuator</b> electric   | 3167991                                      |                        |
| 42 | Type: auma SAR10.2 & GS125.3 & AC01.2                            |  |                        |
| 43 | U = 400V / 50Hz / 3ph  |  |                        |
| 44 | terminal plan: TPA 00R100-011-00, TPC A-1B1-1C2-A000             |  |                        |
| 45 | positioning time: ca. 30 sec. / 90°                              |  |                        |
| 46 |  |  |                        |
| 47 | <b>Actuatoradaption:</b> EN ISO 5211 - F25 - square 75 mm        |  |                        |
| 48 | <b>Remarks</b>   |  |                        |
| 49 |  |  |                        |
| 50 |  |  |                        |
| 51 |  |  |                        |
| 52 |  |  |                        |
| 53 | Calculation - Sound Pressure Level with 150 mm Sound Insulation! |  |                        |
| 54 | Revision   | 0  | 1                      |
| 55 | Date:  | 11.06.2021                                   | 11.10.2021             |
| 56 | Prepared:  | F. Lange                                     | P. Schüler             |
| 57 | Checked:   | P. Schüler                                   | R. Feldmann            |