



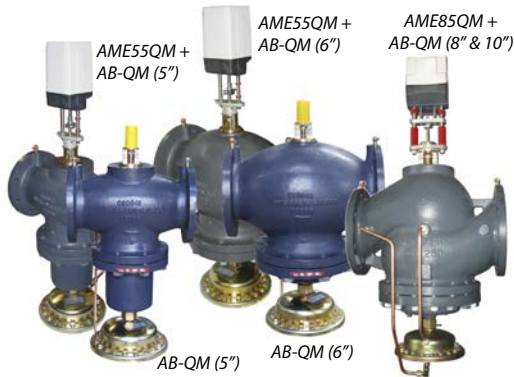
Model AB-QM Pressure Independent Balance and Control Valve

CONTROL VALVE SUBMITTAL, 5" thru 10" valves, High Flow

DATE _____ SPEC. SECTION _____ PAGE _____ OF _____

| | |
|---|--|
| <p><u>PROJECT</u> _____</p> <p><u>ARCHITECT/ENGINEER</u> _____</p> <p><u>SUPPLIER</u> _____</p> <p><u>CONTRACTOR</u> _____</p> <p>ORDER NO. _____</p> | |
|---|--|

| APPROVALS | | | |
|--------------|----------------|------|-------|
| AGENCY | REPRESENTATIVE | DATE | NOTES |
| ARCHITECT | | | |
| ENGINEER | | | |
| CONTRACTOR 1 | | | |
| CONTRACTOR 2 | | | |
| (OTHER) | | | |
| NOTE | COMMENT | | |
| | | | |
| | | | |
| | | | |
| | | | |



Description

The AB-QM temperature control valve provides pressure independent regulation of flow while also providing flow limiting system balance. The unique differential pressure regulator dynamically adjusts to normal changes in system pressure from valves opening and closing or changing of pump speed.

- Constant differential pressure across control valve, resulting in 100% valve authority
- Balancing valve dynamic adjustment to maintain constant flow
- Variety of actuator signal combinations: Modulating, 3-point floating
- Adjustment collar and locking mechanism for flow setting

| Model | Number | Unit Tag | Qty |
|-------|--------|----------|-----|
| 5" | | | |
| 6" | | | |
| 8" | | | |
| 10" | | | |

| Nominal Diameter | 5" | 6" | 8" | 10" |
|---|--|----------|---------------------------|----------|
| Code No. | 003Z0915 | 003Z0916 | 003Z0717 | 003Z0718 |
| Max. Flow (GPM) | 484 | 836 | 1100 | 1629 |
| Connection | ANSI Flange, Flat face (ANSI Standard B16.1) | | ISO Flange (EN 1092-2) | |
| Connection rating | ANSI Class 125 | | ISO PN16 | |
| Controlled ΔP range | 8.7 thru 60 psi (0.6 thru 4.0 bar) | | | |
| Differential pressure loss of open valve | 8.7 psi | | | |
| Control valve characteristics | Linear | | | |
| Max. close off differential pressure (across the valve) | 232 psi, with actuator | | | |
| Max. static (hold) pressure | 300 psi (20 bar) | | | |
| Medium temperature | 15°F to 250°F (-10°C to 120°C) | | | |
| Allowable fluid | Water and secondary refrigerant additives such as glycol | | | |
| Shut off function | Acc. to ISO 5208 class A - no visible leakage | | | |

Specification

The valve shall be pressure independent and control pressure across the control valve orifice. The regulation of pressure shall be through an integrated EPDM diaphragm design, stainless steel spring, pressure control disc and require no internal maintenance or replaceable cartridges. Pressure control seat shall be brass construction with vulcanized EPDM. The adjustment method shall indicate percentage of valve flow range and utilize spring locked mechanism for adjustment. The valve assembly shall provide 100% control valve authority and maintain a linear flow characteristic. The valve shall accurately control the flow with an operating pressure differential range of 8.7 to 60psi for valve sizes 5" to 10".



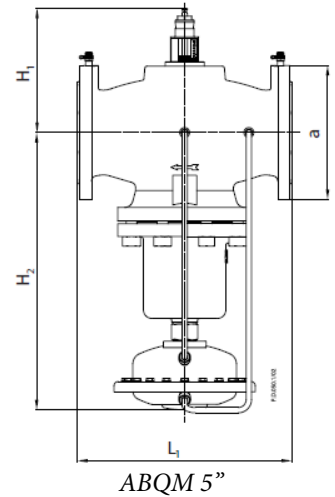
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CONTROL VALVE SUBMITTAL, 5" thru 10" valves, ISO High Flow

Electric Actuator for 5" to 10" ABQM Valves

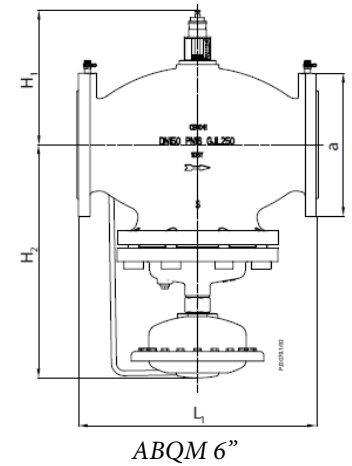
| Style | Code No. | Power | Input Signal | | | Output Signal (0-10VDC) | Safety Function | |
|-----------|----------|-------|--------------|----------|------------|----------------------------|-----------------|------|
| | | | On/Off | Floating | Modulating | | Up | Down |
| AME55 QM | 082H3078 | 24Vac | | • | • | • | | |
| AME658 SU | 082G3450 | 24Vac | | • | • | • | • | |
| AME658 SD | 082G3448 | 24Vac | | • | • | • | | • |
| AME85 QM | 082G1453 | 24Vac | | • | • | • | | |

Available battery backup assembly for safety function, AM-PBU 25, code no. 082H7090

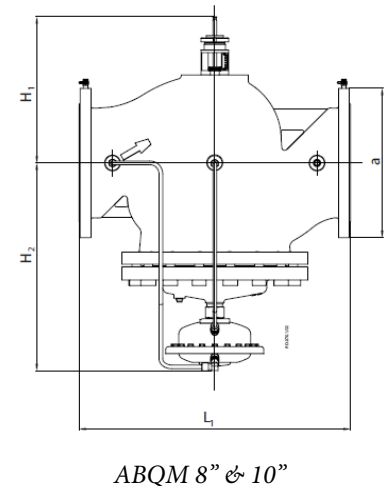
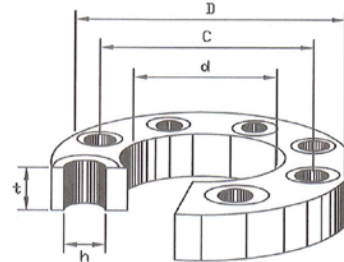


Contact With Water

| Valve Size | 5" & 6" | 8" & 10" |
|------------------|--------------------------------|-------------------------------|
| Body | Grey iron EN-GJL-250 (GG25) | Grey iron EN-GJL-250 (GG25) |
| Membrane | W.Nr.1.4571; Stainless steel | EPDM |
| Diaphragm O-Ring | EPDM | EPDM |
| Springs | W.Nr. 1.4401; Stainless steel | W. Nr 1.4310; Stainless steel |
| Cone (Pc) | W.Nr.1.4404NC; Stainless steel | W.Nr.1.4021; Stainless steel |
| Seat (Pc) | W.Nr.1.4027; Stainless steel | W.Nr.1.4027; Stainless steel |
| Cone (Cv) | W.Nr.1.4404NC; Stainless steel | W.Nr.1.4021; Stainless steel |
| Seat (Cv) | W.Nr. 1.4027; Stainless steel | W.Nr. 1.4027; Stainless steel |
| Screw | W.Nr.1.1181; Stainless steel | W.Nr.1.1181; Stainless steel |
| Flat Gasket | Graphite gasket | Non asbestos |



| Valve size | Dimensions, in (mm) | | | | Weight lb (kg) |
|------------|---------------------|---------------|----------------|-------------------|-------------------|
| | L1 | H1 | H2 | a (ISO flange) | |
| 5" | 15.75 (400) | 10.7 (272) | 20.4 (518) | 9.84 (250) | 188 (85.3) |
| 6" | 18.9 (480) | 12.1 (308) | 20.4 (518) | 11.22 (285) | 304 (138) |
| 8" | 23.62 (600) | 17.0 (434) | 19.01 (483) | 13.39 (340) | 483 (219) |
| 10" | 28.74 (730) | 16.9 (430) | 21.00 (533) | 15.94 (405) | 754 (342) |



ISO Flange Dimensions, in (mm)

| Flange Size | 5" | 6" | 8" | 10" |
|-----------------------|--------------|--------------|--------------|---------------|
| DN Size | 125 | 150 | 200 | 250 |
| Outside Diameter, D | 9.84 (250) | 11.22 (285) | 13.39 (340) | 15.94 (405) |
| Inside Diameter, d | 5.57 (141.6) | 6.71 (170.5) | 8.73 (221.8) | 10.87 (276.2) |
| # of Bolt Holes | 8 | | 12 | |
| Bolt Hole Diameter, h | 0.71 (18) | 0.87 (22) | | 1.02 (26) |
| Bolt Circle, C | 8.27 (210) | 9.45 (240) | 11.61 (295) | 13.98 (355) |
| Flange Thickness, t | 0.87 (22) | | 0.94 (24) | 1.02 (26) |
| Bolt Size | 0.63 (M16) | 0.79 (M20) | | 0.94 (M24) |

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