



Model AB-QM Pressure Independent Balance and Control Valve

CONTROL VALVE SUBMITTAL, 8" and 10", ISO valves

DATE _____ SPEC. SECTION _____ PAGE _____ OF _____

| | | | | | |
|-----------------|---------------------------|------------------|----------------|------|-------|
| <u>PROJECT</u> | <u>ARCHITECT/ENGINEER</u> | APPROVALS | | | |
| | | AGENCY | REPRESENTATIVE | DATE | NOTES |
| | | ARCHITECT | | | |
| | | ENGINEER | | | |
| <u>SUPPLIER</u> | <u>CONTRACTOR</u> | CONTRACTOR 1 | | | |
| | | CONTRACTOR 2 | | | |
| | | (OTHER) | | | |
| | | NOTE | COMMENT | | |
| ORDER NO. | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



*ABQM 8" valve w/
AME85QM actuator*

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 |
|-------|--------|----------|-----|
| 8" | | | |
| 10" | | | |

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 4 to 60psi for valve sizes 8" and 10".

| Nominal Diameter | 8" | 10" |
|---|--|----------|
| Code No. | 003Z0707 | 003Z0708 |
| Max. Flow (GPM) | 836 | 1232 |
| Connection | ISO Flange (EN 1092-2) and gasket <i>(ISO flanges & gaskets ordered separately)</i> | |
| Connection rating | ANSI Class 125 (PN16) | |
| Controlled ΔP range | 4 thru 60 psi (0.28 thru 4.0 bar) | |
| Differential pressure loss of open valve | 4.0 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 | |
| Leakage | Class 4, metal to metal | |



Model AB-QM Pressure Independent Balance and Control Valve

CONTROL VALVE SUBMITTAL, 8" and 10" valves

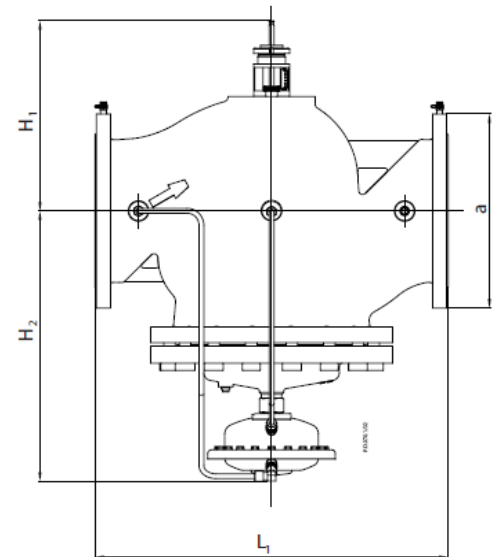
Electric Actuator for 8" & 10" ABQM Valves

| Style | Code No. | Power | Input Signal | | | Output Signal (0-10VDC) |
|---|----------|-------|--------------|----------|------------|----------------------------|
| | | | On/Off | Floating | Modulating | |
| AME85 QM | 082G1453 | 24Vac | | • | • | • |
| Available battery backup assembly for safety function, AM-PBU 25, code no. 082H7090 | | | | | | |

Contact With Water

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

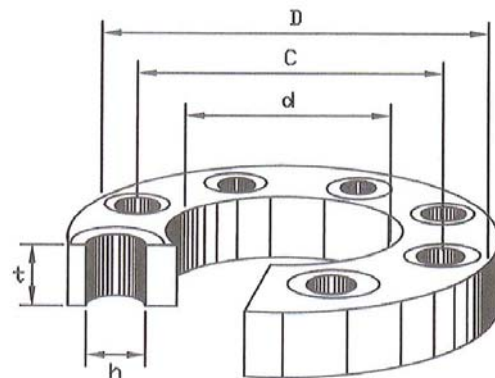
| Valve size | Dimensions, in (mm) | | | | Weight lb (kg) |
|------------|---------------------|----------------|----------------|-------------------|-------------------|
| | L1 | H1 | H2 | a (ISO flange) | |
| 8" | 23.62 (600) | 15.79 (401) | 19.01 (483) | 13.39 (340) | 483 (219) |
| 10" | 28.74 (730) | 15.63 (397) | 21.00 (533) | 15.94 (405) | 754 (342) |



ABQM 8" & 10"

ISO Flange Dimensions, in (mm)

| Flange Size | 8" | 10" |
|------------------------------|--------------|---------------|
| DN Size | 200 | 250 |
| Outside Diameter, <i>D</i> | 13.39 (340) | 15.94 (405) |
| Inside Diameter, <i>d</i> | 8.73 (221.8) | 10.87 (276.2) |
| # of Bolt Holes | 12 | |
| Bolt Hole Diameter, <i>h</i> | 0.87 (22) | 1.02 (26) |
| Bolt Circle, <i>C</i> | 11.61 (295) | 13.98 (355) |
| Flange Thickness, <i>t</i> | 0.94 (24) | 1.02 (26) |
| Bolt Size | 0.79 (M20) | 0.94 (M24) |



Danfoss can accept no responsibility for possible errors in printed materials and reserves the right to alter its products without notice. All trademarks in this material are property of the respective companies. Danfoss and Danfoss logotype are trademarks of Danfoss A/S. All right reserved.



Head Office:
Danfoss Inc.
Mississauga, ON CANADA
Tel: 866-375-4822 Fax: 905.285.2055

USA Office:
Danfoss Inc.
Baltimore, MD USA
Tel: 866-375-4822 Fax: 443.512.0270

www.abqmqvalves.com

VL.A7.J1.22 © Danfoss 4/2013