



## Model AB-QM Pressure Independent Balance and Control Valve

### CONTROL VALVE SUBMITTAL, 1½” and 2” valves (2<sup>nd</sup> gen)

DATE \_\_\_\_\_ SPEC. SECTION \_\_\_\_\_ PAGE \_\_\_\_\_ OF \_\_\_\_\_

<u>PROJECT</u>	<u>ARCHITECT/ENGINEER</u>
<u>SUPPLIER</u>	<u>CONTRACTOR</u>
ORDER NO.	

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



AME 435QM + AB-QM



AB-QM

*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 and 3-point floating
- Adjustment collar and locking mechanism for flow setting

Model	Number	Unit Tag	Qty
1½”			
2”			

*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 adjustment collar and locked mechanism for setting the flow. 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 the valve sizes.

Nominal Diameter	1½”	2”
Code No.	003Z0780	003Z0781
Max. Flow (GPM)	33	55
Connection	External straight thread (NPSM)	
Tailpieces <i>(Ordered Separately)</i>	MNPT or FSolder tailpcs with union nut and gasket, requires 2 per valve	
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)	Dependent on actuator selected for valve size	
Max. static (hold) pressure	250 psi (17.2 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, 1½” and 2” valves (2<sup>nd</sup> gen)

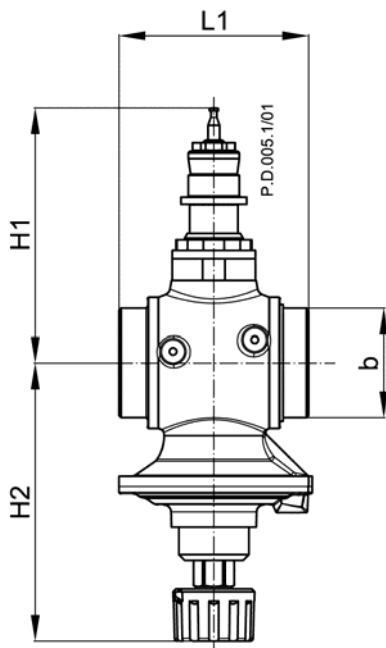
Electric Actuator for 1½” to 2” ABQM Valves

Style	Code No.	Power	Input Signal			Output Signal	Safety Function	
			On/Off	Floating	Modulating	(0-10VDC)	Up	Down
AMV 435	082H0162	24Vac		•				
AME 435QM	082H0171	24Vac			•	•		
AME 25SU <sub>1</sub>	082H3041	24Vac		•	•	•	•	
AME 25SD <sub>1</sub>	082H3038	24Vac		•	•	•		•

<sup>1</sup> Adapter required, code no. 065Z0311

#### Contact With Water

Body	Ductile iron EN-GJL-250 (GG25)
Membrane	EPDM
Diaphragm O-Ring	EPDM
Springs	W.Nr. 1.4568, W. Nr. 1.4310; Stainless steel
Cone (Pc)	CuZn40Pb3 - CW 614N, W.Nr.1.4305; Wrought copper, Stainless steel
Seat (Pc)	W. Nr 1.4305; Stainless steel
Cone (Cv)	CuZn40Pb3 - CW 614N; Wrought copper
Seat (Cv)	W.Nr. 1.4305; Stainless steel
Screw	Stainless steel (A2)
Flat Gasket	NBR



Valve size	Dimensions, in (mm)				Weight lb (kg)
	L1	H1	H2	b (NPSM thread)	
1-½”	4.3 (110)	6.7 (170)	6.9 (174)	1½ -11½	15 (6.9)
2”	5.1 (130)	6.7 (170)	6.9 (174)	2 -11½	17 (7.8)

L1, length varies with selected tailpiece. Dimensions shown are approximated and should be verified to application and selected valve kit.

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.abqmvales.com](http://www.abqmvales.com)