



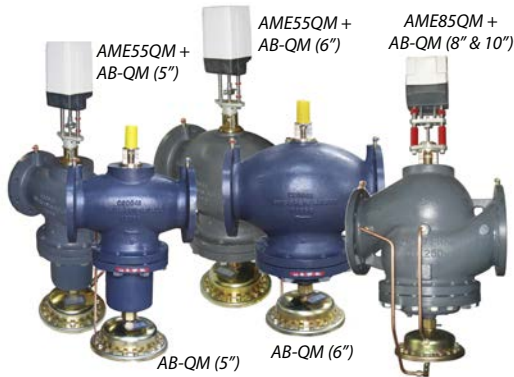
## Model AB-QM Pressure Independent Balance and Control Valve

### 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>	
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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".



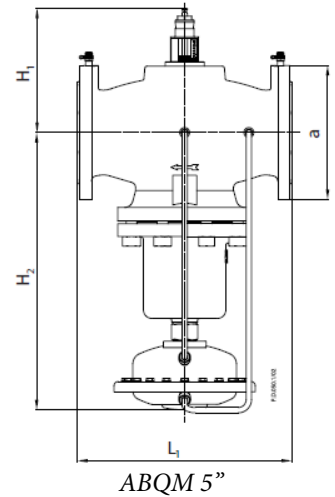
## Model AB-QM Pressure Independent Balance and Control Valve

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

Electric Actuator for 5" to 10" ABQM Valves

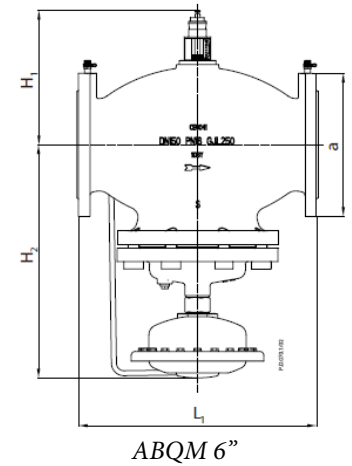
Style	Code No.	Power	Input Signal			Output Signal (0-10VDC)	Safety Function	
			On/Off	Floating	Modulating		Up	Down
AME55 QM	082H3078	24Vac		•	•	•		
AME658 SU	082G3450	24Vac		•	•	•	•	
AME658 SD	082G3448	24Vac		•	•	•		•
AME85 QM	082G1453	24Vac		•	•	•		

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

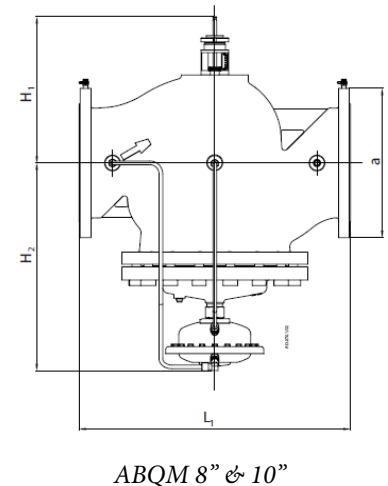
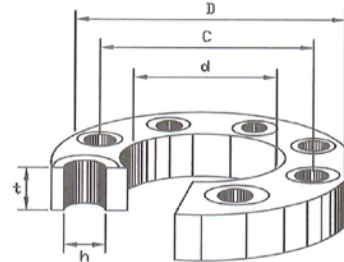


#### Contact With Water

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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