2

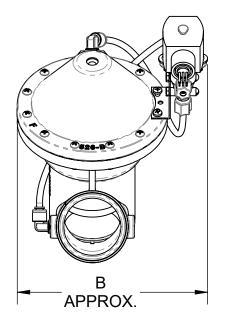
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	
1	1	-	DIAPHRAGM VALVE - NORMALLY OPEN	
		1075637	SOLENOID, ASCO	110V.60Hz.
		1075638	SOLENOID, ASCO	220V.50Hz.
2	1	1075639	SOLENOID, ASCO	24V.60Hz.
		4510604	SOLENOID, ASCO, 24 VDC, N.O.	E.O.
		4510605	SOLENOID, ASCO, 24 VDC, N.C.	E.C.
3	1	1074783	BRACKET, SOLENOID MOUNTING	
4	2	1072377	SCREW, RD HD, 8-32 X 1/4	
5	3	1071939	NUT & SLEEVE ASSEMBLY, 1/4" TUBE	
6	2	1078770	90° ELBOW, 1/4"NPT X 1/4T, PLS	526
0		1071937	FITTING, ELBOW, 1/8NPT X 1/4T	520-524
7	N/A	1071936	TUBING, POLY 1/4" O.D. X .035	
8	2	3003551	SCREW, 10-32 X 1 1/2" SS	526
9	2	1071646	NUT, HEX, 8-32	

	REVISIONS						
ECN	REV.	DESCRIPTION	DATE	APP'D			
100876	С	REDRAWN IN SOLIDWORKS ADD DRY DRAIN VIEW	07/09/12	TJM			
1092	D	AQ-MATIC REVIEW AND CORRECTIONS IMPLEMENTED	06/15/17	JJ			
1507	Е	CORRECT MINOR ERRORS	05/20/19	KJB			
1789	F	ADDED P/N 4510604 & 4510605	10/22/20	PMJ			
1820	G	VIEWS FOR EO & EODD RELINKED TO CORRECT MODEL	1/15/21	PMJ			

NOTE:

1.

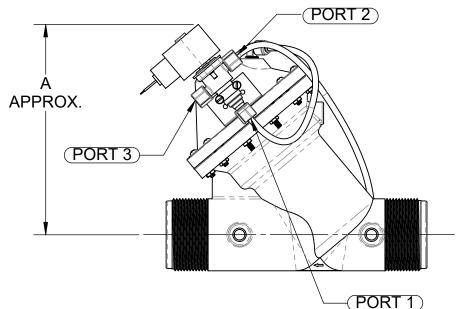
- 2. 3.
- 4.
- E.C. STANDS FOR ENERGIZED TO CLOSE, E.O. STANDS FOR ENERGIZED TO OPEN. 5.

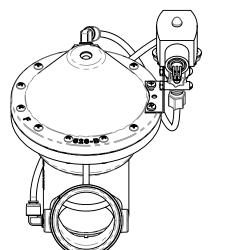


4

В

Α





ENERGIZED TO CLOSE

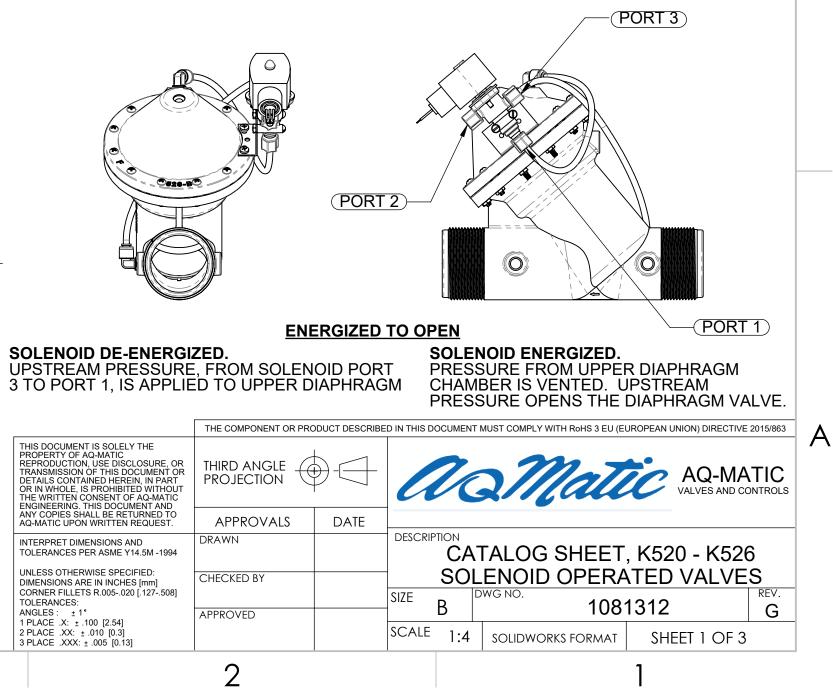
SOLENOID ENERGIZED. **UPSTREAM PRESSURE, FROM**

SOLENOID PORT 2 TO PORT 1, IS APPLIED TO UPPER DIAPHRAGM CHAMBER TO CLOSE THE DIAPHRAGM VALVE.

SOLENOID DE-ENERGIZED. PRESSURE FROM UPPER

DIAPHRAGM CHAMBER IS VENTED. UPSTREAM PRESSURE OPENS THE DIAPHRAGM VALVE.

VALVE SERIES	PIPE SIZE	Α	В
520	3/8",1/2"	5.87 149.1	4.12 104.6
521	3/4",1"	6.52 165.6	5.12 130.0
524	1-1/2",2"	7.62 193.5	6.25 158.75
526	2-1/2", 3"	9.62 244.3	7.87 200.0



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INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M -1994	DRAWN		DES
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES [mm]	CHECKED BY		
CORNER FILLETS R.005020 [.127508] TOLERANCES:			SIZE
ANGLES : <u>+</u> 1° 1 PLACE .X: <u>+</u> .100 [2.54]	APPROVED		
2 PLACE .XX: ± .010 [0.3] 3 PLACE .XXX: ± .005 [0.13]			SCA

4

3

LENGTH OF TUBING VARIES WITH EACH SIZE OF DIAPHRAGM VALVE. DIAPHRAGM VALVE IS NORMALLY OPEN, PRESSURE TO CLOSE. BOSS NO. 1 ON VALVE TAPPED 1/8" N.P.T. (520,521, 524) 1/4" N.P.T.(526) SEE PAGE 2 FOR DRY DRAIN OPTION.

В

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	
1	1	-	DIAPHRAGM VALVE - NORMALLY OPEN	
		1075637	SOLENOID, ASCO, 120/60 VAC	110V.60Hz.
		1075638	SOLENOID, ASCO, 220/50 VAC	220V.50Hz.
2	1	1075639	SOLENOID, ASCO, 24/60 VAC	24V.60Hz.
		4510604	SOLENOID, ASCO, 24 VDC, N.O.	E.O.
		4510605	SOLENOID, ASCO, 24 VDC, N.C.	E.C.
3	1	1074783 BRACKET, SOLENOID MOUNTING		
4	2	1072377	SCREW, RD HD, 8-32 X 1/4	
5	3	1071939	NUT & SLEEVE ASSEMBLY, 1/4" TUBE	
6	3	1071937	FITTING, ELBOW, 1/8NPT X 1/4T	520-524
0	3	1078770	FITTING, ELBOW, 1/4NPT X 1/4T	526
7	1	1071936	36 TUBING, POLY 1/4" O.D. X .035	
8	2	3003551	SCREW, 10-32 X 1 1/2" SS	
9	2	1071646	NUT, HEX, 8-32	

	REVISIONS						
ECN	REV.	DESCRIPTION		DATE	APP'D		
		SEE SHEET 1 FOR A LIST OF CHANGES.					

DRY DRAIN OPTION

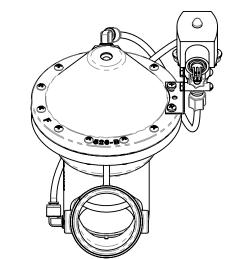
2

NOTE:

4.

- LENGTH OF TUBING VARIES WITH EACH SIZE OF DIAPHRAGM VALVE. 1.
- DIAPHRAGM VALVE IS NORMALLY OPEN, PRESSURE TO CLOSE. 2.
- 3.

DRY DRAIN VIEW



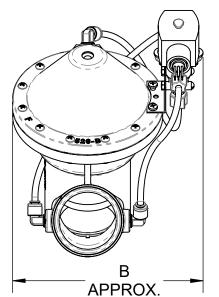
ENERGIZED TO OPEN

(PORT 2)

SOLENOID DE-ENERGIZED. UPSTREAM PRESSURE, FROM SOLENOID PORT 3 TO PORT 1, IS APPLIED TO UPPER DIAPHRAGM CHAMBER TO CLOSE THE DIAPHRAGM VALVE

CHAINBER TO CLOSE			. FNLO	SORE OF ENS THE		$\land \sqcup \lor \sqsubseteq$.
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INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5M -1994	DRAWN			TALOG SHEET,		
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES [mm]	CHECKED BY		SOL	ENOID OPERA	TED VALVE	S
CORNER FILLETS R.005020 [.127508] TOLERANCES:			SIZE B	DWG NO.		REV.
ANGLES : ± 1° 1 PLACE .X: ± .100 [2.54]	APPROVED					G
2 PLACE .XX: ± .010 [0.3] 3 PLACE .XXX: ± .005 [0.13]			SCALE 1:4	SOLIDWORKS FORMAT	Sheet 2 of 3	

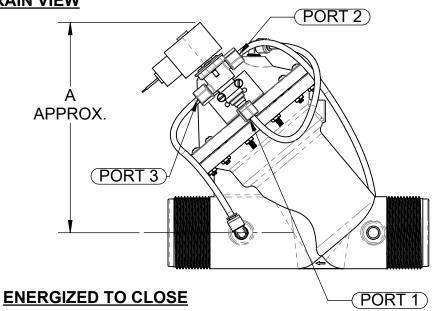
DRY DRAIN VIEW



4

В

Α



3

SOLENOID ENERGIZED.

UPSTREAM PRESSURE, FROM SOLENOID PORT 2 TO PORT 1, IS APPLIED TO UPPER DIAPHRAGM CHAMBER TO CLOSE THE DIAPHRAGM VALVE.

SOLENOID DE-ENERGIZED.

PRESSURE FROM UPPER DIAPHRAGM CHAMBER IS VENTED, **THROUGH SOLENOID PORT 1 TO** PORT 3 TO DRAIN. UPSTREAM PRESSURE OPENS THE DIAPHRAGM VALVE.

4

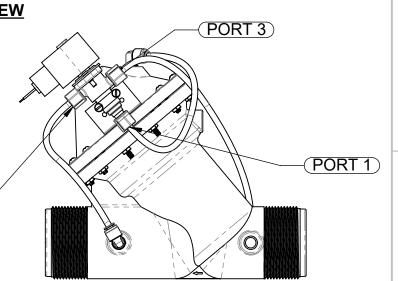
VALVE SERIES	PIPE SIZE	Α	В
520	3/8",1/2"	5.87 149.1	4.12 104.6
521	3/4",1"	6.52 165.6	5.12 130.0
524	24 1-1/2",2"		6.25 158.75
526	2-1/2", 3"	9.62 244.3	7.87 200.0

3

2

В

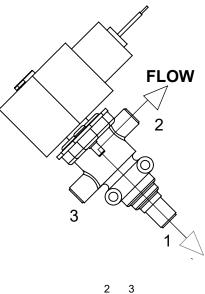
BOSS NO. 1 AND NO. 4 ON VALVE TAPPED 1/8" N.P.T. (520,521, 524) 1/4" N.P.T. (526) E.C. STANDS FOR ENERGIZED TO CLOSE, E.O. STANDS FOR ENERGIZED TO OPEN.

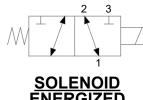


SOLENOID ENERGIZED. PRESSURE FROM UPPER DIAPHRAGM CHAMBER IS VENTED, THROUGH SOLENOID PORT 1 TO PORT 2 TO DRAIN. UPSTREAM PRESSURE OPENS THE DIAPHRAGM VALVE



		4		3	
ITEM NO. QTY. PART NUMBER			DI	ESCRIPTION	
1	1	_"_	DIAPHRAGM VALVE - NORMALLY OPEN		
		1075637	SOLENOID, ASCO, 12	20/60 VAC	110V.60Hz.
2	1	1075638	SOLENOID, ASCO, 22	20/50 VAC	220V.50Hz.
		1075639	SOLENOID, ASCO, 24/60 VAC 24V.		24V.60Hz.
3	1	1074783	BRACKET, SOLENOID MOUNTING		
4	2	1072377	SCREW, RD HD, 8-32	X 1/4	
5	3	1071939	NUT & SLEEVE ASSE	MBLY, 1/4" TUBE	
6	1	1071937	TITTING, ELBOW, 1/8	NPT X 1/4T	520-524
0		1078770	TITTING, ELBOW, 1/4	NPT X 1/4T	526
8	2	3003551	SCREW, 10-32 X 1 1/2" SS		
8	2	1071646	NUT, HEX, 8-32		
12	1	1071936	UBING, POLY 1/4" O	.D. X .035	





2

			1			
	RE	VISIONS				
		DESCRIPTION		DATE	APP'D	
SEE SHE	ET 1 FOR A L	IST OF CHANGES.				
GM VALV		WITH EACH SIZE OF ALLY OPEN.	DIAPHRAGM	VALVE.		В
		<u>DE-E</u>				
V	CU DLTAGE	RRENT DRAIN (AMPE		IG		
	4V 60Hz	1.66	1.04			
	0V 60Hz	0.33	0.21			
22	0V 50Hz	0.18	0.11			
ANGLE CTION	DATE		atic	AQ-N VALVES AND		A
		CATALOG SI SOLENOID C	HEET, K52	0 - K52	<u>6</u>	
D BY					<u>=S</u> rev.	
	1 2		4004040			

INDEPENDENT	CONTROL	PRESSURE

(PORT 2)

А APPROX.

0528-W

B APPROX.

4

ENERGIZE TO OPEN APPLY CONTROL PRESSURE AT SOLENOID PORT NO. 3 (PORT NO. 2 VENTED)

ENERGIZE TO CLOSE APPLY CONTROL PRESSURE AT SOLENOID PORT NO. 2 (PORT NO. 3 VENTED)

CONTROL PRESSURE MUST BE EQUAL TO OR GREATER THAN LINE PRESSURE.

VALVE SERIES	PIPE SIZE	Α	В		
520	3/8",1/2"	5.87	4.12		
520	3/0,1/2	149.1	104.6		
521	3/4", 1"	6.52	5.12		
521	3/4,1	165.6	130.0		
524	1-1/2", 2"	7.62	6.25		
524	-1/2,2	193.5	158.75		
526	2-1/2", 3"	9.62	7.87		
520	2-1/2,3	244.3	200.00		
3					

Θ

(PORT 3)

		2			1						
	REVISIONS										1
.60Hz.	-	ECN REV.					DESCRIPTION			APP'D	-
2.50Hz. 60Hz.	L N(1. 2.				G VARIES		CH SIZE OF	- DIAPHRAGM	VALVE.		
0-524 26		e			FLOW 2	<					В
-(<u>PORT 1</u>)		3			I	FLOW 2				
	-		LENOID ERGIZED	/	SOLENOID DE-ENERGIZED						
	CURRENT DRAIN (AMPERES)										
					DLTAGE	I	NRUSH	HOLDIN	IG		
					IV 60Hz 0V 60Hz		<u>1.66</u> 0.33	1.04			
					0V 50Hz		0.18	0.21			
]	THE COMPONENT OR PRODUCT DESCRIBED IN THIS DOCUMENT MUST COMPLY WITH RoHS 3 EU (EUROPEAN UNION) DIRECTI										-
В	THIS DOCUMENT IS SOLELY T	THE COM	FONENT OK FRO			NT MOST COMPET W	TH KONS 3 EU (EUROPEAN	I UNION) DIRECT	IVE 2013/803	A	
<u>4.12</u> 104.6	THIS DOCUMENT IS SOLELY T PROPERTY OF AQ-MATIC REPRODUCTION, USE DISCLC TRANSMISSION OF THIS DOCI DETAILS CONTAINED HEREIN, OR IN WHOLE, IS PROHIBITED THE WRITTEN CONSENT OF A	Q-MATIC	THIRD ANGLE PROJECTION			AQ-MATIC VALVES AND CONTROL					
5.12	ENGINEERING. THIS DOCUME ANY COPIES SHALL BE RETUR AQ-MATIC UPON WRITTEN RE	RNED TO	APPROVALS DATE						-		
130.0	INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.		DRAWN								
6.25	UNLESS OTHERWISE SPECIFI	ED:				CATALOG SHEET, K520 - K526 SOLENOID OPERATED VALVES				5	
158.75		NSIONS ARE IN INCHES [mm] CHECKED B NER FILLETS R.005020 [.127508]				SI7E	DWG NO.			REV.	-
7.87	TOLERANCES: ANGLES : ± 1° 1 PLACE .X: ± .100 [2.54]			ED		В		1081312		G	-
200.00	2 PLACE .XX: ± .010 [0.3] 3 PLACE .XXX: ± .005 [0.13]					SCALE 1:4	a solidwor	KS FORMAT	ieet 3 of	3	

Α