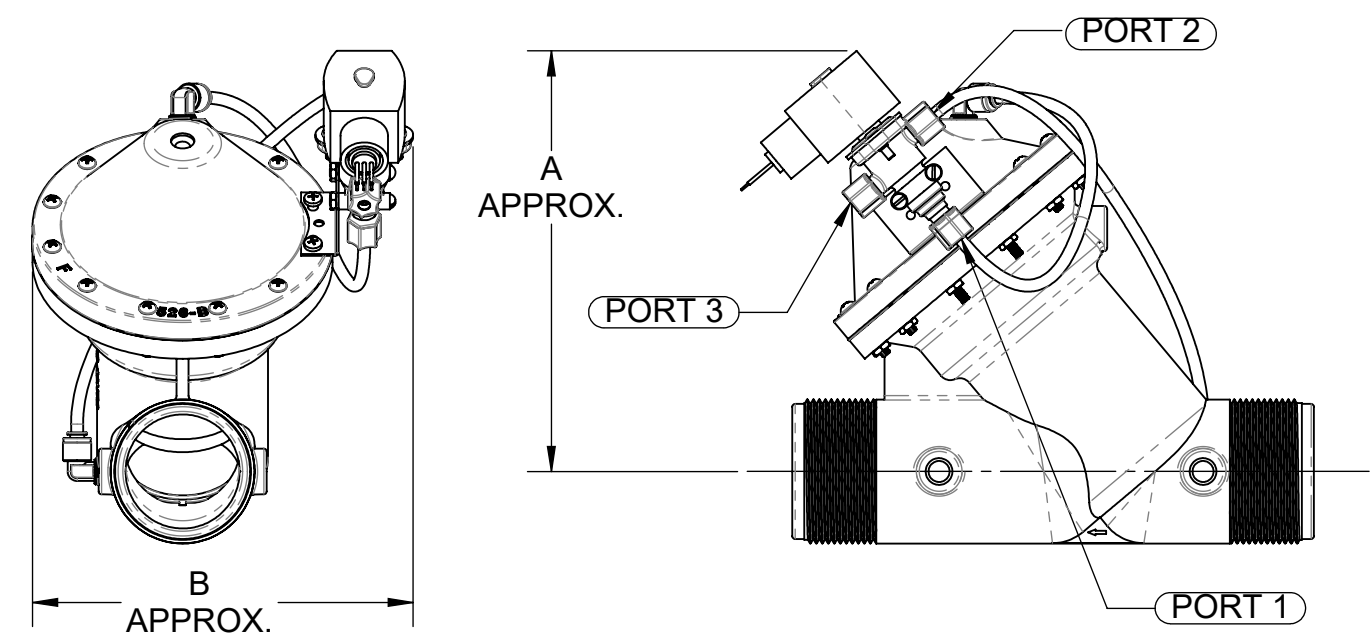


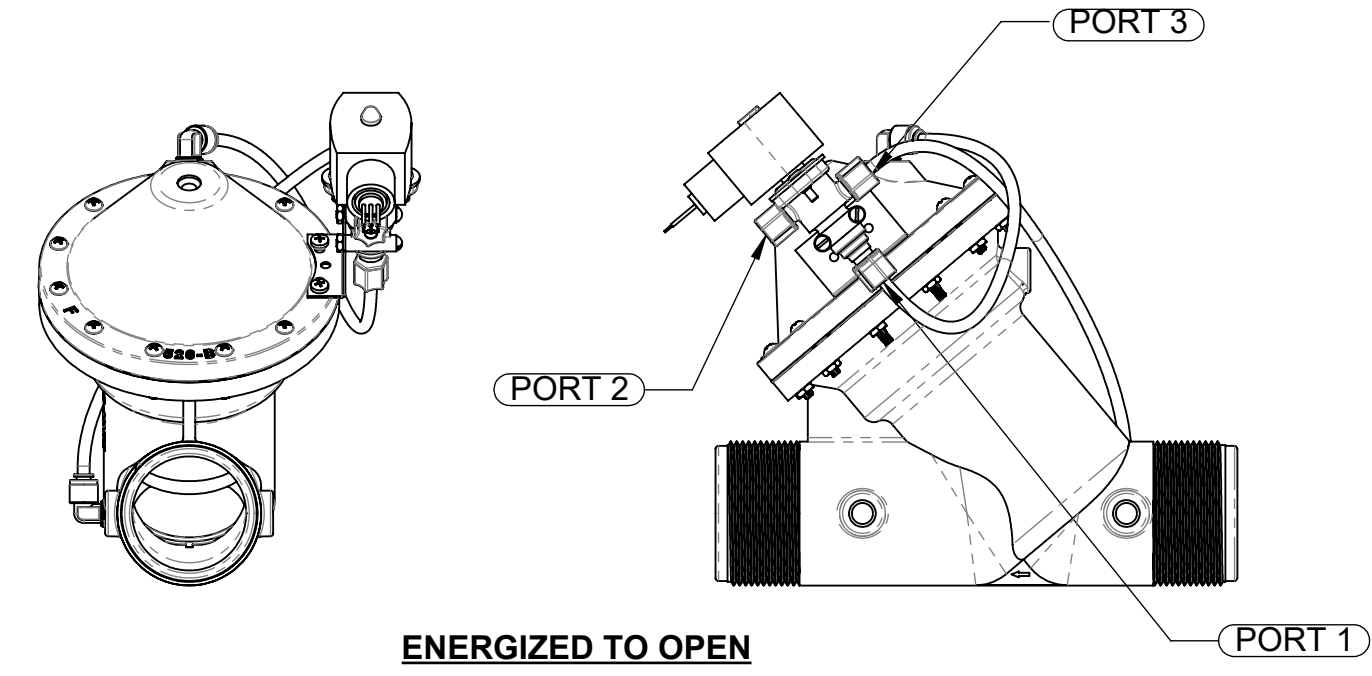
ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	-	DIAPHRAGM VALVE - NORMALLY OPEN
2	1	1075637	SOLENOID, ASCO 110V.60Hz.
		1075638	SOLENOID, ASCO 220V.50Hz.
		1075639	SOLENOID, ASCO 24V.60Hz.
		4510604	SOLENOID, ASCO, 24 VDC, N.O. E.O.
		4510605	SOLENOID, ASCO, 24 VDC, N.C. E.C.
3	1	1074783	BRACKET, SOLENOID 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
		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	C	REDRAWN IN SOLIDWORKS ADD DRY DRAIN VIEW	07/09/12	TJM
1092	D	AQ-MATIC REVIEW AND CORRECTIONS IMPLEMENTED	06/15/17	JJ
1507	E	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. LENGTH OF TUBING VARIES WITH EACH SIZE OF DIAPHRAGM VALVE.
 2. DIAPHRAGM VALVE IS NORMALLY OPEN, PRESSURE TO CLOSE.
 3. BOSS NO. 1 ON VALVE TAPPED 1/8" N.P.T. (520,521, 524) 1/4" N.P.T.(526)
 4. SEE PAGE 2 FOR DRY DRAIN OPTION.
 5. E.C. STANDS FOR ENERGIZED TO CLOSE, E.O. STANDS FOR ENERGIZED TO OPEN.



ENERGIZED TO CLOSE



ENERGIZED TO OPEN

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

SOLENOID ENERGIZED.
PRESSURE FROM UPPER DIAPHRAGM CHAMBER IS VENTED. UPSTREAM PRESSURE OPENS THE DIAPHRAGM VALVE.

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	A	B
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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THIRD ANGLE PROJECTION

APPROVALS _____ DATE _____

DRAWN _____

CHECKED BY _____

APPROVED _____

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES [mm]
CORNER FILLETS R.005-.020 [.127-.508]
TOLERANCES:
ANGLES : ± 1°
1 PLACE .X: ± .100 [2.54]
2 PLACE .XX: ± .010 [0.3]
3 PLACE .XXX: ± .005 [0.13]

AQ Matic AQ-MATIC VALVES AND CONTROLS

DESCRIPTION
CATALOG SHEET, K520 - K526 SOLENOID OPERATED VALVES

SIZE B DWG NO. 1081312 REV. G

SCALE 1:4 SOLIDWORKS FORMAT SHEET 1 OF 3

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	-	DIAPHRAGM VALVE - NORMALLY OPEN
2	1	1075637	SOLENOID, ASCO, 120/60 VAC 110V.60Hz.
		1075638	SOLENOID, ASCO, 220/50 VAC 220V.50Hz.
		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
		1078770	FITTING, ELBOW, 1/4NPT X 1/4T 526
7	1	1071936	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

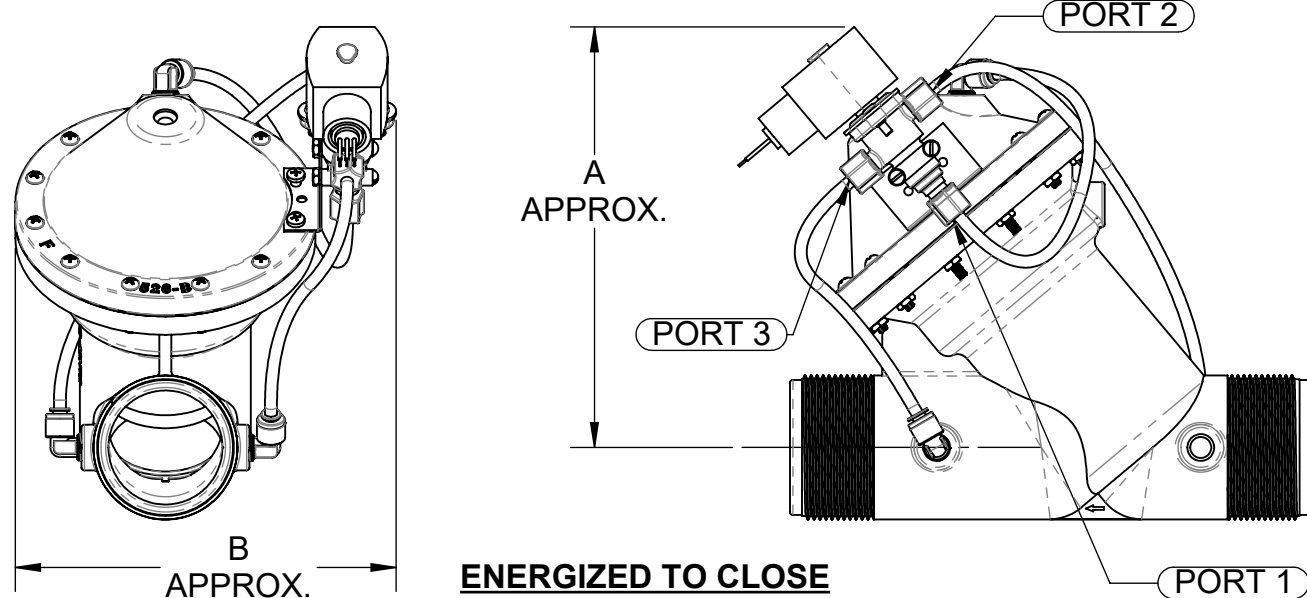
REVISIONS				
ECN	REV.	DESCRIPTION	DATE	APP'D
		SEE SHEET 1 FOR A LIST OF CHANGES.		

DRY DRAIN OPTION

NOTE:

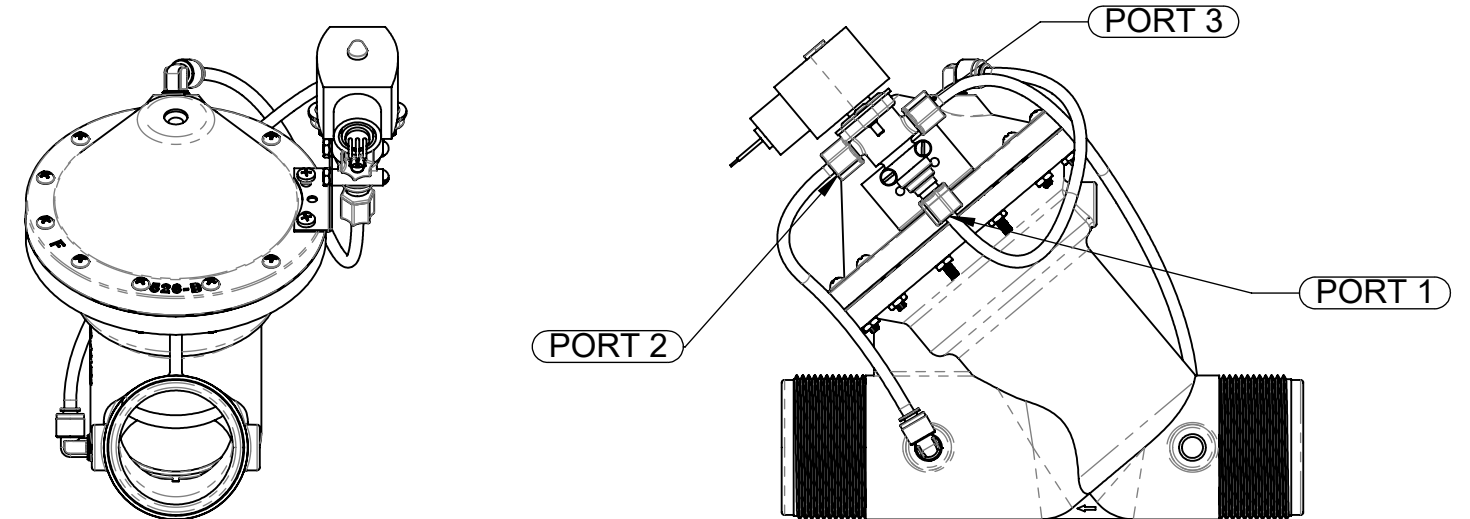
1. LENGTH OF TUBING VARIES WITH EACH SIZE OF DIAPHRAGM VALVE.
2. DIAPHRAGM VALVE IS NORMALLY OPEN, PRESSURE TO CLOSE.
3. BOSS NO. 1 AND NO. 4 ON VALVE TAPPED 1/8" N.P.T. (520,521, 524) 1/4" N.P.T.(526)
4. E.C. STANDS FOR ENERGIZED TO CLOSE, E.O. STANDS FOR ENERGIZED TO OPEN.

DRY DRAIN VIEW



ENERGIZED TO CLOSE

DRY DRAIN VIEW



ENERGIZED TO OPEN

SOLENOID DE-ENERGIZED.

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

SOLENOID ENERGIZED.

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

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.

VALVE SERIES	PIPE SIZE	A	B
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

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES [mm]
CORNER FILLETS R.005-.020 [.127-.508]
TOLERANCES:
ANGLES: ± 1°
1 PLACE .X: ± .100 [2.54]
2 PLACE .XX: ± .010 [0.3]
3 PLACE .XXX: ± .005 [0.13]

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THIRD ANGLE PROJECTION



APPROVALS DATE
DRAWN
CHECKED BY
APPROVED

DESCRIPTION
CATALOG SHEET, K520 - K526 SOLENOID OPERATED VALVES
SIZE B DWG NO. REV. G
SCALE 1:4 SOLIDWORKS FORMAT SHEET 2 OF 3

4

3

2

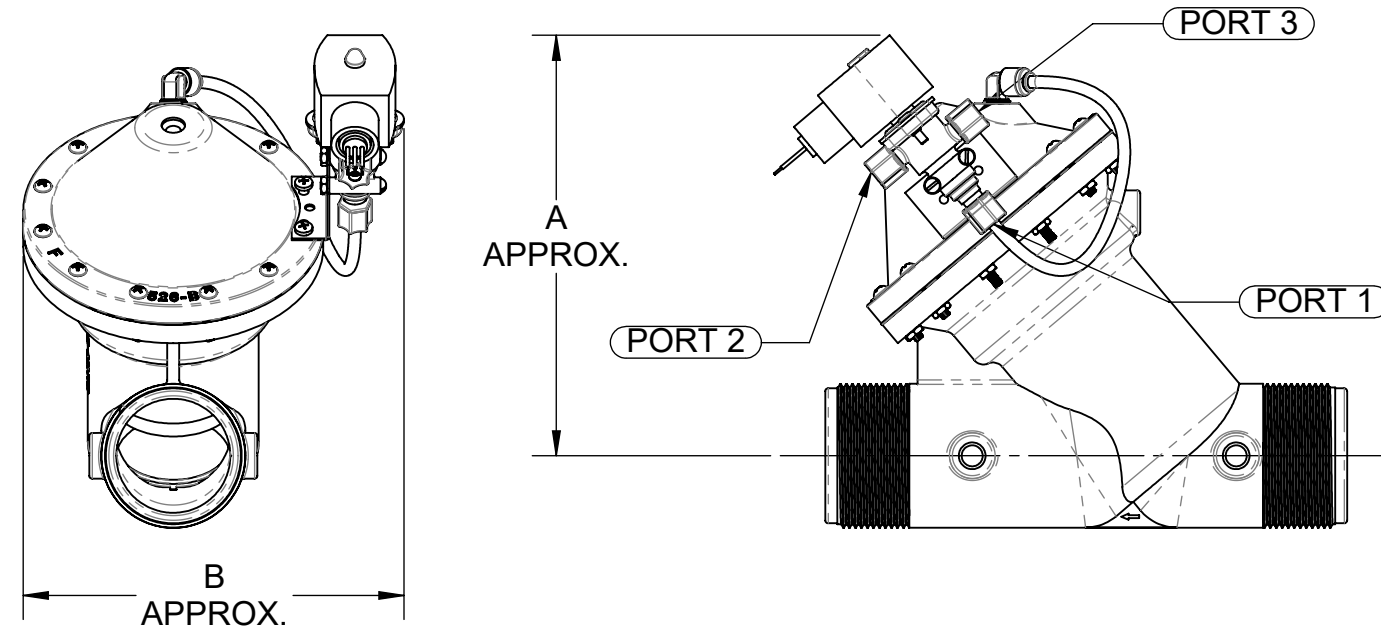
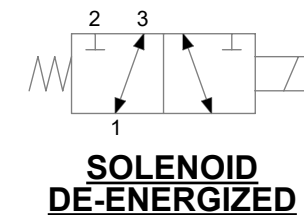
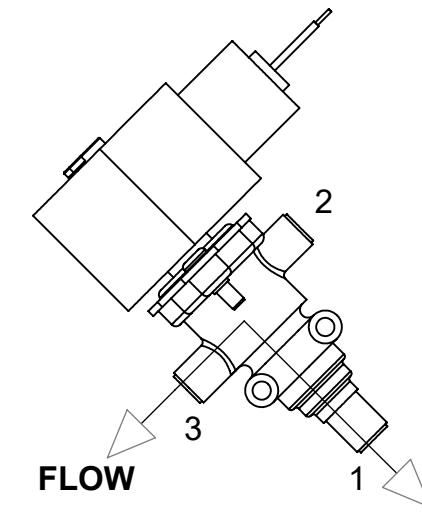
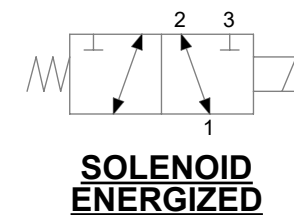
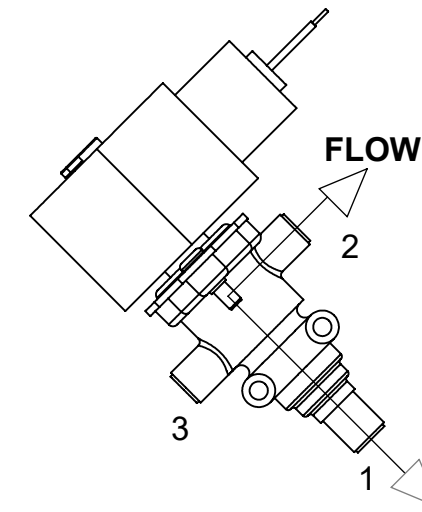
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ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
1	1	-"	DIAPHRAGM VALVE - NORMALLY OPEN
2	1	1075637	SOLENOID, ASCO, 120/60 VAC 110V.60Hz.
		1075638	SOLENOID, ASCO, 220/50 VAC 220V.50Hz.
		1075639	SOLENOID, ASCO, 24/60 VAC 24V.60Hz.
3	1	1074783	BRACKET, SOLENOID MOUNTING
4	2	1072377	SCREW, RD HD, 8-32 X 1/4
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8	2	3003551	SCREW, 10-32 X 1 1/2" SS
8	2	1071646	NUT, HEX, 8-32
12	1	1071936	TUBING, POLY 1/4" O.D. X .035

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

NOTE:

- LENGTH OF TUBING VARIES WITH EACH SIZE OF DIAPHRAGM VALVE.
- DIAPHRAGM VALVE IS NORMALLY OPEN.

**INDEPENDENT CONTROL PRESSURE**

CURRENT DRAIN (AMPERES)		
VOLTAGE	INRUSH	HOLDING
24V 60Hz	1.66	1.04
120V 60Hz	0.33	0.21
220V 50Hz	0.18	0.11

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	A	B
520	3/8", 1/2"	5.87	4.12
		149.1	104.6
521	3/4", 1"	6.52	5.12
		165.6	130.0
524	1-1/2", 2"	7.62	6.25
		193.5	158.75
526	2-1/2", 3"	9.62	7.87
		244.3	200.00

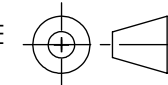
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THIRD ANGLE PROJECTION



AQ Matic AQ-MATIC VALVES AND CONTROLS

APPROVALS

DATE

DRAWN

CHECKED BY

APPROVED

DESCRIPTION

CATALOG SHEET, K520 - K526 SOLENOID OPERATED VALVES

SIZE

B

DWG NO.

1081312

REV.

G

SCALE

1:4

SOLIDWORKS FORMAT

SHEET 3 OF 3

4

3

2

1