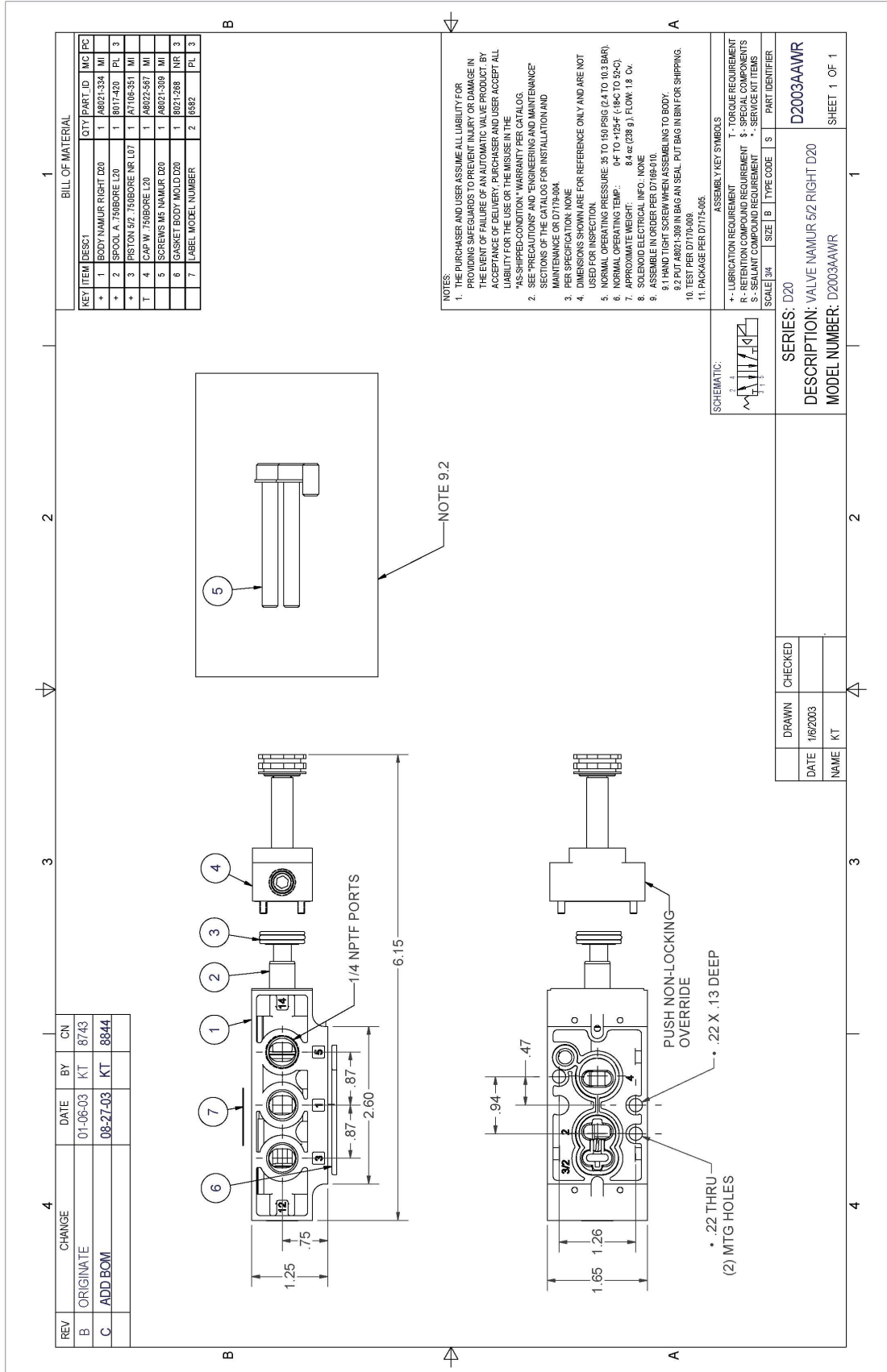
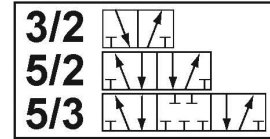


**UNIVERSAL 3/2 AND 5/2 NAMUR SOLENOID VALVE**



# UNIVERSAL 3/2 AND 5/2 NAMUR SOLENOID VALVE



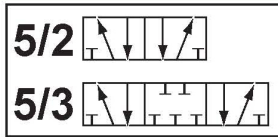
## SPECIFICATIONS

VALVE OPERATION			
<p>DE-ENERGIZED      ENERGIZED</p>	<p><b>3/2 NC</b> - 3 way 2 position normally closed valves shift and apply pressure when a maintained signal is applied to the operator then reset and block pressure when the signal is removed.</p>	<p>ENERGIZED      DE-ENERGIZED      ENERGIZED</p>	<p><b>5/3 BLOCK</b> - 4 way 3 position blocked center valves operate like 5/2 double valves except shift when a maintained signal is applied to either 1-2 or 1-4. Valves reset to center position when signal is removed with all ports blocked.</p>
<p>DE-ENERGIZED      ENERGIZED</p>	<p><b>5/2 SINGLE</b> - 4 way 2 position single operator valves shift, apply pressure from port 1 to 4, and exhaust pressure from port 2 to 3 when a maintained signal is applied to operator 1-4. Valves reset, apply pressure from port 1 to 2, exhaust pressure from port 4 to 5 when the signal is removed.</p>	<p>ENERGIZED      DE-ENERGIZED      ENERGIZED</p>	<p><b>5/3 EXHAUST</b> - 4 way 3 position exhaust center valves operate like 5/2 double valves except shift when a maintained signal is applied to either 1-2 or 1-4. Valves reset to center position when signal is removed with port 2 open to 3, port 4 open to 5, and port 1 blocked.</p>
<p>DE-ENERGIZED      ENERGIZED</p>	<p><b>5/2 DOUBLE</b> - 4 way 2 position double operator valves shift, apply pressure from port 1 to 4, and exhaust pressure from 2 to 3 when a momentary signal is applied to operator 1-4. Valves shift, apply pressure from port 1 to 2, and exhaust pressure from 4 to 5 when a momentary signal is applied to operator 1-2.</p>	<p>ENERGIZED      DE-ENERGIZED      ENERGIZED</p>	<p><b>5/3 PRESSURE</b> - 4 way 3 position pressure center valves operate like 5/2 double valves except shift when a maintained signal is applied to either 1-2 or 1-4. Valves reset to center position when signal is removed with port 1 open to ports 2 and 4, and ports 3 and 5 are blocked.</p>
<p><b>OPERATING TEMPERATURES</b></p>	<p><b>SOLENOID PILOT OPERATED</b></p> <p>Standard</p> <p>High Temp Coil (Option T)</p>	<p><b>TREATED BUNA-N SEALS (TREATED NBR, Standard)</b></p> <p>-18°C to +52°C (0°F to +125°F)</p> <p>-18°C to +82°C (0°F to +180°F)</p>	<p><b>FLUOROELASTOMER SEALS (FPM (FKM), Option A)</b></p> <p>-18°C to +52°C (0°F to +125°F)</p> <p>-18°C to +82°C (0°F to +180°F)</p>
	<p><b>OPERATING PRESSURES</b></p>	<p><b>SOLENOID PILOT OPERATED</b></p> <p>Standard 2 Position</p> <p>Standard 3 Position</p> <p>External Pilot (Option B)</p>	<p><b>INLET PORT</b></p> <p>240 - 1030 kPa (35 - 150 PSIG)</p> <p>345 - 1030 kPa (50 - 150 PSIG)</p> <p>Vacuum - 240 kPa (Vacuum - 35 PSIG)</p>
<p><b>FILTRATION AND LUBRICATION</b></p>	<p><b>MEDIA - AIR OR INERT GAS</b></p> <p>Lubrication of Automatic Valve products is not required but is recommended to maximize service life. Oils should be compatible with seal material, have an ISO 32 viscosity, and have an aniline range of 82°C (180°F) and 99°C (210°F). Refer to Maintenance section of catalog for recommended lubricants.</p> <p>Filter to 50 microns or better.</p> <p>For temperatures below 40°F, air must be dry to prevent formation of ice.</p>		

## MODEL NUMBER CHART

SERIES	BODY TYPE	PORT SIZE	FUNCTION	BODY DESIGN	OPERATOR 1	CENTER OPERATOR	OPERATOR 2	VOLTAGE	OPTIONS
D06	0	NAMUR	3 1/4	G 3 WAY NC	A RIGHT	V INTRINSICALLY-SAFE SOLENOID W WEATHER-PROOF SOLENOID	R 2 POSITION SPRING	AA 110/50, 120/60 AB 220/50, 240/60, 125VDC DA 225/0, 24/80, 12VDC, 24VDC DB	A FLUROELASTOMER SEALS (D20) B EXTERNAL PILOT CONNECTION (D20) C CONDUIT COIL CT CONDUIT COIL HIGH TEMPERATURE D DUSTPROOF (D20) G 18" FLYING LEADS L LOW WATT COIL P TRANSITION PLATE (D20) Q CLOSED LOOP (D20) S STAINLESS STEEL BODY G THREADS W EXPLOSION-PROOF COIL (CSA, FM) Y EXPLOSION-PROOF COIL (ATEX, PTB) 1 PUSH TURN LOCKING OVERRIDE 2 EXTENDED TURN LOCKING OVERRIDE 8 10-24 MOUNTING KIT 9 10-32 MOUNTING KIT

# UNIVERSAL 3/2 AND 5/2 NAMUR SOLENOID VALVE



## OPTIONS

(LISTED AT THE END OF THE MODEL NUMBER IN ALPHA-NUMERIC ORDER)

### A - FLUOROELASTOMER SEALS

For applications where fluid media or ambient conditions are not compatible with nitrile seals.

Note: Fluorocarbon seals do not increase the effective temperature range of the valve.

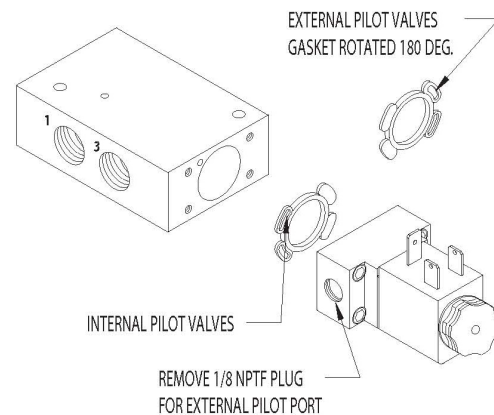
For high temperature applications, consult the factory.

### B - EXTERNAL PILOT

For solenoid applications when the pressure to port one is less than 35 PSIG (2 BAR). See example below for field conversion.

#### FIELD CONVERSION

- Remove solenoid and cap from valve body.
- Rotate gasket 180 degrees so that the internal pilot hole in the valve body is covered by the gasket.
- Reassemble the gasket, cap and solenoid to the valve body. Make sure gasket completely covers internal pilot hole before tightening screws.
- Remove the 1/8 NPTF pipe plug from the cap and make the external pilot connection.



### C - CONDUIT COIL

Refer to Electrical Section for details.

### CT - CONDUIT COIL HIGH TEMPERATURE

Refer to Electrical Section for details.

### D - DUSTPROOF

For applications in extremely dusty and contaminated environments. Standard vent ports are plugged.

Operators breathe through the exhaust ports via flats on the end of the spools.

### G - COIL WITH 18" LEADS

Refer to Electrical Section for details.

### P - TRANSITION PLATE

For mounts to surfaces smaller than 2 1/2" x 1 3/8". Refer to next page for Installation Instructions.

### Q - CLOSED LOOP

### S - STAINLESS STEEL

Stainless steel body, all other external parts corrosive resistant; for corrosive environment applications.

### SS - 316 STAINLESS STEEL

Stainless steel body, all other external parts corrosive resistant; for corrosive environment applications.

### W - G THREADS

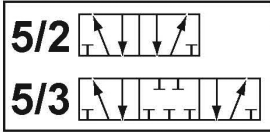
### Y - EXPLOSION-PROOF COIL (CSA, FM)

Refer to Electrical Section for details.

### Z - EXPLOSION-PROOF COIL (ATEX, PTB)

Refer to Electrical Section for details.

**UNIVERSAL 3/2 AND 5/2 NAMUR SOLENOID VALVE**



**ELECTRICAL INFORMATION**

DESCRIPTION	WHEN THE 8TH CHARACTER OF MODEL NUMBER IS:	INSTRUCTIONS	COIL PART NUMBER ** = VOLTAGE
NEMA 4X WITH DIN 43650 CONNECTION	W	Order coil separately (specify voltage code from below)	7019-9**
NEMA 4X WITH 18" LEADS	W	Order coil separately (specify voltage code from below)	7019-9**G
NEMA 4X 1/2" CONDUIT WITH 30" LEADS	W	Order coil separately (specify voltage code from below)	7019-9**C 7019-9**CT (high temperature 82°C maximum)
EXPLOSION-PROOF 1/2" CONDUIT WITH 24" LEADS [ CSA 202633X FM APPROVED CL. I; ZONE1Ex m II T4; AEx m II CL. I; Div. 1; GR. A, B, C, D CL. II; GR. E, F, G CL. III T4 Ta= -20°C to +60°C NEMA: 4, 4X, 7C, 7D ]	W	Order coil separately (specify voltage code from below)	7019-**Y
INTRINSICALLY-SAFE WITH STRAIN RELIEF (EEx ia IIC T6) CL. I: Div. 1; GR. A, B, C, D CL. II: GR. E, F, G CL. III: Div. 1 Hazardous Location	V	Coil and Connector included with valve (24VDC only)	A7106-374
EXPLOSION-PROOF WITH 3m CABLE AND STRAIN RELIEF (Ex II 2G EExm II T - I EC Exm II T-)	Z	Order coil separately (specify voltage code from below)	7152-9**

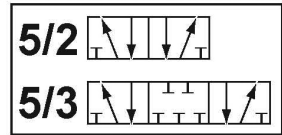
VOLTAGE +/- 10 %	** C O D E	CURRENT (AMPS)								RESISTANCE (OHMS @ 25° C)				POWER (AC = VA DC = WATTS)			
		INRUSH				HOLDING				NEMA							
		4	7	V	Z	4	7	V	Z	4	7	V	Z	4	7	V	Z
22/50 24/60	DA	.40	.55	-	-	.40	.32	-	-	31	19	-	-	4.8	4.5	-	-
110/50 120/60	AA	.08	.096	-	-	.06	.054	-	.029	840	530	-	1164	4.8	6.5	-	3.0
220/50 240/60	AB	.04	.048	-	-	.03	.027	-	.015	3400	2345	-	6730	6.0	6.5	-	3.0
12 VDC	DA	.40	-	-	-	.40	.375	-	.267	31	32	-	45	4.8	7	-	3.5
24 VDC	DB	.20	-	.03	.136	.20	.187	.03	.136	121	128	275	177	4.8	-	2.1	3.5
24 VDC	DBL	-	-	-	-	-	-	-	-	320	-	-	-	1.8	4.5	-	-
125 VDC	AB	.04	-	-	-	.04	.06	-	-	3400	2000	-	-	4.8	7	-	-

For alternative lower wattage options, please consult the factory.

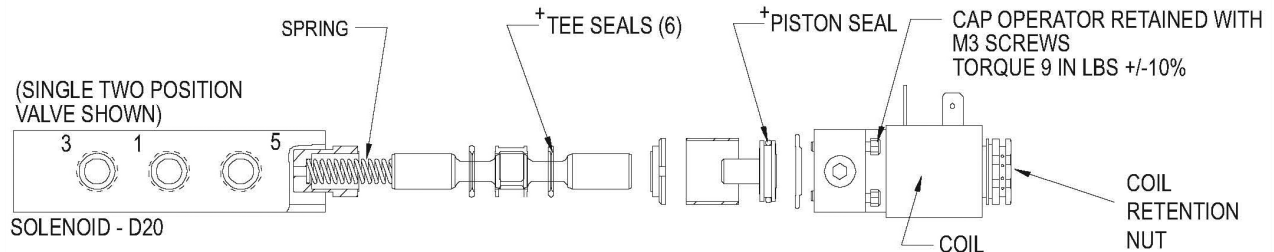
DIN 43650 CONNECTORS						
TYPE	STRAIN RELIEF WITHOUT CORD	1/2" CONDUIT WITHOUT CORD	MOLDED WITH 6' CORD	STRAIN RELIEF WITH LIGHT		STRAIN RELIEF WITH LIGHT + 6' CORD
				100-240 AC 48-120 DC	6-48 AC/DC	100-240 AC 48-120 DC      6-48 AC/DC
PART NUMBER	7020-001	7039-001	7020-006	7020-AA	7020-DB	7094-006      7094-007



**UNIVERSAL 3/2 AND 5/2 NAMUR SOLENOID VALVE**



**SERVICE KIT INFORMATION**



**SERVICE KIT INSTALLATION**

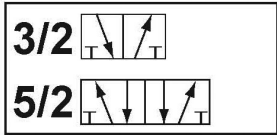
1. Remove Coil retention nut.
2. Remove Coil.
3. Remove screws from cap of operator.
4. Remove cap.
5. Remove existing serviceable components.
6. Replace with kit components. \*All seals must be lubricated with Magnalube-G or equivalent.
7. Align pilot hole in body with pilot hole in cap.
8. Torque screws as shown above.

Lubrication of Automatic Valve products is not required but is recommended to maximize service life. Oils should be compatible with seal material, have an ISO 32 or lighter viscosity, and have an aniline point between 82°C (180°F) and 99°C (210°F). Refer to Maintenance section of catalog for recommended lubricants.

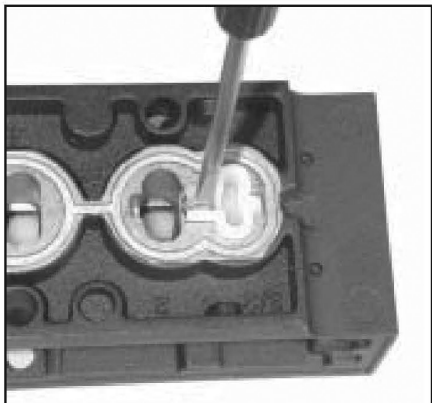
**MODEL NUMBERS**

SERIES	FUNCTION			
	SINGLE		DOUBLE	
	PART NUMBER	CONTENTS	PART NUMBER	CONTENTS
D20	K-L20-SGL K-L20-SGL-A (Fluoroelastomer)	Tee Seals (6) Piston Seal (1) Spring (1)	K-L20-DBL K-L20-DBL-A (Fluoroelastomer)	Tee Seals (6) Piston Seal (2)
	K-D20- MTG		Plug Assembly (1) Gasket (1) Screws (2) Set screw (1) Washers (2)	

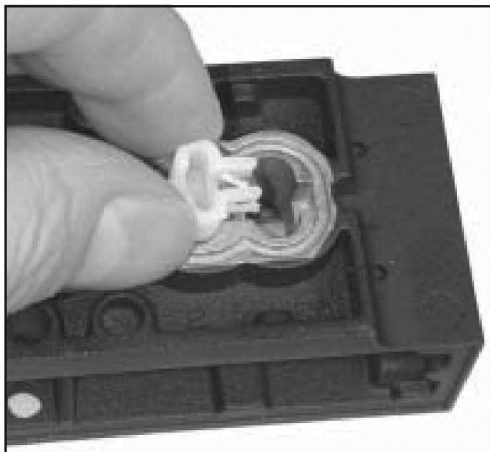
**UNIVERSAL 3/2 AND 5/2 NAMUR SOLENOID VALVE**



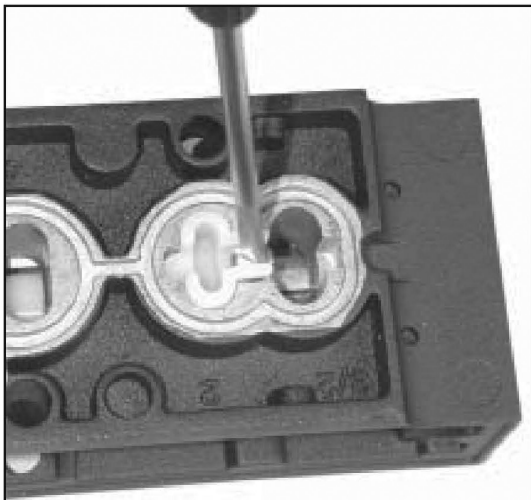
**4 WAY / 3 WAY CONVERSION**



Step 1. Using a 3mm screwdriver loosen the plug retention screw.



Step 2. Remove the plug, lightly lubricate plug o-ring, and place in adjacent cavity.



Step 3. Tighten plug retention screw to 6 +/- 10%in lbs.

**Separate kits containing 10 plugs are available.**

SERIES	PART NUMBER	CONTENTS
D20	K-D20-PLUG	Plug Assemblies (10) (screw/seal/plug)