



This publication is intended as a reference guide to assist customers in configuring and ordering some common Danfoss valves for their applications. The availability of components listed here will vary depending on the valve type and size. Always confirm your valve configuration with the assistance of a Phillips representative.

Valves listed in this bulletin include:

**PRESSURE REGULATORS**

**MOTORIZED VALVES**

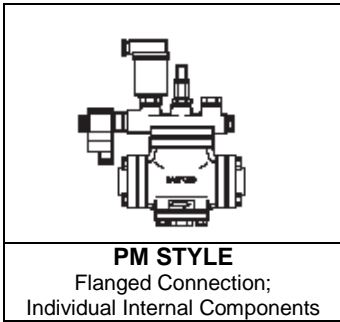
**GAS POWERED STOP VALVES**

**SOLENOID VALVES (Pilot, Direct, Assisted Lift, 2-Step)**

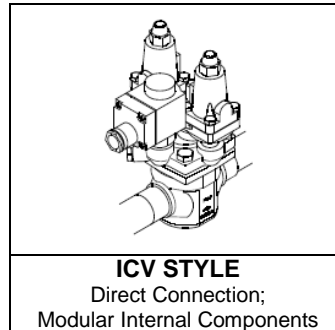
**ELECTRONIC EXPANSION VALVES**

**VALVE STATIONS**

#### MULTI-FUNCTION PRESSURE REGULATORS

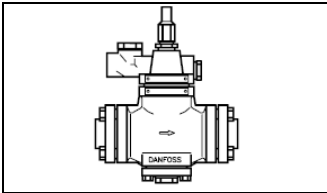


PMR	20	JS-	E	Q	B	A	K
<b>Base Valve Model</b>							
<b>VALVE SIZE</b>							
5 = 3/16"	40 = 1-1/2"						
10 = 3/8"	50 = 2"						
15 = 5/8"	65 = 3"						
20 = 3/4"	80 = 4"						
25 = 1"	100 = 5"						
32 = 1-1/4"	125 = 6"						
<b>FUNCTION</b> See Table 4							
B	DJ	PD					
BB	DL	PO					
BK	DP	S					
BL	JD	SD					
BO	JS	SJ					
BS	OBS	SK					
D	OS	Z					
DE	PB						
<b>1<sup>st</sup> PILOT OPTION</b> See Table 1							
<b>2<sup>nd</sup> PILOT OPTION</b> See Table 1							
<b>3<sup>rd</sup> PILOT OPTION</b> See Table 1							
<b>COIL</b> See Table 2 Use 12W coil or larger with EVM (NO)							
<b>FLANGES</b> See Table 3							



ICR	25	D-	E	P	P	A	J
<b>Base Valve Model</b>							
<b>VALVE SIZE</b>							
5 = 3/16"	50 = 2"						
10 = 3/8"	65 = 2-1/2"						
15 = 5/8"	80 = 3"						
20 = 3/4"	100 = 4"						
25 = 1"	125 = 5"						
32 = 1-1/4"	150 = 6"						
40 = 1-1/2"							
<b>FUNCTION</b> See Table 4							
B	DJ	PD					
BB	DL	PO					
BK	DP	S					
BL	JD	SD					
BO	JS	SJ					
BS	OBS	SK					
D	OS	Z					
DE	PB						
<b>1<sup>st</sup> PILOT OPTION</b> See Table 1							
<b>2<sup>nd</sup> PILOT OPTION</b> See Table 1							
<b>3<sup>rd</sup> PILOT OPTION</b> See Table 1							
<b>COIL</b> See Table 2 Use 12W coil or larger with EVM (NO)							
<b>CONNECTIONS</b> See Table 3 and note at Table 3							

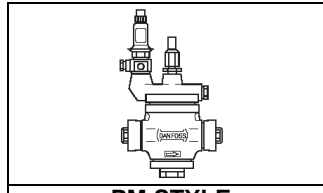
**SINGLE-FUNCTION PRESSURE REGULATORS**



**PMFL/PMFH STYLE**

Flanged Connection;  
Individual Internal Components

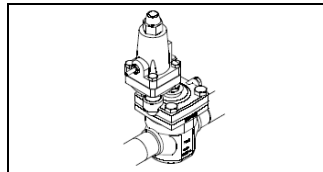
PMFL	80-1-	H	A	H	A
<b>Base Valve Model</b>					
<b>VALVE SIZE</b>					
80-1	80-7				
80-2	125				
80-3	200				
80-4	300				
80-5	500				
80-6					
<b>PILOT OPTION</b> See Table 1					
<b>COIL</b> See Table 2					
<b>FLANGES</b> See Table 3					
<b>SV PILOT VALVE OPTION</b>					
A = SV1					
B = SV2					
C = SV3					
D = SV4 with housing					
E = SV4 without housing					
F = SV5 with housing					
G = SV5 without housing					
H = SV6 with housing					
I = SV6 without housing					
Z = No SV valve					



**PM STYLE**

Flanged Connection;  
Individual Internal Components

PMR	20	O-	C	D	(-)
<b>Base Valve Model</b>					
<b>VALVE SIZE</b>					
5 = 3/16"	40 = 1-1/2"				
10 = 3/8"	50 = 2"				
15 = 5/8"	65 = 3"				
20 = 3/4"	80 = 4"				
25 = 1"	100 = 5"				
32 = 1-1/4"	125 = 6"				
<b>FUNCTION</b>					
(Blank) = Basic Regulator					
J = Electronic Control					
K = Reseating Relief					
L = Differential Pressure					
O = Outlet Pressure					
<b>PILOT OPTION</b> See Table 1					
<b>FLANGES</b> See Table 3					
<b>PRESSURE SETTING</b> (Used on "K" function only) Example: PMR25K-PE-75					

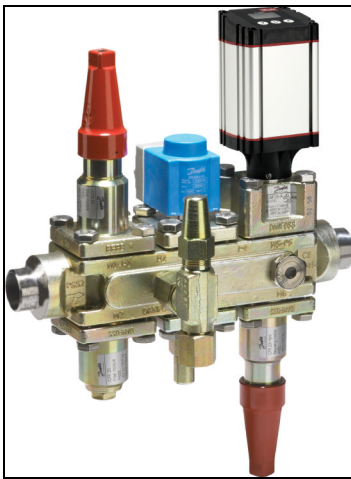
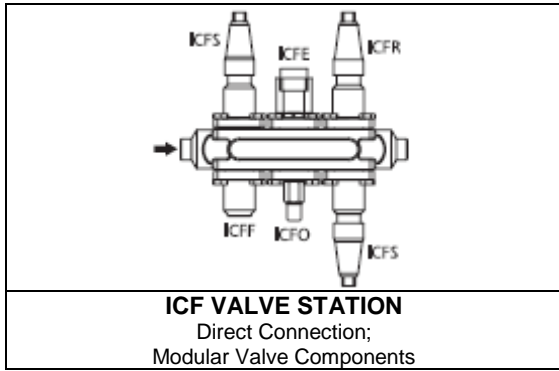


**ICV STYLE**

Direct Connection;  
Modular Internal Components

ICR	25	L-	K	D	(-)
<b>Base Valve Model</b>					
<b>VALVE SIZE</b>					
5 = 3/16"	50 = 2"				
10 = 3/8"	65 = 2-1/2"				
15 = 5/8"	80 = 3"				
20 = 3/4"	100 = 4"				
25 = 1"	125 = 5"				
32 = 1-1/4"	150 = 6"				
40 = 1-1/2"					
<b>FUNCTION</b>					
(Blank) = Basic Regulator					
J = Electronic Control					
K = Reseating Relief					
L = Differential Pressure					
O = Outlet Pressure					
<b>PILOT OPTION</b> See Table 1					
<b>CONNECTIONS</b> See Table 3 and note at Table 3					
<b>PRESSURE SETTING</b> (Used on "K" function only) Example: ICR25K-PE-75					

**VALVE STATIONS**

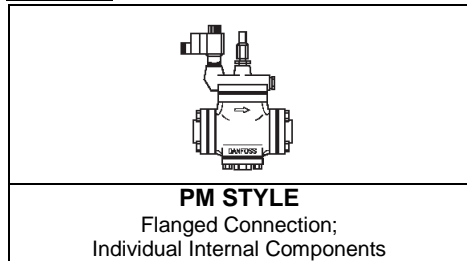


ICF		20-6-1-		A	D
<b>Base Valve Model</b>					
<b>VALVE STATION CONFIGURATIONS</b>					
20-6-1	20-6-20	20-4-8	25-4-14A		
20-6-1H	20-6-21	20-4-9	25-4-18		
20-6-2	25-6-1A	20-4-9H	25-4-26H		
20-6-2H	32-6-2A	20-4-10	32-4-8		
20-6-3	32-6-3A	20-4-10H	32-4-9		
20-6-3H	32-6-3B	20-4-11	32-4-10A		
20-6-4	32-6-5A	20-4-11H	32-4-10B		
20-6-5A	32-6-5B	20-4-12	32-4-11		
20-6-5A33	32-6-15B	20-4-13	32-4-14A		
20-6-5AH	32-6-20	20-4-14A	32-4-14B		
20-6-5B66	25-6-3A	20-4-14B66	32-4-18		
20-6-5B	25-6-5A	20-4-14C	40-4-8		
20-6-5BH	25-6-21	20-4-14C	40-4-9		
20-6-5C	32-6-1A	20-4-17	40-4-10B		
20-6-5CH	32-6-1B	20-4-18H	40-4-11		
20-6-6	40-6-1B	20-4-24	40-4-14A		
20-6-7	40-6-3B	20-4-25	40-4-14B		
20-6-15	40-6-5A	20-4-26H	40-4-18		
20-6-16	40-6-5B	25-4-9	Z=Special		
20-6-19	40-6-15B	25-4-10A			

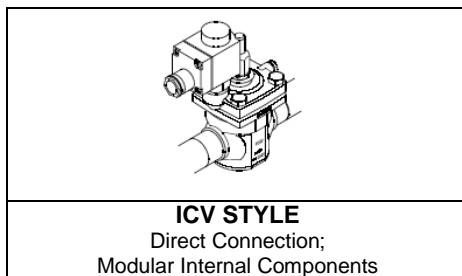
**COIL**  
See Table 2

- CONNECTIONS**
- D = 3/4" SW
  - F = 1" SW
  - J = 1-1/4" SW
  - K = 1-1/4" WN
  - M = 1-1/2" SW
  - N = 1-1/2" WN
  - A9 = 3/4" WN

**PILOT OPERATED SOLENOID VALVES**



PMS	20-	E	A	Z
<b>Base Valve Model</b>				
<b>VALVE SIZE</b>				
20 = 3/4"	65 = 3"			
25 = 1"	80 = 4"			
32 = 1-1/4"	100 = 5"			
40 = 1-1/2"	125 = 6"			
50 = 2"				
<b>PILOT OPERATOR</b>				
E = Normally Closed				
F = Normally Open				
<b>COIL</b> See Table 2				
Use 12W coil or larger with EVM (NO)				
<b>FLANGES</b>				
See Table 3				



ICS	5-	E	A	D
<b>Base Valve Model</b>				
<b>VALVE SIZE</b>				
5 = 3/16"	50 = 2"			
10 = 3/8"	65 = 2-1/2"			
15 = 5/8"	80 = 3"			
20 = 3/4"	100 = 4"			
25 = 1"	125 = 5"			
32 = 1-1/4"	150 = 6"			
40 = 1-1/2"				
<b>PILOT OPERATOR</b>				
E = Normally Closed				
F = Normally Open				
<b>COIL</b> See Table 2				
Use 12W coil or larger with EVM (NO)				
<b>CONNECTIONS</b>				
See Table 3 and note at Table 3				

**DIRECT / PILOT OPERATED & ASSISTED LIFT SOLENOID VALVES**



EVRAT	20-	A	D	A
<b>Base Valve Model</b>				
EVRAT = Direct or Pilot				
EVRAT = Assisted Lift				
<b>VALVE SIZE</b>				
3 = 3/16"	25 = 1"			
10 = 3/8"	32 = 1-1/4"			
15 = 5/8"	40 = 1-1/2"			
20 = 3/4"				
<b>COIL</b>				
See Table 2				
EVRAT - Use 12W coil or larger				
<b>FLANGES</b>				
See Table 3				
<b>STRAINER</b>				
A = With Close-Coupled Strainer				
FA15 (EVRAT 3 thru 15)				
FA20 (EVRAT 20)				
Z = No Strainer				

**MOTORIZED VALVES**



**ICV STYLE**

Direct Connection;  
Modular Internal Components

ICM	32A-	J	C	B	-10
<b>Base Valve Model</b>					
<b>VALVE SIZE</b>					
20A33 = Cv 0.23	40A = Cv 17				
20A = Cv 0.7	40B = Cv 30				
20B66 = Cv 1.9	50A = Cv 27				
20B = Cv 2.8	50B = Cv 46				
20C = Cv 5.3	65A = Cv 41				
25A = Cv 7.0	65B = Cv 81				
25B = Cv 13.9	100B = Cv 167				
32A = Cv 10.4	125B = Cv 260				
32B = Cv 20	150B = Cv 430				
<b>CONNECTIONS</b>					
See Table 3 and note at Table 3					
<b>STRAINER (Globe Style Body)</b>					
A = BW	C = SW				
B = FPT	Z = No Strainer				
<b>STRAINER ELEMENT</b>					
A = 100 mesh (150 $\mu$ )	D = 150 mesh (100 $\mu$ )				
B = 72 mesh (250 $\mu$ )	Z = No Element				
C = 38 mesh (500 $\mu$ )					
<b>ICAD CABLE LENGTH</b>					
-1.5 = Std 1.5 meters					
(BLANK) = 3 meters (Standard)					-10 = 10 meters

**GAS POWERED STOP VALVES**



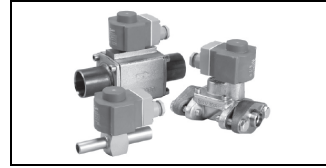
PML	125-	1	A	E	A3
<b>Base Valve Model</b>					
<b>VALVE SIZE</b>					
32 = 1-1/4"	80 = 4"				
40 = 1-1/2"	100 = 5"				
50 = 2"	125 = 6"				
65 = 3"					
<b>PILOT COMBINATIONS</b>					
1 = Standard: NC (SII), NO (P)					
2 = NC (SII), NC (P)					
<b>"SII" COIL</b>					
See Table 2					
<b>"P" COIL</b>					
See Table 2					
Use 12W coil or larger with EVM (NO)					
<b>FLANGES</b>					
See Table 3					

**TWO-STEP OPENING SOLENOID VALVES**








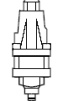
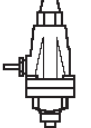
PMLX	100-	A	X	A	A2	-PL
<b>Base Valve Model</b>						
<b>VALVE SIZE</b>						
32 = 1-1/4"	80 = 4"					
40 = 1-1/2"	100 = 5"					
50 = 2"	125 = 6"					
65 = 3"						
<b>PILOT COMBINATIONS</b>						
A = Standard: NC (SII), NO (P)						
B = NO (SII), NC (P)						
C = NC (SII), NC (P)						
<b>PILOT CONNECTION</b>						
X = 3/8" WN, Y = 1/4" FPT						
<b>COIL VOLTAGE</b>						
A = 110V/60HZ		D = 115V/60HZ				
B = 220V/60HZ		Z = Special, or no coils				
C = 24VDC						
<b>FLANGES</b>						
See Table 3						
<b>OPTIONAL COIL PILOT LIGHT</b> See Table 2						
-PL						



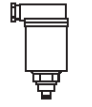
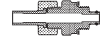

**ELECTRONIC EXPANSION VALVES**



AKVA	15-3-	L	E	A
<b>Base Valve Model</b>				
<b>VALVE SIZE</b>				
10-1	15-1	20-1		
10-2	15-2	20-2		
10-3	15-3	20-3		
10-4	15-4	20-4		
10-5		20-5		
10-6				
10-7				
10-8				
<b>COIL</b>				
L = 24VAC/60HZ (Standard)				
See Table 2 for other options				
<b>CONNECTION SIZES</b>				
Z = 3/8" x 1/2" weld (AKVA10-1 thru AKVA10-6)				
= 1/2" x 3/4" weld (AKVA10-7, AKVA10-8)				
= 1-1/4" x 1-1/4" weld (AKVA20-1 thru AKVA20-3)				
= 1-1/2" x 1-1/2" weld (AKVA20-4)				
= 2" x 2" weld (AKVA20-5)				
AKVA15: See Table 3 for flange options				
<b>STRAINER</b>				
A = With Strainer				
FIA15, Globe Style, SW, 100 $\mu$ (AKVA10)				
FIA20, Globe Style, SW, 100 $\mu$ (3/4" AKVA15)				
FIA25, Globe Style, SW, 100 $\mu$ (1" AKVA15)				
FIA32, Globe Style, SW, 100 $\mu$ (AKVA20-1 thru -3)				
FIA40, Globe Style, SW, 100 $\mu$ (AKVA20-4)				
FIA50, Globe Style, SW, 100 $\mu$ (AKVA20-5)				
Z = No Strainer				

**TABLE 1: PILOT OPTIONS**

<b>A</b>	<b>Pressure Gauge Connection</b> (G1/4A Male x 1/4FPT)	<b>027B2062</b>		
<b>B</b>	<b>Pilot Blanking Plug</b>	<b>027F1046</b>		
<b>C</b>	<b>CVC</b> 13.3" Hg – 102 psig (Requires Pressure Gauge Connection, "A")	<b>027B1070</b>		
<b>D</b>	<b>External Pilot Conn.</b> (1/4FPT, for PM80-125)	<b>027B2066</b>		
<b>E</b>	<b>EVM (NC)</b>	<b>027B1120</b>		
<b>F</b>	<b>EVM (NO)</b> (Use 12W coil or larger)	<b>027B1130</b>		
<b>H</b>	<b>CVP (XP)</b> MWP: 754 psig Range: 363-754 psig	<b>027B0080</b>		
<b>I</b>	<b>CVPP (HP)</b> MWP: 580 psig Range: 58 - 319 psig	<b>Requires Pressure Gauge Connection, "A"</b>	 CVPP (HP)	
<b>J</b>	<b>CVPP (HP)</b> MWP: 406 psig Range: 0 - 102 psig			<b>027B1268</b>
<b>K</b>	<b>CVPP (LP)</b> MWP: 247 psig Range: 0 - 102 psig			<b>027B1162</b>
<b>K</b>		<b>027B1102</b>		

<b>L</b>	<b>CVP (HP)</b> MWP: 406 psig Range: 58 - 406 psig	<b>027B1161</b>	
<b>M</b>	<b>CVP (HP)</b> MWP: 406 psig Range: 58 - 406 psig	<b>027B1160</b>	
<b>N</b>	<b>CVP (LP)</b> MWP: 247 psig Range: 20" Hg - 29 psig	<b>027B1101</b>	CVP (LP)
<b>O</b>	<b>CVP (HP)</b> MWP: 406 psig Range: 20" Hg - 102 psig	<b>027B1164</b>	
<b>P</b>	<b>CVP (LP)</b> MWP: 247 psig Range: 0 - 102 psig	<b>027B1100</b>	
<b>Q</b>	<b>CVQ</b> Range: 0 - 87 psig	<b>027B1140</b>	
<b>R</b>	<b>CVQ</b> Range: 25 - 116 psig	<b>027B1141</b>	
<b>S</b>	<b>CVQ</b> Range: 30" Hg - 72.5 psig	<b>027B1139</b>	
<b>X</b>	<b>External Pilot Conn.</b> (1/4FPT, for PM5-65)	<b>027B2065</b>	
<b>Y</b>	<b>External Pilot Conn.</b>	IC/PM5-65 IC/PM80-125 <b>027B2065</b> <b>027B2066</b>	
<b>A5</b>	<b>CVC</b> 58 - 406 psig (Requires Pressure Gauge Connection, "A")	<b>027B0087</b>	

**TABLE 2: COIL OPTIONS**

	Voltage	Watts	Connect.	UL App	Pilot Light	Part Number
<b>A</b>	115/60	10	IP67 TERM BOX			018F6710
<b>B</b>	220/60	10	IP67 TERM BOX			018F6714
<b>C</b>	24/60	10	IP67 TERM BOX			018F6715
<b>D</b>	24VDC	20	IP67 TERM BOX			018F6857
<b>E</b>	110/60	12	IP67 TERM BOX			018F6813
<b>F</b>	220-230/50	12	IP67 TERM BOX			018F6801
<b>G</b>	220-230/50-60	10	IP67 TERM BOX			018F6732
<b>H</b>	220/60	12	IP67 TERM BOX			018F6814
<b>I</b>	110/50-60	10	IP67 TERM BOX			018F6730
<b>J</b>	24/60	10	IP20 SPADE			Not Available
<b>K</b>	220-230/50-60	10	IP20 SPADE			018F6193
<b>L</b>	24/60	20	IP67 TERM BOX			018F6902
<b>M</b>	115/60	10	IP20 SPADE			018F6185
<b>N</b>	220-230/50	10	IP67 TERM BOX			018F6701
<b>O</b>	24/60	12	IP67 TERM BOX			018F6815
<b>Q</b>	240/60	10	IP67 TERM BOX			018F6713
<b>R</b>	110/50-60	10	IP67 TERM BOX		<b>GREEN</b>	Not Available
<b>S</b>	110/50-60	14	IP00 DIN PLUG	<b>Y</b>		018F7663

	Voltage	Watts	Connect.	UL App	Pilot Light	Part Number
<b>T</b>	208-240/60	14	NEMA 2 TERM BOX	<b>Y</b>		018F4120
<b>U</b>	110/50-60	14	NEMA 2 TERM BOX	<b>Y</b>		018F4110
<b>V</b>	24/50-60	14	NEMA 2 TERM BOX	<b>Y</b>		018F4100
<b>W</b>	208-240/60	14	NEMA 4 1/2"NPT18" WIRE	<b>Y</b>		018F4122
<b>X</b>	110/50-60	14	NEMA 4 1/2"NPT 18" WIRE	<b>Y</b>		018F4112
<b>Y</b>	24/50-60	14	NEMA 4 1/2"NPT 18" WIRE	<b>Y</b>		018F4102
<b>A1</b>	115/60	10	IP67 TERM BOX		<b>GREEN</b>	Not Available
<b>A4</b>	120/50-60	14	IP00 DIN PLUG	<b>Y</b>	<b>GREEN</b>	Not Available
<b>A7</b>	110-120/60	14	IP00 DIN PLUG	<b>Y</b>		018F7991
<b>B1</b>	220/60	10	IP67 TERM BOX		<b>GREEN</b>	Not Available
<b>C1</b>	240/60	10	IP67 TERM BOX		<b>GREEN</b>	Not Available
<b>D1</b>	24VDC	20	IP67 TERM BOX		<b>GREEN</b>	Not Available
<b>E1</b>	110/60	12	IP67 TERM BOX		<b>GREEN</b>	018F6816
<b>F1</b>	220-230/50	12	IP67 TERM BOX		<b>GREEN</b>	Not Available
<b>G1</b>	220-230/50-60	10	IP67 TERM BOX		<b>GREEN</b>	Not Available

**TABLE 3: FLANGE / CONNECTION OPTIONS**

(Only connections indicated by asterisk (\*) are available for ICV & ICM valves. Contact Phillips for specific flange/connection availability.)

<b>A</b>	1/2" FPT	<b>O*</b>	1-3/8" ODS	<b>A3*</b>	6" WN
<b>B</b>	1/2" SOC	<b>P*</b>	1-5/8" ODS	<b>A5</b>	3/8" FPT
<b>C*</b>	3/4" FPT	<b>Q</b>	2" FPT	<b>A6</b>	3/8" SOC
<b>D*</b>	3/4" SOC	<b>R*</b>	2" SOC	<b>A8</b>	1/2" WN
<b>E*</b>	1" FPT	<b>S*</b>	2" WN	<b>A9</b>	3/4" WN
<b>F*</b>	1" SOC	<b>T*</b>	2-1/8" ODS	<b>B1</b>	7/8" ODS
<b>G*</b>	1" WN	<b>U</b>	3" FPT	<b>B2*</b>	2-1/2" WN
<b>H*</b>	1-1/8" ODS	<b>V</b>	3" SOC	<b>B3*</b>	2-5/8" ODS
<b>I</b>	1-1/4" FPT	<b>W*</b>	3" WN	<b>B4*</b>	2-1/2" SOC
<b>J*</b>	1-1/4" SOC	<b>X</b>	3-1/8" ODS	<b>B5</b>	5/8" ODS
<b>K*</b>	1-1/4" WN	<b>Y</b>	4" SOC	<b>B6</b>	4-1/8" ODS
<b>L</b>	1-1/2" FPT	<b>Z</b>	None	<b>B7</b>	1/2" DIN BW
<b>M*</b>	1-1/2" SOC	<b>A1*</b>	4" WN		
<b>N*</b>	1-1/2" WN	<b>A2*</b>	5" WN		

**TABLE 4: VALVE FUNCTIONS**

	Description
<b>B</b>	Electric Wide Open
<b>BB</b>	Dual Electric Wide Open
<b>BK</b>	Electric Wide Open with Preset Pressure
<b>BL</b>	Electric Wide Open with Differential Pressure Control
<b>BO</b>	Outlet Pressure Regulation with Electric Wide Open
<b>BS</b>	Electric Wide Open with Electric Closing
<b>D</b>	Dual Pressure Control
<b>DE</b>	Dual Pressure Control From Internal and External Settings
<b>DJ</b>	Electronic Control with Pressure Control and Low Pressure Protection
<b>DL</b>	Inlet and Differential Pressure Control
<b>DP</b>	Differential Pressure Control
<b>J</b>	Electronic Control
<b>JD</b>	Electronic Control with Dual Pressure Control
<b>JS</b>	Electronic Control with Electric Closing
<b>K</b>	Reseating Relief
<b>L</b>	Differential Pressure Control
<b>O</b>	Outlet Pressure Regulator
<b>OBS</b>	Outlet Pressure Regulation with Electric Wide Open and Electric Closing
<b>OS</b>	Outlet Pressure Regulator with Electric Closing
<b>PB</b>	Electronic Control with Electric Wide Open and Low Pressure Protection
<b>PD</b>	Differential Control with Dual Pressure
<b>PO</b>	Outlet Pressure Regulation with Low Pressure Protection
<b>S</b>	Electric Closing
<b>SD</b>	Electric Wide Open with Electric Closing and Differential Pressure Control
<b>SJ</b>	Electronic Control with Electric Wide Open and Electric Closing
<b>SK</b>	Electric Closing with Preset Pressure
<b>Z</b>	Special

**Table 5: Options**

Code	Function/Description	Where Used
-##	Preset Pressure setting in PSIG	All valves with a CVP pilot.
-EXT1, -EXT2, -EXTP	Adding an external pilot connection to SI, SII or P	The external pilot connection would be installed in the port (SI, SII, or P). Then the pilot valve for that port would be mounted in a CVH valve body and connected to the external pilot connection.

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