

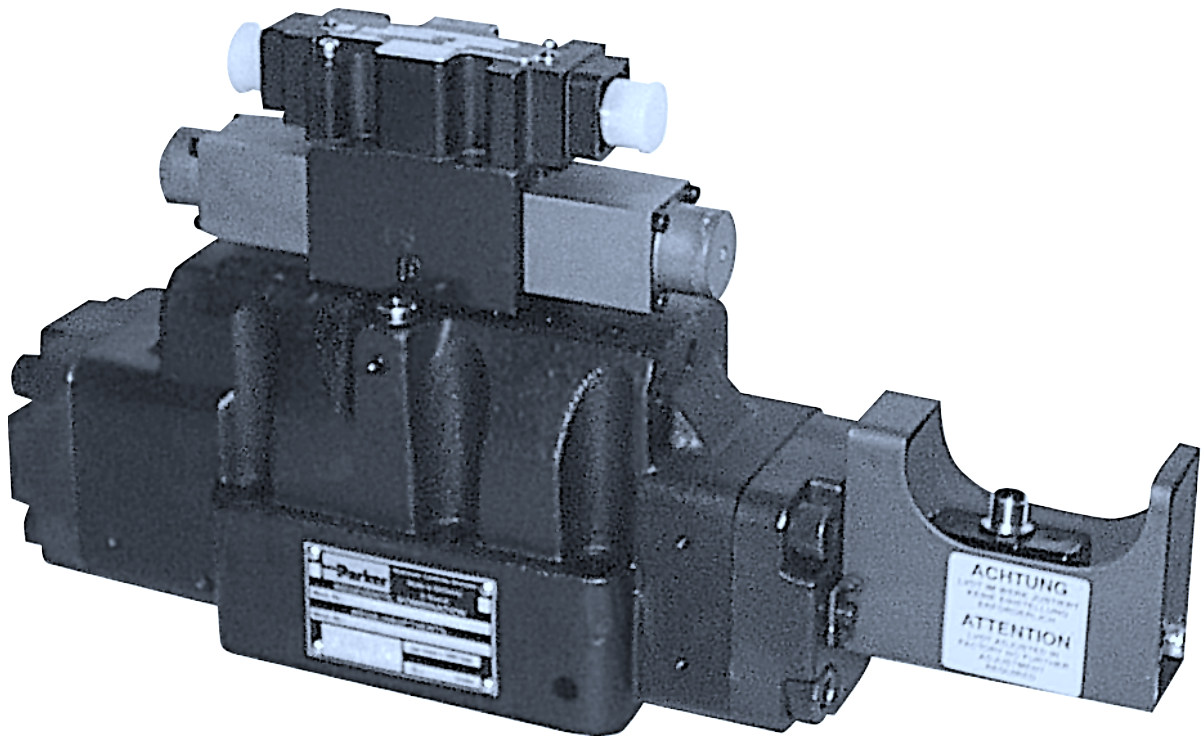


Bulletin 2562-M3/USA

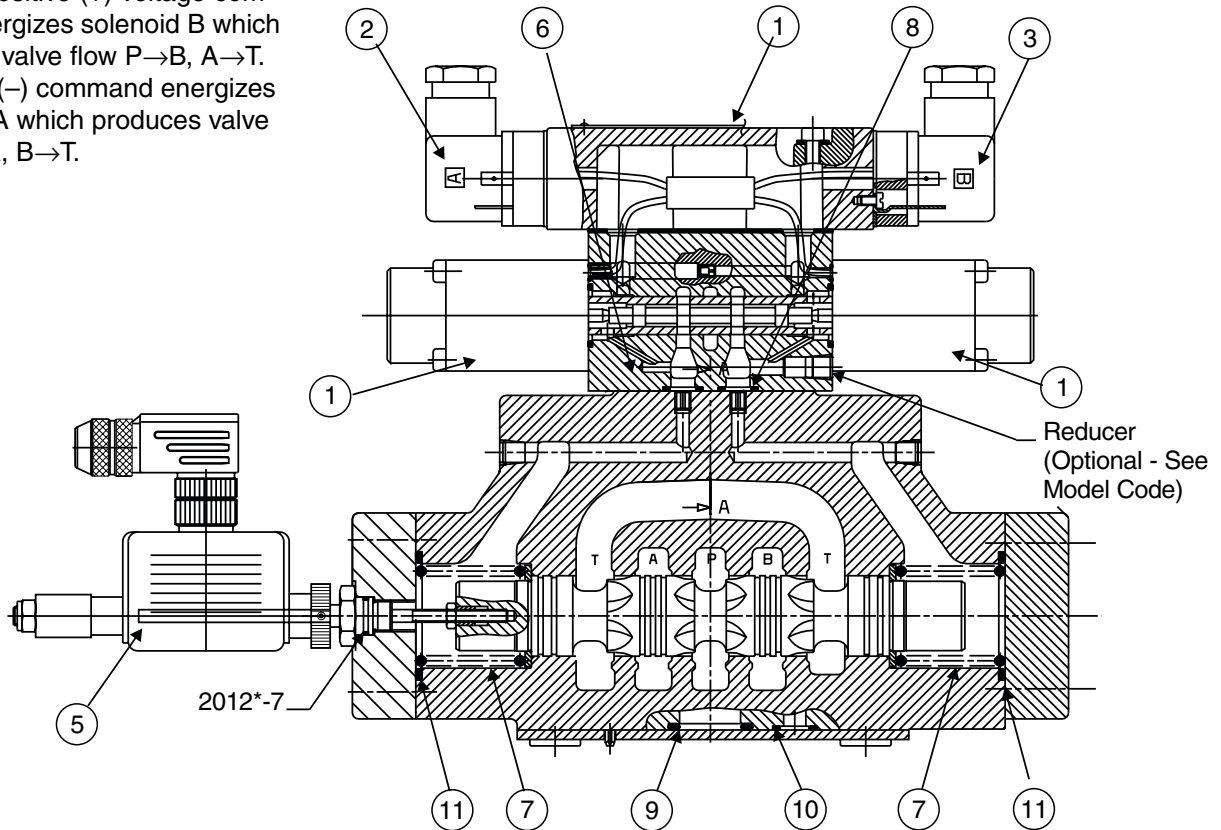
Series D81FS 30 Design Proportional Directional Control Valves

Effective: September 1, 2000

Supersedes: May 5, 1995

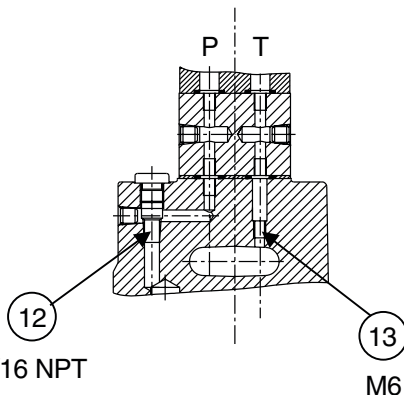


NOTE: Positive (+) voltage command energizes solenoid B which produces valve flow P→B, A→T. Negative (-) command energizes solenoid A which produces valve flow P→A, B→T.



REPAIR PARTS

Item	Qty	Part Number	Description	Item	Qty	Part Number	Description
1	1	D1FVE02BCVXP20	Pilot Valve	7	2	45051469	Spool Centering Spring
2	1	692915	Hirschmann Plug (gray)	8	4	2012*-9	O-Ring 2-012N552-90
3	1	692914	Hirschmann Plug (black)	9	5	2123*-9	O-Ring 2-123N552-90
4	2	5001726	Proportional Sol. Assy. 16 VDC	10	2	2117*-9	O-Ring 2-117N552-90
5	1	1210503	LVDT Assembly w/ plug	11	2	2135*-9	O-Ring 2-135N552-90
6	4	M5 x 30	Pilot Valve Mtg. Bolt				



PILOT AND DRAIN CONFIGURATIONS

Pilot ⑫				Drain ⑬		
Code	Qty	Part Number	Pilot	Qty	Part Number	Drain
1		—	Internal	1	5000471 (M6 x 6)	External
2	1	1/16 NPT	External	1	5000471 (M6 x 6)	External
4		—	Internal	—	—	Internal
5	1	1/16 NPT	External	—	—	Internal

D	81	F	S			E			X	P	0	
Directional Control Valve	Size and Interface	Proportional Flow Regulation	With Position Transducer	Flow Ratio	Spool Symbol	Flow Code	Pilot Connections	Seals	Solenoid Voltage	Solenoid Connections	Valve Accessory	Design Series Not required for ordering

Code	Description	Code	Ratio	Code	Flow Code	Code	Description
81	DIN NG25 Cetop 8 NFPA D08-1"	E	QA = QB	E	V-Notch	N	Nitrile
		A	QB > QA			V	Fluorocarbon
		B	QA > QB			X	16VDC proportional solenoid

Code	Description	Code	Description
0	Standard, no accessories	0	Standard, no accessories
2	Pressure Reducer**	2	Pressure Reducer**

Code	Supply	Drain
1	Internal	External
2	External	External
4	Internal	Internal
5	External	Internal

Code	Description
P	Hirschmann DIN 43650 with female plug

Spool with overlap Flow QA equal to flow QB Flow ratio to code E		
Code	Symbol	Ratio Q
01		1 : 1
02		1 : 1
06		1 : 1
07		1 : 1
08		1 : 1

Spool with overlap Flow QA unequal to flow QB Flow ratio to code A or B		
Code	Symbol*	Ratio Q
31		2 : 1
32		2 : 1
34		2 : 1
35		2 : 1
36		2 : 1

*Symbols show spools to flow ratio Code "B"

** Pressure Reducer is recommended when using internal pilot pressure and supply pressure is 3000 PSI or greater.

Flow Ratio:
 E = throttling area (P→A=A→T)=(P→B=B→T)
 A = throttling area (P→B/B→T) > (P→A/A→T)
 B = throttling area (P→A/A→T) > (P→B/B→T)

Use one Power Supply for each valve/driver. #PS24
 Valve Weight: 20.7 kg (45.5 lbs.)

D81FS Accessories

Valve Size	Subplate	Port Size	Location	Max. Pressure	Bolt Kit
D81	SPD68NS35	1" NPTF	Bottom	345 Bar (5,000 PSI)	BK228
D81	SPD68SS35	1 5/16-12 SAE	Bottom	345 Bar (5,000 PSI)	
D81	SPD68SA35	1 5/16-12 SAE	Side	345 Bar (5,000 PSI)	

Accessories for Boards

Model	Description
K	Card Holder (31 Pin)
PS24	24 VDC, 4.5 amp, power supply

D81FS Amplifier Boards

<div style="border: 1px solid black; padding: 5px; width: 60px; margin: 0 auto;">EW</div> <p>Driver Board used with D81FS Series 4-Way Proportional Valves</p>	<div style="border: 1px solid black; padding: 5px; width: 60px; margin: 0 auto;">25</div> <p>Size</p> <table border="1" style="margin: 0 auto;"> <tr> <th>Code</th> <th>Size</th> </tr> <tr> <td>25</td> <td>D81</td> </tr> </table>	Code	Size	25	D81	<div style="border: 1px solid black; padding: 5px; width: 60px; margin: 0 auto;"></div> <p>Functions</p> <table border="1" style="margin: 0 auto;"> <tr> <th>Code</th> <th>Board Type</th> </tr> <tr> <td>101</td> <td>4 setpoints and Accel/Decel Ramps</td> </tr> <tr> <td>102</td> <td>± 10 VDC Input</td> </tr> <tr> <td>104</td> <td>± 10 VDC Input Min./Max. Adjust with Accel/Decel Ramps</td> </tr> </table>	Code	Board Type	101	4 setpoints and Accel/Decel Ramps	102	± 10 VDC Input	104	± 10 VDC Input Min./Max. Adjust with Accel/Decel Ramps	<div style="border: 1px solid black; padding: 5px; width: 60px; margin: 0 auto;">-10</div> <p>Current Design Series</p>
Code	Size														
25	D81														
Code	Board Type														
101	4 setpoints and Accel/Decel Ramps														
102	± 10 VDC Input														
104	± 10 VDC Input Min./Max. Adjust with Accel/Decel Ramps														

 **WARNING**

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