

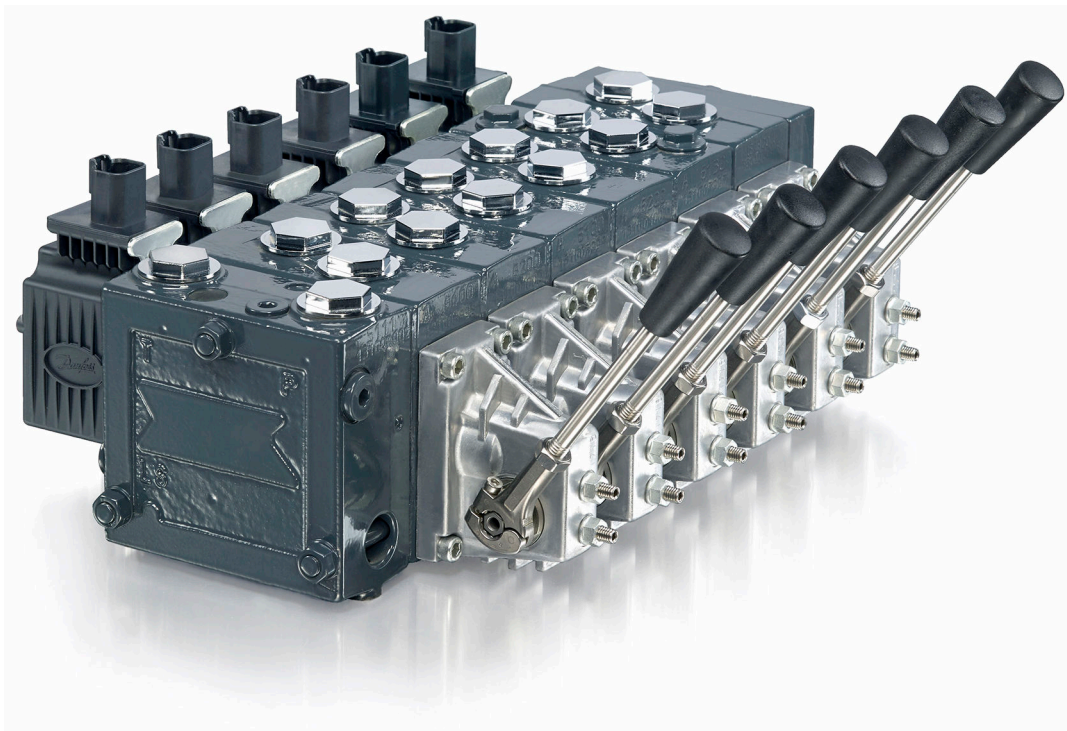
ENGINEERING
TOMORROW

Danfoss

Parts Manual

Proportional Valve

PVG 32



Revision history

Table of revisions

Date	Changed	Rev
May 2018	Included internal links	0602
August 2017	Updated to include PVE Series 7	0601
April 2015	Engineering Tomorrow format	0508
February 2015	Updated torque	EG
November 2014	O-ring added to parts list	EF
August 2014	Updated PVAS description	EE
May 2014	Making Modern Living Possible format	ED
February 2010	Updated drawing	EC
September 2009	Updated pin numbers	EB
April 2009	Added PVHC	EA
October 2008	Udc - Udc2 changed	DB
April 2008	Major update	DA
April 2008	Major update	DA
December 2007	Major update	CA
December 2007	Major update	BA
October 2004	New layout	B

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General information

Rated pressure

Product	P-port max. continuous pressure
PVG 32; PVG 120/32; PVG 100/32 with PVS	300 bar [4351 psi]
PVG 32; PVG 120/32; PVG 100/32 with PVSI	350 bar [5076 psi]
PVG 32 with PVBZ	250 bar [3626 psi]

Safety

It is the customer's responsibility to decide on the required degree of safety for the system. All marks and all types of directional control and proportional valves can fail and cause serious damage. It is therefore important to analyze all aspects of the application. Proportional valves are used in many different operating conditions and applications; therefore the manufacturer of the application is responsible for making the final selection of the products and assuring that all performance, safety and warning requirements of the application are met.

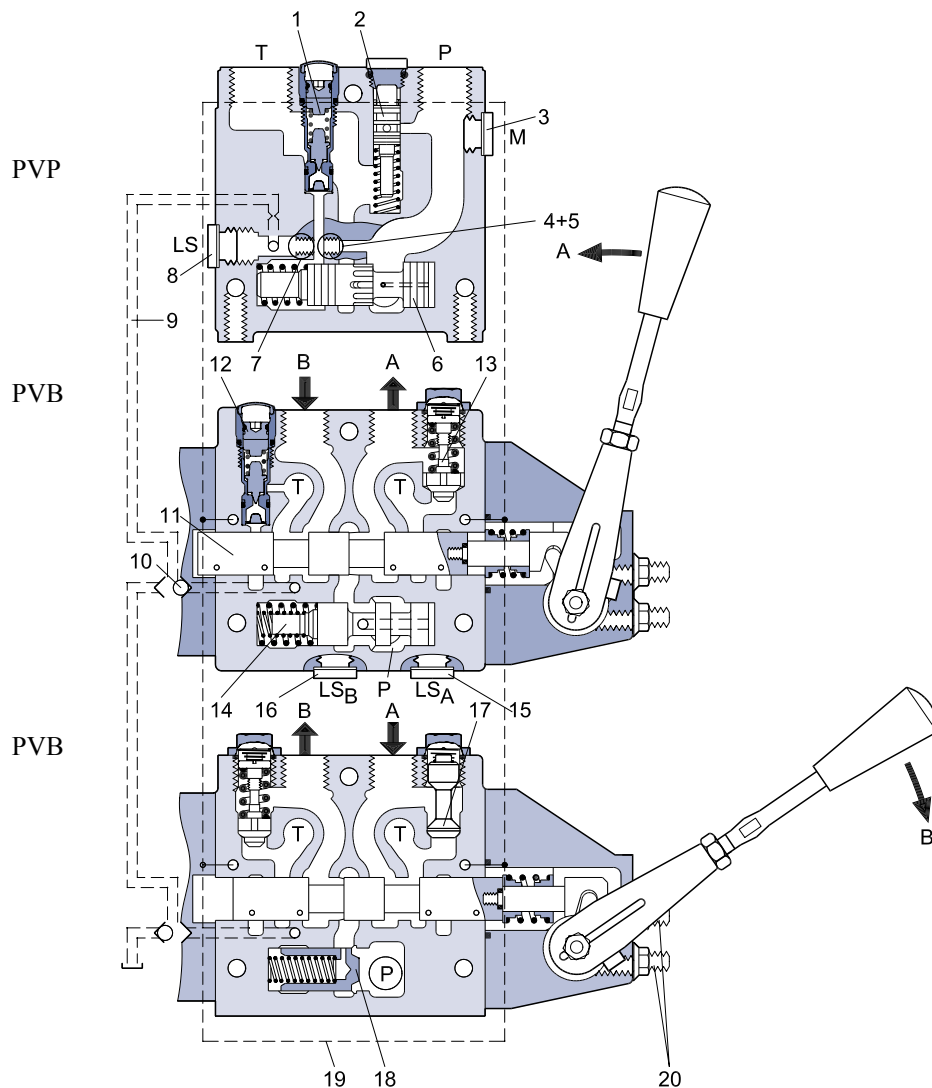
 **Caution**

A mix of electrical actuation and hydraulic actuation on the same valve stack is not safe. PVE and PVH are designed for different pilot pressure.

Cost-free repairs, as mentioned in Danfoss General Conditions of Sale, are carried out only at Danfoss or at service shops authorized by Danfoss.

General information

PVG 32 sectional drawing



157-104.11

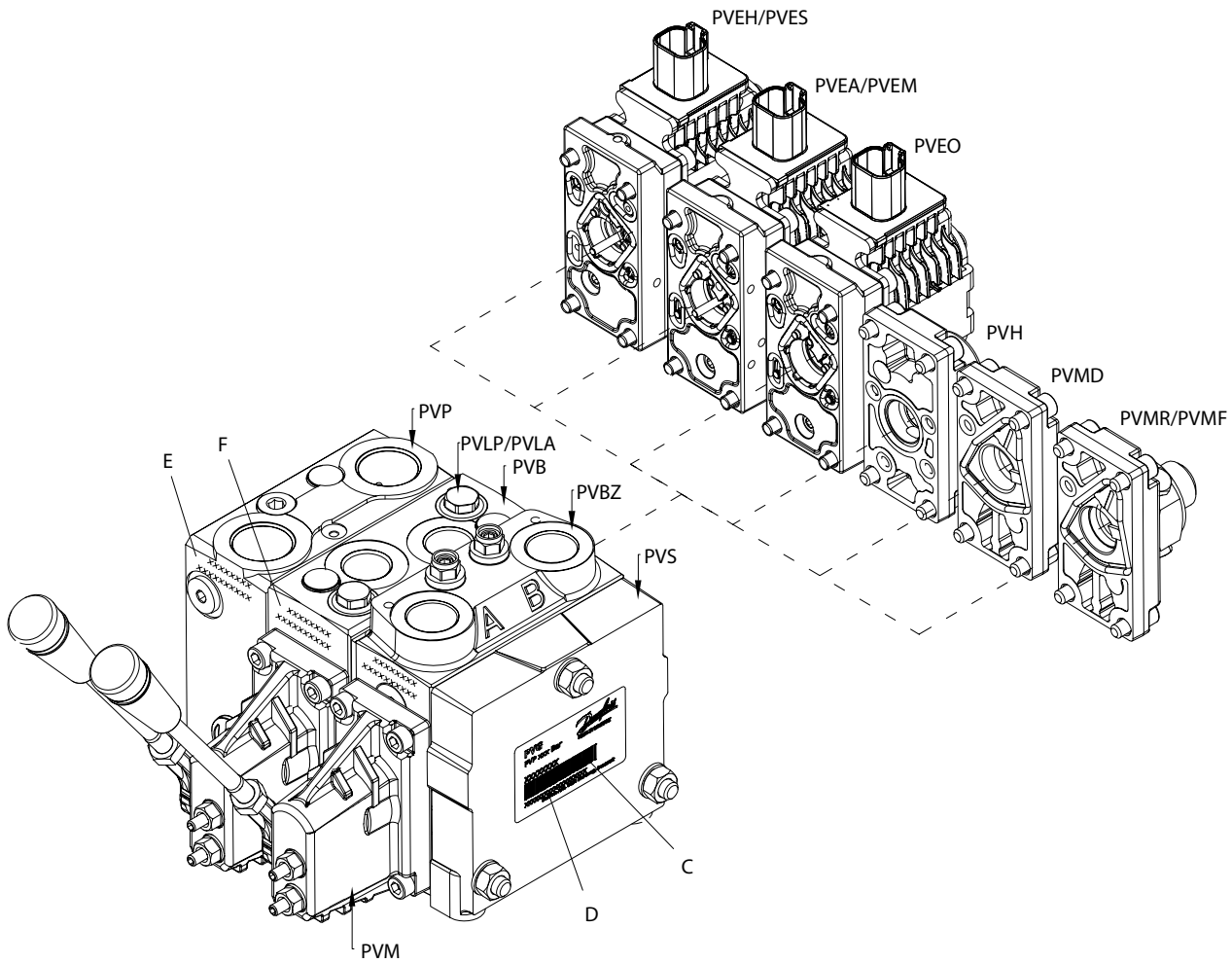
- | | |
|--|---|
| <ul style="list-style-type: none"> 1. Pressure relief valve 2. Pressure reduction valve for pilot oil supply 3. Pressure gauge connection 4. Plug, open centre 5. Orifice, closed centre 6. Pressure adjustment spool 7. Plug, closed centre 8. LS connection 9. LS signal 10. Shuttle valve | <ul style="list-style-type: none"> 11. Main spool 12. LS pressure limiting valve 13. Shock and suction valve, PVLP 14. Pressure compensator 15. LS connection, port A 16. LS connection, port B 17. Suction valve, PMA 18. Load drop check valve 19. Pilot oil supply for PVE 20. Max. oil flow adjustment screws for ports A and B |
|--|---|

General information

Standard Installation: PVM on A-port Side

Week	Year	Day*	Issue number	Series number
01	03	A	00	0299

* Letter corresponds to day of the week. A = Monday, B = Tuesday ...



Identification Label

C	PVG number, week and year of installation and series number
D	PVG pressure setting
E	PVP number, week and year of manufacturing and series number
F	PVB A-port, number, week and year of manufacturing and series number

⚠ Caution

A mix of electrical actuation and hydraulic actuation on the same valve stack is not safe. PVE and PVH are designed for different pilot pressure.

PVP

Spare Parts PVP

PVP Pump Side Module

Type		Code number		Letter	
		BSP thread	SAE thread		
PVP Open center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12	Excl. pilot supply for PVE	157B5000	157B5200	J
PVP Open center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5100	157B5300	I
PVP Closed center	P-por = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12		157B5001	157B5201	H
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5101	157B5301	G
PVP Open center	P-port < T-port = G3/4	Excl. pilot supply for PVE With facilities for PVPX	157B5102	-	F
PVP Closed center	P-port < T-port = G3/4		157B5103	-	E
PVP Open center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12	Incl. pilot supply for PVE	157B5010	157B5210	D
PVP Open center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5110	157B5310	C
PVP Closed center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12		157B5011	157B5211	B
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5111	157B5311	A

Spare Kits Available

Item	Description	Letter									
		A	B	C	D	E	F	G	H	I	J
1	Inlet compensator, assy	1	1	1	1	1	1	1	1	1	1
2	Plastic plug	1	1	1	1	1	1	1	1	1	1
3	Plug	G1/4 - thread	2	2	2	2	2	2	2	2	2
		1/2 - 20 UNF - thread	2	2	2	2			2	2	2
4	Washer 13.5 • 17.5 • 1.5 [0.53 • 0.69 • 0.06 in]	BSP/SAE	2	2	2	2	2	2	2	2	2
5	Housing	1	1	1	1	1	1	1	1	1	1
6	Orifice ø1.0 • M6 [0.04 in • M6]	2	2	1	1	1	2	2	2	1	1
7	Plastic plug	G1/2 - thread		1		1				1	1
		7/8 - 14 UNF - thread		1		1				1	1
8	Plastic plug	G 3/4 - thread	2	1	2	1	2	2	2	1	2
		1 1/16 - 12 UNF - thread	2	1	2	1			2	1	2
9	Spring	1	1	1	1						
10	Cone	1	1	1	1						
11	Spool	1	1	1	1						
12	O-ring ø11.0 • 2.0 [0.43 • 0.08 in]	1	1	1	1						
13	O-ring ø8.0 • 1.5 [0.31 • 0.06 in]	1	1	1	1	1	1	1	1	1	1

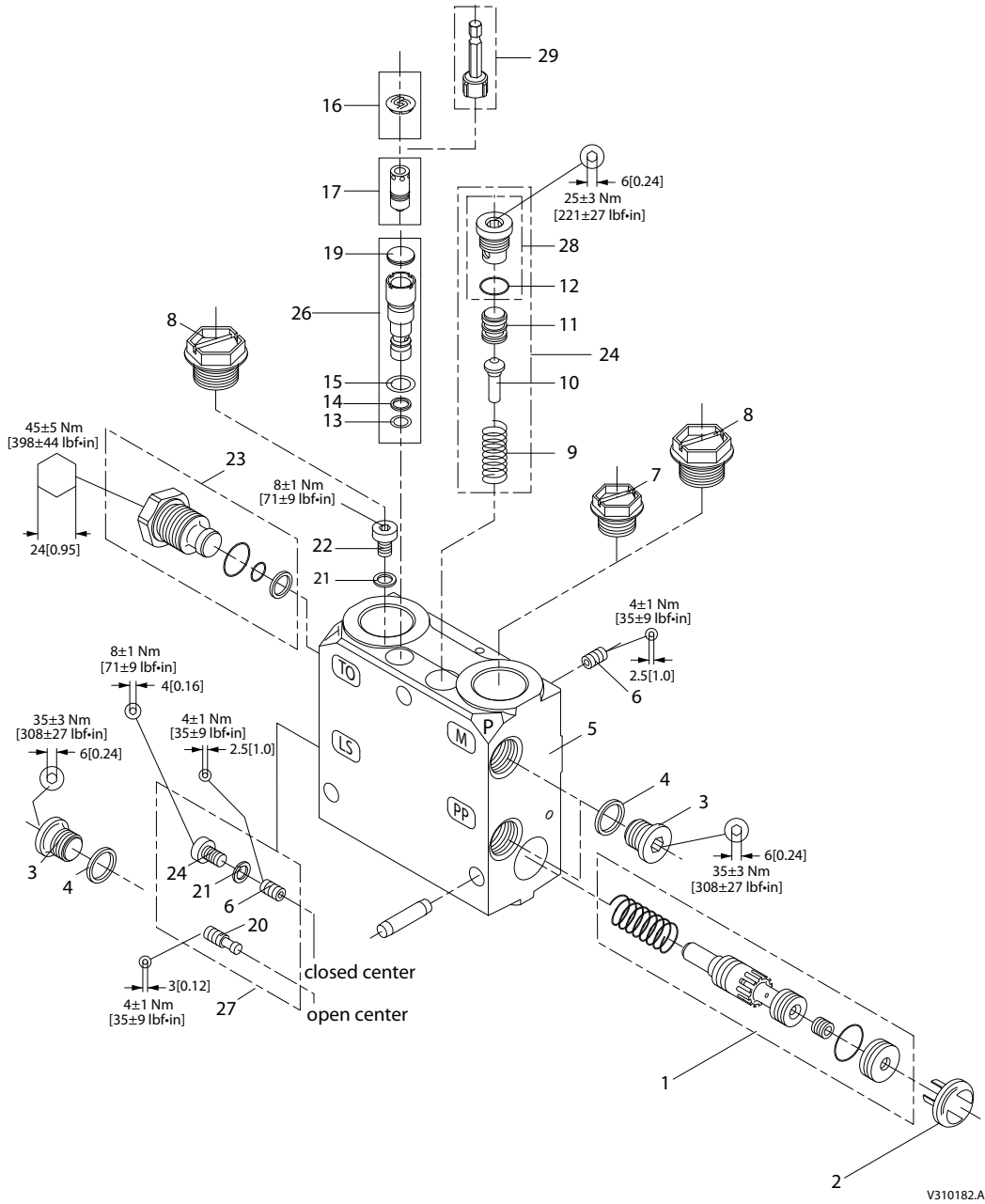
PVP

Spare Kits Available (continued)

Item	Description	Letter									
		A	B	C	D	E	F	G	H	I	J
14	Back up ring DTM	1	1	1	1	1	1	1	1	1	1
15	O-ring $\phi 11.0 \cdot 2.0$ [0.43 \cdot 0.08 in]	1	1	1	1	1	1	1	1	1	1
19	Plastic plug	1	1	1	1	1	1	1	1	1	1
20	Plug M6. open center only			1	1					1	1
21	Bonded seal $6.7 \cdot 10 \cdot 1.0$ [0.26 \cdot 0.39 \cdot 0.04 in]	1	1			1	2	1	1		
22	Screw M6	1	1			1	2	1	1		

PVP

PVP, Pump Side Module



PVP

Spare Parts PVP

PVP Pump Side Module

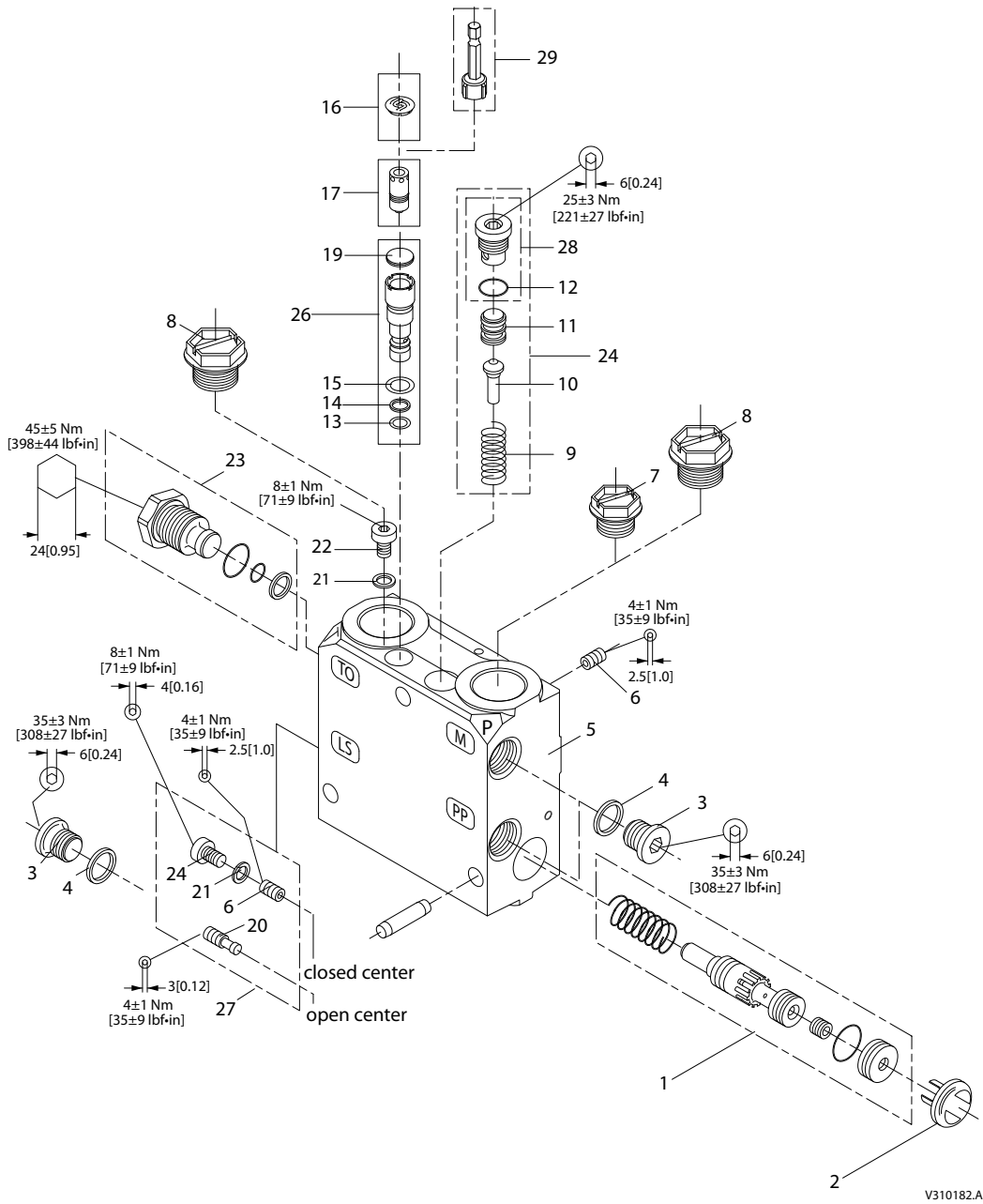
Type			Code number		Letter
			BSP thread	SAE thread	
PVP Open center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12	Excl. pilot supply for PVE	157B5000	157B5200	J
PVP Open center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5100	157B5300	I
PVP Closed center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12		157B5001	157B5201	H
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5101	157B5301	G
PVP Open center	P-port < T-port = G3/4	Excl. pilot supply for PVE With facilities for PVPX	157B5102	-	F
PVP Closed center	P-port < T-port = G3/4		157B5103	-	E
PVP Open center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12	Incl. pilot supply for PVE	157B5010	157B5210	D
PVP Open center	P-port < T-por = G3/4 / 1 1/16 - 12		157B5110	157B5310	C
PVP Closed center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12		157B5011	157B5211	B
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5111	157B5311	A

Spare Kits Available

Item	Description	Code	Letter									
			A	B	C	D	E	F	G	H	I	J
16	Sealed plastic adjusting screw, black (50 pcs.)	155L6168	1	1	1	1	1	1	1	1		
16	Sealed plastic adjusting screw, yellow (50 pcs.)	155L6167	1	1	1	1	1	1	1	1		
17	Sealed adjusting screw (for sealing with a wire)	155L6489	1	1	1	1	1	1	1	1		
23	PVPX plug	157B5601					1	1	1	1	1	1
24	Pilot supply	155L5157	1	1	1	1						
25	Relief valve	155L6495	1	1	1	1	1	1	1	1	1	1
26	Conversion kit open to closed - and closed to open - center	155L5152			1	1			1			1
27	Plug (incl. item 12*)	155L5150	1	1	1	1						
28	Service tool for relief valve	155L6494	1	1	1	1	1	1	1	1	1	1
*	Set of seals, PVP	157B5999	1	1	1	1	1	1	1	1	1	1
**	Set of seals, PVP	157B4996					1	1	1	1		

PVP

PVP, Pump Side Module



PVP

Spare Parts PVP

PVP Pump Side Module

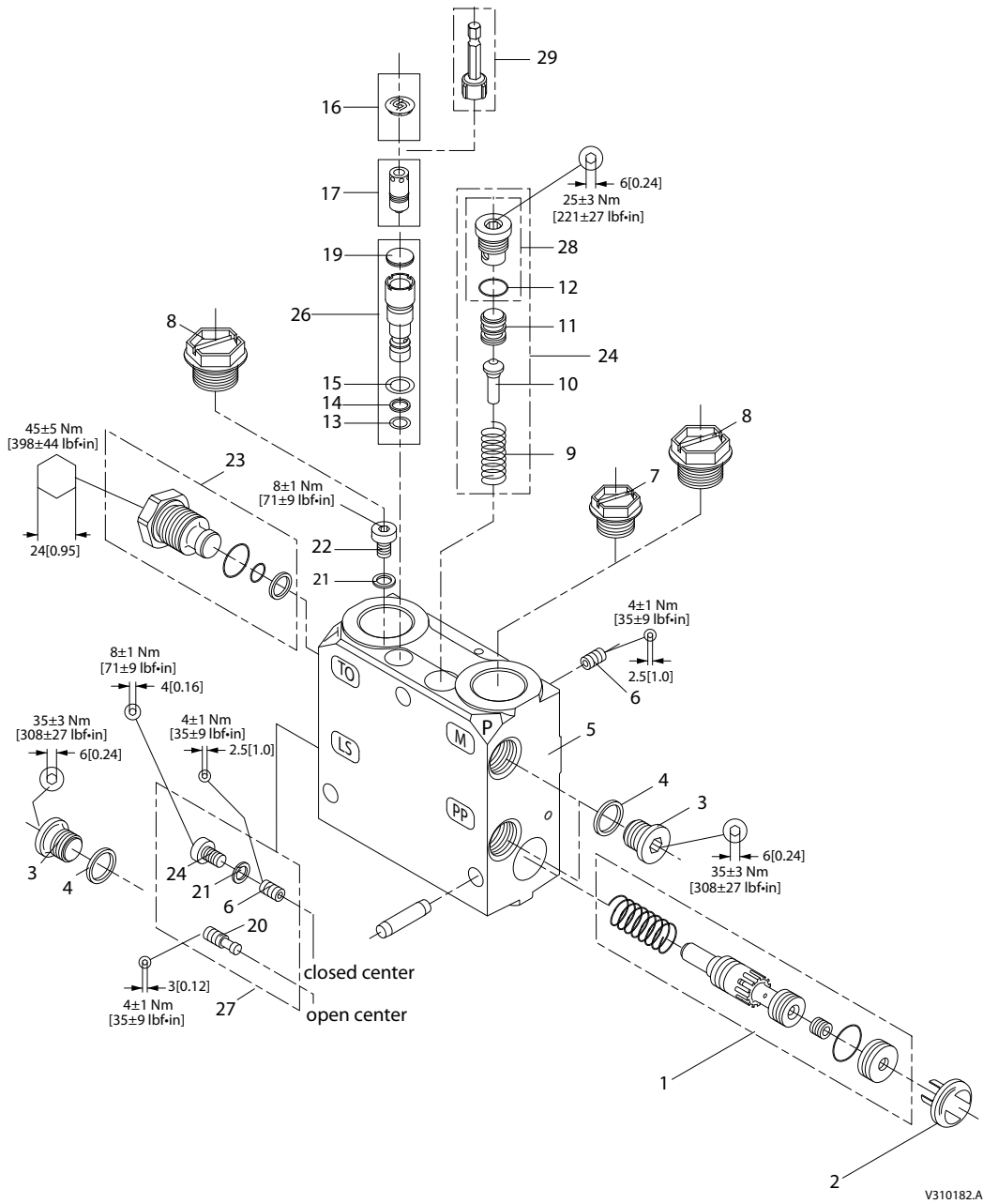
Type		Code number		Letter	
		BSP thread	SAE thread		
PVP Open center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12	Excl. pilot supply for PVE and facilities for PVPX	157B5012	157B5212	A
PVP Open center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5112	157B5312	B
PVP Closed center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12		157B5013	157B5213	C
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5113	157B5313	D
PVP Open center	P-port < T-port = G3/4 / 1 1/16 - 12	Incl. pilot supply for PVE and external PVPX	157B5180	157B5380	E
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5181	157B5381	F
PVP Open center	P-port < T-port = G3/4 / 1 1/16 - 12	Incl. pilot supply for hydraulic activation and external Pp	157B5190	157B5390	G
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5191	157B5391	H

Spare Kits Available

Item	Description	Letter							
		A	B	C	D	E	F	G	H
1	Inlet compensator	1	1	1	1	1	1	1	1
2	Plastic plug	1	1	1	1	1	1	1	1
3	Plug	G/14 thread	3	3	3	3	3	3	3
		1/2-20 UNF thread					2	2	2
4*	Washer 13.5 • 17.5 • 1.5 [0.53 • 0.69 • 0.06 in]	G/UNF thread	3	3	3	3	2	2	2
5	Housing	1	1	1	1	1	1	1	1
6	Orifice Ø 1.0 • M6 [0.04 in • M6]	2	1	2	1	2	2	1	1
7	Plastic plug	G1/2 thread						1	1
		7/8 -14 UNF thread						1	1
8	Plastic plug	G 3/4 thread	2	2	2	2	2	1	2
		1 1/16 - 12 UNF thread					2	1	2
9	Spring	1	1	1	1	1	1	1	1
10	Cone	1	1	1	1	1	1	1	1
11	Spool	1	1	1	1	1	1	1	1
12*	O-ring Ø 11.0 • 2.0 [0.43 • 0.08 in]	1	1	1	1	1	1	1	1
13	O-ring Ø 8.0 • 1.5 [0.32 • 0.06 in]	1	1	1	1	1	1	1	1
14	Back-up ring	1	1	1	1	1	1	1	1
15	O-ring Ø 11.0 • 2.0 [0.43 • 0.08 in]	1	1	1	1	1	1	1	1
19*	Plastic plug	1	1	1	1	1	1	1	1
20	Plug M6		1		1			1	1
21*	Bonded seal 6.7 • 10 • 1.0 [0.26 • 0.39 • 0.04 in]	1		1		2	2	1	1
22	Screw M6	1		1		2	2	1	1

PVP

PVP, Pump Side Module



PVP

Spare Parts PVP

Pump Side Module

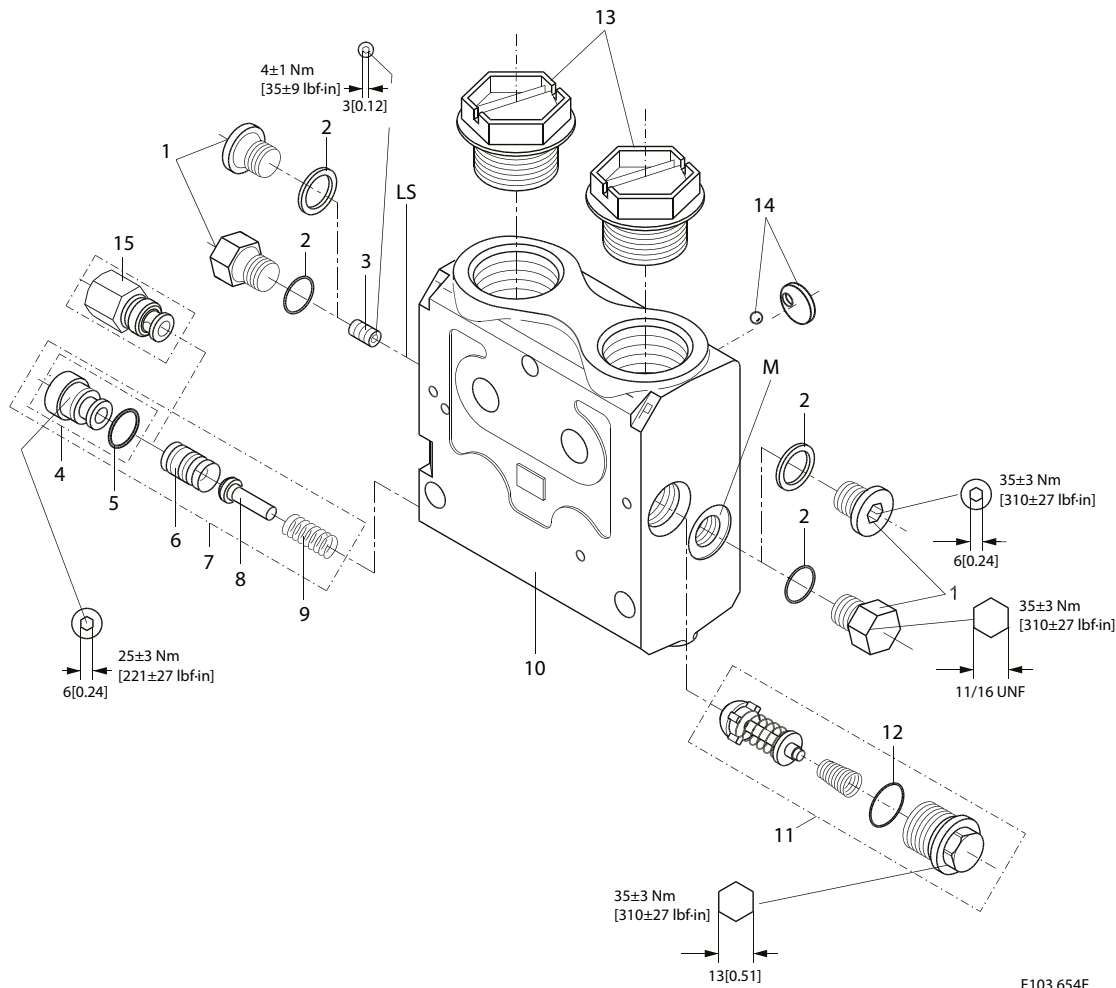
Type		Code number		Letter	
		BSP thread	SAE thread		
PVP Open center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12	Excl. pilot supply for PVE and facilities for PVPX	157B5012	157B5212	H
PVP Open center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5112	157B5312	G
PVP Closed center	P-port = G1/2 / 7/8 - 14 T-port = G3/4 / 1 1/16 - 12		157B5013	157B5213	F
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5113	157B5313	E
PVP Open center	P-port < T-port = G3/4 / 1 1/16 - 12	Incl. pilot supply for PVE and external PVPX	157B5180	157B5380	D
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5181	157B5381	C
PVP Open center	P-port < T-port = G3/4 / 1 1/16 - 12	Incl. pilot supply for hydraulic activation and external Pp	157B5190	157B5390	B
PVP Closed center	P-port < T-port = G3/4 / 1 1/16 - 12		157B5191	157B5391	A

Spare Kits Available

Item	Description	Code no.	Letter							
			A	B	C	D	E	F	G	H
16	Sealed plastic adjusting screw, yellow (50pcs)	155L6167	1	1	1	1	1	1	1	1
16	Sealed plastic adjusting screw, black (50pcs)	155L6168	1	1	1	1	1	1	1	1
17	Sealed adjusting screw (for sealing with a wire)	155L6489	1	1	1	1	1	1	1	1
23**	PVPX plug	157B5601					1	1	1	1
24	Pilot supply	155L5157			1	1	1	1	1	1
25	Pilot, hydraulic activation	11077272	1	1						
26	Relief valve	155L6495	1	1	1	1	1	1	1	1
27		155L5152		1	1		1		1	1
28	Plug (incl. item 12*)	155L5150	1	1	1	1	1	1	1	1
29	Service tool for relief valve	155L6494	1	1	1	1	1	1	1	1
*	Set of seals	157B5999	1	1	1	1	1	1	1	1
**	Set of seals	157B4996					1	1	1	1

PVPV/M

PVPV/M, Pump Side Module



E103 654E

Spare Parts PVPV/M

PVPV/M Pump Side Module

Type			Code no.		Letter
			BSP thread	SAE thread	
PVP Closed center	P port = G1 T port = 1 5/16 UN	Incl. pilot supply for PVE	157B5938	-	H
			-	157B5911	G
PVP Closed center	P port = G1 T port = 1 5/16 UN	Incl. pilot supply for PVE and PVPL 63	157B5937	-	F
			-	157B5912	E
PVP Closed center	P port = G1 T port = 1 5/16 UN	Incl. pilot supply for PVE and PVPL 63	157B5941	-	D
			-	157B5913	C
PVP Closed center	P port = G1 T port = 1 5/16 UN	Incl. pilot supply for PVE and PVPL 63	157B5940	-	B
			-	157B5914	A

PVPV/M

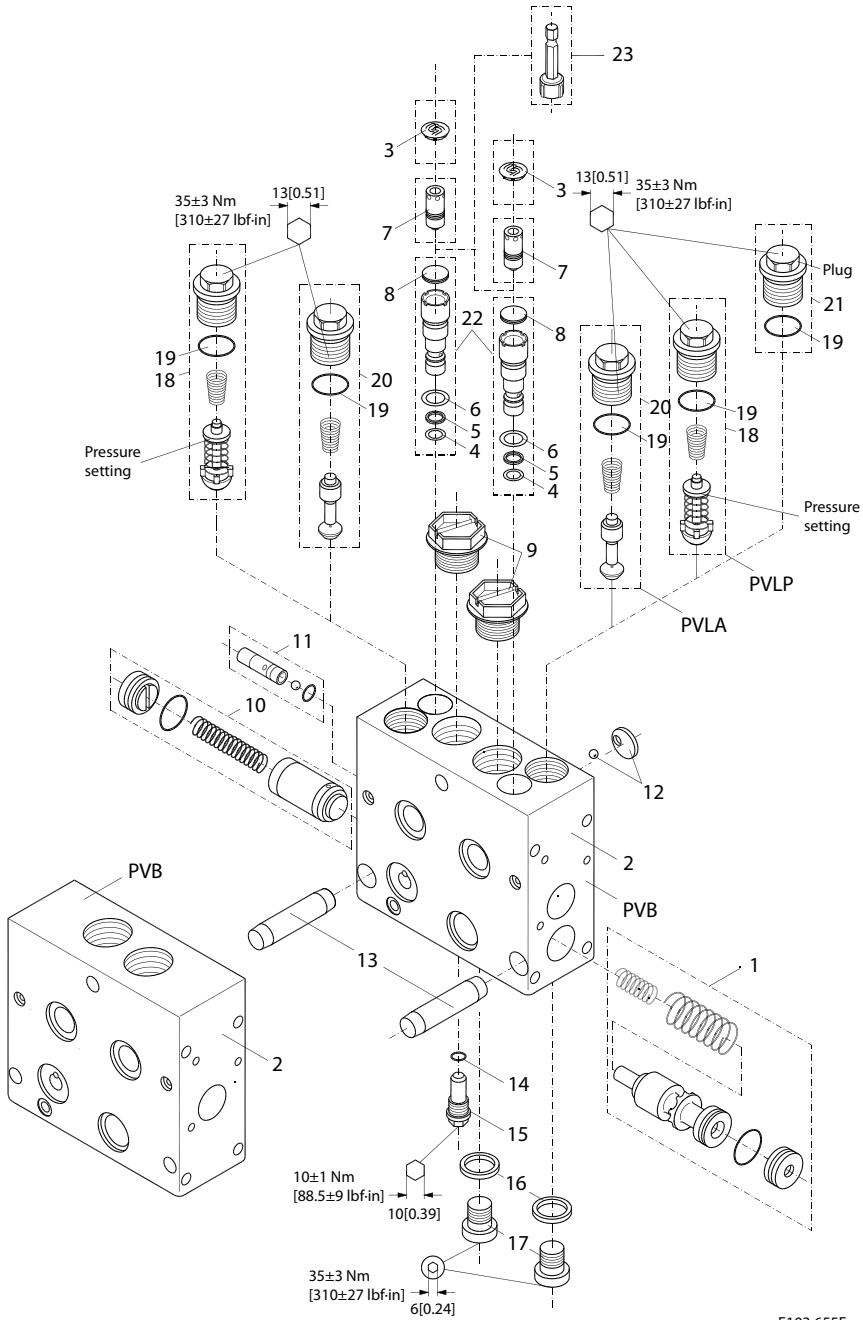
Item	Description		Letter							
			A	B	C	D	E	F	G	H
1	Plug	G1/4		2		2		2		2
		9/16-18 UNF	2		2		2		2	
2	Washer 13.5 • 17.5 • 1.5 [0.53 • 0.69 • 0.06 in]			1		1		1		2
	O-ring Ø11.89 • 1.98 [0.47 • 0.08 in]		1		1		1		1	
3	Orifice Ø 1.0 • M6 [0.04 • M6]		1	1	1	1	1	1	1	1
4	Plug (incl. item 5)		1	1	1	1	1	1	1	1
5	O-ring Ø 11.0 • 2.0 [0.43 • 0.08 in]		1	1	1	1	1	1	1	1
6	Spool		1	1	1	1	1	1	1	1
8	Cone		1	1	1	1	1	1	1	1
9	Spring		1	1	1	1	1	1	1	1
10	Housing		1	1	1	1	1	1	1	1
12	O-ring Ø 15.6 • 1.78 [0.61 • 0.07 in]		1	1	1	1				
13	Plastic plug	G1		2		2		2		2
		1 5/16-18 UNF	2		2		2		2	
14	Shuttle assembly		1	1			1	1		
*	Set of seals		1	1	1	1	1	1	1	1

Spare Kits Available

Item	Description	Code no.	A	B	C	D	E	F	G	H
7	Pilot supply	155L5157	1	1	1	1	1	1	1	1
11	PVLP shock valve		1	1	1	1				
15	Plug for external Pp	11038675	1	1	1	1	1	1	1	1
*	Set of seals	157B5999	1	1	1	1	1	1	1	1

PVB

PVB, PVLA, PVL



E103 655E

PVB

PVB Type		Code no.		Letter
		BFP thread	SAE thread	
Without compensator / check valve	Not prepared for shock valves A and B	157B6000	157B6400	M
With check valve		157B6100	157B6500	L
With compensator valve		157B6200	157B6600	K
With compensator valve, LSA/B relief valve and LSA/B shuttle valve		157B6203	157B6603	J
With damped compensator valve		157B6206	-	I
With damped compensator valve, LSA/B relief valve and LSA/B shuttle valve		157B6208	-	H
Without compensator / check valve	Prepared for shock valves A and B	157B6030	157B6430	G
With check valve		157B6130	157B6530	F
With check valve and LSA/B shuttle valve		157B6136	157B6536	E
With compensator valve		157B6230	157B6630	D
Compensator, LSA/B relief valve and LSA/B shuttle valve		157B6233	157B6633	C
With damped compensator valve		157B6236	-	B
With damped compensator valve, LSA/B relief valve and LSA/B shuttle valve	157B6238	-	A	

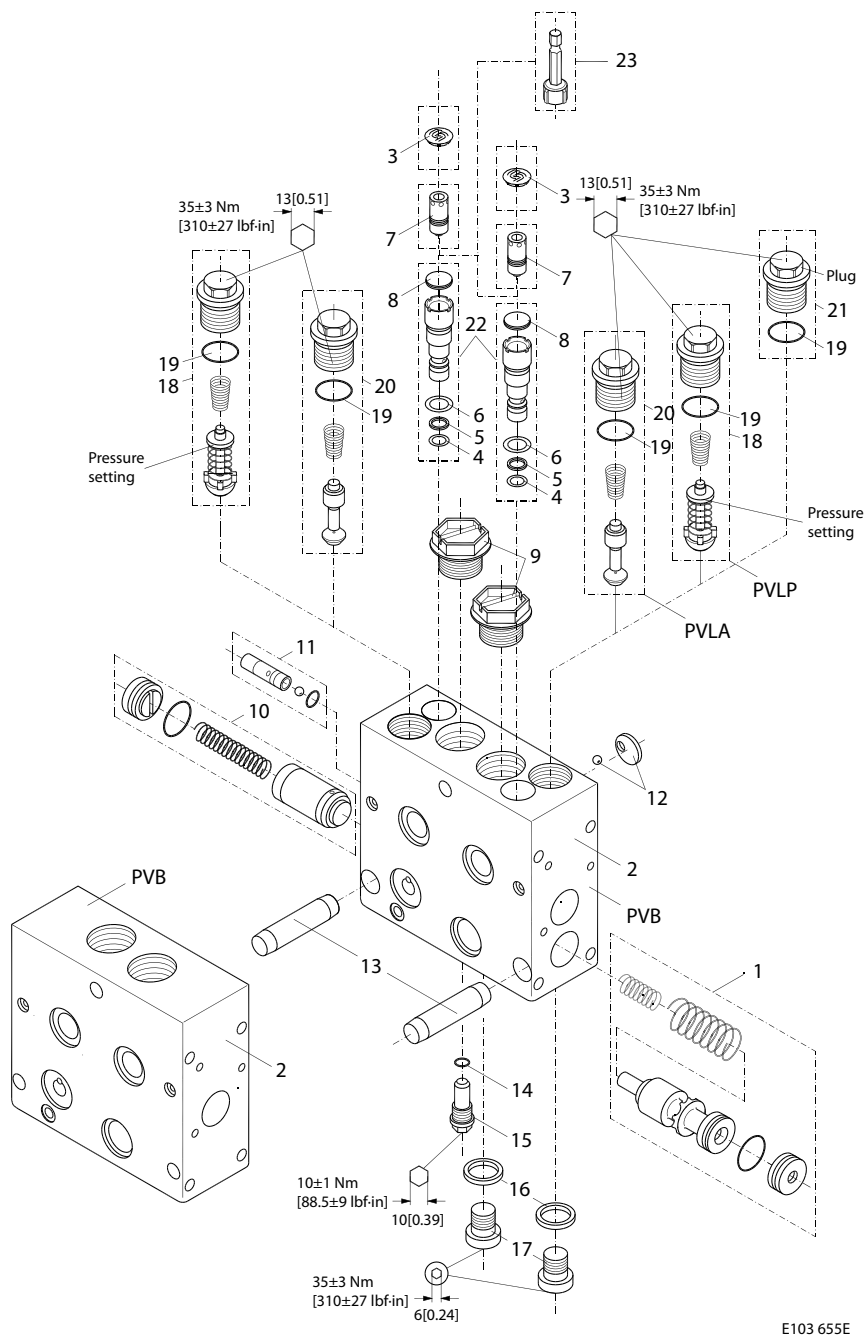
Item	Description	Letter												
		A	B	C	D	E	F	G	H	I	J	K	L	M
1	Inlet compensator, assembly	1	1	1	1				1	1	1	1		
2	Plastic plug	1	1	1	1	1	1	1	1	1	1	1	1	1
4	Thrust pad · Ø 8.0 · 1.5 [0.32 · 0.06 in]	2		2					2		2			
5	Back up ring	2		2					2		2			
6	O-ring Ø 11.0 · 2.0 [0.43 · 0.08 in]	2		2					2		2			
8*	Plastic plug	2		2					2		2			
9	Plastic plug	G 1/2 thread	2	2	2	2	2	2	2	2	2	2	2	2
		7/8 - 14 UNF thread			2	2	2	2	2			2	2	2
10	Check valve assembly					1	1						1	
11	Shuttle assembly	1		1		1			1		1			
12	Shuttle assembly	1	1	1	1	1	1	1	1	1	1	1	1	1
13	Pipe	1	1	1	1	1	1	1	1	1	1	1	1	
14*	O-ring Ø 6.0 · 1.5 [0.24 · 0.06 in]	1	1						1	1				
15	Damping screw (incl. item 14)	1	1						1	1				
16*	Washer 13.5 · 17.5 · 1.5 [0.53 · 0.69 · 0.06 in]	2		2					2		2			
17	Plug	G 1/4 thread	2		2					2		2		
		1/2 - 20 UNF thread			2							2		

PVB

Item	Description	Letter												
		A	B	C	D	E	F	G	H	I	J	K	L	M
19	O-ring Ø15.6 • 1.78 [0.61 • 0.08 in]	1	1	1	1	1	1	1						
*	<i>Set of seals</i>	1	1	1					1	1	1			

PVB

PVB, PLVA, PVLV



Item	Description	Code no
18	PVLV, setting pressure in bar: 32, 50, 63, 100, 125, 140, 150, 160, 175, 190, 210, 230, 240, 250, 265, 280, 300, 320 and 350	157B2....
	PVLV, setting pressure in psi: 464, 725, 914, 1450, 1813, 2030, 2175, 2320, 2538, 2755, 3045, 3335, 3480, 3625, 3443, 4061, 4351, 4641 and 5075	-
20	PVLA valve	157B2001
21	PVLA / PVLV plug (incl. item 19)	157B2002

PVB

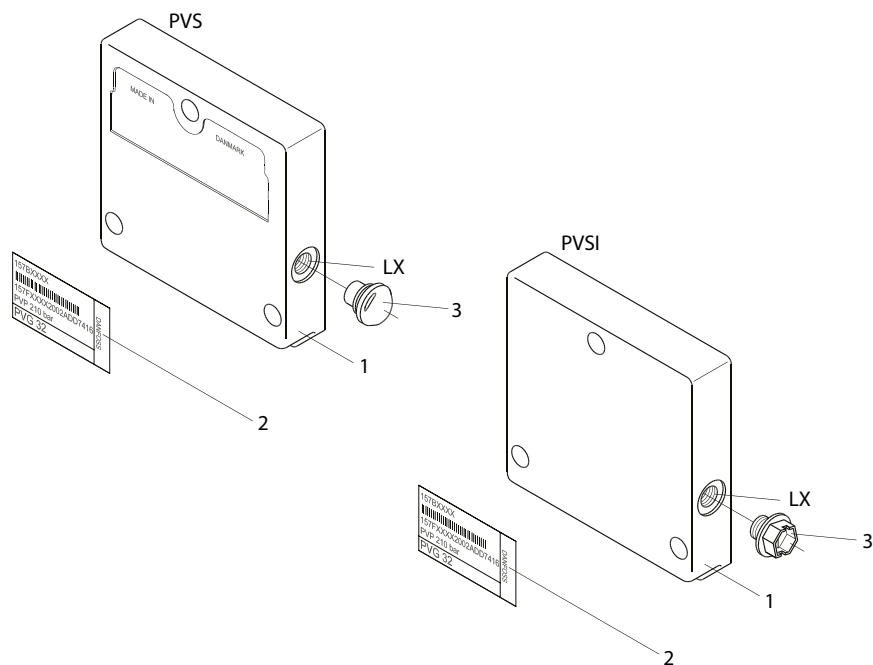
PVLA and PVLP should not be used as a pressure relief valve.

Spare Part Kits Available

Item	Description	Code no
3	Sealed plastic adjustment screw, black (50 pcs.)	155L6168
3	Sealed plastic adjustment screw, yellow (50 pcs.)	155L6167
7	Sealed adjustment screw (for sealing with a wire)	155L6489
22	Relief valve assembly	155L6495
23	Tool for relief valve	155L6494
*	Set of seals	157B6999

PVS and PVS1

PVS/PVS1 End Plate



E103 656E

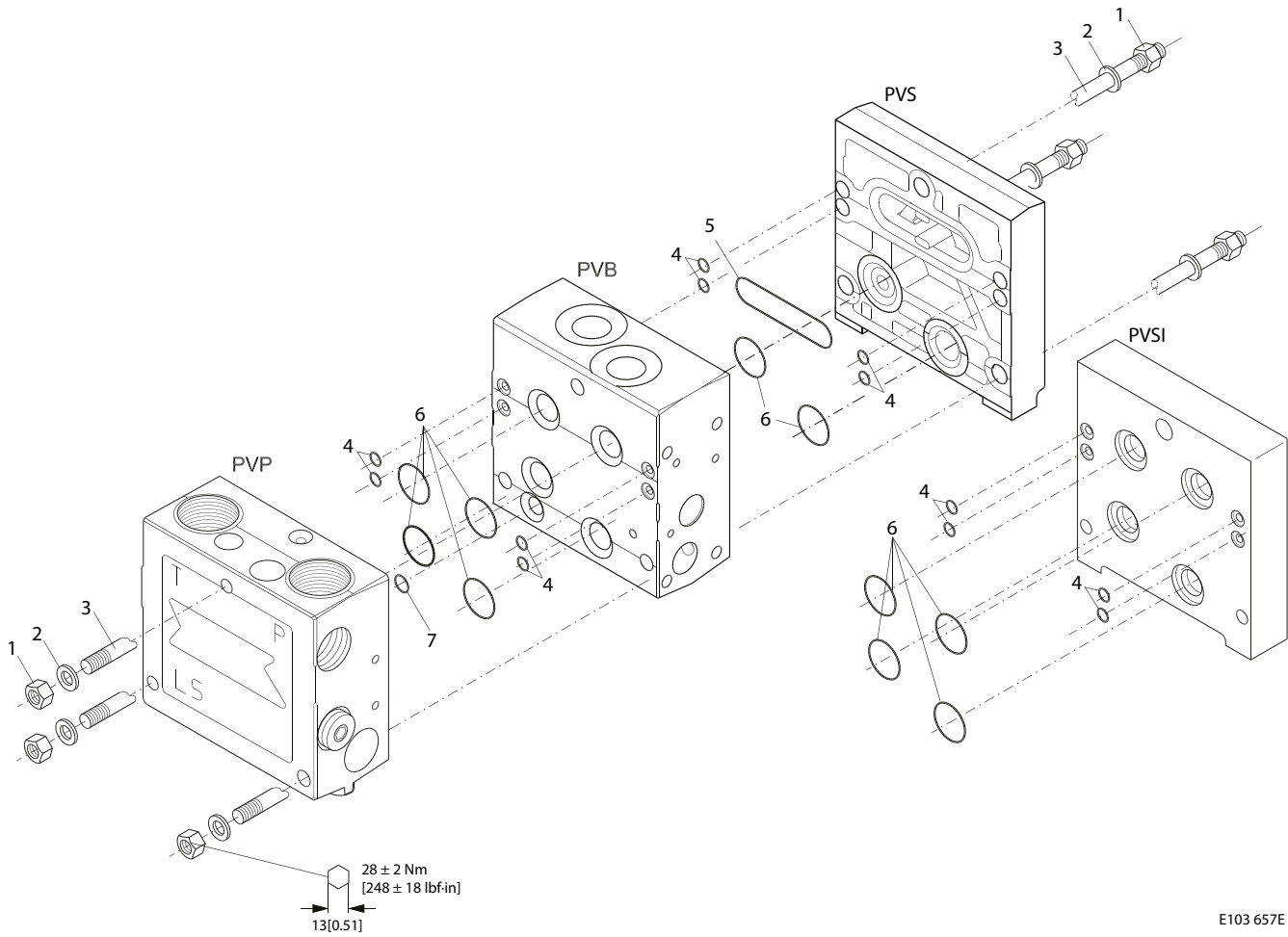
Spare Parts PVS and PVS1

Type	Code number		Letter
	G thread	UNF thread	
PVS without connection	157B2000	157B2020	D
PVS with LX connection	157B2011	157B2021	C
PVS without connection	157B2014	157B2004	B
PVS with LX connection	157B2015	157B2005	A

Item	Description	Letter			
		A	B	C	D
1	End plate	1	1	1	1
2	Identification label	1	1	1	1
3	Plastic plug	G1/8 thread		1	
		3/8-24 UNF thread		1	
		G1/4 thread	1		
		1/2-20 UNF thread	1		

PVAS

PVAS for PVP



E103 657E

Steel quality	Appearance	Tightening torque
10.9	Yellow zinc chromate surface	28 ± 2 N-m [247.82 ± 17.7 lbf-in]

PVAS

Spare Parts PVAS for PVP

Type	Description	Code number	Letter
PVAS	for 1 PVB on PVGI	157B8000	M
	for 1 PVB basic module / for 2 PVB on PVGI	157B8001	L
	for 2 PVB basic module / for 3 PVB on PVGI	157B8002	K
	for 3 PVB basic module / for 4 PVB on PVGI	157B8003	J
	for 4 PVB basic module / for 5 PVB on PVGI	157B8004	I
	for 5 PVB basic module / for 6 PVB on PVGI	157B8005	H
	for 6 PVB basic module / for 7 PVB on PVGI	157B8006	G
	for 7 PVB basic module / for 8 PVB on PVGI	157B8007	F
	for 8 PVB basic module	157B8008	E
	for 9 PVB basic module	157B8009	D
	for 10 PVB basic module	157B8010	C
	for 11 PVB basic module	157B8061	B
for 12 PVB basic module	157B8062	A	

Spare Kits Available

Item	Description	Letter												
		A	B	C	D	E	F	G	H	I	J	K	L	M
1	Nut 8.0	6	6	6	6	6	6	6	6	6	6	6	6	3
2	Washer 8.1 • 15.2 • 1.5 [0.53 • 0.69 • 0.06 in]	6	6	6	6	6	6	6	6	6	6	6	6	3
3	Stay bolt M8; L = 91 [3.58 in]													3
	Stay bolt M8; L = 140 [5.51 in]												3	
	Stay bolt M8; L = 189 [7.44 in]											3		
	Stay bolt M8; L = 238 [9.37 in]										3			
	Stay bolt M8; L = 287 [11.30 in]									3				
	Stay bolt M8; L = 336 [13.24 in]								3					
	Stay bolt M8; L = 385 [15.16 in]							3						
	Stay bolt M8; L = 434 [17.07 in]							3						
	Stay bolt M8; L = 483 [19.02 in]					3								
	Stay bolt M8; L = 527 [20.75 in]				3									
	Stay bolt M8; L = 576 [22.68 in]			3										
	Stay bolt M8; L = 625 [24.61 in]		3											
Stay bolt M8; L = 674 [26.54 in]	3													
4*	O-ring Ø 5.0 • 2.0 [0.20 • 0.08 in]	52	48	44	40	36	36	32	28	24	20	16	12	8
5*	Profile O-ring	1	1	1	1	1	1	1	1	1	1	1	1	11

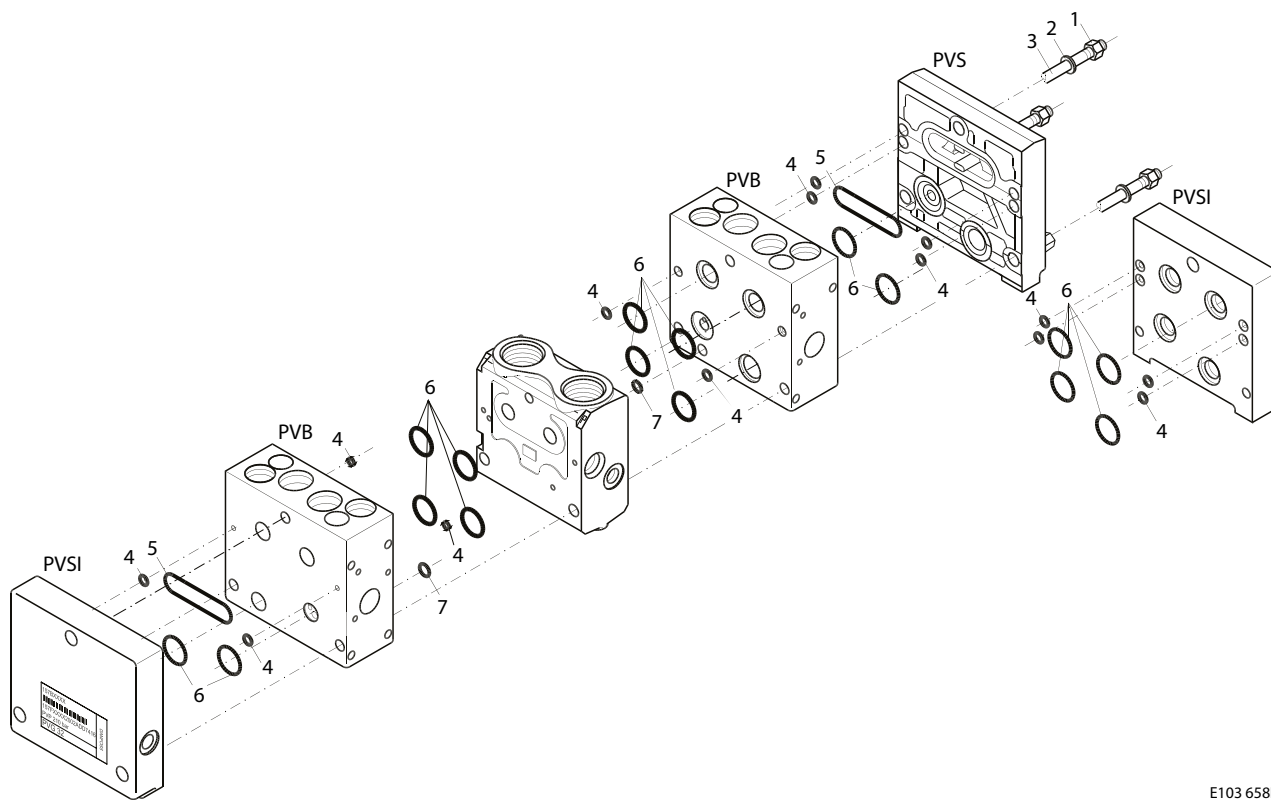
PVAS

Spare Kits Available (continued)

Item	Description	Letter												
		A	B	C	D	E	F	G	H	I	J	K	L	M
6*	O-ring Ø 16.0 • 2.5 [0.63 • 0.10 in]	56	52	48	44	40	36	32	28	24	20	16	12	8
7*	O-ring Ø 10.0 • 2.5 [0.39 • 0.10 in]	12	11	10	9	8	7	6	5	4	3	2	1	1
*	Set of seals	1	1	1	1	1	1	1	1	1	1	1	1	1

PVAS

PVAS for PVPV/M



E103 658E

Spare Parts PVAS for PVPV/M

Type	Description	Code number	Letter
PVAS	for 1 PVB basic module	157B8021	L
	for 2 PVB basic module	157B8022	K
	for 3 PVB basic module	157B8023	J
	for 4 PVB basic module	157B8024	I
	for 5 PVB basic module	157B8025	H
	for 6 PVB basic module	157B8026	G
	for 7 PVB basic module	157B8027	F
	for 8 PVB basic module	157B8028	E
	for 9 PVB basic module	157B8029	D
	for 10 PVB basic module	157B8030	C
	for 11 PVB basis module	157B8081	B
	for 12 PVB basis module	157B8082	A

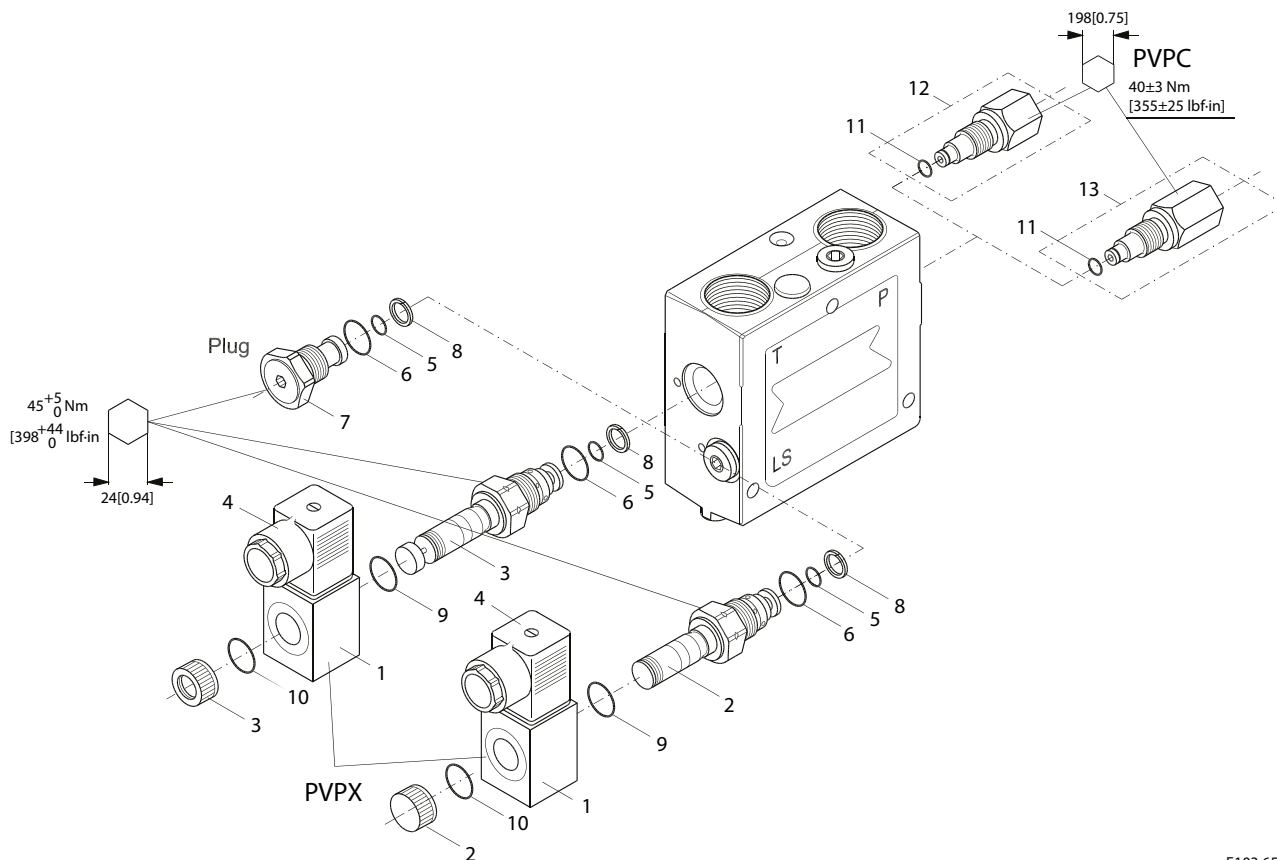
Item	Description	Letter											
		A	B	C	D	E	F	G	H	I	J	K	L
1	Nut 8.0	6	6	6	6	6	6	6	6	6	6	6	6
2	Washer 8.1 • 15.2 • 1.5 [0.53 • 0.69 • 0.06 in]	6	6	6	6	6	6	6	6	6	6	6	6

PVAS

Item	Description	Letter											
		A	B	C	D	E	F	G	H	I	J	K	L
3	Stay bolt M8; L = 166 [6.54 in]												3
	Stay bolt M8; L = 213 [8.39 in]											3	
	Stay bolt M8; L = 262 [10.31 in]										3		
	Stay bolt M8; L = 311 [12.20 in]									3			
	Stay bolt M8; L = 360 [14.17 in]								3				
	Stay bolt M8; L = 409 [16.10 in]							3					
	Stay bolt M8; L = 458 [17.95 in]						3						
	Stay bolt M8; L = 507 [19.96 in]					3							
	Stay bolt M8; L = 551 [22.00 in]				3								
	Stay bolt M8; L = 600 [23.62 in]			3									
	Stay bolt M8; L = 649 [24.61 in]		3										
	Stay bolt M8; L = 698 [26.54 in]	3											
4*	O-ring Ø 5.0 • 2.0 [0.20 • 0.08 in]	56	52	48	44	40	36	32	28	24	20	16	12
5*	Profile O-ring	2	2	2	2	2	2	2	2	2	2	2	2
6*	O-ring Ø 16.0 • 2.5 [0.63 • 0.10 in]	56	52	48	44	40	36	32	28	24	20	16	12
7*	O-ring Ø10.0 • 2.5 [0.39 • 0.10 in]	12	11	12	11	10	9	8	7	6	5	4	1
*	<i>Set of seals</i>	1	1	1	1	1	1	1	1	1	1	1	1

PVPX and PVPC

PVPX and PVPC Spare Parts



E103 659

PVPX, LS Unloading Valve

Type	Description	Code number		Letter
		12 Vdc	24 Vdc	
PVPX	Normally open	157B4236	157B4238	E
	Normally closed	157B4246	157B4248	D
	Normally open with manual override	157B4256	157B4258	C
	Normally open with manual override (26 Volt)	-	157B4260	B
	Plug	157B5601		A

Item	Description	Letter					
		A	B	C	D	E	
1	PVPX	Coil 12 Volt			1	1	1
		Coil 24 Volt			1	1	1
		Coil 12 Volt (before 1996 incl. item 9)			1	1	1
		Coil 24 Volt (before 1996 incl. item 9)		1	1	1	1
		Coil 26 Volt (incl. item 9)					
2	PVPX (incl. 5, 6, 8, 9)	Solenoid valve NO				1	
		Solenoid valve NC				1	
3	PVPX (incl. 5, 6, 8, 9)	Solenoid valve NO with manual override		1	1		
4	PVPX el-plug		1	1	1	1	

PVPX and PVPC

Item	Description		Letter				
			A	B	C	D	E
5*	O-ring	∅9.25 • 1.78 [0.36 • 0.07 in]	1	1	1	1	1
6*	O-ring	∅16.36 • 2.21 [0.64 • 0.08 in]	1	1	1	1	1
7	PVPX plug		1				
8*	Backup-ring 12.7 [0.50]		1	1	1	1	1
9*	O-ring	∅12.5 • 1.8 [0.49 • 0.07 in]		1	1	1	1
10	O-ring	∅14 • 1.78 [0.55 • 0.07 in]		1	1	1	1
*	Set of seals						

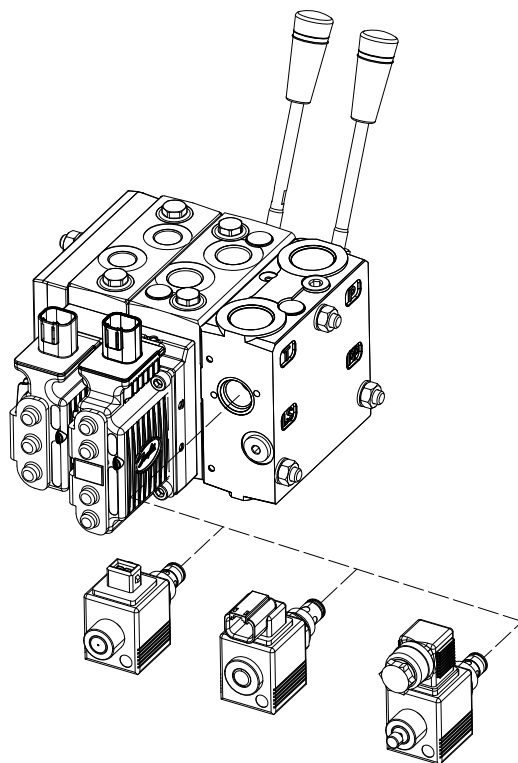
PVPC, Plug for external pilot oil supply

Type	Description	Code number		Letter
		BSP thread	SAE thread	
PVPC	External pilot supply	157B5400	-	A
	External pilot supply incl. check valve	157B5600	157B5700	B

Item	Description		Letter	
			A	B
11	O-ring	∅5.0 • 1.0 [20 • 0.04 in]	1	1
12	PVPC external pilot supply	G1/4 thread		1
13	PVPC external pilot supply		1	
	incl. check valve	1/2 - 20 UNF thread	1	

PVPX and PVPC

PVPX and PVPC Installation

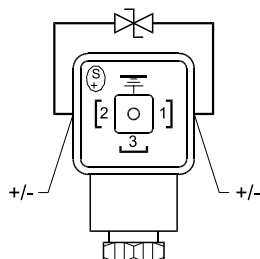


Across flats	Max. Tightening torque
24 mm [0.94 in]	45 Nm [400 lbf-in]

Max operation pressure	350 bar [5075 psi]			
Max. coil surface temperature	155°C [302°F]			
Rated voltage	12 V	24 V	26 V	
Current consumption	22°C coil temperature	1.22 A	0.67 A	0.87 A
	110°C coil temperature	1 A	0.5 A	0.5 A
	22°C coil temperature	19 W	19 W	19 W
	110°C coil temperature	12 W	12 W	12 W
Max. permissible deviation from rated supply voltage	±10%			

Connection

Connection



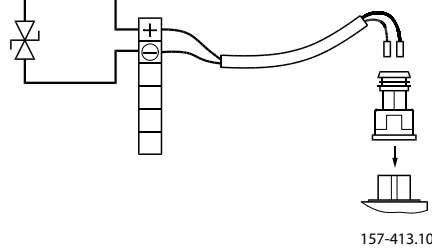
157-201.10

PVPX and PVPC

When installing the wire remember to connect the built-in diode to the plug pins.

AMP plug connection

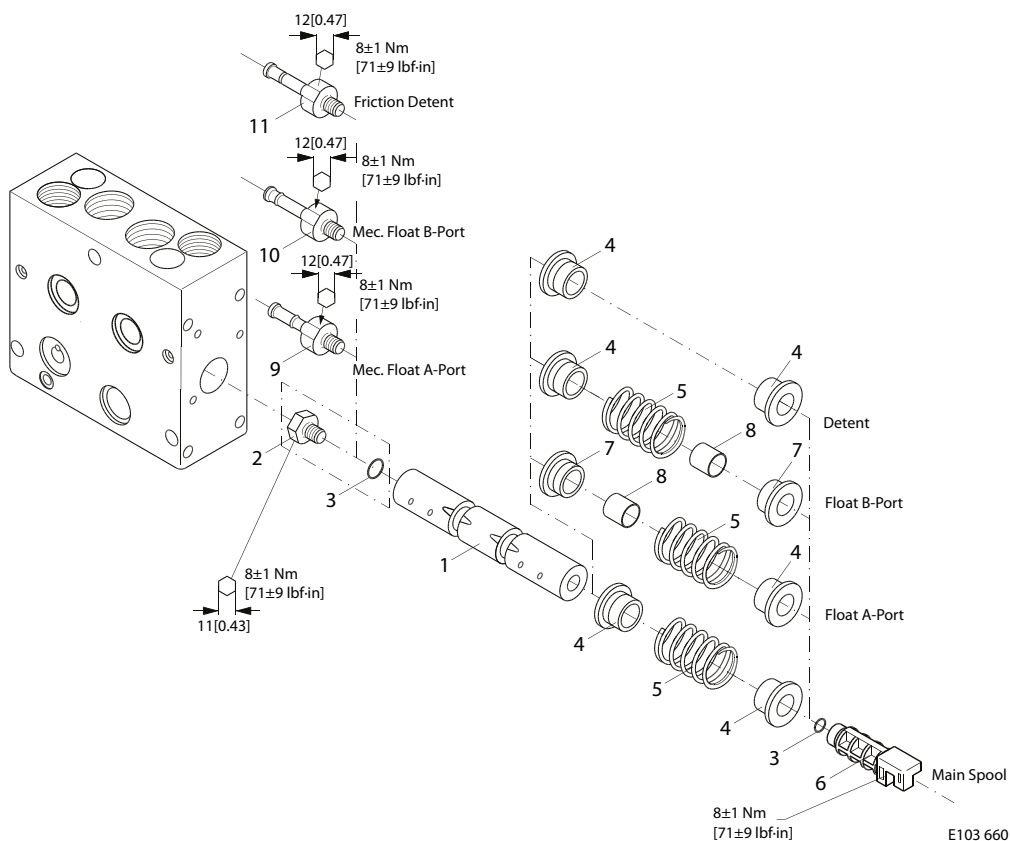
AMP plug connection



The AMP plug contains no integrated diode. PVPX control circuit protection must thus be installed externally, possibly by means of a (36V suppressor diode, BZW04) in the terminal block.

PVBS

PVBS Spare Parts



Spare Parts PVBS

PVBS Main Spool

Type	Description	Letter
PVBS	Standard	E
	Electrical float position B-port	D
	Electrical float position A-port	C
	Mechanical float position B-port	B
	Friction detent	A

Item	Description	Letter				
		A	B	C	D	E
1	Main spool	1	1	1	1	1
2	Plug				1	1
3	O-ring $\varnothing 6.0 \cdot 1.5$ [0.24 • 0.06 in]	2	2	2	2	2
4	Spring stop	2	1	1	1	2
5	Spring hydraulic actuation					1
6	Tension rod	1	1	1	1	1
7	Spring stop (float position)		1	1	1	
8	Bushing [float position]		1	1	1	
9	Float position A-port (incl. item 3)			1		

PVBS

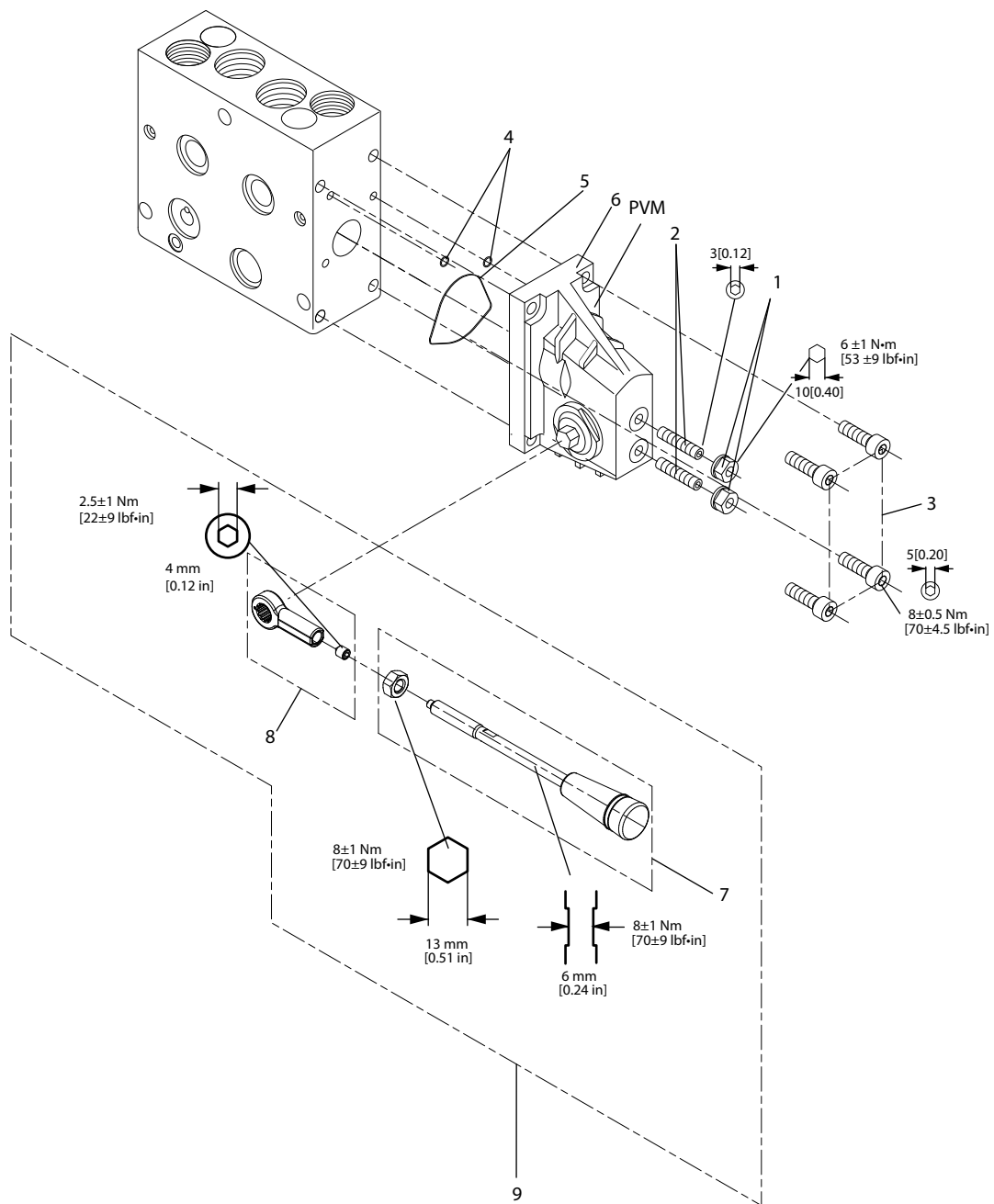
Item	Description	Letter				
		A	B	C	D	E
10	Float position B-port (incl. item 3)		1			
11	Friction detent (incl. item 3)	1				

Spare Kits Available

Item	Description	Code number
5	Hydraulic spring	155L7504
9	Float position A-port (incl. item 3)	155L9151
10	Float position B-port (incl. item 3)	155L9152
11	Friction detent (incl. item 3)	155L9150

PVM

PVM, Mechanical Activation



V310172.B

PVM

Spare Parts PVM

PVM, Mechanical Activation code numbers

Type		With stop screw			Without stop screw	Letter
		Standard	Anodized	Cast iron	Standard	
PVM, with handle and base	22.5°/37.5°	157B3171	157B3184	157B3161	157B3191	C
PVM, without handle and base	-	157B3173	-	157B3163	157B3193	B
PVM, with base	22.5°/37.5°	157B3174	-	157B3164	157B3194	A

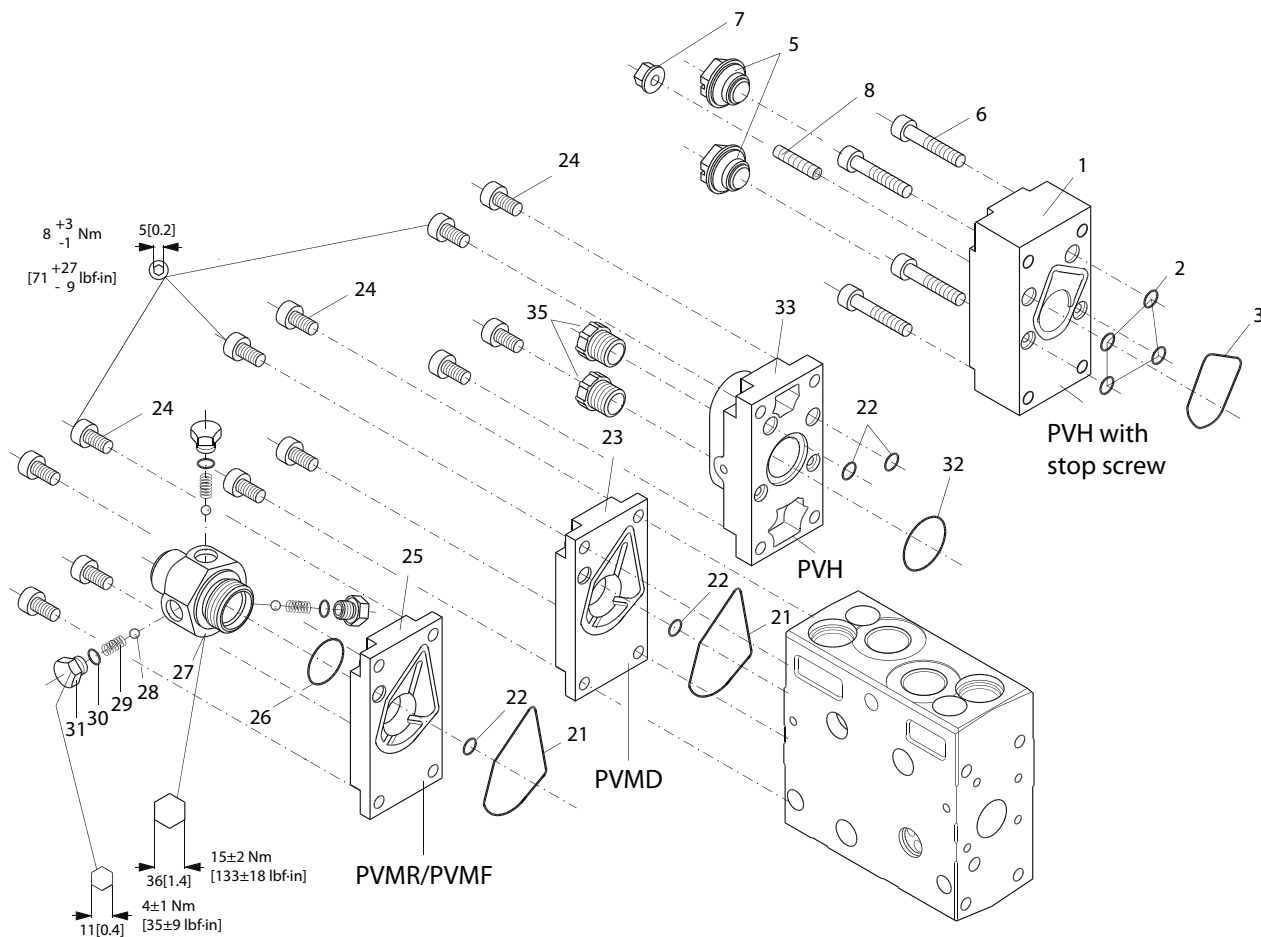
Item	Description	Letter		
		A	B	C
1	Seal nut			
2	Threaded pin			
3	Screw	4	4	4
4*	O-ring 5.0 • 2.0 [0.2 • 0.08 in]	2	2	2
5*	Profile O-ring	1	1	1
6	Housing	1	1	1
7	Handle, black knob, including nut			
8	Base, including set screw (22.5°/37.5°)	1		
9	Lever, with black knob handle and base (7 & 8)			1

Spare Kits Available

Item	Description	Code number
	Lever, with black knob handle and base	11046724
*	<i>Set of seals</i>	157B3999
	Lever, with red knob handle and base	11064640
7	Handle with black knob and nut	11077262
8	Base, including set screw	11064641

PVMD, PVH, PVMR and PVMF

PVMD, PVH, PVMR and PVMF Spare Parts



E103 661

Spare Parts PVMD

PVMD; Cover for Mechanical Activation

Type	Description		Code number	Letter
PVH	Hydraulic activation, with stop screw	G 1/4 thread	157B0016	E
		9/16 - 18 UNF	157B0014	
	Hydraulic activation	G 1/4 thread	157B0008	D
		9/16 - 18 UNF	157B0007	
PVMR	Friction detent		157B0004	C
PVMF	Mechanical float position		157B0005	B
PVMD	Cover for mechanical activation		157B0001	A

Item	Description	Letter				
		A	B	C	D	E
1	Cover					1
2	O-ring Ø5.0 • 2.0 [0.197 • 0.079 in]				4	4
3	O-ring Ø30.0 • 2.5 [1.18 • 0.99 in]				1	1

PVMD, PVH, PVMR and PVMF

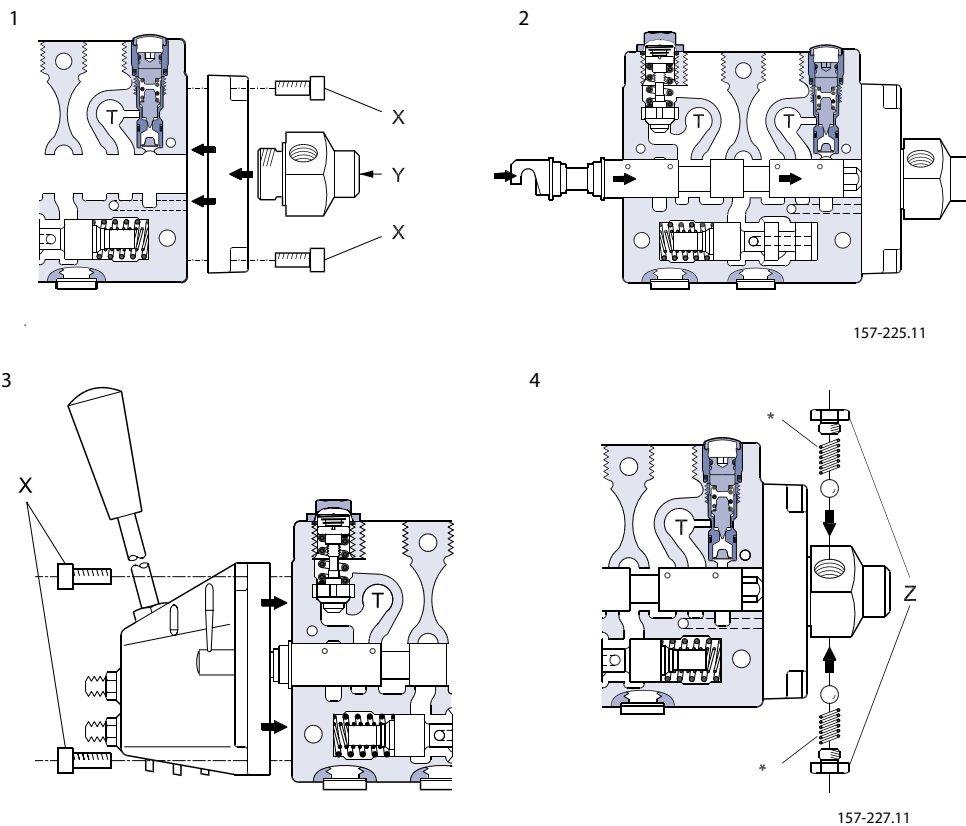
Item	Description		Letter				
			A	B	C	D	E
5	Threaded plug with O-ring					1	1
6	Screw					4	4
7	Nut					1	1
8	Screw					1	1
21*	Profile O-ring		1	1	1		
22*	O-ring	Ø5.0 • 2.0 [0.2 • 0.08 in]	1	1	1	4	4
23	Cover		1				
24	Screw	M6; L = 15 [0.59 in]	4	4	4	4	4
25	Cover			1	1		
26*	O-ring	Ø19.3 • 2.4 [0.76 • 0.09 in]		1	1		
27	Plug			1	1		
28	Ball	Ø5 [0.5 in]		3	3		
29	Spring			3			
29	Spring				3		
30*	O-ring	Ø6.0 • 1.5 [0.24 • 0.59 in]		3	3		
31	Plug			3	3		
32*	O-ring	Ø21.3 • 2.4 [0.84 • 0.09 in]				1	1
33	Cover	G thread				1	1
		UNF thread				1	1
35	Sealing plug	G thread				2	2
		UNF thread				2	2
*	<i>Set of seals</i>		1	1	1	1	1

Spare Part, Kits Available

Item	Description	Code number
*	<i>Set of seals</i>	157B6999

PVMD, PVH, PVMR and PVMF

PVMR and PVMF Installation



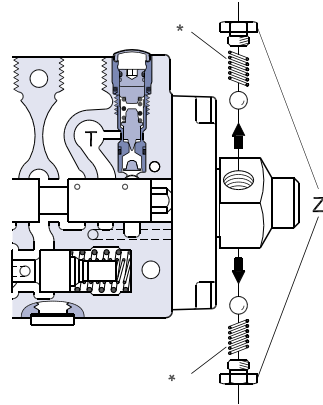
Tightening Torques and Widths Across Flats

*	Spring Identification		
PVMF	Painted blue		
PVMR	Non-painted		

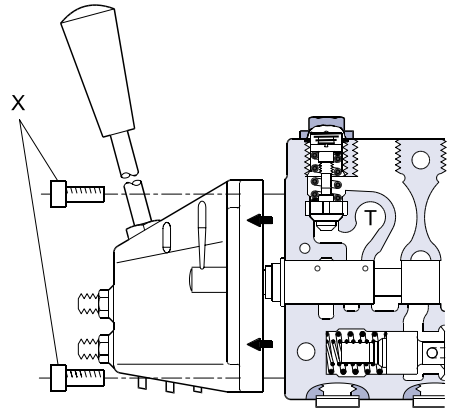
	X	Y	Z
With across flats			
Tightening torque	8 ± 0.5 N·m [70 ± 4.5 lbf·in]	15 ± 2 N·m [135 ± 20 lbf·in]	4 ± 1 N·m [35 ± 9 lbf·in]

PVMD, PVH, PVMR and PVMF

1

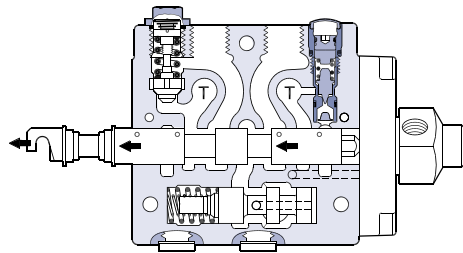


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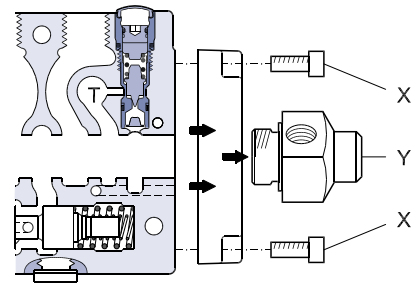


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3



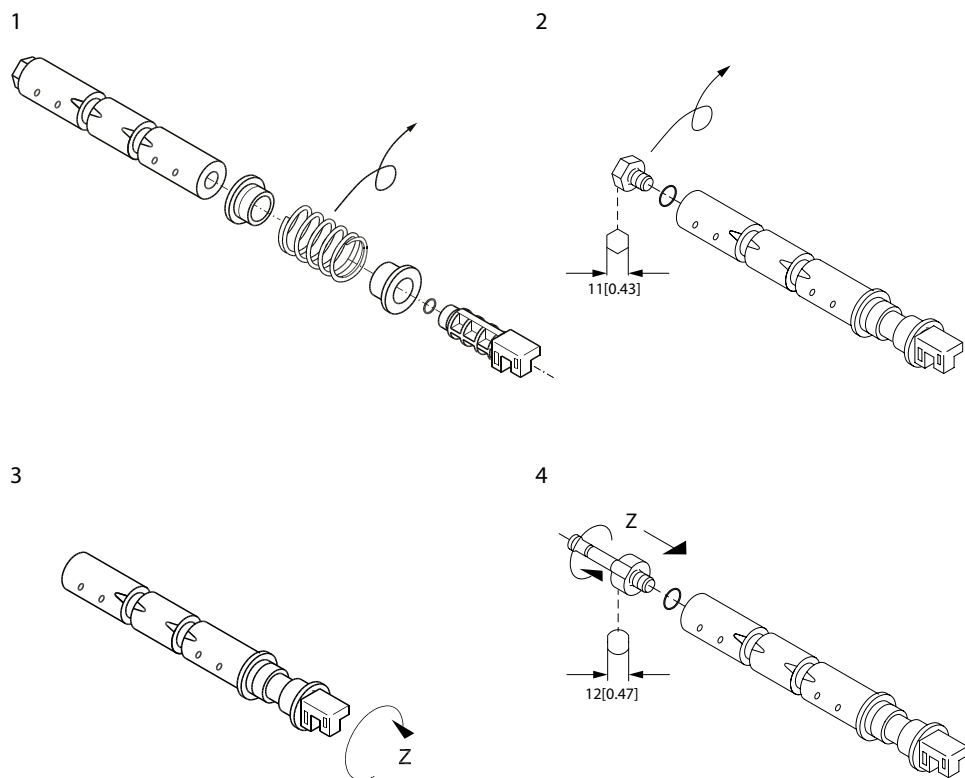
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PVMD, PVH, PVMR and PVMF

PVMR and PVMF Installation—PVMR Spool



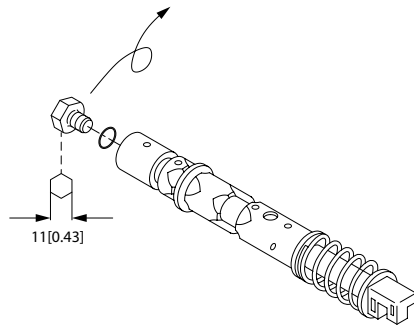
157-219.12

Z	$8 \pm 1 \text{ N}\cdot\text{m} [70 \pm 9 \text{ lbf}\cdot\text{in}]$
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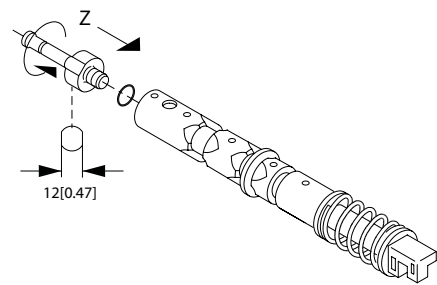
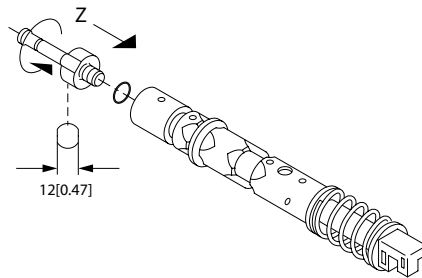
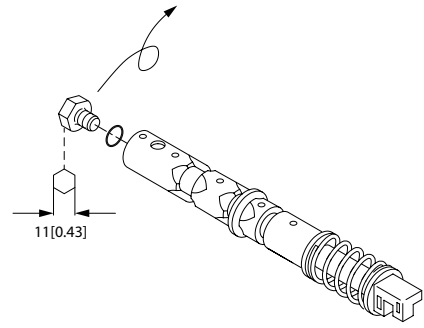
PVMD, PVH, PVMR and PVMF

PVMR and PVMF Installation—PVMF Spool

P → B → F



P → A → F

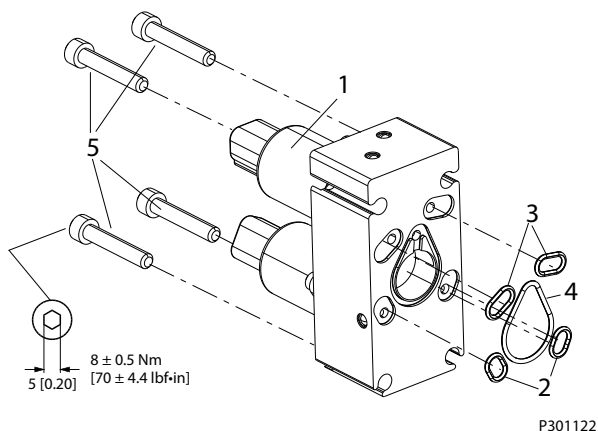


157-221.12

Z	8 ±1 N·m [70±9 lbf·in]
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PVHC

Electrical Actuation PVHC



Spare Parts PVHC

Electrical Activation PVHC

Type	Description	Code number	Letter
PVHC	AMP Connector, 12 V	11061228	D
	AMP Connector, 24 V	11061227	C
	DEUTSCH Connector, 12 V	11061229	B
	DEUTSCH Connector, 24 V	11061230	A

Item	Description	Letter				
		A	B	C	D	
1	Solenoid valve	12 V - AMP Connector				2
		24 V - AMP Connector			2	
		12 V - DEUTSCH Connector		2		
		24 V - DEUTSCH Connector	2			
2*	O-ring	Ø8.0 • 2.0 [0.31 • 0.08 in]	2	2	2	2
3*	O-ring	Ø10.0 • 2.0 [0.39 • 0.08 in]	2	2	2	2
4*	O-ring	Ø21.20 • 2.4 [0.83 • 0.09 in]	1	1	1	1
5*	Screws	M6 x 35	4	4	4	4
*	Set of seals		1	1	1	1

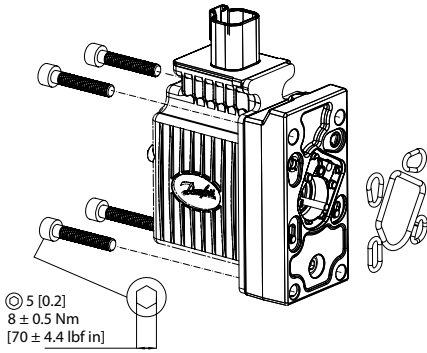
Spare Kits Available

Item	Description	Code number
1	Solenoid valve, 12 V - AMP Connector	11061232
	Solenoid valve, 24 V - AMP Connector	11061231
	Solenoid valve, 12 V - DEUTSCH Connector	11061233
	Solenoid valve, 24 V - DEUTSCH Connector	11061234
*	Set of seals	11061235

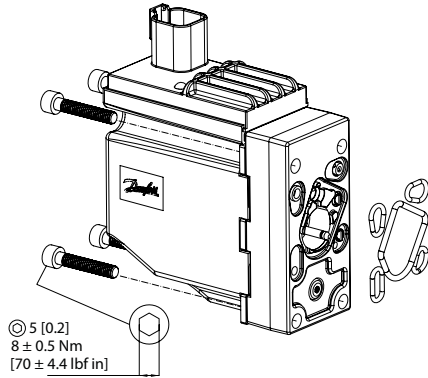
PVE

Electrical Actuation PVE

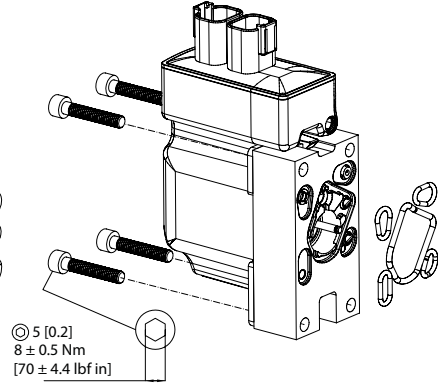
PVEO/M/A Series 7



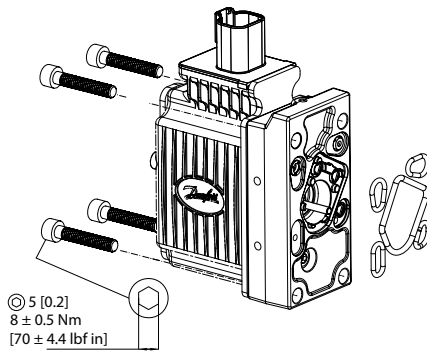
PVEP Series 4



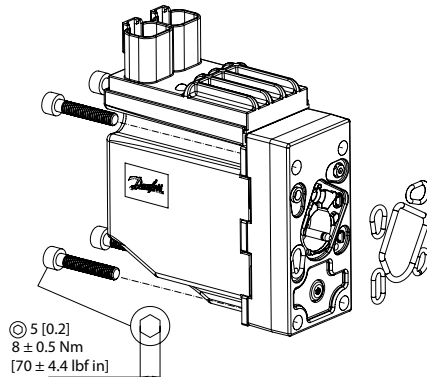
PVED Series 5



PVEH/S Series 7



PVED-CC Series 4



Seals

Set of Seals

Set of Seals for PVG 32

Type	Description	Code number	Letter
PVP/PVPV/PVPVM	module	157B5999	K
PVB	module	157B6999	J
PVM/PVH/PVMD/PVMR/PVMF	module	157B3999	I
PVEO/PVEM/PVEH/PVES/PVEP/PVEA/PVEO	module	157B4997	H
PVAS	for a PVG with 7 PVB-section	157B8999	G
PVPX	module	157B4996	F
PVHC	module	11061235	E
PVEO/PVEM/PVEH	module before middle 1993	157B4999	D
PVPX	module before 1996	157B4998	C
PVBZ	PVBZ with POC	157B6989	B
PVSP	Priority module	157B6990	A

Description		Letter										
		A	B	C	D	E	F	G	H	I	J	K
O-ring	Ø 9.0 • 2.0 [0.35 • 0.08 in]										2	1
O-ring	Ø 11.0 • 2.0 [0.43 • 0.08 in]											1
Washer	13.5 • 17.5 • 1.5 [0.53 • 0.69 • 0.06 in]										2	2
Bonded seal	6.7 • 10.0 • 1.0 [0.26 • 0.39 • 0.04 in]											2
Plastic plug											2	1
O-ring	Ø 60 • 1.5 [0.24 • 0.06 in]									3	1	
O-ring	Ø 5.0 • 2.0 [0.20 • 0.08 in]				4			8		6		
Profile O-ring								1				
O-ring	Ø 16.0 • 2.5 [0.63 • 0.10 in]							1				
O-ring	Ø 10.0 • 2.0 [0.39 • 0.08 in]							8				
Seal										1		
Seal nut	M 6.0 [0.24 in]									2		
O-ring	Ø 30.0 • 2.5 [1.18 • 0.10 in]								1			
O-ring	Ø 10.0 • 2.0 [0.39 • 0.08 in]					2			3			
O-ring	Ø 4.0 • 1.0 [0.16 • 0.04 in]								3			
O-ring	Ø 3.0 • 1.5 [0.12 • 0.06 in]								3			
O-ring	Ø 8.0 • 2.0 [0.31 • 0.08 in]					2			1			
O-ring	Ø 21.20 • 2.4 [0.83 • 0.09 in]				1	1				1		
Screw	M6 x 35					4						
O-ring	Ø 10.5 • 1.8 [0.41 • 0.07 in]										2	2
O-ring	Ø 19.3 • 2.4 [0.76 • 0.09 in]									1		
O-ring	Ø 33.0 • 2.5 [1.30 • 0.10 in]									1		
O-ring	Ø 9.25 • 1.78 [0.36 • 0.07 in]			1			1					
O-ring	Ø 16.36 • 2.21 [0.64 • 0.09 in]			1			1					
Back-up ring	Ø 9.8 [0.04 in]			1			1					
O-ring	Ø 14.0 • 1.78 [0.55 • 0.07 in]			2								
Filter									1			
O-ring	Ø 12.5 • 1.8 [0.49 • 0.07 in]						1					

Seals

Description		Letter										
		A	B	C	D	E	F	G	H	I	J	K
O-ring	Ø 14.0 • 1.78 [0.55 • 0.07 in]						1					
	Ø 0.6 [0.024 in]								2			

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