

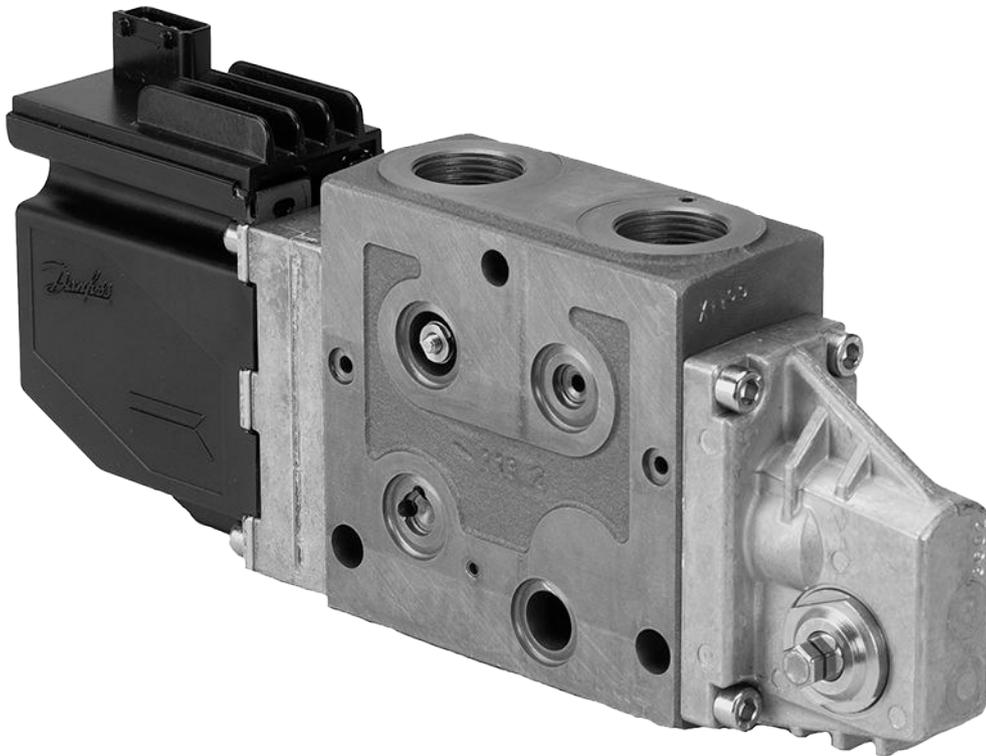
ENGINEERING
TOMORROW



Technical Information

Proportional Valve Group Modules

PVSK



Revision history*Table of revisions*

Date	Changed	Rev
March 2017	Minor edits	0204
May 2014	Converted to Danfoss layout – DITA CMS	BC
December 2010	New back cover	BB
January 2010	Drawings changed	BA
January 2010	Japan location	AB
June 2004	First edition	AA

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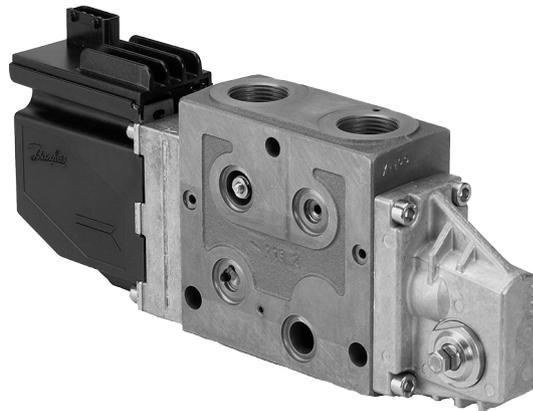
Introduction

Danfoss introduces PVSK-modules with integrated diverter valve and P-disconnect function.

The module is intended for cranes, telescope lifts and other applications that have special demands on functionality and safety.

The PVSK-module can be integrated in PVG 32 valve groups for open- as well as closed-center systems.

PVSK



PVSK spool



Functions of the PVSK-module:

- When the diverter valve is in neutral position, there is no pressure (only tank pressure) in the P-channel of the valve group.
- When the diverter valve spool is actuated in A-direction, it enables the basic modules in the PVG-group to receive pump flow supply.
- When the diverter valve spool is actuated in B-direction, it enables the (High Pressure Carry Over) HPCO-port in the PVSK module and the P-channel in the valve group to receive pump flow supply.

Specification and code number for PVSK modules

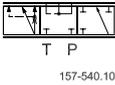
Specification and code number for PVSK modules

Symbol	Description	Code no.
<p style="text-align: right; font-size: small;">157-418,10</p>	<p>Open and closed center inlet with pilot supply for electrical actuation Max. pump pressure 350 bar [5076 psi] Max. pump flow 120 l/min [31.7 US gal/min] P = 3/4"; HPCO = 3/4"</p>	<p>157B6961</p>

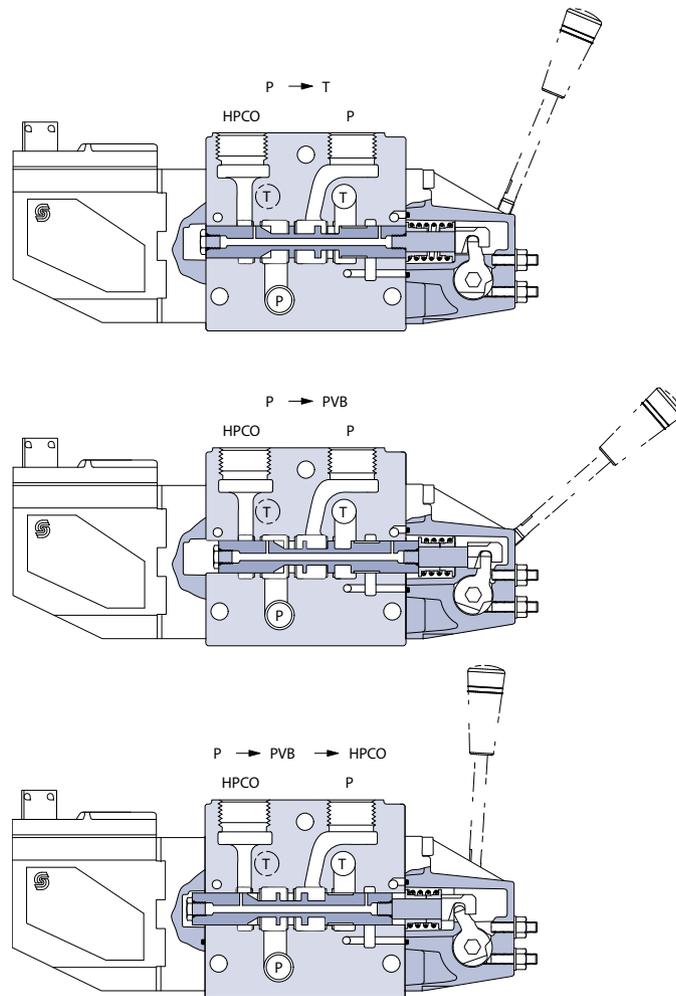
Introduction

Specification and code numbers for PVSK spools

Specification and code number for PVSK spools

Symbol	Description	Code no.
	4 way - 3 position spool for fixed displacement pump HPCO flow 40 l/min [10.57 US gal/min] Open neutral position P → T	157B9657*
	4 way - 3 position spool for variable displacement pump HPCO flow 40 l/min [10.57 US gal/min] Closed neutral position P → T	157B9658*

* PVSK spool must be option mounted.

PVSK function
PVSK sectional view


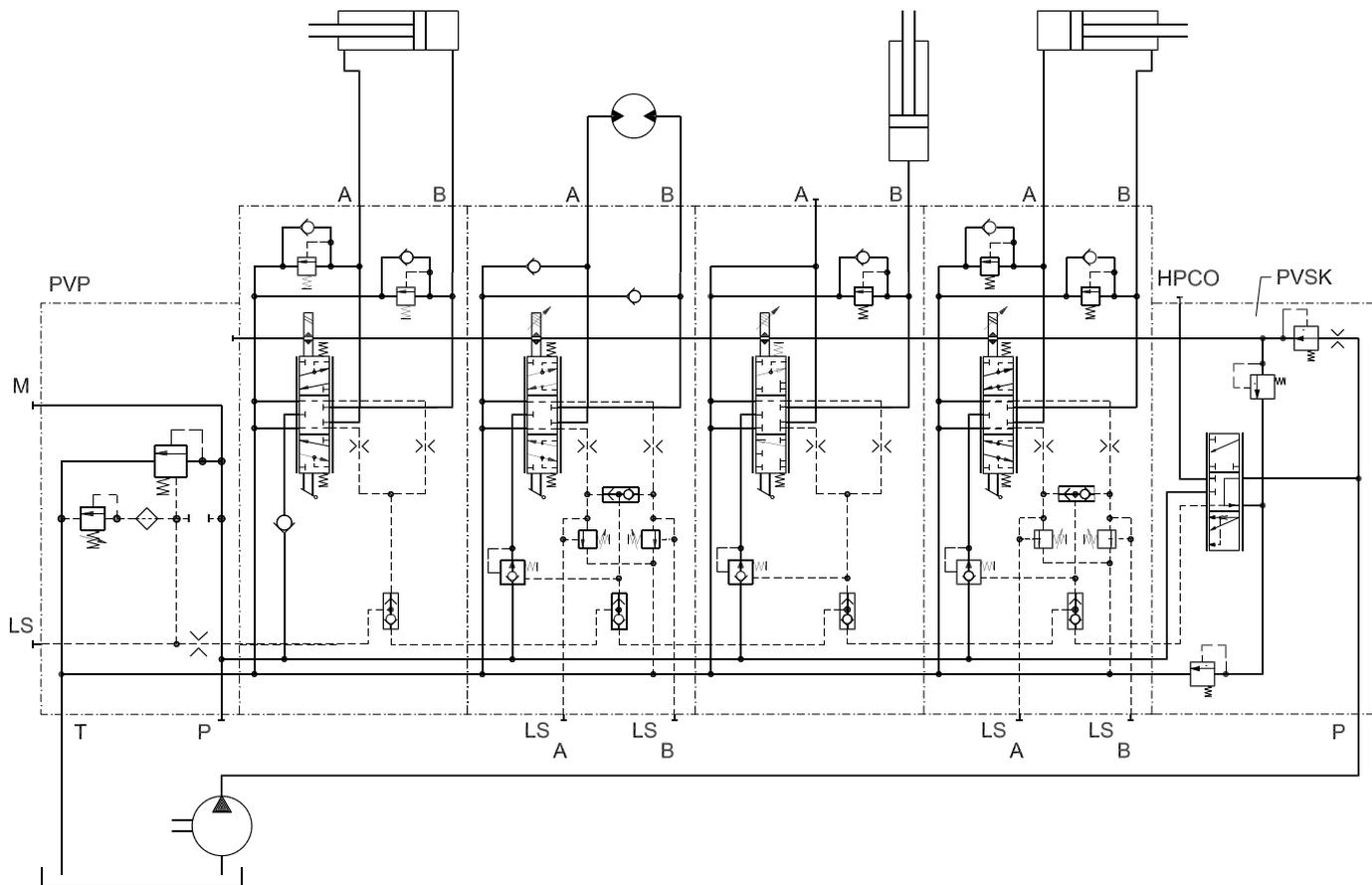
V310135.A

As the PVSK-module is provided with pump (P) and HPCO (High Pressure Carry Over) connections, the standard pump connection in PVP, PVPV or PVPM must be sealed with a steel plug (see example on page 6). Note that the steel plug is not included upon delivery. In neutral position, the spool in the PVSK-module interrupts the connection from the pump to the P-channel in the valve group. This not only ensures a low pressure (tank pressure) in the P-channel, but also a low pressure-drop in flow circulating between pump and tank (see [PVSK characteristics](#) on page 7).

As the PVSK-module replaces endplate PVS/PVSI, the code number field (field 11) in the specification sheet must be left open. In general, the diverter function must be specified as a working function PVB, which means that PVE, PVSK spool and PVM must be specified separately (see [PVG 32 specification sheet Specifications](#) on page 10).

To ensure an adequate supply to the PVE pilot reduction valve, the tank channel of PVSK includes a backpressure valve. In open-centre systems, the pump flow must be min. 40 l/min (10.57 US gal/min) to maintain a sufficient pressure-drop across the backpressure valve.

PVSK function



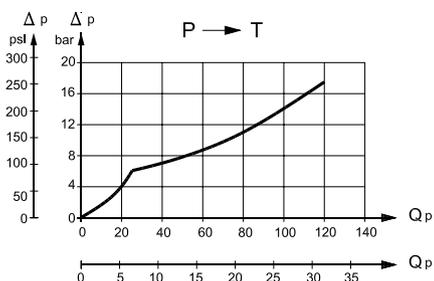
157-420.12

As the PVSK-module has an integrated pilot oil supply, always use standard PVP 32 **without pilot oil supply** in PVG 32 valve groups.

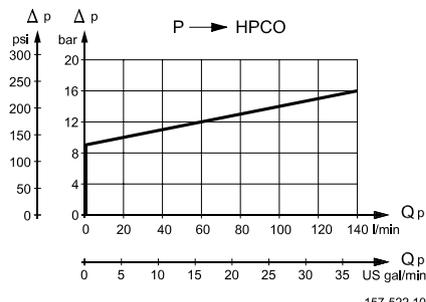
PVSK characteristics

Pressure drop $P \rightarrow T$; PVSK spool in neutral position

Pressure drop $P \rightarrow T$ in PVP

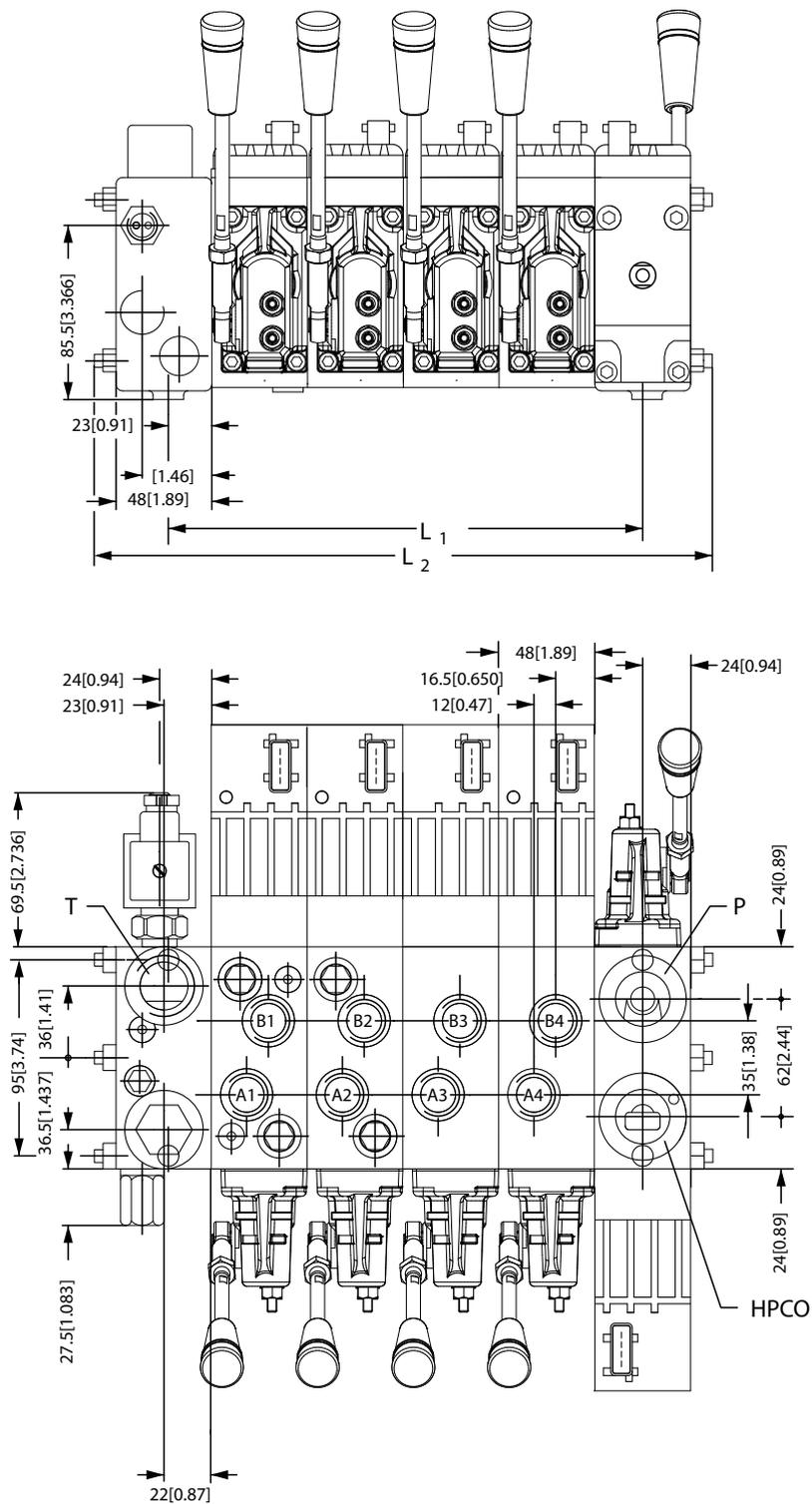


157-521.11



157-522.10

Dimensions



Because of limited space conditions, PVE and PVM on the work sections have to be mounted as shown on the above drawing.

Dimensions

Stay bolt set, PVAS for PVSK

Qty, Basic modules	L1	L2	Code no.	Weight	
				kg	[lb]
1	95	165	157B8021	0.25	[0.55]
2	143	213	157B8022	0.30	[0.66]
3	191	262	157B8023	0.35	[0.77]
4	239	311	157B8024	0.45	[0.99]
5	287	360	157B8025	0.50	[1.10]
6	335	409	157B8026	0.55	[1.21]
7	383	458	157B8027	0.65	[1.43]
8	431	507	157B8028	0.70	[1.54]
9	479	551	157B8029	0.75	[1.65]
10	528	600	157B8030	0.85	[1.87]

Specifications

PVG 32 specification sheet



PVG 32
Specification Sheet

Subsidiary / Dealer	PVG No.
Customer	Customer No.
Application	Revision No.

Function	A-port	B-port
0 Inlet		P = bar
1	a	f LS _A = bar LS _B = bar e
	b	
2	a	f LS _A = bar LS _B = bar e
	b	
3	a	f LS _A = bar LS _B = bar e
	b	
4	a	f LS _A = bar LS _B = bar e
	b	
5	a	f LS _A = bar LS _B = bar e
	b	
6	a	f LS _A = bar LS _B = bar e
	b	
7	a	f LS _A = bar LS _B = bar e
	b	
8	a	f LS _A = bar LS _B = bar e
	b	
9	a	f LS _A = bar LS _B = bar e
	b	
10	a	f LS _A = bar LS _B = bar e
	b	
11	a	f LS _A = bar LS _B = bar e
	b	
12	a	f LS _A = bar LS _B = bar e
	b	
13	a	f LS _A = bar LS _B = bar e
	b	
14	a	f LS _A = bar LS _B = bar e
	b	
15 End section		
16 PVAS section		
17 Reserved for painting		

Comments
Filled in by _____ Date _____

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