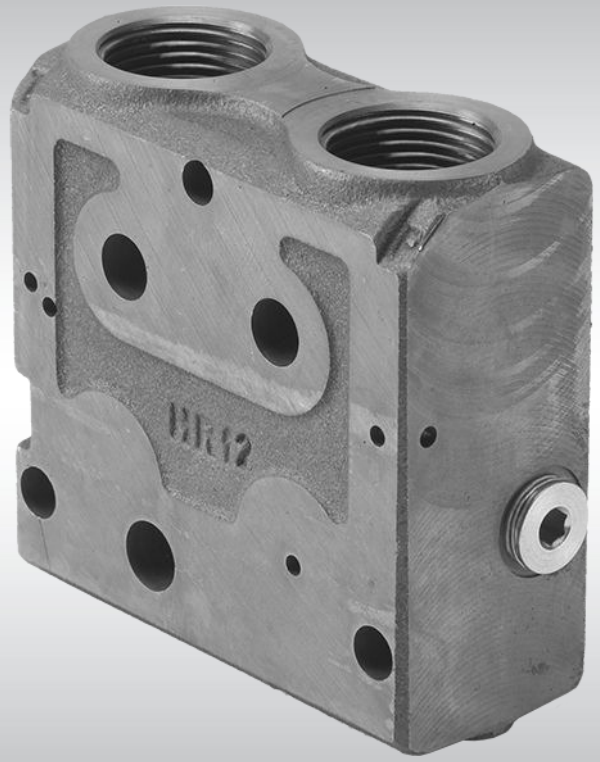
MAKING MODERN LIVING POSSIBLE

Technical Information

# Pump Side Modules for Variable Displacement Pumps

# PVPV, PVPVM



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## Revision history

*Table of revisions*

| Date | Changed | Rev |
|---|---|---|
| May 2014 | Drawing change, page 9 | EF |
| Feb 2014 | Converted to Danfoss layout – DITA CMS | EE |
| Oct 2012 | Misspelling, Spec sheet. | ED |
| Jul 2012 | Main document title, back standard page. | EC |
| Dec 2010 | Back cover | EB |
| Jan 2010 | Handle on drawing | EA |

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## Introduction

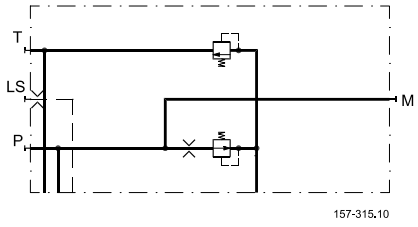
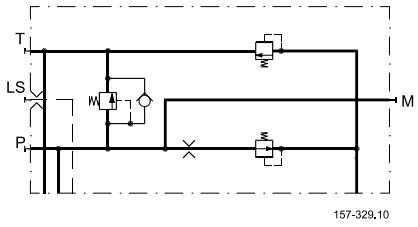
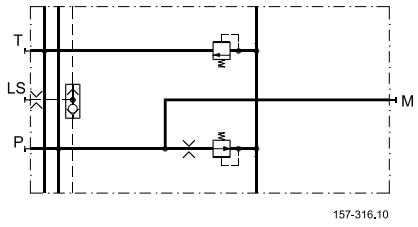
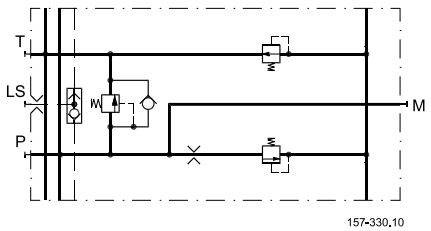
### PVPV, PVPVM application

Danfoss is able to supply pump side modules type PVPV and PVPVM for systems with variable pumps.

*The modules offer the following advantages:*

- P- and T-connection ports: 1" [1 5/16 UN]
- Lower pressure drop
- PVPVM enables the use of LS-pumps with flows up to 230 l/min [61 US gal/min]
- Relief of pressure peaks with PVLP 63

### Versions and code numbers

| Symbol | Description | Code number | |
|---|---|---|---|
| | | BSP port P, T = G1 | SAE port 1 5/16 UN |
|  | **PVPV**<br>Closed center pump side module for pumps with variable displacement<br>With pilot supply for electrical actuation<br>Max. pump pressure = 350 bar [5075 psi]<br>Max. pump flow = 150 l/min [40 US gal/min] | 157B5938 | 157B5911 |
|  | **PVPV**<br>Closed center pump side module for pumps with variable displacement<br>With pilot supply for electrical actuation<br>With shock and suction valve PVLP 63<br>Max. pump pressure = 350 bar [5075 psi]<br>Max. pump flow = 150 l/min [40 US gal/min] | 157B5941 | 157B5913 |
|  | **PVPVM**<br>Closed center pump side module for pumps with variable displacement<br>With pilot supply for electrical actuation<br>Max. pump pressure = 350 bar [5075 psi]<br>Max. pump flow = 230 l/min [61 US gal/min] | 157B5937 | 157B5912 |
|  | **PVPVM**<br>Closed center pump side module for pumps with variable displacement<br>With pilot supply for electrical actuation<br>With shock and suction valve PVLP 63<br>Max. pump pressure = 350 bar [5075 psi]<br>Max. pump flow = 230 l/min [61 US gal/min] | 157B5940 | 157B5914 |

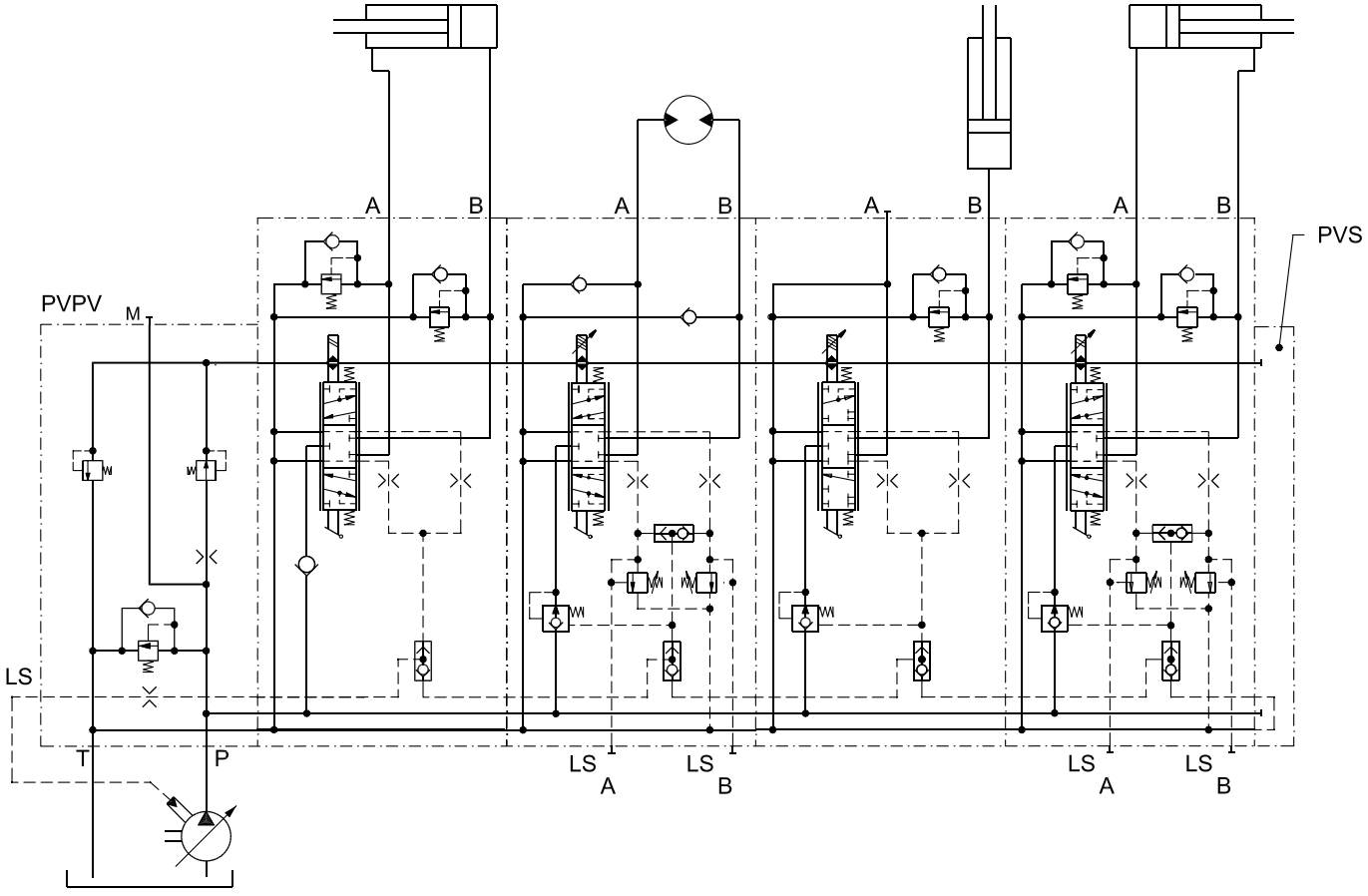
### PVPV hydraulic schematic

When ordering PVPV fitted with PVLP 63, please state the sales- and code No. in space **0** in the order form. Always state the PVLP 63 opening pressure in space **0**, see the *PVG 32 specification sheet*.or the literature *PVG 32 Specification Sheet*, **520L0515**. *See example:*

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| Example: | Code number |
|---|---|
| **0** 157B 5941 | 157B2100 |
| p = 100 bar [1450 psi] | 157B – |

*PVPV hydraulic schematic*



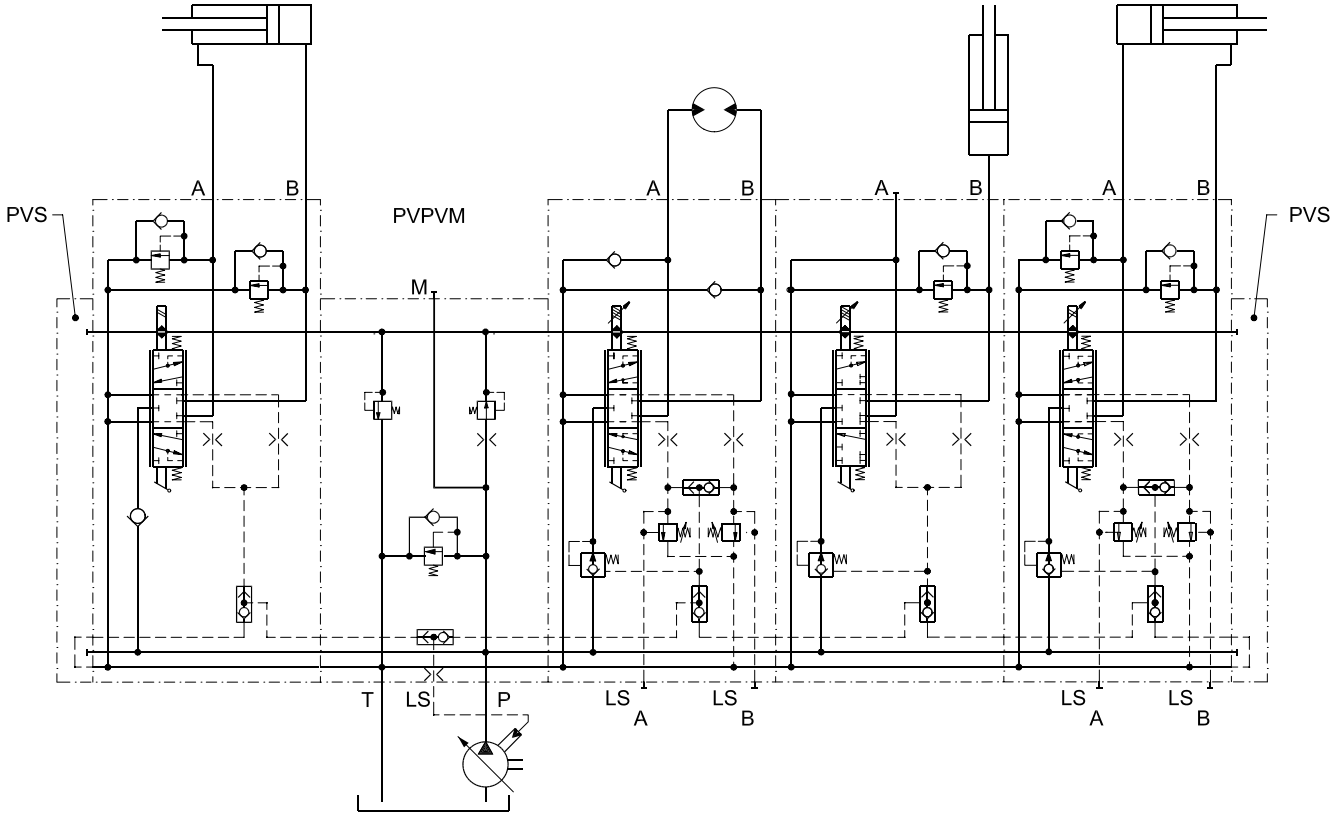

157-318.10

### PVPVM hydraulic schematic

To order PVG 32 fitted with PVPVM, use standard order form, see the *PVG 32 specification sheet* or the literature *PVG 32 Specification Sheet*, **520L0515**. When ordering PVPVM fitted with PVLP 63, please state the sales- and code No. in space **b** in the order form. Also, always state the PVLP 63 opening pressure in space **0**.

## Introduction

*PVPVM hydraulic schematic*




157-317.10

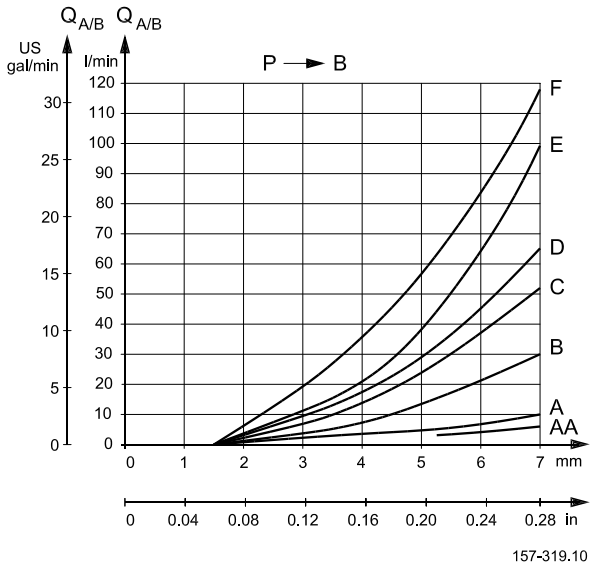
### Flow characteristics for PVPV/PVPVM

Flow from PVB (without pressure compensator) left and right of PVPVM respectively.

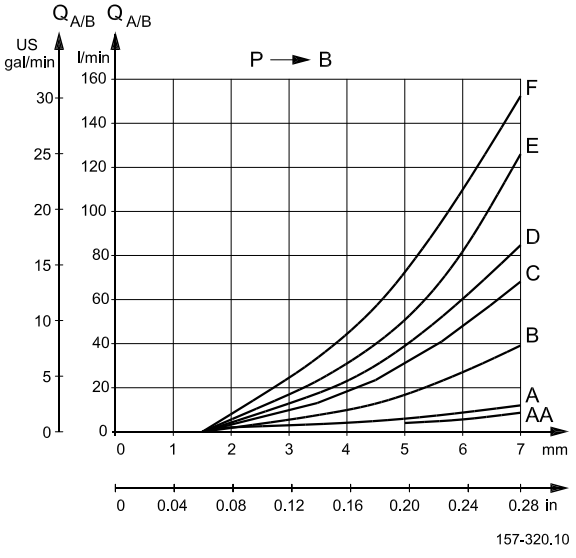
Under certain circumstances systems with large pump flows may occasionally generate pressure peaks. For advice on systems of this nature, please contact the Danfoss Sales Organisation.

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*Set pressure difference between pump pressure and LS signal = 10 bar [145 psi]*



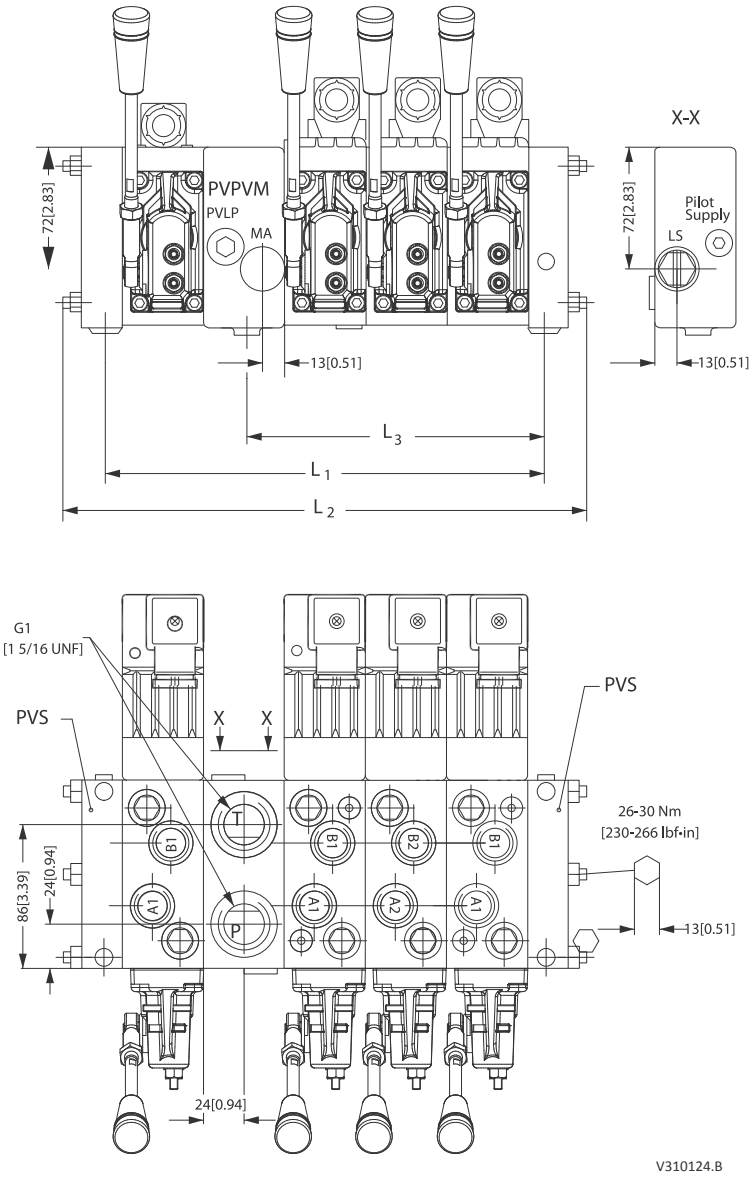

*Set pressure difference between pump pressure and LS signal = 15 bar [218 psi]*




The oil flow depends on the pressure difference between pump pressure and LS-signal. Normally, the pressure difference can be set on the LS-pump control.

## Introduction

### PVPVM dimensions




MA, LS : G¼ [9/16 - 18 UNF]

***Stay bolt set, PVAS for PVPVM***

In PVG 32 valve groups fitted with PVPV use standard PVAS, 157B8001 → 8010.

For pump pressures over 320 bar [4641 psi], use stay bolt set 157B8041 → 8050.

| Qty., basic modules | $L_1$ | $L_2$ | $L_3$ | Weight kg [lb] | | Code number |
|---|---|---|---|---|---|---|
| 1 | 116 | 165 | 83 | 0.25 | [0.5] | 157B8021 |
| 2 | 166 | 213 | 131 | 0.30 | [0.6] | 157B8022 |
| 3 | 214 | 262 | 179 | 0.35 | [0.7] | 157B8023 |
| 4 | 262 | 311 | 227 | 0.45 | [0.9] | 157B8024 |

## Introduction

| Qty., basic modules | $L_1$ | $L_2$ | $L_3$ | Weight kg [lb] | | Code number |
|---|---|---|---|---|---|---|
| 5 | 310 | 360 | 275 | 0.50 | [1.0] | 157B8025 |
| 6 | 358 | 409 | 323 | 0.55 | [1.1] | 157B8026 |
| 7 | 406 | 458 | 371 | 0.65 | [1.3] | 157B8027 |
| 8 | 454 | 507 | 419 | 0.70 | [1.4] | 157B8028 |
| 9 | 502 | 551 | 467 | 0.75 | [1.5] | 157B8029 |
| 10 | 550 | 600 | 515 | 0.85 | [1.7] | 157B8030 |

## Introduction

### 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 b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 2 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 3 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 4 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 5 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 6 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 7 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 8 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 9 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 10 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 11 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 12 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 13 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 14 | | a b | f $LS_A$ = bar $LS_B$ = bar e | c b |
| 15 | End section | | | |
| 16 | PVAS section | | | |
| 17 | Reserved for painting | | | |

| | |
|---|---|
| Comments | |
| Filled in by | Date |

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