

VFD190 Series

Variable Priority Flow Dividers



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Aimed at mobile and industrial applications the VFD190 can be used for controlling hydraulic motor and cylinder speeds by manually adjusting the flow rate.

Variable priority flow dividers split a single input (P) flow into a priority (REG) flow and an excess or by-pass (BP) flow which can be returned directly to the oil reservoir or used to power a second system. This is possible due to the valve's adaptive pressure compensation characteristics meaning both the priority and by-pass flows can be used to drive separate circuits, even under varying loads. In many instances this dispenses with the need for another pump to operate a second system.

The VFD190 design has also been optimised to reduce energy wastage by minimising the pressure losses across the valve, resulting in a significant reduction in running costs.

Specifications

Working Pressure (Max):

Up to 420 bar (6000 psi)

Total flow capacity:

190 lpm (50 USgpm)

Regulated flow capacity:

See Table 2, ordering codes

Porting:

See Table 3, ordering codes

Material:

Steel components in cast SG iron body painted black; aluminium knob

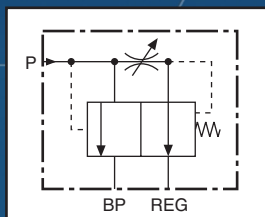
Weight:

3.5 to 4.0Kg (7.7 to 8.8lbs)

Mounting:

Two bolt - M8 or 5/16"

Symbol



Features

- Clearly marked single-turn hand dial permits fast visual adjustments to pre-determined 'Priority' flow and fast easy adjustments of 'Priority' circuit to meet varying requirements.
- Pressure compensated permitting both 'Priority' and 'By-Pass' to be used simultaneously at varying pressures without affecting the 'Priority' flow rate.
- Needle Valve can be pulled back to allow intermittent reverse flow
- Anti-tamper locknut option available for all models, Contact Sales Office for more information.



Hydraulic measurement and control

VFD190-BU-ENG-3068.pdf 08/15
(Issue 3)

Ordering Codes

Typical Code VFD190 RD 250 B3

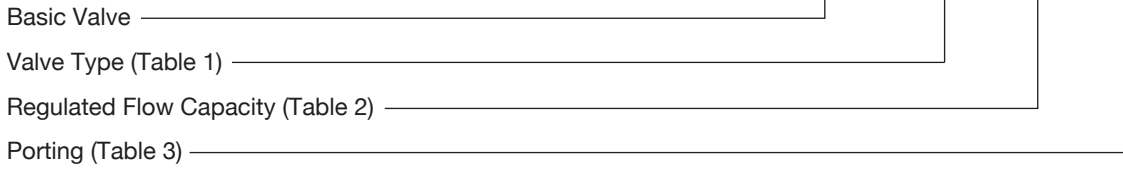


Table 1: Valve Type

Code	Description
RD	Standard
LN	Lock Nut Version

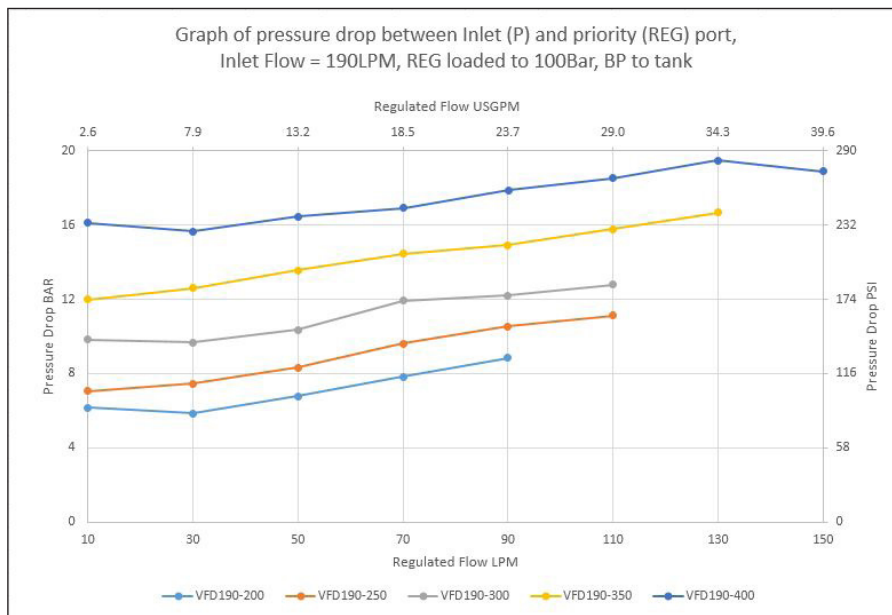
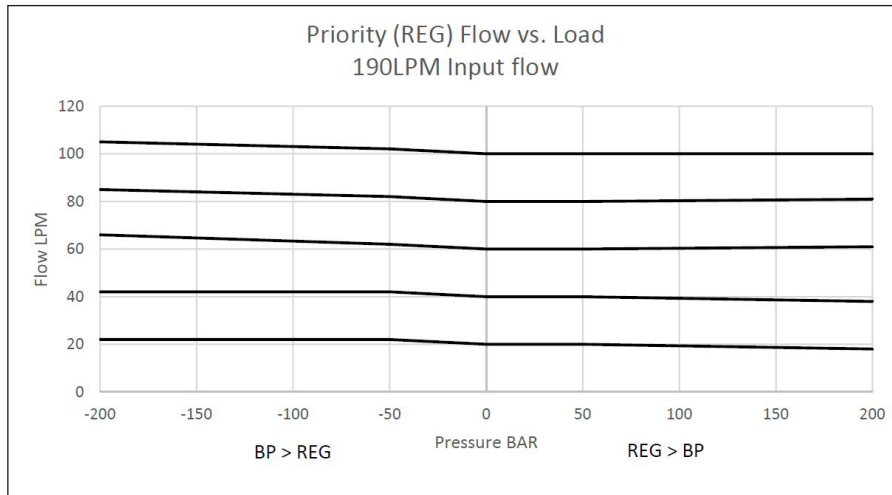
Table 2: Regulated Flow Capacity

Code	Nominal Regulated Flow	Nominal Input Flow
200	0 - 76 lpm (20.0 US gpm)	95 lpm (25 US gpm)
250	0 - 95 lpm (25.0 US gpm)	120 lpm (32 US gpm)
300	0 - 114 lpm (30 US gpm)	143 lpm (37 US gpm)
350	0 - 132 lpm (35 US gpm)	165 lpm (44 US gpm)
400	0 - 150 lpm (40 US gpm)	190 lpm (50 US gpm)

Table 3: Porting

Code	Port Thread
B3	1" BSPP
S3	1-5/16" -12UN #16 SAE ORB

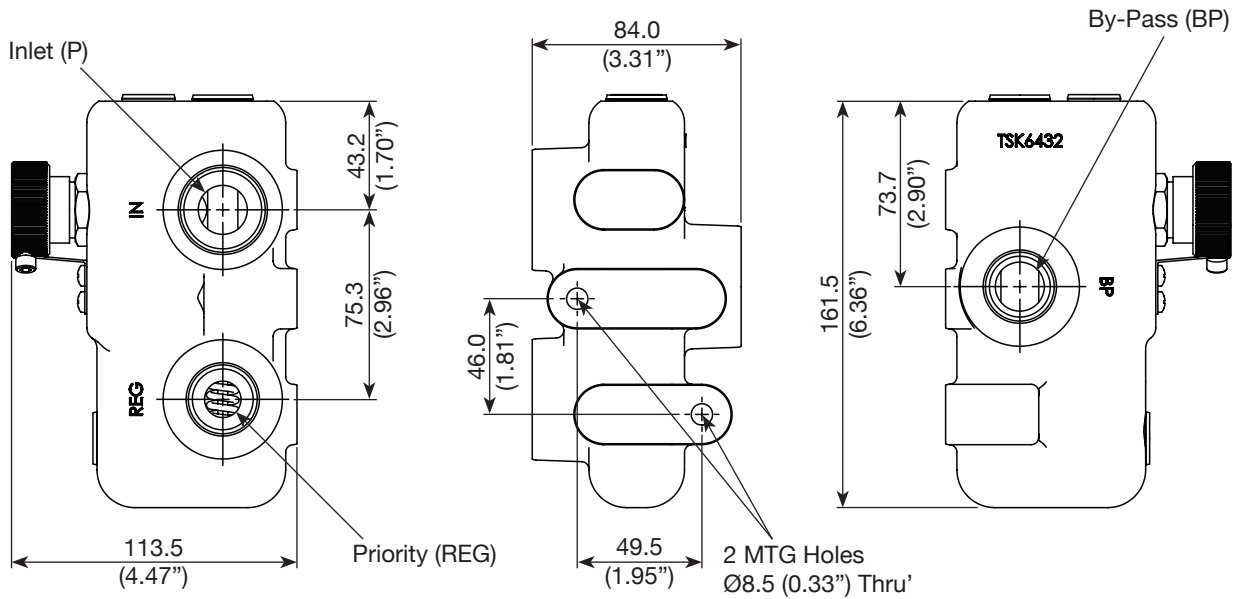
Note: Utilizing a higher or lower Input flow than stated will affect the nominal regulated flow range



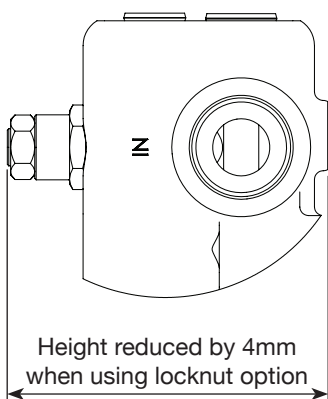
Installation Details

Dimensions in millimetres (Inches)

VFD190 RD



VFD190 LN



Anti-tamper locknut option

Change RD to LN when ordering
State flow setting required