

# VFD120 Series

## Variable Priority Flow Dividers

**Aimed at mobile and industrial applications the VFD120 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 VFD120 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

**Maximum Pressure:** Up to 420 bar, 6000 psi

**Total flow capacity:** 120 lpm, 32 gpm

**Regulated flow capacity:** See Table 2, ordering codes

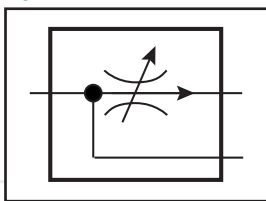
**Porting:** See Table 3, ordering codes

**Material:** Steel components in cast Ductile Iron body painted black; aluminium knob

**Weight:** 2.0 Kg, 4.4 lbs

**Mounting:** Two bolt - M8 or 5/16"

### Symbol



### Features

- Clearly marked single-turn hand dial permits fast visual adjustments to pre-determined 'Priority' flow.
- Pressure compensated permitting both 'Priority' and 'By-Pass' to be used simultaneously at varying pressures without affecting the 'Priority' flow rate.
- Anti-tamper locknut option available. Contact Sales Office for more information.
- Reverse flow capable (Depending upon control knob position) Contact Sales office for more information.

### Ordering Codes

### Typical Code

VFD120

RD

120

J

Basic Valve

Valve Type (Table 1)

Regulated Flow Capacity (Table 2)

Porting (Table 3)

**Table 1: Valve Type**

Code	Description
RD	Standard
LN*	Lock Nut Version

**Table 2: Regulated Flow (gpm refers to US gpm)**

Code	Regulated Flow
030	0 - 11 lpm (3.0 gpm)
050	0 - 19 lpm (5.0 gpm)
080	0 - 30 lpm (8.0 gpm)
120	0 - 45 lpm (12.0 gpm)
160	0 - 60 lpm (16.0 gpm)
200	0 - 76 lpm (20.0 gpm)
250	0 - 95 lpm (25.0 gpm)
Use for Locknut version only	
X??*	?? lpm

\* Set to 47 lpm unless otherwise stated.

**For flows above 95 lpm, see VFD190 bulletin and contact sales for more information.**

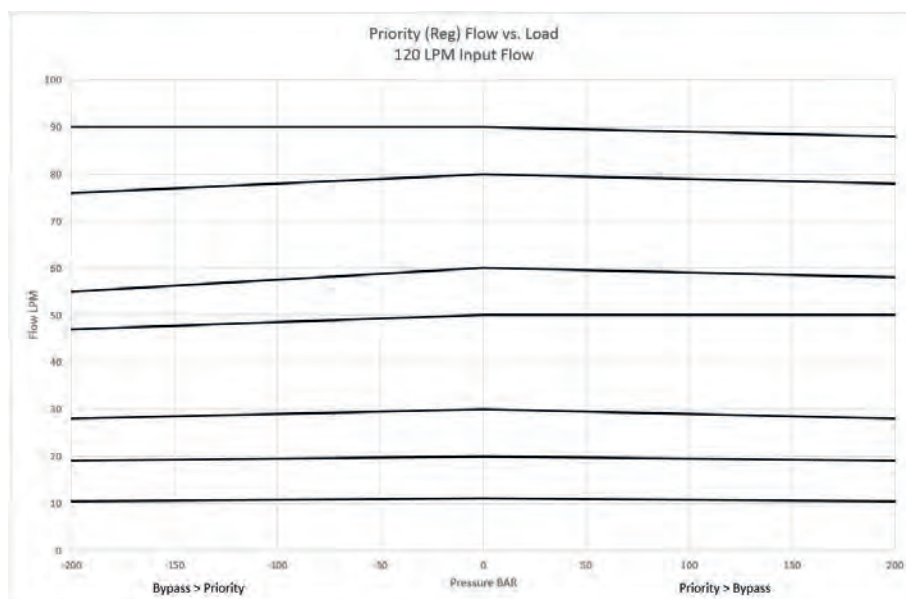
**Table 3: Porting\***

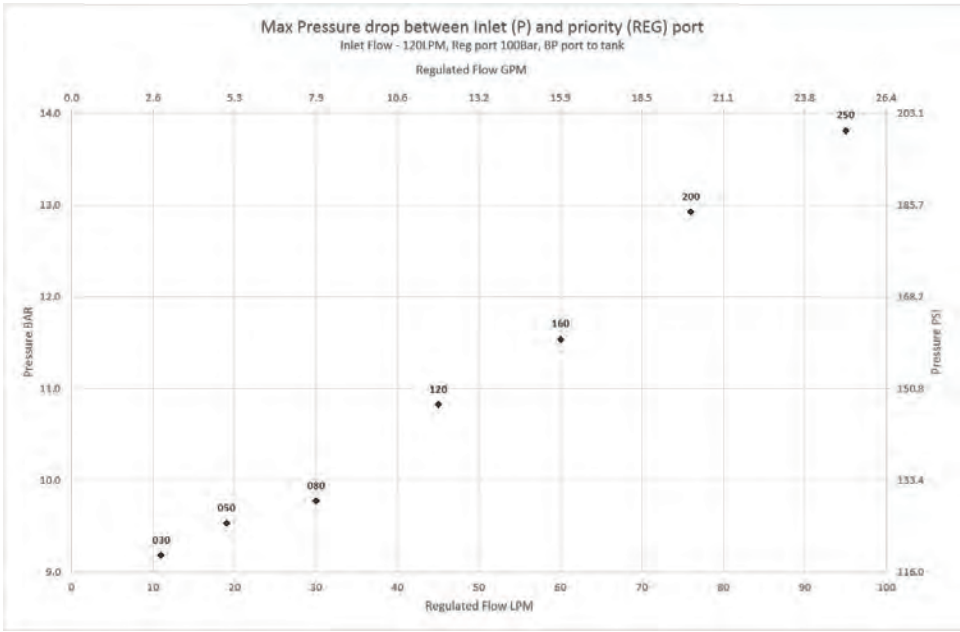
Code	Port Threads
H	1/2" BSPP
J	3/4" BSPP
G	1-1/16" -12UN #12 SAE ORB
A	3/4" NPTF *1
M	M22 x 1.5

Note: M22 and 1/2" BSPP threads only available in flow codes 030 to 120

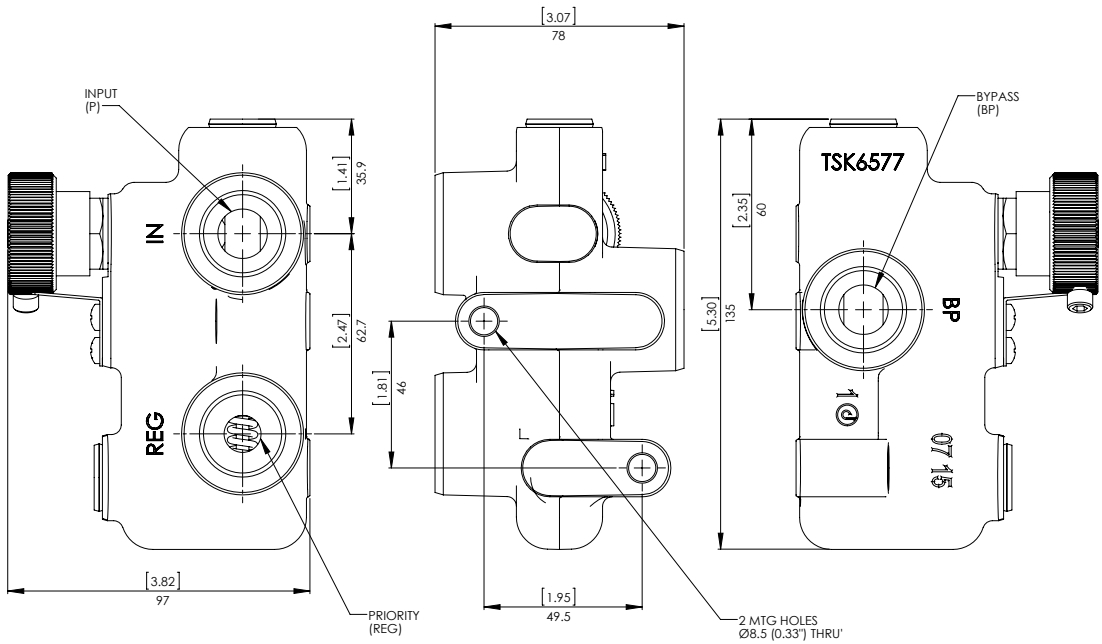
\* Other threads available to special order.

\*1 All NPTF threads are to ANSI B1.20.3 -1976 Class 1. As stated in the standard it is recommended that "sealing is accomplished by the means of a sealant applied to the thread". NPT fittings may also be used to connect to NPTF ports (also with a sealant applied to the thread)

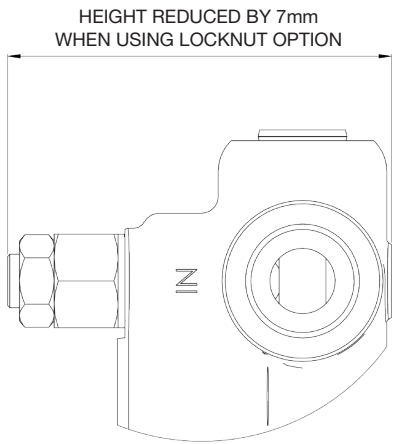




**Installation Details**  
 Dimensions in millimetres



**LN (Anti-Tamper Locknut Option)**



Change RD to LN when ordering  
 State flow setting required otherwise  
 factory setting used.