

FV 120 Series

Fixed Priority Flow Dividers



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Priority Type Flow Dividers split a single input flow into a 'Priority' (regulated) flow and a 'By-Pass' (excess) flow which can be returned directly to the oil reservoir or used to power a second system. This often dispenses with the need for another pump to operate a second system.

A common application on mobile machinery is to use the 'Priority' (regulated) flow for power steering and the 'By-Pass' (excess) flow for an implement or lift circuit. This ensures the power steering is satisfied first to keep the steering speed constant.

Specifications

Maximum Pressure:

Up to 420 bar, 6000 psi (FV120)
Up to 250 bar, 3600 psi (FV121)

Total Flow Capacity:
76 lpm

Regulated Flow Capacity:
See Table 1, ordering codes

Porting:
See Table 2, ordering codes

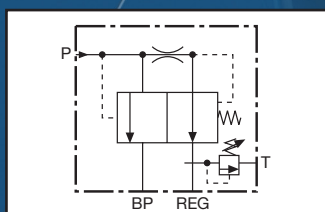
Material:
Steel components in cast iron body

Weight:
1.60 kg (FV120)
2.10 kg (FV121)

Mounting:
Two bolt - M8 or 5/16"

Relief Valve:
See Table 3,
ordering code

Symbol



Features

- 'Priority' flow rate is pre-set in factory to customer specifications at any value between 3.78 lpm and 34.1 lpm in increments of 3.78 lpm. Flow through the 'Priority' port will remain constant at the pre-set value as long as input flow equals or exceeds the Priority flow value.
- Pressure compensated permitting both 'Priority' and 'By-Pass' flows to be used simultaneously at varying pressures without effecting the 'Priority' flow rate.
- Optional built-in pressure relief valve protects the 'Priority' circuit from excess pressure and is adjustable from 34.5 bar to 210 bar (Factory set 82.7 bar unless otherwise specified).



Hydraulic measurement and control

Ordering Codes

Typical Code **FV120 3 H 1 ()**

FV120 - Valve Type

Priority Flow setting (Table 1)

Porting (Table 2)

Relief Valve (Table 3)

Relief Valve Setting, leave blank for standard

Table 1: Priority Flow

Code	Flow at Priority Port lpm (USgpm)
1	3.78 (1.0)
2	7.57 (2.0)
3	11.4 (3.0)
4	15.1 (4.0)
5	18.9 (5.0)
6	22.7 (6.0)
7	26.5 (7.0)
8	30.3 (8.0)
9	34.1 (9.0)
A - Z	Any Non Standard Option

Table 2: Porting*

Code	Inlet and By-Pass Port	Outlet Port	Relief Port
H	1/2" BSPP	3/8" BSPP	3/8" BSPP
F	7/8"-14UN #10 SAE ORB	9/16"-18UN #6 SAE ORB	9/16"-18UN #6 SAE ORB

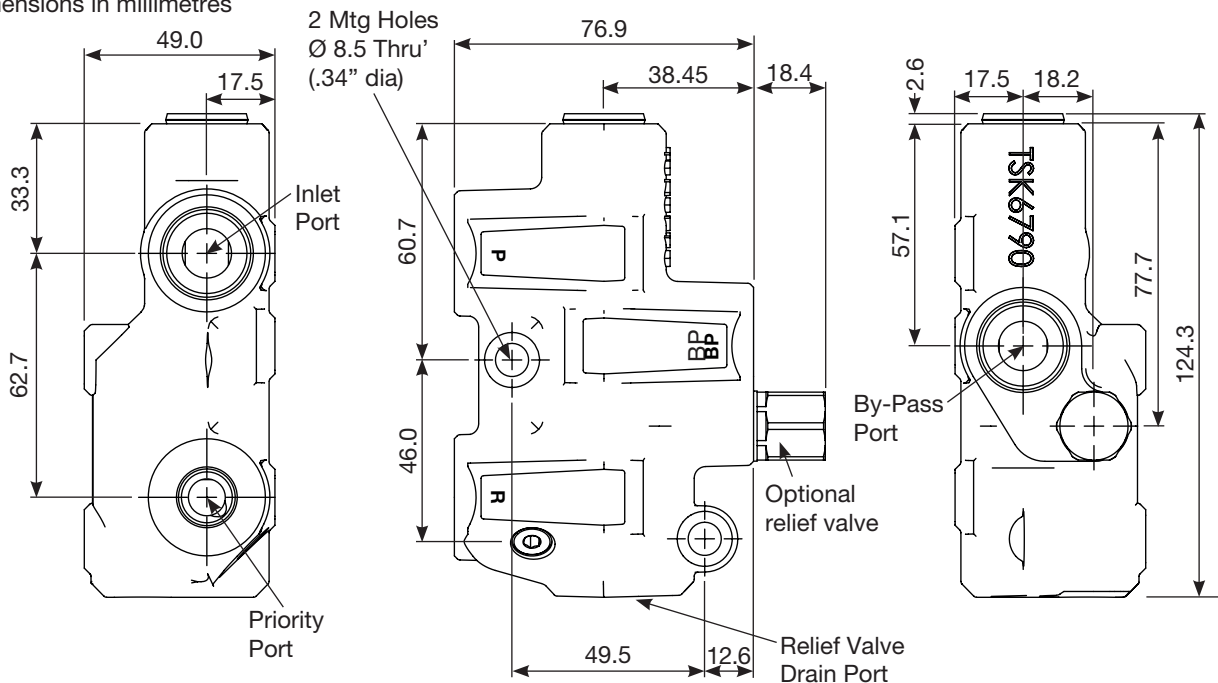
* Other threads are available to special order

Table 3: Relief Valve (if fitted)

Code	Description
0	Without Relief Valve
1	With Relief Valve (Standard setting)
A - Z	With Relief valve (Customer Setting)

Installation Details

Dimensions in millimetres



Ordering Codes

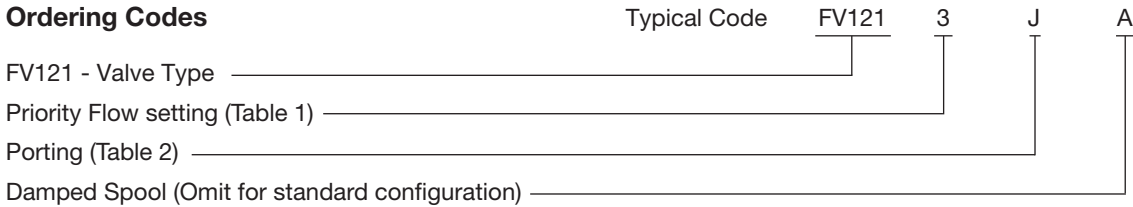


Table 1: Priority Flow

Code	Flow at Priority Port lpm (USgpm)
1	3.8 (1.0)
2	7.6 (2.0)
3	11.4 (3.0)
4	15.1 (4.0)
5	18.9 (5.0)
6	22.7 (6.0)
7	26.5 (7.0)
8	30.3 (8.0)
9	34.1 (9.0)
A - Z	Any Non Standard Option

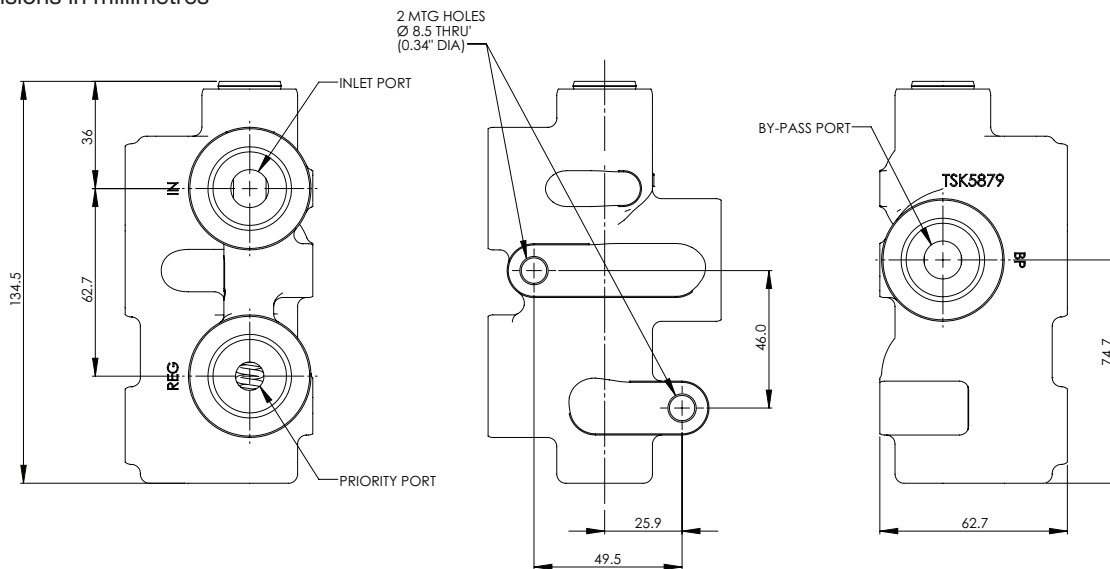
Table 2: Porting*

Code	Inlet and By-Pass Port	Outlet Port
J	3/4" BSPP	3/4" BSPP

* Other threads are available to special order

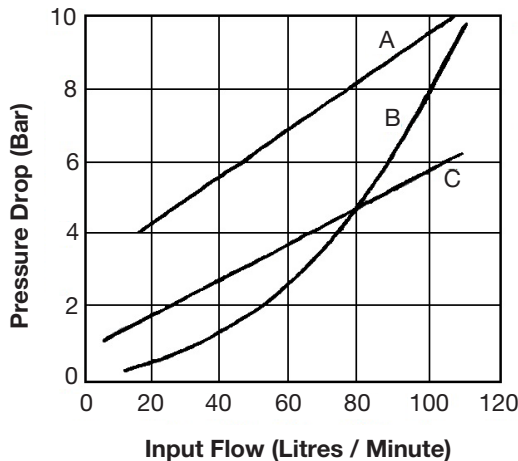
Installation Details

Dimensions in millimetres



Typical pressure drop FV120 Series

Curves established using hydraulic mineral oil with a viscosity of 27.4 cSt at 48°C



- A Curve:** ΔP Between Input and Priority Output (15.1 l/min Priority and up)
- B Curve:** ΔP Between Input and Bypass Output (all models)
- C Curve:** ΔP Between Input and Priority Output (up to 15.1 l/min Priority)