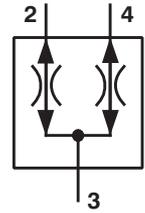


- Divert flows largely independent to the load
- Combine flows largely independent to the load
- May be used for synchronisation controls
- May be used as differential lock



## Functional Description

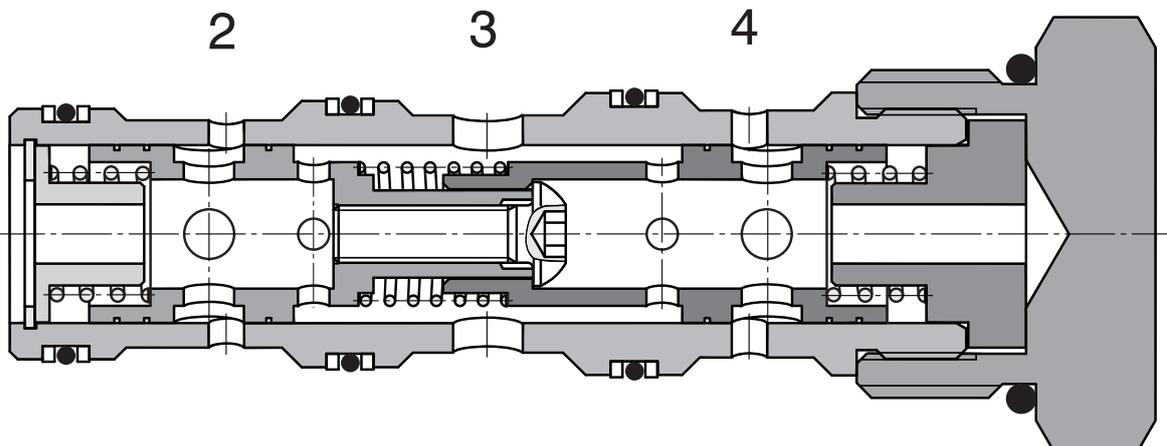
The valve consists of a valve body, two regulating slide valves mutually connected with a defined stroke and with a fixed measuring orifice plate and three centring springs.

The liquid flows from the channel (3) through the measuring orifice plates to the channels (2) and (4). At the same time the regulating slide valves are pressed by the pressure difference one from the other against the outer centring springs. If the load of the channels (2) and (4) is the same the regulating slide valves are held symmetrically to both the channels. At a different load the slide valve on the side of the lower load shifted by an increased pressure drop so far against the spring located behind the slide valve as a new force balance is created caused by changed cross sections of both the regulating slide valves. By this regulating course it is ensured the ratio of division is maintained also at a different load and it is compensated in essence also at a variation of load pressures.

If the liquid cannot flow through one of the channels (2) and (4) the increased dynamic pressure in this channel causes the displacement of both the slide valves to the opposite side and it results in the fact that the other channel is closed. Then, a negligible rate of flow of the liquid only can flow through the released orifice of the nozzle enabling for example the balance of end positions of two consumers.

In the opposite direction of flow both the regulating slide valves are pressed one to the other. Also in this case different load pressures or eventually their changes by changing the position of the regulating slide valves cause a change of throttling cross sections, therefore, the combining the flows occurs also in the same ratio of division.

As for appropriate basic surface finish the external parts are zinc coated.



## Ordering Code

**SFD2F-D3/I**

Flow Divider / Combiner

no designation

Seals  
NBR

**Capacity (input)**

33 - 100 L/min

50 - 150 L/min

**100**

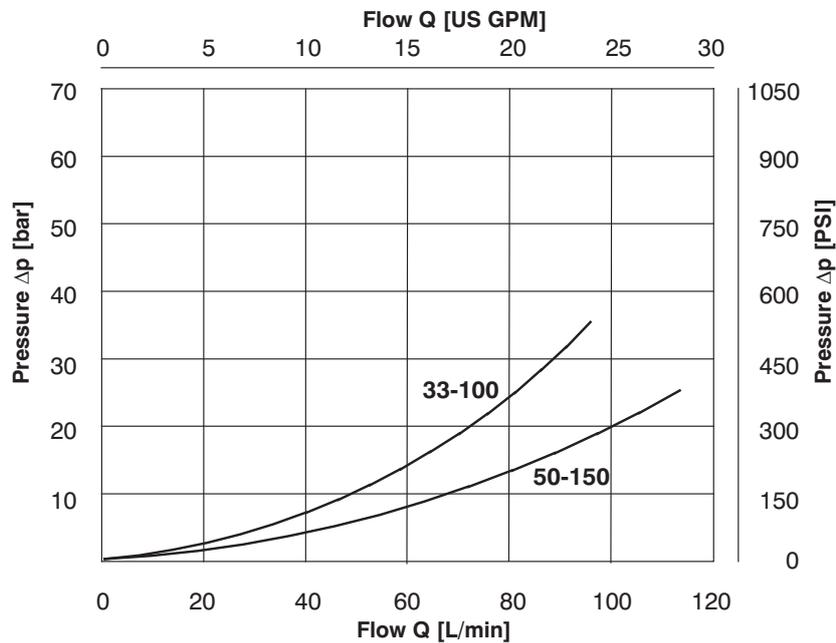
**150**

## Technical Data

Cavity		1-5/16-12 UN-2A
Maximum flow	L/min	150
Max. pressure	bar	350
Division ratio	%	50 - 50
Maximum variation of flow	%	± 10
Pressure drops		see $\Delta p$ - Q characteristics
Hydraulic fluid		Hydraulic oil (HM, HV) according to DIN 51524
Fluid temperature range	°C	-20 ... +90
Viscosity	mm <sup>2</sup> /s	20 ... 400
Maximum degree of fluid contamination		According to ISO 4406, Class 21/18/15
Weight	kg	0.36
Maximum valve tightening torque in valve body or in control block	Nm	70 <sup>+2</sup>
Mounting position		Unrestricted

## p-Q Characteristics

Measured at  $v = 40 \text{ mm}^2/\text{s}$

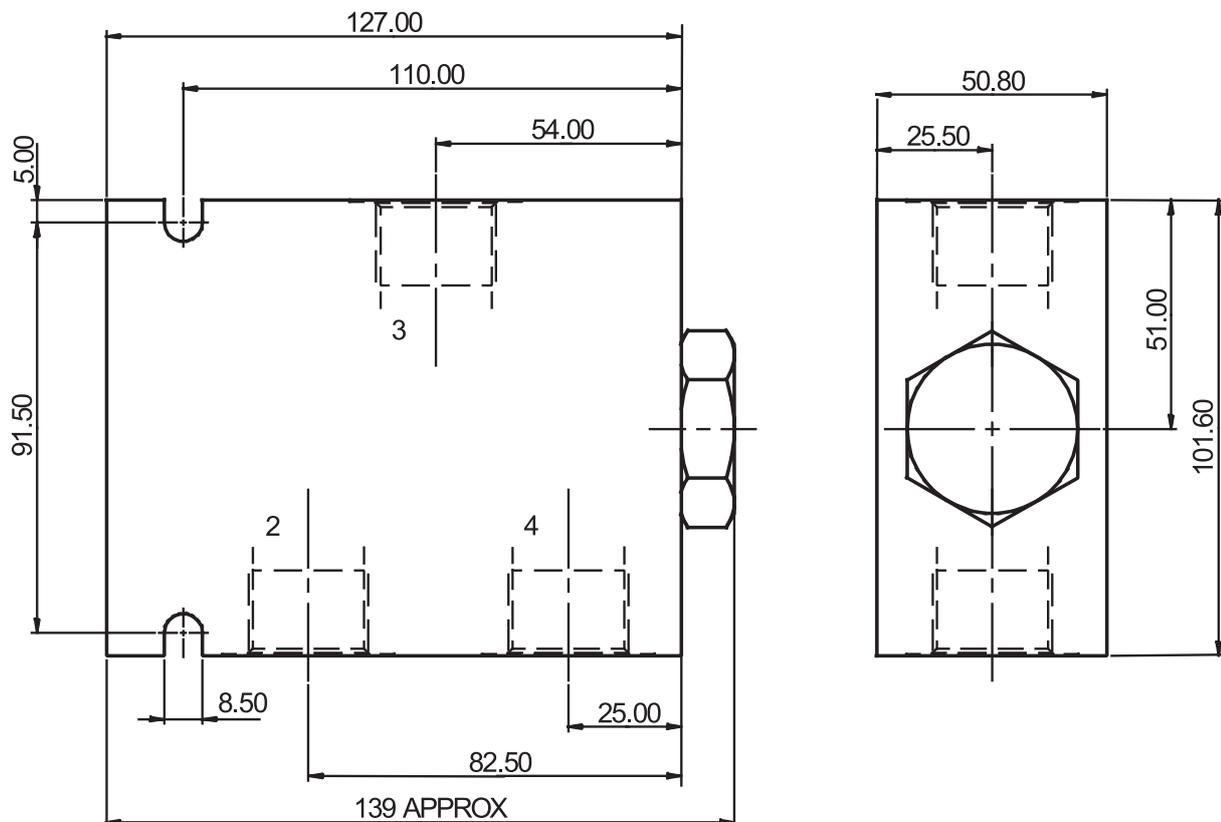
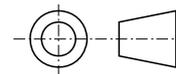




**Valve Bodies**

Measurements in millimeters

ISO A



Body without valve			
Material	Ports	Port size	Type code
Aluminium	2, 3, 4	G1/2	SB-D3-0105AL
	2, 3, 4	SAE 10, 7/8-14	SB-D3-0106AL
Steel	2, 3, 4	G1/2	SB-D3-0105ST
	2, 3, 4	SAE 10, 7/8-14	SB-D3-0106ST

The use of aluminium bodies is limited to a maximum operating pressure of 210 bar.

**Spare Parts**

Seal kits on request.

**Caution!**

- The packing foil is recyclable.
- The technical information regarding the product presented in this catalogue is for descriptive purposes only. It should not be construed in any case as a guaranteed representation of the product properties in the sense of the law.

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