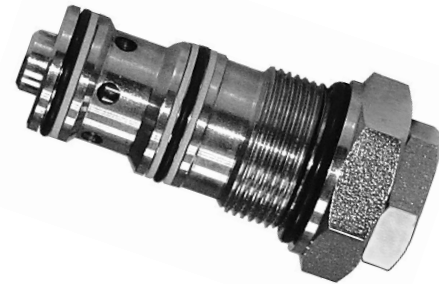
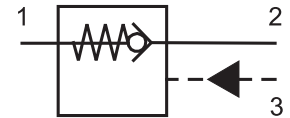


- Load-holding without leakage
- Low pressure drop
- Decompression stage
- Optional pilot seal
- The valve should be mounted as close as possible to the actuator
- Fits the same cavity as the R3 overcentre valve



Functional Description

The design of the valve fitted with conical seat ensures hermetical closing in one direction and in the other direction of flow with a small pressure drop. In this case the question is an indirectly controlled one-way valve opened hydraulically. The closing element (valve cone of the main stage of the valve) and a ball (of the control stage) are pressed to the seat of the valve by the spring force. If the channel (2) pressure exceeds the spring pressure and pressure in the channel (1) the liquid flows through the valve opened. The appropriate pressure drops are identified on the characteristics as a free rate of flow. In the case of this direction of flow the valve operates as a simple one-way valve.

In the opposite direction the liquid can flow from the -channel (1) to the channel (2) in the case a sufficient control pressure acts in the channel (3) only.

Opening pressure = $\frac{\text{Pressure of channel (1)}}{25}$
of the control stage
(decompression)

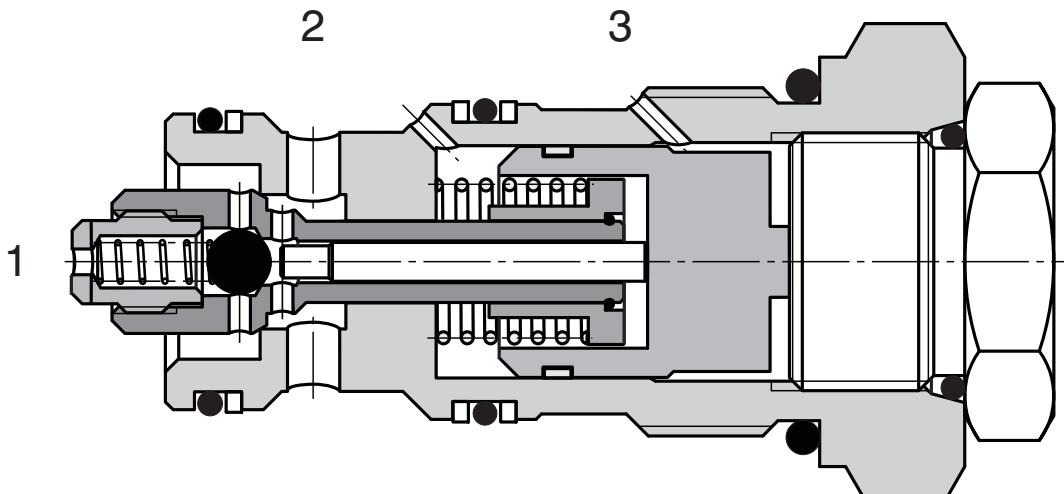
By opening a small amount the control valve the pressure in the channel (2) is dropped in such extent that the control pressure in the channel (3) is sufficient for opening the main stage.

Opening pressure
of the main stage = $\frac{\text{Pressure of channel (1)}}{3}$

Pressure drop values at the main stage opened are identified in the flow characteristics as open by the control.

During computing the control pressure it is necessary to take into consideration that pressure acting in the channel (2) increases the control pressure by the same value multiplied by the effective differential area having a value of 1 – 1/25 in case of a value of the ratio of control surfaces of 25:1.

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



Ordering Code

SCD5H-R3/I

Pilot Operated Check Valve
with decompression

No designation

Seals
NBR

Pilot ratio

Decompression 25:1
Full flow 3:1

3

No designation

S

Optional pilot seal

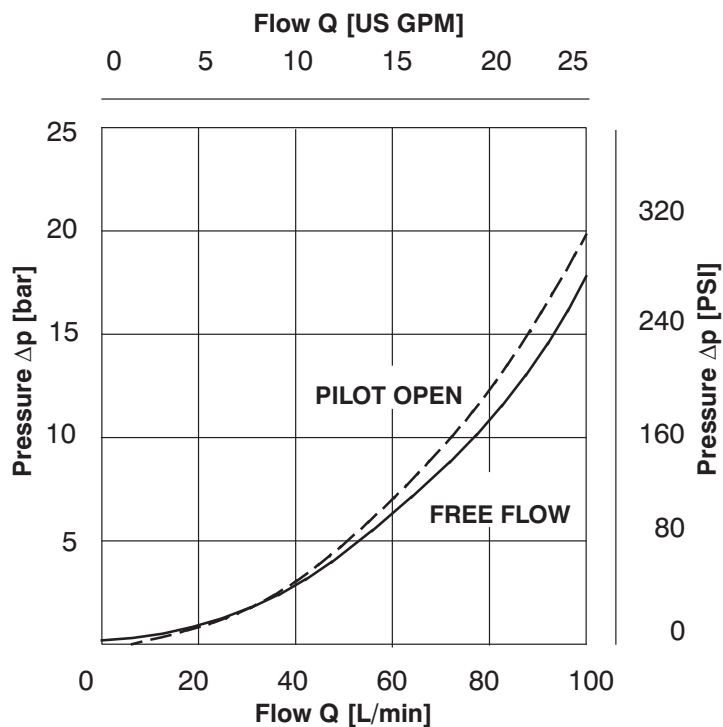
without seal
with seal

Technical Data

Cavity		M27 x 1.5
Maximum flow	L/min	90
Pilot ratio decompression		25:1
Pilot ratio full flow		3:1
Max. pressure	bar	350
Pressure drops	bar	see $\Delta p - Q$ characteristics
Hydraulic fluid		Hydraulic oil (HM, HV) according to DIN 51524
Fluid temperature range	°C	-20 ... +90
Viscosity	mm ² /s	20 ... 400
Maximum degree of fluid contamination		According to ISO 4406, Class 21/18/15
Weight	kg	0.24
Maximum valve tightening torque in valve body or in control block	Nm	60 ⁺²
Mounting position		Unrestricted

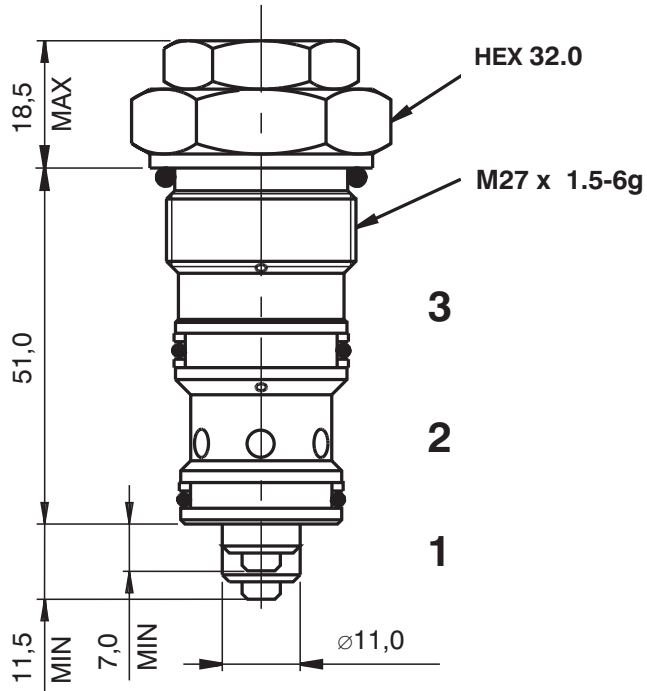
Δp -Q Characteristics

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



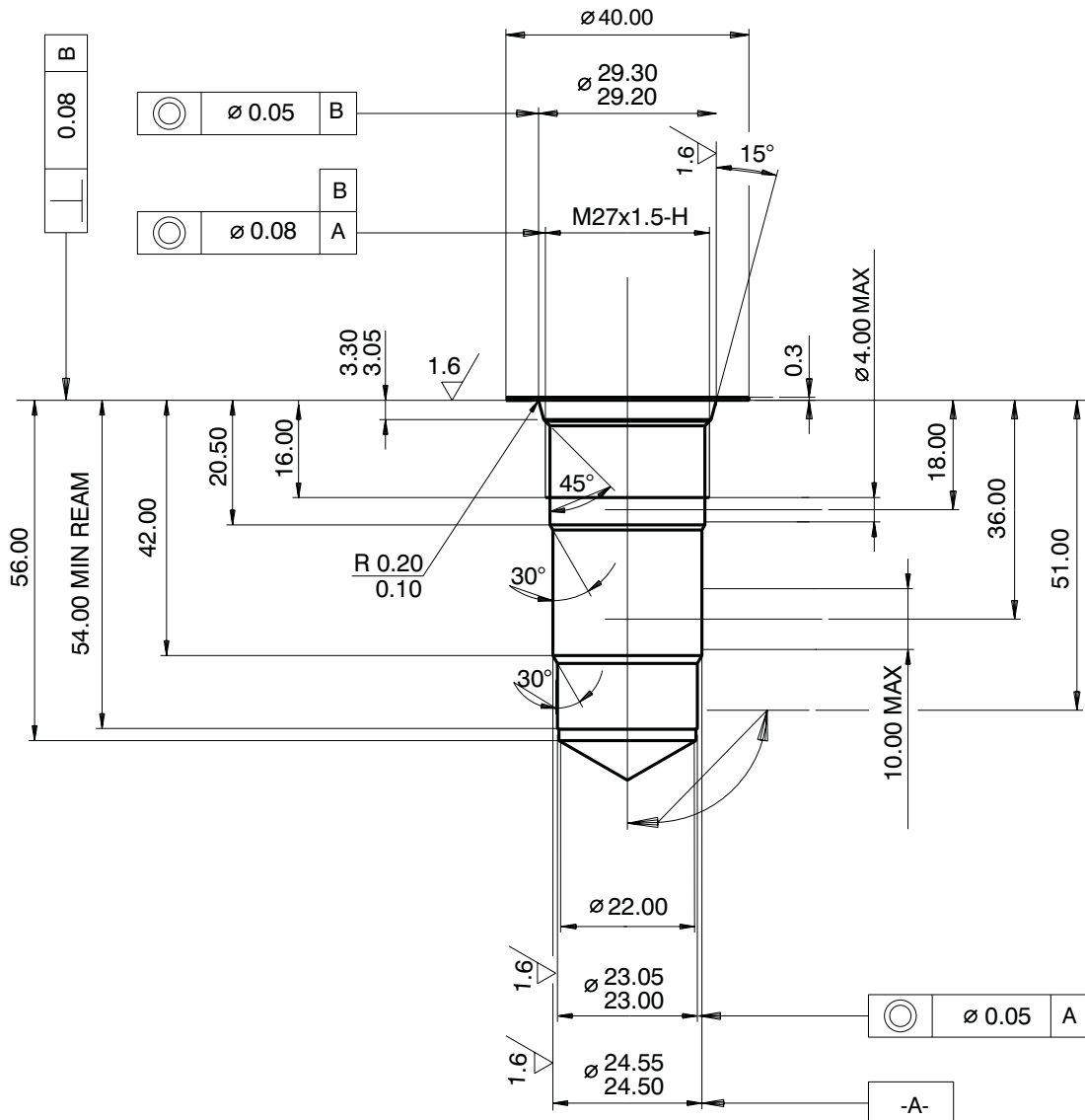
Dimensions

Measurements in millimeters



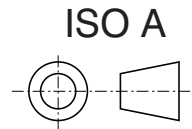
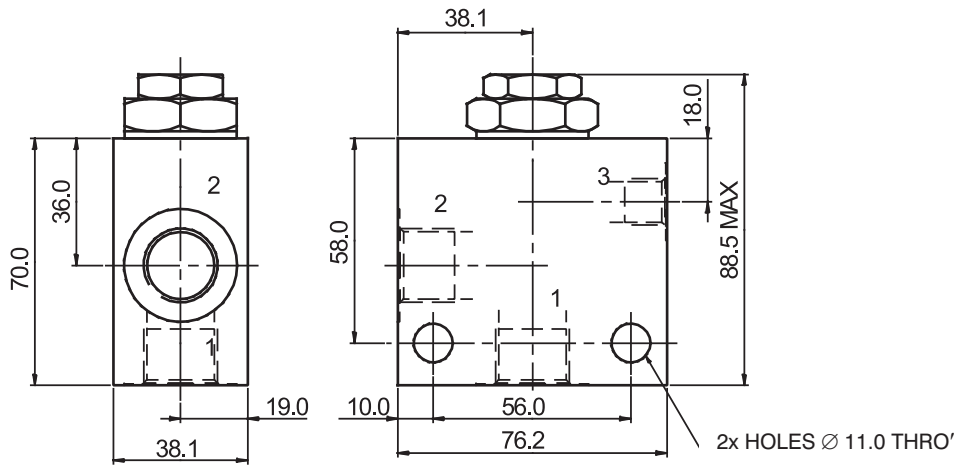
Cavity

Measurements in millimeters

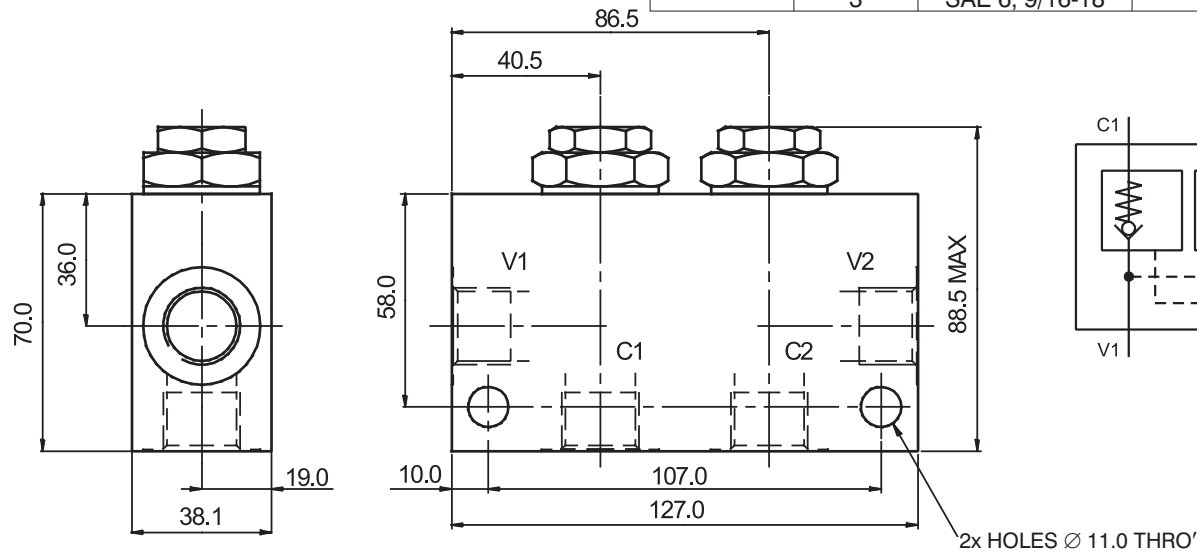


Valve Bodies

Measurements in millimeters



Body without valve			
Material	Ports	Port size	Type code
Aluminium	1, 2	G1/2	SB-R3-0105AL
	3	G1/4	
	1, 2	SAE 10, 7/8-14	SB-R3-0106AL
	3	SAE 6, 9/16-18	
Steel	1, 2	G1/2	SB-R3-0105ST
	3	G1/4	
	1, 2	SAE 10, 7/8-14	SB-R3-0106ST
	3	SAE 6, 9/16-18	



Dual body without valve			
Material	Ports	Port size	Type code
Aluminium	C1, C2, V1, V2	G1/2	SB-R4-0205AL
	C1, C2, V1, V2	SAE 10, 7/8-14	SB-R4-0206AL
Steel	C1, C2, V1, V2	G1/2	SB-R4-0205ST
	C1, C2, V1, V2	SAE 10, 7/8-14	SB-R4-0206ST

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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