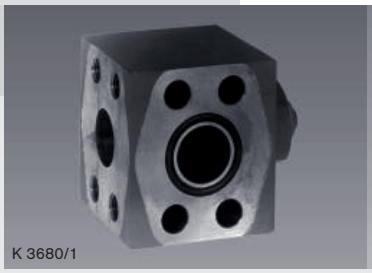
Rexroth
Bosch Group

Check Valve and Throttle/Check Valve with SAE Flanged Ports

RE 64 548/06.03 1/6
replaces: 03.94

Type MHFS; MHSV


K 3680/1

Type MHFS ...-1X/...


K 3683/12

Type MHSV...-1X/...

Size 20, 25, 32
Series 1X
Operating pressure max. 420 bar

Overview of contents

Features

- Operation dependent on pressure and viscosity
- Compact design
- For direct mounting on cylinder or distributor block
- Reduction of possible leakage points
- Additional gauge port

Throttle/Check Valve, Type MHFS

Sizes available:

- Size 20 = 3/4" SAE
  Type MHFS 20 E2B1-1X/PBF45B08V11
  Ordering code **R900417906**
- Size 25 = 1" SAE
  Type MHFS 25 E2B1-1X/PBF10B04V11
  Ordering code **R900334465**
- Size 32 = 1 1/4" SAE
  Type MHFS 32 E2B1-1X/PBF10B03V11
  Ordering code **R900411106**

Function, Section, Symbol

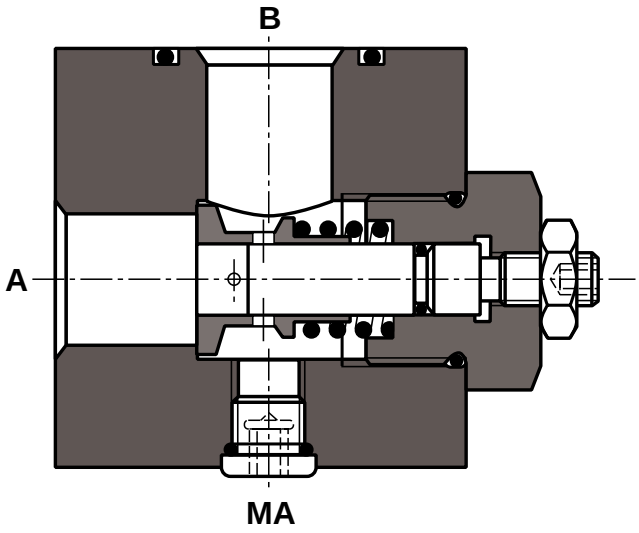
The valves are primarily used for limiting cylinder speeds, in order to reduce shocks when stopping heavy loads.

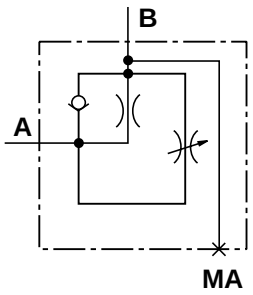
They consist basically of housing (1), spindle (2), valve poppet (3) and compression spring (4).

Limiting the cylinder speed (flow from B to A) is achieved by means of spindle (2). Depending on the spindle setting, radial holes (5) in valve poppet (3) are plugged to produce the required throttling to flow.

Fixed opening (6) between A and B prevents the throttle opening from being reduced to 0. This opening is 7.6 mm^2 for size 20, 13.2 mm^2 for size 25, and 26.4 mm^2 for size 32.

For the lifting operation (flow from A to B), valve poppet (3), which is guided by spindle (2), is pressed against compression spring (4) to allow the valve to fully open.



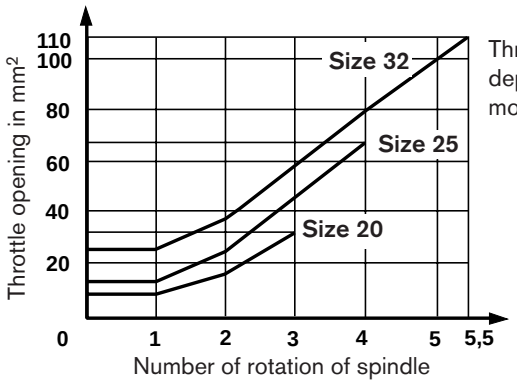


Technical data (For operation outside these parameters, please consult us!)

Max. operating pressure		bar	420
Cracking pressure		bar	0,5
Fluid			Mineral oil to DIN 51 524 (HL, HLP), phosphate ester (HFD-R)
Fluid temperature range		°C	– 20 to + 80
Viscosity range		mm^2/s	2,6 to 380
Fluid cleanliness (maximum permissible)			ISO 4406 (C) Class 20/18/15
Weight	Size 20	kg	2,1
	Size 25	kg	3,5
	Size 32	kg	5,1

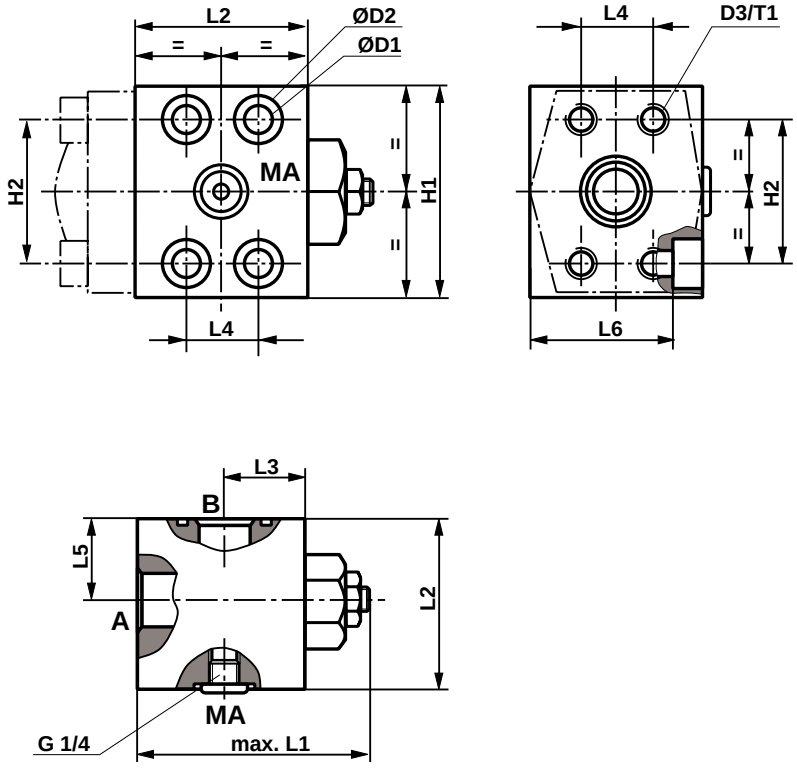
Throttle/Check Valve, Type MHFS ....

Operating Curves (measured at $\nu = 42$ mm ^{2}/s and $\vartheta = 50$ °C)



Throttle opening dependent on spindle movement

Unit dimensions (Dimensions in mm)



Size	Port A, B [1]	L1 max.	L2	L3	L4	L5	L6	H1	H2	ØD1	ØD2	D3	T1
20	SAE 3/4"	85	60	30	23,9	30	49	75	50,8	11	18	M10	14
25	SAE 1"	100	75	37	27,8	40	60	80	57,2	13,5	20	M12	16
32	SAE 1 1/4"	116	85	42,5	31,7	42,5	70	90	66,7	15	24	M14 x 1,5	18

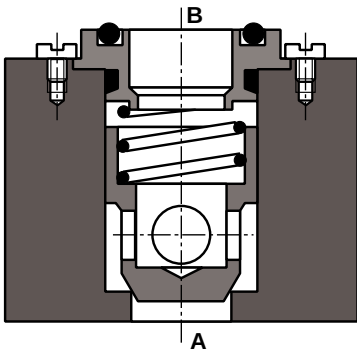
[1] 6000 PSI (420 bar)

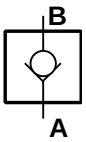
Check Valve, Type MHSV

Sizes available:

- Size 20 = 3/4" SAE
  Type MHSV 22 ZB1-1X/M11-099
  Ordering code **R900493236**
- Size 25 = 1" SAE
  Type MHSV 25 FB1-1X/M11
  Ordering code **R900358470**
- Size 32 = 1 1/4" SAE
  Type MHSV 30 FB1-1X/M11
  Ordering code **R900307483**

Section, Symbol

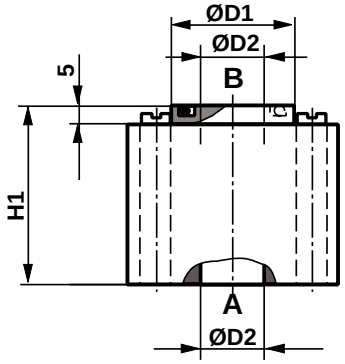


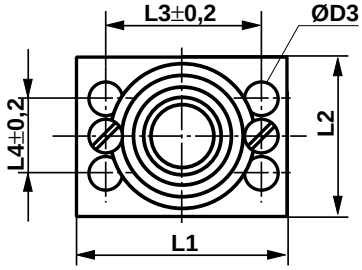


Technical data (For operation outside these parameters, please consult us!)

Max. operating presssure		bar	420
Cracking pressure:	Size 20	bar	0,6
	Size 25	bar	0,5
	Size 32	bar	1,5
Fluid			Mineral oil to DIN 51 524 (HL, HLP) Phosphate ester (HFD-R)
Fluid temperature range		°C	– 20 to + 80
Viscosity range		mm^2/s	2,6 to 380
Fluid cleanliness (maximum permissible)			ISO 4406 (C) Class 20/18/15
Weight		kg	Approx. 1

Unit dimensions (Dimensions in mm)





Size	Port A, B [1]	L1	L2	L3±0,2	L4±0,2	H1	ØD1	ØD2	ØD3	Seal kit ordering code
20	SAE 3/4"	70	50	50,8	23,9	57	40	20	11,5	**R900312289**
25	SAE 1"	80	60	57,2	27,8	70	46	25	13,5	**R900312593**
32	SAE 1 1/4"	90	72	66,7	31,7	78	52	30	16	**R900004330** **R900007920** [2]

[1] 6000 PSI (420 bar)

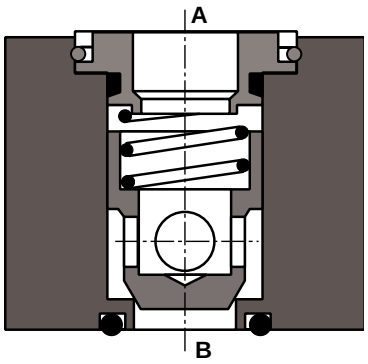
[2] If necessary, state both ordering codes

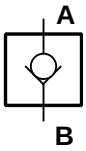
Check Valve, Type MHSV 22 PB2

Size available:

- Size 20 = 3/4" SAE
  Type MHSV 22 PB2-1X/M
  Ordering code **R900459081**

Section, Symbol





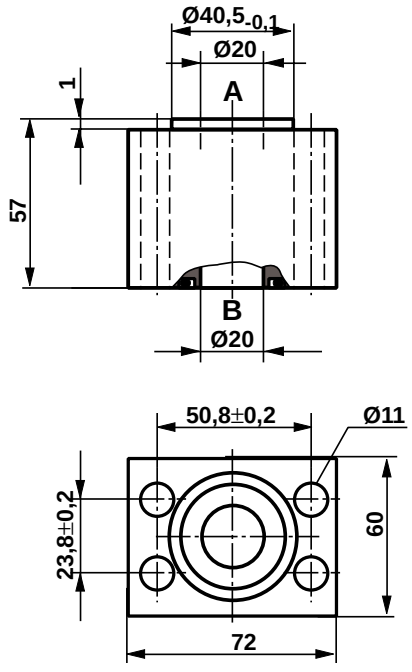
Technical data (For operation outside these parameters, please consult us!)

Max. operating pressure	bar	420
Cracking pressure:	bar	0,6
Fluid		Mineral oil to DIN 51 524 (HL, HLP) Phosphate ester (HFD-R)
Fluid temperature range	°C	– 20 to + 80
Viscosity range	mm^2/s	2,6 to 380
Fluid cleanliness (maximum permissible)		ISO 4406 (C) Class 20/18/15
Weight	kg	Approx. 1

Unit dimensions (Dimensions in mm)

3/4" SAE ports (A, B) 6000 PSI (420 bar)

Seal kit ordering code **R900312289**



Notes

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