

SINGLE – LINE METERING VALVE

SKIB, SMIB

APPLICATION

SKIB and SMIB series single-line metering valves constitute a lubricating element of central single-line lubricating systems used to supply specified amount of lubricant into individual lubricated points.

The metering valves are used to lubricate different machines and equipment, especially machine-tools, textile machines, food-making, woodworking, paper working and shoemaking machines and the like.

SKIB metering valves are used in SRK 1 or SRK 2 series manifolds and are available with nominal flow rates of lubricant from 0,50 to 1,00 cm³/stroke for maximum working pressure of 50 bar.

SMIB metering valves feed directly into the lubricated point. The lubricating system distribution is formed by SRK 1 and SRK 2 manifolds, or by SMIB pipe union or by combination of both. When using R series pipe unions, it is even possible to attach the circuit of central lubrication to lubricated points on rotating components of machines and equipment. SMIB metering valves are available in the same sizes and working parameters as SKIB metering valves.

DESCRIPTION

A metering valve consists of a bottom and a top part. The bottom part of SKIB body is provided with an M10x1 external thread to screw the metering valve into a manifold, and with a rubber sealing ring. The lubrication piping is attached to the top part of the body by means of a cap nut and a sealing ring. 4 mm diameter metal or plastic pipes are used as attaching pipework. On request, cap nuts and rings for 6 mm diameter pipes can also be delivered.

The SMIB metering valve top part is provided with a conical thread of 1/8" to fit into the lubricated point. For manifolds with a nominal flow rate of 0,50 to 1,00 cm³/stroke the thread diameter is 1/4". The bottom part of the body is provided with a thread of M10x1 to be attached to either 4 mm or 6 mm piping by means of cap nut and ring or to be screwed into one of the connecting SMIB pipe unions.

The metering valve body has built-in components that ensure proper function of the metering valve (sealing rubber cone – back-up valve, chambers, metering piston with compression spring sealed with a rubber ring). The metering valve's rated dose and an arrow showing the direction of lubricant flow are stamped on the bottom part.

OPERATION

Metering valves operate on a principle of lubricant pressure variations in the lubricating circuit caused by a lubricating device. Pressure rises in the distribution piping and distribution block with every pressure impulse at the beginning of each lubricating cycle. Metering valves in the circuit successively make a stroke and force the rated dose of lubricant into piping at the point of lubrication (SKIB) or directly into the lubricating point (SMIB). Upon decreasing pressure in the system, which is secured by the lubricating device, the metering valves return to their initial positions and the lubricating cycle may be repeated. In order to ensure the reliable operation of metering valves it is necessary to observe a time delay of at least 5 seconds. Time delay (controlling swipe movements) of 30 to 40 seconds while using manually operated lubricating pumps are recommended.

SERVICE AND MAINTENANCE

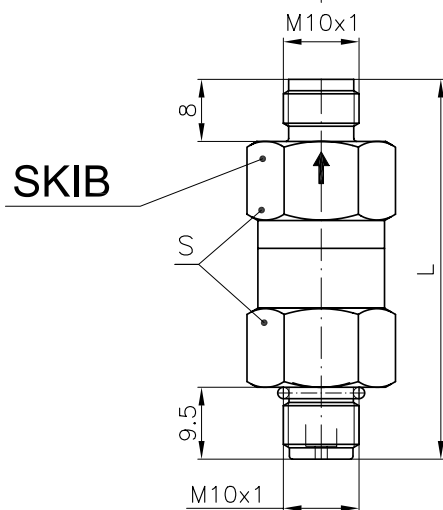
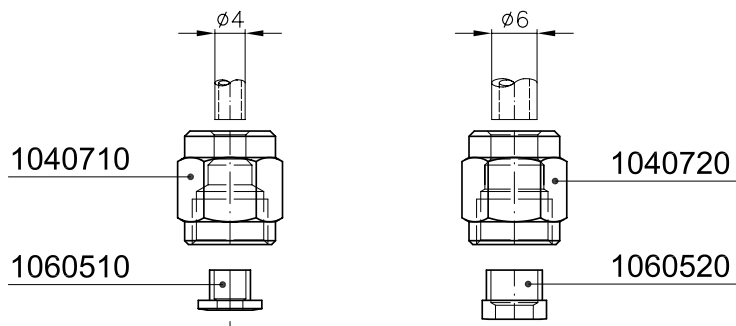
The SKIB metering valve is mounted into the manifold connected to the lubricating system piping at any position. The rubber sealing ring, which is a part of the bottom metering section, should be inserted between the metering valve and the manifold. Attached to the metering valve is the lubrication piping not connected to the lubricated point. The last metering valve plug is unscrewed and lubricant is pumped until no air bubbles can be seen in the exiting lubricant. Then the manifold is re-plugged and the lubricant is pumped until no air bubbles appear. Only then the lubrication piping can be attached to individual lubricated points. If the lubricating circuit has more branches, then every branch should be bled in the same way. Then check the working pressure range and relief pressure in the system by measurement. When assembling, check to see that the pipes are free from burrs and dirt. When mounting the SMIB metering valves proceed in the same way. First, bleed the whole lubricating circuit completely without attaching the actual metering valves until no air bubbles appear. Then attach the actual SMIB metering valves.

In the course of operation, the metering valves require no servicing or maintenance. Check all the connections for leakage occasionally. To provide required cleanliness of lubrication points (replenishment during operation) and extended service life of metering valves, it is recommended to fit flow filters with replaceable elements (FLO 25 up to 125 type) in the circuit of single line central lubrication.

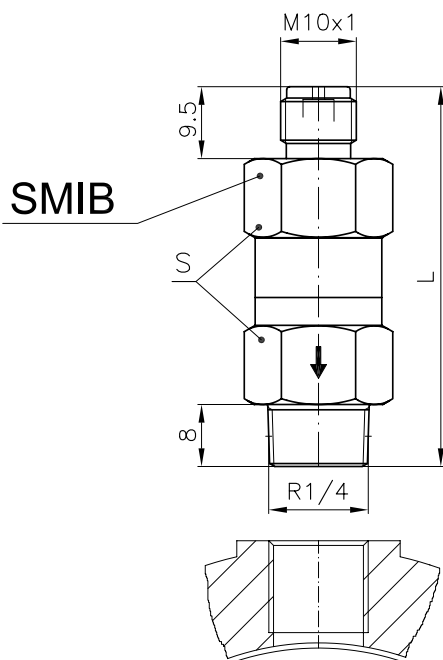
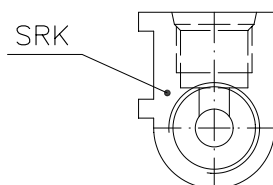
A check valve (see attaching piping) can be used for points of lubrication with greater or fluctuating back-pressure.

TECHNICAL DATA

Maximum pressure		50 bar
Working pressure range		10 to 50 bar
Relieving pressure		about 1 bar
Rated supplied amount		0,50 up 1,00 cm ³ / stroke
Outlet pipe union		M10x1, for TR 4,6 mm
Lubricant	oil	32 mm ² . s ⁻¹ 2000 mm ² . s ⁻¹
	grease	max. NLGI 000, 00
Lubricant temperature		0 up to 80 °C
Temperature of working environment		0 up to 60 °C



Označení	Kód	Jmenovitá dávka	L	S
Nomenklature	Code	Nominal flow rate	L	S
SKIB 6	1026016	500 mm ³	52	17
SKIB 7	1026017	750 mm ³	52	17
SKIB 8	1026018	1000 mm ³	52	17



Označení	Kód	Jmenovitá dávka	L	S
Nomenklature	Code	Nominal flow rate	L	S
SMIB 6	1026026	500 mm ³	52	17
SMIB 7	1026027	750 mm ³	52	17
SMIB 8	1026028	1000 mm ³	52	17

Název/Name	JEDNOPOTRUBNÍ DÁVKOVAČ / SINGLE LINE METERING VALVE	Tribotec s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 212 328
Typ/Type	SKIB, SMIB	
Kód/Code		