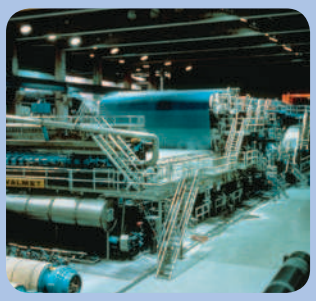


SKF Safeflow oil flowmeter

For easy and accurate flow monitoring

A rugged oil flowmeter for demanding

SKF Safeflow oil flowmeters are used for controlling and measuring the flow rate of lubricants in oil circulation lubrication systems. The SKF Safeflow oil flowmeters can be banked (up to 10 units wide) to reduce piping and simplify installation.

The base is made of durable aluminium and the flow tube is made of glass, therefore high temperatures and the use of mineral and synthetic oils should present no problems.

Durable metallic frame

The frame of the flowmeters is made of durable aluminium, rather than plastic. This allows for tight connections for all tube fittings and reduces the chance of breakage.

Excellent readability

It is easy to read the flowmeter even when using the dark oil or high oil flows. This is possible because the operating principle of the SKF Safeflow flowmeter is quite different from that of the ordinary conical flowmeter.

The SKF Safeflow flowmeter has a straight glass flow tube with an internal calibration cone, extending along its vertical axis. The float is cylindrical in shape and the O.D. is slightly smaller than the I.D. of the flow tube.

In operation, the calibrated cone extends through the annular opening in the float, creating the variable orifice needed for measurement as the float moves with flow changes. Because the oil flows through the float rather than around it in an ordinary flowmeter, the float is always clearly visible. A white PTFE ring on the float marks the reading point.

The flowmeter can be field calibrated so that when the desired oil flow is properly adjusted, the white ring will line up with a predetermined mark. This makes it easy to monitor banks of flowmeters with different required flows, because all floats will be visible at the same level and it will not be necessary to remember the correct flow to each bearing.

Easy calibration

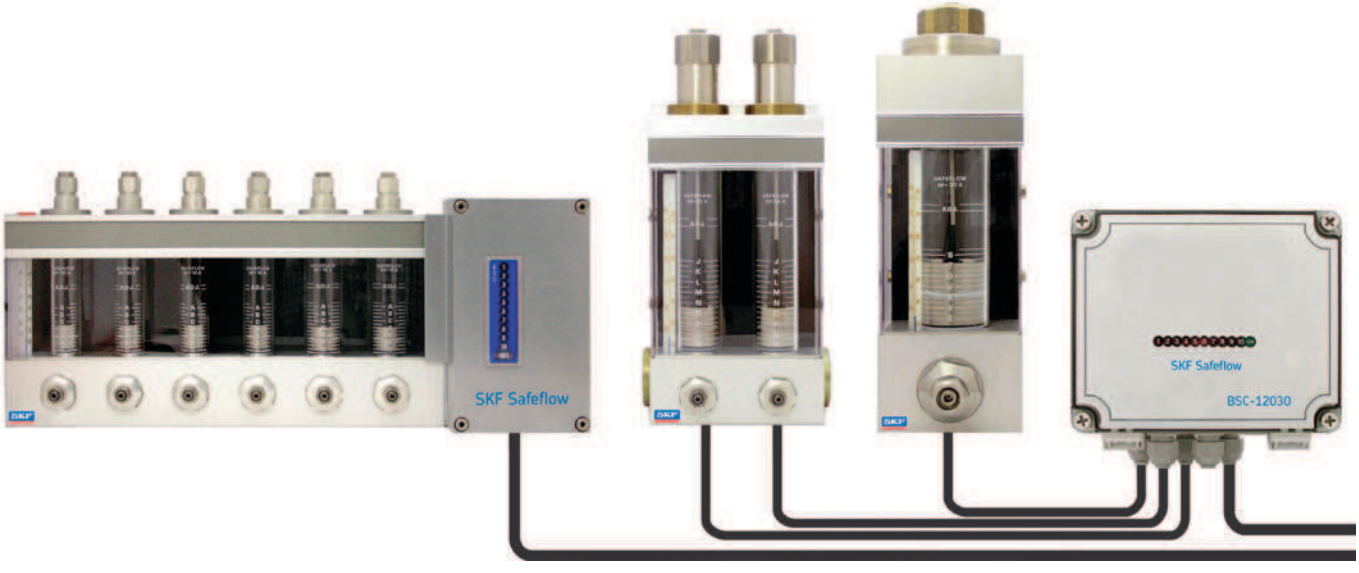
Flowmeters can be individually calibrated according to the oil viscosity and desired flow.

The calibration is done by adjusting the position of the calibration cone in accordance with a graph furnished by SKF. Should there be a change in the oil viscosity or the desired flow, the flowmeter can be recalibrated without removing it from service.

Improved flow adjusting valve

The design of the adjusting valve has been improved by utilizing a cylindrical spindle with an elliptical shape bevelled on the metering end. This construction allows larger particles to pass through the valve than the ordinary needle valve arrangement, and does not block as easily as a needle valve. The oil flow through each flowmeter can be adjusted individually.

All the materials used in the SKF Safeflow flowmeters, aluminium frame, glass tube, and FPM rubber seals, are compatible with the use of mineral and synthetic oils.

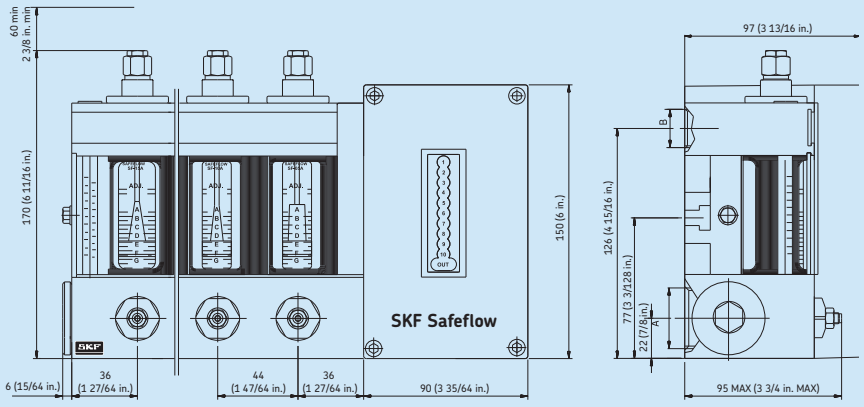


use

Optional flow change alarm system

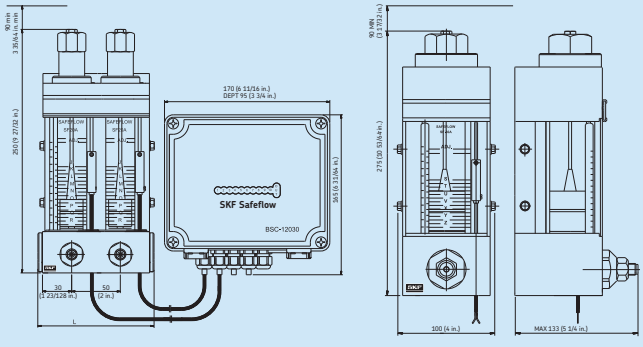
The oil flow through each SKF Safeflow flowmeter can be remotely and continuously monitored.

The alarm system consists of one alarm sensor for each flow tube and one monitoring unit configured with one (1) to ten (10) alarm sensors. The alarm sensor is an inductive proximity switch, which identifies the location of a metal float in the tube. The monitoring unit contains the terminals and the power supply for ten sensors. The system transmits either a single alarm from each bank of meters or a separate signal from each flow tube. The alarm delay can be selected.



		SF05A	SF10A	SF15A
Flow rate				
100 cSt (460 SSU)		0,1–0,7 l/min 0,2–1,5 pints/min	0,1–3,0 l/min 0,2–6,3 pints/min	0,3–7,2 l/min 0,6–15,2 pints/min
220 cSt (1 000 SSU)		0,04–0,35 l/min 0,08–0,74 pints/min	0,1–1,7 l/min 0,2–3,6 pints/min	0,2–4,4 l/min 0,4–9,3 pints/min
Number of flowmeters (tubes, pcs)		1, 2, 4, 6, 8, 10	1, 2, 4, 6, 8, 10	1, 2, 4, 6, 8, 10
Connections				
A & B	GS1[1)]	R 1/2 in. (NPT 1/2 in.)	R 1/2 in. (NPT 1/2 in.)	R 1/2 in. (NPT 1/2 in.)
A[1)]	GS 2–10	R 1 in. (NPT 1")	R 1 in. (NPT 1 in.)	R 1 in. (NPT 1 in.)
B[1)]	GS 2–10	R 1/2 in. (NPT 1/2 in.)	R 1/2 in. (NPT 1/2 in.)	R 1/2 in. (NPT 1/2 in.)

[1)] GS = Group size, A = inlet, B = outlet
Both SF05 and SF10A together and SF10A and SF15A together can be combined in the same bank.



		SF20A	SF30A
Flow rate			
100 cSt (460 SSU)		1,3–17,0 l/min 2,7–36,0 pints/min	5,0–56,0 l/min 10,6–118,3 pints/min
220 cSt (1 000 SSU)		0,6–10,6 l/min 1,3–22,4 pints/min	2,5–44,0 l/min 5,3–93,0 pints/min
Number of flowmeters (tubes, pcs)		1, 2, 4, 6	1
Length (L)		Connections R (NPT)	
Group size 1		74 mm (3 45/64 in.)	
Group size 2		124 mm (5 43/64 in.)	
Group size 4		224 mm (9 5/8 in.)	
Group size 6		324 mm (13 35/64 in.)	
Connections			
A & B[1)]	GS1[1)]	R 3/4 in. (NPT 3/4 in.)	R 1 1/4 in. (NPT 1 1/4 in.)
A[1)]	GS 2–6	R 1 in. (NPT 1 in.)	
B[1)]	GS 2–6	R 3/4 in. (NPT 3/4 in.)	

[1)] GS = Group size, A = inlet, B = outlet

Designation system for SKF Safeflow oil flowmeters

Example: SF-10-A-10-R-A-BSC

SF - 10 - A - 10 - R - A - BSC

Identification of product design

SF	SKF Safeflow

Identification of size

05	Size 05
10	Size 10
15	Size 15
20	Size 20
30	Size 30

Identification of adjustable cone

A	Adjustable cone

Identification of number of flowmeters (tubes)

Identification of threads

R	BSP-P (parallel)
U	NPT (tapered)

Identification of electrical alarm

X	No alarm
A	With electrical alarm

Identification of alarm type

BSC	Common alarm
BSS	Individual alarm

Alarm units for SF20A and SF30A must be ordered seperately

BSC-12030	Common alarm
BSS-12030	Individual alarm

Product information

Power supply	24V DC (22–36 V DC) or 24V AC (18–27 V AC RMS) Power consumption 150 mA max.
Max. operating temperature	70 °C (158 °F)
Alarm output	Dry contact relay output Max. load 50 V AC/DC, 1 A
Delays	0 s, 10 s, 50 s or 10 0s (selectable)

The Power of Knowledge Engineering

Combining products, people, and application-specific knowledge, SKF delivers innovative solutions to equipment manufacturers and production facilities in every major industry worldwide. Having expertise in multiple competence areas supports SKF Life Cycle Management, a proven approach to improving equipment reliability, optimizing operational and energy efficiency and reducing total cost of ownership.

These competence areas include bearings and units, seals, lubrication systems, mechatronics, and a wide range of services, from 3-D computer modelling to cloud-based condition monitoring and asset management services.

The SKF BeyondZero portfolio offers products and services with enhanced environmental performance characteristics.

SKF's global footprint provides SKF customers with uniform quality standards and worldwide product availability. Our local presence provides direct access to the experience, knowledge and ingenuity of SKF people.

SKF lubrication systems
e-mail: skf-lube@skf.com

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