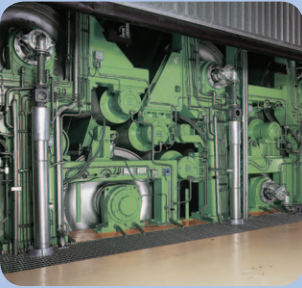
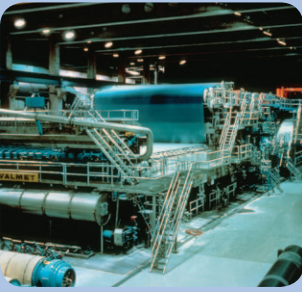


SKF Flowline monitor

New dimension of oil circulation flow rate measuring



SKF Flowline monitor – a new dimension

The SKF Flowline Monitor flow rate monitoring system introduces a new dimension for measuring and controlling oil circulation lubrication system flow rates. SKF Flowline flowmeters operate individually, can be programmed and adjusted separately. They can be connected to a centralized control system.

SKF Flowline's user friendly visual design allows operators to see the flow rate status of each individual lubrication point from the SKF Flowline monitor.

SKF Flowline monitor operation

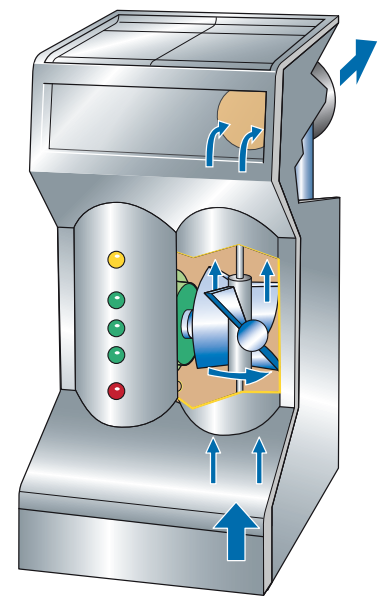
SKF Flowline monitor ensures that the oil supply to the lubrication points is not disturbed or deviated excessively from the set limit values. Alarm limits and nominal flow can be set for each flowmeter individually. The flow rate is calculated by measuring the propeller rotation time by an inductive method and compensating the result by oil viscosity grade and oil temperature.

The user interface

The LED indicators in the flowmeters show a visual indication of oil flow volume. Any deviation from normal can be detected by the different LED indicator colors.

Red indicates that the flow rate is below the low alarm limit value. Yellow indicates that the flow rate is above the high alarm limit value. When the green LED indicators are on, the flow rate is within tolerance – in other words, FLOWLINE! This makes it possible to control the system visually in the production facility during routine control checks without having to use or activate the flowmeters separately.

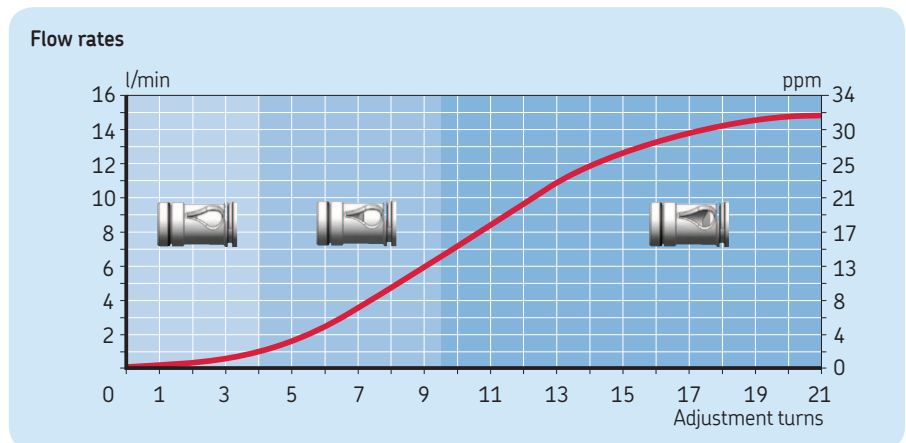
Flow rates and settings can be observed on the digital display and settings can be made by pushing keys.



SKF Flowline monitor

Control valve and wide adjusting range

A non-linear adjustable valve, together with a sensitive propeller, enables a large operation range in each flow tube and good accuracy also in low flow range.



on of paper machine oil lubrication flow

SKF Flowline monitor features

- Easy to use; practical and visual LED indicator system and clear digital display.
- Wide adjustment range.
- Electronic temperature measurement.
- Temperature compensated measuring results.
- Multimonitoring possibility.
- Modern design.



Flow alarms

A common alarm relay indicates high and low flow situations. The alarm output is a fail-safe type.

More versatile alarms can be obtained by plugging in an extra relay board including the following alternatives

- individual alarms from each lubrication point
- maximum 10 separate low and high level alarms
- zero flow alarm
- pre-alarms.

Centralized control system

SKF Flowline monitors in the measuring system can be connected together by the CAN-bus to build a centralized control. There are several alternatives for interfacing with PCs and DCS.

The Windows based SKF Flowline Software is the user interface for the centralized control system. With SKF Flowline Software, the user can monitor and control the operation of the measuring system, display flow rates and alarms, and modify settings like flow rate alarm limits of flowmeters. SKF Flowline Software collects continuous flow rate data, oil temperature and alarm trends.

SKF Flowline software can be also used for servicing and configuration of a single

SKF Flowline monitor. A laptop with serial port is then needed.

The DCS interface is for reading flow rates and flowmeter status information to the control system of the customer.

The interface with DCS can be built in two ways:

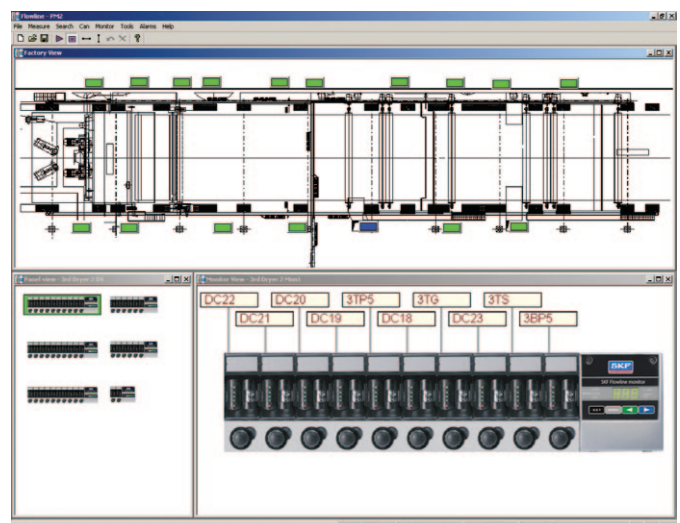
1. Using SKF Flowline Hub that includes Modbus interface. A flowmetering system up to 1000 flowmeters can be interfaced using this method.

2. Using industrial fieldbus/network converters for Modbus, Profibus or Ethernet/IP. A flowmetering system up to 120 flowmeters can be interfaced by one converter.

SKF Flowline monitor technical specifications

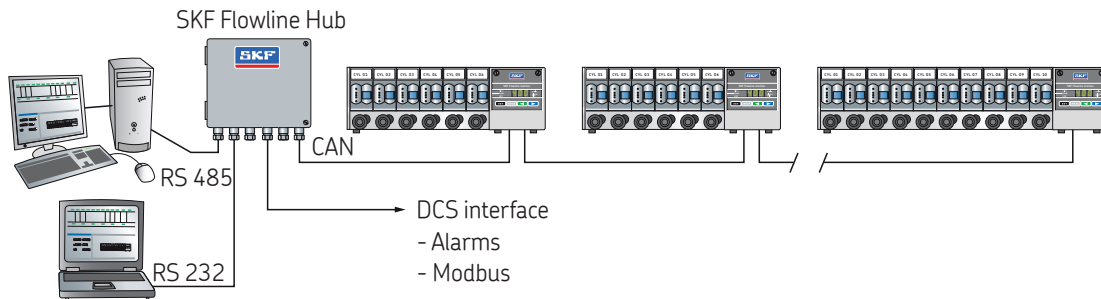
	FL15-XX	FL50
Flow rate range*	0,05–15,0 l/min 0,10–30,0 pints/min	10,0–50,0 l/min 20,0–100,0 pints/min
Number of flowmeters	2, 4, 6, 8, 10	1
Connections		
– input	R 1" (NPT 1 in.)	R 1" (NPT 1 in.)
– output	R 1/2" (NPT 1/2 in.)	R 1" (NPT 1 in.)
Power supply	24 V DC/AC	24 V DC/AC
Power consumption	5 W max	5 W max
Alarm relay	120 V/1 A max, extra relay board available with 11 relays, 50VDC/0.5A	120 V/1 A max, extra relay board available with 11 relays, 50VDC/0.5A
Serial bus	CAN	CAN
Maximum operating temperature	70 °C (158 °F)	70 °C (158 °F)
*220 cSt (1000 SUS) max dP = 1,0 bar (14,5 Psi)		

SKF Flowline Software main view

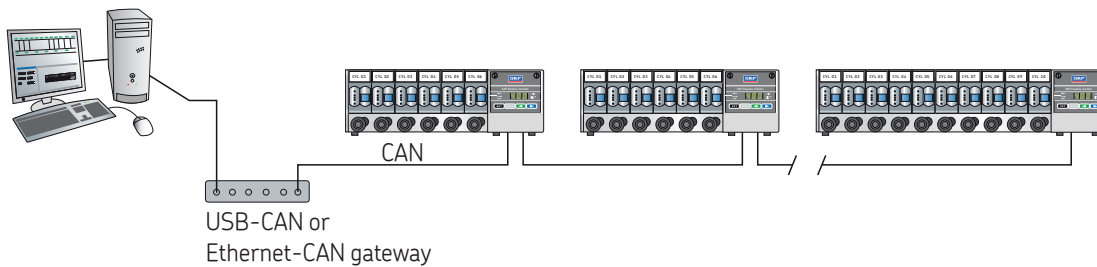


monitoring

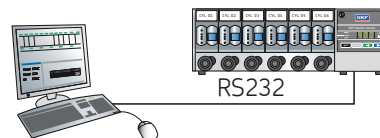
Control by SKF Flowline Software and SKF Flowline HUB



Control by SKF Flowline Software and USB on Ethernet gateways

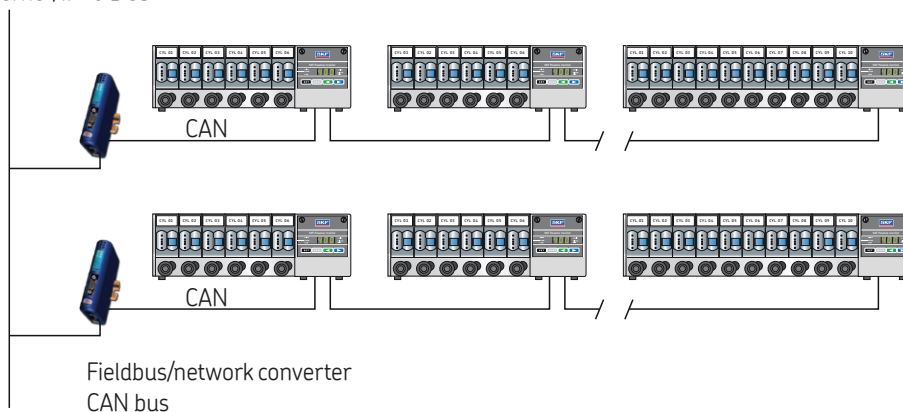


Local connection to one SKF Flowline monitor



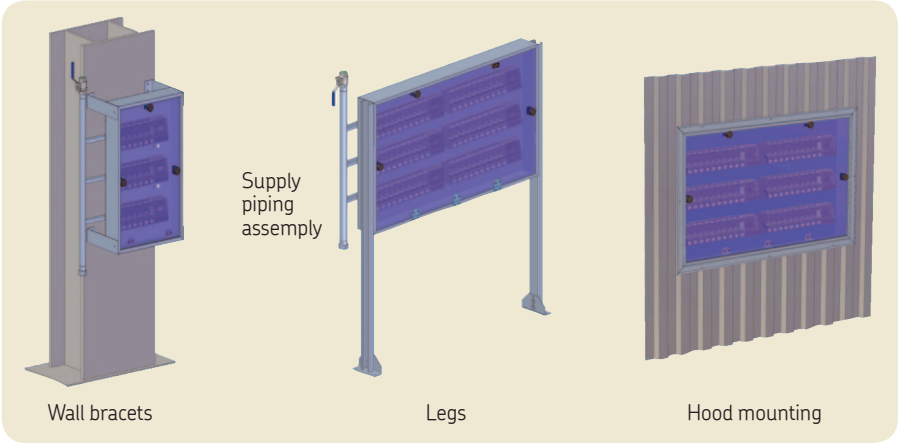
DCS interface with Fieldbus/network converters

Modbus, Profibus or Ethernet/IP to DCS

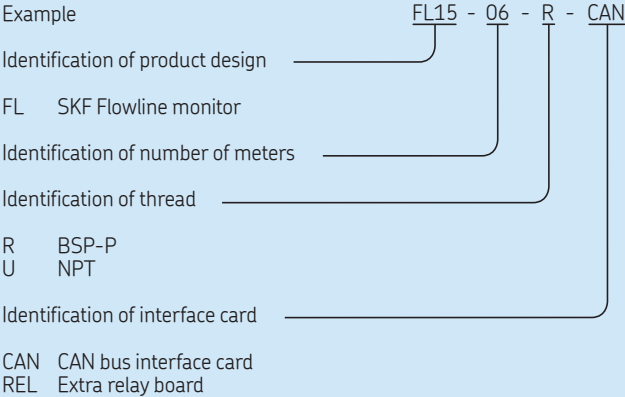


SKF Flowline monitor panels

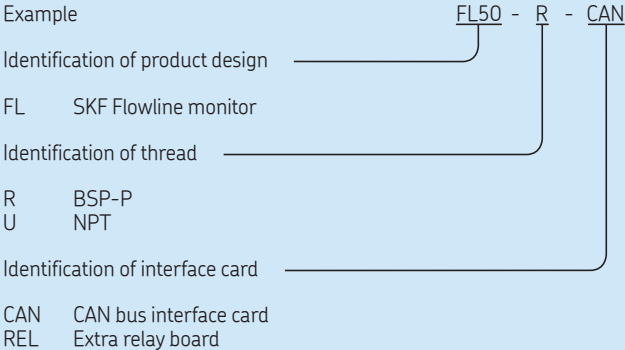
- Easy and flexible installation with optional legs, wall brackets or hood mounting frame.
- Many standard sizes for up to 60 lubrication points.
- Plexiglass door protects the flowmeters.
- Options: Supply piping assembly, door with hinges, lock and light.



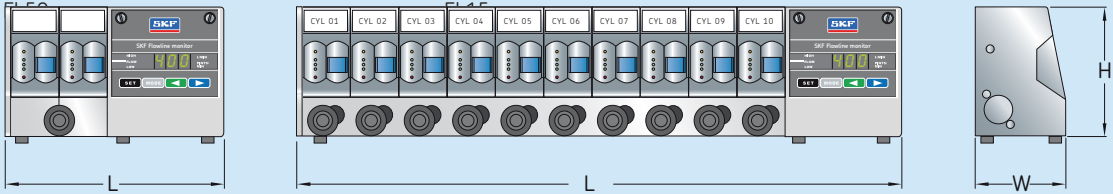
Designation system for SKF Flowline monitor FL15



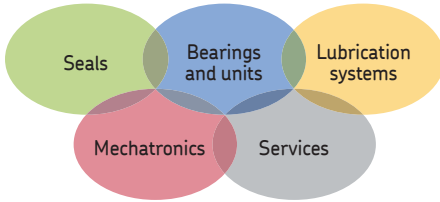
Designation system for SKF Flowline monitor FL50



SKF Flowline monitor dimensions



Designation	L		W		H	
	mm	in.	mm	in.	mm	in.
FL50	226	8,9	106	4,2	150	5,9
FL15-02	226	8,9	106	4,2	150	5,9
FL15-04	324	12,76	106	4,2	150	5,9
FL15-06	422	16,61	106	4,2	150	5,9
FL15-08	520	20,47	106	4,2	150	5,9
FL15-10	618	24,33	106	4,2	150	5,9



The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry worldwide.

These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanics and electronics into intelligent systems), and a wide range of services, from 3-D computer modelling to advanced condition monitoring and reliability and asset management systems.

A global presence provides SKF customers uniform quality standards and universal product availability.

SKF lubrication systems

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