

## Solid-state flow switches

# RELIABLY AND ACCURATELY MONITOR LIQUID FLOW

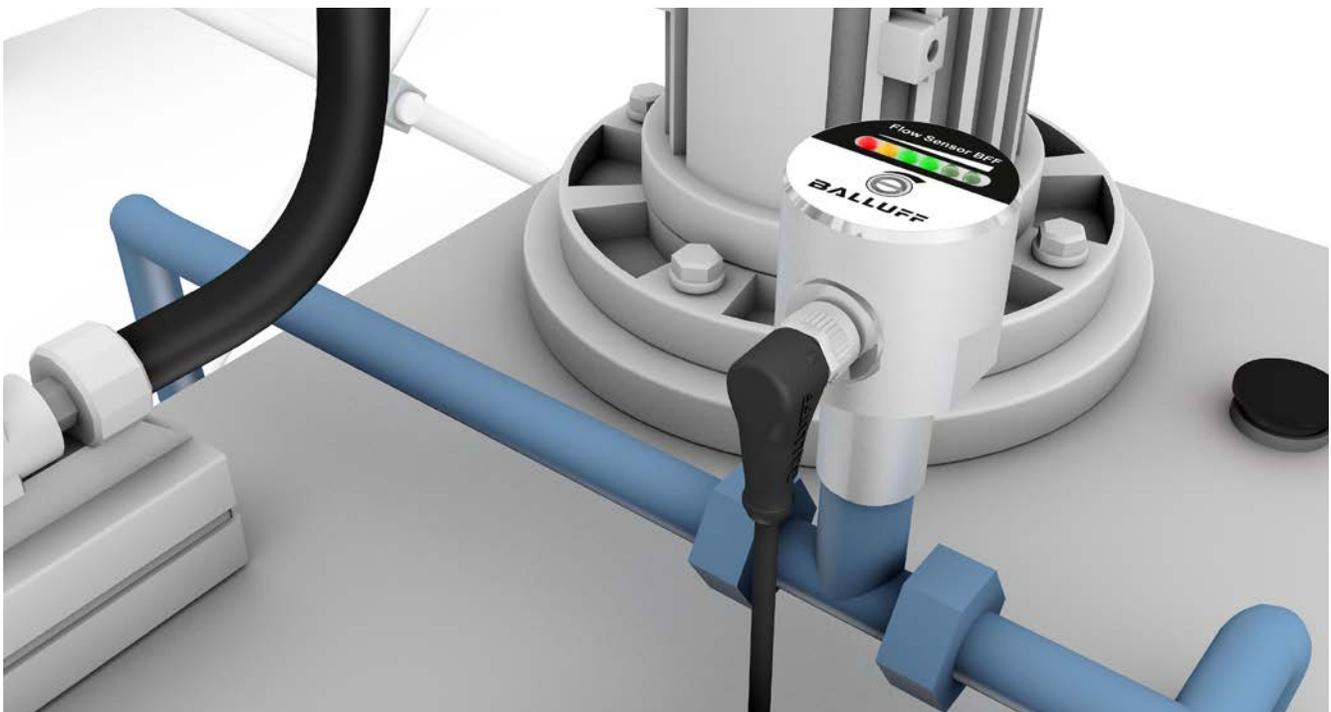
Flow sensors are critical to many industrial applications where the continual flow rate of liquid must be ensured, such as in the monitoring of cooling lubricant in machining centers. Our BFF flow sensors include a switching output that is activated when the flow falls below a user-defined rate.

When a reduction in flow is detected, the sensors can alert the user to a failure of a critical pumping system, a clogged filter, leaks, or other potential system problems.

The completely solid-state calorimetric sensing technology measures temperature differential on each side of the sensing probe and has no moving parts. So, unlike mechanical flow switches, they are resistant to failures caused by dirt or foreign object buildup.

### Features

- Calorimetric sensing principle with no moving parts
- More reliable than mechanical switches
- Threaded-in and in-line versions available
- Visual display of flow with integrated LEDs
- Flow velocity range: 1...150 cm/sec



CALORIMETRIC  
IMMERSION SENSOR  
WITH LEDS



PNP	BFF0001	BFF0002	BFF0003
Process connection	G½"	G½"	NPT½"
Measuring range water	1...150 cm/sec	1...150 cm/sec	1...150 cm/sec
Probe length	31 mm	48 mm	40 mm
Ambient temperature	-20...+80 °C	-20...+80 °C	-20...+20 °C
Medium temperature	-20...+80 °C	-20...+80 °C	-20...+80 °C
Reaction time	1...13 sec	1...13 sec	1...13 sec
Pressure resistance	100 bar	100 bar	100 bar
Approvals/conformity	CE, cULus	CE, cULus	CE, cULus

CALORIMETRIC  
INLINE SENSOR  
WITH LEDS



PNP	BFF0007		
Process connection	G½"		
Measuring range water	2...25 l/min		
Ambient temperature	0...+60 °C		
Medium temperature	0...+80 °C		
Reaction time	0.5...10 sec		
Pressure resistance	20 bar		
Approvals/conformity	CE, cULus		

ACCESSORIES



	BAE00TR
Description	Heartbeat power supply with IO-Link, 60 W, 24 V, 2.5 A, IP20

CONNECTORS



	BCC05F8	BCC05F9	BCC05FA
Description	M12 female, straight 5-pole, TPE yellow, 2.00 m, number of conductors 4, IP67, IP68, IP69K	M12 female, straight 5-pole, TPE yellow, 5.00 m, number of conductors 4, IP67, IP68, IP69K	M12 female, straight 5-pole, TPE yellow, 10.00 m, number of conductors 4, IP67, IP68, IP69K