

## BULK FLOW DETECTION



**The FlowJam detects solid streams of all kinds of material distinguishing between material flow and material at a standstill**

## FEATURES AND BENEFITS

- Absolutely insensitive against material deposits
- For any line diameter
- With adapter, usable up to 220°C and 20 bar
- With ceramic mounting, usable up to 1.000°C
- Usable in dust Ex-zones
- Detection through all non-conductive walls
- Optional with trend monitoring (4 ... 20mA)
- Detection of material clogging and material standstill



certified to ATEX

## TECHNICAL SPECIFICATIONS

Sensor	
<b>Voltage</b>	12 V DC powered by transmitter
<b>Power consumption</b>	Approx. 1.5 W
<b>Housing material</b>	Stainless steel 1.4571
<b>Protection type</b>	IP65
<b>Using in Ex-zones</b>	Outside pipe: Cat. 3D (only with process adapter)
<b>Process temperature</b>	-20 ... +80°C -20 ... +220°C (with process adapter) Max. 1000°C (with ceramic flange)
<b>Ambient temperature</b>	-20 ... +60°C
<b>Working pressure</b>	Max. 20 bar (with process adapter)
<b>Detection range</b>	0 ... 2 m (dependent on application)
<b>Required material speed for detection</b>	Min. 0.1 m/s
<b>Measuring frequency</b>	K-Band 24.125 GHz; ±100 MHz
<b>Transmitting power</b>	Max. 5 mW
<b>Dimension FlowJam S</b>	Housing: L 107 mm / Ø 52 mm Thread: L 30 mm / Ø G 1½"
<b>Dimension FlowJam S Ex</b>	Housing: L 155 mm / Ø 60 mm Thread: L 30 mm / Ø G 1½"
<b>Cable gland</b>	M16 (Ø 5-10 mm)
<b>Weight FlowJam S</b>	Approx. 560 g
<b>Weight FlowJam S Ex</b>	Approx. 880 g
Transmitter (DIN Rail)	
<b>Power supply</b>	24 V DC ± 10%
<b>Power consumption</b>	Approx. 3.5 W
<b>Relay contact</b>	Max. rated load: 250 V AC Max. peak current: 6 A Max. rated load 230 V AC: 250 VA Max. breaking capacity DC1: 3/110/220 V: 3/0.35/0.2 A Min. switching load: 500 mW (10 V/5 mA)
<b>Fall-delay time</b>	250 ms ... 15 s (continuously adjustable)
<b>Analog output (optional)</b>	1 x 4 ... 20 mA (0 ... 20 mA), load < 500 Ω (Active)

## USE WITH PRESSURE ADAPTER / TEMPERATURE ADAPTER

The FlowJam S sensor can be used at a pressure of 1 bar and process temperatures up to 80°C.

For higher pressures (up to 20 bar) a pressure adapter made of POM, for higher temperatures a Tecapeek adapter (max. 220°C) and a ceramic adapter (max. +1000°C) are available.

A process adapter for applications in the food industry is also available.

## MOUNTING OF PRESSURE ADAPTER / TEMPERATURE ADAPTER

The mounting of the pressure adapter / temperature adapter is identical. It is screwed into a welded G 1½ inch thread neck, provided by the customer.

Only the ceramic adapter is supplied as a flange and must be mounted separately. The housing of the FlowJam S is screwed into the internal thread of the adapter.

## TECHNICAL DATA

	Pressure adapter	Temperature adapter
<b>Material</b>	Stainless steel 1.4571 POM diaphragm	Stainless steel 1.4571 Tecapeek diaphragm
<b>Temperature</b>	-20 ... +80°C	Max. +220°C
<b>Pressure</b>	Max. 20 bar	Max. 20 bar
<b>Thread</b>	G 1½" on both sides	G 1½" on both sides
<b>Wrench width</b>	55 mm	55 mm
	Food adapter	High temp adapter
<b>Material</b>	Stainless steel 1.4571 Tecapeek GF30 diaphragm	Steel Ceramic diaphragm
<b>Temperature</b>	Max. +220°C	Max. 1000°C
<b>Pressure</b>	Max. 20 bar	Max. 40 bar
<b>Thread</b>	G 1½" on both sides	G 1½" on sensor side
<b>Wrench width</b>	55 mm	17 mm