

# Reliable flow control for all media

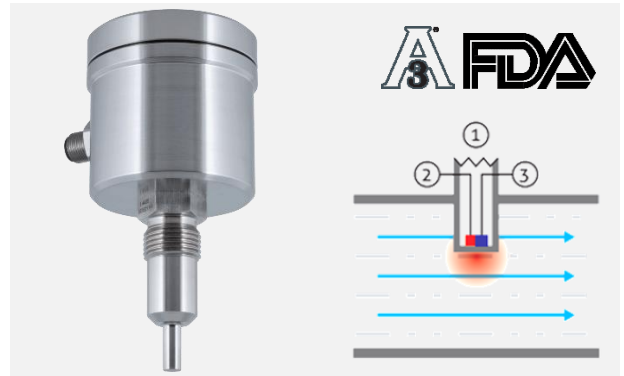
## FTS - The solution for all aqueous, even high-purity media

Flow switches are used in **almost all processes** to monitor the **technical safety of the plant** and the **correct operation of the processes**. A possible malfunction of a pump, a closed valve or a misdirected medium are **reliably detected and reported**.

### FTS: The calorimetric flow switch with special benefits

Its special pulsed measurement method heats in short periods and detects the flow velocity quickly, reliably and permanently just by measuring the temperature change of the medium.

- **Ideal for all aqueous products:** Also for demineralised and highly filtered media such as cola and other soft drinks, filtered beer, demineralised water, as well as for media in pressure lines
- **Process temperature up to 100 °C (212°F):** FTS is perfectly suited for all usual processes and media
- **Fast:** Due to the very slim sensor tip and the position of the heating element and Pt100 sensor directly at the fluid, the FTS has an extremely short response time for a calorimetric sensor
- **Insensitive to temperature shocks:** temperature changes due to e.g. cold product, hot water, CIP solutions have no influence on the measurement
- **Versatile:** Ideal for monitoring pump systems, valves, filters, agitators, cooling circuits, CIP return flow...



### Technical data FTS at a glance

- **For all aqueous media** (water content  $\geq 50\%$ )
- **Measuring range 0,1...3 m/s**
- **Robust stainless-steel design**, protection class IP69K
- **Long-life Technology** for process temperatures up to 100 °C (212°F), with integrated safety switch-off
- With **type FTS** the **switching output** is adjustable in % of the flow rate.
- **CIP / SIP possible** up to 140 °C (284°F) / max. 60 min

### Order code CLEANadapt G1/2" process connection

**FTS-141** Calorimetric Flow Sensor with switch output, CLEANadapt G1/2" process connection

**Cap**

- X** (Plastic without window)
- P** (Plastic with control window)
- M** (Metal without control window)
- W** (Metal with control window)

FTS-141 / X

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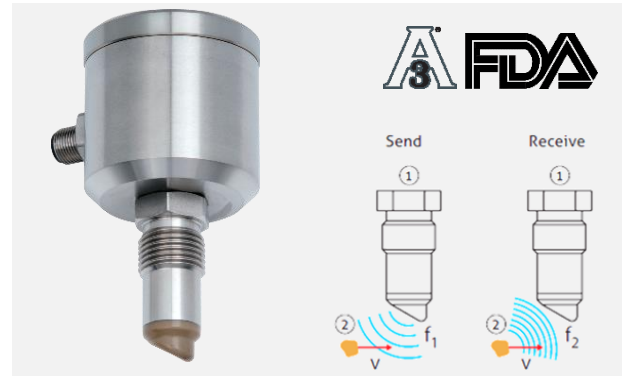
## FWS/FWA - The temperature independent problem solver

Flow switches are used in almost all processes to monitor the **technical safety of the plant** and the **correct operation of the processes**. A possible malfunction of a pump, a closed valve or a misdirected medium are **reliably detected and reported**.

### FWS/FWA ultrasonic flow monitor for aqueous and non-aqueous media

Many flow monitors are only suitable for aqueous media. In contrast, the FWS, thanks to its ultrasonic Doppler measuring principle, is ideal for all media displaying the slightest turbidity or air bubbles.

- **For media where other flow switches do not work:** e.g. dough, glycol, oils and oil-based media, adhesive or viscous media, creams, but also drinking water, milk, juice (unfiltered) and CIP media
- **Extremely fast:** The response time of < 1 second provides maximum system security through error signals in real time
- **Temperature independent:** Temperature changes as for example cold product - hot water - CIP solutions have no influence on the measurement
- **Versatile:** Ideal for monitoring pump systems, filters, agitators, cooling circuits, CIP return flow...



### Technical data FWS / FWA at a glance

- For all media with turbidity > 1 NTU or particle size > 50µ
- Measuring range 0,1...2,5 m/s,
- Response time < 1s
- Long-life Technology for process temperatures and CIP / SIP up to 100 °C (212°F) continuously
- With type FWS the switching output is adjustable in % of the flow rate.
- The type FWA offers with 4...20 mA an analogue output for the flow rate (measuring accuracy ±10%). In many applications this accuracy is sufficient to economise a highly accurate and expensive flowmeter.

### Order code

FW	Ultrasonic flow switch CLEANadapt G1/2"			
	<b>Signal output</b>			
	S-141	(with switch output)		
	A-141	(with analog output)		
	<b>Display and closing cap</b>			
	X	(stainless steel cap without window)		
	AZM	(stainless steel cap with window and LC display)		
	KF	(stainless steel cap with control window and LED)		
	X	<b>Fixed value</b>		
	<b>Electrical connection</b>			
	X	(cable gland M16x1.5)		
	M12	(M12 connector)		
<b>FW</b>	<b>A - 141 /</b>	<b>AZM /</b>	<b>X /</b>	<b>M12</b>