ANDERSON NEGELE - ULTRASONIC FLOW SWITCH/SENSOR - FWS/A-141

FWS-141 / FWA-141

FWS-141

- Ultrasonic Doppler Principle
- Measuring range 0.1…2.5 m/s
- Operating Pressure Max 10 Bar
- Approvals: FDA; EHEDG; 3-A

PRODUCT DESCRIPTION

The Anderson-Negele FWS/FWA is a flow switch with an optional 4-20mA or frequency output (changeable on the sensor) to enable it to give not only a PNP switch point output but also a volumetric output when required (+/- 10% full scale accuracy on output). Using the ultrasonic Doppler principal for flow detection means that the FWS and FWA are completely independent of system temperature fluctuation, media conductivity and system pressure. There is also an LED to indicate the state of the switched output, which is freely scalable across the flow range of the sensor.

This product is ideal for dry pump running detection due to its fast reaction time, use in CIP/SIP systems with a high temperature version available as well, if required. The sensor is designed to operate at 140°C for 120 minutes continuously without issue and all media contacting materials are FDA compatible. An ideal lower cost FDA approved sensor where using a more expensive technology isn't necessary and switching or "rough" flow volumes are all that is required.

Application Examples:

- Monitoring of flowing liquids in pipes
- Rough measurement of flow rates and flow volume
- Suitable for media with turbidity ≥1 NTU and particle size >50 µm e.g. drinking water, juice (unfiltered), milk, emulsions, CIP-media
- Flow monitoring in pipes from DN 25, e.g. for dry-run protection or monitoring of filters or valves
- Because of its very short reaction time and independence from temperature fluctuations and conductivity, the device is ideally suited for monitoring flow rates in CIP processes

Please refer to the image below for ordering information.

Order code

FW Ultrasonic flow switch G1/2" CLEANadapt

Signal output
- **S-141** (with switch output)
- **A-141** (with analog output)

Display and closing lid
- **X** (without)
- **AZM** (with indicator module AZM incl. window SF in the lid, LC display visible from the outside)
- **KF** (window in the lid, LED visible from the outside)

High-temperature version
- **X** (standard: for process temperatures up to 100 °C)
- **H** (with spacer: for process temperatures up to 140 °C)

Electrical connection
- **X** (cable gland M16x1.5)
- **M12** (M12 connector 1.4305)

FW A - 141 / AZM / H / M12

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TECHNICAL DATA

Approvals	3-A, FDA
Area of apllication	Food
Flow area max	2,5 m/s
Flow area min	0,1 m/s
IP class	IP67, IP69K
Material of sensor housing	Stainless steel 1.4305
Material of wetted parts	PEEK, Stainless steel 316L
Pressure range max	10 bar
Surface finish	0,8 µm Ra
Temperature ambient from	-20 °C
Temperature ambient to	60 °C
Temperature of media from	0 °C
Temperature of media to	100 °C
Weight	485 g