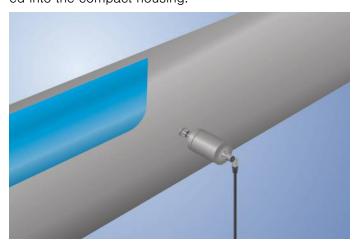
FXFF116

Part Number



- 2 analog outputs: 4 ... 20 mA
- A single sensor for flow and temperature
- FDA compliant
- Measurement independent of flow direction and instillation position

weFlux² Flow Sensors with two analog outputs simultaneously measure flow velocity and the temperature of aqueous liquids regardless of position and direction of flow. Advantage: The number of measuring points and the diversity of sensor variants are cut in half, and greatest possible flexibility is assured for installation in closed piping systems. The analysis module is integrated into the compact housing.



weFlux² InoxSens

Technical Data

Measuring Range 10400 cm/s Temperature of the medium, flow measurement 0125 °C** Temperature of the medium, temperature measurement -25150 °C Adjustable Range 10400 cm/s Medium Water Measuring error ≤ 2 % Response time in case of temperature jump 10 s Environmental conditions -2580 °C Storage temperature -2580 °C Mechanical Strength 25 bar EMC DIN EN 61326-1 Shock resistance per DIN IEC 68-2-27 30 g / 11 ms Vibration resistance per DIN IEC 60068-2-6 5 g (102000 Hz) Electrical Data 1232 V DC Current Consumption (Ub = 24 V) < 40 mA Analog Outputs 2 Analog Output 420 mA Flow O2 / Temp O1 Response Time 15 s Short Circuit Protection yes Reverse Polarity Protection yes Protection Class III Mechanical Data 1.4404 Housing Material 1.4404 Degree of Protection	Sensor-specific data					
Temperature of the medium, temperature measurement Adjustable Range Medium Measuring error Response time in case of temperature jump Environmental conditions Ambient temperature Storage temperature Possible Are Sistance per DIN IEC 68-2-27 Wibration resistance per DIN IEC 60068-2-6 Electrical Data Supply Voltage Current Consumption (Ub = 24 V) Analog Output Response Time Short Circuit Protection Reverse Polarity Protection Protection Class Mechanical Data Housing Material Housing Material Process Connection Length (PCL) Probe Length (PL) Analog output temperature -2580 °C 2580 °C 2580 °C 2580 °C 2580 °C 2680 °C 2780 °C 2880 °C 2980 °C 2980 °C 2080 °C	•					
measurement Adjustable Range Medium Measuring error Response time in case of temperature jump Environmental conditions Ambient temperature Storage temperature Mechanical Strength EMC Shock resistance per DIN IEC 68-2-27 Shock resistance per DIN IEC 680-2-6 Electrical Data Supply Voltage Current Consumption (Ub = 24 V) Analog Output Response Time Short Circuit Protection Reverse Polarity Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection Process Connection Process Connection Process Connection Length (PCL) Analog output flow Analog output temperature Connection Diagram No. 141	Temperature of the medium, flow measurement					
Adjustable Range Medium Measuring error Response time in case of temperature jump Environmental conditions Ambient temperature Storage temperature -2580 °C Mechanical Strength EMC Shock resistance per DIN IEC 68-2-27 Vibration resistance per DIN IEC 60068-2-6 Electrical Data Supply Voltage Current Consumption (Ub = 24 V) Analog Output Response Time Short Circuit Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection Process Connection Proses Connection Length (PCL) Analog output temperature Connection Diagram No.		-25150 °C				
Measuring error ≤ 2 % Response time in case of temperature jump 10 s Environmental conditions -2580 °C Ambient temperature -2580 °C Storage temperature -2580 °C Mechanical Strength 25 bar EMC DIN EN 61326-1 Shock resistance per DIN IEC 68-2-27 30 g / 11 ms Vibration resistance per DIN IEC 60068-2-6 5 g (102000 Hz) Electrical Data 1232 V DC Supply Voltage 1232 V DC Current Consumption (Ub = 24 V) < 40 mA		10400 cm/s				
Response time in case of temperature jump Environmental conditions Ambient temperature Storage temperature Mechanical Strength EMC Shock resistance per DIN IEC 68-2-27 Vibration resistance per DIN IEC 60068-2-6 Electrical Data Supply Voltage Current Consumption (Ub = 24 V) Analog Output Response Time Short Circuit Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection Process Connection Process Connection Length (PCL) Analog output flow Analog output temperature Connection Diagram No.	Medium	Water				
Environmental conditions Ambient temperature -2580 °C Storage temperature -2580 °C Mechanical Strength 25 bar EMC DIN EN 61326-1 Shock resistance per DIN IEC 68-2-27 30 g / 11 ms Vibration resistance per DIN IEC 60068-2-6 5 g (102000 Hz) Electrical Data Supply Voltage 1232 V DC Current Consumption (Ub = 24 V) 40 mA Analog Outputs 2 Analog Output 420 mA Flow O2 / Temp O1 Response Time 15 s Short Circuit Protection yes Reverse Polarity Protection yes Protection Class III Mechanical Data Housing Material 1.4404 Material in contact with media 1.4404 Degree of Protection IP68/IP69K * Connection Dairy pipe DN50 Process Connection Length (PCL) 73 mm Probe Length (PL) 50 mm Analog output temperature Connection Diagram No.	Measuring error	≤ 2 %				
Ambient temperature Storage temperature Personage temperature Storage temperature Personage temperature Perso	Response time in case of temperature jump	10 s				
Storage temperature Mechanical Strength EMC DIN EN 61326-1 Shock resistance per DIN IEC 68-2-27 30 g / 11 ms Vibration resistance per DIN IEC 60068-2-6 Electrical Data Supply Voltage 1232 V DC Current Consumption (Ub = 24 V) Analog Outputs Analog Output Response Time 15 s Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material 1.4404 Material in contact with media Degree of Protection Process Connection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output temperature Connection Diagram No.	Environmental conditions					
Mechanical Strength EMC DIN EN 61326-1 Shock resistance per DIN IEC 68-2-27 Vibration resistance per DIN IEC 60068-2-6 Electrical Data Supply Voltage 1232 V DC Current Consumption (Ub = 24 V) Analog Outputs Analog Output Response Time Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material Material in contact with media Degree of Protection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output temperature Connection Diagram No.	Ambient temperature	-2580 °C				
EMC Shock resistance per DIN IEC 68-2-27 Vibration resistance per DIN IEC 60068-2-6 Electrical Data Supply Voltage 1232 V DC Current Consumption (Ub = 24 V) Analog Outputs Analog Output Response Time 15 s Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material Material in contact with media Degree of Protection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output temperature Connection Diagram No.	Storage temperature	-2580 °C				
Shock resistance per DIN IEC 68-2-27 Vibration resistance per DIN IEC 60068-2-6 Electrical Data Supply Voltage 1232 V DC Current Consumption (Ub = 24 V) Analog Outputs 2 Analog Output Response Time 15 s Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material Material in contact with media Degree of Protection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output temperature Connection Diagram No.	Mechanical Strength	25 bar				
Vibration resistance per DIN IEC 60068-2-6 Electrical Data Supply Voltage 1232 V DC Current Consumption (Ub = 24 V) Analog Outputs 2 Analog Output Response Time 15 s Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material 1.4404 Material in contact with media Degree of Protection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output temperature Connection Diagram No.	EMC	DIN EN 61326-1				
Electrical Data Supply Voltage 1232 V DC Current Consumption (Ub = 24 V) Analog Outputs 2 Analog Output Response Time 15 s Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material 1.4404 Material in contact with media Degree of Protection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output temperature Connection Diagram No.	Shock resistance per DIN IEC 68-2-27	30 g / 11 ms				
Supply Voltage Current Consumption (Ub = 24 V) Analog Outputs Analog Output Esponse Time Conrection Class Protection Class Housing Material Material in contact with media Degree of Protection Process Connection Process Connection Length (PCL) Analog output flow Analog output temperature Connection Diagram No.	Vibration resistance per DIN IEC 60068-2-6	DIN IEC 60068-2-6 5 g (102000 Hz)				
Current Consumption (Ub = 24 V) Analog Outputs Analog Output Analog Output Response Time 15 s Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material Housing Material 1.4404 Material in contact with media Degree of Protection Process Connection Process Connection Length (PCL) Analog output flow Analog output temperature Connection Diagram No.	Electrical Data					
Analog Outputs Analog Output Analog Output Response Time Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material Housing Material Degree of Protection IP68/IP69K * Connection Process Connection Process Connection Length (PCL) Analog output flow Analog output temperature Connection Diagram No.	Supply Voltage	1232 V DC				
Analog Output Response Time 15 s Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material 1.4404 Material in contact with media Degree of Protection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output flow Analog output temperature Connection Diagram No.	Current Consumption (Ub = 24 V)	< 40 mA				
Response Time 15 s Short Circuit Protection yes Reverse Polarity Protection yes Protection Class III Mechanical Data Housing Material 1.4404 Material in contact with media 1.4404 Degree of Protection IP68/IP69K * Connection M12 × 1; 4-pin Process Connection Dairy pipe DN50 Process Connection Length (PCL) 73 mm Probe Length (PL) 50 mm Analog output flow Analog output temperature Connection Diagram No.	Analog Outputs	-				
Short Circuit Protection Reverse Polarity Protection Protection Class III Mechanical Data Housing Material Housing Material Degree of Protection IP68/IP69K * Connection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output flow Analog output temperature Connection Diagram No.	Analog Output					
Reverse Polarity Protection Protection Class III Mechanical Data Housing Material Housing Material 1.4404 Material in contact with media Degree of Protection IP68/IP69K * Connection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output flow Analog output temperature Connection Diagram No.	Response Time	•				
Protection Class III	Chart Circuit Dystaction	yes				
Mechanical Data Housing Material Housing Material Material in contact with media Degree of Protection IP68/IP69K * Connection M12 × 1; 4-pin Process Connection Dairy pipe DN50 Process Connection Length (PCL) Probe Length (PL) Analog output flow Analog output temperature Connection Diagram No.	Short Circuit Protection	yes				
Housing Material 1.4404 Material in contact with media Degree of Protection IP68/IP69K * Connection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output flow Analog output temperature Connection Diagram No.		,				
Material in contact with media Degree of Protection IP68/IP69K * Connection M12 × 1; 4-pin Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output flow Analog output temperature Connection Diagram No.	Reverse Polarity Protection	yes				
Degree of Protection IP68/IP69K * Connection M12 × 1; 4-pin Process Connection Dairy pipe DN50 Process Connection Length (PCL) Probe Length (PL) Analog output flow Analog output temperature Connection Diagram No.	Reverse Polarity Protection Protection Class	yes				
Connection M12 × 1; 4-pin Process Connection Dairy pipe DN50 Process Connection Length (PCL) 73 mm Probe Length (PL) 50 mm Analog output flow Analog output temperature Connection Diagram No.	Reverse Polarity Protection Protection Class Mechanical Data	yes III				
Process Connection Dairy pipe DN50 Process Connection Length (PCL) 73 mm Probe Length (PL) 50 mm Analog output flow Analog output temperature Connection Diagram No.	Reverse Polarity Protection Protection Class Mechanical Data Housing Material	yes III 1.4404				
Process Connection Length (PCL) Probe Length (PL) Analog output flow Analog output temperature Connection Diagram No. 73 mm 50 mm 141	Reverse Polarity Protection Protection Class Mechanical Data Housing Material Material in contact with media	yes III 1.4404 1.4404				
Probe Length (PL) 50 mm Analog output flow Analog output temperature Connection Diagram No. 141	Reverse Polarity Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection	yes III 1.4404 1.4404 IP68/IP69K *				
Analog output flow Analog output temperature Connection Diagram No.	Reverse Polarity Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection Connection	yes III 1.4404 1.4404 IP68/IP69K * M12 × 1; 4-pin				
Analog output temperature Connection Diagram No. 141	Reverse Polarity Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection Connection Process Connection	yes III 1.4404 1.4404 IP68/IP69K * M12 × 1; 4-pin Dairy pipe DN50				
Connection Diagram No.	Reverse Polarity Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection Connection Process Connection Process Connection Length (PCL)	yes III 1.4404 1.4404 1P68/IP69K * M12 × 1; 4-pin Dairy pipe DN50 73 mm				
	Reverse Polarity Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection Connection Process Connection Process Connection Length (PCL) Probe Length (PL)	yes III 1.4404 1.4404 1P68/IP69K * M12 × 1; 4-pin Dairy pipe DN50 73 mm				
Suitable Connection Technology No.	Reverse Polarity Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection Connection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output flow	yes III 1.4404 1.4404 1P68/IP69K * M12 × 1; 4-pin Dairy pipe DN50 73 mm				
	Reverse Polarity Protection Protection Class Mechanical Data Housing Material Material in contact with media Degree of Protection Connection Process Connection Process Connection Length (PCL) Probe Length (PL) Analog output flow Analog output temperature	yes III 1.4404 1.4404 IP68/IP69K * M12 × 1; 4-pin Dairy pipe DN50 73 mm 50 mm				

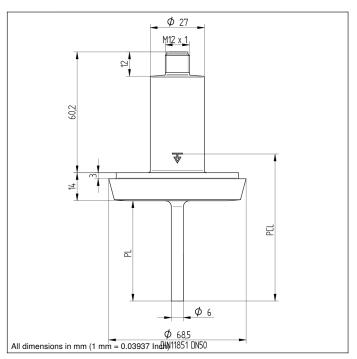
Complementary Products

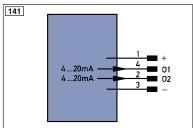
Software

^{*} Tested by wenglor

** The sensors were calibrated and specified for the medium water. Technically, the sensors are suitable for a medium temperature of up to -25 °C. To achieve a temperature below 0 °C, a different medium must be added to the water. This leads to a different measurement result, which is why a use under 0 °C must be tested individually for the mixture used.







Legend			Platinum measuring resistor	ENA	Encoder A	
+	Supply Voltage +	nc	not connected	ENв	Encoder B	
-	Supply Voltage 0 V	U	Test Input	Amin	Digital output MIN	
~	Supply Voltage (AC Voltage)	Ū	Test Input inverted	Амах	Digital output MAX	
Α	Switching Output (NO)	W	Trigger Input	Аок	Digital output OK	
A	Switching Output (NC)	0	Analog Output	SY In	Synchronization In	
V	Contamination/Error Output (NO)	0-	Ground for the Analog Output	SY OUT	Synchronization OUT	
V	Contamination/Error Output (NC)	BZ	Block Discharge	OLT	Brightness output	
E	Input (analog or digital)	AMV	Valve Output	М	Maintenance	
Т	Teach Input	а	Valve Control Output +	rsv	reserved	
Z	Time Delay (activation)	b	Valve Control Output 0 V			
S	Shielding	SY	Synchronization		Wire Colors according to DIN IEC 757	
RxD	Interface Receive Path	E+	Receiver-Line	DIN IE		
TxD	Interface Send Path	S+	Emitter-Line	BK	Black	
RDY	Ready	±	Grounding	BN	Brown	
GND	Ground	SnR	Switching Distance Reduction	RD	Red	
CL	Clock	Rx+/-	Ethernet Receive Path	OG	Orange	
E/A	Output/Input programmable	Tx+/-	Ethernet Send Path	YE	Yellow	
0	IO-Link	Bus	Interfaces-Bus A(+)/B(-)	GN	Green	
PoE	Power over Ethernet	La	Emitted Light disengageable	BU	Blue	
IN	Safety Input	Mag	Magnet activation	VT	Violet	
OSSD	Safety Output	RES	Input confirmation	GY	Grey	
Signal	Signal Output	ED M	Contactor Monitoring	WH	White	
BI_D+/-	Ethernet Gigabit bidirect. data line (A-D)	ENARS422	Encoder A/Ā (TTL)	PK	Pink	
	Encoder 0-pulse 0-0 (TTL)		Encoder B/B (TTL)	GNYE	Green/Yellow	







