wenglor
the innovative family

Everything is in a flux.

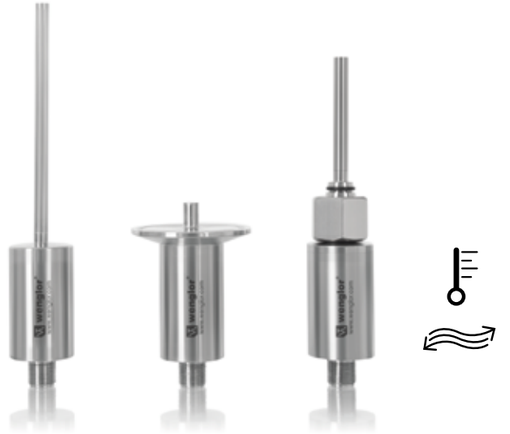
Flow, Pressure and Temperature Sensors

weFlux²

The perfect combination. The perfect technology.

Liquids are malleable, shapeable,
adapt ideally to their environment.
Embody the liquid element.
Everything is in a flux.

Sabina Avdic,
Three-Time Karate World Champion



A Single Sensor for Flow and Temperature

weFlux² is the new generation of extremely high-performance, compact Fluid Sensors which unite electronics and analysis module in a single housing. The patented measuring method determines the flow velocity as well as the temperature of liquid media in accordance with the calorimetric principle – regardless of position and direction of flow. The combination of two measuring functions in a single sensor reduces the number of measuring points in closed systems by 50% and minimizes installation, service and inventory costs.

The rugged, laser welded V4A stainless steel housing is supplied deliberately without a display in order to be able to deliver precision measurement results in highly sensitive hygienic environments with temperatures from −25 to +80° C.

Where sustainable fluid management is concerned, it doesn't get any more efficient or flexible than this.

Ready for Industry 4.0

IO-Link

weFlux² Flow Sensor

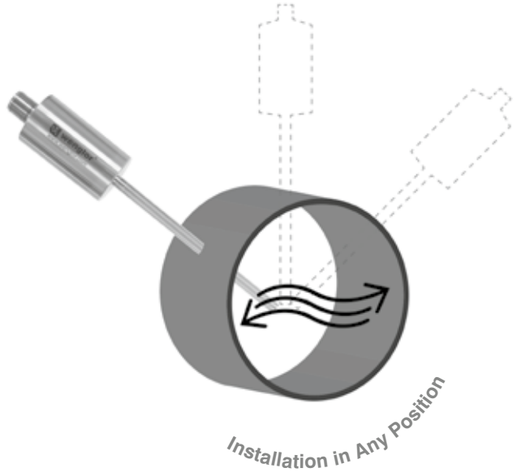
IO-Link IP68 / IP69K

- A single sensor for flow and temperature
- Measures flow velocities of up to 400 cm/s
- Temperature range: −25 to +150° C
- Precise measurement results for flow velocity: < 5%
- Latest IO-Link version 1.1
- 2 analog outputs (flow/temperature)

weFlux² Temperature Sensor

IO-Link IP68 / IP69K

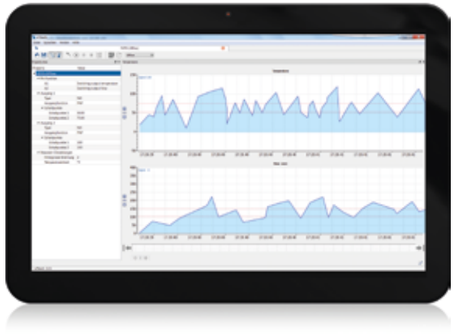
- Temperature measuring range:
  from −50 to +200° C with PT100/PT1000
  from −50 to +150° C with IO-Link
- Precise measurement results: ±0.5° C
- Response time T90: < 2 seconds
- Latest IO-Link version 1.1



One Sensor.
Many Attributes.

Patented Measuring Method
Based On the Calorimetric Principle

- Ascertain flow velocity and temperature simultaneously
- Can be installed in any position for greatest possible flexibility
- Measurement independent of flow direction
- Maintenance-free and wear-free
- High pressure resistance up to 100 bar



wTeach2 Software for weFlux² Sensors with IO-Link

- Configuration of sensor parameters via the controller
- Export measurement data in tabular formats for data analysis
- Analysis of diagnosis data for increased system availability
- Data storage – automatic transmission of stored parameters to a replacement sensor
- Adjustment of switching points in diagrams

Everything is in a flux.
Systematically.

Automotive Industry

With their compact design and rugged stainless steel housing, weFlux² Flow Sensors are ideally laid out for monitoring cooling water at welding robots.

Metalworking Industry

The ability to mount weFlux² Flow Sensors in any desired position offers greatest possible flexibility for installation in cooling water systems for blast furnaces.

The combination of two measuring functions, namely flow velocity and temperature, assures efficient process monitoring by reducing the number of measuring points within the system.

Textiles Industry

Thread in a textile machine has to be rinsed and cleaned during and after the dyeing process.

In order to assure that the system is supplied with clean rinsing water, weFlux² Flow Sensors monitor its flow velocity.

Beverages Industry

In combination with EHEDG certified process connections ‚weFlux² Flow Sensors monitor the flow velocity of the cleaning water in bottle washing systems.

The combination fulfills strictest hygiene and durability requirements and can thus be used in brewing processes as well.

System Integration

With IO-Link Interface

- 1 scalable analog output (4 to 20 mA / 0 to 10 V)
- 1 configurable switching output (PNP, NPN, push-pull)
- 1 scalable analog output and 1 configurable switching output
- 2 configurable switching outputs
- 1 two-wire analog output for simple Temperature Sensors
- Remote switching output
- Remote analog output

Without IO-Link Interface

- 2 analog outputs (4 to 20 mA) for Flow Sensors
- PT100 / PT1000 measuring resistor for Temperature Sensors

System Overview

weFlux² Flow Sensor / **we**Flux² Temperature Sensor

Flow/Temperature *Temperature*

Cutting/Locking Ring

Rod length
50 mm
100 mm
200 mm

Output function
IO-Link
Analog output

PT100
PT1000

Cutting ring fitting
To G¼"
To G½"

Locking ring fitting
To G¼"
To G½"

Sealing ring
For G¼"
For G½"
For G1"

IO-Link master
USB
Profibus

Flow/Temperature *Temperature*

M18×1 Sealing Cone

Rod length
50 mm
100 mm
200 mm

Output function
IO-Link
Analog output

PT100
PT1000

Screw-in adapter for G¼"
16 mm
18 mm

Screw-in adapter for G½"
6 mm
14 mm
42 mm

Screw-in adapter for G1"
8 mm

Screw-in adapter for NPT
G¼", 18 mm
G½", 6 mm

Weld-in adapter
12 mm
40 mm

IO-Link master
USB
Profibus

Flow/Temperature *Temperature*

G¼"

Rod length
5 mm
50 mm

Output function
IO-Link
Analog output

PT100
PT1000

T fittings
3 × G¼"
3 × G¼", aluminum restrictor

Sealing ring
For G¼"

IO-Link master
USB
Profibus

Flow/Temperature *Temperature*

G½"

Rod length
9 mm
50 mm

Output function
IO-Link
Analog output

PT100
PT1000

T fittings
2 × G¾", 1 × G½"
3 × G½"

Weld-in adapter
With undercut
Without undercut

Sealing ring
For G½"

IO-Link master
USB
Profibus

Flow/Temperature *Temperature*

G½" CIP

Rod length
13 mm
50 mm

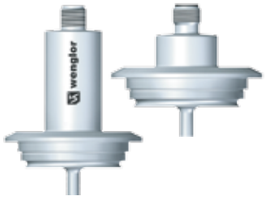
Output function
IO-Link
Analog output

PT100
PT1000

T fittings
DN25
DN50

Weld-in adapter
19 mm

IO-Link master
USB
Profibus



Flow/Temperature *Temperature*

Varivent®

Diameter
F (DN32/25)
N (DN50/40)

Output function
IO-Link
Analog output

PT100
PT1000

IO-Link master
USB
Profibus

Flow/Temperature *Temperature*

Tri-Clamp

Diameter
34 mm dia.
50.5 mm dia.
64 mm dia.

Output function
IO-Link
Analog output

PT100
PT1000

IO-Link master
USB
Profibus

Flow/Temperature *Temperature*

Dairy Pipe Fitting

Diameter
DN25
DN40
DN50

Flow Sensor
IO-Link
Analog output

PT100
PT1000

IO-Link master
USB
Profibus

Use the wenglor product selector and find the desired product with just a few clicks.
Individualized special solutions are available upon request. **www.wenglor.com**

Indication On-Site at the Measuring Point

UniFlow, UniBar and UniTemp Sensors with Display

UniFlow, UniBar and UniTemp Sensors with 7-segment display are suitable for systems for which values need to be ascertained and viewed directly at the measuring point. The compact housings made of rugged, top quality ABS or V4A stainless steel are nearly maintenance-free and assure high levels of system availability. A uniform design with an intuitive operating and connection concept make the UniFlow, UniBar and UniTemp product range especially user-friendly.

UniFlow – Patented Measuring Method Based on the Calorimetric Principle

- Ascertain flow velocity and temperature simultaneously
- Can be installed in any position for greatest possible flexibility
- Measurement independent of flow direction
- Maintenance-free and wear-free
- High pressure resistance up to 60 bar

System Integration

- Up to 2 switching outputs (PNP)
- 1 switching output (PNP) and 1 analog output (4 to 20 mA / 0 to 10 V)
- 1 relay output and 1 analog output, (4 to 20 mA / 0 to 10 V)

UniFlow Flow Sensor IP65/67/69K

- A single sensor for flow and temperature
- Measures flow velocities of up to 300 cm/s
- Temperature range: 0 to +140° C
- Precise measurement results for flow velocity: < 2%
- Measured value display as percentage or in l/min

IP65/67/69K **Uni**Bar Pressure Sensor

- Measuring range for relative pressure: −1 to +600 bar
- Precise measurement results: ±0.5%
- Flush mounting
- Pressure Sensors with standard process connections (internal and external thread)

UniTemp Temperature Sensor IP65/67/69K

- Temperature range: 0 to +200° C
- Precise measurement results: ±1° C
- Pressure resistance up to 60 bar
- Response time T90: < 4 seconds

Everything at a Glance.
Systematically.

Food Industry

UniBar Pressure Sensors in stainless steel housings monitor water pressure in the salt baths of a cheese production system. Precise measurement results assure optimum conditions and the rugged housing protects against corrosion.

Equipment Manufacturing

UniBar Pressure Sensors monitor pressure in pump systems in order to protect them against damage due to running dry. At the same time, UniFlow Flow Sensors check the delivery rates of pump systems in order to detect wear at an early stage and prevent downtime.

Recycling

UniFlow Flow Sensors and UniBar Pressure Sensors monitor the supply of water and water pressure in the various purification stages of a recycling system for reclaiming cellulose from waste paper.

Machinery Manufacturing

Precision pressure monitoring in the field of hydraulics: UniBar Pressure Sensors are used to keep an eye on pressure in hydraulic power units. Minimal measurement error permits precise control of the connected hydraulic components.

System Overview

UniBar Pressure Sensor

G¼" Internal Thread

Pressure range

–1…10 bar

Output function

1 × analog output, 1 × switching output

1 × analog output, 1 × relay output

2 × switching output

G¼" Internal Thread

Pressure range

0…600 bar

Output function

1 × analog output, 1 × switching output

1 × analog output, 1 × relay output

2 × switching output

G⅜" Internal Thread

Pressure range

0…600 bar

Output function

1 × analog output, 1 × switching output

1 × analog output, 1 × relay output

2 × switching output

G½" Internal Thread

Pressure range

–1…600 bar

Output function

1 × analog output, 1 × switching output

1 × analog output, 1 × relay output

2 × switching output

G½" External Thread

Pressure range

0…600 bar

Output function

1 × analog output, 1 × switching output

1 × analog output, 1 × relay output

2 × switching output

Weld-in adapter

G½" CIP

Pressure range

0…400 bar

Output function

1 × analog output, 1 × switching output

1 × analog output, 1 × relay output

2 × switching output

Varivent®

Tri-clamp

Dairy pipe fitting

System Overview

UniFlow Flow Sensor / **Uni**Temp Temperature Sensor

M18×1 Sealing Cone

Flow range

15…100 cm/s (oil)
15…200 cm/s (water)
10…300 cm/s (water)

Temperature range

0…140° C

Rod length

44 mm

103.5 mm

Flow Sensor

2 × switching output (flow/flow)
2 × switching output (flow/temp.)
1 × analog output (flow/temp.), 1 × switching output
1 × analog output (flow/temp.), 1 × relay output

Temperature Sensor

1 × analog output, 1 × switching output
1 × analog output, 1 × relay output
2 × switching output

Adapter for G¼"
Adapter for G½"
Adapter for NPT
Weld-in adapter

G¼"

Flow range

15…100 cm/s (oil)
15…200 cm/s (water)
10…300 cm/s (water)

Temperature range

0…140° C

Rod length

10 mm

Flow Sensor

2 × switching output (flow/flow)
2 × switching output (flow/temp.)
1 × analog output (flow/temp.), 1 × switching output
1 × analog output (flow/temp.), 1 × relay output

Temperature Sensor

1 × analog output, 1 × switching output
1 × analog output, 1 × relay output
2 × switching output

T fittings
Sealing ring

G½"

Flow range

15…100 cm/s (oil)
15…200 cm/s (water)
10…300 cm/s (water)

Temperature range

0…140° C

Rod length

10 mm

Flow Sensor

2 × switching output (flow/flow)
2 × switching output (flow/temp.)
1 × analog output (flow/temp.), 1 × switching output
1 × analog output (flow/temp.), 1 × relay output

Temperature Sensor

1 × analog output, 1 × switching output
1 × analog output, 1 × relay output
2 × switching output

T fittings
Weld-in adapter

G½" CIP

Flow range

15…100 cm/s (oil)

10…300 cm/s (water)

Temperature range

0…140° C (plastic housing)

0…200° C (stainless steel housing)

Rod length

10 mm

60 mm

Flow Sensor

1 × analog output (flow/temp.), 1 × switching output
1 × analog output (flow/temp.), 1 × relay output

Temperature Sensor

1 × analog output, 1 × switching output
1 × analog output, 1 × relay output
2 × switching output

T fittings
Weld-in adapter
Varivent®
Tri-clamp
Dairy pipe fitting

M18 × 1 Sealing Cone

Flow range

0…35 l/min (water)
0…60 l/min (water)
0…100 l/min (water)

Rod length

44 mm

G½", G ¾", G 1"

Flow Sensor

2 × switching output (flow/flow)

1 × analog output (flow/temp.), 1 × switching output

Cutting/Locking Ring

Temperature range

0…200° C

Rod length

110 mm

Temperature Sensor

1 × analog output, 1 × switching output
1 × analog output, 1 × relay output

Cutting ring fitting
Locking ring fitting
Sealing ring
Varivent®
Tri-clamp
Dairy pipe fitting

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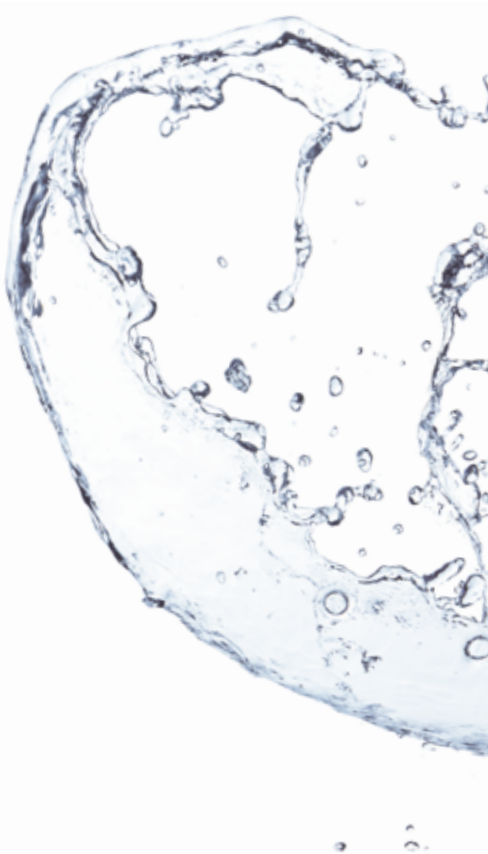

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