

# The adjustable flow meter



## flow-captor smart meter 4115.30 smx

The **smart meter** 4115.30 smx is specifically used for measuring and control tasks. The smart meter operates fully electronically without moving parts. Regardless of flow properties the smart meter can be used for pipe diameters up to 24" (600mm). Even very low flow rates are measured with high accuracy.

The smart meter operates to the calorimetric principle. The sensor head of the flowcaptor contains two PT-resistors. One of them is measuring the temperature of the media, while the other is heated by an attached heating resistor, resulting in a temperature difference between the two PT-resistors. The temperature difference between the two PT-resistors is predetermined and a control circuit keeps this temperature difference constant. The flow of the media cools the heated PT-resistor proportional to the speed of the flow. The heating power fed into the system by the control circuit, in order to keep the temperature difference between the two PT-resistors constant, is the equivalent to the heat dissipation by the flow of the media. This results in a linear output signal proportional to the flow speed.

The immersion depth of the flow-captor is infinitely adjustable. The sensor is simply screwed into the existing flange or nipple and set a few steps to the optimum depth of immersion.



- Precise flow meter for water based media
- Adjustable measuring range
- Calorimetric principle without moving parts
- Linear current output 4 – 20 mA
- Housing and sensor head stainless steel WN 1.4571 / AISI 316 Ti
- Suitable for pipes up to DN 600 (24 ")
- Measuring the range of 0.2 m / s to 1m / s, 2m / s, 3 m / s
- Other sizes on request
- **ISO 9001 : 2008**

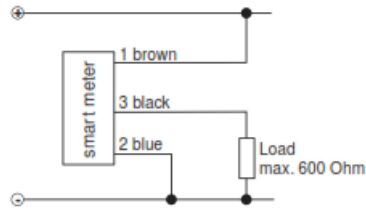
| Technical Data        |  |                         |                    |
|-----------------------|--|-------------------------|--------------------|
| Type                  | <b>4115.30 sm3</b>   | <b>4115.30 sm4</b>      | <b>4115.30 sm5</b> |
| Measuring range       | 0 to 1 m/s   | 0 to 2 m/s              | 0 to 3 m/s         |
|                       |  | other ranges on request |                    |
| Sensor Data *1        |  |                         |                    |
| Medium temperature    | 0° C to +80° C   |                         |                    |
| Ambient temperature   | -20 °C to +70 °C   |                         |                    |
| Pressure              | 18 bar, max.   |                         |                    |
| Linearity deviation   | < ±1% <sup>1)</sup>  |                         |                    |
| Repeatability         | < 0,5%   |                         |                    |
| Mechanical Data       |  |                         |                    |
| Protection class      | IP 65  |                         |                    |
| Housing material      | Stainless steel WN 1.4571 (V4A), 316 Ti                      |                         |                    |
| Sensorkopfmaterial    | Stainless steel WN 1.4571 (V4A), 316 Ti                      |                         |                    |
| Sensor-Fitting        | G1½ ", stainless steel (optional 1-½" NPT)                   |                         |                    |
| Electrical connection | 2 m (6.5 ft.) moulded oilflex cable, 3 x 0.5 mm <sup>2</sup> |                         |                    |
| Electrical Data       |  |                         |                    |
| Supply voltage        | 24 VDC +10% -15%   |                         |                    |
| Current consumption   | 100 - 200 mA   |                         |                    |
| Output current        | 4 - 20 mA  |                         |                    |
| Resistive load        | 600 Ω max.   |                         |                    |

<sup>1)</sup> data applies to water



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Connection Diagram



Dimensions

