

# Inline flow - captor



micro-flow-captor Type 4511.30 / x  
low-flow-captor Type 4311.30 / x

## Installation and Adjustment Instructions

Please read carefully: No liability can be accepted for damage caused by improper use of the captor.

### 1.0 Items delivered

- 1.1 micro flow-captor 4511.30 / x - low flow captor 4311.30 / x  
\* Pipe diameter according to customer specification 4x1 / 6x1
- 1.2 Screwdriver for adjustment

### 2.0 Installation Instructions

- 2.1 Depending on the pipe system a variety of connectors can be used e.g. with screw fittings (e.g. Ermeto) or with hose clamps etc.  
**NOTE:** The inline pipe element must not be subjected to any kind of force, twisting etc., or to high temperatures e.g. in welding processes.

Torsion:  $\leq 6 \text{ Nm}$  up to  $\leq 40 \text{ }^\circ\text{C}$

Installation site: Preferably in horizontal pipes or with ascending flow in vertical pipes.

- 2.3 **Initial Operation:** Connect flow-captor to 24 V DC as in connection diagram and wait approx. 5 min. before adjusting. Expose sensor to max. velocity for a couple of minutes. Adjustments are possible from 0,05 - 10 cm/s up to 0,05 – 0,5 cm/s micro-flow range (related to water). Zero point potentiometer is factory set.

### 3.0 Adjustment Procedure:

- 3.1 Zero point adjustment in stationary medium (roughly). Adjust zero point potentiometer after 2 min. for,  $I_a \approx 4 \text{ mA}$ , i.e.  
at  $I_a > 4 \text{ mA}$  turn pot. anti clock wise,  
at  $I_a < 4 \text{ mA}$  turn pot. clock wise.

- 3.2 Adjustment of measuring range at max. flow rate of medium:

Accelerate flow of the medium to a point, where the flow-captor is expected to release an output signal of 20 mA and wait approx. 2 min. Turn range pot. until  $I_a = 20 \text{ mA}$  (turned to the left)

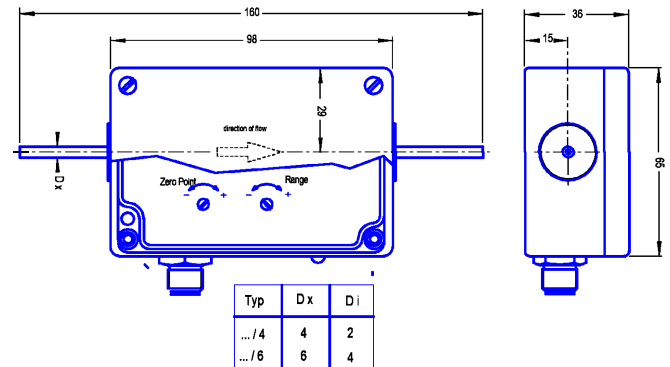
$I_a$  will increase, to the right  $I_a$  will decrease).

LED „ON“: flow rate is within the measuring range

LED „OFF“: flow rate exceeds measuring range. ( $> 20 \text{ mA}$ )

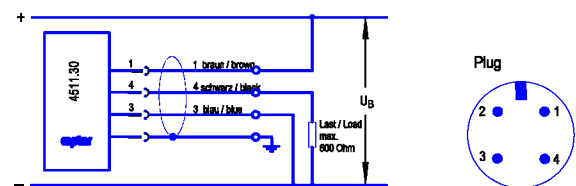
- 3.3 Fine adjustment of zero point: After a periode at least 2 minutes of “no flow” turn the zero point pot. slightly, so that  $I_a$  is just 4 mA (Sens of rotation as in 3.1).
- 3.4 Repeat adjustment according to 3.2 and 3.3 until the zero point (4 mA) or max. range setting (20 mA) remains constant.

Dimensions (mm)  
Potentiometer, 18 turn, endless



### Connection Diagram

- Pin 2 - / - Wire 2 - (white) not occupied



4-20 mA current output

**weber**