The one and only Metering Flow Switch with analog display (inline)

flow-captor 4320

- Accurate switching flow monitor for water or oil - based solutions
- High accuracy even under low flow conditions
- Separate adjustments for Range and Set-Point

- Analog display of actual flow and display of adjusted set-point
- Separate LED for output status
- ISO 9000 certified manufacturing
- CE approved

High accuracy even at very low flow rates

The flow-captor 4120 is a unique, precise, metering flow switch with adjustable set-point for industrial application.

For the first time in flow technology it is possible to set an exact flow set-point and to simultaneously measure flow speed in applications where the use of conventional devices is restricted, due to lack of space, or where the price of such devices is not feasible.

The simplicity and convenience in operating or adjusting the new flow-captor sets it apart from similar devices.

Outstanding Features:

Adjustment of the required measuring range between 0-20 cm/s and 0-300 cm/s results in a set-point accuracy, at lower ranges, of 10 times higher than is possible with conventional measuring devices,

Simple reading of the actual flow rate.

Simple and exact setting of the set-point.

The set-point adjustment is relative to the maximum value of range adjusted, which remains the same even when range is altered.

Operating Principle

The flow-captor, type 4120 operates according to a new calorimetric principle, providing a linear measurement of the flow rate in pipe systems up to 3 m/s. The nonintrusive measurement is carried out at a tangent to flow and thus, does not affect flow profile.

The max. measuring range of the flow-captor can be continuously adjusted within a wide range from 20 to 300 cm/s. The linear display of flow is indicated on an LED string.

The set-point is set as a relative value to the maximum value of range adjusted, independent of the measuring range and is displayed by a flashing LED within the LED string.

A comparator defines the condition of flow, which is simultaneously indicated by a separate LED, by comparing the actual value and the set-point value.

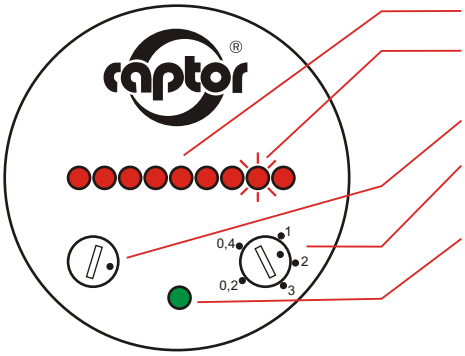
Sensor and Housing

The sensor element of the inline flow-captor is fitted to the outside of the sensor-pipe.

Since there is no element inside the pipe, the sensor is non-intrusive to the flow. The inline flow-captor becomes part of the pipe system that has to be controlled.

The housing is constructed of glass fibre reinforced PBTP (Ultradur) and contains a clearly arranged control and display panel. Practical experience provided a basis for the shape of the housing which optimally combines convenience of operation and durability.

Control and Display Panel



LED string for display of flow rate.

Flashing LED for display of adjusted set-point.

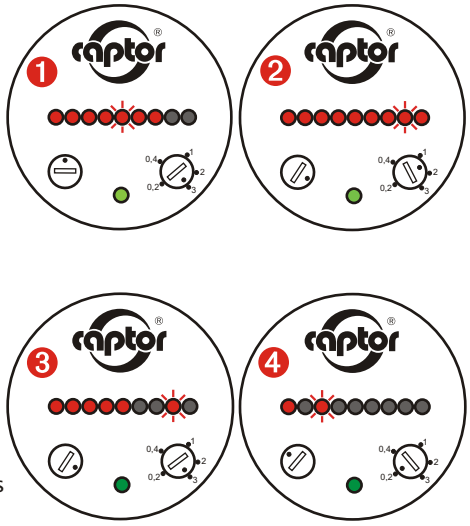
Potentiometer for flow set-point.

Potentiometer for adjustment of measuring range from 0.2 to 3 m/s.

LED for display of output condition.

Examples of Operation:

1. Measuring range adjusted to 3 m/s
   Flow rate 75% of 3 m/s = 2.25 m/s
   Limit value 50% of adjusted measuring range = 1.5 m/s
   LED is on, flow is greater than limit value
2. Measuring range = nominal value, adjusted to 1.5 m/s
   Flow rate > nominal value
   Limit value 10% below nominal value
   LED is on, flow is greater than limit value
3. Measuring range adjusted to 3 m/s
   Nominal rate = actual flow rate = 1.5 m/s
   Limit value 40% above nominal value
   LED is off, flow is below limit value
4. Measuring range adjusted to 20 cm/s
   Flow rate 15% of measuring range = 3 cm/s
   Limit value at 30% of measuring range = 6 cm/s
   LED is off, flow is below limit value



Applications

The flow-captor 4120 can be applied in all areas of industry where exact flow set-points are required, e.g. in systems where a signal is required at a slight deviation of the flow rate above or below the nominal value.

In addition to this, the flow-captor can be applied as an accurately switching flow monitor.

There is no industry in which the flow-captor cannot optimize existing processes.

Connection

Connection of the flow-captor is by means of a newly developed plug/screw connector combining the advantages of a plug/socket with those of a molded cable (other connection types optional)

Consequently, the flow-captor can be installed before the cable is attached which facilitates mechanical installation.

The captor group

For over 40 years weber Sensors has been a leader in sensor innovation worldwide. From these activities the captor group evolved, providing engineered solutions for industrial automation and factory floor communication throughout the world.

The captor group is a unification of companies from a variety of industries and technologies addressing the marketplace under the captor umbrella. The members of the captor group are sharing resources and Know How and - most important - share and benefit from the market recognition of the trade mark "captor", that stands for products and services you can rely on. Members of the captor group are world-wide. For more information, please email to info@captor.com.

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