weber
flow-captor

Available with inline tubes of 6mm, 8 mm, 12 mm or 18 mm O.D.

flow-captor Type 4320.1- & 4321.1-

The inline flow-captor 4120.1- and 4121.1- is a family of compact industrial metering flow switches with adjustable set-point and analog display.

Their functionality is based on the calorimetric principle. The flow-captor allows the operator to set an exact flow set-point and to measure simultaneously the flow speed.

Metering inline flow switch for water- and oil-based medium with outstanding accuracy even at low flow conditions.

- Accurate switching flow monitor for water- or oil based solutions in 6 mm / 8 mm / 12mm and 18 mm O.D. pipes.
- High accuracy also under low flow conditions.
- Separate adjustments for RANGE and SET-POINT.
- Analog display of actual flow and display of set-point.
- LED for flow status.
- ISO 9000 certified manufacturing.
- CE approval.

Adjustments / Display

Measuring range adjustment	RANGE potentiometer
Measuring range display	9 LED display
Set-point adjustment	SET-POINT potentiometer
Set-point display	blinking LED
Switch output display	GREEN LED (on with flow)

Models

flow-captor 4320.1-	for water based solutions
flow-captor 4321.1-	for oil based solution

flow-captor

Type 4120.1-, 4121.1-
metering flow switch

Typical Application Examples:

The flow-captor 412-./1- can be applied in all areas of industries, 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.

The flow-captor can optimize existing processes in a wide variety of industrial applications.

Technical Data

Type	4320.12/.13	4321.12/.13
Medium	water-based solutions	oil-based solutions

Sensor Data

Measuring Range	0 - 20 cm/s to 0 - 300 cm/s cont. adjust [1]	0 - 30 cm/s to 0 - 300 cm/s cont. adjust [2]
Flow rate at 300 cm/s	6x1 tube: 5 gal/min. 8x1 tube: 1.1 gal/min.	12x1 tube: 3.1 gal/min. 18x1.5 tube: 7.0 gal/min.
Set-point range	approx. 15% - 90% of measuring range setting	
Medium temperature	- 20 °C to +80 °C (- 4 °F to +176 °F)	
Pressure	up to max. 30 bar (450 psi)	
Response time	2 s to 10 s, acc. to range setting	2 s to 15 s, acc. to range setting
Linearity deviation	< 5 % [1]	< 5 % [2]
Repeatability	< 2 %	
Hysteresis	approx. 10 %	

Mechanical Data

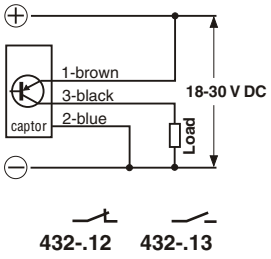
Protection class	IP 65 (equivalent to NEMA 4)
Housing material	Electronics housing: PBTP, glassfibre reinforced (Ultradur®)
Sensor tube	stainless steel WN1.4571(V4A, 316 Ti)
Pipe dimensions	6x1, 8x1, 12x1, 18x1,5 (O.D x wall thickness)
Connection	integrated plug assembly with PG9 fitting, 2 m oilflex cable 3 x 0.5 mm² also available with M12, 4-pin industrial connector (option)

Electrical Data (Electronic housing)

Operating voltage	18 to 30 V DC, incl. residual ripple (adapter for 110 V available)	
Current consumption	max. 150 mA	
Power consumption	approx. 1 W	
Switching current	400 mA	
Circuit protection	Reverse polarity, short circuit and overload protected	
Voltage drop	< 2,5 V at max. load	
Ambient temperature	- 20 °C to +70 °C (-4 °F to +158 °F)	
Initial operation	approx. 10 s after connection of power	
Electrical output	PNP n.c. [3]: 4320.12 PNP n.o. [4]: 4320.13	PNP n.c. [3]: 4321.12 PNP n.o. [4]: 4321.13

Notes: [1] data applies to water [2] depends on oil solution type [3] switch open with flow [4] switch closed with flow

Connection Diagram: **PNP-transistor output**



weber
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