weber
flow-captor

Operating Pressure now up to 100 bar (1.500 psi)

flow-captor Type 4120.1- & 4121.1-

The 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 user to set an exact flow set-point and to measure simultaniously the flow speed.

Metering 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 up to 100 bar.
- 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.
- LED for output 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 4020.1-	for water based solutions
flow-captor 4021.1-	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	4120.12/.13	4121.12/.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]
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. 100 bar (1,500 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

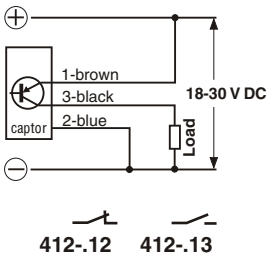
Protection class	IP 65
Housing material	PBTP, glassfibre reinforced (Ultradur®)
Sensor head	stainless steel WN1,4305 (V2A, 303 Ti) WN1.4571(V4A, 316 Ti), Titanium, Hastelloy C4® on request
Thread	½" BSP or ½"-14 NPT
Connection	integrated plug assembly with PG9 fitting, 2 m oilflex cable 3 x 0.5 mm² also available with M12, 4-pin industrial connector (option)

Electrical Data (Electronic housing)

Operating voltage	18 to 30 V DC, incl. residual ripple	
Switching current	400 mA	
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]: 4120.12 PNP n.o. [4]: 4120.13	PNP n.c. [3]: 4121.12 PNP n.o. [4]: 4121.13

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**



Technical data is subject to change 12/2001 - 412-.1-US © Copyright 2001 by captor Management Inc.

weber Sensors Inc
Member of the captor Group
2230 Towne Lake Pkwy., Bldg. 900, Suite 200 • Woodstock, GA 30189
Phone: +1(770)592-6630 • Fax: -6640 • E-mail: info@captor.com • www.captor.com