

# weber flow-captor



**Operating Pressure now  
up to 100 bar (1.500 psi)**



## flow-captor Type 412-.1- M

The flow-captor type 412-.1- M is a family of compact, precise metering flow switches with analog display in a rugged stainless steel housing. They operate based on the calorimetric principle.

The flow-captor allows you to set an exact flow set-point and will measure and display the flow rate via 9 LED's representing flow range.

- Precise switching flow monitor for water or oil-based solutions up to 100 bar
- High accuracy even under low flow conditions
- Separate adjustment for "range" and "set-point"
- Analog display of actual flow rate and display of adjusted set-point value
- LED display for output status
- ISO 9002 certified manufacturing

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

### 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

Type 4120.12/.13 M	for water based solutions
Type 4121.12/.13 M	for oil based solutions

# flow-captor

Type 412-.1- M  
metering flow switch

## Typical Application

### Examples:

The flow-captor 412-.1- M can be applied 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 M	4121.12/.13 M
Medium	water-based solutions	oil-based solutions

## Sensor Data

Measuring Range	0 - 20 cm/s to 0 - 300 cm/s cont. adjust <sup>1)</sup>	0 - 30 cm/s to 0 - 300 cm/s cont. adjust <sup>2)</sup>
Set-point range	approx. 15% - 90% of measuring range setting	
Medium temperature	- 20 °C to +80 °C (- 4 °F to +176 °F)	
Ambient temperature	- 20 °C to +70 °C (-4 °F to +158 °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
Accuracy	< 3 % <sup>1)</sup>	< 3 % <sup>2)</sup>
Repeatability	< 1 %	
Hysteresis	approx. 10 %	

## Mechanical Data

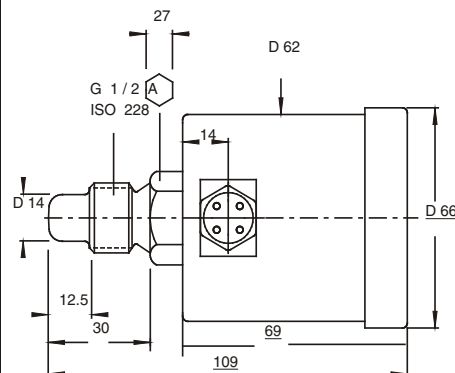
Protection class	IP 67 (DIN 40050)
Housing material	stainless steel WN 1.4305 (V2A)
Sensor head	stainless steel WN 1.4305 (V2A, ) - ( WN 1.4571 ( V4A ), (Titanium, Hastelloy C4 on request)
Thread	G½ A (½" BSP), alt. ½" - 14 NPT
Electrical Connection	Plug M 12 x 1, 4-pin

## Electrical Data (Electronic housing)

Operating voltage	18 to 30 V DC, incl. residual ripple	
Initial operation	approx. 10 s after connection of power	
Switching current	400 mA	
Electrical output	PNP n.c. <sup>3)</sup> : 4120.12 M PNP n.o. <sup>4)</sup> : 4120.13 M	PNP n.o. <sup>4)</sup> : 4121.12 M PNP n.c. <sup>3)</sup> : 4121.13 M
Switching function display	flow < set-point: LED off	flow > set-point: LED on

Notes: <sup>1)</sup> data applies to water <sup>2)</sup> depends on oil solution type <sup>3)</sup> switch open with flow <sup>4)</sup> switch closed with flow

## Dimensions



Dimensions in mm  
D66x109/69

## Connection Diagram

