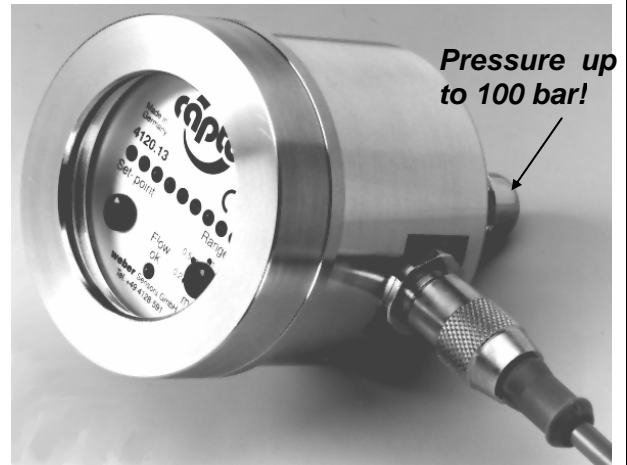


TECHNICAL INFORMATION



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. Its operation is based upon the calorimetric principle. The flow-captor allows to set an exact flow set-point and will measure simultaneously the flow rate up to the lowest flow conditions.



- Precise switching flow monitor for water or oil-based solutions up to **100 bar**
- High accuracy also 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 9001 : 2000** certified manufacturing

Connection cable not within the scope of supply
Housing dimensions in mm: OD 66 X H 99/59

Technical data

Type	4120.12/.13M	4121.12/.13M
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	
Ambient temperature	- 20°C to + 70°C	
Pressure	up to 100 bar (1000 Kpa)	
Response time	2s - 10s, according to range setting	2s - 15s, according to range setting
Linearity deviation	< 5% ¹⁾	< 5% ²⁾
Repeatability	< 2%	
Hysteresis	approx. 10%	

Mechanical data

Protection class	IP67
Housing	stainless steel: AISI 303
Sensor head	stainless steel: AISI 303 (AISI 316Ti or Titanium or Hastelloy [®] C4/ [®] C22 on request)
Thread	G½ A (½" BSP), alt. ½" NPT
Connection	M12 connection, 4-pin

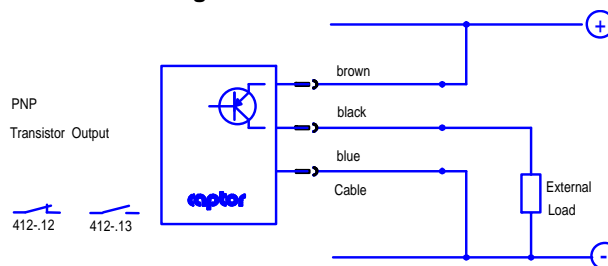
Electrical data

Operating voltage / Range	24VDC (18 to 30VDC), incl. residual ripple	
Switching current	≤ 400 mA	
Initial operation	approx. 10 s after connection of power	
Electrical output	PNP n.c. ³⁾ : 4120.12M	PNP n.c. ³⁾ : 4121.12M
Transistor	PNP n.o. ⁴⁾ : 4120.13M	PNP n.o. ⁴⁾ : 4121.13M
Relay	on request	

Note:

- ¹⁾ data relate to water
- ²⁾ depends on oil type
- ³⁾ switch opens with flow
- ⁴⁾ switch closes with flow

Connection diagram



weber

Sensors Ltd. Strohdeich 32 D-25377 Kollmar Tel.: +49 4128-591 Fax: -593

Member of the captor Group

eMail: info@captor.de • www.captor.de

REV: AD / 05.02.09
sgd.: Wip. / So.

Page 1 / 1