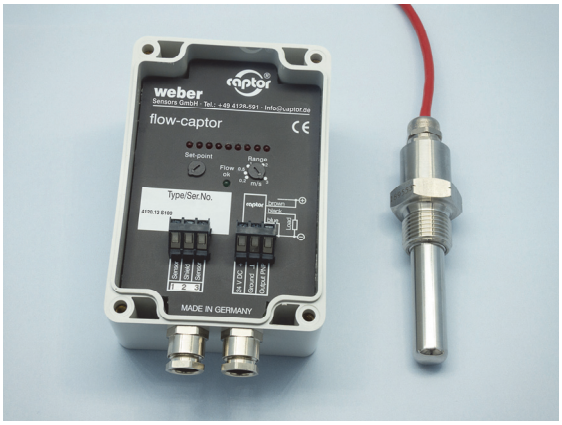
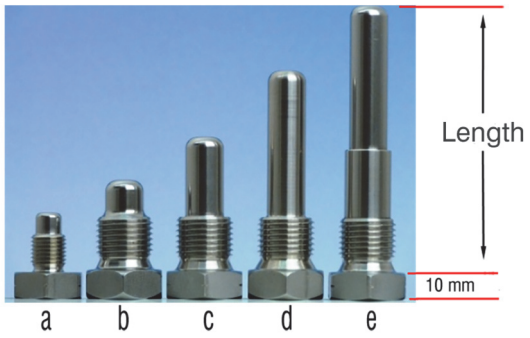
Flow switch for liquid media

flow-captor 4120 S100 + 402x.1x S100

The flow-captor system 4120 S100 + 402x.1x S100 consists of the sensor head and a separate electronics. A separate system is used where special protection of the electronics is required. The flow-captor works according to the calorimetric measuring principle, fully electronically and without mechanically moving parts. The sensor detects the flow velocity of the medium and converts it into an electrical signal.



- for medium temperature up to 140 °C / 284 °F **(S100)**
- precisely switching flow monitor
- high switching accuracy even with slower flows
- separate setting for set-point and range
- linear display of current flow condition via LED chain
- LED for output status
- robust industrial design (special potting of both parts)
- **ISO 9001:2015**

Technical data		
Type	**4120 S100 + 4020.1x S100**	**4120 S100 + 4021.1x S100**
Medium	water-based	oil-based
Sensor data		
Measuring range	0 - 20 cm/s bis 0 - 300 cm/s, continuously adjustable*[1]	0 - 30 cm/s bis 0 - 300 cm/s, continuously adjustable*[2]
Set-point range	approx. 15 % - 90 % of range setting	
Pressure	max. 100 bar (1450 PSI)	
Response time	2 sec. - 10 sec. depending on range setting	2 sec. - 15 sec. depending on range setting
Linearity deviation	< 5 % *[1]	< 5 % *[2]
Repeatability tolerance	< 2 %	
Hysteresis	approx. 10 %	
Temperaturdrift	< 0.3 % per Kelvin	
Mechanical data		
Protection class sensor	IP67	
Protection class electronics	IP65	
Material: housing	ABS	
Material: sensor probe	stainless AISI 303 (other material on request)	
Sensor probe sizes **(A):** Sensor head AISI 316 **(S110/xx):** Length from hexagon bolt to sensor tip		**a)** **flow-captor 4120A / ¼" BSP** Length 20 mm, ¼" BSP **b)** **flow-captor 4120 / ½" BSP** Length 30 mm, ½" BSP **c)** **flow-captor 4120A / ½" BSP** S110/45 Length 45 mm, ½" BSP **d)** **flow-captor 4120A / ½" BSP** S110/67 Length 67 mm, ½" BSP **e)** **flow-captor 4120A / ½" BSP** S110/90 Length 90 mm, ½" BSP
Electrical connection	screw terminal block	
Body dimensions	see page 2	

[1] related to water[2] related to „Shell Diala S4 ZX-I"

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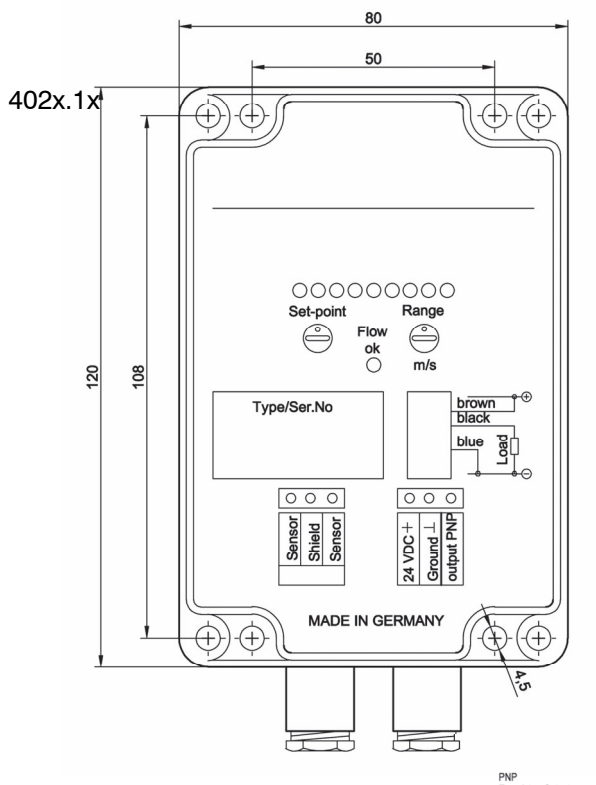
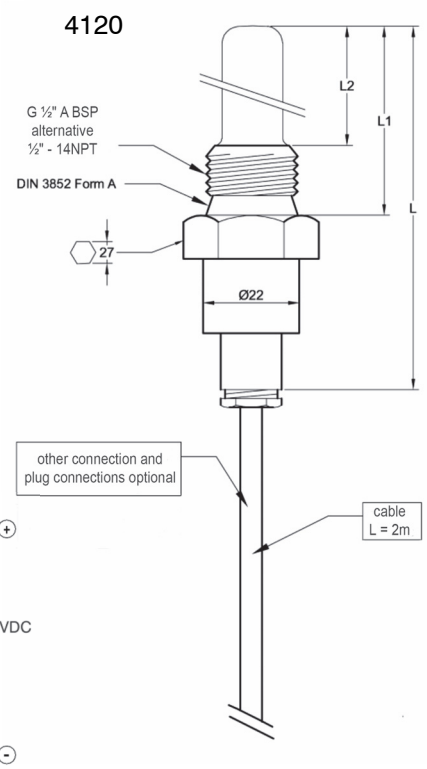
flow-captor 4120 S100 + 402x.1x S100

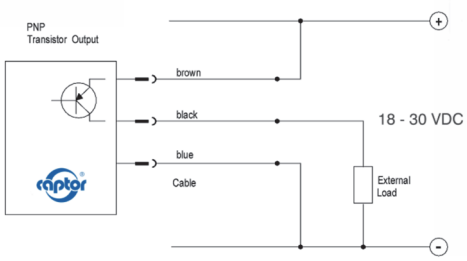
Electrical data		
Operating voltage	18 to 30 VDC, incl. residual ripple	
Current consumption	max. 150 mA (pulsed)	
Power consumption	approx. 1 W	
Switching current	≤ 400 mA	
Circuit protection	reverse polarity, short circuit and overload reverse	
Voltage drop	< 2.5 V at max. load	
Initial operation	approx. 10 sec. after connection of power	
Electrical output	**402x.12**	**402x.13**
Switching condition with flow < switching point	energized, switched	currentless, not switched
LED	off	off
Switching condition with flow > switching point	currentless, not switched	energized, switched
LED	green	green
Temperature data		
Type	**4120 S100 + 402x.1x S100**	
Medium temperature in relation to ambient temperature	Medium temperature max.	Ambient temperature max.
	140 °C / 284 °F	20 °C / 68 °F
	130 °C / 266 °F	30 °C / 86 °F
	120 °C / 248 °F	40 °C / 104 °F
	110 °C / 230 °F	50 °C / 122 °F
	100 °C / 212 °F	60 °C / 140 °F
	90 °C / 194 °F	70 °C / 158°F
	Medium temperature min.	Ambient temperature min.
	-20 °C / -4 °F	-20 °C / -4 °F
	-30 °C / -22 °F	-10 °C / 14 °F



Type	L	L1	L2	Mat.
Standard	70	30	12,5	AISI 303
S110/45	85	45	27,5	AISI 316 Ti
S110/67	107	67	49,5	AISI 316 Ti
S110/90	130.5	90	73,0	AISI 316 Ti
other materials possible				



Connection diagram



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