

Flow switch for liquid media



flow-captor 4120A S100 S110/xx + 402x.1x S100

The flow-captor type 4120A S100 S110/xx + 402x.1x S100 is a separate system consisting of sensor and electronics. The sensor is used in automation processes where liquid media have to be controlled or monitored. The electronic sensor works according to the calorimetric measuring principle and without any mechanically moved parts. The sensor detects the flow velocity of the medium and converts it into an electrical signal.

- for medium temperature up to max. 140 °C / 284 °F (S100)
- extended sensor, 20 - 90 mm (S110/xx)
- pressure resistant up to 100 bar
- defined switching signal
- temperature-independent
- robust design: fully encapsulated sensor and electronics
- **ISO 9001:2015**



Technical data		
Type	4120A S100 S110/xx + 4020.1x S100	4120A S100 S110/xx + 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 % K	
Mechanical data		
Protection class sensor	IP67	
Protection class electronics	IP65	
Material: housing	ABS	
Material: sensor probe	stainless steel <u>AISI 316Ti</u> (other material on request)	
Sensor probe sizes		<p>a) flow-captor 4120 / ¼" BSP Length 20 mm, ¼" BSP</p> <p>b) flow-captor 4120 / ½" BSP Length 30 mm, ½" BSP</p> <p>c) flow-captor 4120 / ½" BSP S110/45 Length 45 mm, ½" BSP</p> <p>d) flow-captor 4120 / ½" BSP S110/67 Length 67 mm, ½" BSP</p> <p>e) flow-captor 4120 / ½" BSP S110/90 Length 90 mm, ½" BSP</p>
Electrical connection	screw terminal block	
Body dimensions	H120 x B80 X T56 (drawing K70031)	
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	4020.12 PNP n.c. (opener) energized at zero flow 4020.13 PNP n.o. (closer) currentless at zero flow	4021.12 PNP n.c. (opener) energized at zero flow 4021.13 PNP n.o. (closer) currentless at zero flow

*¹ bezogen auf Wasser *² bezogen auf „Shell Diala S4 ZX-I“



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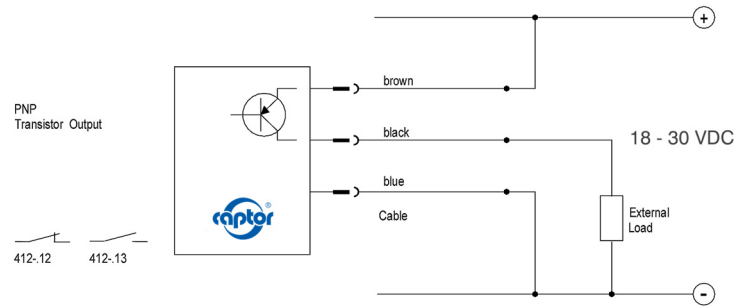
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Flow switch for liquid media



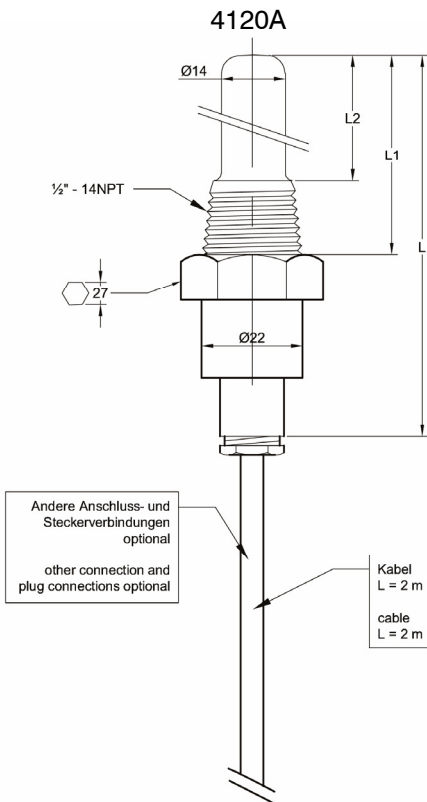
flow-captor 4120A S100 S110/xx + 402x.1x S100

Connection diagram



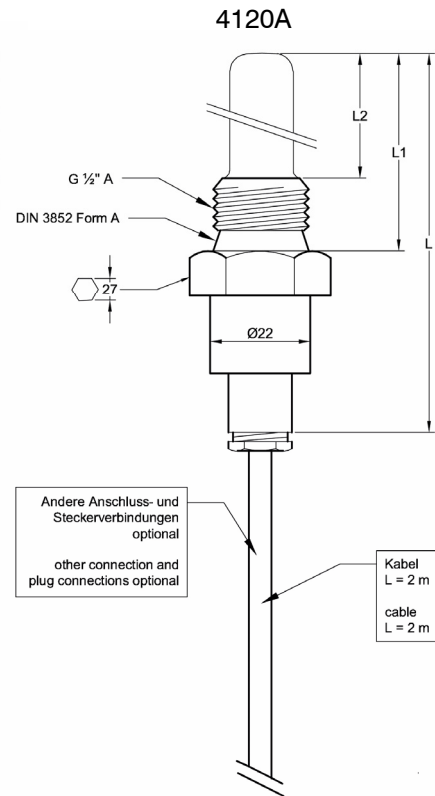
Temperature data

Type	4120A S100 S110/xx + 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	



Typ/Type	L	L1	L2	Mat.
Standard	70	30	12,5	V2A/AISI 303
S110/45	85	45	27,5	V4A/AISI 316 Ti
S110/67	107	67	49,5	V4A/AISI 316 Ti
S110/90	130,5	90	73,0	V4A/AISI 316 Ti

Andere Materialien möglich other materials possible



weber

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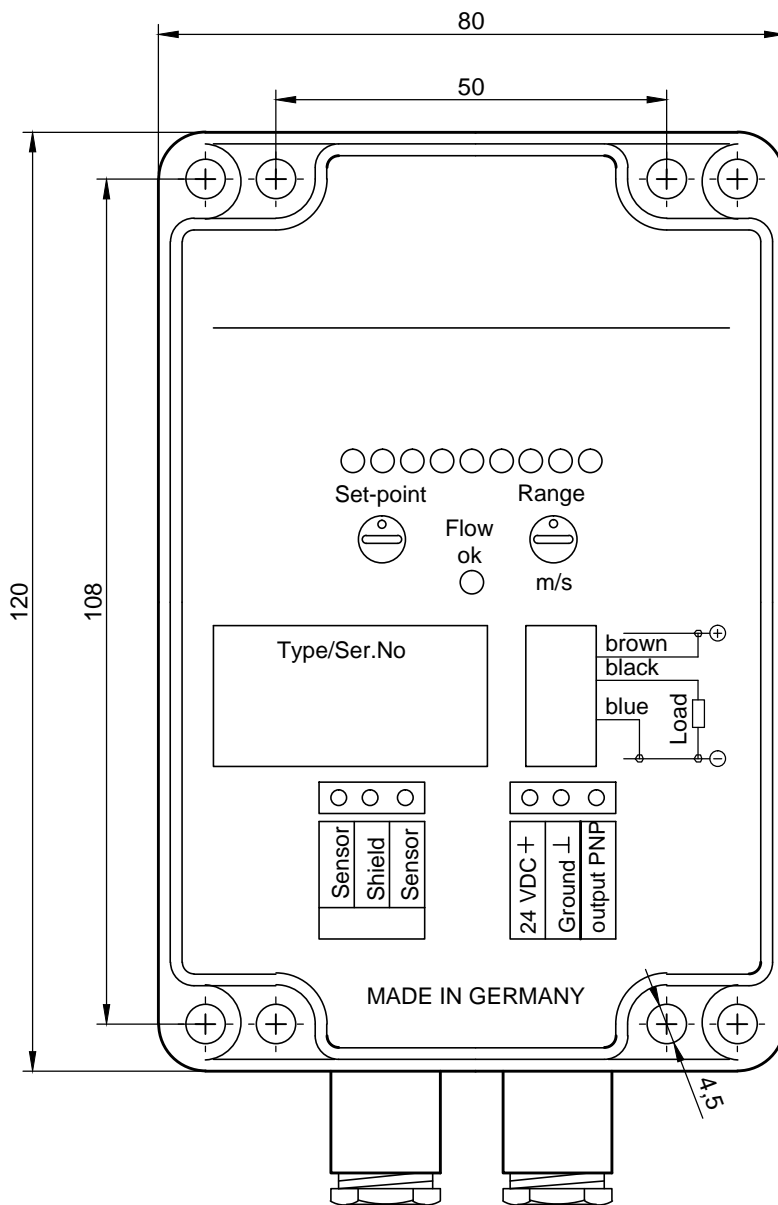
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Technical data subject to alteration! Rev. AA 25.05.18



Gehäuse H x B x T
Housing H x W x D

120 x 80 x 56

4020.1x / 4021.1x	Spezifikation/Specification
S100	Mediumtemp. max. 140 °C
S102	Mediumtemp. von - 60 °C bis +60 °C
S103	Mediumtemp. max. 135 °C
S200	für/for Inline Sensor 4320/xx
S202	für/for Inline Sensor 4320/xx Mediumtemp. max. 135 °C

Sensors GmbH	04.02.09	Chr	AG	402x.1x Elektronikeinheit 402x.1x remote electronics	Maßstab	M 1 : 1	weber Sensors GmbH 25377 Kollmar, Strohdreich 32 Tel.: +49 4128 591 - Fax: - 593 www.captor.de info@captor.de	
Bemaßung	25.09.02	Wip	AF		Gerät			
135 °C entf.	30.04.02	Dw	AE		File - Nr.:			
Tabelle Sxxx	25.09.00	Hue	AD					
Textlänge	11.02.95	Hue	AC					
Aend.	Datum	Name	Rev	entw. Wippich 18.01.94	gez. Hüttmann 02.02.94	gepr.	Blatt 1 - 1	