

## flow-captor 4120.1xA S114/xx S110/xx

The flow-captor type 4120.1xA S114/xx S110/xx is ideally suited for use in automation processes in the food industry where liquid media must be monitored. The sensor was specially designed for TRI-CLAMP® connections.

Application under EHEDG conditions - see additional text.

The sensor operates according to the calorimetric measuring principle, fully electronically and without mechanically moved parts. The flow-captor detects the flow velocity of the medium and converts it into an electrical signal.

- **EHEDG certified TYPE EL Class I** April 2019
- precise switching flow monitor
- high switching accuracy even with lower flows
- separate setting for set-point and range
- display of flow condition and adjusted switch point via LED chain
- LED for output status
- robust industrial version (special potting)
- **ISO 9001:2015**



### Technical data

Type	<b>4120.1xA S114/xx S110/xx</b>
Medium	water-based

### Sensor data

Measuring range	0 - 20 cm/s to 0 - 300 cm/s, continuously adjustable <sup>1)</sup>
Medium temperature	-20 °C to +130 °C / -4 °F to +266 °F
Ambient temperature	-20 °C to +70 °C / -4 °F to +158 °F
Set-point range	approx. 15 % - 90 % of range setting
Pressure	up to 100 bar
Response time	2 sec. - 10 sec., according to range setting
Linearity deviation	< 5 % <sup>1)</sup>
Repeatability	< 2 %
Hysteresis	approx. 10 %
Temperature drift	< 0.3 % / K

### Mechanical data

Protection class	IP65
Material housing	PBTP, glass fibre reinforced ( Ultradur <sup>®</sup> )
Material sensor head	stainless steel 316L, electropolished
Flange diameter	D50.5 mm / D64.0 mm
Cable connection	integrated plug assembly with PG9 fitting, 2 m oilflex cable 3 x 0.5 mm <sup>2</sup>

### Electrical data ( Electronic unit )

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
Voltage drop	< 2.5 V at max. load
Initial operation	approx. 10 sec. after connection of power

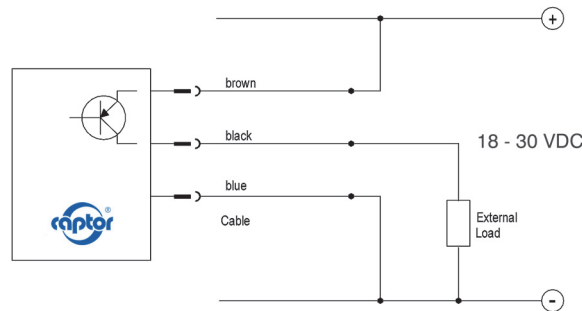
### Electrical output

	<b>.12</b>	<b>.13</b>
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

<sup>1)</sup> related to water

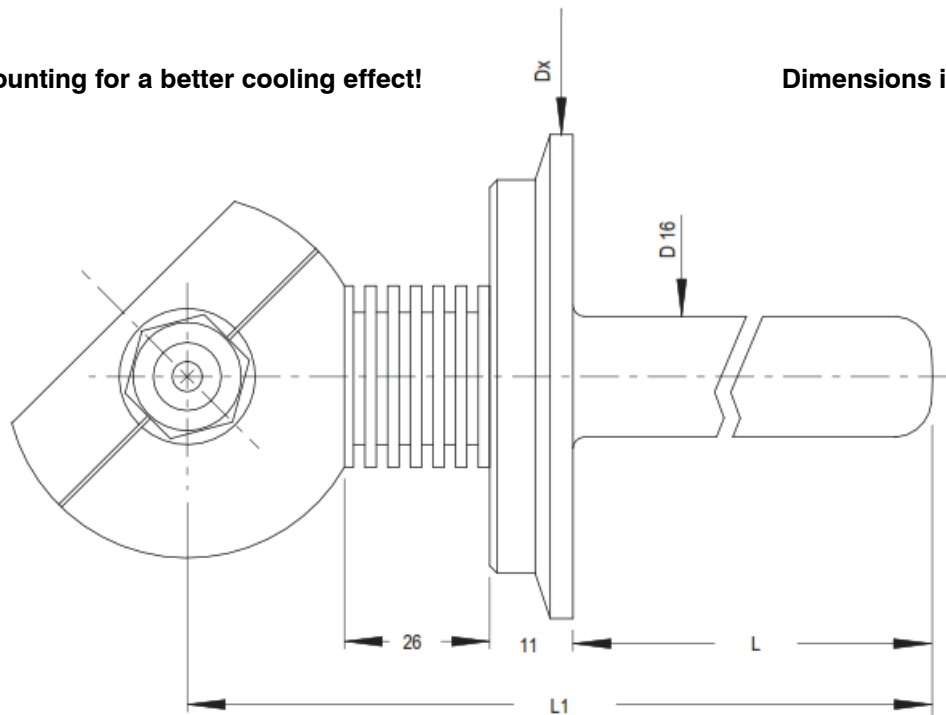
**flow-captor 4120.1xA S114/xx S110/xx**

**Connection diagram:**



**Horizontal mounting for a better cooling effect!**

**Dimensions in mm**

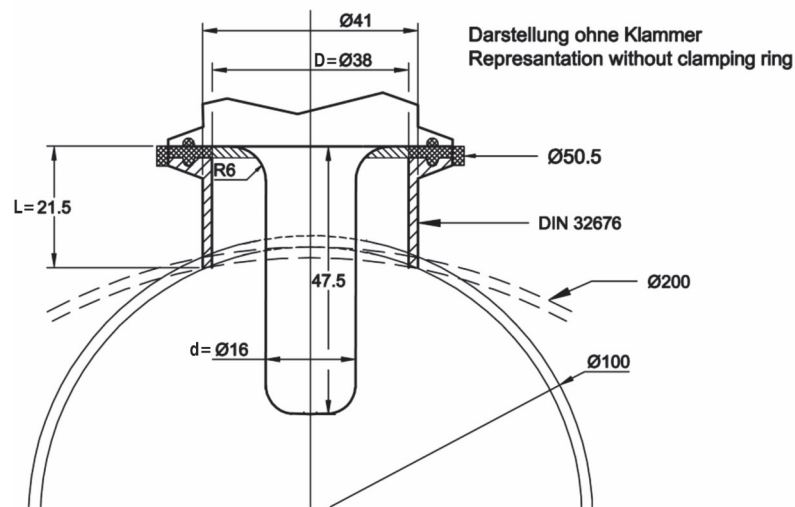


Please note that the ratio of the ambient temperature to the medium temperature is maintained!

	S114/xx	S110/xx	
part - no.	Dx	L	L1
07031252	50.5	47.5	110.5
07031255	50.5	67.0	130.0
07031254	64.0	47.5	110.5

max. ambient temp.	max. medium temp.
30 °C	130 °C
40 °C	120 °C
50 °C	110 °C
60 °C	100 °C
70 °C	90 °C
min. ambient temp.	min. medium temp.
- 20 °C	- 20 °C

Zusatztext für die Anwendung unter EHEDG - Bedingungen  
Additional text for the application under EHEDG conditions



DIN Klemmstutzen, kurz, DIN 32676 (DN 40 (siehe Zeichnung) oder DN 50)  
DIN Clamp ferrule, short, DIN 32676 (DN 40 (see drawing) or DN 50)

### Hinweis für den Einsatz des Sensors nach EHEDG

(European Hygienic Engineering and Design Group)

Der Sensor ist EHEDG zertifiziert. Diese Zertifizierung gilt NUR bei Verwendung von EHEDG zertifizierten Adaptern und Dichtungen.

Zur Vermeidung von Toträumen nur DIN Klemmstutzen, kurz (DN 40 oder DN 50), DIN 32676, verwenden.

Bei Verwendung von Prozessanschlüssen anderer Hersteller, ist der Einbauort und die Einbauumgebung zu beachten. Es ist auf eine EHEDG-konforme Einbindung in das System zu achten, dabei gilt folgende Bedingung:  $L < (D-d)$ ! Tri-Clamp erfüllt nur mit Combifit Dichtungen die EHEDG Zulassung (verfügbar auf der EHEDG Webseite [www.ehedg.org](http://www.ehedg.org)).

### Wartung und Reinigung

Vor dem Einbau und/oder bei der Wartung des Systems, ist der Sensorkopf, der Einbauadapter und die Dichtung mit geeigneten Methoden zu reinigen, damit die Dichtigkeit und Totraumfreiheit weiterhin gewährleistet ist. Der Sensor ist CIP (cleaning in place) fähig und kann ohne Demontage zusammen mit der Rohrleitung gereinigt werden.

### Note for the use of the sensor according to EHEDG

(European Hygienic Engineering and Design Group)

The sensor is EHEDG certified. This certification ONLY applies when using EHEDG certified adapters and gaskets.

To avoid dead legs only use DIN clamp ferrule, short (DN 40 or DN 50), DIN 32676.

When using process connections from other manufacturers, the installation location and the installation environment must be observed. EHEDG-compliant integration into the system must be ensured! The following condition applies:  $L < (D-d)$ .

Tri-Clamp meets the EHEDG approval only with Combifit seals (available on the EHEDG website [www.ehedg.org](http://www.ehedg.org)).

### Maintenance and cleaning

Before installing and/or maintaining the system, the sensor head, the installation adapter and the seal must be cleaned using approved methods to ensure that the system remains leakproof and free of dead space. The sensor is CIP (cleaning in place) capable and can be cleaned together with the piping without disassembly.