

# HYDROSTATIC FILLING LEVEL SENSOR HFT C2 COMPACT / FLEX (SUSPENDED PROBE)

Measuring range 0–5 m water column  
0–10 m water column

Voltage supply 9–35 V DC



## Features

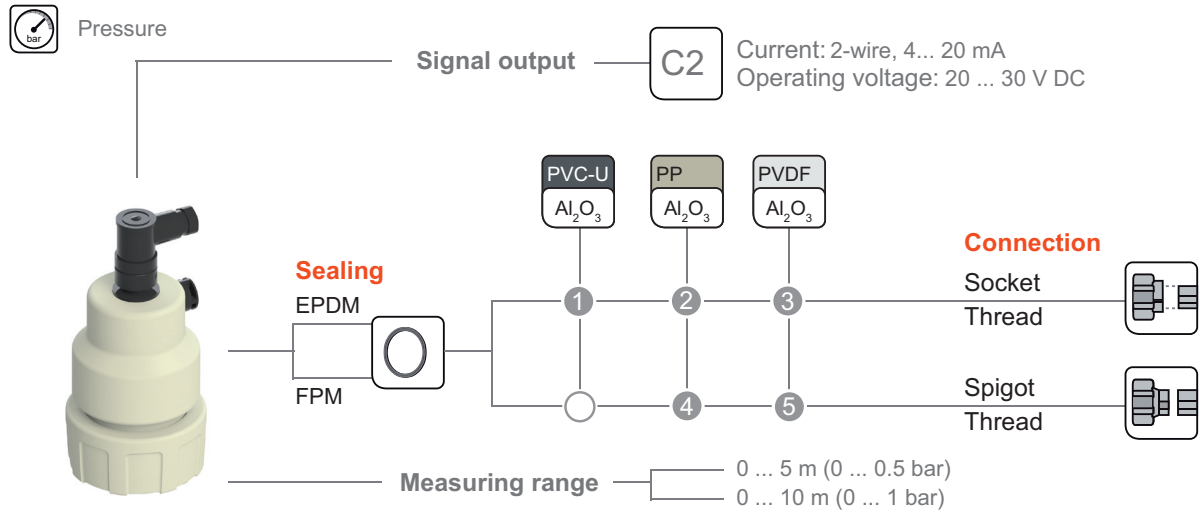
- Filling level detection through measuring the hydrostatic medium pressure
- suitable for foaming medium types
- for filling level measurement up to a 10 m water column in pressure-free containers
- as suspended probe (FLEX) with 7 / 12 m FEP cable or as compact version for direct connection with the tank
- Standard 2-wire 4..20mA current loop
- an additional voltage supply is not necessary

## Note

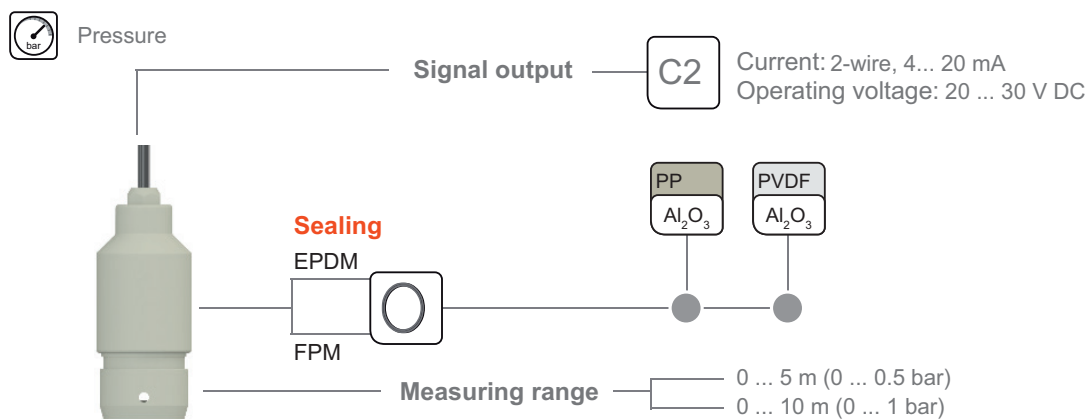
The display and operating unit (Uni Display) cannot be used for the C2 version!

[www.stuebbe.com/en/products-systems/instrumentation/](http://www.stuebbe.com/en/products-systems/instrumentation/)

### HFT C2 Compact



### HFT C2 Flex



● available  
○ not available

#### Basic Nominal Sizes:

DN 8	DN 10	DN 15	DN 20	<b>DN 25</b>	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100	DN 125	DN 150	DN 200	DN 250	DN 300	DN 350	DN 400
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#### HFT C2 Compact

##### Connection Material (process connection)

- 1 PVC-U socket DIN
- 2 PP socket DIN
- 3 PVDF socket DIN
- 4 PP spigot (IR)
- 5 PVDF spigot (IR)

#### HFT C2 Flex

##### Connection Material (process connection)

- Immersion probes\* for
    - 5 m water column with 7 m FEP cable
    - 10 m water column with 12 m FEP cable
- \* included in the scope of delivery

## Hydrostatic filling level sensor HFT C2 Compact / Flex (suspended probe)

### Application

- Designed for measurements in fountains, basins and open or closed pressure-free containers

### Use

- Pressure transducer for filling level detection, for suspended installation from the top or installation in the piping.

### Restricted accuracy

due to:

- changing medium density
- volume expansion caused by temperature changes

### Application limits

- Container is subject to pressure or vacuum
- Adhering medium types
- $AL_2O_3$  incompatible medium types

### Stübbe resistance guide

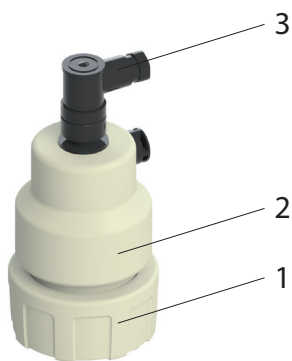
- [www.stuebbe.com/pdf\\_resistance/300051.pdf](http://www.stuebbe.com/pdf_resistance/300051.pdf)

**Technical data**

		Value					
		HFT C2 Compact			HFT C2 suspended probe (Flex)		
		PVC-U	PP	PVDF	–	PP	PVDF
<b>Measuring</b>							
Measuring range water column	m	0–5 or 0–10					
Measuring range pressure	bar	0–0.5 or 0–1.0					
Measuring resolution	mm	≤ 1					
Step response (10–90 %)	ms	5					
Measuring deviation absolute	%	±1.5 at 25 °C, ±2.5 at 0–85 °C					
Power up	s	1					
Temperature compensation		Automatic					
Voltage supply	V DC	9–35					
Maximum load	ohm	$R_{shunt} = (VCC - 7.5 V) / 0.03 A$					
<b>Signal output</b>							
Current loop C2	mA	4–20					
Cable outside diameter	mm	3–6					
Nominal cross-section (max.)	mm <sup>2</sup>	0.3					
Connection		Angled connector M12			Single wire connectors		
<b>Material coming into contact with the media</b>							
Sensor		Al <sub>2</sub> O <sub>3</sub>					
Sensor housing		PVC-U	PP	PVDF	–	PP	PVDF
Sensor seal		FPM or EPDM					
Union nut		PVC-U	PP	PVDF	–	–	–
Process sealing		FPM or EPDM			–		
Sensor cable		–			FEP		
<b>Material not coming into contact with the media</b>							
Housing cover		PE			–		
<b>Process conditions</b>							
Ambient temperature	°C	–20–70					
Atmospheric ambient pressure	bar	0.8–1.1					
Relative humidity	%	20–85					
Process temperature	°C	0–50	0–70	–10–100	–	0–70	–10–80
Maximum pressure range	bar	2x nominal pressure					
<b>Mechanical data</b>							
Weight of sensor	kg	0.3	0.2	0.3	–	0.48	0.56
Sensor cable	kg/m	–			0.1		
Mounting position		preferably horizontal			suspended up to the tank base		
Connection thread (male thread)	inch	1 1/2"			–		
Type of protection		IP65			IP67		
<b>Accessories</b>		–			Tank leadthrough		

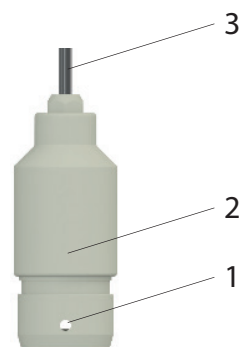
**Hydrostatic filling level sensor HFT C2 Compact / Flex (suspended probe)**

**HFT C2 Compact**



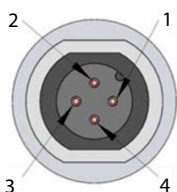
No.	Description
1	Device connection
2	Sensor housing
3	4-pin connector M12

**HFT C2 Flex**



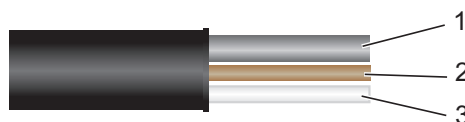
No.	Description
1	Protection cap
2	Sensor housing
3	FEP cable

**Circuit diagram, plug connector**



No.	Terminal
1	Signal (+), 4..20 mA
2	Signal (-), 4..20 mA
3	n.c.
4	n.c.

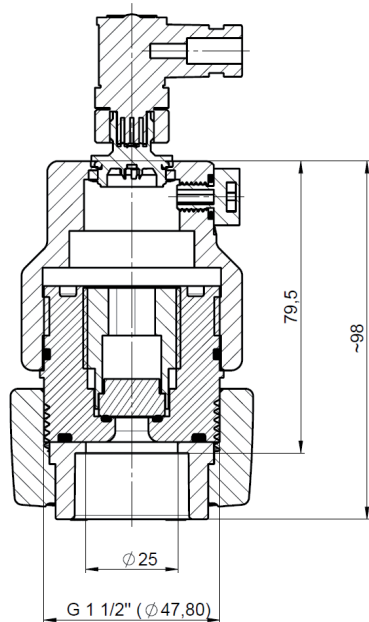
**Circuit diagram, sensor cable**



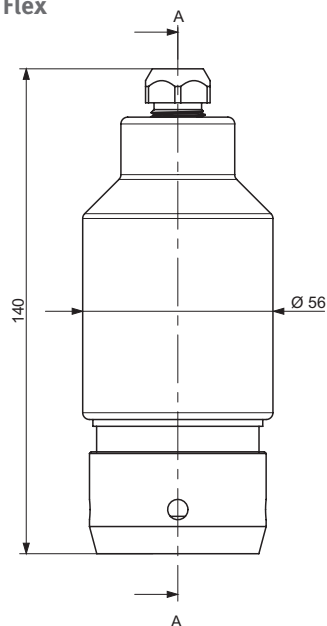
No.	Terminal
1	Capillary tube (reference for ambient pressure - do not block)
2	Signal (+), brown wire
3	Signal (-), white wire

## Hydrostatic filling level sensor HFT C2 Compact / Flex (suspended probe)

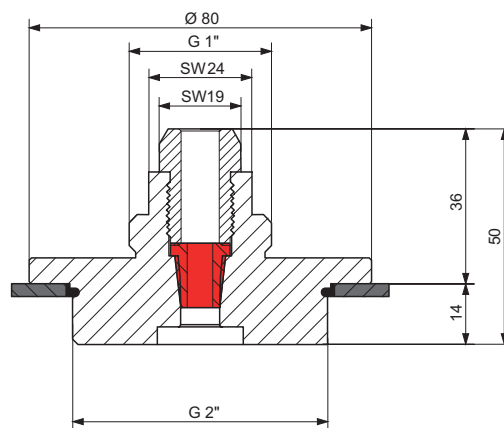
HFT C2 Compact



HFT C2 Flex



Accessories



Article numbers	Description
148157	Tank leadthrough 2" PP EPDM
148158	Tank leadthrough 2" PP FPM
148149	Tank leadthrough 2" PDVF EPDM
148150	Tank leadthrough 2" PDVF FPM