

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

Pressure measuring range 0–0,5 bar

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 5 m water column in pressure-free containers
- as suspended probe (FLEX) with 7m 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

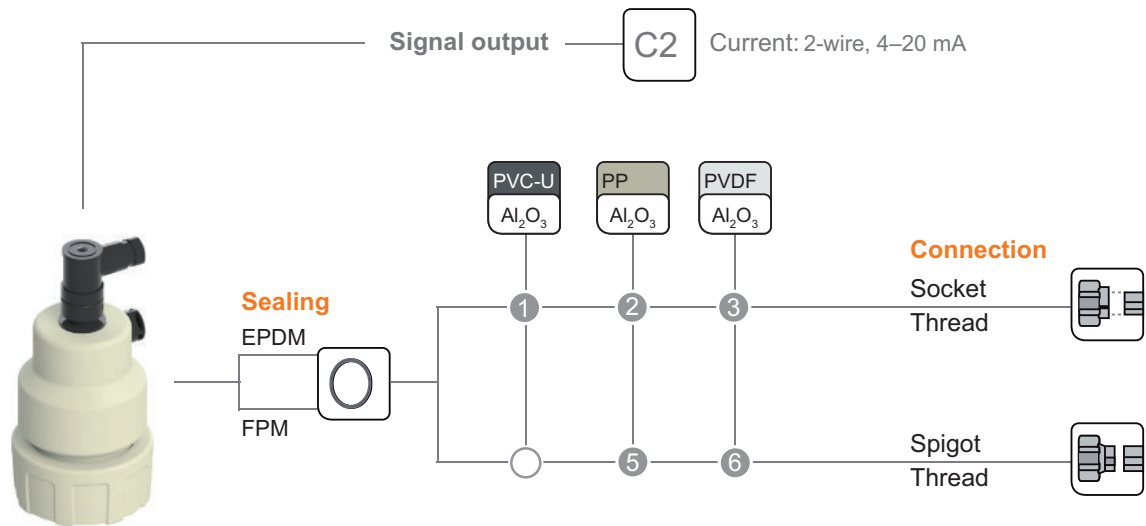
The display and operating unit (Uni Display) cannot be used for the C2 version!

[www.asv-stuebbe.com/produkte/mess-und-regeltechnik](http://www.asv-stuebbe.com/produkte/mess-und-regeltechnik)

## HFT C2 Compact



Pressure



### 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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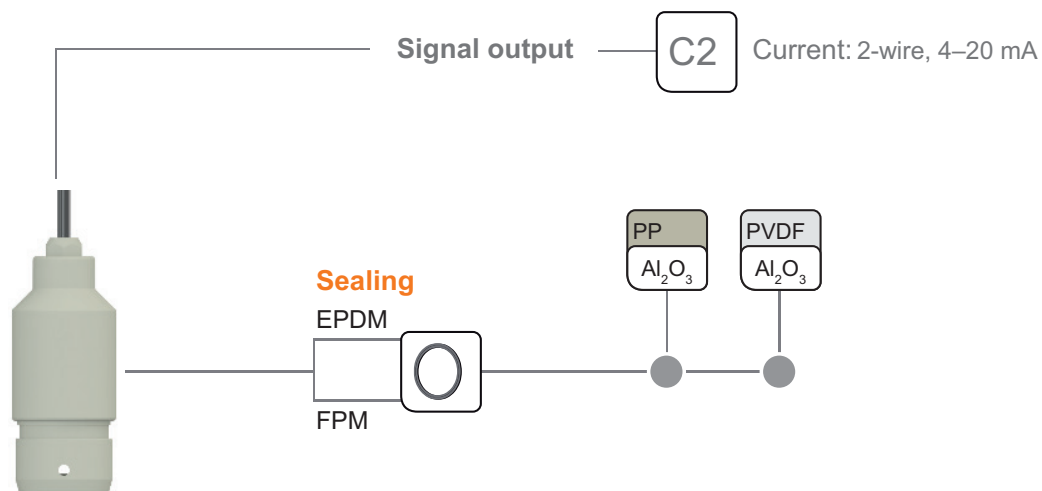
● available  
○ not available

### Connection Material (process connection)

1	PVC-U socket	DIN
2	PP socket	DIN
3	PVDF socket	DIN
5	PP spigot	DIN
6	PVDF spigot	DIN

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

### HFT C2 Flex



● available  
○ not available

#### Connection Material (process connection)

- immersion probe 7m FEP cable \*
- \* included in the scope of delivery

## 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

## ASV resistance guide

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

## Function

- The hydrostatic or process pressure is registered by a ceramic transducer made of  $Al_2O_3$ .
- Versions:
  - different inserts
  - different elastomers

## Designs

Compact:

- with M12 plug with screwed contacts

Flex:

- with 7 m sensor cable

## Interfaces

- Signal output, current loop (C2):
  - 4–20 mA
  - 2-wire

## Measured variables

- Pressure (filling level)

## Device connection

- Socket end for solvent welding (PVC-U): d32
- Fusion socket end (PVDF or PP): d32
- Fusion spigot end (PVDF or PP): d32
- suspended by cable

## Voltage supply

- $U = 9–35$  V DC
- maximum load:  $R_{shunt} = (VCC - 7.5 V) / 0.03 A$

## Cable connections

Compact:

- Cable outside diameter: 3–6 mm
- Nominal cross-section, voltage supply: 0.25 mm<sup>2</sup>

Flex:

- Connection with single wire connectors:
  - Wire diameter: 0.4–0.9 mm
  - Wire insulation diameter: 2.09 mm

## Materials, in contact with medium

- Sensor:  $Al_2O_3$  96 %
- Sensor housing: PVC-U, PVDF or PP
- Sensor seal: EPDM, FPM
- Sensor cable for Flex: FEP
- Union end and union nut: PVC-U, PVDF or PP
- Sealing: EPDM, FPM

## Materials, no medium contact

Compact:

- Sensor housing: PE

## Weights

Compact:

- Basic weight: 0.3 kg

Flex:

- Sensor weight PP: 0.48 kg
- Sensor weight PVDF: 0.56 kg
- Sensor cable: 0.1 kg/m
- Additional weight: 0.5 kg

## Type of protection

- Compact: IP 65
- Immersion probe IP 67

## Output behaviour

- Power up: 1 s
- Step response (10–90 %): < 5 ms

## Sensor data (pressure)

- Measuring range: 0–0.5 bar
- Maximum overpressure: 1.0 bar
- Precision:
  - at 0–85 °C: ±2.5 %
  - at 25 °C: ±1.5 %

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

### Ambient conditions

- Ambient temperature: -20–70 °C
- Atmospheric ambient pressure: 0.8–1.1 bar
- Relative humidity: 20–85 %

### Process temperature

- PVC: 0–50 °C
  - PP: 0–70 °C
- Compact:
- PVDF: -10–100 °C
- Flex:
- PVDF: -10–80 °C

### Mounting position

- any

### Accessories

- Tank leadthrough

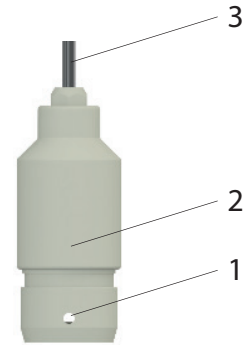
# Hydrostatic filling level sensor HFT C2 Compact / Flex (suspended probe)

## HFT C2 Compact



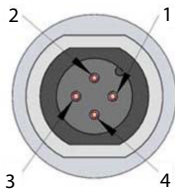
No.	Description
1	Device connection
2	Sensor housing
3	4-pin connector M12

## HFT C2 Flex



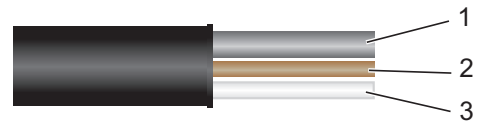
No.	Description
1	Protection cap
2	Sensor housing
3	FEP cable

## Circuit diagram, plug connector



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

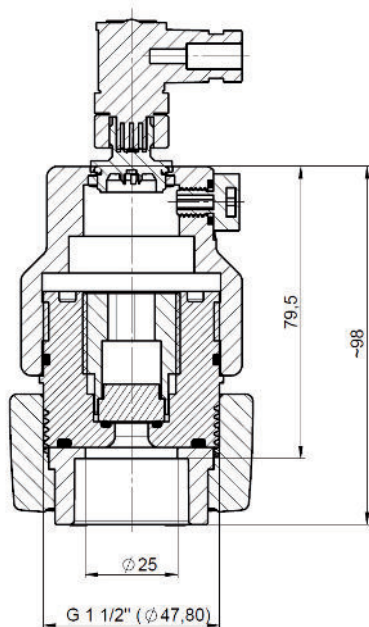
## Circuit diagram, sensor cable



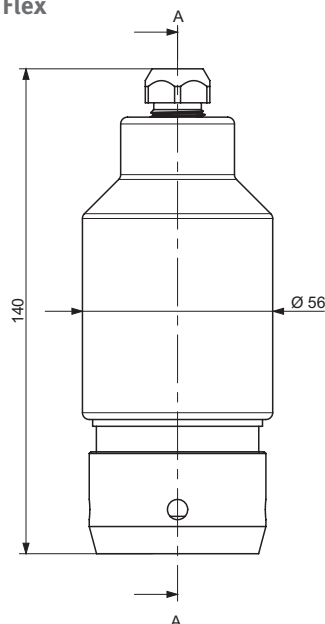
No.	Terminal
1	Capillary tube (reference for ambient pressure - do not block)
2	Signal (+), brown wire
3	Signal (-), white wire

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

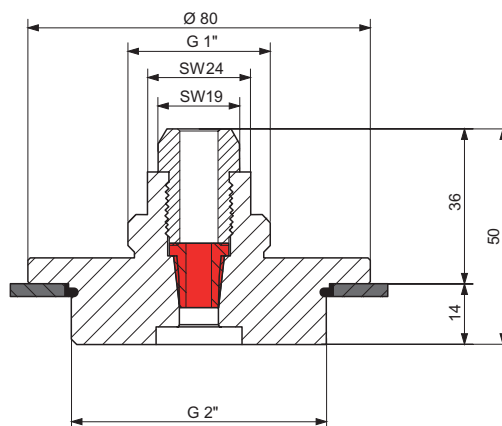
**HFT C2 Compact**



**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