

# FLOAT LEVEL SENSOR

The label *Trafag Industrial Components* extends the Trafag brand name to instruments manufactured by qualified partner companies. Trafag Industrial Components complement the genuine Trafag product range to offer customers a complete portfolio from one single source.

The principle of operation is of potentiometric type, based on the gradual shutdown of a chain of resistors and reed contacts, placed inside the guiding rod, by a magnetic float. An analogue output signal is provided with a measuring resolution of 5, 10 or 20mm.



## Applications

- Water treatment
- Machine tools
- Mobile hydraulics
- Food & Beverages
- Chemical & Pharmaceutical



## Features

- Measuring resolution 5, 10, 20 mm
- Analogue output 4 ... 20 mA, 0 ... 5 or 0 ... 10 VDC
- Optional temperature sensor PT1000
- Minimum degree of protection IP65

## Reference

- EN61326-1

04/2026

Data sheet H20040f

Standard parameters			
Type	TFCO	TFCS	TFCP / D / V
Floats	Spansil - Butadiene - Acrylonitrile Copolymer	Stainless steel AISI316	PVDF - PP - PVC
Ambient temperature	-30 ... + 55°C	-30 ... +55°C	-30 ... +55°C
Media temperature	Up to 105°C, optional 120°C	Up to 105°C, optional 150°C	Up to 130°C (PVDF) Up to 90°C (PP) Up to 60°C (PVC)
Working pressure <sup>1</sup>	20 bar max	50 bar max	6 bar (PVDF or PVC) max 3 bar (PP) max

<sup>1</sup> Depend of type of float.

## Ordering code

		TFC - X - XX - XXX - XX - XXXX / XXXX - XXX - XX - X - XX						
<b>1. Float and Stem Material<sup>1</sup></b>	Brass and Spansil	O	PVDF	D				
	AISI316 L	S	PVC	V				
	PP	P						
<b>2. Measuring resolution<sup>2</sup></b>	05 mm			05				
	10 mm			10				
	20 mm			20				
<b>3. Floats<sup>2-5</sup></b>	<i>Float material</i>	<i>Type</i>	<i>Dimension (in mm)</i>		<i>Float material</i>	<i>Type</i>	<i>Dimension (in mm)</i>	
	Spansil	TFCO	Ø 30x20	B20	PVDF	TFCD	Ø 49x53	F49
			Ø 20x28	B28	PP	TFCP	Ø 49x53	P49
			Ø 30x45	B45	PVC	TFCV	Ø 49x53	V49
			Ø 44x50	B44				
	AISI316 L	TFCS	Ø 30x32	S29	Special float <sup>6</sup>			Z99
			Ø 52x68	S52				
			Ø 52	S53				
			Ø 100	S10				
<b>4. Output signal</b>	4 ... 20 mA	TA	0 ... 5 VDC	TW				
	0 ... 10 VDC	TV						
<b>5. Stem length<sup>5</sup></b>	"LO" max 2000 mm			XXXX				
<b>6. Measuring length</b>	"LM" max 2000 mm			XXXX				
<b>7. Process connection<sup>3</sup></b>	Outside, G 1" m	G25	Flange type DIN (to specify dimension for ex. 2")	DN1				
	Outside, 1" NPT m	N25	Flange type ANSI (to specify dimension for ex. DN40 PN16)	DN2				
	Flange type EN (to specify PN)	DN3	Flange 6 holes on Ø60 mm in brass	FOH				
	Outside, G 1 1/2" m	G40	Flange 6 holes on Ø60 mm in SS	FSH				
	Outside, 1 1/2" NPT m	N40	Special process connection <sup>7</sup>	X99				
	Outside, G 2" m	G50						
	Outside, 2" NPT m	N50						
<b>8. Electrical connection<sup>4</sup></b>	Housing	W1	Cable gland brass including 3 m SILICON cable	P2				
	DIN43650 A	S1	Special electrical connection <sup>8</sup>	C9				
	Cable gland brass including 3 m PVC cable	P1						
<b>9. Temperature class<sup>2</sup></b>	Standard	L	High (only TFCS) <sup>11</sup>	H				
	Medium (only TFCS and TFCO)	M						
<b>10. Options</b>	PT1000 EN60751 IEC751 Class A	PT	Other options <sup>9</sup>	ZZ				
	Shipbuilding version - EUROMR <sup>10</sup>	MR						

<sup>1)</sup> See table Materials

<sup>2)</sup> See table Floats

<sup>3)</sup> See table Process connections

<sup>4)</sup> See table Electrical Connections

<sup>5)</sup> See table Dimensions

<sup>6)</sup> For other floats, please contact factory

<sup>7)</sup> For other process connections, please contact factory

<sup>8)</sup> For other electrical connections, please contact factory

<sup>9)</sup> For other options, please contact factory.

<sup>10)</sup> Not available with Brass and spansil/PVC/PP/PVDF

<sup>11)</sup> In combination with cooling tower


## Order example

- TFC - S - 20 - S29 - TA - XXX - G25 - W1 - L
- TFC - S - 20 - S52 - TA - XXX - G50 - W1 - L
- TFC - O - 20 - B20 - TA - XXX - G25 - S1 - L
- TFC - O - 20 - B45 - TA - XXX - G25 - W1 - L
- TFC - P - O5 - V49 - TA - XXX - G50 - P1 - L

## Material

Type	Stem	Float	Process connection	Flange
TFCO xx B xx	Brass	Spansil	Brass	Brass
TFCS xx S xx	AISI316	AISI316	AISI316	AISI316
TFCD x F xx	PVDF	PVDF	PVDF	PVDF
TFCP x P xx	PP	PP	PP	PP
TFCV x V xx	PVC	PVC	PVC	PVC

## Floats TFCO




				
Code	<b>B20</b>	<b>B28</b>	<b>B45</b>	<b>B44</b>
Material	Spansil	Spansil	Spansil	Spansil
Dimension (mm)	Ø30x20	Ø20x28	Ø30x45	Ø44x50
Specific gravity (kg/dm <sup>3</sup> )	0,4	0,4	0,35	0,45
Measuring Resolution (mm)	5 - 10	5 - 10	5 - 10 - 20	5 - 10 - 20
Max. Pressure (bar)	20	20	20	20
Media temperature standard code "L"	105°C	105°C	105°C	105°C
Media temperature medium code "M"	120°C	120°C	120°C	120°C

## Floats TFCS

							
Code	<b>S29</b>	<b>S32</b>	<b>S40</b>	<b>S41</b>	<b>S52</b>	<b>S53</b>	<b>S10</b>
Material	AISI316	AISI 316	AISI 316	AISI 316	AISI316	AISI316	AISI316
Dimension (mm)	Ø30x32	Ø30x32	Ø40x52	Ø41x35	Ø52x68	Ø52	Ø100
Specific gravity (kg/dm <sup>3</sup> )	0,75	0,55	0,78	0,82	0,65	0,7	0,6
Measuring Resolution (mm)	5	5	20	10	5	10 - 20	10 - 20
Max. Pressure (bar)	30	10	15	10	50	40	15
Media temperature standard code "L"	105°C	105°C	105°C	105°C	105°C	105°C	105°C
Media temperature high code "M"	150°C	150°C	150°C	150°C	150°C	150°C	150°C

## Floats TFCP / D / V

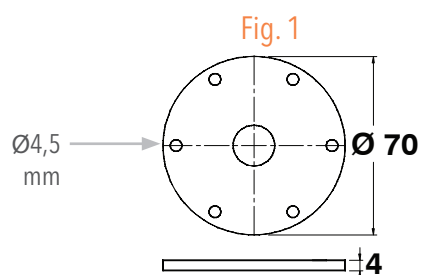
**Tab. 2**

			
<b>Code</b>	<b>F49</b>	<b>P49</b>	<b>V49</b>
<b>Material</b>	PVDF	PP	PVC
<b>Dimension (mm)</b>	Ø49x53	Ø49x53	Ø49x53
<b>Specific gravity (kg/dm<sup>3</sup>)</b>	0,8	0,45	0,7
<b>Measuring Resolution (mm)</b>	5	10	20
<b>Max. Pressure (bar)</b>	6	3	6
<b>Media temperature standard code "L"</b>	130°C	90°C	60°C

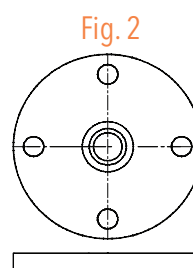
## Process connection

**Tab. 3**

Code	Type Process Connection	TFCO				TFC S						TFCP / D / V			
		B20	B28	B45	B44	S29	S32	S40	S41	S52	S53	S10	F49	P49	V49
G25	G 1" m, mounting from outside	✓	✓	✓		✓	✓								
N25	1" NPT m, mounting from outside		✓												
G40	G 1 1/2" m, mounting from outside	✓	✓	✓	✓	✓	✓	✓	✓						
N40	1 1/2" NPT m, mounting from outside	✓	✓	✓		✓	✓	✓	✓						
G50	G 2" m	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
N50	2" NPT m	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓
DN1	Flange type DIN				✓			✓	✓	✓	✓	✓	✓	✓	✓
DN2	Flange type ANSI				✓			✓	✓	✓	✓	✓	✓	✓	✓
FOH	Flange 6 hole on Ø60mm in brass	✓	✓	✓											
FSH	Flange 6 hole on Ø60mm in SS					✓	✓								



**FOH - FSH**  
6 holes on Ø60 mm



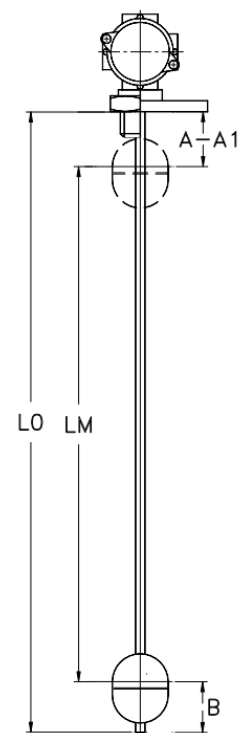
**DN = DIN - ANSI Flanges**

### Flanges available

DIN type	ANSI type
DN25 PN6 or PN16 or PN40	1" ANSI 150# RF or 300# RF or 600# RF
DN50 PN6 or PN16 or PN40	2" ANSI 150# RF or 300# RF or 600# RF
DN80 PN6 or PN16 or PN40	3" ANSI 150# RF or 300# RF or 600# RF
DN125 PN6 or PN16 or PN40	4" ANSI 150# RF or 300# RF or 600# RF

## Electrical Connection

Code	W1	S1	P1/P2
Dimension (mm)			
IP Rating	IP65	IP65	IP68
Max No of wires	3 + 2 for PT	3	3 + 2 for PT
Material	Die Cast Aluminium	Plastic (Polyamide + Fiber glass)	Cable gland brass Cable PVC (max 105°C) or SILICON (max 150°C)
Ambient temperature	-30 ... +55°C	-30 ... +55°C	-30 ... +55°C



A= Flanged connection  
A1 = Threaded connection  
LO = max length 2000 mm

## Dimension (mm)

Code	TFCO				TFCS							TFCP / D / V		
	B20	B28	B45	B44	S29	S32	S40	S41	S52	S53	S10	F49	P49	V49
A	10	15	25	25	15	15	15	10	35	25	50	25	25	25
A1	25	30	40	45	35	35	35	30	55	45	-	45	45	45
B	15	20	30	30	25	25	45	30	40	30	60	30	30	30

## Wiring

Code	TA	TW	TV
Output signal	4 ... 20 mA	0 ... 5 VDC	0 ... 10 VDC
Wiring			
Power supply	18 ... 36 VDC	18 ... 30 VDC	18 ... 30 VDC
Max load	500 Ω	500 Ω	500 Ω

### Additional information

Documents	Data sheet	H20040	<a href="http://www.trafag.com/H20040">www.trafag.com/H20040</a>
	Instructions	H21040	<a href="http://www.trafag.com/H21040">www.trafag.com/H21040</a>