

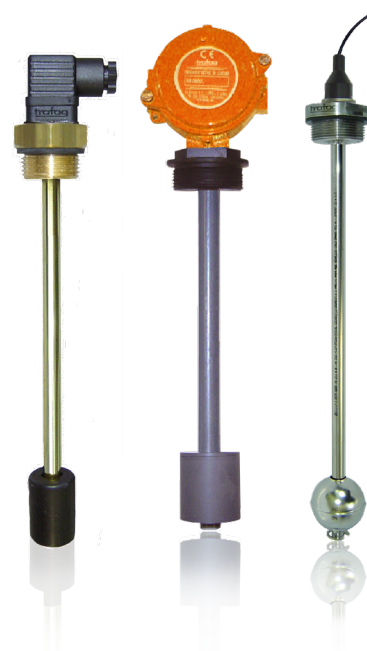
FLOAT LEVEL SENSOR

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

08/2019

Data sheet H20040d

Standard parameters			
Type	TFCO	TFCS	TFCP
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 ¹	20 bar max	50 bar max	6 bar (PVDF or PVC) max 3 bar (PP) max

¹ Depend of type of float.

Ordering code

		TFC	X	XX	XXX	XX	XXXX	XXX	XX	X	XX
1. Float and Stem Material¹	Brass and Spansil		O								
	AISI316 L		S								
	PP or PVDF or PVC		P								
2. Measuring resolution²	05 mm										05
	10 mm										10
	20 mm										20
3. Floats²⁻⁵	<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	TFCP	Ø 49x53				F49
			Ø 20x28	B28	PP	TFCP	Ø 49x53				P49
			Ø 30x45	B45	PVC	TFCP	Ø 49x53				V49
			Ø 44x50	B44							
	AISI316 L	TFCS	Ø 30x32	S29	Special float ⁶						Z99
			Ø 52x68	S52							
			Ø 52	S53							
			Ø 100	S10							
	4. Output signal	4 ... 20 mA		TA		0 ... 5 VDC					
0 ... 10 VDC			TV								
5. Stem length⁵	"L0" max 2000 mm										XXXX
6. Process connection³	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
	Outside, G 1 1/2" m		G40	Flange 6 holes on Ø60 mm in brass							FOH
	Outside, 1 1/2" NPT m		N40	Flange 6 holes on Ø60 mm in SS							FSH
	Outside, G 2" m		G50	Special process connection ⁷							X99
	Outside, 2" NPT m		N50								
7. Electrical connection⁴	Housing		W1	Cable gland brass including 3 m SILICON cable							P2
	DIN43650 A		S1	Special electrical connection ⁸							C9
	Cable gland brass including 3 m PVC cable		P1								
8. Temperature class²	Standard		L	High (only TFCS)							H
	Medium (only TFCS and TFCO)		M								
9. Options	PT1000 EN60751 IEC751 Class A		PT	Other options ⁹							ZZ

¹⁾ See table Materials

²⁾ See table Floats

³⁾ See table Process connections

⁴⁾ See table Electrical Connections

⁵⁾ See table Dimensions

⁶⁾ For other floats, please contact factory

⁷⁾ For other process connections, please contact factory

⁸⁾ For other electrical connections, please contact factory

⁹⁾ For other options, please contact factory.





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 - 05 - V49 - TA - XXX - G50 - P1 - L

Material

Tab. 1				
Type	Stem	Float	Process connection	Flange
TFCO xx B xx	Brass	Spansil	Brass	Brass
TFCS xx S xx	AISI316	AISI316	AISI316	AISI316
TFCP xx F xx	PVDF	PVDF	PVDF	PVDF
TFCP xx P xx	PP	PP	PP	PP
TFCP xx V xx	PVC	PVC	PVC	PVC




Floats TFCO

Tab. 2				
				
Code	B20	B28	B45	B44
Material	Spansil	Spansil	Spansil	Spansil
Dimension (mm)	Ø30x20	Ø20x28	Ø30x45	Ø44x50
Specific gravity (kg/dm ³)	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

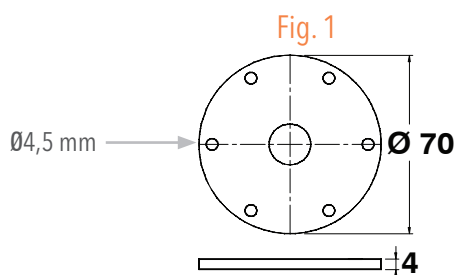
Tab. 2				
				
Code	S29	S52	S53	S10
Material	AISI316	AISI316	AISI316	AISI316
Dimension (mm)	Ø30x32	Ø52x68	Ø52	Ø100
Specific gravity (kg/dm ³)	0,75	0,65	0,7	0,6
Measuring Resolution (mm)	5	10 - 20	5	10 - 20
Max. Pressure (bar)	30	40	50	15
Media temperature standard code "L"	105°C	105°C	105°C	105°C
Media temperature high code "H"	150°C	150°C	150°C	150°C

Floats TFCP

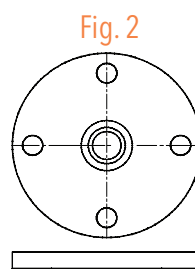
Tab. 2			
			
Code	F49	P49	V49
Material	PVDF	PP	PVC
Dimension (mm)	Ø49x53	Ø49x53	Ø49x53
Specific gravity (kg/dm³)	0,8	0,45	0,7
Measuring Resolution (mm)	5	5	5
Max. Pressure (bar)	6	3	6
Media temperature standard code "L"	130°C	90°C	60°C

Process connection

Tab. 3												
Code	Type Process Connection	TFCO				TFCS				TFCP		
		B20	B28	B45	B44	S29	S52	S53	S10	F49	P49	V49
G25	G 1" m, mounting from outside	✓	✓	✓		✓						
N25	1" NPT m, mounting from outside		✓									
G40	G 1 ½" m, mounting from outside	✓	✓	✓	✓	✓						
N40	1 ½" 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

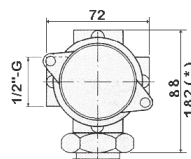
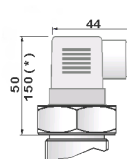
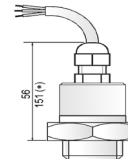


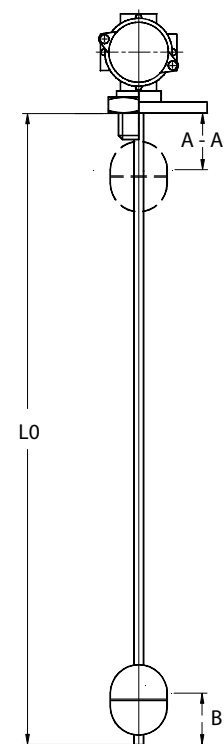
DN = DIN - ANSI Flanges

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

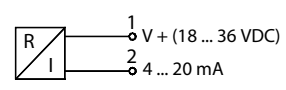
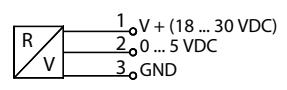
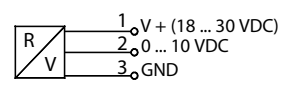


A= Flanged connection
A1 = Threaded connection
L0 = max length 2000 mm

Dimension (mm)

Code	TFCO				TFC S				TFC P		
	B20	B28	B45	B44	S29	S52	S53	S10	F49	P49	V49
A	10	15	25	25	15	35	25	50	25	25	25
A1	25	30	40	45	35	55	45	-	45	45	45
B	15	20	30	30	25	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	www.trafag.com/H20040
	Instructions	H21040	www.trafag.com/H21040