

# Float

## For bypass level indicators

### Model BFT

WIKA data sheet LM 10.02

#### Applications

- Float for the monitoring of liquids in bypass level indicators
- Individual design and corrosion resistant materials make the products suitable for a broad range of applications
- Chemical, petrochemical, natural gas, offshore, shipbuilding, machine building, power generating equipment, power plants
- Process water and drinking water treatment, food industry, pharmaceutical industry

#### Special features

- Sealed, pressure retaining design
- Density range from 340 kg/m<sup>3</sup>
- Pressures up to 400 bar
- Medium temperatures from -196 ... +450 °C
- Versions for interface layer

#### Description

The model BFT float serves for the monitoring of liquids in bypass level indicators. The magnetic system built into the float transmits the liquid level, contact-free, to externally mounted displays, switches and sensors. Due to its omnidirectional, radial magnetic field, a guide within the tube is not needed.

The design will depend on the application, chemical resistance and the 3 physical quantities of pressure, temperature and density.



Fig. left: Corrugated float, model BFT-S  
 Fig. centre: Cylindrical float, model BFT-H  
 Fig. right: Plastic float, model BFT-P



Fig. left: Foam float, model BFT-F  
 Fig. right: Ball-segment float, model BFT-K

## Model overview

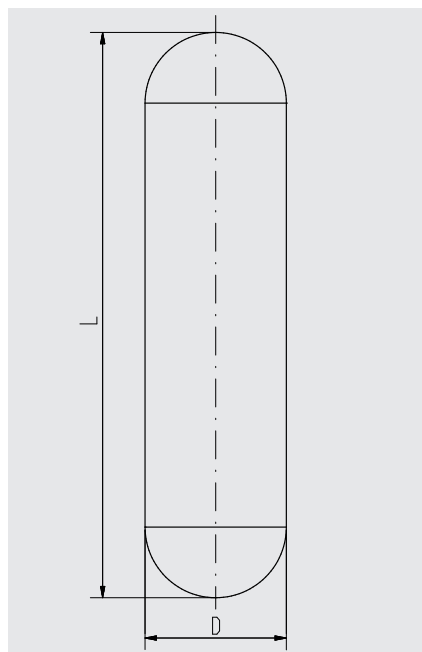
Float	Material	Density range	Pressure range	Temperature range
Cylindrical float, model BFT-H	Stainless steel 1.4571	> 470 kg/m <sup>3</sup>	Vacuum ... 100 bar	-200 ... +450 °C
	Titanium 3.7035	> 340 kg/m <sup>3</sup>		
Corrugated float, model BFT-S	Stainless steel 1.4571	> 470 kg/m <sup>3</sup>	Vacuum ... 25 bar	-50 ... +200 °C
	Titanium 3.7035	> 340 kg/m <sup>3</sup>		
Ball-segment float, model BFT-K	Titanium 3.7065	> 400 kg/m <sup>3</sup>	Vacuum ... 250 bar	-200 ... +450 °C
Plastic float, model BFT-P	PP	> 590 kg/m <sup>3</sup>	Vacuum ... 6 bar	-20 ... +80 °C
	PVDF	> 790 kg/m <sup>3</sup>		-50 ... +100 °C
Foam float, model BFT-F	Syntactic foam	> 750 kg/m <sup>3</sup>	Vacuum ... 450 bar	-20 ... +100 °C

## Classification of the floats

Bypass level indicator	Suitable float				
	Model BFT-S	Model BFT-H	Model BFT-P	Model BFT-F	Model BFT-K
Standard version, model BNA-S	x	x			
High-pressure version, model BNA-H		x		x	x
Plastic version, model BNA-P			x		
Compact version, model BNA-C		x			
DUPlus version, model BNA-SD	x	x			
Heating jacket version, model BNA-SJ		x			
Liquid gas/KOPlus version, model BNA-L		x			

## Cylindrical float, model BFT-H32 (with order no.)

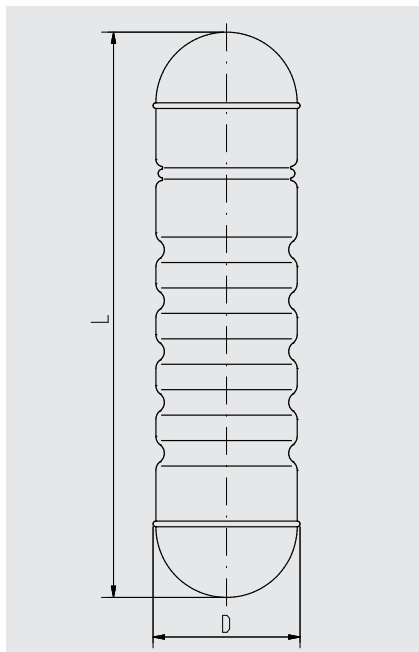
Permissible temperature: -200 ... +400 °C



PN	Density range in kg/m <sup>3</sup>	Diameter in mm	Length in mm	Material	Order no.
16	1,270 ... 2,000	32	125	Stainless steel (1.4571)	506369
	1,090 ... 1,350	32	150	Stainless steel (1.4571)	030098
	940 ... 1,110	32	180	Stainless steel (1.4571)	029781
	850 ... 980	32	210	Stainless steel (1.4571)	100430
	780 ... 880	32	245	Stainless steel (1.4571)	110570
	730 ... 800	32	285	Stainless steel (1.4571)	032023
40	1,360 ... 2,000	32	125	Stainless steel (1.4571)	506374
	1,140 ... 1,400	32	155	Stainless steel (1.4571)	030108
	1,010 ... 1,180	32	185	Stainless steel (1.4571)	029808
	900 ... 1,020	32	225	Stainless steel (1.4571)	030107
	820 ... 910	32	265	Stainless steel (1.4571)	030106
	760 ... 830	32	315	Stainless steel (1.4571)	029828
	1,130 ... 2,000	32	125	Titanium (3.7035)	029834
	900 ... 1,100	32	160	Titanium (3.7035)	029835
	770 ... 900	32	200	Titanium (3.7035)	030104
	670 ... 770	32	240	Titanium (3.7035)	030293
	610 ... 680	32	290	Titanium (3.7035)	030090
	560 ... 620	32	350	Titanium (3.7035)	030743
	530 ... 570	32	420	Titanium (3.7035)	030101
	490 ... 530	32	510	Titanium (3.7035)	031537

## Corrugated float, model BFT-S50 (with order no.)

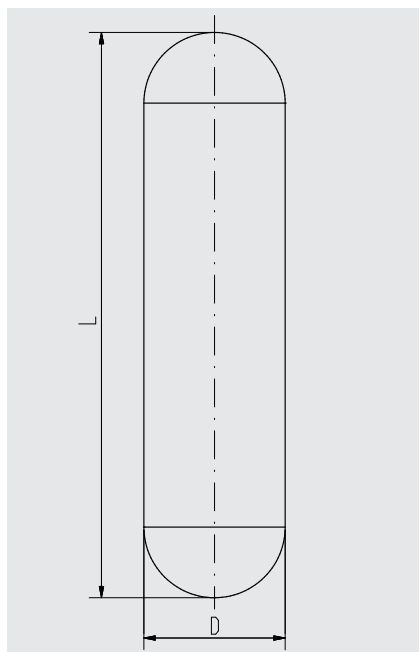
Permissible temperature: -50 ... +200 °C



PN	Density range in kg/m <sup>3</sup>	Diameter in mm	Length in mm	Material	Order no.
25	990 ... 2,000	50	150	Stainless steel (1.4571)	029044
	830 ... 1,000	50	185	Stainless steel (1.4571)	029045
	730 ... 840	50	225	Stainless steel (1.4571)	029046
	640 ... 730	50	275	Stainless steel (1.4571)	029047
	590 ... 650	50	335	Stainless steel (1.4571)	029048
	550 ... 600	50	400	Stainless steel (1.4571)	031229
	520 ... 560	50	470	Stainless steel (1.4571)	031230
	490 ... 530	50	555	Stainless steel (1.4571)	031231
	470 ... 500	50	650	Stainless steel (1.4571)	031232
	820 ... 2,000	50.8	150	Titanium (3.7035)	031235
	710 ... 850	50.8	180	Titanium (3.7035)	030683
	600 ... 710	50.8	215	Titanium (3.7035)	030684
	540 ... 610	50.8	250	Titanium (3.7035)	029034
	480 ... 540	50.8	300	Titanium (3.7035)	029035
	430 ... 490	50.8	355	Titanium (3.7035)	029036
	400 ... 440	50.8	410	Titanium (3.7035)	029037
	380 ... 410	50.8	465	Titanium (3.7035)	029038
	370 ... 390	50.8	525	Titanium (3.7035)	029039
	360 ... 380	50.8	595	Titanium (3.7035)	029040
	340 ... 370	50.8	680	Titanium (3.7035)	029041

## Cylindrical float, model BFT-H

Permissible temperature: -200 ... +450 °C

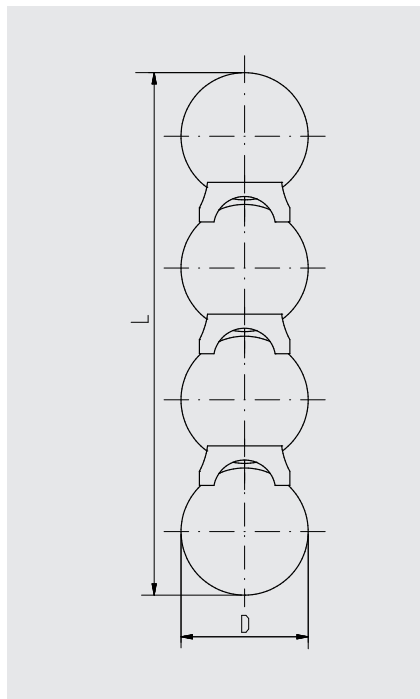


**Material:** Stainless steel 1.4571  
**Diameter:** 50 mm  
**Length:** 150 ... 650 mm (depending on pressure, density and temperature)  
**Weight:** depending on pressure, density and temperature  
**Magnetic system:** depending on pressure, density and temperature  
**Nominal density:** depending on pressure, density and temperature  
**Density range:** depending on pressure, density and temperature  
**Max. pressure:** < 40 bar

**Material:** Titanium 3.7035  
**Diameter:** 45, 50.8 or 60 mm  
**Length:** 150 ... 650 mm (depending on pressure, density and temperature)  
**Weight:** depending on pressure, density and temperature  
**Magnetic system:** depending on pressure, density and temperature  
**Nominal density:** depending on pressure, density and temperature  
**Density range:** depending on pressure, density and temperature  
**Max. pressure:** < 100 bar

## Ball-segment float, model BFT-K

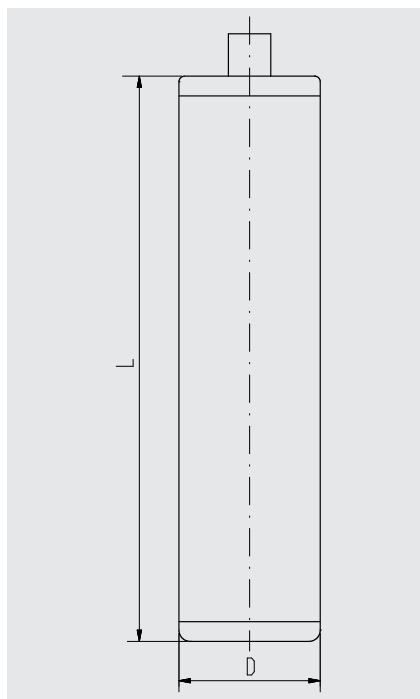
Permissible temperature: -200 ... +450 °C



<b>Material:</b>	Titanium 3.7065
<b>Diameter:</b>	45, 50.8 or 60 mm
<b>Length:</b>	150 ... 700 mm (depending on pressure, density and temperature)
<b>Weight:</b>	depending on pressure, density and temperature
<b>Magnetic system:</b>	depending on pressure, density and temperature
<b>Nominal density:</b>	depending on pressure, density and temperature
<b>Density range:</b>	depending on pressure, density and temperature
<b>Max. pressure:</b>	< 250 bar

## Plastic float, model BFT-P

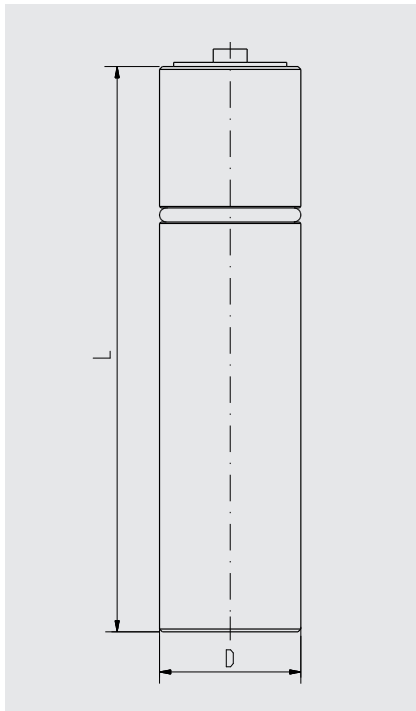
Permissible temperature: -20 ... +80 °C (PP), -50 ... +100 °C (PVDF)



<b>Material:</b>	PP or PVDF
<b>Diameter:</b>	50 mm
<b>Length:</b>	150 ... 450 mm (depending on pressure, density and temperature)
<b>Weight:</b>	depending on pressure, density and temperature
<b>Magnetic system:</b>	depending on pressure, density and temperature
<b>Nominal density:</b>	depending on pressure, density and temperature
<b>Density range:</b>	depending on pressure, density and temperature
<b>Max. pressure:</b>	< 6 bar

## Foam float, model BFT-F

Permissible temperature: -20 ... +100 °C



<b>Material:</b>	Syntactic foam
<b>Diameter:</b>	40 ... 80 mm
<b>Length:</b>	150 ... 750 mm (depending on pressure, density and temperature)
<b>Weight:</b>	depending on pressure, density and temperature
<b>Magnetic system:</b>	depending on pressure, density and temperature
<b>Nominal density:</b>	depending on pressure, density and temperature
<b>Density range:</b>	depending on pressure, density and temperature
<b>Max. pressure:</b>	< 600 bar

### Ordering information

To order the described product the order number (if available) is sufficient.

Alternatively:

Model / Material / Diameter / Length / Pressure rating / Magnetic system / Interface layer

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