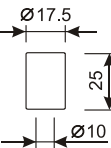
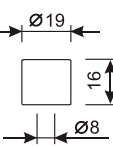
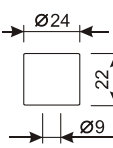
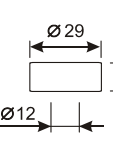
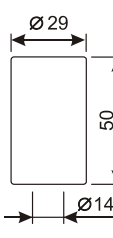
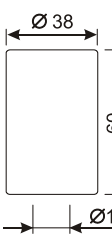
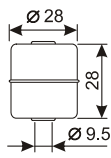
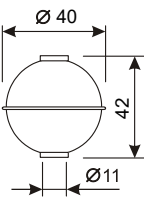
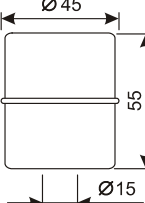
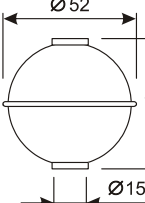
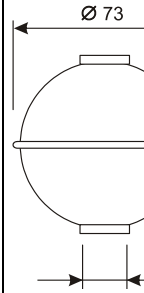
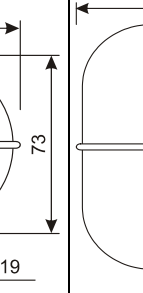
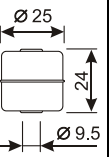
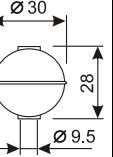
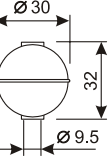
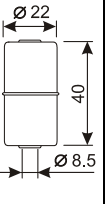
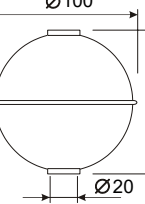
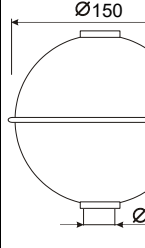
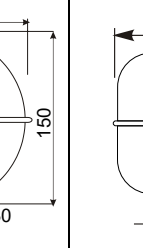


Float Switch Technology

FLOAT TYPES							
plastic	N1	P0	P1	P10	P2	P3	P4
Specifications							
Material	NBR	PP	PP	PP	PP	PP	PVDF
Specific gravity	0.60 g/cm ³	0.73 g/cm ³	0.60 g/cm ³	0.72 g/cm ³	0.60 g/cm ³	0.50 g/cm ³	0.70 g/cm ³
Temperature range	-20...100 °C	-20...80 °C	-20...80 °C	-20...80 °C	-10...80 °C	-10...80 °C	-30...125 °C
Maximum pressure	0 bar	5 bar	5 bar	5 bar	3 bar	3 bar	2 bar
Dimensions	17.5x25 mm	19x16 mm	24x22 mm	29x11 mm	29x50 mm	38x60 mm	38x60 mm
Internal diameter	10 mm	8 mm	9 mm	12 mm	14 mm	18 mm	18 mm
Weight	2.5 g	2.8 g	5 g	4.4 g	14 g	23 g	37.5 g
stainless steel	S1	S2	S3	S4	S5	S6	
Specifications							
Material	SS 316	SS 316	SS 316	SS 316	SS 304	SS 304	
Specific gravity	0.70 g/cm ³	0.70 g/cm ³	0.65 g/cm ³	0.55 g/cm ³	0.65 g/cm ³	0.50 g/cm ³	
Temperature range	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	
Maximum pressure	10 bar	30 bar	12 bar	30 bar	30 bar	10 bar	
Dimensions	28x28 mm	40x42 mm	45x55 mm	52x52 mm	73x73 mm	75x108 mm	
Internal diameter	9.5 mm	11 mm	15 mm	15 mm	19 mm	19 mm	
Weight	8 g	19 g	37 g	33 g	105 g	147 g	
stainless steel	S0	S7	S10	S20	S8	S9	S11
Specifications							
Material	SS 316	SS 316	SS 316	SS 316	SS 304	SS 304	SS 316
Specific gravity	0.72 g/cm ³	0.82 g/cm ³	0.82 g/cm ³	0.75 g/cm ³	0.5 g/cm ³	0.45 g/cm ³	0.45 g/cm ³
Temperature range	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-40...200 °C
Maximum pressure	8 bar	30 bar	50 bar	30 bar	30 bar	30 bar	15 bar
Dimensions	25x24 mm	30x28 mm	30x32 mm	22x40 mm	100x100 mm	150x150 mm	51x61 mm
Internal diameter	9.5 mm	9.5 mm	9.5 mm	8.5 mm	20 mm	30 mm	15.5 mm
Weight	6 g	8 g	8.6 g	10 g	250 g	534 g	37 g

CHEMICAL COMPATIBILITY OF LEVEL SENSOR MATERIALS																				
Chemical	Concentration [%]	Temperature [°C]	PVC	PP	PVDF	PTFE	NBR	SS 304	SS 316	Chemical	Concentration [%]	Temperature [°C]	PVC	PP	PVDF	PTFE	NBR	SS 304	SS 316	
Ammonia Water NH ₄ OH	10	40	●	●	●	●	○			Sodium Hypochlorite NaClO	3	40	●	○	●	●		□	○	
		80		○	●	●						80								
Aqua Regia 3HCL + HNO ₃	10	40	□	□	●	●				13	40	40	●	□	●	●		X	X	
		80			●	●					80	80								
Benzene C ₆ H ₆	pure	40	X	□	○	●				Sulfuric Acid H ₂ SO ₄	10	40	●	●	●	●	●	●	●	
		80			□	●						80	80		●	●	●	○	○	○
Bleaching Liquor Ca(ClO) ₂	<20	40	●		●	●					30	40	40	●	●	●	●	●	X	X
		80			●	●						80	80		●	●	●	○	X	X
Potassium Chromate K ₂ CrO ₄		40	●	●	●	●	●				50	40	40	●	●	●	●	○	X	X
		80		○	●	●	○					80	80		●	●	●	□	X	X
Boric Acid H ₃ BO ₃	sat	40	●	●	●	●	●				60	40	40	●	●	●	●	●	X	X
		80		●	●	●	○					80	80		○	●	●	○	X	X
Brine		40	●	●	●	●	●				70	40	40	●	●	●	●	○	X	X
		80		●	●	●						80	80		○	●	●	□	X	X
Butadiene CH ₂ =CH ₂ =CH ₂ =CH ₂	gas	40	●		●	●					80	40	40	●	●	●	●	●	X	X
		80			●	●						80	80		○	●	●	□		
Butane CH ₃ (CH ₂) ₂ CH ₃	gas	40	●	●	●	●					90	40	40	○	●	●	●	□	X	X
		80		●	●	●						80	80		○	●	●	□		
Nitric Acid HNO ₃	10	40	●	●	●	●	●	●	●	Chlorine gas Cl ₂	wet	40	○		●	●				
		80	X	○	●	●		●	●			80	80			□	●			
	30	40	●	●	●	●		●	●		dry	40	40	●		●	●			
		80	X	○	●	●		●	●			80	80			●	●			
	50	40	○	○	●	●				Chromic Acid H ₂ CrO ₄	10	40	●		●	●				
		80	X		○	○		○	●			80	80			●	●			
	70	40	○	X	●	●		○	●		30	40	40	□		●	●			
		80	X			○	○					80	80			●	●			
Oxalic Acid HOOC-COOH	<50	40	●	●	●	●			□	Gasoline	50	40	X		●	●				
		80		●	●	●						80	80			□	●			
Kerosene		40	●	○	●	●			□	Diesel Fuel	10	40	●		●	●				
		80			●	●						80	80			●	●			
Phosphoric Acid H ₃ PO ₄	10	40	●	●	●	●	●	●	●	Ethyl Alcohol C ₂ H ₅ OH	pure	40	●	●	●	●	●	○	○	
		80		○	●	●	□	●	●			80	80		○	●	●	○		
	50	40	●	●	●	●	X	●	●	Formic Acid HCOOH	90	40	○	○	●	●				
		80		□	●	●		●	●			80	80			□	●	●		
Toluene C ₆ H ₅ CH ₃		40		□	□	●				Hydrofluoric Acid HF	dilute	40	●	○	●	●				
		80				○						80	80		○	●	●			
Sodium Hydroxide NaOH	15	40	●	●	●	●	●	●	●		30	40	40	○	○	●	●			
		80		○	□	●	□	X	X			80	80	X	○	●	●			
	30	40	●	●	●	●	●	●	●		50	40	40	□	○	●	●			
		80		○	□	●	●	X	X			80	80		○	●	●			
	50	40	●	●	○	●	●	●	●	Hydrogen Peroxide H ₂ O ₂	5	40	●	●	●	●		○	●	
		80		○	X	●	●	X	X			80	80		○	●	●			
	70	40	○	○	○	●					30	40	40	○	○	●	●			
		80		○	X	●						80	80		□	●	●			
Hydrochloric Acid HCl	15	40	●	●	●	●	○				50	40	40	□	X	●	●			
		80		●	●	●						80	80			●	●			
	25	40	●	●	●	●	X				90	40	40			●	●			
		80		●	●	●						80	80			●	●			
	38	40	●	●	●	●	X			Isopropyl Alcohol (CH ₃) ₂ CHOH	pure	40	●	●	●	●	○			
	80		○	●	○						80	80			●	●				
Citric Acid C ₆ H ₈ O ₇	10	40	●	●	●	●	●	●	●	Methyl Alcohol CH ₃ OH		40	○	●	●	●	□			
		80		○	●	●	●					80	80		○	●	●			
Sea water		40	●	●	●	●	●	□	□	Urea CO(NH ₂) ₂		40	X	●	●	●	○	○	○	
		80	●	●	●	●	●	□	□			80	80	X	●	●	●	○	○	○

● excellent ○ good □ fair X corroded

Технология на поплавковите нивосонди

ПОПЛАВЪЦИ							
пластмасови	N1	P0	P1	P10	P2	P3	P4
Спецификации							
Материал	NBR	PP	PP	PP	PP	PP	PVDF
Плътност	0,60 g/cm ³	0,73 g/cm ³	0,60 g/cm ³	0,72 g/cm ³	0,60 g/cm ³	0,50 g/cm ³	0,70 g/cm ³
Темп. обхват	-20...100 °C	-20...80 °C	-20...80 °C	-20...80 °C	-10...80 °C	-10...80 °C	-30...125 °C
Макс. налягане	0 bar	5 bar	5 bar	5 bar	3 bar	3 bar	2 bar
Габаритни размери	17,5x25 mm	19x16 mm	24x22 mm	29x11 mm	29x50 mm	38x60 mm	38x60 mm
Вътр. диаметър	10 mm	8 mm	9 mm	12 mm	14 mm	18 mm	18 mm
Тегло	2,5 g	2,8 g	5 g	4,4 g	14 g	23 g	37,5 g
неръждаеми	S1	S2	S3	S4	S5	S6	
Спецификации							
Материал	SS 316	SS 316	SS 316	SS 316	SS 304	SS 304	
Плътност	0,70 g/cm ³	0,70 g/cm ³	0,65 g/cm ³	0,55 g/cm ³	0,65 g/cm ³	0,50 g/cm ³	
Темп. обхват	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	
Макс. налягане	10 bar	30 bar	12 bar	30 bar	30 bar	10 bar	
Габаритни размери	28x28 mm	40x42 mm	45x55 mm	52x52 mm	73x73 mm	75x108 mm	
Вътр. диаметър	9,5 mm	11 mm	15 mm	15 mm	19 mm	19 mm	
Тегло	8 g	19 g	37 g	33 g	105 g	147 g	
неръждаеми	S0	S7	S10	S20	S8	S9	S11
Спецификации							
Материал	SS 316	SS 316	SS 316	SS 316	SS 304	SS 304	SS 316
Плътност	0,72 g/cm ³	0,82 g/cm ³	0,82 g/cm ³	0,75 g/cm ³	0,5 g/cm ³	0,45 g/cm ³	0,45 g/cm ³
Темп. обхват	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-20...200 °C	-40...200 °C
Макс. налягане	8 bar	30 bar	50 bar	30 bar	30 bar	30 bar	15 bar
Габаритни размери	25x24 mm	30x28 mm	30x32 mm	22x40 mm	100x100 mm	150x150 mm	51x61 mm
Вътр. диаметър	9,5 mm	9,5 mm	9,5 mm	8,5 mm	20 mm	30 mm	15,5 mm
Тегло	6 g	8 g	8,6 g	10 g	250 g	534 g	37 g

ХИМИЧЕСКА СЪВМЕСТИМОСТ НА МАТЕРИАЛИТЕ ЗА НИВОСОНДИ

Химикал	Концентрация [%]	Температура [°C]	PVC	PP	PVDF	PTFE	NBR	неръжд. стомана 304	неръжд. стомана 316	Химикал	Концентрация [%]	Температура [°C]	PVC	PP	PVDF	PTFE	NBR	неръжд. стомана 304	неръжд. стомана 316
Амонячна вода NH ₄ OH	10	40	●	●	●	●	○			Натриев хипохлорит NaClO	3	40	●	○	●	●		□	○
		80		○	●	●						80							
Царска вода 3HCL + HNO ₃	10	40	□	□	●	●					13	40	●	□	●	●		X	X
		80			●	●						80							
Бензол C ₆ H ₆	чист	40	X	□	○	●					10	40	●	●	●	●	○	○	○
		80			□	●						80	●	●	●	●	○	○	○
Белина Ca(ClO) ₂	< 20	40	●		●	●					30	40	●	●	●	●	●	X	X
		80			●	●						80	●	●	●	●	○	X	X
Калиев хромат K ₂ CrO ₄		40	●	●	●	●	●				50	40	●	●	●	●	○	X	X
		80		○	●	●	○					80	●	●	●	●	□	X	X
Борна киселина H ₃ BO ₃	наси- тена	40	●	●	●	●	●			Сярна киселина H ₂ SO ₄	60	40	●	●	●	●	●	X	X
		80		●	●	●	○					80		○	●	●	○	X	X
Солна луга		40	●	●	●	●	●				70	40	●	●	●	●	○	X	X
		80		●	●	●						80	●	○	●	●	□	X	X
Бутадиен CH ₂ =CH ₂ =CH ₂ =CH ₂	газ	40	●		●	●					80	40	●	●	●	●	●	X	X
		80			●	●						80		○	●	●	□		
Бутан CH ₃ (CH ₂) ₂ CH ₃	газ	40	●	●	●	●					90	40	○	●	●	●	□	X	X
		80		●	●	●						80		○	●	●	□		
		40	●	●	●	●	●	●	●		98	40	□		●	○		○	○
		80	X	○	●	●		●	●			80			□	○			
		40	●	●	●	●		●	●	Хлорен газ Cl ₂	мокр	40	○		●	●			
		80	X	○	●	●		●	●			80			□	●			
		40	○	○	●	●		●	●		сух	40	●		●	●			
		80	X	X	○	●						80			●	●			
		40	○	X	●	●		○	●		10	40	●		●	●			
		80	X		○	●						80			●	●			
		40			○	○				Хромена киселина H ₂ CrO ₄	30	40	□		●	●			
		80				□						80			●	●			
Оксалова киселина HOOC-COOH	< 50	40	●	●	●	●			□		50	40	X		●	●			
		80		●	●	●						80			□	●			
Керосин		40	●	○	●	●			□	Бензин	10	40	●		●	●			
		80			●	●						80			●	●			
		40	●	●	●	●	●	●	●	Дизелово гориво		40			●	●		●	●
		80		○	●	●	□	●	●			80			●	●		●	●
Фосфорна киселина H ₃ PO ₄	10	40	●	●	●	●	●	●	●	Етанол C ₂ H ₅ OH	чист	40	●	●	●	●	●	○	○
		80		□	●	●	X	●	●			80		○	●	●	○		
	50	40	●	●	●	●	○	●	●	Мравчена киселина HCOOH	90	40	○	○	●	●			
		80		□	●	●		●	●			80		○	●	●			
Толуол C ₆ H ₅ CH ₃		40		□	□	●				Флуороводородна киселина HF	раз- редена	40	●	○	●	●			
		80				○						80		○	●	●			
		40	●	●	●	●	●	●	●		30	40	○	○	●	●			
		80		○	□	●	□	X	X			80	X	○	●	●			
		40	●	●	●	●	●	●	●		50	40	□	○	●	●			
		80		○	□	●	●	X	X			80		○	●	●			
		40	●	●	○	●	●	●	●		5	40	●	●	●	●		○	●
		80		○	X	●						80		○	●	●			
		40	○	○	○	●				Водороден пероксид H ₂ O ₂	30	40	○	○	●	●			
		80		○	X	●						80		□	●	●			
		40	●	●	●	●	○				50	40	□	X	●	●			
		80		●	●	●						80			●	●			
		40	●	●	●	●	●	X		Изопропилов алкохол (CH ₃) ₂ CHOH	чист	40	●	●	●	●	○		
		80		○	●	○						80			●	●			
Лимонена киселина C ₆ H ₈ O ₇	10	40	●	●	●	●	●	●	●	Метанол CH ₃ OH		40	○	●	●	●	□		
		80		○	●	●	●					80		○	●	●			
Морска вода		40	●	●	●	●	●	□	□	Карбамид CO(NH ₂) ₂		40	X	●	●	●	○	○	○
		80	●	●	●	●	●	□	□			80	X	●	●	●	○	○	○

● отлична ○ добра □ задоволителна X не се препоръчва