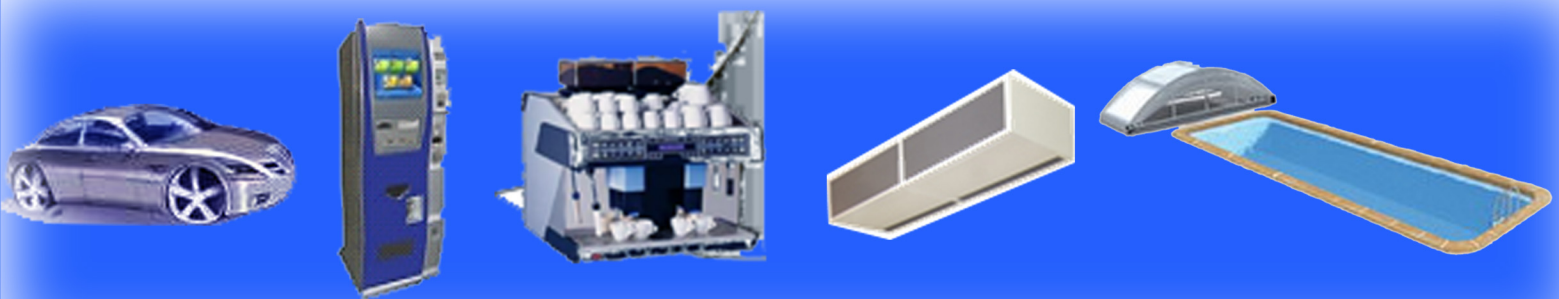
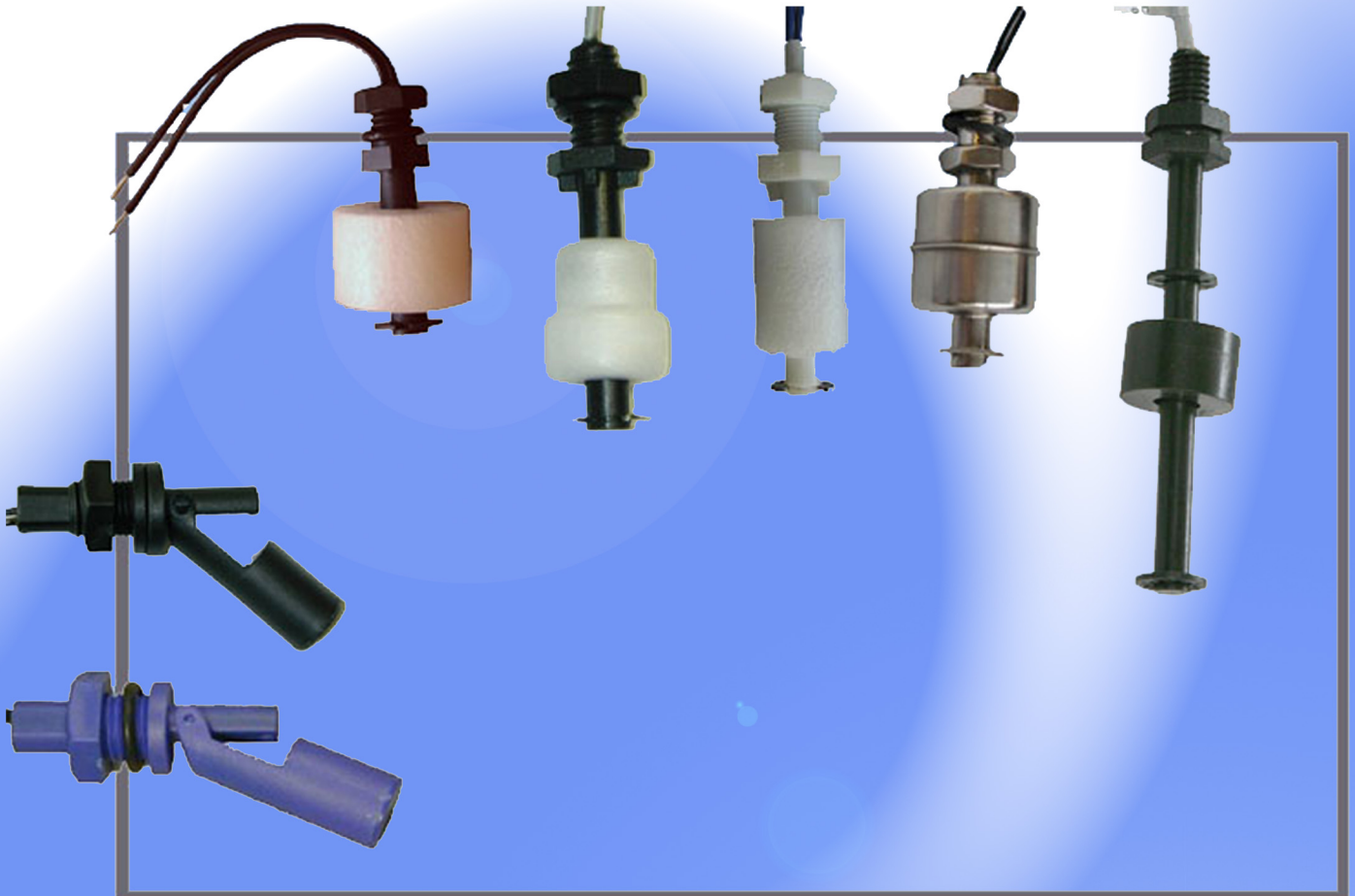


# Level sensors






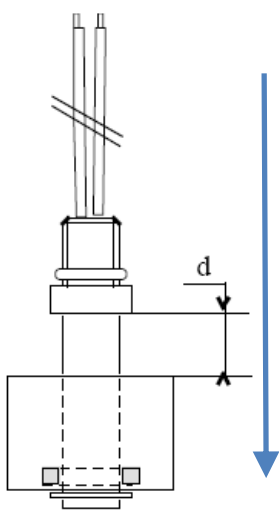
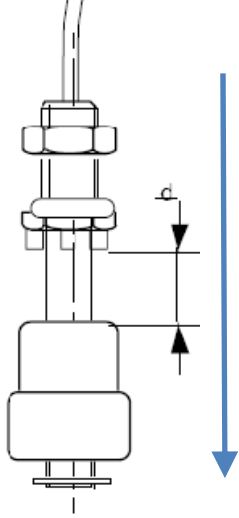
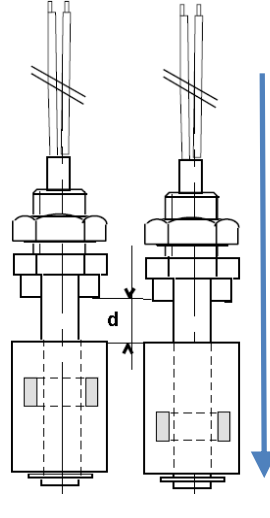
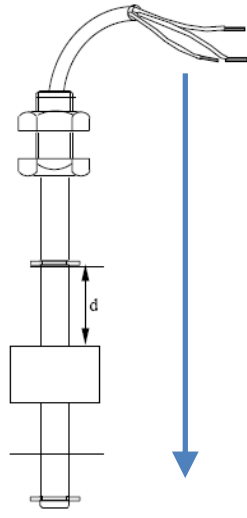
celduc relais offers a wide range of standard or specific level and flow sensors using Reed switches.



celduc® relais



[www.celduc.com](http://www.celduc.com)




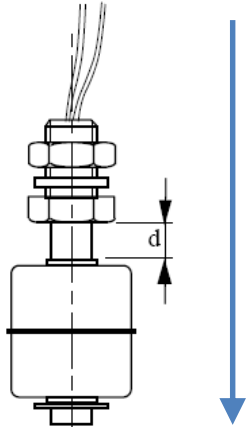
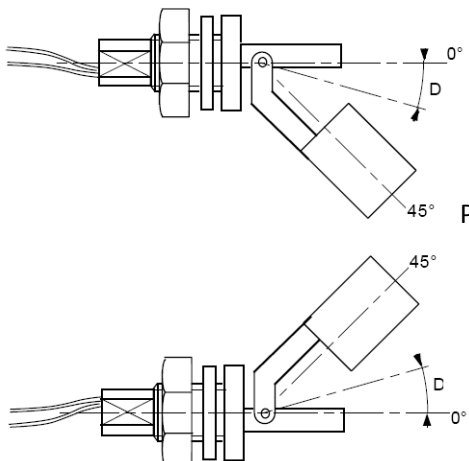
				
<b>Reference</b>	<b>PTF01060</b>	<b>PTFA1015</b>	<b>PTFA1103<sup>(1)</sup></b> <b>PTFA1104<sup>(1)</sup></b>	<b>PTFA1210</b>
<b>Mounting</b>	Vertically	Vertically High and low level	Vertically High and low level	Vertically High and low level
<b>Contact form</b>	1NO	1NO	1NO	1NO+NC
<b>Wiring</b>	2 wires 600mm Other on request	Cable 1,5m Other on request	2 wires 300mm	Cable (3 wires) 300mm
<b>Material :</b> <b>-Housing</b> <b>-Float</b>	-Polyamide 6/6 resin with glass fiber content -Polypropylene	-Polyamide 6/6 resin with glass fiber content -Polypropylene	Polypropylene	-Polyamide -Polyurethane
<b>Liquid compatibility</b>	Water	Water	❶	❷
<b>Float travel</b>	10mm	17mm	9mm	48,5mm
<b>Max. switching power</b>	10VA	10VA	10VA	Top : 10VA Bottom : 3VA
<b>Max. switching voltage</b>	100Vdc	100Vdc	100Vdc	Top : 200Vdc Bottom : 100Vdc
<b>Max. switching current</b>	0,5A	0,5A	0,5A	Top : 0,5A Bottom : 0,25A
<b>Density mini</b>	0,80	0,75	0,70	0,60
<b>Temperature</b>	0 / 70°C	0 / 70°C	-10 / 80°C	-10 / 85°C
<b>Thread</b>	M8 x 1,25	3/8" threading UNC 1,588mm (16 per inch)	1/8" GAS (28 per inch)	3/8" threading UNC 1,588mm (16 per inch)
<b>Detection distances</b>	 <p>d = 5→10mm <b>OFF state</b></p> <p>d = 2→5mm <b>undefined</b></p> <p>d = 0→2mm <b>ON state</b></p>	 <p>d = 0→1mm <b>ON state</b></p> <p>d = 1→4mm <b>undefined</b></p> <p>d = 4→17mm <b>OFF state</b></p>	 <p>d = 0→3,5mm <b>OFF state    ON state</b></p> <p>d = 3,5→6,5mm <b>undefined</b></p> <p>d = 6,5 →9mm <b>ON state    OFF state</b></p>	 <p>d = 0→5mm <b>S1 and S2 = closed</b></p> <p>Float at the middle <b>S1 = opened / S2 = closed</b></p> <p>d = 43,5→48,5mm <b>S1 and S2 = opened</b></p>

(1) Possible to invert the functions by reversing the float

(2) Available in ATEX version

## WORKING PRINCIPLE

A float fitted with one or more magnets move with the liquid and actuates, thanks to its magnetic field, a Reed contact hermetically sealed located in the body.

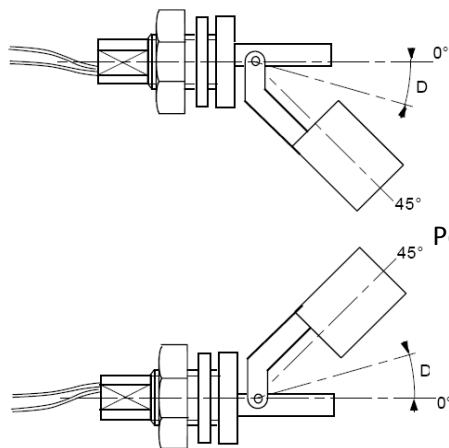
			
<b>PTFA2115<sup>(1)(2)</sup></b>	<b>PTFA0100</b>	<b>PTFA0115</b>	<b>PTFA3115</b>
Vertically High and low level	Horizontally External mounting	Horizontally External mounting	Horizontally
1NO	1NO	1NO	1NO
2 wires 1,5m Other on request	2 wires 175mm + MOLEX connector	2 wires 1,5m + connector	2 wires 1,5m
Stainless steel	Polyamide 30% glass fiber	Polyamide 30% glass fiber	Polyamide 30% glass fiber
<b>③</b>	<b>②</b>	<b>②</b>	<b>②</b>
8mm	50°	50°	50°
50VA	10VA	10VA	50VA
300Vac/dc	200Vdc	200Vdc	300Vac
0,5A	0,5A	0,5A	0,5A
0,75	0,60	0,60	0,60
0 / 100°C	0 / 85°C	0 / 85°C	0 / 85°C
M10 x 1	Specific	Specific	Specific
 <p>d = 0 → 1mm <b>ON state</b></p> <p>d = 1 → 5mm <b>undefined</b></p> <p>d = 5 → 8,5mm <b>OFF state</b></p>	 <p>Possible to revert the functions by reversing the sensor</p> <p>0° ≤ <b>closed</b> ≤ 10° 10° &lt; <b>undefined</b> &lt; 35° <b>opened</b> ≥ 35°</p>		

## LIQUIDS COMPATIBILITY

<b>①</b>	-compatible with acid : acetic, citric, formic, lactic, nitric diluted, phosphoric, sulphuric diluted ; soda ; alcohols : ethanol, methanol, propanol ; glycol ; mineral oil ; water -not compatible with the following solvents : chloroforme, methylene chloride, trichloroethylene, toluene ; hard acids
<b>②</b>	-compatible with fuels, engine oil, kerosene, lubricating oil, mineral oil, vegetable oil, -not compatible with almost all acids, methylene chloride -Acceptable resistance to water
<b>③</b>	Compatible with almost all the liquids except hard acids

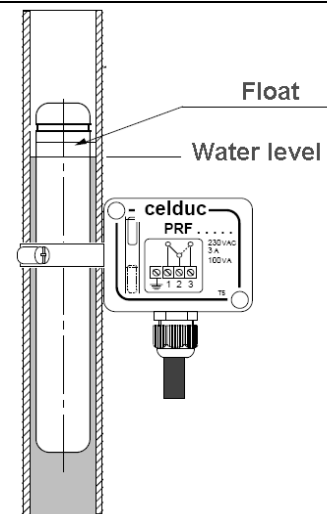


PTFA3315 <sup>(2)</sup>	PTFA3415	PTFA3002	PRF10010
Horizontally	Horizontally External mounting	Horizontally External mounting	Vertically
1NO	1NO	1NO	Latching level sensors
2 wires 1,5m	Cable 1,5m	Cable 20m / R in series	
Polypropylen	Polypropylen	Polypropylen	Polycarbonate ABS (Acrylonitrile Butadiène Styrene)
①	①	①	Water
50°	50°	50°	No limitation (latching sensor)
50VA	50VA	50VA	100VA
300Vac	300Vac	300Vac	300Vac/dc
0,5A	0,5A	0,1A	3A
0,60	0,60	0,60	0,8
-10 / 100°C (Wires/85°C)	-10 / 100°C (Wires/85°C)	-10 / 100°C (Wires/85°C)	-20 / 85°C
M16 x 2	M16 x 2	M16 x 2	Suitable for tubes with Ø 32 to 40 Other on request



Possible to revert the functions  
by reversing the sensor

0° ≤ **closed** ≤ 10°  
10° < **undefined** < 35°  
**opened** ≥ 35°



**Float at the bottom**

1 - 2 = opened

2 - 3 = closed

**Float at the top**

1 - 2 = closed

2 - 3 = opened

## ADVANTAGES

- One moving part
- The Reed contact is actuated by a magnetic field only : no contact so no wear
- The Reed contact is completely isolated from the liquid so perfectly waterproof

The above advantages allow a safety use, repetitiveness, precision and minimum maintenance

# APPLICATIONS



## Heating

- Air-conditioning
- Heaters
- Humidifiers

=>To detect the water level in the tank



## Domestic equipment

- Electronic flush
- Solar systems

=>To detect the water level

## Food industry

- Coffee machines
- Vending machines

=> check the level of water left in the tank



## Medical equipment

- Sterilising equipment for medical instruments

=>check level of water for steam or liquid detergent level



## Water treatment

- Water purifying
- Desalinating

=> the sensors enable to know the level of the reserve of water



## Swimming pools

- Water treatment
- Water heating

=>water level and flow

## Various industries

- Photo lab equipment
- Scrubber machines
- Fuel dispensing systems



## Automobile

- Detection of liquids levels :
- radiator liquid level,
  - windscreen washer,
  - engine oil level,
  - brake oil level

...



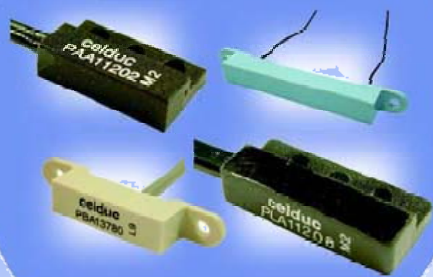


# celduc® relais, expert in magnetic proximity sensors

If you look for a sensor for position, passage, presence, level or speed, we must have it in our range !

We can even design the ideal product for your applications (70% of our products is customised products)  
: contact celduc to get a personalised offer !

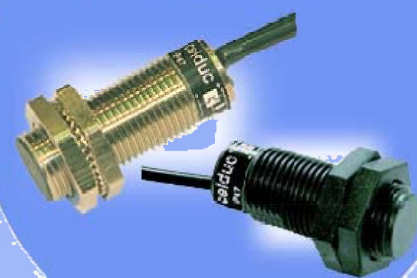
Screw  
sensors



Tubular  
sensors



Electronical  
sensors



ATEX sensors



Level sensors



celduc® relais

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