



# LT1420

## Level Transducer



**UNDATEC Flow measurements**

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## 1. EC - Declaration of Conformity

Name of Manufacturer: UNDATEC Flow measurements  
Wiesenstraße 23  
75248 Oelbronn-Duerrn / Germany

Product Name: LT1420

Product Type: Level Transducer

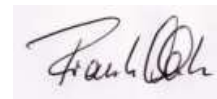
The designated product is in conformity with the following European Council Directives for harmonization of the laws of Member States.

### **2004/108 / EC EMC - Directive**

The conformity of the designated product with the provisions of the Directive evidenced by full compliance with the following harmonized European standards.

**EN 61000-6-2**  
**EN 61000-6-4**

We confirm the successful EMC – test  
Affixing CE marking: 2015



Location: Oelbronn-Duerrn Date: 12/11/2015 Signature / Technical Manager:

Frank Stark

This declaration certifies compliance with the indicated directives but contains no assurance of properties in the sense of the product liability law.  
The safety instructions of the supplied product documentation must be observed.

**Errors, mistranslation and technical improvement may change these data !**

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## Description

LT1420 is a sensor for measuring the water or waste water level.

This sensor has a stainless steel body and a capacitive pressure cell with a ceramic membrane. This means that the pressure on the contact surface changes the capacitance of the measuring capacitor.

This type of measuring cell provides the highest accuracy and durability.

It is insensitive to temperature shock, corrosion and abrasion.

The ceramic membrane offers the highest protection against all possible chemical aggressivities in the water and waste water, as well as a puncture resistance of over 40 times the nominal pressure.

**This type of sensor is absolutely not comparable to sensors with piezoresistive pressure cells and membranes made of metal.**

**These membranes can not bend, i.e., are not destroyed on normal path.**

**Abrasion of the membrane is also not possible.**

**The built-in pressure cell is an E & H product.**

## Features

Accuracy  $\pm 0.2\%$ FS

Measurement range: 0.5~50m

CE certification

Intrinsically safe, explosion-proof

Anti-electromagnetic interference


Sealing rings made of viton

## Application

for continuous measurement of filling levels in liquids

**This product can get on request an intrinsic safety certification, explosion proof certification and CE certification.**

Explosion proof certification :

Marking  ATEX II 2G Ex ib IIC CT4 GB

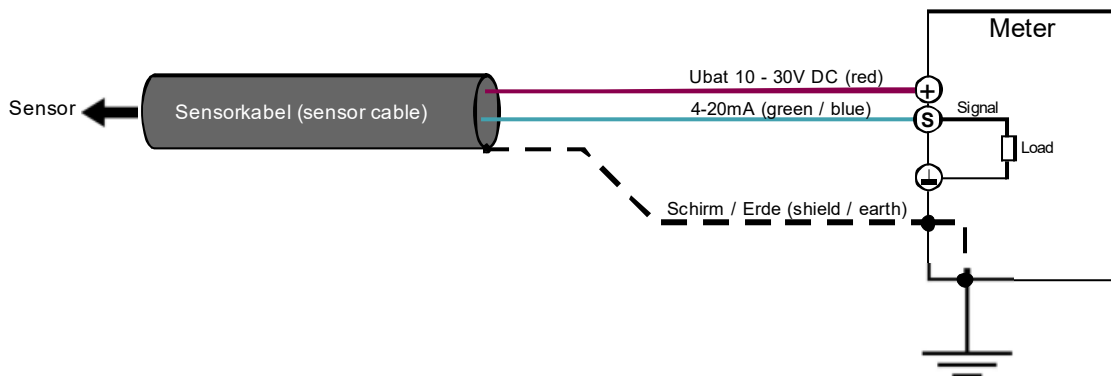
**Attention ! Never wrinkle the sensor cable, otherwise the internal air tube for atmospheric pressure compensation can be damaged !**

**Technical Specifications**

test condition of data:25°C (77°F)

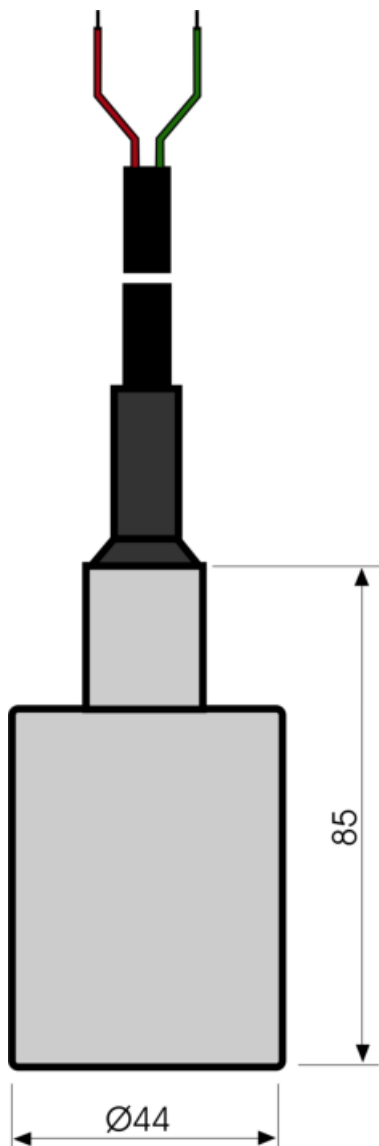
Pressure range	0~0.5m.....50m
Over pressure	150%FS
Burst pressure	300%FS
Output signal	4~20mA
Power supply	10~30VDC (12-36VDC)
Accuracy	0.2%FS(min.)
Long-term stability	≤0.3%FS/year
Temp.coefficient of zero	±0.02%FS/°C(typ.)
Temp.coefficient of span	±0.02%FS/°C(typ.)
Compensated temperature range	-10~+70 °C
Operating temperature range	-40~+85 °C
Storage temperature range	-40~+85 °C
Insulating resistance	≥100MΩ@100Vdc
Load resistance	$R \leq (U-10)/0.02$ (for 4/20mA)
Electrical interface	waterproof outlet
Pressure interface	submersible type
Material of pressure membrane	ceramic
Material of housing	titanium alloy+PTFE or stainless steel
Response time(10%~90%)	≤10ms
Shock/impact	10gRMS,(20~2000)Hz / 100g,11ms
Protection	IP68

**Sensor connection**



**UNDATEC Flow measurements**

## Dimensions



**LT1420**

## Ordering Code

### Example:

**Model** = LT1420  
**Level range** = 0.5bar (5m)  
**Cable length** = 15m  
**Signal output** = 4 – 20mA  
**Supply** = 12- 36Vdc  
**Accuracy** = 0.2%FS

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