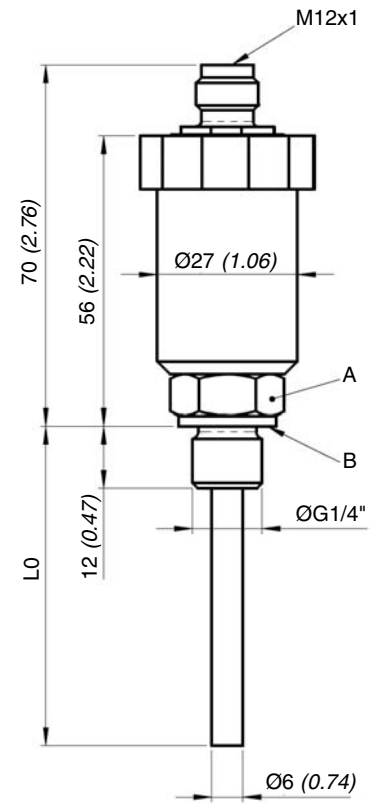
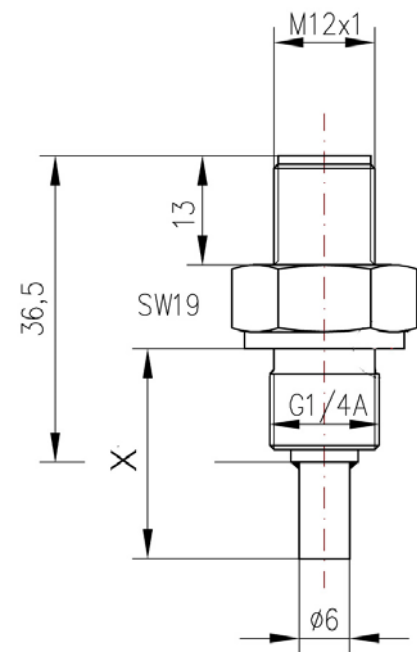


**Dimensions** in mm (inch) –  
**Electronic temperature sensor UTF 2**



**Electronic temperature sensor BTF1000**



**Operating Instructions**  
**Electronic Pressure and Temperature Transducers**  
**UPA 2, UTA 2, UTF 2 and BTF1000**



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## 1 Intended Applications

The electronic pressure transducer UPA 2 serves for measuring a system pressure. The electronic temperature transducer UTA 2 serves for measuring a system temperature. The pressure and temperature sensors are equipped with analog outputs.  
The temperature sensors UTF 2 and BTF1000 provide the temperature value as PT100 signal.

### **DANGER**

The electronic measuring devices must not be used for any other applications than those specified in the instructions.  
The temperatures must be within the specified ranges, the pressure values and the electrical rating must not exceed the values specified.  
Observe also the applicable national safety instructions for assembly, commissioning and operation of the electronic measuring devices.  
The electronic measuring devices are not designed to be used as the only safety relevant elements according to PED 97/23/EC.

## 2 Safety Instructions

The safety instructions are intended to protect the user from dangerous situations and/or material damage.

In the operating instructions the seriousness of the potential risk is designated by the following signal words:

### **DANGER**

Refers to imminent danger to men.  
Nonobservance may result in fatal injuries.

### **WARNING**

Refers to a recognizable danger.  
Nonobservance may result in fatal injuries, and destroy the electronic measuring device or plant parts.

### **CAUTION**

Refers to a danger.  
Nonobservance may result in light injuries and material damage to the electronic measuring device and/or to the plant.

### **IMPORTANT**

Refers to important information essential to the user.



### **Disposal**

The electronic measuring device must be disposed of correctly in accordance with the local regulations for electric/electronic equipment.  
The electronic measuring devices must not be disposed of with the household garbage!

## 3 Standards

The standards applied during development, manufacture and configuration are listed in the CE conformity and manufacturer's declaration.

## 4 Warranty/Guaranty

### **Warranty**

Our scope of delivery and services is governed by the legal warranties and warranty periods.

### **Terms of guaranty**

For the electronic pressure transducer UPA 2, the electronic temperature transducer UTA 2 and the temperature sensor UTF 2 and BTF1000 we grant a guarantee according to the legal regulations for functioning and material in normal operating and maintenance conditions.

### **Loss of guaranty**

#### **The agreed guaranty period will expire in case of:**

- incorrect use,
- incorrect installation or
- incorrect handling or operation contrary to the provisions of these operating instructions.

No liability is assumed for any damage resulting therefrom, or any consequential damage.

## 5 Installation/Commissioning



### **DANGER**

Only install or remove the electronic measuring device when deenergized (electrically and hydraulically/pneumatically).

Pressure connection and electrical connection must be carried out by trained or instructed personnel according to state-of-the-art standards.


The electronic measuring devices may only be installed in systems in which the maximum pressure  $P_{max}$  or the maximum temperature  $T_{max}$  is not exceeded (see type label).



### **CAUTION**


Do not insert any objects into the pressure channel of the electronic pressure transducer!  
The membrane on front-flush models must never be deformed!

Connecting the electronic measuring devices

 **CAUTION**

The permissible overpressure must not be exceeded, not even in case of pressure peaks!  
Install protection elements (e. g. damping screw)

The electronic measuring devices must be mounted at the bottom fitting with a size 19 wrench (G ¼) or size 32 (G ½) and tightened to a torque of 20 Nm. The installation position is arbitrary.

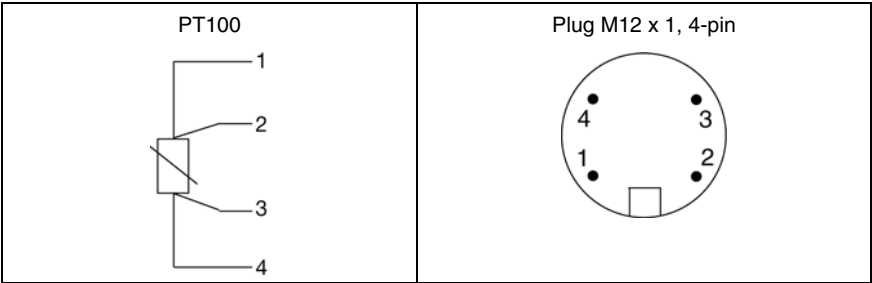
 **CAUTION**

Avoid electrostatic discharges!  
Ground the housing

Electrical connection of the individual models (see type label) must be carried out according to the chart below. The maximum power supply values are stated on the type label.

UPA 2 UTA 2	Current output 4... 20 mA (two-wire system)				Voltage output 0... 10 V DC (three-wire system)			
	Plug	Cable	GL cable	M12	Plug	Cable	GL cable	M12
Supply (+)	1	brown	white 1	1	1	brown	blue 1	1
Supply (-)	2	white	blue 1	2	2	blue	blue 2	3
Signal (+)	---				3	white	white 1	2
Signal (-)	---				---			

Connection chart for temperature sensor UTF 2 / BTF1000



6 Maintenance/Cleaning

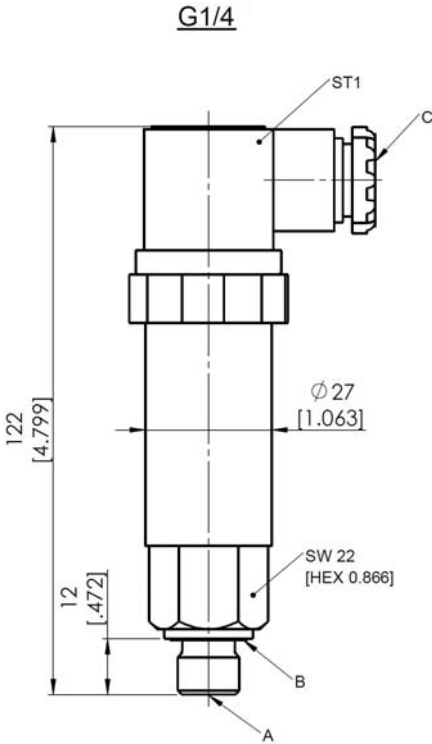
The electronic measuring devices are calibrated in the factory and require not maintenance.  
If faults occur which cannot be remedied please contact our local representative closest to you.

7 Technical Data

 **IMPORTANT**

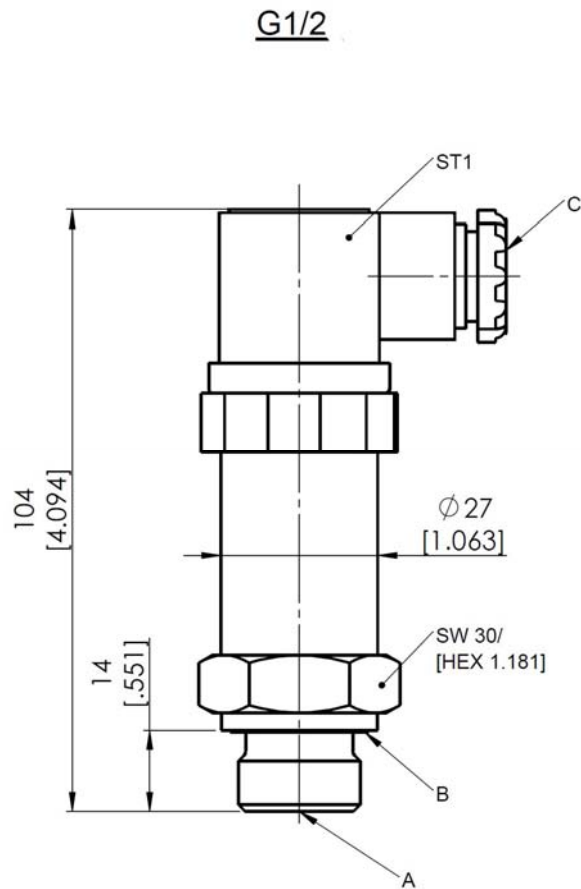
see type label

Dimensions in mm (inch) – Electronic pressure transducer UPA 2 (G1/4")



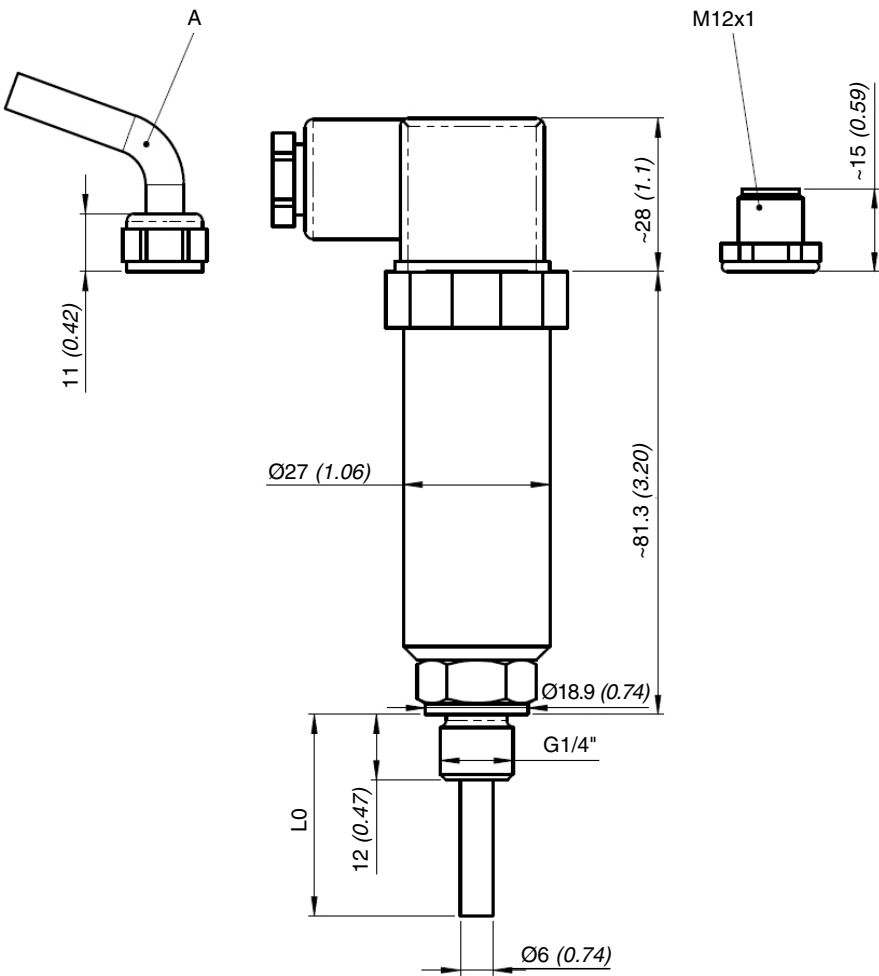
A	Process connection G1/4 acc. to DIN ISO 228-1
B	Profile seal acc. to DIN 3869
C	Cable gland Pg 11, clamping range Ø 6...8 mm

Dimensions in mm (inch) – Electronic pressure transducer UPA 2 (G1/2")



A	Process connection G1/2 acc. to DIN ISO 228-1 flush at the front
B	Profile seal acc. to DIN 3869
C	Cable gland Pg 11, clamping range Ø 6...8 mm

Dimensions in mm (inch) – Electronic temperature transducer UTA 2



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