

## TRANSDUCER SPECIFICATIONS

**Range:** -100 to 200 kPa

**Signal:**

At input 10.0 V output signal is:  
-100 kPa = -50 +/- 3 mV and  
200 kPa = 100 +/- 3 mV

**Temperature shift:** temperature compensated in the range 0–50°C—typical shift 0.5% full scale.

**Voltage output:** transducer has a 4 wire output signal.

**Optional:** Current Output Transducer 4–20 mA. Data transfer up to 1000 meters

**Resolution:** 0.1 kPa

**Accuracy:** ±1.0% span

**Power Requirements:**

**Power Supply:**

10.0 V DC typical,  
16.0 V maximum  
stabilised

**Current consumption:**

1.3 mA @ 10.0 V

**Cable:**

A one meter cable is standard.

**Transducer Thread:**

¼ inch NPT suitable for  
Tensiometers such as  
Soilmoisture Equipment Corp.



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# Tensiometer Transducer

## GT3-30 -100 to 200 kPa

### Measuring Principle

The soil water tension is transmitted via the ceramic cup into the tensiometer. The vacuum inside the tensiometer is measured by a pressure transducer, which gives a continuous analogue output signal.

### Resolution and Accuracy

A resolution of 0.1 kPa (1 cm H<sub>2</sub>O) can be attained for the GT3 Tensiometer Transducer. The accuracy actually obtained is related to the calibration and resolution of the AD converter.

In field applications the values obtained should consider the shaft/cup length of the tensiometer:  
1 cm = 0.1 kPa.

### Transducer GT3-30 connection

●	V+ Red
●	S+ Yellow
●	G Black
●	S- Blue

**Red:** +10 V power supply

**Yellow:** Signal output “+”

Pressure change from -100 to 200 kPa

Output from -50 to 100 mV

**Black:** Battery ground

**Blue:** Signal output “-”

Do not connect signal output “-” to battery ground

### Ordering Information

GT3-30 Transducer with ¼ inch NPT thread, 1 m cable

### Note:

- Customers requiring cable lengths greater than 1m are requested to source cable locally. Standard 4 wire cable is required.
- It is not recommended to locate transducer more than 10m from data logger. The analogue output of -50 to 100 mV is subject to voltage drop.
- A very stable reference voltage such as 5V or 10V DC is necessary as output voltage is ratiometric to input voltage.

