



## TEROS 31 MEASUREMENT SPECIFICATIONS

Water Potential	
Range	-85 to +50 kPa (up to -150 kPa during boiling retardation)
Resolution	± 0.0012 kPa
Accuracy	± 0.15 kPa

Temperature	
Range	-30 to +60 °C
Resolution	±0.01 °C
Accuracy	±0.5 °C
Note: If the sensor unit is not buried, measured temperature may diverge from soil temperature.	

## COMMUNICATION SPECIFICATIONS

Output	
DDI serial SDI-12 communication protocol TensioLINK communication protocol Modbus™ RTU communication protocol	
Data Logger Compatibility	
METER ZL6 and EM60 data loggers or any data acquisition system capable of 3.6- to 28.0-VDC power and SDI-12, Modbus™ RTU, or tensioLink communication.	

## PHYSICAL SPECIFICATIONS

Dimensions	
Sensor Unit (W x D x H)	23.5 x 17.5 x 49.0 mm (0.93 x 0.69 x 1.93 in)
Shaft Diameter	5 mm (0.19 in)

Shaft length	From 2 to 20 cm (0.79 to 7.87 in) in the following options : 2, 5, 7, 10, 15, or 20 cm
Operating Temperature	
Minimum	0 °C
Maximum	50 °C
Materials	
Ceramic	Al <sub>2</sub> O <sub>3</sub> , bubble point 500 kPa
Shaft	PMMA
Sensor Unit	PMMA and TPE

Cable Length
1.5 m very thin (< 3.0 mm) and high flexible PVC cable

Connector Types
3.5-mm 4-pin stereo plug connector

## ELECTRICAL AND TIMING SPECIFICATIONS

Supply Voltage (VCC to GND)	
Minimum	3.6 V
Typical	12.0 V
Maximum	28.0 V

Digital Input Voltage (logic high)	
Minimum	1.6 V
Typical	3.3 V
Maximum	5.0 V

Digital Input Voltage (logic low)	
Minimum	-0.3 V
Typical	0.0 V
Maximum	0.9 V

Digital Output Voltage (logic high)	
Minimum	NA
Typical	3.6 V
Maximum	NA

Power Line Slew Rate	
Minimum	1.0 V/ms
Typical	NA
Maximum	NA

Current Drain (during measurement)	
Minimum	18 mA
Typical	25 mA
Maximum	30 mA

Current Drain (while asleep)	
Minimum	0.03 mA
Typical	0.05 mA
Maximum	0.90 mA

Power-Up Time (DDI serial)	
Minimum	125 ms
Typical	130 ms
Maximum	150 ms

Power-Up Time (SDI-12)	
Minimum	125 ms
Typical	130 ms
Maximum	150 ms

Measurement Duration	
Minimum	60 ms
Typical	65 ms
Maximum	70 ms

#### COMPLIANCE

Manufactured under ISO 9001:2015
EM ISO/IEC 17050:2010 (CE Mark)