

SS-TRS401/SS-TRS402 is supplied with a 4-core, screened cable which provides these connections:

- › Red: Power supply positive (VCC).
- › Blue: Power supply zero volts (GND).
- › Yellow: 485+(A)
- › White: 485-(B)
- › For complete stability, a warm-up time of 1s is recommended.



Specifications SS-TRS401

Measurement Parameter Volumetric soil moisture content ($m^3 \cdot m^{-3}$ or %vol)

Principle Frequency Domain Reflectometry (FDR)

Range Accuracy figures apply from 0 to $0.5m^3 \cdot m^{-3}$

Accuracy $\pm 0.03m^3 \cdot m^{-3}$. (0 to $45^\circ C$, Soil salinity $< 5 \times 10^4$ us/cm)

Soil Calibration Equation ($\%m^3m^{-3}$) = $0.00012Data_01^2 + 0.02275Data_01 + 0.18327$ using the supplied soil calibration equation, in most normal soils of north China

Soil Sampling Volume >95% influence within cylinder of 4.0cm diam, 10cm long (approx 125 cm^3) surrounding central rod.

Input requirements 9–30V DC unregulated

Current consumption 50mA typical

Output signal Modbus RTU Slave Modbus Function 03 used to read Holding Registers which are the most universal 16-bit register.

Data_01-SoilMoistureValue, **Data_02**-SoilTempValue

Cable length Standard 5m (16.4')

Weight Approx 0.58oz (300g) inc 5m cable

Specifications SS-TRS402

Measurement Parameter Volumetric soil moisture content ($m^3 \cdot m^{-3}$ or %vol) and Soil Temperature T ($^\circ C$)

Principle Frequency Domain Reflectometry (FDR) and PT100

Range Accuracy figures apply from 0 to $0.5m^3 \cdot m^{-3}$ for soil moisture content / $-30^\circ C \sim 80^\circ C$ for PT100

Accuracy $\pm 0.03m^3 \cdot m^{-3}$. (0 to $45^\circ C$, Soil salinity $< 5 \times 10^4$ us/cm) for soil moisture content / $\pm 0.5^\circ C$

Soil Calibration Equation ($\%m^3m^{-3}$) = $0.00012Data_01^2 + 0.02275Data_01 + 0.18327$ using the supplied soil calibration equation, in most normal soils of north China
 $T(^\circ C) = Data_02 / 10$

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