Soil moisture and temperature sensor

- TDR (Time Domain Reflectrometry) technology
- Volumetric water content (%) and soil temperature measurements
- Very good accuracy: < 2%
- Half meter cubic volume for water content definition
- Buriable to any depth

DQA340 is the ideal solution for the measurement of volumetric moisture in soils and other porous materials. The sensor is based on TDR technology (Time Domain Reflectometry), ensuring good accuracy even in very wet soil, and without special calibration for mineral soils. Using its rods, the sensor can be inserted in the material for 11 cm or fully buried.

Technical Specifications

PN	DQA340	
Moisture	Principle	TDR (Time Domain Reflectometry)
	Measuring range	0...100% volumetric water content
	Accuracy	0...40%: ±2%; 40...70%: ±3%
	Repeatibility	±0.3%
	Salinity error	<3% for 0...40%
	Sampled volume	0.25 l ± 110x50 mm diameter
Temperature	Measuring range	-40...70 °C
	Accuracy	± 0.5 °C relative
General Information	Power supply	7...24 V DC
	Power consumption	Sleep: 5 mA, Measuring: 175 mA @ 7 V DC
	Power-up time	3 s
	Output	2x0...1 V
	Operating temperature	-15...50°C
	IP protection	Waterproof sealed PVC
	Cable	L=5 m
	Dimensions	Body: 155 x Ø32 mm. Rods: lenght: 110 mm
	Data logger compatibility	E-Log, Alpha-Log (using ALIEM)

Accessories

	DQA340.2	Spare part electrode L=110 mm for DQA340

Soil moisture and temperature sensor

- Designed to be installed in mineral soils, many types of growing media, and other porous materials
- Accurate tool for monitoring volumetric water content (VWC)
- Capacitance/frequency-domain technology
- 70-MHz frequency, which minimizes textural and salinity effects, making the the sensor accurate in most mineral soils

PRMPA1202 is the ideal solution for the measurement of volumetric water content in mineral soils and other porous materials. The sensor is based on Capacitance/frequency-domain technology ensuring good accuracy even in very wet soil, and without special calibration for mineral soils. Using its rods, the sensor can be inserted in the material for 5.5 cm or fully buried.

Technical Specifications

PN	PRMPA1202	
Volumetric Water Content	Principle	FDR (Frequency Domain Reflectometry) / Capacitance
	Measuring range	Mineral soil calibration: 0...0.7 m^3/m^3 Soilless media calibration: 0...1.0 m^3/m^3
	Accuracy	• Generic calibration: ±0.03 m^3/m^3 typical in mineral soils that have solution EC <8 dS/m • Medium specific calibration: ±0.01...0.02 m^3/m^3 in any porous medium
	Dielectric Measurement Frequency	70 MHz
	Resolution	0.001 m^3 /m^3
Temperature	Measuring range	-40..60 °C
	Accuracy	±1 °C @ −40...0 °C; ±0.5 °C @ 0...60 °C
General Information	Power supply	4...15 V DC
	Power consumption	• Sleep: 0.03 mA • Measuring: 16 mA
	Power-up time	245 ms
	Output	SDI-12
	Operating temperature	-40...60°C
	Cable	L=5 m
	Dimensions	Lenght: 9.4 cm; Width: 2.4 cm; Height: 7.5 cm; Needle: 5.5 cm
	Data logger compatibility	Alpha-Log

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