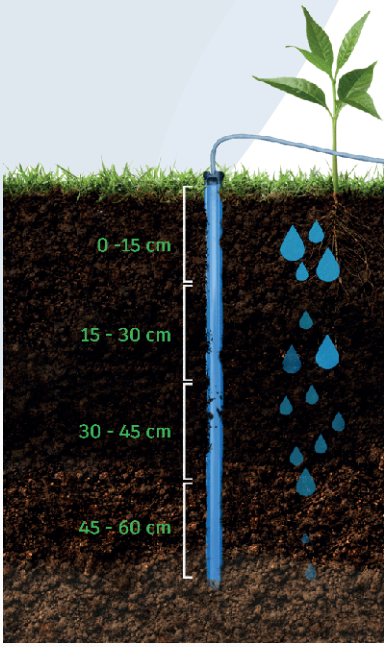
Multi-segment soil moisture and temperature profiling probe

CODE: SDI-12

DESCRIPTION: Multi-segment soil moisture and temperature profiling probe

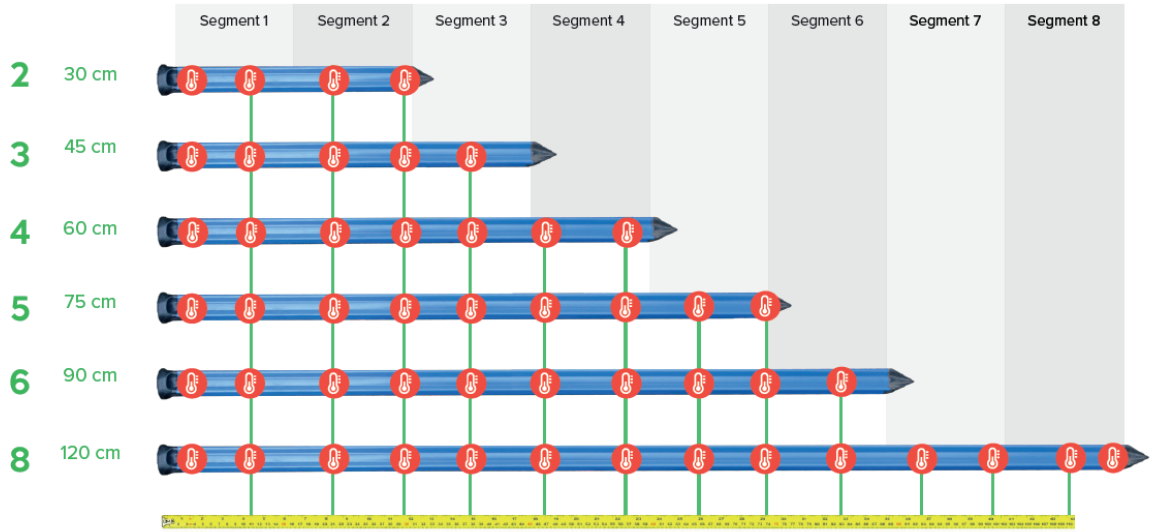
iSiinitzan Profile provides cost-effective measurement of volumetric water content over multiple depths using a single probe, eliminating the cumbersome excavation required for multiple sensors placed at different depths. It can be deployed in irrigation-sensitive zones to enable full control of precision irrigation needs, providing an understanding of water movement through the soil.



Temperature Sensor Placement

Choose the number of 15cm segments that are right for your application.
The standard configuration places temperature sensors every 10 cm.

= temperature sensor placement



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DESCRIPTION: Multi-segment soil moisture and temperature profiling probe

Technical Specifications

MOISTURE

Measurement range	0% to 100% of VMC
Accuracy	±2.0% *
Precision	< 0.2%

TEMPERATURE

Measurement range	-20°C to +70°C (-4°F to 158°F)
Accuracy	±0.5°C
Location	Surface every 10cm

ELECTRICAL

Output	SDI-12 V1.3 MODBUS (RS485 optional)
Connection	Bare wire (optional 4 pin, IP66/IP68 rated environmental connector)
Input voltage	6 to 14 VDC max. 18 VDC
Current consumption	Quiescent: <0.5mA Active: 15-20 mA (depending on number of segments) for 100 mS
Warm-up time on power up	< 1 second

ENVIRONMENTAL

Operating temperature	-20°C to +70°C (-4°F to 158°F)
Storage temperature	-40°C to 85°C (-40°F to 185°F)

PHYSICAL

Length	Each segment is approximately 15 cm (5.9") long. Total length is the number of segments multiplied by 15 cm. For example, a 3-segment probe is about 45cm long.
Probe weight	2 segments: 292 g (10.3 oz.) 3 segments: 351 g (12.4 oz.) 4 segments: 408 g (14.4 oz.) 5 segments: 468 g (16.5 oz.) 6 segments: 526 g (18.6 oz.) 8 segments: 642 g (22.6 oz.)
Cable weight	38 g per m (0.42 oz. per foot)
Standard cable	5 m (16.3 ft.) 4xAWG22 dual-shielded, twisted pair, rated for direct burial
Warranty	1-year limited parts and labour

* 8% to 42% VMC, in controlled laboratory conditions; factory calibrated for most agricultural soils. In field applications, accuracy may slightly decrease due to the inevitable heterogeneity of soil texture, soil compaction, moisture and fluctuation in soil temperature. The accuracy may also decrease in difficult soil conditions (higher clay and salinity content). In normal conditions, GroPoint sensors will maintain their accuracy from permanent wilting through field capacity in sandy loam through clay soils with less than 60% clay particles. Under moderately saline conditions. GroPoint sensors will maintain their accuracy up to 6 ds/m.