



ICT HRM Needle Probes



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1. Sap Flow Needle Length Options

ICT International sap flow sensors and sap flow meters are compatible with three thermistor probe and heater lengths: **35 mm, 22.5 mm, and 12 mm**. Each configuration includes two thermistor probe positions and a constant-current heater, and each needle comes with M8 connectors and 30cm cable length as standard. Extensions to 1m cable are available on request and they are recommended for installations on roots or close to ground-level sections of the plants.

Needle sets are interchangeable, allowing the same sensor or logger to support different needle lengths (not simultaneously).

ICT International can also provide custom thermistor positioning. For more information, please contact our sales team at sales@ictinternational.com.au



Figure 1.1.: ICT International thermistor and heater probes available

1.1 SF-35 needle

Needle Diameter	1.3 mm
Needle Length	35 mm
Measurement Positions	2 per measurement needle
Suitable for	woody stems
Thermistors Position	7.5 mm and 22.5 mm from the needle tip

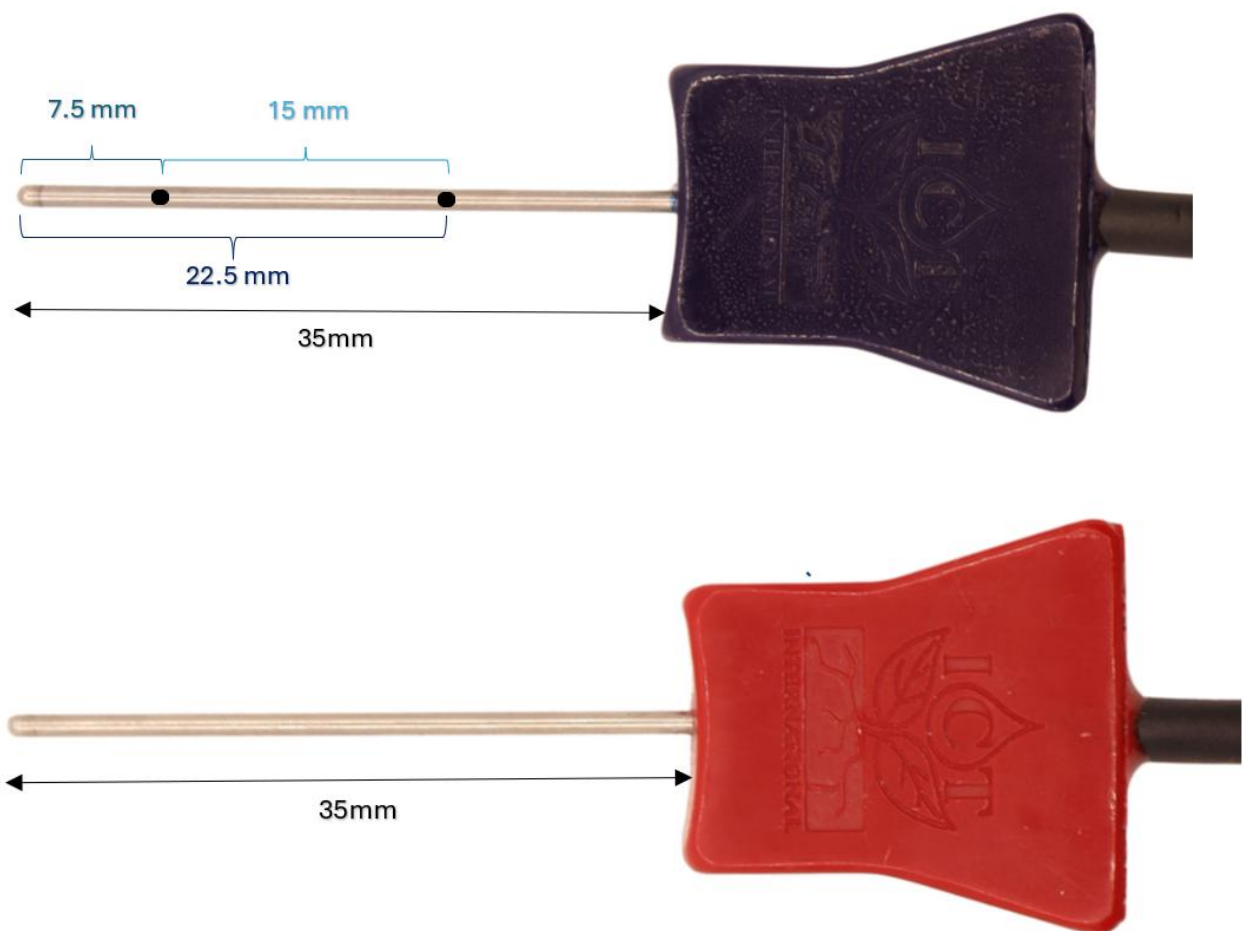


Figure 1.1.1: "SF35-TP" 35mm length thermistor probe – thermistors position and "SF35-HP" 35mm length constant current heater

1.2 SF-22.5 needle

Needle Diameter	1.3 mm
Needle Length	22.5 mm
Measurement Positions	2 per measurement needle
Suitable for	woody stems and herbaceous stems
Thermistors Position	5 mm and 12.5 mm from the needle tip



Figure 1.2.1: "SF22.5-TP" 22.5mm length thermistor probe – thermistors position and 1 "SF22.5-HP" 22.5mm length constant current heater

1.3 SF-12 needle

Needle Diameter	1.3 mm
Needle Length	12 mm
Measurement Positions	2 per measurement needle
Suitable for	herbaceous stems not more than mm in diameter
Thermistors position	2.5 mm and 9.5 mm from the needle tip



Figure 1.3.1: “SF12-TP” 12mm length thermistor probe – thermistors position and “SF12-HP” 12mm length constant current heater

2. Custom Thermistors Placement Service

If the standard position of the thermistors is not matching with the sapwood depth of a specific plant, ICT International can custom place the thermistor in the 35mm and 22.5mm needles lengths, to ensure that both thermistors are placed within the sapwood area the user wants to investigate.

Please contact our sales team to discuss options and pricing.

sales@ictinternational.com.au