



TDS & Temperature Module for the
FlowOne™ Flow Controller



USER MANUAL

Model RTFC01T



rootek-designs.co.uk
Designed and assembled in the UK

1 What the Sense™ does

The FlowOne Sense™ adds live water quality and water temperature to your Rootek FlowOne™ display. An inline sensor tees into your delivery line and the readings appear on the bottom line of the controller's home screen, so you can see your TDS while you work instead of stopping to test a sample with a handheld meter.

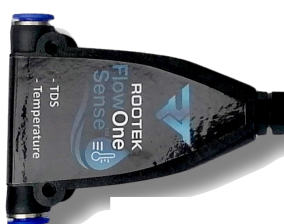
Watch that number over the weeks and you'll see your TDS start to creep up as your resin nears the end of its life — so you can change it on your schedule, before the first spotting complaint.

Add-on module. The Sense™ works only with the Rootek FlowOne™ flow controller. The controller itself is not included.

2 What's in the box



Sense™ module with
connection cable



Inline TDS & temperature
sensor (12 mm push-fit)



2 × hosetail
adapters*



2 × stainless
steel clips*

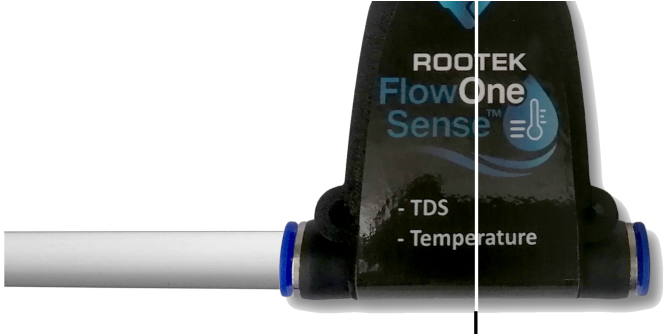
*Supplied with the 1/2" hose option.

3 Fitting it

Installation takes a few minutes. Choose where the sensor goes first — anywhere in your delivery line after the filters, where it will stay full of water.

1. **Switch the FlowOne off** at its power switch. Modules are detected when the controller starts up, so it must be off while you connect.
2. **Plug the connection cable** into either expansion port on the underside of the controller — the sockets either side of the XT60 connectors.
3. **Mount the module** using its mounting flanges, somewhere dry and out of the way.
4. **Fit the sensor into your line** using whichever connection suits your setup (see below), making sure both ends are properly home and the joints don't leak.
5. **Switch the FlowOne back on.** The TDS and temperature readings appear on the home screen.

Two ways to connect the sensor



12 mm push-fit

Push 12 mm OD plastic pipe straight into either end of the sensor. (Pipe not included.)

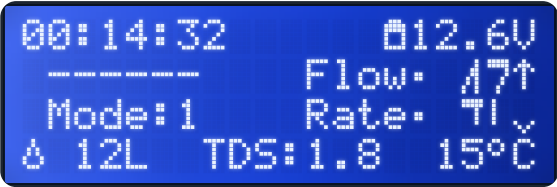


1/2" hose

Fit the 12 mm stem to 1/2" hosetail adapters and secure your hose with the stainless steel clips. (Hose not included.)

4 Reading the display

With the Sense™ connected, the bottom line of the FlowOne's home screen shows your live TDS and water temperature.



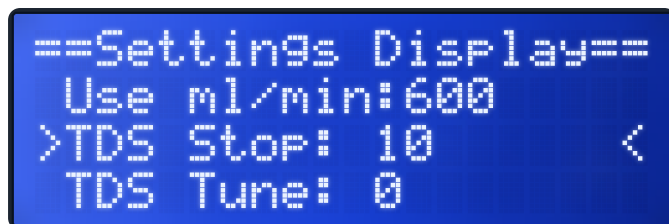
TDS and water temperature appear on the bottom line, alongside your water usage.

What you see	Meaning
TDS: 1.8	Live TDS reading — the lower the number, the purer your water
TDS: <1	Below 1 — as pure as the reading goes
TDS: . . .	Waiting for the first reading after switch-on
TDS HIGH!	Reading is above 300 — check your filters and resin
15°C	Water temperature. It flashes at 0 °C and below as a frost warning

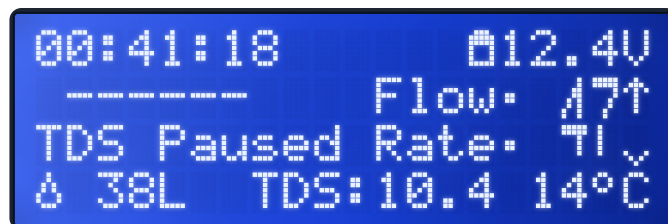
Why the reading only changes when you stop: a running pump puts electrical noise on the line that would spoil the measurement, so the Sense™ takes its reading whenever the pump pauses or dead-ends. Close your tap and leave the pump off for a few seconds — the longer it is off, the more settled and accurate the reading.

5 TDS Stop — protecting your work

Set a TDS limit and the FlowOne will pause the pump by itself if your water goes above it, so poor water never reaches the glass. Go to **Menu → Home Display → TDS Stop** and set a level from 1 to 250, or 0 to switch the feature off. Most cleaners set it in single figures, just above their normal working TDS.



Setting the limit to 10 in the Home Display menu.



TDS has risen past that limit, so the pump is paused.

6 Calibrating the reading

The Sense™ is set up before it leaves us, but you can trim it against a reference meter if you want to. Go to **Menu → Home Display → TDS Tune** and adjust up or down; the live reading is shown at the top of the screen while you do it.

- Tune using reference water between **TDS 10 and 20** — tuning is blocked above 20, where a small adjustment would throw the low readings out.
- The pump pauses while the tuning item is selected, so the reading you're trimming is a settled one.

The Sense™ is temperature compensated, which makes it accurate across the range you'll actually work in. If it disagrees with a handheld meter, don't assume the FlowOne is the one at fault — inexpensive handheld meters are often poor at very low readings. Whichever meter you compare against, give it time to settle to the water temperature before you trust the number; on some handhelds that takes several minutes.

7 If it isn't working

Symptom	What to do
No TDS or temperature on the display	The module is only detected at start-up. Switch the FlowOne off, check the cable is fully home in both the expansion port and the module, then switch back on.
The reading never changes while I work	That's normal — readings are taken when the pump pauses or dead-ends. Close your tap and leave the pump off for a few seconds; the longer it is off, the more settled and accurate the reading.
TDS: . . . stays on screen	No reading has been taken yet. Pause the pump and give it a few seconds. If it persists, check the sensor is full of water and its cable is undamaged.
The reading looks too high or too low	Run water through for a few minutes and check again — water left standing in hoses picks up impurities from the plastic, so its TDS creeps up. Check the sensor is fully flooded with no air trapped in it, then trim it with TDS Tune using reference water between 10 and 20.
Water is leaking at the sensor	Switch off and depressurise, then check the pipe is pushed fully into the push-fit collet, or that the hosetail is fully home with the clip tight.
The temperature reads oddly right after switch-on	Give it a few seconds — the first reading is taken shortly after start-up.

8 Specifications

Model	RTFC01T
Compatibility	Rootek FlowOne™ flow controller
Connection	FlowOne expansion port
Cable	Cat 6 or better ethernet cable required — a Cat 6 cable is supplied
Measures	TDS (water purity) and water temperature
Display	Live on the FlowOne home screen
Sensor fitting	Inline, 12 mm push-fit both ends
Hose option	12 mm stem to 1/2" hosietails with stainless steel clips
Mounting	Built-in mounting flanges on the module
Warranty	12 months
Origin	Designed and assembled in the UK

9 Support

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