

Pro2030 vs ProDSS ODO/CT Comparison

Measuring dissolved oxygen with a conductivity sensor for real-time salinity compensation

The YSI [Pro2030](#) and YSI [ProDSS](#) (with an ODO/CT cable assembly) are water quality systems that measure dissolved oxygen (DO), conductivity, barometric pressure and temperature. The conductivity sensors on these instruments allow for real-time salinity-compensated DO measurements, so they are ideal for measuring DO in applications where salinity varies such as - estuary, wetland, coastal, and aquaculture. The ProDSS with an ODO/CT cable features many advantages over the Pro2030. Don't know why? *Let us show you.*



The Pro2030 and ProDSS are ideal water quality instruments when measuring in environments such as estuaries.



Pro2030



ProDSS with ODO/CT Assembly

Key Differences - Pro2030 and ProDSS ODO/CT

- Dissolved Oxygen Sensor** | The Pro2030 features an *electrochemical* DO sensor with a screw-on cap membrane that requires regular replacement. The ODO/CT assembly features an *optical* DO sensor. Optical sensors are more convenient because they require less maintenance with no membrane changes, no warm-up time, and no stirring in the sample. The optical sensor is also more stable, requires less frequent calibration and has a better accuracy specification.
- Digital Technology** | ProDSS sensors are auto-recognized, making instrument set-up quick and easy. Sensors also store their calibration and serial number, providing extra data traceability. The digital signal of the ProDSS allows cable lengths up to 100 meters, while the analog signal of the Pro2030 limits cable lengths to 30 meters.
- Data Management** | The Pro2030 handheld features a basic memory (50 data sets) and it cannot be connected to a PC. The ProDSS handheld features a large memory (>100,000 data sets) with extensive site list and Data ID tag capabilities. KorDSS PC software is included with the ProDSS for easy data management and instrument configuration. *Note:* a 2030 cable can be used with the Pro Plus handheld which features PC connectivity and a larger memory (5,000 data sets) than the Pro2030 handheld.
- USB** | The ProDSS features a USB On-The-Go connector for PC connection, recharging/powering the ProDSS, and sending data directly to a USB stick.
- GPS** | The optional GPS on the ProDSS ensures data is tied to the correct location and serves as an additional tool when analyzing data.
- Rechargeable battery** | The ProDSS is powered by a rechargeable lithium-ion battery, while the Pro2030 utilizes alkaline C-cell batteries.
- Advanced Display** | Unlike the basic Pro2030, the ProDSS features a color screen with backlit keypad for use in any lighting condition. Data can also be viewed graphically during data collection and calibration.

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		Pro2030	ProDSS
Handheld Features	Waterproof - IP67	●	●
	Drop Rated (1 meter)	●	●
	Salinity Compensation for increased DO accuracy	●	●
	Built-in Barometer for increased DO accuracy	●	●
	Built-in GPS		Optional
	PC Connectivity		●
	Built-in 'Help' Function		●
	Languages	4	12
	Auto Stable	●	●
	Backlit Display	●	●
	Backlit Keypad	Glow in the dark	●
	Display Type	Graphic	Graphic
	Color Display		●
	Graphing on Display		●
	Memory	50 data sets	> 100,000 data sets
	Battery Type	C-size alkaline (2)	Rechargeable lithium-ion
Handheld Warranty	3 years	3 years	
Cable Features	User-Replaceable Cable	Yes, cable is replaceable	Yes, probe/cable assembly is replaceable
	Cable Connector	Metal Mil-Spec	Metal Mil-Spec
	Cable Lengths	1-30 m, various lengths available	1-100 m, various lengths available
	Cable Warranty	2 years	2 years
Dissolved Oxygen Sensor Features	User-Replaceable Sensor	Yes, sensor is replaceable	ODO/CT probe & cable assemblies feature built-in sensors; 4-port ProDSS cables feature user-replaceable sensors.
	Lab BOD Option	Yes	Yes
	Sensor Technology	Membrane covered	Optical luminescent
	DO Membrane Type	Cap	None, optical sensor cap is used
	DO Warm-Up Time	5-10 minutes for polarographic, none for galvanic	None
	DO Stirring Requirement	6 in/sec with yellow cap, 3 in/sec with blue cap	None
	DO Accuracy	0-20 mg/L: ± 0.2 mg/L or 2% of reading 20-50 mg/L: ± 6% of reading	0-20 mg/L: ± 0.1 mg/L or 1% of reading 20-50 mg/L: ± 8% of reading
	DO Range	0-50 mg/L	0-50 mg/L
	Response Time (T-95)	8 seconds with yellow cap, 17 seconds with blue cap	45 seconds without flow over sensor, 22 seconds with flow over sensor
Sensor Warranty	1 year polarographic; 6 months galvanic	2 years	
Available Parameters		Dissolved oxygen, BOD, conductivity, salinity, specific conductance, TDS, temperature and barometric pressure.	*Dissolved oxygen, BOD, GPS, conductivity, salinity, specific conductance, TDS, resistivity, seawater density, temperature and barometric pressure.

*Additional parameters that are available with a ProDSS 4-port cable include: turbidity, TSS, depth, nitrate, ammonium/ammonia, chloride, pH, and ORP.