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YSI DO Instrument Selection Guide

DO and Temperature Handheld Instruments



		Legacy Instruments		EcoSense		Pro Series		
		55 <i>Retired Feb 2016</i>	550A <i>Retired Dec 2016</i>	DO200A	ODO200	Pro20i	Pro20	ProODO
Handheld Features	Waterproof - IP67		•	•	•	•	•	•
	Drop Rated (1 meter)		•			•	•	•
	Salinity Compensation	•	•	•	•	•	•	•
	Built-in Barometer for increased DO accuracy					•	•	•
	PC Connectivity							•
	Built-in 'Help' Function							•
	One-Touch Cal					•	•	
	Multiple Languages					•	•	•
	Auto Stable					•	•	•
	Backlit Display	•	•			•	•	•
	Backlit Keypad					Glow in the dark	Glow in the dark	•
	Display Type	Segmented	Segmented	Segmented	Segmented	Graphic	Graphic	Graphic
	Memory	None	None	50 data sets	50 data sets	50 data sets	50 data sets	5000+ data sets
	Battery Type	AA-size alkaline (6)	C-size alkaline (4)	9 volt alkaline (1)	9 volt alkaline (1)	C-size alkaline (2)	C-size alkaline (2)	C-size alkaline (2)
	Battery Life	180 hours	2000 hours	500 hours	100 hours	400 hours	400 hours	80 hours
Handheld Warranty	2 years	3 years	1 year	1 year	3 years	3 years	3 years	
Cable Features	User-Replaceable Cable	No, cable is not replaceable	No, cable is not replaceable	Yes, probe/cable assembly is replaceable	Yes, probe/cable assembly is replaceable	No, cable is not replaceable	Yes, cable is replaceable	Yes, probe/cable assembly is replaceable
	Cable Connector	N/A	N/A	Hiroshi	Hiroshi	N/A	Metal Mil-Spec	Metal Mil-Spec
	Cable Lengths	12, 25, 50 ft	12, 25, 50, 100 ft	1, 4, 10 m	1, 4, 10 m	1, 4, 10 m	1-100 m, various lengths available	1-100 m, various lengths available
	Cable Warranty	1 year	1 year	1 year	1 year	2 years	2 years	2 years
Dissolved Oxygen Sensor Features	User-Replaceable Sensor	No, sensor is not replaceable	Yes, sensor is replaceable	No, sensor is not replaceable	No, sensor is not replaceable	Yes, sensor is replaceable	Yes, sensor is replaceable	No, sensor is not replaceable
	Lab BOD Option	No	No	Yes	No	No	Yes	Yes
	Sensor Technology	Membrane covered	Membrane covered	Membrane covered	Optical luminescent	Membrane covered	Membrane covered	Optical luminescent
	Membrane Type	Stretch	Cap	Cap	None*	Cap	Cap	None*
	Warm-Up Time	5-10 minutes	5-10 minutes	5-10 minutes	None	5-10 minutes for polarographic, none for galvanic	5-10 minutes for polarographic, none for galvanic	None
	Stirring Requirement	12 in/sec	6 in/sec	6 in/sec	None	6 in/sec with yellow cap, 3 in/sec with blue cap	6 in/sec with yellow cap, 3 in/sec with blue cap	None
	DO Accuracy	± 0.3 mg/L	0-20 mg/L: ± 0.3 mg/L or 2% of reading 20-50 mg/L: ± 6% of reading	± 0.2 mg/L or 2% of reading	± 0.15 mg/L or 1.5% of reading	0-20 mg/L: ± 0.2 mg/L or 2% of reading 20-50 mg/L: ± 6% of reading	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: ± 10% of reading
	DO Range	0-20 mg/L	0-50 mg/L	0-20 mg/L	0-20 mg/L	0-50 mg/L	0-50 mg/L	0-50 mg/L
	Response Time (T-95)	10 seconds (T-90)	9 seconds	8 seconds	45 seconds without flow, 22 seconds with flow over sensor	8 seconds with yellow cap, 17 seconds with blue cap	8 seconds with yellow cap, 17 seconds with blue cap	45 seconds without flow, 22 seconds with flow over sensor
	Sensor Warranty	1 year	1 year	1 year	1 year	1 year polarographic; 6 months galvanic	1 year polarographic; 6 months galvanic	2 years

*Optical probes feature a user-replaceable sensor cap with a 1 year warranty and 15 to 18 month expected life.



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Multiparameter Handheld Instruments



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		Legacy	Pro Series	
		Model 556 <i>Retired Feb 2016</i>	Pro Plus	ProDSS
Handheld Features	Waterproof - IP67	•	•	•
	Drop Rated (1 meter)		•	•
	Salinity Compensation	•	•	•
	Built-in Barometer for increased DO accuracy	Optional	•	•
	Built-in GPS			Optional
	PC Connectivity	•	•	•
	Built-in 'Help' Function		•	•
	Multiple Languages	•	•	•
	Auto Stable		•	•
	Backlit Display	•	•	•
	Backlit Keypad		•	•
	Display Type	Graphic	Graphic	Graphic
	Color Display			•
	Graphing on Display			•
	Memory	> 49,000 data sets	5000+ data sets	> 100,000 data sets
	Battery Type	C-size alkaline (4) Optional rechargeable NiMH	C-size alkaline (2)	Rechargeable lithium-ion
Battery Life	180 hours	80 hours	20 hours (handheld and 4 port cable)	
Handheld Warranty	3 years	3 years	3 years	
Cable Features	User-Replaceable Cable	Yes, cable is replaceable	Yes, all cables are replaceable	Yes, all cables are replaceable
	Cable Connector	Metal Mil-Spec	Metal Mil-Spec	Metal Mil-Spec
	Cable Lengths	4, 10, 20 m	1-100 m for DO/Temp cables, various lengths available	1-100 m, various lengths available
	Cable Warranty	1 year	2 years	2 years
Dissolved Oxygen Sensor Features	User-Replaceable Sensor	Yes, DO sensor is replaceable	Yes, DO sensor is replaceable	Some cables feature user-replaceable sensors while others feature built-in sensors
	Lab BOD Option	No	Yes	Yes
	Sensor Technology	Membrane covered	Membrane covered	Optical luminescent
	Membrane Type	Cap	Cap	None*
	Warm-Up Time	5-10 minutes	5-10 minutes for polarographic, none for galvanic	None
	Stirring Requirement	12 in/sec with black cap 6 in/sec with yellow cap, 3 in/sec with blue cap	12 in/sec with black cap 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: ± 0.2 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	0-50 mg/L
	Response Time (T-95)	18 seconds with black cap 8 seconds with yellow cap, 17 seconds with blue cap	18 seconds with black cap 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	1 year polarographic; 6 months galvanic	2 years
Other Parameters**	Conductivity, Salinity, pH, ORP, TDS	All Model 556 parameters plus ammonium, nitrate and chloride	All Pro Plus parameters plus turbidity, GPS, and depth	

*Optical probes feature a user-replaceable sensor cap with a 1 year warranty and 15 to 18 month expected life.

**Other calculated parameters are also available (e.g. resistivity, TDS, TSS).

