



## X2change™ Swappable Sensors

X2change™ is the industry's leading family of field-swappable sensor heads. Each sensor head contains its own embedded calibration and can be moved from instrument to instrument without impacting accuracy. Changing sensors is easy: simply unscrew one sensor head and replace it with another.

On Time or We Compensate

for SVPs & CTDs

Try Before You Buy

for Multiparameter Sondes

Love It or Leave It

for Moving Vessel Profilers



# Technical Specifications

Sensor	Max Depth (m)	Range	Accuracy (+/-)	Resolution	Response Time	Notes
Conductivity & Temperature	6000 m <sup>1</sup>	C: 0-90 mS/cm T: -5-45 °C	C: 0.01 mS/cm <sup>3</sup> T: 0.005 °C	C: 0.001 mS/cm T: 0.001 °C	C: 25 ms T: 100 ms	Combined Conductivity & Temperature
High Accuracy Conductivity & Temperature	6000 m <sup>1</sup>	C: 0-90 mS/cm T: -5-45 °C	C: 0.003 mS/cm <sup>3</sup> T: 0.002 °C	C: 0.001 mS/cm T: 0.001 °C	C: 25 ms T: 100 ms	Combined Conductivity & Temperature
Sound Velocity	6000 m <sup>1</sup>	1375-1625 m/s	0.025 m/s	0.001 m/s	20 ms	Time of flight
Sound Velocity & Temperature	6000 m <sup>1</sup>	SV: 1375-1625 m/s T: -5-45 °C	SV: 0.025 m/s T: 0.01 °C	SV: 0.001 m/s T: 0.001 °C	SV: 20 ms T: 500 ms	Combined Sound Velocity & Temperature
Pressure	11000 m	0 - 11000 dBar	0.05% FS	0.02% FS	10 ms	Piezoresistive
Pressure (High Accuracy)	11000 m	0 - 11000 dBar	0.01% FS	0.001% FS	10 ms	Piezoresistive PA10LX
Temperature	6000 m <sup>1</sup>	-5-45 °C	0.005 °C	0.001 °C	100 ms	-
Dissolved Oxygen	6000 m	0-425 µmol/L	2% of measured value or 2.0 µmol/L	0.01 µmol/L	<1 s	Powered by JFE Advantech Co.
Turbidity	2000 m	0-200 NTU	2% Reading or 0.2 NTU <sup>2</sup>	0.01 NTU	200 ms	Non-wipered
Turbidity with Wiper	200 m	0-3000 NTU	2% Reading or 0.2 NTU <sup>2</sup>	0.01 NTU	<0.7 s	Wiper Equipped
Tryptophan	2000 m	0-5000 ppb	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs
Chlorophyll A & B Red Excitation	2000 m	0-500 µg/L	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs
Chlorophyll A & B Blue Excitation	2000 m	0-100 µg/L	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs
CDOM/FDOM	2000 m	0-500 ppb	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs
Flourescein	2000 m	0-150 ppb	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs
Rhodamine	2000 m	0-200 ppb	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs
Phycocerythrin (BGA)	2000 m	0-700 ppb	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs
Phycocyanin	2000 m	0-4500 ppb	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs
Crude Oils	2000 m	0-300 ppb	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs
Optical Brightners	2000 m	0-300 ppb	Linearity 0.99 R <sup>2</sup>	0.01	200 ms	Powered by Turner Designs

1: Survivable to 11000 m. | 2: Whichever is greater  
3: Stability is +/-0.003 mS/cm/month when combined with Street Lamp UV

