



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 ¹ | C: 0-90 mS/cm T: -5-45 °C | C: 0.01 mS/cm ³ 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 ¹ | C: 0-90 mS/cm T: -5-45 °C | C: 0.003 mS/cm ³ 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 ¹ | 1375-1625 m/s | 0.025 m/s | 0.001 m/s | 20 ms | Time of flight |
| Sound Velocity & Temperature | 6000 m ¹ | 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 | 0.01% FS | 10 ms | Piezoresistive PA10LX |
| Temperature | 6000 m ¹ | -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 | 600 m | 0-1500 NTU | 2% Reading or 0.2 NTU ² | 0.01 NTU | <0.7 s | Non-wipered |
| Turbidity | 2000 m | 0-200 NTU | 2% Reading or 0.2 NTU ² | 0.01 NTU | 200 ms | Non-wipered |
| Turbidity with Wiper | 200 m | 0-3000 NTU | 2% Reading or 0.2 NTU ² | 0.01 NTU | <0.7 s | Wiper Equipped |
| Tryptophan | 2000 m | 0-5000 ppb | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| Refined Fuels | 600 m | 0-20 ppm | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| Chlorophyll A & B Red Excitation | 2000 m | 0-500 µg/L | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| Chlorophyll A & B Blue Excitation | 2000 m | 0-100 µg/L | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| CDOM/FDOM | 2000 m | 0-500 ppb | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| Flourescein | 2000 m | 0-150 ppb | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| Rhodamine | 2000 m | 0-200 ppb | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| Phycocerythrin (BGA) | 2000 m | 0-700 ppb | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| Phycocyanin | 2000 m | 0-4500 ppb | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| Crude Oils | 2000 m | 0-300 ppb | Linearity 0.99 R ² | 0.01 | 200 ms | Powered by Turner Designs |
| Optical Brightness | 2000 m | 0-300 ppb | Linearity 0.99 R ² | 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

