



# ABB ANALYTICAL MEASUREMENT



## Aztec AWT440 - Multi-channel Digital Transmitter

### Features

- Automatic connection of up to 4 digital sensors
- Intuitive software with full colour graphical display
- Data logging and graphical process trending
- Secure data archiving to SD card or USB stick
- Ethernet, Profibus or MODBUS communications
- Full audit trail capability
- IP66 / NEMA 4X
- 4 x analog outputs
- 6 x relay outputs
- 6 x digital inputs/outputs

The Aztec AWT440 transmitter is designed to be used with minimum expertise or maintenance. Enabling users the ultimate flexibility to expand the transmitter functionality and capacity to meet operational demands.

The Aztec AWT440 is a universal multi-input transmitter that uses ABB's Aztec 400 range of advanced digital sensors for monitoring either turbidity or dissolved oxygen. The transmitter has multiple sensor capability that enables it to control and display information from up to four sensors.

Users of the Aztec AWT440 benefit from plug-and-play connectivity, automatic sensor recognition and set-up.



## Aztec ATS430 - Turbidity & TSS Sensor

### Features

- No servicing for the lifetime of the sensor
- In-situ cleaning
- Simplified calibration
- Flexible installation
- Certified performance
- Accuracy turbidity:  $<\pm 2\%$  measured value
- Advanced predictive maintenance diagnostics
- EZLink automatic sensor recognition and set-up
- Adaptive TSS calibration feature for improved process control



The simplest way to remain compliant with turbidity and total suspended solids (TSS) level monitoring.

Certified by MCERTS for measuring turbidity and featuring ABB's innovative adaptive total suspended solids calibration technology, the Aztec ATS430 can be counted on to provide improved control of turbidity and suspended solids throughout its operational life.



Its service-free design, plus features including in-situ cleaning, simplified calibration, predictive maintenance diagnostics and EZLink connectivity, enables it to offer the lowest cost of ownership of any device on the market.

The Aztec ATS430 is a compact, yet extremely robust turbidity sensor capable of measuring turbidity and total suspended solids concentrations up to 4000 NTU or 100,000mg/l.

With a choice of hermetically-sealed stainless steel or titanium versions, each featuring scratch-resistant sapphire optical windows, the Aztec ATS430 provides a versatile solution for use in benign environments through to those featuring aggressive or corrosive media. Supplied fully factory calibrated ready for use straight out of the box.



## ADS430 - Optical Dissolved Oxygen Sensor

### Features

- No calibration required
- No sensor drift
- Fast speed of response
- Minimised installation and maintenance time
- EPA approved optical dissolved oxygen measurement
- Resistant to abrasion and photobleaching
- No loss of performance, 2 year sensor cap life



ABB's ADS430 optical dissolved oxygen probe utilises the latest advancements in optical measurement technology to achieve extremely stable and accurate measurement whilst maintaining calibration without drift. Featuring ABB's EZLink technology, users of ABB's DO system benefit from plug-and-play connectivity, automatic sensor recognition/set-up, predictive diagnostics and enhanced measurement accuracy.

### Measurement Performance (Dissolved oxygen)

Range: 0 to 50ppm (0 to 50mg/l)  
0 to 450% saturation at 25°C and 760mm Hg

Accuracy / maximum measured error:  
 $\pm 0.1$ ppm (0 to 8ppm)  
 $\pm 0.2$ ppm (8 to 20ppm)  
 $\pm 10\%$  of reading (20 to 50ppm)

Resolution: 0.01 ppm (mg/l)  
Response time: T90 <45 sec; T95 <60 sec @ 25°C

### Measurement Performance (Temperature)

Range: 0 to 50°C  
Accuracy:  $\pm 0.1$ °C  
Maintenance: Sensor cap replacement - 24 months

### Environmental Data

Operating temp: 0 to 50°C  
Pressure limit: 10.3 bar maximum  
Flow rate: None required  
Storage temp: - 5 to 60°C





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### AZ20 - Zirconia in Situ Oxygen and Combustion Gas Analyser

#### Features

- Advanced design and precision manufacturing
  - robust, long-life probe for process temperatures up to 800°C (1472°F)
  - proven cell design from over 50 years experience
  - fast response to process variations
  - stable and accurate oxygen measurement
- Unique integrated auto-calibration system
  - easy compliance for emission monitoring regulation
  - eliminates requirement for expensive external calibration panel
  - reduced installation and maintenance costs
- Probe lengths up to 4.0m and industry-standard flange configurations
  - suitable for a wide range of applications
  - extensive installation options
- Easy cell release
  - fully site-serviceable probe
  - easy access to internal components
- Advanced transmitters
  - easy configuration, monitoring and intuitive HMI
  - HART communications
  - cell performance logging and diagnostics
- ATEX version available
- MCERTS



The Endura Combustion Gas Oxygen Analyser AZ20 is the latest in a long line of high-quality, combustion gas analysers from ABB. The sensor, based on a zirconium oxide cell, is mounted at the tip of the probe that is inserted in the flue duct. The resulting direct, in-situ measurement provides an accurate and rapid oxygen reading for combustion control optimisation and emissions monitoring.



### AW641 - Navigator 600 Silica Analyser

#### Features

- Analysis of up to 6 sample streams
- Up to 90% lower reagent consumption than other silica analysers
- Labour-saving 5 minute annual maintenance and up to 3 months unattended operation
- Automatic cleaning and calibration
- True auto-zero compensates for sample colour, turbidity and background silica in reagents
- Intuitive software with full colour graphical display, data logging and graphical process trending
- Full audit trail capability and secure data archiving to SD card

ABB's Navigator 600 Silica Analyser substantially cuts the costs and maintenance associated with silica monitoring in power generation and other large-scale steam and water dependent applications. Based on colourimetric techniques, they feature a liquid handling section carefully designed to reduce routine maintenance. Utilising powerful electronics, advanced features such as automatic calibration, continuous sample analysis and programmable multi-stream switching ensure accurate measurement of silica.

Measurement range:	0 to 5000ppb SiO <sub>2</sub> (minimum range 0 to 50ppb)
Chemical method:	Molybdenum blue
Response time:	<15 minutes (90% step change)
Minimum update time:	12 minutes for multi-stream configurations
Calibration:	2-point, automatic calibration
Sample stream options:	Available as single-stream or multi-stream (2, 4 or 6 stream) configurations
Measurement frequency:	Continuous chemistry and measurement (programmable sample rate for multi-stream)
Accuracy/maximum measured error:	±2% of reading or ±0.5ppb over the range 0 to 500ppb ±5% of reading over the range 500 to 5000ppb
Repeatability:	±2% of reading or ±0.5ppb over the range 0 to 500ppb ±3% of reading over the range 500 to 5000ppb

