Endura AZ10

Key specifications at a glance

Main features

- Close-coupled sensor and remote mounted transmitter
- Optional auto-cal system with or without restrictors
- Flanged, threaded or plate-mounted process fittings and sample intake tubes

Intake tube lengths
- 200, 350, 500, 650 mm
- (7.9, 13.8, 19.7, 25.6 in)

Reference air supply
- By diffusion, pumped supply not required

ABB flange, DN65 and DN80,
ANSI 2½ and 3 in

System accuracy
- ±0.1 % of reading or 
  ±0.05 % O₂ (whichever is the greater)

Response time
- Test gas T<sub>90</sub> <15 seconds

Process gas temperature
- –20 to 600 °C (–4 to 1112 °F)

Power supply
- 100 to 240 V AC ±10 %

Max duct temperature
- 400 °C (752 °F)

Ambient temperature range
- –20 to 55 °C (–4 to 131 °F)

Communication
- 1 current output
- 2 digital input/output
- User-configurable
- HART* communication v5.7

*HART is a registered trademark of the FieldComm Group

Endura AZ10

Robust and cost-effective oxygen measurement for small package boilers and marine EGR

Proven robust design and performance
- Multi-layer electrode prolongs cell life even in SOx emissions environment
- Accuracy better than 1 % of reading or ±0.05 % O₂

Advanced warning of sensor status
- On-board sensor lifetime indicator

Remote or automatic calibration
- Automatically on time schedule
- Manually at instrument, by HART command or remote digital signal

Rapid commissioning and start-up
- Easy set-up in less than 10 minutes
- Supplied ready to operate using factory calibrated data

Simple installation and operation
- Close-coupled sensor and standard intake tubes
- No need for pumped or compressed reference air

Minimal maintenance even in hostile environment
- Can be performed in situ with basic tools
- Extremely low drift ABB zirconia technology <±0.2 % typical O₂ range value per month
- Generally only needs periodic 1-point calibration with air

Marine certification
- IACS E10 Rev. 5.0 2006 test specification for type approval
- ABS certificate 15-L1262098-PDA

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Specifications subject to change without notice.
Endura AZ10

Ideal for small package boilers

Versatile system aids increased boiler efficiency through leaner operation and reduced emissions.
Cost-effective solution for precise monitoring of small boilers in hospitals and academia; and manufacturing industries such as fertilizer production, paper manufacturing, food and beverage production, and the chemical and pharmaceutical industries.

Designed for small, oil or gas-fired, industrial boilers:
- From approx. 2.7 t/h up to 27 t/h of steam capacity
- High pressure steam boiler 6 to 25 bar (87 to 362 psi);
  typically ≤10 MW
- Often 1 to 3 O₂ systems per boiler
- Measurement point: Boiler furnace or economizer outlets
- Typical process: 150 to 300 °C (302 to 572 °F),
  10.5 kPa, dust ≤1 g/Nm³
- Fuel: Biomass, fuel oil, kerosene or gas

Endura AZ10

Efficient auto-calibration system with restrictors

Fully automatic system provides complete confidence by controlling the gas sequence and eliminates incorrect calibrations.
Cost-effective solution for precise monitoring of small boilers in hospitals and academia; and manufacturing industries such as fertilizer production, paper manufacturing, food and beverage production, and the chemical and pharmaceutical industries.

AZ10 integrated restrictors simplifies installation:
- No need for external on/off valves for gases
- No need for needle valves to set the flow rate
- No need for flowmeters

AZ10 autocal unit
- Test gas supply: restrictor in autocal unit limits flow to 2.2 l/min (4.662 scfh) at 1 bar (15 psi)

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Endura AZ10

The whole measuring system at a glance

Endura AZ10

Ensuring compliance with IMO regulations

Performs a critical role allowing EGR optimization in marine diesel engines to ensure regulatory compliance and engine performance optimization.

Marine industry benefits of ABB Endura AZ10 O₂ technology:
- Marine certification – IACS E10 Rev. 5.0 2006 test specification for type approval – ABS Certificate 15-LD1262098-PDA
- Minimal maintenance even in hostile environments – can be performed in situ with basic tools
- Compliance with IMO and CEMS – Remote or automatic calibration – Assured system performance accuracy
- Assured performance – Accuracy better than 1 % of reading or ±0.05 % O₂
- Proven robust design and performance – Validated in normal and extreme performance tests

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