

Endura AZ30

Key specifications at a glance

Main features	
Design	<ul style="list-style-type: none"> In situ zirconium oxide sensor and remote or integrated transmitter Optional integrated auto-calibration system with or without restrictors
Reference air supply	<ul style="list-style-type: none"> Supplied by on-site compressed air or optional pump
Probe flanges	ABB flange, DN65, DN80 and DN100 ANSI 2, 2½, 3 and 4 in, JIS65, JIS80 and JIS100
System accuracy	≥0.75 % of reading or ±0.05 % O ₂ (whichever is the greater)
Response time	Test gas T ⁹⁰ <10 seconds
Process gas temperature	-20 to 800 °C (-4 to 1,472 °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	<ul style="list-style-type: none"> Up to 2 current outputs 2 digital input/outputs User-configurable HART communication v5.7
HMI	<ul style="list-style-type: none"> Through-the-Glass capacitive, intuitive SMART keys Transmitter is unopened in hazardous area

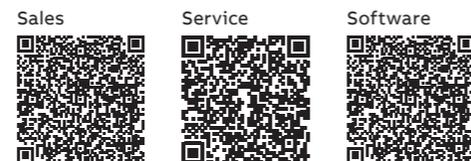
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ABB MEASUREMENT & ANALYTICS

Endura AZ30

Low-drift hazardous area oxygen measurement for petroleum refining and petrochem-fired heaters



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Endura AZ30

Maximum versatility

- Proven robust design and performance**
 - Multi-layer electrode prolongs cell life even in SO_x emissions environment
 - Accuracy better than ±0.75 % of reading or ±0.05 % O₂
- Advanced warning of sensor status**
 - Onboard 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 under 10 minutes
 - Supplied ready to operate using factory-calibrated data
- Hazardous-area certified**
 - FM
 - ATEX
 - IECEX
- Minimal maintenance even in hostile environments**
 - Can be performed in situ with basic tools
 - Extremely low drift ABB zirconia technology <±0.2 % typical O₂ range value per month
 - Generally needs only periodic 1-point calibration with air
- High-temperature capability**
 - Standard operation to 800 °C (1,472 °F)
 - Elevated capability to 1,400 °C (2,552 °F)

• HART is a registered trademark of the FieldComm Group

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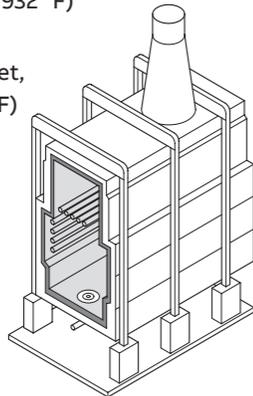
Complete solution for petrochemical refining

Versatile system capability enables use right across the petrochemical plant

Temperature range	Area classification	ABB product
-20 to 800 °C (-4 to 1,472 °F)	General purpose	AZ20 system
600 to 1,400 °C (1,112 to 2,552 °F)	General purpose	AZ25 system
-20 to 800 °C (-4 to 1,472 °F)	Hazardous area • ATEX • IECEx • FM • FMc	AZ30 system
600 to 1,400 °C (1,112 to 2,552 °F)	Hazardous area • ATEX	• AZ30 transmitter • AZ25 Probe • Interface unit
-20 to 1,400 °C (-4 to 2,552 °F)	Hazardous area • ATEX • IECEx • FM • FMc	• AZ30 system • Bypass system

Potential sample points

- Stack, often 300 to 500 °C (572 to 932 °F)
 - AZ30 explosion-proof
- In convection zone of furnace outlet, often 600 to 900 °C (1,112 to 1,652 °F)
 - AZ30/bypass explosion-proof
 - AZ30/AZ25 interface unit



Endura AZ30

Integrated auto-calibration system with restrictors

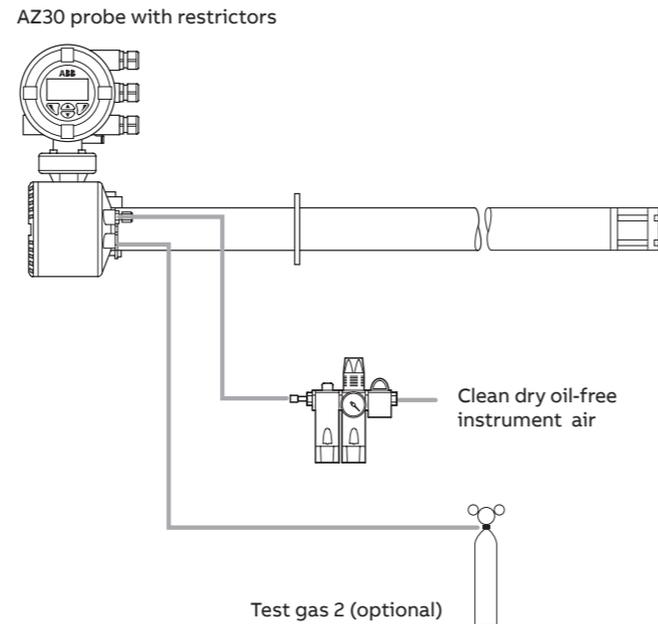
Fully automatic system provides complete confidence by controlling the gas sequence and eliminates incorrect calibrations

AZ30 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

Integrated AZ30 autocal unit

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



Endura AZ30

Hazardous area operation from ambient to high temperatures

Explosion hazardous certification

- FM, ATEX and IECEx
- II 2 GD
- Ex d IIB +H2 T4 Gb (Ta -20 to 70 °C)
- Ex tb IIIC T135 °C Db (Ta -20 to 70 °C) IP66
- Cert. No IECEx BAS12.0048X
- ATEX Cert No. Baseefa 12ATEX0076X
- Class I Division 1 Groups BCD T4
- Class I Zone 1 AEx/Ex d IIB+H2 T4
- Class II Division 1 Groups EFG T4 (Ta -20 to 20 °C) Type 4X



Endura AZ30

Bypass system for high temperature, hazardous areas

Specification

- -20 to 1,400 °C (-4 to 2,552 °F)
- Sensor in external extractor system
- Compressed air is applied to the chamber and ejected
- Process sample drawn through ceramic tube and cooled to a safe operating temperature
- NB 3 in SCH 10 316 tube ASTM A312-87
- With vacuum generator and pressure relief valve
- For low dust petrochemical processes
- Ceramic inlet tube lengths: 600 and 900 mm (23 and 35 in)
- Process flanges:
 - DN80 and DN100 PN6
 - ANSI 3 and 4 in 150 lb RF

