PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

Aztec ATS430 Turbidity Probe with AWT440 Controller

Manufactured by:

ABB Ltd
ABB Ltd
Oldends Lane
Stonehouse
Gloucester

has been assessed by Sira Certification Service
and for the conditions stated on this certificate complies with:

MCERTS Performance Standards for Continuous Water Monitoring Equipment, Version 3.1 dated August 2010

Certification Ranges :

Turbidity: 0 to 50NTU
0 to 500NTU
0 to 4000NTU

Project No.:	70043298
Certificate No:	Sira MC160305/00
Initial Certification:	19 August 2016
This Certificate issued:	19 August 2016
Renewal Date:	18 August 2021

Emily Alexander, BSc
Deputy Certification Manager

MCERTS is operated on behalf of the Environment Agency by

Sira Certification Service
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
Tel: +44 (0)1244 670 900

Form 1335
Issue 2

Certificate Contents

Approved Site Application

Any potential user should ensure, in consultation with the manufacturer, that the monitoring system is suitable for the intended application. For general guidance on monitoring techniques refer to the Environment Agency Monitoring Technical Guidance Notes available at www.mcerts.net

On the basis of the assessment this instrument is considered suitable for use on treated wastewater, untreated wastewater and receiving water applications.

Basis of Certification

This certification is based on the following Test Report(s) and on Sira's assessment and ongoing surveillance of the product and the manufacturing process:

ABB Limited Test Report - ATS400 Performance Report v3 dated 19/07/2016
Sira Witness Test Report (incorporated with Evaluation Report) dated 19/08/2016

Product Certified

The measuring system consists of the following parts:

- ATS430 Turbidity probe
- AWT440 Controller

This certificate applies to all instruments fitted with software version ATS400/P1/00.00.32 (transmitter) and AWD440/P2/00.01.10 (sensor) and serial number 8262 onwards.

Certified Performance

The instrument was evaluated for use under the following conditions:

Ambient Temperature Range: -10°C to +55°C

Results are expressed as error % of certification range, unless otherwise stated.

Test	Results expressed as % of the certification range				Other results	MCERTS specification
	<0.5	<1	<2	<5		
Combined performance characteristic						
0 to 50NTU			1.50			<2.5%
0 to 500NTU			1.83			<2.5%
0 to 4000NTU				2.14		<2.5%
Warm up time					5 minutes	To be reported
Response time					35 seconds	To be reported
Mean Error						
0 to 50NTU	0.43					<2.0%
0 to 500NTU		0.89				<2.0%
0 to 4000NTU		0.85				<2.0%
Repeatability						
0 to 50NTU	0.50					<1.0%
0 to 500NTU		0.58				<1.0%
0 to 4000NTU		0.72				<1.0%
Linearity						
0 to 50NTU	0.43					<1.0%
0 to 500NTU	0.38					<1.0%
0 to 4000NTU		0.76				<1.0%
General Interference tests (colour effects)						
0 to 50NTU		0.60				To be reported
0 to 500NTU			1.3			
Drift	0.15					<1.0%
Output Impedance (0 to 750Ω)	0.00					<0.5%

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Test	Results expressed as % of the certification range				Other results	MCERTS specification
	<0.5	<1	<2	<5		
Supply Voltage						
Mains powered CWMS (85 to 265VAC)	0.00					<0.5%
DC powered CWMS (18 to 36VDC)	0.00					<0.5%
Ambient Temperature (-10 to +55°C)	0.22					<1.0%
Relative Humidity (95% RH)	0.19					<1.0%
Incident Light	0.22					<1.0%
Sample temperature (2 to +42°C)	0.25					<1.0%
Sample flow-rate	0.16					<0.5%
Sample pressure (10bar)	0.01					<0.5%
Error under field test conditions					100%	>90% of errors ≤ Uc value
Response time in the field					50 seconds	To be reported
Up-time					100%	>95%
Maintenance					None	To be reported

Description

AWT440 transmitter

The AWT440 is a digital transmitter, used to display the readings from digital sensors and provide a user interface to interact with the sensors for operations such as calibration and cleaning. Up to four sensors can be connected to the transmitter.

The transmitter provides configurable 4-20mA outputs and alarm relays, as well as optional digital interfaces (MODBUS, Profibus, Ethernet) to communicate with plant control systems.

ATS430 turbidity/suspended solids sensor

The ATS430 turbidity/suspended solids sensor is a process turbidity sensor, designed according to the ISO7027 standard. Turbidity is determined by measuring the light scattered by the sample at 90 degrees from the direction of illumination. A near infrared LED is used as the light source.

The turbidity range accessible to the sensor is 0 to 4000NTU. The sensor can also be used for measuring suspended solids with a suitable calibration. The suspended solids range is sample dependent. The sensor is intended for use in waste water, process water or inlet water, and can be installed as either a dip sensor or an insertion sensor into a pipe.

The ATS430 sensor is available in stainless steel (with or without automatic wiper) for general water and waste water applications, and in titanium (without wiper) for aggressive or corrosive applications. The windows are made of sapphire for superior abrasion resistance.

General Notes

1. This certificate is based upon the equipment tested. The Manufacturer is responsible for ensuring that on-going production complies with the standard(s) and performance criteria defined in this Certificate. The Manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management system shall be subject to regular surveillance according to 'Regulations Applicable to the Holders of Sira Certificates'. The design of the product certified is defined in the Sira Design Schedule V00 for certificate No. Sira MC160305/00

2. If certified product is found not to comply, Sira Certification Service should be notified immediately at the address shown on this certificate.

3. The Certification Marks that can be applied to the product or used in publicity material are defined in 'Regulations Applicable to the Holders of Sira Certificates'.

4. This document remains the property of Sira and shall be returned when requested by the company.