

# Aztec ADS430160

## Flowcell pipeline mounting assembly



Installation procedures

Measurement made easy

Aztec ADS430160  
flowcell pipeline  
mounting assembly

### 1 Introduction

This publication details installation procedures for the ADS430160 flowcell pipeline mounting assembly used with the ADS430 (RDO®-PRO-X) optical dissolved oxygen probe. The procedures must be carried out by a trained technician.

#### Tools required

- Flat-bladed and pozi-drive screwdrivers, suitable for M8 fixing
- Adjustable spanner

### 2 For more information

Further information is available from:

[www.abb.com/analytical](http://www.abb.com/analytical)

or by scanning these codes:



Sales



Service

### 3 Identification

Kit contents are shown in Table 3.1.

Description	Part no.
Flowcell assembly, comprising: flowcell, flowcell cap, locking ring, gasket, O-ring, 2 x push-fit connectors, bottom plug, 1 x 15 m (45 ft.) length of 12 mm OD x 9.5 mm ID nylon tubing (inlet and outlet), wall / panel clip	ADS430160
This Information sheet – Aztec ADS430160   Flowcell pipeline mounting assembly   Installation procedures	INF14/157-EN

**Table 3.1 Open channel and open tank mounting kit ADS430160**

#### 3.1 Optional air-cleaning

The probe can be cleaned in-line using ABB’s optional Autoclean air compressor unit (ADS430180 / 181) or on-site compressed air (via a solenoid valve). Both air supply options can be configured and controlled using ABB’s AWT440 transmitter.

An optional tubing / connector kit is available for air-cleaning systems. Kit contents are shown in Table 3.2.

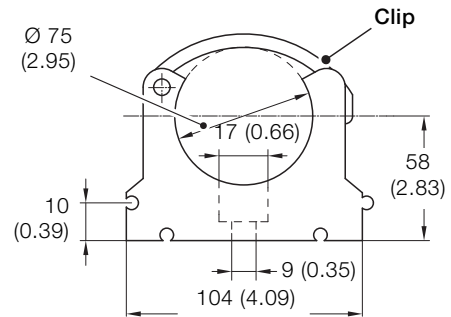
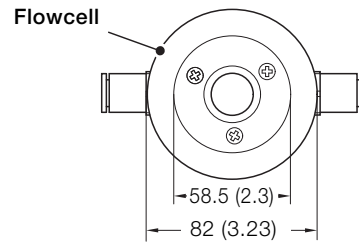
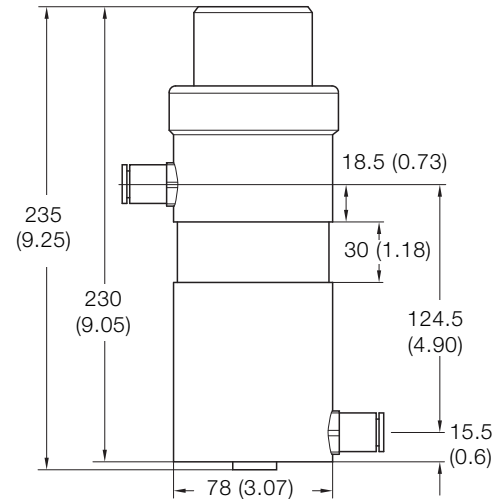
Description
6 mm OD x 15 m (45 ft.) nylon tubing
G3/8 push-fit connector (suitable for 6 mm OD tubing)

**Table 3.2 Air-clean tubing / connector kit ADS430169**

### 4 Installation

#### 4.1 Dimensions

Dimensions in mm (in.)



**Fig. 4.1 ADS430160 flowcell pipeline mounting assembly – dimensions**

## 4.2 Locating the flowcell

When locating the flowcell in the process line, ensure the following are available:

- a suitable sample take-off point and drain location
- a suitable wall / panel mounting location for the flowcell clip – see Fig. 4.2

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**i IMPORTANT (NOTE)** The flowcell (clip) can be tilted up to 30 ° from vertical to compensate for air in sample – see Fig. 4.2.

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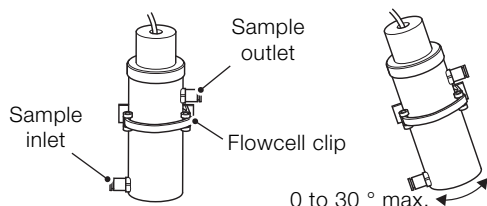


Fig. 4.2 Maximum vertical offset (for air in sample conditions)

## 4.3 Installing the flowcell and probe

Referring to Fig. 4.3, page 4:

1. Secure flowcell clip (A) to the wall / panel using an M8 fixing (not supplied / illustrated) of suitable length. Refer to Fig. 4.2 for clip alignment.
2. Fit flowcell (B) to clip (A) and lock clip arm (C) around groove on flowcell body (B).
3. Cut appropriate lengths of inlet and outlet sample tubing (12 mm OD x 9.5 mm ID) and connect to inlet push-fit connector (D) and sample outlet (drain) push-fit connector (E).

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**i IMPORTANT (NOTE)** If necessary, inlet connector (D) can be swapped with bottom plug (F), depending on sample.

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4. Ensure sample flow is **off** and connect the free ends of the inlet and outlet sample tubing to their respective fittings.
5. Unscrew lock ring (G) and remove flowcell cap (H), gasket (J) and O-ring (I).
6. Feed the probe cable (K) through gasket (J) and flowcell cap (H) and screw probe (L) onto the threaded boss in flowcell cap (H).

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**i IMPORTANT (NOTE)** Do not overtighten.

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7. Fit O-ring (I) into chamfer (M) on top of flowcell (B) and lower probe (L) (with flowcell cap assembly fitted) into flowcell (B). Secure with locking ring (G).
8. If optional air cleaning **is required**, proceed to Section 4.4 to complete the installation.  
If optional air cleaning is **not required**, proceed to step 9.
9. Open sample flow and regulate it until a steady throughput is achieved.
10. Connect the M12 connector on end of probe cable (K) to the EZLink connector on the AWT440 transmitter.

## 4.4 Connections for in-line air-cleaning options

- i NOTE**
- If air-clean connections are to be fitted after initial installation, drain the flowcell fully before continuing.
  - If on-site compressed air is used, the supply must be clean, oil-free and regulated to 20 psi (1.38 bar) @ 0.5 SCFM (approx.). The air line must incorporate a solenoid valve and suitable pneumatic / electrical connections must be made.

Referring to Fig. 4.3:

1. Remove (and retain) bottom plug (F) and replace with G3/8 push-fit connector (N).

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**i IMPORTANT (NOTE)** If necessary, the compressed air inlet position (at G3/8 push-fit connector (N)) can be swapped with the sample inlet position (connector (D)) depending on sample.

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2. Connect 6 mm OD nylon to tube to G3/8 push-fit connector (N).
3. Connect the free end of the 6 mm OD nylon to tube the compressed air supply as follows:
  - if the optional ABB Autoclean compressor unit is used, refer to OI/ADS430/EZCLN-EN for air connections at the compressor unit and configuration at the AWT440 transmitter
  - if on-site compressed air is used, connect the tube to a solenoid valve, regulate the air supply to 20 psi (1.38 bar) @ 0.5 SCFM (approx.) and refer to OI/AWT440-EN to configure the supply at the transmitter

A recommended cleaning regime is typically 60 seconds every 4 hours.

4. Open sample (process) flow and regulate it until a steady throughput is achieved.
5. If not connected, connect the M12 connector on end of probe cable (K) to the EZLink connector on the AWT440 transmitter.

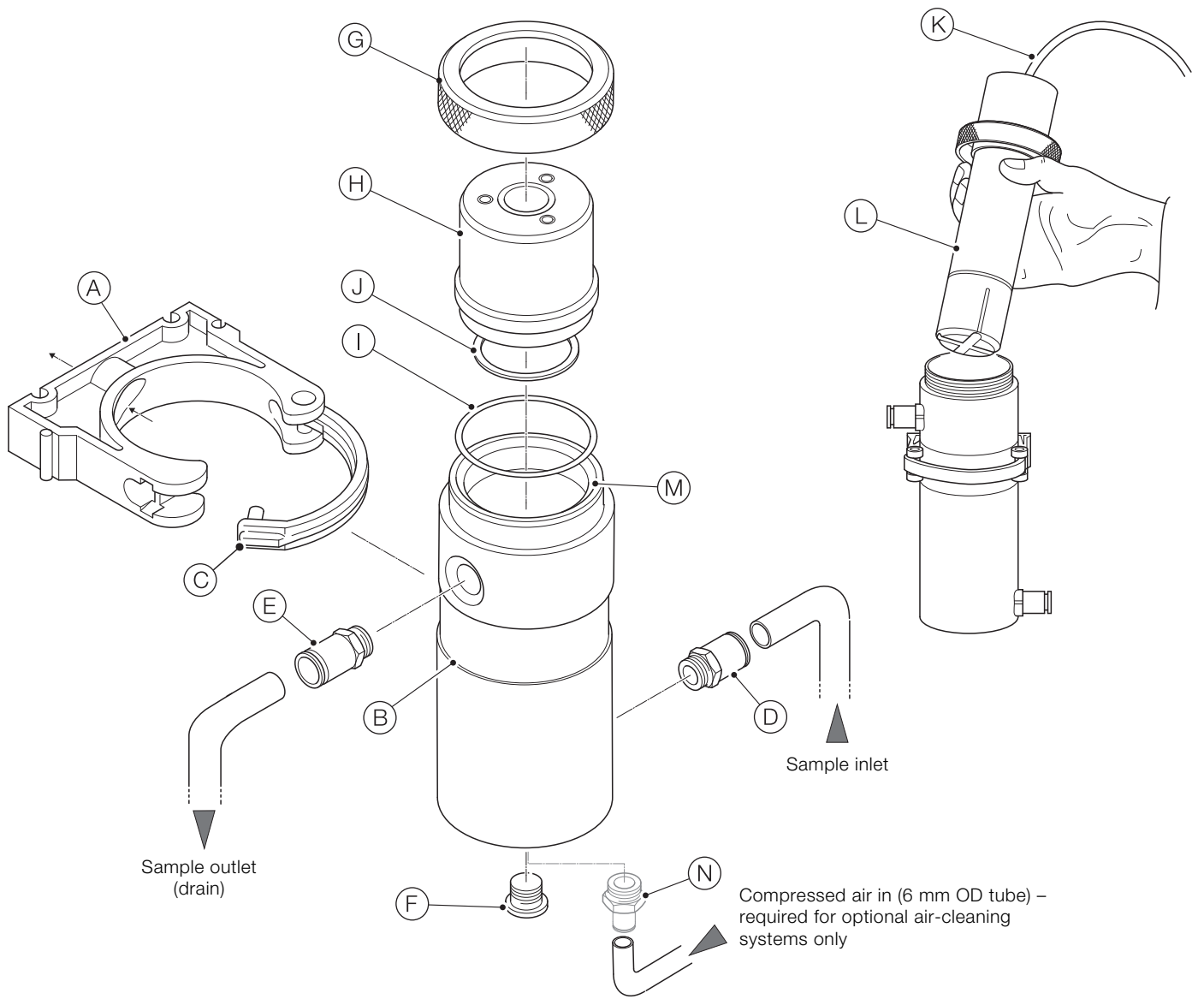


Fig. 4.3 ADS430160 flowcell pipeline mounting assembly – installation

## 5 Maintenance

### 5.1 Cleaning the flowcell and probe

Referring to Fig. 4.3, page 4:

1. Ensure sample flow is **off**.
2. Remove fitting at bottom of flowcell (bottom plug (F) shown) and drain flowcell (B).
3. Loosen and remove lock ring (G) and remove probe (L) from flowcell.
4. Clean flowcell (B) and flowcell cap (H) thoroughly.
5. Referring to ADS430 (RDO-PRO-X) probe manual OI/ADS430-EN, clean the probe thoroughly – re-calibrate if necessary.
6. Refit to probe to flowcell in reverse order of disassembly, ensuring gasket (J) and O-ring (I) are seated correctly.
7. Restore sample flow and regulate it until a steady throughput is achieved.

## 6 Flowcell spares

Description
Push-fit connectors (inlet / outlet) – see Fig. 4.3, page 4, items (D) and (E)
O-ring – see Fig. 4.3, page 4, item (F)
Gasket – see Fig. 4.3, page 4, item (J)
Bottom plug – see Fig. 4.3, page 4, item (F)

**Table 6.1 Spares kit ADS430168**

# Acknowledgements

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# Notes

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