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IM/2045 Issue 3



Client Warranty

Prior to installation, the equipment referred to in this manual must be stored in a clean, dry environment, in accordance with the Company's published specification. Periodic checks must be made on the equipment's condition.

In the event of a failure under warranty, the following documentation must be provided as substantiation:

1. A listing evidencing process operation and alarm logs at time of failure.
2. Copies of operating and maintenance records relating to the alleged faulty unit.

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Customer Support

We provide a comprehensive after sales service via our Worldwide Service Organization. Contact one of the following offices for details of your nearest Service and Repair Centre.

Health and Safety

To ensure that our products are safe and without risk to health, the following points must be noted:

1. The relevant sections of these instructions must be read carefully before proceeding.
2. Warning labels on containers and packages must be observed.
3. Installation, operation, maintenance and servicing must only be carried out by suitably trained personnel and in accordance with the information given.
4. Normal safety precautions must be taken to avoid the possibility of an accident occurring when operating in conditions of high pressure and/or temperature.
5. Chemicals must be stored away from heat, protected from temperature extremes and powders kept dry. Normal safe handling procedures must be used.
6. When disposing of chemicals ensure that no two chemicals are mixed.

Safety advice concerning the use of the equipment described in this manual or any relevant hazard data sheets (where applicable) may be obtained from the Company address on the back cover, together with servicing and spares information.

Information in this manual is intended only to assist our customers in the efficient operation of our equipment. Use of this manual for any other purpose is specifically prohibited and its contents are not to be reproduced in full or part without prior approval of the Technical Publications Department.

The NAMAS Calibration Laboratory No 0255 is just one of the ten flow calibration plants operated by the Company and is indicative of our dedication to quality and accuracy.

The Company

We are an established world force in the design and manufacture of instrumentation for industrial process control, flow measurement, gas and liquid analysis and environmental applications.

As a part of ABB, a world leader in process automation technology, we offer customers application expertise, service and support worldwide.

We are committed to teamwork, high quality service and support.

The quality, accuracy and performance of the Company's products result from over 100 years experience, combined with a continuous program of innovative design and development to incorporate the latest technology.

The NAMAS Calibration Laboratory No 0255 is just one of the ten flow calibration plants operated by the Company and is indicative of our dedication to quality and accuracy.



Stonehouse, U.K.



1 PREPARATION

1.1 Checking the Code Number – Table 1.1

Basic Type No.	Mounting & Version	Cell Constant (K)	Process Connection Type	Temperature Compensation
Code Characters				
1,2	3,4,5	6	7	8
20 Electrolytic conductivity measuring cells	45/ Flowline (epoxy resin)	4 0.1 6 1.0	0 1/2 in. BSP 8 1/2 in. NPT	0 None 5 Pt100 resistance thermometer

Table 1.1 Checking the Conductivity Cell Code Number

2 MECHANICAL INSTALLATION

2.1 Siting Requirements – Fig 2.1

Note. Allow sufficient clearance for easy removal of cell for cleaning – see Fig. 2.2 for overall dimensions of cells.

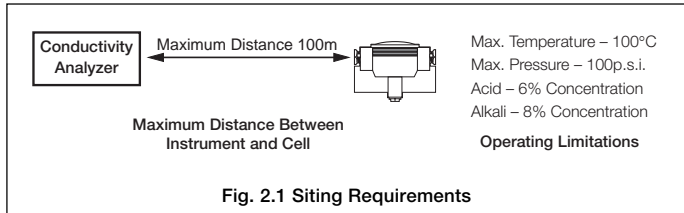


Fig. 2.1 Siting Requirements

2.2 Cleaning the Conductivity Cell

Caution. While cleaning, do not wet the electrical connection terminals.

Conductivity cells require periodic cleaning, the frequency of which depends on the particular application in which they are employed. Although measuring cells are free of contamination when supplied, they should be cleaned prior to installation.

Caution. Do not touch the cell bore by hand or use sharp implements when cleaning the cell.

Thoroughly clean the electrode with a 1:1 solution of water and non ionic detergent using the bottle brush provided. For more tenacious deposits, a 2% hydrochloric acid solution may be used. After cleaning, rinse the cell several times in distilled water and then examine it. Looking through the bore towards a source of illumination, the surface should have an evenly wetted appearance. If the surface has dry patches where the water has ‘peeled’ away this is an indication of the presence of grease and repeated cleaning and rinsing is required until the cell bore is wetted evenly.

2.3 Overall Dimensions, Conductivity Cell – Fig. 2.2

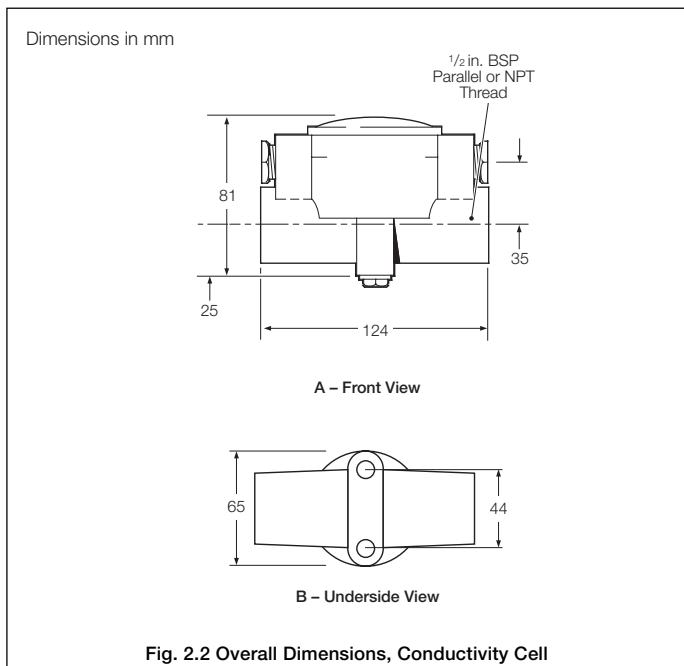


Fig. 2.2 Overall Dimensions, Conductivity Cell

2.4 Installing the Conductivity Cell – Fig 2.3

Caution. After cleaning and installing the conductivity cell, ensure it remains filled with liquid and is not allowed to dry out and ensure that the electrode bore remains fully immersed at minimum fluid levels.

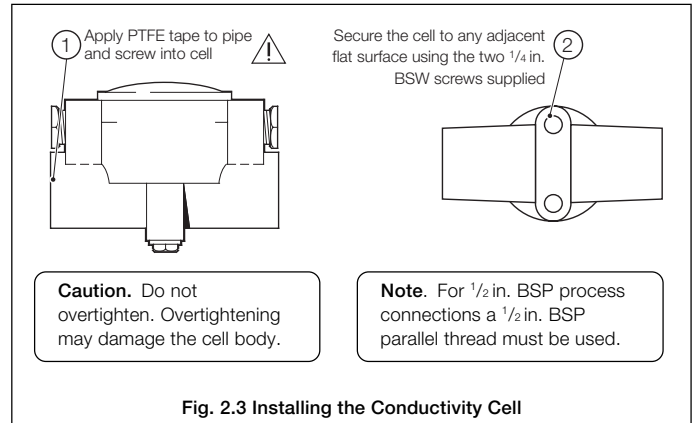


Fig. 2.3 Installing the Conductivity Cell

3 ELECTRICAL CONNECTIONS

Warning. Before making any connections, ensure that the power supply, any high voltage-operated control circuits and high common mode voltages are switched off

3.1 Conductivity Cell to Analyzer Connections

Information. Use cable part no. J/0233/820 to connect the conductivity cell to the analyzer.

3.1.1 Conductivity Cell Connections – Fig. 3.1

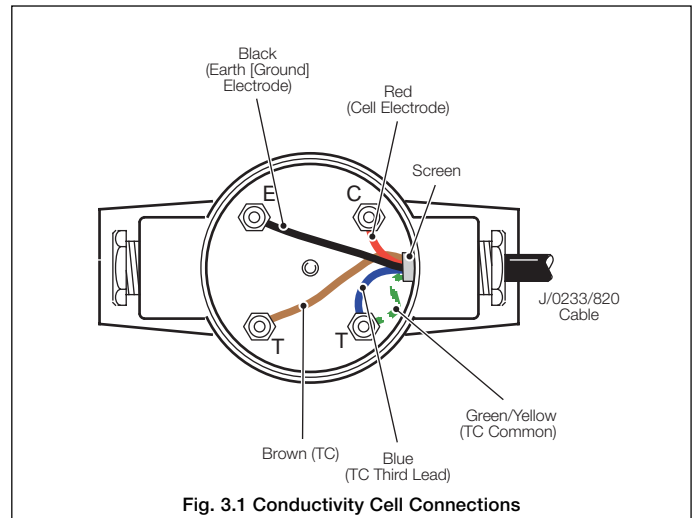


Fig. 3.1 Conductivity Cell Connections

3.1.2 Analyzer Connections

Refer to the analyzer's User Guide for details of connecting cable J/0233/820 to the analyzer.