

IM/2000 Issue 1

The Company's policy is one of continuous product improvement and the right is reserved to modify the information contained herein without notice.

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ABB Automation

Client Warranty

Prior to installation, the equipment referred to in this manual must be stored in a clean, dry environment, in accordance with the equipment's condition 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.

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.

Customer Support

ABB Instrumentation provides a comprehensive after sales service via a Worldwide Service Organization. Contact one of the following offices for details on your nearest Service and Repair Centre.

United Kingdom
ABB Kent-Taylor Limited
Tel: +44 (0)1480 475321
Fax: +44 (0)1480 470787

United States of America
ABB Instrumentation Inc.
Tel: +1 716 2926050
Fax: +1 716 2736207

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 Technical Communications Department, ABB Kent-Taylor.

Although **Warning** hazards are related to personal injury, and **Caution** hazards are associated with equipment or property damage, it must be understood that operation of damaged equipment could, under certain operational conditions, result in degraded process system performance leading to personal injury or death. Therefore, comply fully with all **Warning** and **Caution** notices.

Information ?
Further reference for more detailed information or technical details.

Caution !
An instruction that draws attention to the risk of damage to the product, process or surroundings.

Note *Clarification of an instruction or additional information.

Warning !
An instruction that draws attention to the risk of injury or death.

Use of Instructions

1 INTRODUCTION



Information.

- Pressure range must be compatible with the maximum pressure being measured.
- Pressure media must be compatible with the transmitter wetted parts listed in these instructions.
- Liquid must not be allowed to freeze in the pressure port.
- Exposed ends of cables must be free from moisture.
- The gasket must be fitted under the electrical connector.
- Wetted parts:
17 – 4 PH stainless steel plus Nickle Braze to BS1845 : NK3/HTN2.

The **Series 2000** Pressure Sensors are ideal for applications where a conventional transmitter is too expensive and over specified. The **Series 2000** is a low-cost simple transducer which can be used in a large number of applications ranging from heating and ventilation to industrial hydraulics

Series 2000 sensors can be used as a primary sensor, utilizing one of ABB's control products, e.g. **COMMANDER 300/310** etc.

2 MECHANICAL INSTALLATION

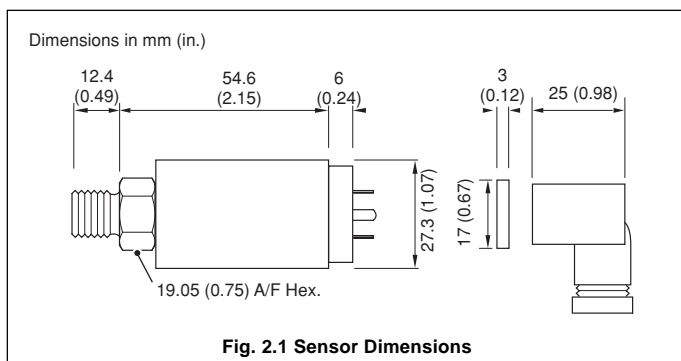
2.1 Pressure Connections

- G1/4 external to BS 2779 compatible with ISO 228 (recommended seal Part Number 232646-0002 or Dowty Part Number 400-021-4490-41).

2.2 Environmental Limits

- Temperature limits: -20°C to 80°C.

2.3 Dimensions – Fig. 2.1



3 ELECTRICAL INSTALLATION

3.1 Electrical Connections

See Table 3.1 for electrical connections.

Electrical Connections	+ve	-ve	case earth
	Pin 1	Pin 2	Pin 4

Electrical Specifications	Rated	Min/Max.	Milliamps
	24V d.c.	12 to 36	4 to 20

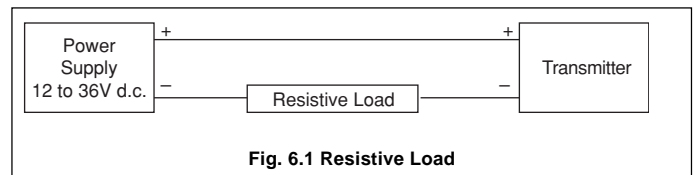
Table 3.1 Electrical Connections and Specifications

3.2 Grounding

All versions should be grounded by the installation pipework. If this is not possible, the sensor should be grounded at the instrumentation end via the appropriate pin or green lead. For maximum protection against RFI all versions should be installed using screened cable with the screen grounded at the instrumentation end.

3.3 Resistive Loading

The total permissible resistive load in the loop (to include all the cable resistance) can be from 'zero to 50 x (supply volts -12) ohms, eg. with a 24V d.c. supply the permissible load is from zero up to 600 ohms, see Fig. 6.1.



3.4 Applying Power

Before applying power, ensure the correct polarity and excitation levels are applied.

3.5 Calibration

Transmitters are calibrated to a fixed range at time of order, identified by the fifth and sixth letter of the identification code marked on the sensor housing – see *Specification Sheet SS/2000*.

4 MAINTENANCE

4.1 Routine Inspection

Limited to periodic inspection of the cable and connector to ensure that these are neither damaged nor softened by incompatible liquid.

4.2 Repair

The instruments cannot be repaired locally. If damaged, return to the Company at the address shown overleaf or to accredited dealers when a replacement/repair is required.