



# ATEX Safety Instructions

For TF Series (IS)  
Vibrating Level Switch

**Instructions specific to hazardous area installations**



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## Instructions specific to hazardous area installations

Model numbers covered: TXXXCXAXX (“X” indicates options in construction, function and materials.)

The following instructions apply to equipment covered by certificate number **SIRA 04ATEX2124x**:

1. The TF I.S. may be used in a hazardous area with flammable gases and vapours with apparatus groups IIC, IIB and IIA and with temperature classes T1, T2, T3, T4 and T5.
2. The apparatus electronics is only certified for use in ambient temperatures in the range of -40°C to +80°C. It should not be used outside this range. However, the probe may be located in the process medium which may be at a higher temperature than the electronics but must not be higher than the Temperature Class for the respective process gas/medium.

Process temperature	Temperature classes
80°C	T1, T2, T3, T4, T5
115°C	T1, T2, T3, T4
150°C	T1, T2, T3

It is a special condition of the certification that the temperature of the electronics housing is in the range of -40°C to +80°C. It must not be used outside this range. It will be necessary to limit the external ambient temperature if the process temperature is high. (See Technical Data below.)

3. Suitably trained personnel shall carry out installation in accordance with the applicable code of practice.
4. The user should **not** repair this equipment.
5. If the equipment is likely to come into contact with aggressive substances, it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.

Aggressive Substances – e.g. acidic liquids or gases that may attack metals or solvents that may affect polymeric materials.

Suitable Precautions – e.g. regular checks as part of routine inspections or establishing from the material’s data sheet that it is resistant to specific chemicals.

6. If the enclosure is made of an alloy or plastic material, the following precautions must be observed:

- i) The metallic alloy used for the enclosure material may be at the accessible surface of this equipment; in the event of rare accidents, ignition sources due to impact and friction sparks could occur. This shall be considered when the switch is being installed in locations that specifically require group II, category 1G equipment.
- ii) Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of the switch may generate an ignition-capable level of electrostatic charge. Therefore, when they are used for applications that specifically require group II, category 1 equipment, the switch shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. Additionally, the switch shall **only be cleaned with a damp cloth.**

7. Technical Data:

Coding: II 1 G D,  
EEx ia IIC

T5 (Ta = -40°C to + 80°C)

T4 (Ta = -40°C to + 115°C)

T3 (Ta = -40°C to + 150°C)

Ta = the higher of the process or ambient temperature.

Input parameters: Ui:15V, Ii:32mA, Pi:100mW, Ci:12nF, Li:60μH

Temperature: Process (Tp) -40°C to 150°C  
External (Ta) -40°C to +80°C (up to Tp=80°C,  
reducing linearly to 50°C at Tp=150°C)

Materials: Refer to Part numbering identification chart.

## **EC Declaration of Conformity**

### **Hycontrol Ltd**

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Email: [sales@hycontrol.com](mailto:sales@hycontrol.com) Web: [www.hycontrol.com](http://www.hycontrol.com)

Declares under our sole responsibility that the product(s):

Equipment: **Vibrating Level Switch**

Type Numbers: **TF xxxxxxxx \*\*\***

(Minor variations in design to suit the application and/or mounting requirements are identified by alpha/numeric characters where indicated \* above)

Conform to the relevant provisions of the European Directives:

**89/336/EEC** Electromagnetic Compatibility **92/31/EEC Amending 89/336/EC**

**94/09/EC** ATEX

Inspection carried out by:

**SIRA Certification Service  
Rake Lane  
Ecclestone  
Cheshire, CH4 9JN**

**EC Type Examination Certificate to 94/09/EC**

**SIRA 04ATEX2124X**

Quality Assurance System monitored by:

**LRQA (0038)  
Hiramford  
Coventry  
Warwickshire, CV3 4FJ**

**Certificate No:**

The following Harmonised Standards have been applied:

**EN 50014:1997 + A1 + A2  
EN 50284:1999**

**EN50020:2002  
EN50281-1-1:1998**

**Authorised Signatory for the manufacturer within the European Community:**

**Signed:**



**Date: May 2005**

**Brian C Allen - Managing Director**