Additional Safety Instructions
For instruments intended for use in II 2 G h TX, II 2 D h TX rated areas (mechanical part)

FOREWORD

These safety instructions refer to the installation, use and maintenance of light indicators, flow meters, level switches, glass level gauges, flow switches and level indicators/transmitters that have been designed, manufactured and tested according to the requirements of Directive 2014/34/UE – Atex -, intended for use in areas with potentially explosive atmospheres.

1 STOCKING AND STORAGE

All the systems, upon delivery, are specially prepared to face shipment and storage.
Namely, each system part is normally provided with special protections, covers, shock-dampening plastic films, and the like devices, which shall be left where they are until installation is performed.
Moreover, the instruments shall be stored/stocked in a clean and dry place until the time they need to be installed.
WARNING!
Where necessary, the instruments are treated with a protective coating.
Further layers of coating applied by the user shall never exceed 2 mm in thickness, overall, for IIB type units, and 0,2 mm for IIC type units (EN 80079-36).

2 NAMEPLATE DATA CONCERNING SAFETY

COMPLETE MARKING

The rating plate of each unit provides the following data:

CE European Community mark

Mark of compliance with Directive 2014/34/UE and the associated technical Standards (inscribed within a hexagon)

II 2 G equipment for ground systems featuring the presence of:
II 2 D Cat.-2-rated gases, vapours or mists suitable for area 1 and 2
2-cat.-rated powders, suitable for area 21 and 22
h adopted protection type, that is, constructional safety (EN 80079-37).
TX temperature class, or maximum surface temperature (EN 80079-36)

The instrument reaches the max surface temperature, according to the fluid temperature.

Fluid temperature °C	Fluid temperature °C
400	T1
290	T2
190	T3
130	T4
95	T5
80	T6

The equipment nameplate, in addition to the above information, also bears the manufacturer's name and address, the product code and the year of manufacture.

Correspondences between hazardous areas, substances and categories

Hazardous area		Categories according to Directive 2014/34/UE
Gas, vapours or mists	Zone 0	1G
Gas, vapours or mists	Zone 1	2G or 1G
Gas, vapours or mists	Zone 2	3G, 2G or 1G
Powders	Zone 20	1D
Powders	Zone 21	2D or 1D
Powders	Zone 22	3D, 2D or 1D

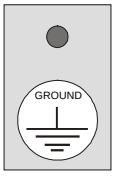
Ambient temperature range: -40/+85 °C

Any accessories or materials may reduce the range. Refer to the project documentation.

3. GROUNDING

The user shall check the grounding of the instrument at regular intervals.

Ground it through the dedicated terminal, see figure on the page.



For all units, the authorized grounding terminal as per the symbol below shall be used:

Such terminal, equipped with a rotation and loosening prevention system, shall be connected to the general system grounding line by using a conductor that is ≥ 4 mm^2 in gauge.

4 PRECAUTIONS FOR USE

Maintenance shall be carried out by expert and only after having read the pertaining instructions.
When the units covered by this Technical File are installed or maintained, please observe the following guidelines:

1. Perform a risk-analysis and remove, or cut down, all potential source of firing in compliance with the requirements of the rated installation area.

2. Comply with all health and safety regulations applying to the site (rated area) where the equipment is installed, in full compliance with the employer's risk analysis (Dir.99/9/CE).

3. Wear the statutory personal protection devices.

4. To avoid sparks of mechanical origin between the tools used for maintenance and the equipment's parts, the personnel in charge of maintaining the equipment shall be suitably trained to prevent such phenomenon.

5. Do not remove or maintain the equipment if it has not been fully depressurized, emptied and cooled down to room temperature beforehand and, wherever necessary, set free from all residues of all toxic, explosive or flammable substances possibly used.

6. Do not handle equipment that has been used in the presence of harmful substances, unless it has been fully decontaminated and certified as safe for all handling purpose.

7. To avoid the accumulation of electrostatic charges, whatever cleaning shall be exclusively carried out with antistatic or wet cloths.

8. Avoid the accumulation of powders

9. Do not use the equipment for tasks that exceed the specified working parameters. Please contact the Technical Department of **OFFICINE OROBICHE** for further information on this subject.

10. Do not modify nor alter the equipment without having first consulted the manufactured. Only use original spare parts as instructed by the manufacturer.

11. Always use suitable lifting means and methods to install, remove and maintain the equipment, and make sure it is always well supported in its final working location.

12. The final users are responsible for guaranteeing that the product is compatible with the specific application (that is pressure and type of process fluid, corrosion state, which may affect aptitude and reliability).

13. Before installing the equipment is areas that are potentially exposed to seismic activity or extreme weather conditions, please consult the Technical Department of **OFFICINE OROBICHE**. If the equipment must be used in the presence of unstable gases, ensure that the specified working parameters are not exceeded.

14. These units are not safety devices, and shall be controlled/protected by other devices to prevent exceeding pressure and temperature values.

15. Whenever the surface temperatures of the equipment are found to be close to the minimum ignition temperature of the potentially explosive atmosphere, always create a suitable thermal insulation (suitable also as a further protection from potentially explosive powders – type D-) of the equipment as set forth in Standard EN1127-1 (par.6.4.2).

16. Never use flames close to the equipment, whether this is running or being maintained.

17. To safeguard tightness, with a view to preventing all powders from entering the unit, we recommend you routinely check tie rods for proper tightening.

18. To prevent potentially explosive fluids from leaking out, it is advisable to periodically check the connections for proper seal.
    We further recommend you intervene immediately so as to minimize or avoid losses, also by previously and routinely replacing parts that are exposed to ear-and-tear.

19. To avoid sparks of mechanical origin to show up, owing to flanged connections coming into contact with one another, we recommend you routinely inspect tie rods for proper tightening and always provide for replacement of the seals.

20. All applications of electrical and/or electronic parts shall take place in compliance with the protection requirements as set forth in Directive Atex 2014/34/UE.

Other specific indications are provided with the instructions for use and maintenance supplied along with the units.