FLUENTA COMPLIANCE

A GOLD STANDARD IN PRODUCT AND SAFETY APPROVALS

A RIGOROUS APPROACH

At **Fluenta**, we are committed to meeting and exceeding **international compliance standards** in all circumstances—without exception. As a global leader in **flare gas measurement solutions**, we recognize that adherence to **stringent regulatory requirements** is essential to ensuring safety, accuracy, and reliability in all operating environments.

Over the years, we have worked with a variety of **accredited test laboratories** to certify our products against the highest **global safety and environmental standards**. This ensures:

1. **Robust, independent verification** of our products' compliance with national and international regulations.

2. **Operational efficiency**, selecting certification bodies based on **capacity, expertise, and availability** to ensure **rigorous testing without delays**.

Each of the **certification bodies** we engage with adheres to **strict testing frameworks**, ensuring our equipment meets the **most demanding safety and environmental performance requirements**.

INTERNATIONAL COMPLIANCE FRAMEWORK & REGULATORY HIERARCHY

Compliance in the oil and gas sector follows a structured hierarchy of standards governed by key regulatory authorities. Fluenta products are tested to comply with multiple international and regional standards, including:

1. Global Standards & Regulatory Bodies

• **IEC (International Electrotechnical Commission)** – Sets global standards for electrical safety and performance, including **IEC 60079** for hazardous environments.

• **ISO (International Organization for Standardization)** – Defines quality, safety, and environmental standards (e.g., **ISO 9001** for quality management).

2. Regional & Industry-Specific Certification Bodies

These are standards dictated, to be enforced by national bodies on all certification bodies

• **ATEX (Atmosphères Explosibles)** – Required for equipment operating in potentially explosive environments within the **European Economic Area (EEA)**, governed by **Directive 2014/34/EU**.

• **IECEx (International Electrotechnical Commission Explosive Atmospheres)** – Provides a globally accepted certification scheme for equipment used in explosive atmospheres.

These are both certifying bodies and publish the nations' specification in their countries.

• **UL (Underwriters Laboratories, U.S.)** – Governs **North American** safety certification, particularly **UL 61010** for electrical equipment also the **UL 60079** standards.

• **CSA (Canadian Standards Association, Canada)** – Enforces **electrical and hazardous area compliance** in Canada. (These are the same in Canada as UL is in the US)

One of the other bodies used by Fluenta are **MET** – they are the testing laboratory / certifying authority which are in turn regulated and controlled by **OSHA** and **CSA**, meaning their compliance is an exact equivalent to **UL/CSA**

• **MET (MET Laboratories, U.S.)** – Like **UL** and **CSA** and all other certification organisations are **OSHA-approved Nationally Recognized Testing Laboratory (NRTL)** that certifies to **UL and ANSI standards**, offering a flexible and cost-effective alternative to **CSA** and **UL** in North America.

3. National Regulatory Enforcement

• **OSHA (Occupational Safety and Health Administration, U.S.)** – Regulates workplace safety, requiring **NRTL certification** for electrical and hazardous-area equipment.

• **Canada is regulated by CSA**

• **European Union CE Marking** – Ensures compliance with **health, safety, and environmental protection requirements** for the European market. There are numerous other certification criteria which apply in Europe and other countries.

• Saudi Aramco, ADNOC, Other National Oil Companies, and other country or company specific regulations apply in many other instances. These have specific compliance mandates that Fluenta ensures alignment with, ensuring compliance with Hazardous Area & Flare Gas Regulations.

ENSURING COMPLIANCE WITH HAZARDOUS AREA & FLARE GAS REGULATIONS

Given the high-risk environments in which flare gas measurement systems operate, compliance with hazardous area classifications is a critical priority. Fluenta's products are certified for use in:

- **Zone 0, Zone 1, and Zone 2** (ATEX/IECEx classification for explosive atmospheres).
- **Class I, Division 1 & 2** (North American NEC/UL hazardous area classification, recognized by both **CSA** and **MET**). (This is more around the protection concept)
- **High-temperature environments**, ensuring compliance with **temperature class ratings (T-ratings)** for thermal endurance.

FLUENTA'S PROACTIVE APPROACH TO CERTIFICATION

By partnering with internationally recognized **certification providers**, including **CSA, MET (For North America) and DNV and Ex Veritas (for ATEX and IECEX)**, we ensure our flare gas meters comply with the strictest **safety, environmental, and performance** regulations.

Our approach guarantees that Fluenta remains at the **forefront of compliance, innovation, and operational excellence**, allowing us to deliver the most **accurate, safe, and reliable** flare gas measurement solutions to our customers worldwide.

COMPARISON OF MET CERTIFICATION VS. CSA CERTIFICATION

Two of the larger recognized certification bodies in North America are **MET Laboratories (MET Certification)** and the **Canadian Standards Association (CSA Certification)**. This is a comparative analysis of these two certification processes, providing a structured checklist of evaluation criteria for both.

MET Laboratories is a **Nationally Recognized Testing Laboratory (NRTL)** accredited by the **Occupational Safety and Health Administration (OSHA)** in the U.S. and **Standards Council of Canada (SCC)**. MET is authorized to certify equipment to **UL (Underwriters Laboratories) and ANSI (American National Standards Institute)** standards, ensuring compliance across North America.

Key Benefits of MET Certification:

- Recognized for **UL, and ANSI standards**
- Faster certification process.
- Lower costs for testing and follow-up inspections.
- Supports **on-site testing** to minimize downtime.
- Recognized in **Canada and the U.S.A**.
- The **Canadian Standards Association (CSA)** is a globally recognized certification body (offering complete certification including ATEX IECEX and N. American certification),

COMPLIANCE STANDARDS & TESTING REQUIREMENTS

Both MET and CSA certifications adhere to similar international and North American safety standards including, but not limited to :

- **UL 61010-1** – Standard for electrical safety of industrial measurement devices.
- **IEC 60079** – Explosive atmospheres (ATEX and hazardous area classifications).
- **ANSI/ISA 12.13.04** – Standard for flare gas detection systems.
- **NFPA 70 (NEC) & CEC** – U.S. National Electrical Code (NEC) and Canadian Electrical Code (CEC).
- **ISO 17025** – General testing and calibration requirements for certification labs.

CHECKLIST OF TESTING & EVALUATION ELEMENTS

The table below outlines key elements checked during MET and CSA certification processes:

Testing Category	MET Certification	CSA Certification
Electrical Safety Testing	Required	Required
Hazardous Area Classification	Required	Required
Flammability & Ignition Testing	Required	Required
Mechanical Durability	Required	Required
Environmental Testing	Temperature, humidity, corrosion resistance	Similar tests apply
EMC (Electromagnetic Compatibility)	Required	Required
Production Quality Audits	Required	Required
Post-Certification Inspection Fee	Lower	Higher