

# Fluke tools are designed to help **KEEP YOU SAFE** in dangerous environments

Potentially explosive atmospheres can be found in a variety of manufacturing environments from chemical or pharmaceutical processing, to oil refineries—or any environment where flammable material (gas or dust/particulates) are present. Fluke’s intrinsically safe test tools can be used to help you perform maintenance and calibration tasks in potentially explosive and hazardous classified areas. Learn about the importance of intrinsic safety on the job and industries that commonly use intrinsically safe tools.



Fluke offers the widest range of reliable, accurate and intrinsically safe test tools. Including true-rms multimeters, infrared thermometers, process calibrators, pressure calibrators, loop calibrators and precision pressure test gauges.



**Fluke 725Ex**  
Multifunction  
Process Calibrator



**Fluke 28II Ex**  
True-rms Industrial  
Multimeter



**Fluke 721Ex**  
Precision Pressure  
Calibrator



**Fluke 718Ex**  
Pressure  
Calibrator



**Fluke 707Ex**  
Loop Calibrator



**Fluke 700PEX**  
Pressure Modules



**Fluke 568 Ex**  
Infrared  
Thermometer



**700G Series**  
Precision Pressure  
Test Gauges



**1551/1552 "Stik"**  
Thermometers

# Fluke intrinsically safe products help to keep you safe on the job

“Intrinsically Safe” or I.S. is a protection method employed in potentially explosive atmospheres or in industries like petro-chemical, oil platforms and refineries, pharmaceutical and pipelines. Certified I.S. tools are designed to prevent the release of sufficient energy to cause ignition of flammable material. I.S. standards apply to all equipment that can create one or more of a range of defined potential explosion sources:

- Electrical sparks, arcs
- Flames
- Hot surfaces
- Static electricity
- Electromagnetic radiation
- Chemical reactions
- Mechanical impact, friction
- Compression ignition
- Acoustic energy
- Ionizing radiation

For more information on these ATEX-compliant tools designed for tough process maintenance and calibration tasks, visit [www.fluke.com/ex](http://www.fluke.com/ex)

## Fluke 721Ex Precision Pressure Calibrators

Best suited for:



- Gas flow custody transfer

Features:

- IECEx and ATEX Ex ia IIB T3 Gb (Ta = -10 °C to +45 °C) compliant
- ATEX KEMA 10 ATEX 0168X compliant
- IECEx II 2 G IECEx CSA 10.0013X compliant
- Two isolated, stainless steel, pressure sensors with 0.025 % accuracy
- Pt100 RTD input for temperature measurement, (probe optional)
- Measures 4 to 20 mA signals



## Fluke 700PEX Pressure Modules

Best suited for:



- Use with the Fluke 725Ex Multifunctional Process Calibrator and Fluke 718Ex Pressure Calibrator to cover the most commonly used pressure calibration ranges from 0-25 mbar up to 0-200 bar

Features:

- I.S. Class I Div 1 Groups A-D T4, Ta = 0 °C to +50 °C
- ATEX II 1G Ex ia IIC T4 compliant
- Very high accuracy up to 0.025 %



## 1551/1552 “Stik” Thermometers

Best suited for:



- Daily checks of working thermometers
- Custody transfer temperature determination, PET calibration, LIG calibration, temperature transmitter calibration and verification

Features:

- ATEX II 2 G Ex ib IIB T4 Gb, Ta -10 °C to 50 °C; 1551A range: -50 °C to 160 °C (-58 °F to 320 °F); 1552A range: -80 °C to 300 °C (-112 °F to 572 °F)
- Accuracy (1 year): ± 0.05 °C (± 0.09 °F)
- Easy data logging available with 1552A



## Fluke 725Ex Multifunction Process Calibrator

Best suited for:



- Calibrating virtually any process parameter

Features:

- Class I Div 1 Groups B-D 171 °C
- ATEX II IG Ex ia IIB 171 °C compliant
- Measure, source or simulate volts dc, mA, RTDs, thermocouples, frequency and ohms
- 2-channel simultaneous source and measure capability for calibration of transmitters
- Internal loop supply to power transmitters
- Store frequently-used test setups for later use
- Pressure measurement to 200 bar and pressure switch test using any of the 8 Fluke 700PEX pressure modules



## Fluke 718Ex Pressure Calibrator

Best suited for:



- Pressure measurements and calibration with internal sensor at pressure ranges of 2, 7 and 20 bar

Features:

- Class I Div 1 Groups A-D T4 compliant
- ATEX II IG Ex ia IIC T4 compliant
- Built-in pressure/vacuum hand pump, with vernier and bleed valve
- Pressure measurement to 200 bar using any of the 8 Fluke 700PEX Pressure Modules
- Pressure measurement to 0.05 % of full scale using internal pressure sensor
- Pressure switch test function



## Fluke 707Ex Loop Calibrator

Best suited for:

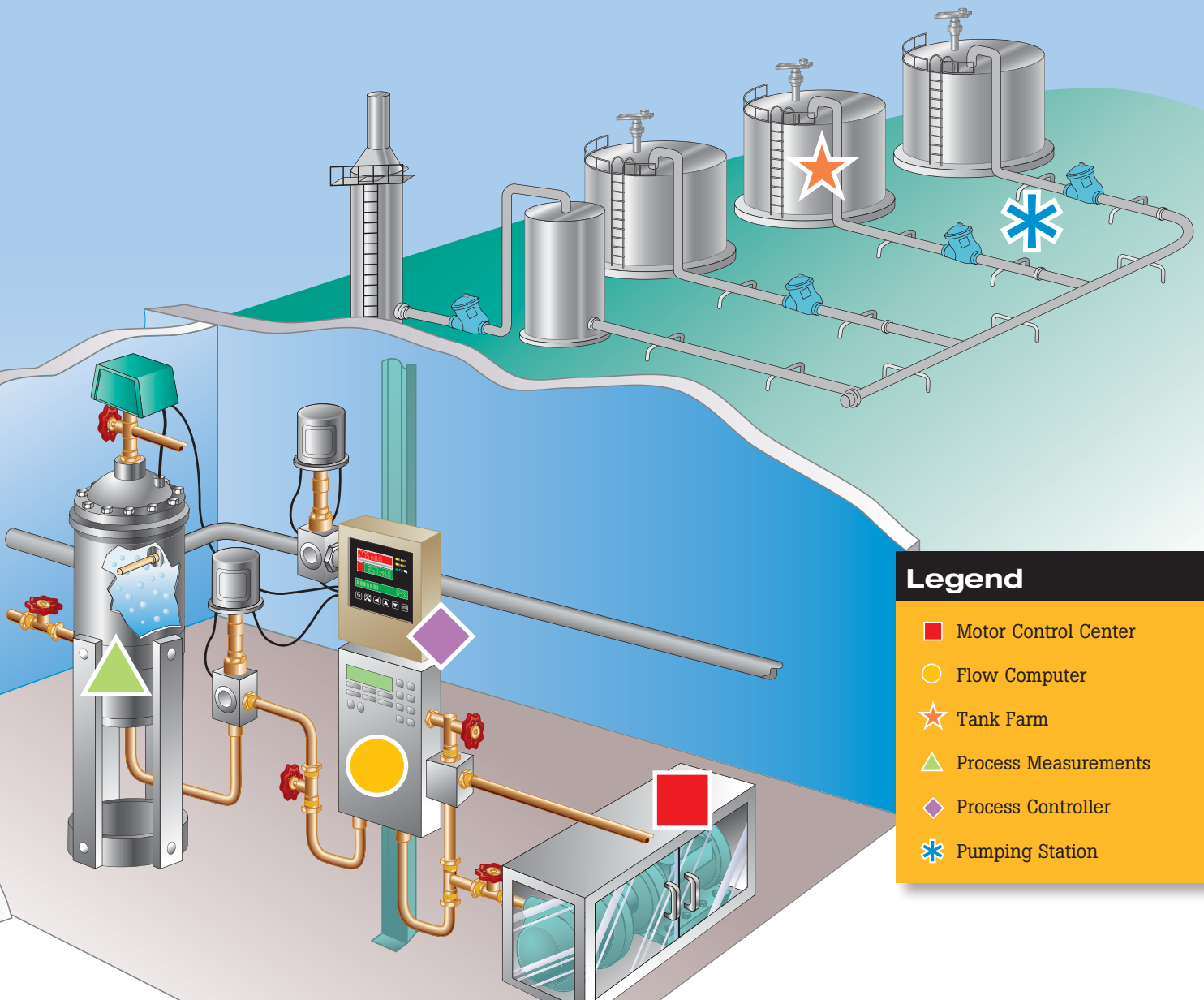


- Calibration and maintenance of 4 to 20 mA control loop

Features:

- F.M. Class I Div 2 Groups A-D T4
- ATEX II 2G Ex ia IIC T4 compliant
- Simultaneous mA and % readout for quick, easy interpretation of readings
- mA accuracy of 0.015 %, superior to other loop calibrators
- Pushbutton with 25 % steps for fast, easy linearity checks
- 0 and 100 % ‘span check’ for fast confirmation of zero and span





## Legend

- Motor Control Center
- Flow Computer
- ★ Tank Farm
- ▲ Process Measurements
- ◆ Process Controller
- ✱ Pumping Station

### 700G Series Precision Pressure Test Gauges

Best suited for:



- Precision pressure measurement from 0 inH<sub>2</sub>O/20 mbar to 10,000 psi/690 bar and absolute pressure measurement

Features:

- CSA; Class 1, Div 2, Groups A-D rating
- ATEX rating: II 3 G Ex nA IIB T6
- Accuracy to 0.05 % of full scale
- Reference class gauge accuracies to 0.04 % of reading
- Log up to 8,493 pressure measurements to memory



### Fluke 568 Ex Intrinsically Safe Infrared Thermometer

Best suited for:



- Taking spot, differential or scanning temperature measurements where flammable gases or vapors may be present

Features:

- Class I Div 1 and Div 2 or Zone 1 and 2 hazardous environments
- ATEX/IECEX, NEC-500/NEC-505, PCEC, INMETRO, GOST certified
- Enhanced 50:1 distance to spot ratio
- Displays Min/Max/DIF/AVG measurements
- Adjustable emissivity
- Log up to 99 measurements
- Compatible with mini-connector K-type thermocouple (KTC) probe



### Fluke 28II Ex True-rms Industrial Multimeter

Best suited for:



- Solving problems on motor drives, in plant automation, power distribution and electromechanical equipment

Features:

- Class I Div 1 Groups A-D
- ATEX II 2 G Ex ia IIC T4 Gb
- ATEX II 2 D Ex ia IIIC T130C Db
- ATEX I M1 Ex ia I Ma
- Low voltage troubleshooting in hazardous areas
- Built-in thermometer allows you to take temperature readings
- Large digit display with bright, two-level
- IP67 rated, waterproof and dustproof



# Making sense of the product rating systems

Each approved intrinsically safe device is rated to ATEX, NEC, FM or other country standards. The corresponding rating system allows you to understand which zones, type of protection, gas groups and temperature classes the instrument is approved for.

## ATEX Example

Fluke 707Ex is  ATEX Compliant II 2 G Ex ia IIC T4




The ATEX examination mark is required on all devices for use in European hazardous areas.

## ATEX Markings

<b>II 2 G</b>	The classification of zones. "II" designates the tool is approved for all non-mining areas. "2" represents the category of the device, in this case the device is rated for the second most hazardous areas. "G" designates atmosphere, in this case gas, vapors and mist.
<b>Ex</b>	Explosion protection based on European Ex-regulations.
<b>ia</b>	The type of protection from explosion, in this case the energy in a device or connector has been reduced to a safe value.
<b>IIC</b>	Gas Group. "IIC" rating indicates compatibility with the most dangerous gas groups.
<b>T4</b>	Temperature class is the maximum temperature of a surface that may be.

## FM Example

Fluke 707Ex is  APPROVED FM-classified N.I. Class I, Div 2, Groups A-D, T4



The Factory Mutual Approved mark.

## Factory Mutual Markings

<b>N.I.</b>	Non-incendive apparatus, internal energy is limited so a specified atmosphere cannot be ignited by its use.
<b>Class I</b>	For use with gases, vapors and liquids (not dust, fibers or filings).
<b>Div 2</b>	Certified for use in Zone 2, explosive atmospheres not normally present, may rarely exist for short duration.
<b>Groups A-D</b>	Rated for use with explosive gasses as defined by groups A-D, including acetylene, hydrogen, acetylene and propane.



**Fluke.** Keeping your world up and running.®

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