

Fluke 718Ex Intrinsically Safe Pressure Calibrators

Pump Up the Pressure

The new Fluke 718Ex Intrinsically Safe Pressure Calibrator is a new, powerful intrinsically safe, self contained pressure calibrator for usage in Explosion endangered areas. The Fluke 718Ex offers:

- ATEX II 1G EEx ia IIC T4 Compliant
- Built-in pressure/vacuum hand pump, with vernier and bleed valve
- Pressure measurement to 0.05 % of full span, using an internal pressure sensor
- Pressure measurement to 200 bar using any of the 8 intrinsically safe Fluke 700PEx Pressure Modules
- Wide range of selectable measurement units for pressure
- Current measurement with 0.02 % accuracy and 0.001 mA resolution
- Pressure switch test function
- Min/Max hold functions
- Compact size and weight
- Simple, push-button user interface
- Rugged and reliable, for field use



ATEX Compliant

Specifications

Summary Specifications (18° to 28°C, one year)

Fluke 718Ex 30G and 100G

| Measure pressure | Model | Range | Resolution | Accuracy | Over pressure | Media |
|--------------------------------|-------------------------|--------------------|--|----------|---------------|---------------------|
| Using internal pressure module | Fluke-718Ex-30G | -830 mbar to 2 bar | 0.0001 bar | 0.05% FS | 3x FS | Non corrosive gases |
| | Fluke-718Ex-100G | -830 mbar to 7 bar | 0.001 bar | 0.05% FS | 2x FS | Non corrosive gases |
| With external pressure modules | Fluke-718Ex 30G or 100G | Up to 200 bar | Depending pressure module (see detailed specification) | | | |

Temp Coeff. -10 to 18 °C, 28 to 55 °C ± 0.01 % of range per °C

Supported pressure units PSI, in. H₂O (4 °C), in. H₂O (20 °C), kPa, cm H₂O (4 °C), cm H₂O (20 °C), bar, mbar, kg/cm², mmHg, in Hg

| Source pressure | Model | Range |
|---------------------|------------------|------------|
| Using built in pump | Fluke-718Ex-30G | 0 to 2 bar |
| | Fluke-718Ex-100G | 0 to 7 bar |

| Measure current | model | Range | Resolution | Accuracy |
|-----------------|-------------------------|---------|------------|----------------------|
| | Fluke-718Ex-30G or 100G | 0-24 mA | 0.001mA | 0.02% rdg ± 2 counts |

Temp Coeff. -10 to 18 °C, 28 to 55 °C ± 0.005 % of range per °C

General Specifications



| | |
|--------------------------------------|--|
| Power | One 9-volt alkaline battery ANSI/NEDA 1604A or IEC 6LR619V |
| Battery life | 4 to 20 hours, depending on functions used |
| Pressure input | 1/8 in. NPT pressure fitting |
| Pressure module input | LEMO connector |
| Current input | Shrouded banana jacks |
| Operating temperature | -10 °C to 55 °C |
| Non-operating temperature | -40 °C to 60 °C |
| Relative humidity | 95 % (10 to 30 °C) |
| (%RH operating without condensation) | 75 % (30 to 40 °C) 45 % (40 to 50 °C) 35 % (50 to 55 °C) |
| Size with holster (HxWxD) | 216 mm x 94 mm x 66 mm |
| Weight with holster | 992 g |
| Vibration | Random, 2g, 5-500 Hz |
| Shock | 1 Meter Drop test |
| Safety | ATEX II 1G EEx ia IIC T4 Compliant CSA Certification I.S. Class I, Div 1 Groups A-D, T4 |
| EMC | EN61326 2002-2, Class C |
| Warranty | 1 year |

Operating Modes

- Measure pressure (using internal sensor)
- Display pressure module reading (automatically selected when pressure module connected)
- Measure current

Zeroing Modes

| | |
|-----------------------|---|
| Gage and differential | Pushing Zero button stores present pressure value as an offset and subtracts it from the displayed value. |
| Absolute | Pushing Zero button causes nominal barometric pressure to be displayed. User corrects to actual barometric pressure with up/down keys. Difference is used as zero offset calibration. |

Ordering Information

- Fluke-718Ex-30G Intrinsically Safe Pressure Calibrator (30G/2 bar)
- Fluke-718Ex-100G Intrinsically Safe Pressure Calibrator (100G/7 bar)


Each calibrator includes:

Protective red holster, TL75 test leads, AC72 test clips, Media filter, CD users manuals (English, French, German, Spanish, Italian, Dutch, Norwegian, Danish, Swedish, Finnish, Portuguese, Korean, Chinese, Japanese), 718Ex CCD content control drawing

Fluke 700Ex Intrinsically Safe Pressure Modules



To measure a wide range of pressure in an explosive endangered area the range of pressure modules is extended with 8 ATEX compliant models. These models are compatible with the Fluke 718Ex intrinsically safe pressure calibrator.

- ATEX  II 1G EEx ia IIC T4 Compliant
- Ranges from 2.5 mbar to 200 bar
- Choice of gage, differential and absolute modules
- Very high accuracy up to 0.025%
- Compatible with Fluke 718Ex
- Rugged cases protect the modules in harsh environments

Pressure Module Specifications

ATEX Compliant


700Ex

| Model | Range (approx) | Resolution | Reference Uncertainty (23 ± 3 °C) | High Side media | Low side media | Fitting material | Max overpressure ²⁾ |
|---------------------|----------------|------------|-----------------------------------|-------------------|----------------|------------------|--------------------------------|
| Differential | | | | | | | |
| Fluke-700P01Ex | 25 mbar | 0.01 mbar | 0.2% | Dry ¹⁾ | Dry | 316 SS | 3x |
| Fluke-700P24Ex | 1001 mbar | 0.1 mbar | 0.025% | 316 SS | Dry | 316 SS | 3x |
| Gage | | | | | | | |
| Fluke-700P05Ex | 2 bar | 0.1 mbar | 0.025% | 316 SS | N/A | 316 SS | 3x |
| Fluke-700P06Ex | 7 bar | 0.7 mbar | 0.025% | 316 SS | N/A | 316 SS | 3x |
| Fluke-700P27Ex | 20 bar | 1 mbar | 0.025% | 316 SS | N/A | 316 SS | 3x |
| Fluke-700P09Ex | 100 bar | 10 mbar | 0.025% | 316 SS | N/A | 316 SS | 2x |
| Absolute | | | | | | | |
| Fluke-700PA4Ex | 1000 mbar | 0.1 mbar | 0.05% | 316 SS | N/A | 316 SS | 3x |
| High | | | | | | | |
| Fluke-700P29Ex | 200 bar | 0.01 bar | 0.05% | C276 | N/A | C276 | 2x |

1) "Dry" indicates dry air or non-corrosive gas as compatible media. "316 SS" indicates media compatible with Type 316 Stainless Steel. "C276" indicates media compatible with Hastelloy C276.

2) Maximum overpressure specification includes common mode pressure.

General Specifications

| | |
|--------------------------------------|--|
| Pressure module output | LEMO connector |
| Operating temperature | -10 °C to 55 °C |
| Non-operating temperature | -40 °C to 60 °C |
| Relative humidity | 95 % (10 to 30 °C) |
| (%RH operating without condensation) | 75 % (30 to 40 °C) |
| | 45 % (40 to 50 °C) |
| | 35 % (50 to 55 °C) |
| Vibration | Random, 2g, 5-500 Hz |
| Shock | 1 Meter Drop test |
| Safety | ATEX  II 1G EEx ia IIC T4 Compliant |
| | CSA Certification I.S. Class I, Div 1 Groups A-D, T4 |
| Warranty | 1 year |

Ordering Information

Fluke-700P01Ex Pressure Module (25 mbar)
 Fluke-700P24Ex Pressure Module (1001 mbar)
 Fluke-700P05Ex Pressure Module (2 bar)
 Fluke-700P06Ex Pressure Module (7 bar)
 Fluke-700P27Ex Pressure Module (20 bar)

Fluke-700P09Ex Pressure Module (100 bar)
 Fluke-700PA4Ex Pressure Module (1000 mbar)
 Fluke-700P29Ex Pressure Module (200 bar)

FLUKE®

Process Tools Family

The Fluke range of process tools give you all the choice you need to maintain and calibrate virtually all types of sensors and transmitters. Whether you want all the required functionality in just one tool, or a dedicated tool for temperature or pressure only, the choice is yours. Whatever the environment, these tools have the ruggedness and reliability that has made Fluke the brand of choice for maintenance professionals around the world.

Only Fluke covers your troubleshooting and calibration needs with such a complete line of handheld test tools. Check the range for yourself, and see how they will help to keep your world up and running.



Fluke. *Keeping your world up and running.*

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