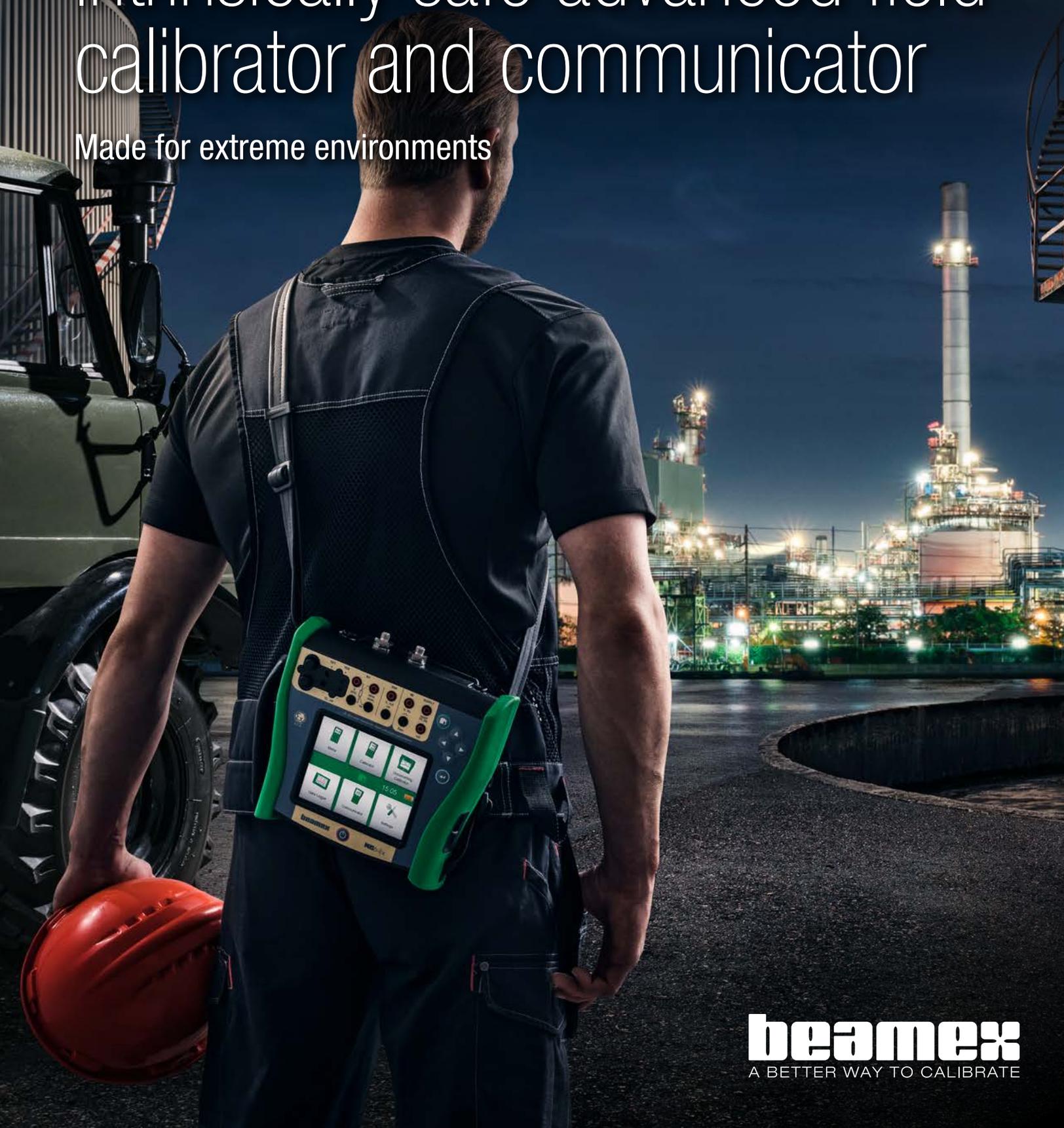


# Beamex MC6-Ex

Intrinsically safe advanced field  
calibrator and communicator

Made for extreme environments



**beamex**  
A BETTER WAY TO CALIBRATE

# MC6-Ex: designed for use in extreme environments

No other Ex-calibrator can outperform the MC6-Ex in terms of functionality and accuracy. The ATEX- and IECEx- certified MC6-Ex is designed for use in potentially explosive environments, such as offshore and on-shore oil and gas platforms, oil refineries, chemical and petrochemical plants where inflammable gases may be present. It can also be used in the pharmaceutical industry, within energy production and gas processing industry.

With MC6-Ex no hot-work permits are needed nor additional safety equipment, such as gas detectors. The risk of harming other Ex equipment or damaging their safety protection circuits are limited. MC6-Ex is a very safe and easy choice when entering any hazardous zone, as it is approved for the tightest zone, Zone 0.

The MC6-Ex is an advanced, high-accuracy advanced calibrator and communicator with outstanding functionality. It is a documenting, multifunction calibrator and communicator that offers

calibration capabilities for pressure, temperature and various electrical signals. It also contains a full fieldbus communicator for HART, FOUNDATION Fieldbus and Profibus PA instruments.

The robust IP65-rated dust- and water-proof casing, ergonomic design and ease-of-use make it an ideal measurement device for field use. The smart battery pack is field replaceable NiMH and it can be charged either inside or outside the calibrator. The MC6-Ex is one device with five different operational modes, which means that it is fast and easy to use, and you can carry less equipment in the field. The operation modes are: meter, calibrator, documenting calibrator, data logger and fieldbus communicator.

In addition, the MC6-Ex communicates with Beamex CMX calibration management software, enabling fully automated and paperless calibration and documentation. The MC6-Ex can also be part of the paperless integration to the customer's own ERP system.



## Main features of MC6-Ex

### Accuracy

High-accuracy, advanced field calibrator and communicator.

### Usability

Combines advanced functionality with ease-of-use.

### Safety

Approved for Ex ia IIC T4 Ga – classification.

### Versatility

Versatile functionality beyond traditional calibration applications

### Communicator

Full multi-bus communicator for HART, FOUNDATION Fieldbus and Profibus PA instruments.

### Internal loop supply

MC6-Ex features an internal loop supply for transmitters, so no additional supplies are needed.

### Integration

Automates calibration procedures for paperless calibration management.



# Additional features

## Accuracy guaranteed

The MC6-Ex is probably the most accurate advanced process calibrator and communicator available. As proof of this, each MC6-Ex calibrator is delivered with a traceable, accredited calibration certificate as standard. The certificate includes calibration and uncertainty data from the calibration laboratory. The calibration laboratory's Scope of Accreditation can be found on Beamex's website ([www.beamex.com](http://www.beamex.com)). The MC6-Ex has specifications for 1-year total uncertainty.

## Safe calibration in extreme environments

The MC6-Ex is an intrinsically safe, ATEX and IEC certified Ex ia IIC T4 Ga – classified advanced multifunction field calibrator. It is designed for use in extreme environments, such as offshore platforms, oil refineries, chemical and petrochemical plants where inflammable gases may be present. The robust IP65-rated dust- and water-proof casing, along with integrated impact protectors, makes the MC6-Ex an ideal calibrator for use in wet and dusty environments subject to wide temperature variations.

## Full multi-bus field communicator for HART, FOUNDATION Fieldbus and Profibus PA instruments

The communicator mode is a full multi-bus communicator for HART, FOUNDATION Fieldbus and Profibus PA instruments. All of the communicator electronics for all protocols are built into the MC6-Ex, including internal loop power supply with various required impedances for different buses, which means there is no need to use any external loop supply or resistors.

The MC6-Ex multi-bus communicator can be used with all types of fieldbus instruments, not only pressure and temperature transmitters. All 3 protocols can be simultaneously installed into an MC6-Ex, and therefore the very same device can be used as a HART, FOUNDATION Fieldbus and Profibus PA communicator. With the MC6-Ex, all parameters in all blocks of a fieldbus instrument can be accessed. Its' memory stores device descriptions for the fieldbus instruments. When new instruments are introduced on the market, new device description files will be made available and can be easily downloaded into the memory.

## Communication with calibration software

Using the MC6-Ex together with calibration management software provides a complete documenting calibration system that produces calibration certificates automatically. The benefits of the system include automated calibration procedures and paperless calibration management. The MC6-Ex can also be part of the paperless integration to the customer's own ERP system.

## User-friendly interface

The MC6-Ex has a large 5.7" color touch-screen with high resolution and an effective adjustable backlight. In addition, the MC6-Ex has a membrane keypad. A soft number keypad and alphabetical QWERTY text keypad will appear whenever necessary for easy number/text entries. The smart battery pack is field replaceable NiMH and it can be charged either inside or outside the calibrator.

## Modularity means versatility

The MC6-Ex is an extremely versatile calibrator with many different functions. The modular construction of the MC6-Ex provides flexibility for the user. It is one device with five different operational modes, which means that it is fast and easy to use, and you can carry less equipment in the field. The operation modes are: meter, calibrator, documenting calibrator, data logger and fieldbus communicator.



# Measurement, generation and simulation functions

- Pressure measurement (internal/external pressure modules)
  - Voltage measurement ( $\pm 500$  mV and  $\pm 30$  VDC)
  - Current measurement ( $\pm 100$  mA) (internal or external supply)
  - Frequency measurement (0 ... 50 kHz)
  - Pulse counting (0 ... 10 Mpulse)
  - Switch state sensing (dry/wet switch)
  - Built-in loop supply
  - Voltage generation ( $\pm 500$  mV and  $-1.5$  ...  $10.5$  VDC)
  - Current generation (0 ...  $25$  mA) (active/passive, i.e. Internal or external supply)
  - Resistance measurement, two simultaneous channels (0 ...  $4$  k $\Omega$ )
  - Resistance simulation (0 ...  $4$  k $\Omega$ )
  - RTD measurement, two simultaneous channels
  - RTD simulation
  - TC measurement, two simultaneous channels (universal connector/mini-plug)
  - TC simulation
  - Frequency generation (0 ...  $3$  kHz)
  - Pulse queue generation (0 ... 10 Mpulse)
  - HART communicator
  - FOUNDATION Fieldbus communicator
  - Profibus PA communicator
- (Some of the above functions are optional)

