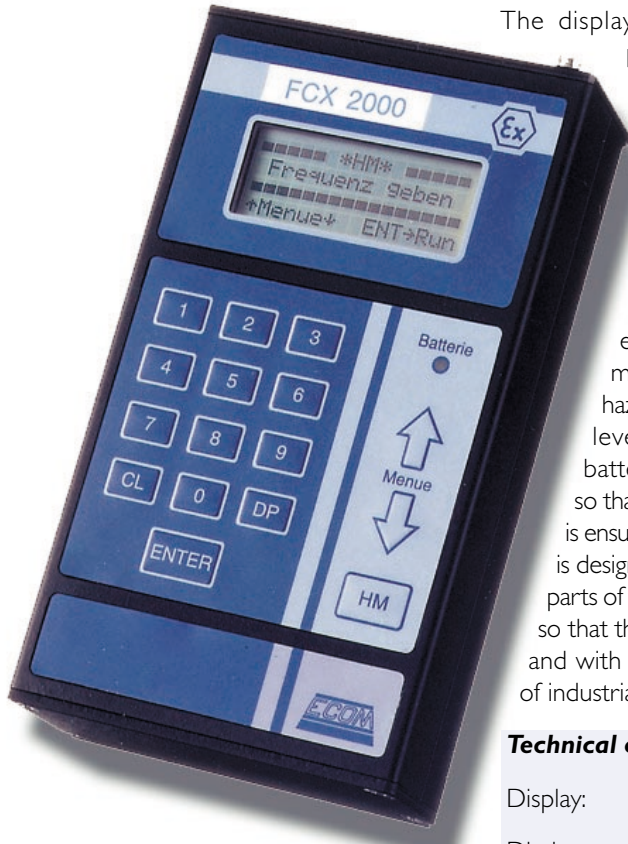


Intrinsically-Safe Frequency Calibrator FCX 2000



The display in this mode shows, what percentage of the programmed pulses have been sent. Whether a two conductor NAMUR-initiator works properly or is malfunctioning can be checked by another function. The intrinsically safe FCX 2000 is supplied with standard rechargeable batteries. These are easily removed, but any recharging must be done outside the hazardous area. An integral battery level indicator shows when the batteries are becoming exhausted, so that enough reserve operating time is ensured. The lightweight metal housing is designed to ensure that the electronic parts of the FCX 2000 are well protected so that the equipment can be used safely and with confidence under the harshest of industrial conditions

The FCX 2000 offers a simple and quick means of measuring and simulating frequencies, pulses, numbers of revolutions, digital process signals and levels. The operator guidance with the help of a 4-line LCD-display and membrane keyboard allows simple and easy to use adjustment of all operator functions.

It is possible to predetermine and measure NAMUR- signals according to DIN 19234 as well as static logic levels in hazardous locations, ranging from 0.01 Hz to 10 kHz with duty factors from 1 to 99 %. Accurate numbers of revolutions can either be measured by NAMUR initiators or by an optional external probe. For measuring revolutions on rotating machinery with the probe a suitable reflection mark needs to be attached. A visible beam of red light from the probe is then trained on this reflective mark. An important function for flowmetering is the FCX 2000 in the mode "pulse-predetermining" or "pulse-measuring". Here pulse length and spacing will be predetermined first, before a fixed programmed number of pulses is released.

Technical data:

| | |
|--------------------------|---|
| Display: | 4-lines with 16 alpha-numeric symbols each |
| Discharge indicator: | red LED |
| Operation temp.: | 14°F to +104°F (-10°C ... +40°C) |
| Storage temp.: | 14°F to +140°F (-10°C ... +60°C) |
| Reference temperature: | 68°F (20°C) ± 3 K |
| Air moisture: | 0...90% r. H. of the air |
| Supply voltage internal: | 6 x primary cells AA LR6/R6 to IEC or NiCd-rechargeable batteries Typ 5006 (Varta) Typ VE AA 700 (Saft) |
| Battery change: | outside hazardous area |
| Operation time: | 9 hours - continuous |
| Inputs: | protected against unintended reversing of polarity short circuit protected |
| Outputs: | |
| Ingress protection: | IP 54 |
| Housing material: | aluminium |
| Dimensions: | 7.3" x 4.1" x 1.8" (without probe) |
| Weight: | approx. 35 oz |

Contactless measurement of rotational speed with optical probe.

For the measurement of revolutions as well as calibration and testing of flow-meters, rotary piston meters, turbine meters and oval gear meters etc. in the hazardous area.

Operating mode:

- predetermining / measuring frequency
- predetermining / measuring pulses
- measuring/simulating number of revolutions
- testing NAMUR-initiators
- predetermining/measuring times
- transmitting/measuring static levels

4-line alphanumeric display:

- easy to follow menu

Membrane keyboard:

- simple programming
- easy to use keyboard

Ex-data:

Ex designation:
EEx ia IIC T6
EEx ib IIC T6

EC-Certificate of Conformity:
PTB-Nr. Ex-92.C.2116



I.S. Class I Division I Groups A-D T3C
Class I Zone 0 AEx ia IIC T3

Accessories:

optical probe for FCX 2000,
calibration-certificate

FCX 2000 as transmitter:
U_{max} = 10.5 V I_k = 14.1 mA P = 74 mW

EEx ia IIC: C_a ≤ 780 nF L_a ≤ 10 mH
EEx ib IIC: C_a ≤ 3 μF L_a ≤ 155 mH

FCX 2000 as measuring device:
U_{max} = 55 V
I_k = 485 mA

