PRECIA MOLEN™

I 200 M Ex

I 200 B Ex

General presentation

The I 200 Ex indicator is adapted for weighing installations in hazardous areas. It complies with the ATEX 94/9/CE directive and may be installed in hazardous areas for risks related to the presence of dust (zone 20, 21 or 22) or gas (zone 1 or 2).

The I 200 Ex indicator power supply may be different depending on your installation and operation constraints :

- Power supply with intrinsic safety outside hazardous areas : ISIS 2
- An I200 Ex P1/P1-S power supply in hazardous areas.
- A BATSI rechargeable battery for mobile weighing stations.

The I 200 Ex indicators range is composed of two models :
- I 200 B Ex (Counting, Preset tare,etc.)
- I 200 M Ex (Simple weighing : reception, shipping, transport, etc. Counting with or without tolerance control, Formulation, Control + -, Animal weighing, Calculation, ...). Memorization of 10 preset tare values.

As an option, I 200 Ex indicators are provided with a data storage device in which all weighings made can be recorded, thus avoiding the addition of a control printer (tally roll printer).

The I 200 Ex indicator is all 304 L STAINLESS STEEL and is specially designed for severe industrial environments.

It is protected according to IP 66* rate (dus tight and resistant to water jets), and this model is ideal for satisfying hygiene and cleanliness requirements of the agronomic-food processing industry, and Chemicals and Pharmaceutical industries.

Metrological approval

- Test certificate issued by a notified body in accordance with the Directive 90/384/EEC relating to non automatic weighing instruments.

ATEX certification

- Marking : **EEx ia II B/C T4**   **II 1 G/D**
  II C T4 if only one measurement channel and P1, P1-S or ISIS 2 power supply and no serial link.

  II B T4 if other configurations : double channel, DSD storage, serial link, battery power supply.

European conformity

- Directive 89/336/CEE relating to *ElectroMagnetic Compatibility*
- Directive 2006/95/CEE relating to Low *Voltage equipment*
- Directive 94/9/CEE relating to instruments and protection systems designed for use in hazardous areas.

Design

Housing

- Stainless steel housing.
- Adjustable wall, column or table fixing kit delivered as standard equipment.

I 200 B Ex :

7-key leak-tight touch sensitive keyboard

1 ⟳   **2** I   **3** Fn/+   **4** →T←   **5** ⊙/ESC

6 ▪ PT   **7** ✓

1. Off.
2. On.
3. Other accessible functions defined by configuration.
4. Tare, zero or combined tare/zero defined by configuration.
5. Print command.
6. Select operating mode : simple weighing, counting, preset tare.
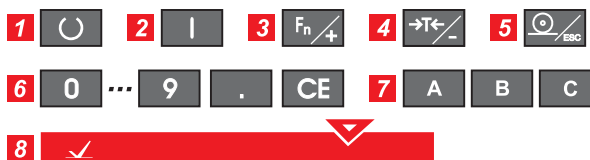7. Configurable function bar (your most frequently used function).

Display screen backlit by red LEDs

Character height : 25.4 mm

I 200 M Ex :

21-key leak-tight touch sensitive keyboard

1 ⟳   **2** I   **3** Fn/+   **4** →T←   **5** ⊙/ESC

6 0 ··· 9 . CE   **7** A B C

8 ✓

1. Off.
2. On.
3. Other accessible functions defined by configuration.
4. Tare, zero or combined tare/zero defined by configuration.
5. Print command.
6. Numeric keypad with decimal point and error correction.
7. Multifunction keys for defining settings for the weighing function and weighing control.
8. Configurable function bar (your most frequently used function).

Use is based on the 3 multi-function keys and a complete display screen capable of simultaneously displaying all current weighing information and also all combined information about previous weighings.
- Metrological information about the current weighing.
- Calculated information about the current weighing.
- Accumulated control information about batch weighings.

Operation

The I 200 EX indicator may be equipped with the following optional outputs in the factory :
- measurement (double channel indicator),
- serial link to peripheral outside hazardous areas : passive current loop connection to ISIS 2 intrinsic safety interface.
- Serial link to D200 Ex slave display in hazardous areas : passive current loop.

* Connections according to IP 67 rate.

Physical characteristics

- Dimensions
  - Width .... 247 mm
  - Height .... 231.3 mm
  - Depth .... 97 mm
- Dimensions for table or wall mounting kit (kit delivered standard) :
  - Width .... 247 mm
  - Height .... 231.3 mm
  - Depth .... 148.2 mm

Electrical characteristics

- Power supply by mains adaptor :
  - Mains power supply voltage .... 190 - 250 V
  - Frequency .... 48 - 51 Hz
  - Consumption .... 4 VA max.
- BATSI battery power supply (option)
  - Operational duration without backlighting ....40 h
  - Operational duration with backlighting ... .24 h

Metrological characteristics

	ML	**HML**
Accuracy class (Trade use only)	III	-
Increment value	0,5 µV	0.1 µV
Maximum number of increments :		
• Single range	6 000	30 000
• Dual range	2 x 3 000	-
Power supply voltage	5 V dc	
Load cell impedance		
Minimum	48 Ω	
Maximum	1 000 Ω	
Maximum load cell cable length	150 m	
Error spreading pi factor	0.5	-

Environmental characteristics

- Temperature range
  - Operation.. - 10 °C / + 40 °C
  - Storage .... - 20 °C / + 60 °C
- Industrial protection rating .... IP 66

File characteristics

Data storage (DSD) in option :

- Maximum number of records...................... 48 000

Stored data : DSD No., gross , tare, net weight, preset tare, printed weight type, weight type transmitted by protocol, unit, identification number.

Standard contents of the delivery

- I 200 Ex indicator equipped with a measurement accessory.
- Adjustable fixing kit (wall or table mounting).
- User's manual.

The ISIS 2 intrinsic safety power supply

The ISIS 2 intrinsic safety interface performs 2 functions :
- Power supply interface with intrinsic safety
- Intrinsic safety interface for RS232/RS422 serial link

- Dimensions :
  - Width ....105 mm
  - Height .... 45 mm
  - Depth ....170 mm
- Assembly on DIN rail
- Power supply : 220 V 50-60 Hz
- Marking : [EEx ia] II C   II (1) G/D

BATSI intrinsic safety power supply

- Dimensions :
  - Width ....255 mm
  - Height ....125 mm
  - Depth ....125 mm
- Marking : EEx ia II B T6   II 1 G/D
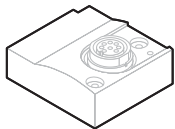
I200 Ex P1/P1-S power supply in hazardous areas

Dimensions :	**I200 Ex P1**	**I200 Ex P1-S**
- Width	125 mm	150 mm
- Height	80 mm	150 mm
- Depth	57 mm	81 mm

- Power supply : 220 V 50-60 Hz
- Marking : EEx em [ib] II C T6   II 2 (2) GD

- Interface accessories

- Measurement board
- Passive current loop serial link (BCPSI) for link on D200 Ex slave display or for RS 232/RS 422 connections through ISIS 2 intrinsic safety interface.
- Data storage device DSD Ex 48 000 records

- Fixing kit

- Column kit (h = 525 mm)

- Slave displays

- D 200 Ex

- Power supplies

- ISIS 2
- I200 Ex P1
- I200 Ex P1-S
- BATSI

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