

i 40 Ex 2-21 IECEx

Weight indicator for industrial processes in explosive atmosphere

**PRECIA
MOLEN™**
WORLDWIDE WEIGHING



- ▶ The i 40 Ex 2-21 IECEx industrial indicator is particularly adapted for *process weighing* with easy integration in any industrial process which includes weight measurement.
- ▶ It can be installed directly in potentially explosive atmosphere for risks related to the presence of dusts (zone 21 and 22) and/or gas (zone 2).
- ▶ The numerous wiring possibilities allow a direct connection of the i 40 Ex 2-21 IECEx indicator to most PLCs and industrial PCs on the market.

Display

- FSC Technology (Field Sequential Color)
- 7 color configurable backlighting
- Weight display over 7 characters (25 mm high)
- 10 character text zone (8 mm high)
- Weight units: g, kg, t and lb
- Metrological and field bus activity indicators
- Wide viewing angle and sharp contrast
- Bilingual messages French/English

Keyboard

- Touch pad
- 3 metrological keys: zero, tare and gross weight reminder
- 3 menu access keys
- 4 arrow keys

Metrological approval

Compliant with the European Directive on Non-Automatic Weighing Instruments (NAWI).

- Class III NAWI
- Simple range 1 x 3 000 or 1 x 6 000
- Double range 2 x 3 000 or 2 x 6 000

CE Conformity

- Compliant with European Directive on Electro-magnetic compatibility.

Certification

- Compliant with the ATEX European Directive relative to protection devices and systems designed for use in explosive atmospheres and with IECEx standards.
- Marking according to EN 60079-0:2012
 - II3G Ex nA IIC T4/T6* Gc
 - II2D Ex tb IIIC T85°C Db

* T4 with an optional board

Environmental features

- Power Supply 9 à 30 V DC**
- Maximum consumption :
 - Typical 1,4 W
 - With 4-20 mA / 0-10 V option 1,8 W
 - With field bus option 2,7 W
- Connection on spring loaded terminals
- Use temperature - 20 °C / + 55 °C***
(10 to 85 % max. of relative humidity without condensation)
- Storage temperature - 20 °C / + 55 °C
- Waterproofness IP66
- Shock resistance IK07

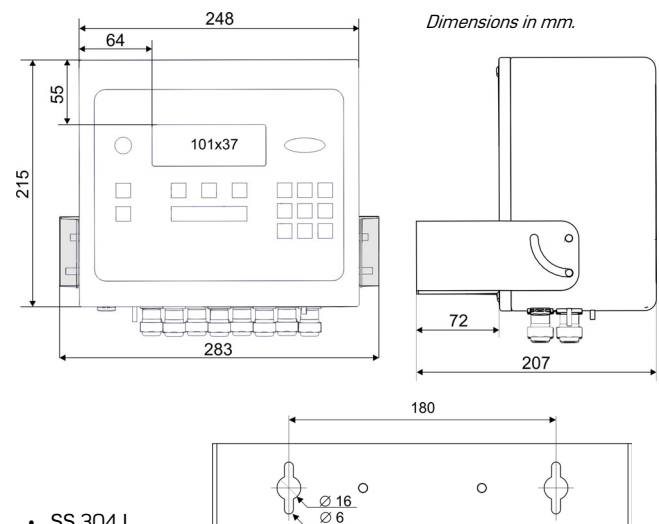
** if 4-20 mA option: minimum 22 V.

*** -10 °C / + 40 °C in legal for trade use.

Metrological features

- Up to 200 000 divisions in non legal for trade use.
- Minimum tension scale per division 0,5 µV
- Weigh cell power supply 5 V
- Weigh cell minimum impedance 43 Ω
- Weigh cell maximum impedance 1245 Ω
- Connection 4/6 wires
- Up to 100 measurements/second
- Cascadable digital filters on 2 configurable levels

Physical Features



- SS 304 L
- Weight : 4 kg
- Supplied with universal adjustable mount for tabletop, wall or column installation.

Functions

Communication

- 1 RS232/RS485 configurable port.
- Protocols : slave Modbus RTU, slave PM A+ and remote display master PM A+.

Weight thresholds

4 galvanic isolated digital outputs:

- Tension/current range..... 30 V AC/DC - 100 mA
- Definition of thresholds in gross weight or net weight.
- Output activation if the current weight is >= or <= threshold value.
- Thresholds relative to a positive or negative weight value.

Remote control

2 galvanic isolated digital inputs:

- Tension range 8-30 V DC
- Max. current..... 15 mA

Used to remotely perform zeroing and taring operations.

Settings

Metrological and functional settings can be performed via:

- the indicator front panel;
- a PC and a simple Internet browser.

Parameter back-up/restoration on µSD board (optional) or on CD-Rom.

Help with preventive maintenance

- Counter of observed weight overloads.
- Alert display on 3 levels according to the number of performed weighs.

Supplied accessories

- Clear protective cover for the front panel, which can be left on during use.

Options

Communication via field bus

- PROFIBUS-DP*
- PROFINET*
- DeviceNet*
- Ethernet Modbus-TCP*
- EtherNet/IP*
- CANopen
- POWERLINK*

The CANopen bus enables connecting a d 20 remote display and integrating an i 40 Ex 2-21 IECEx indicator in an I 410 network.

Analog output*

- 4-20 mA or 0-10 V analog output
- 1500 V RMS galvanic isolation
- Possible reading of negative weight values on the 0-4 mA range
- Image of instant gross or net weight

* Exclusive options: either one of the connections to the field buses marked by *, or an analog output.

Serial communication

- 1 peripheral-type USB port
- 1 RS 232 port
- Protocols: slave Modbus RTU, slave PM A+ and remote display master PM A+.

TCP/IP communication

- 1 Ethernet port 10/100 Mb RJ 45
- Protocol: slave PM A+ and remote display master PM A+.

µSD board

- For parameter back-up/restoring.
- Alibi (DSD) memory for 300 000 records in legal for trade use.

Junction box

Direct connection to 2 to 4 analog load cells (4 or 6 wires)

Internal power supply

- Voltage 100-240V AC 50/60Hz
- Power draw 0,35 A

Power chaining

8 terminals for 24 V power supply chaining (max. current 10 A).
Maximum cross-section: 2,5 mm²



Your specialist

Illustrations not contractual. Precia-Molen reserves the right to alter the characteristics of the equipment described in this brochure at any time.

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