



Dust Protection PE2e Certification Ex tb IECEX - ATEX Dust - Protection by Enclosure

Ex tb Zone 21, 22 IECEx, Category 2 D ATEX



**IECEX
& ATEX
Zone 21 (22)
CERTIFIED!**

Photo
ATEX Zone 21 IIIC T135°C Cat 2
PE2e, Mild (Carbon) Steel,
Painted Certified Ex tb

■ Certification Overview

Expo holds IECEx & ATEX Certificates to IEC/EN 60079-0, IEC 60079-31 & EN 61241-1, Zone 21 & 22, Ex tb IIIC for the completed Expo "Protection by Enclosure" PE2e. The certificate includes for installation of your instrumentation and / or electrical apparatus without further reference to the certification body when it complies with the Expo "Schedule of Limitations".

Ex t, formerly Ex tD, Protection by Enclosure are for applications where there is a potential flammable dust in the hazardous location. Industries include: Pharmaceutical, Food, Plastic, Metal, etc.

Instrument and electrical enclosure are designed to the IEC/EN 60529 for IP rating but for hazardous dust locations they must be subjected to thermal cycling, etc specified within IEC/EN 60079-0 & EN 61241-1 for "Protection by Enclosure" IP6X, for Zone 21 & 22 applications.

■ Contents of the Protected Enclosure

The construction and power dissipation of the internal components are critical to ensuring compliance with Temperature Rating and Safe Operation. Therefore all internal components and details of the PE must be reviewed by Expo Technologies to determine compliance with the IECEx / ATEX Certificate "Schedule of Limitations" (SoL) required for the certificate to apply. Thereafter the final installation is to be verified by Expo.

Please ask Expo for a copy of the "PE2e, Zone 21/22 Schedule of Limitations".

**IECEX &/or ATEX Zone 21 & 22
Certification
with "YOUR Equipment"**

**IECEX - ATEX Certified, Expo Dust
Protected by Enclosure, Type PE2e**

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YOUR Equipment - within agreed limits

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**Expo Verify the installation is
compliant with the SoL**

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**IECEX &/or ATEX Zone 21 (22)
Certification to IEC/EN 60079-0 &
IEC 60079-31 or EN 61241-1, IP6X,
Ex tb
Formerly Ex tD**

■ Advantages

- + No need for a Certified / Notified Body as the Certificate has been issued to Expo
- + Accept orders for your apparatus in HazLoc locations and increase your market share
- + Ease of Certification for the OEM and the User
- + Reduced Certification cost
- + Reduced time to market
- + After review, equipment not complying with the SoL may still be certified





Technical Specification IP6X, Dust Protected Enclosure

■ Certification of the PE2 Enclosure

IECEX	Certificate of Conformity No: IECEX ITS 08.0044X
ATEX	Certificate of Conformity No: ITS10ATEX16944X Ex tb IIIC T135°C Db IP6X [Zone 21] (formerly Ex tD)
Ambient Temperature	-20°C, -4°F to 55°C, 131°F
IEC/EN 60529 & IEC/EN 60079-0	IP66
Compliance to General Conditions IEC/EN 60079-0	Includes thermal conditioning of Non metallic items, seals, etc resistance to light testing Impact testing 4 – 7 Joules
Schedule of Limitations	Request SoL PE2e, Zone 21 (22)
Special Conditions of Safe Use	Before closing the door dust must be removed from the inside of the PE2e and then power can be applied.
Instruments & electrical	Most apparatus installed within the PE2e is normally acceptable
Ex Apparatus	Permitted subject to internal temp
Effective Purge	Boxed apparatus will require ventilation holes
Power & Signals inputs	Must be capable of being manually disconnected
Temperature rating	T135, T200, T300 dependent on internal and external apparatus
Battery(s)	Check with Expo. Small memory type batteries may be able to be installed!
Verification	Can be completed at the client's or Expo premises Expo will supply the verification document and certificate label(s)

■ PE2 – IECEx and ATEX Zone 1 (21)

Model Number: PE2e - - - -

PE2e Options:

- Sizes : Purpose built and designed for the application
- Maximum Size : 2.1m H x 1.6m W x 1.0m D
Approx: 82" H x 63" W x 39" D
- Material : 1.5mm to 3mm dependent on the size of PE2e
316L Stainless Steel – Finish: NROB
Mild (Carbon) Steel – Finish: Powder Coated
RAL7035 (Light Grey)
- Doors : Front, Back, Side, Top, Bottom or Double doors
- Door fasteners : Tool Operated ¼ turn Stainless Steel
(does not require a power disconnect door switch)
- Hinges : Stainless Steel
- Seals : Silicon seals fully compliant with IEC 60079-0
- Windows: Laminated Glass Clamped
Maximum size up to 1m² (Approx: 10.76ft²)
- Control Devices & Actuators: Certified: Push Buttons,
Lamps, etc
- Sub-panel (Chassis): Rear, Sides, top,
bottom or Door
- 19" Rack : Fixed or Swing Frame
- Mounting Bosses
- Lifting Eye's
- Gland Plates
- Mobile PE2: Anti-Static Wheels
- Wall Lugs
- Free Standing
- Plinths