Zonex Enclosures

CONNECT AND PROTECT

nVent

HOFFMAN
SELECTION AND SPECIFICATION OF A
Zonex Enclosure
TO MEET YOUR APPLICATION REQUIREMENTS

CERTIFIED FOR YOUR APPLICATION REQUIREMENTS
Zonex enclosures deliver a robust solution for termination and junction enclosure applications in potentially hazardous locations, including:

- Petroleum and chemical processing
- Water treatment processing
- Pharmaceutical processing
- Grain processing

THERE ARE 2 WAYS TO DETERMINE THE CORRECT SIZE
ZONEX ENCLOSURE FOR POPULATED TERMINAL BLOCKS

- Method 1: Maximum Terminal Block Count
- Method 2: Maximum Dissipated Power (watts)

*NOTE: All selection methods must adhere to maximum dissipated power for selected enclosure size.

MODIFICATION AND CUSTOMIZATION
nVent HOFFMAN excels at modifying and customizing Zonex products to your specifications while maintaining ATEX and IECEX certifications. Contact your local nVent HOFFMAN sales office or distributor for complete information. nVent HOFFMAN offers:

- Material changes: Type 304 stainless steel, aluminum, mild steel
- Gasket changes: High-temperature silicone gasket
- Holes and cutouts
- Paint
- DIN rails
- Terminal block installation and marking
- Side-mount-brackets available
- Ground bars
- Tagging
- Accessory installations
- Zero to four gland plates

*Hinge-cover enclosures only

CERTIFICATION MARKINGS

<table>
<thead>
<tr>
<th>ATEX</th>
<th>IECEX</th>
<th>AEx / Ex</th>
</tr>
</thead>
<tbody>
<tr>
<td>II 2 G D Ex e IIIC T6 Gb (Ta –20 °C to +40 °C) Ex tb IIIC T85 °C Db IP 66</td>
<td>Ex e IIIC T6 Gb (Ta –20 °C to +40 °C) Ex tb IIIC T85 °C Db IP 66</td>
<td>UL File No. E67546: Class I, Zone I</td>
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<tr>
<td>II 2 G D Ex e IIIC T5 Gb (Ta –20 °C to +55 °C) Ex tb IIIC T100 °C Db IP 66</td>
<td>Ex e IIIC T5 Gb (Ta –20 °C to +55 °C) Ex tb IIIC T100 °C Db IP 66</td>
<td>Ex e IIIC Tamb –20 °C to +60 °C</td>
</tr>
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</table>

INCREASED SAFETY “EX e”

It is assumed that the hazardous atmosphere penetrates to the enclosure interior and explosion is prevented by ensuring that either in normal operation or under fault conditions:

- There are no arcs or sparks
- No components or parts temperatures exceed the temperature limit of the corresponding temperature class

NOTES:

- ATEX and intrinsically safe certified terminal blocks can be installed in populated enclosures
- IECEX populated enclosures require IECEX certified components specifically listed in Certification (see IECEX SIR 09.0100 for more detail)
- Contact your local nVent HOFFMAN sales office or distributor for complete information
Zonex Screw-Cover
ATEX-CERTIFIED ENCLOSURES

**FEATURES:**

- Type 316 stainless steel, #4 brushed finish on exterior surfaces
- Welded-on, full-width top and bottom wall-mount brackets for easy installation
- 10mm internal/external brass bonding provision
- Type 316 stainless steel captivated cover screws for corrosion resistance
- One-piece continuous gasket for protection against water and dust ingress
- Internal weld nuts provided for panel or DIN rail installation

**Easy-to-remove cover** Type 316 stainless steel with captivated Type 316 stainless steel cover screws for corrosion resistance

**Internal weld nuts** for panel or DIN rail installation

**Bonding provisions, screw-cover style** 6mm internal/external brass bonding provision

**Wall-mounting brackets, screw-cover style** Welded-on, full-width top and bottom wall-mount brackets for easy installation

**SCREW-COVER ATEX (Standard Sizes)**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Actual Dimensions - mm</th>
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<td>A - 102 B - 102 C - 76</td>
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<td>EXE254254127SS6I</td>
<td>A - 254 B - 254 C - 127</td>
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</table>
Zonex Hinge-Cover
ATEX-CERTIFIED ENCLOSURES

Wall-mounting brackets
Heavy-duty 3mm (12 gauge) welded-on brackets on top and bottom for easy site installation

210-degree opening door
that is easily removed by pulling clip style hinge pins

Bonding provisions
10mm brass internal/external bonding provisions

Continuous gasket seal
on the door and gland plate for protection against water and dust ingress

Internal studs
for panel or DIN rail mounting

Type 316 stainless steel slotted
¼-turn insert for easy access and closure

Fabricated and formed
entries for gland plate screws provide quick and easy installation

Full-size gland plate
3mm thick (12 gauge) flat bottom gland plate with bonding stud and continuous gasket seal
Zonex Hinge-Cover
ATEX-CERTIFIED ENCLOSURES

FEATURES:

• Type 316 stainless steel, #4 brushed finish on exterior surfaces
• Type 316 stainless steel slotted ¼-turn insert(s) for easy access and closure
• 210 degree opening door that is easily removed by pulling clip style hinge pins
• Heavy-duty 3-mm (12 gauge) welded-on wall-mounting brackets on the top and bottom for easy site installation
• 3mm thick (12 gauge) full-size bottom gland plate with bonding stud
• Fabricated and formed entries for gland plate screws provide quick and easy installation
• Continuous gasket seal on the door and gland plate for protection against water and dust ingress
• 10mm internal/external brass bonding provision

HINGE-COVER ATEX (Standard Sizes)

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>A - Height</th>
<th>B - Width</th>
<th>C - Depth</th>
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</table>
INTEGRATED JUNCTION BOXES

In response to the increasing demand for integration of increased safety ATEX/IECEX approved enclosures, nVent HOFFMAN has developed an option of providing Integrated Junction Boxes.

These Integrated Junction Boxes shall provide the following benefits to the customer:

• Enclosures to be integrated with either Phoenix Contact or Weidmuller Terminal blocks.
• Modify Enclosure with Holes, Cutouts & Tags.
• Provide ATEX / IECEX certificate for the assembly.
• Faster & efficient delivery through the network of authorized distributors.

ENCLOSURE TYPE / CATALOG NUMBER NOMENCLATURE

<table>
<thead>
<tr>
<th>Actual Dimensions - mm</th>
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<tbody>
<tr>
<td>HINGE-COVER ENCLOSURE</td>
</tr>
<tr>
<td>EXE</td>
</tr>
<tr>
<td>DIMENSIONS</td>
</tr>
<tr>
<td>MATERIALS</td>
</tr>
<tr>
<td>STANDARD GLAND PLATE OPTIONS</td>
</tr>
</tbody>
</table>

| EXE508406203SS6i |

| EXE                     |
| DIMENSIONS              | Height, Width, Depth (in mm) |
| MATERIALS              | Type 316 stainless steel – standard |

| EXE254254127 |

NONSTANDARD OPTIONS

<table>
<thead>
<tr>
<th>Catalog Number Code</th>
<th>ACTUAL DIMENSIONS - MM</th>
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<tbody>
<tr>
<td>SIZE CHANGES</td>
<td></td>
</tr>
<tr>
<td>EXE</td>
<td>Hinge-covers only</td>
</tr>
</tbody>
</table>

| MATERIAL OPTIONS     |                         |
| SS6                 | Type 316 stainless steel |
| SS4                 | Type 304 stainless steel |
| AL                  | Aluminum                |
| MS                  | Painted mild steel (61 gray) |

| MOUNTING BRACKET OPTIONS |                         |
| H                      | Change top/bottom to sides (horizontal) |
| V                      | Change sides to top/bottom (vertical) |

| NUMBER OF GLAND PLATES |                         |
| 0                     | No gland plate          |
| 1                     | 1-gland plate in the bottom (standard) |
| 2                     | Gland plates can be used as per requirement |
| 3                     | Gland plates can be used as per requirement |
| 4                     | Gland plates on top, bottom and sides |

| SPECIAL OPTIONS        |                         |
| Holes and cutouts     | SPL                    |
| Terminal block installation | SPL                  |
| Terminal block marking | SPL                   |
| Enclosure tagging     | SPL                   |
| Drains and breathers  | SPL                   |
| Paint                 | SPL                   |
| Silicone gasket       | SPL                   |
| Change ¼-turn insert (slotted or 3mm double bit) | SPL |
| Install single point stainless steel handle | SPL |
| Install ground bar provision | SPL |
| Install door stop (hinge-covers) | SPL |
| Holes in door flange for metal tag | SPL |
| Other                 | SPL                   |

Consult nVent HOFFMAN Sales Representative for Nonstandard Designs
ATEX-CERTIFIED ACCESSORIES

LARGE-VOLUME ATEX PURGE SYSTEM TYPE Y, Z AND Ex [pz]

Designed to supply one or more enclosures with a protective gas supply, nVent HOFFMAN’s Ex [pz] purge system is designed and certified according to European requirements of ATEX Directive 94/9 EC and EN60079-2 for Type Ex [pz] applications. ATEX-certified Ex [pz] purge systems reduce the classification in the protected enclosure from Zone 2 to non-hazardous, allowing the use and operation of general purpose equipment in the protected enclosure. Used as a Type Y purge reduces classification from Div. 1 to Div. 2. Type Z purge reduces classification from Div. 2 to Non-Hazardous.

Purge/pressurization systems can be used for electronics, electrical equipment, motors and switch gear in wall-mount to large enclosures, and also meet the demands of rack-mounted instrumentation, video displays, programmable controllers, computers, printers, recorders and measurement and calibration equipment. Available for 90 cubic feet maximum enclosure volume in vertical mount (VM) or horizontal mount (HM) models.

INDUSTRY STANDARDS (VOLUME UP TO 90 CUBIC FEET)

3003 WPSA

Type Y System UL and FM Certified: Class I, Division I Group A,B,C, and D/Zone 1, Groups IIB and H2 to Division 2/Zone 2

Type Z System UL and FM Certified: Class 1, Division 2 Group A,B,C, and D/Zone 2, Groups IIB and H2 to Non-hazardous

ATEX Certified II 3 (3) G Ex [pz] II, -29 C ≤ Tamb. ≤ 49 C

HAZARDOUS LOCATION THERMOSTAT

For temperature control of heaters or low-temperature alarms in enclosures used in explosion-hazardous areas, nVent HOFFMAN’s Hazardous Location Thermostat features compact design and a robust thermostatic bimetallic sensor element for >100,000 cycle service life. The thermostat is usually connected directly and switched without the need for additional relays and offers high switching capacity with small hysteresis (switching difference).

HAZARDOUS LOCATION HEATER

Designed for use in hazardous locations where electronic components require protection from condensation and corrosion, sudden temperature drops and low temperatures, nVent HOFFMAN’s Hazardous Location Heater offers maintenance-free, high-performance heating with a large convection surface, an extruded aluminum heat sink and 110-120 VAC operation.
We also offer key as one of the accessories for our Zonex enclosures, which is specifically available with nVent HOFFMAN.

**Available in Material**
- Zinic Die-cast (Powder Coated)
- SS316
## North America
- **Minneapolis, MN**  
  Tel: +1.763.421.2240  
- **Mexico City, Mexico**  
  Tel: +52.55.5280.1449  
- **Toronto, Canada**  
  Tel: +1.416.289.2770

## South America
- **Sao Paulo, Brazil**  
  Tel: +55.11.5184.2100  
- **Boituva, Brazil**  
  Tel: +55.15.3363.9148

## Middle East & India
- **Dubai, United Arab Emirates**  
  Tel: +971.50.55.19823  
- **Bangalore, India**  
  Tel: +91.80.6715.8900

## Europe
- **Betschdorf, France**  
  Tel: +33.3.88.90.64.90  
- **Straubenhart, Germany**  
  Tel: +49.7082.794.0  
- **Dzierzoniew, Poland**  
  Tel: +48.74.64.63.900  
- **Assago, Italy**  
  Tel: +39.02.5776151.224

## Asia
- **Shanghai, P.R. China**  
  Tel: +86.21.2412.6943  
- **Singapore**  
  Tel: +65.6768.5800  
- **Shin-Yokohama, Japan**  
  Tel: +81.45.476.0271  
- **Seoul, Korea**  
  Tel: +82.2.2129.7755  
- **Qingdao**  
  Tel: +86.532.8771.6101

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