

Technor

EEx d IIC / IIB Explosion proof enclosures

TNXCD



Features

Technor's cylindrical EEx d certified enclosures, manufactured in acid resistant stainless steel, SS316, are more cost efficient than traditional EEx d enclosures. The design makes the unit easy to install and use, and also allows for simple solutions within numerous different applications. The enclosures can be delivered empty with U-component certificate or supplied fully assembled according to clients demands.

The enclosure has achieved good references within the offshore industry.

- Flexible product range with several standard sizes.
- Ingress protection to meet harsh environment with IP66 as standard.
- Suitable for demanding environment.
- Wide temperature range (-50°C to +60°C).
- Several cable entries possibilities.
- Several earthing alternatives.
- May be used with a EEx e/i connection box.
- Window in top may be fitted.
- High operational reliability and reduced lifetime maintenance costs.
- ATEX and GOST approvals.

Applications



The TNXCD range of enclosures are designed to meet the harsh environments of the North Sea and are ideal for Petrochemical and Marine applications as well as for all kind of industry where an explosive atmosphere may be present.

Thousands of Technor enclosures are installed on- and offshore during the last years.

If you should have a particular need our sales staff will be pleased to advise.

- Zenerbarriers
- PLC
- Charging units
- Remote controlled video cameras
- Counters
- Clocks
- Alarm status
- Warning/Signalling
- Marking lights
- Print Card Boards (PCB)

General specification

Material	Acid resistant stainless steel SS316
IP Rating	IP66 (IP67 and IP68 upon request)
Temperature	Various max: -50°C to +60°C
Approvals TNXCD empty enclosure	DNV-2003-OSL-ATEX-0436U
Approvals TNXCD complete enclosure	DNV-2004-OSL-ATEX-0115
Standards	Cenelec EN50014, EN50018, EN50019
Ex-Code for empty enclosure:	EEx d IIC,  II 2 G
Ex-Code for complete enclosure:	EEx d IIC,  II 2 G Option: EEx dem [ia/ib]
Entries	EEx e glands and EEx d bushings, or EEx d glands only
Gland Size EEx e	M25
Gland Size EEx d	According to specification
Bushings EEx d	Max M42, number and core size acc.to spec.
Earthing between EEx d and EEx e enclosures	Through the flange assembly

TNXCD EEx d enclosures allow for utilization of standard electrical components. Subsequent replacement and maintenance of installed components is thus easy. The EEx d enclosures and components are designed, built and delivered in full compliance with current specifications and CENELEC standards. The client receives a complete system including user manual, part list, wiring diagram and an Ex conformity declaration. Or we can deliver empty enclosures with U-component certificate.

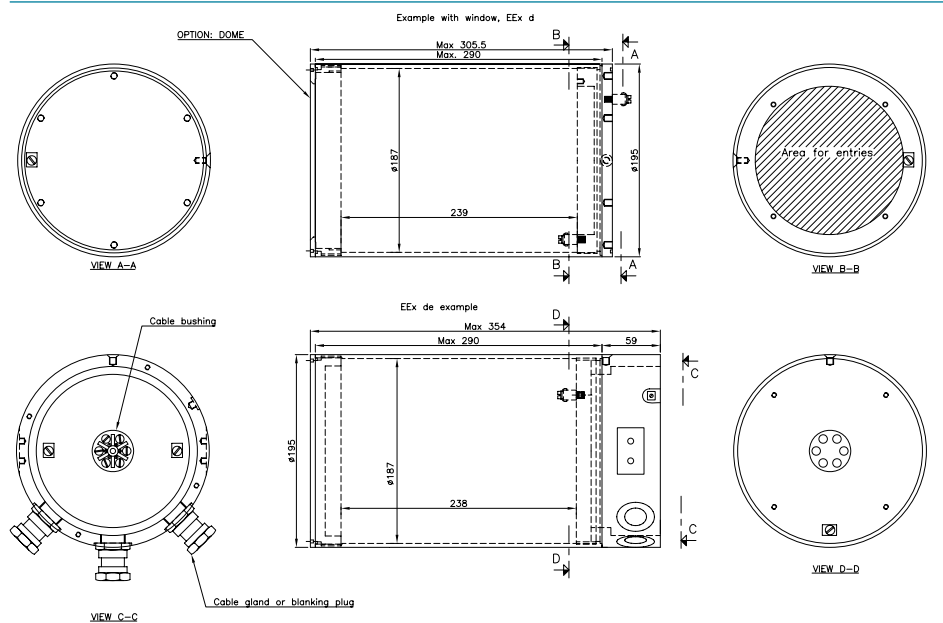
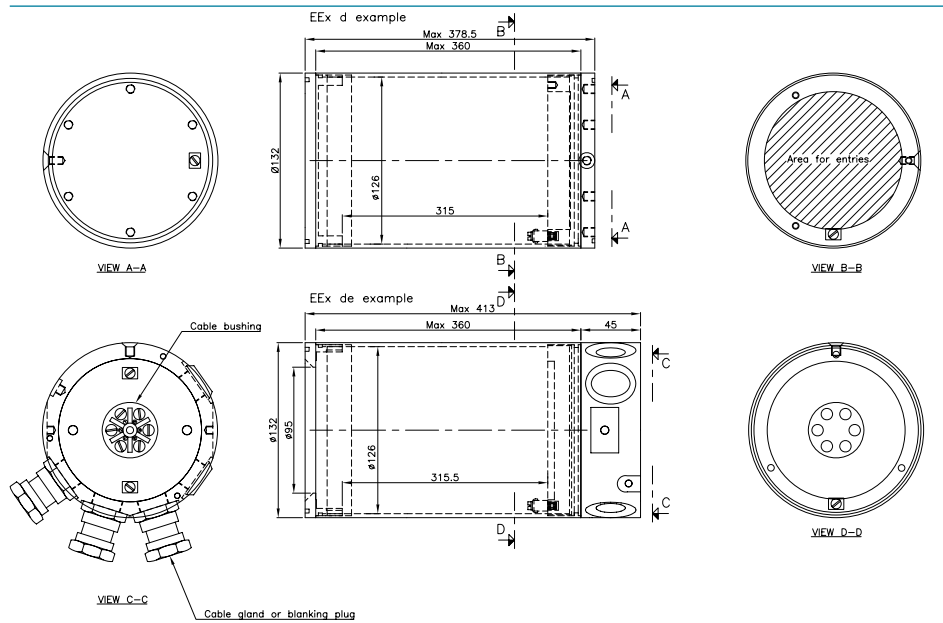
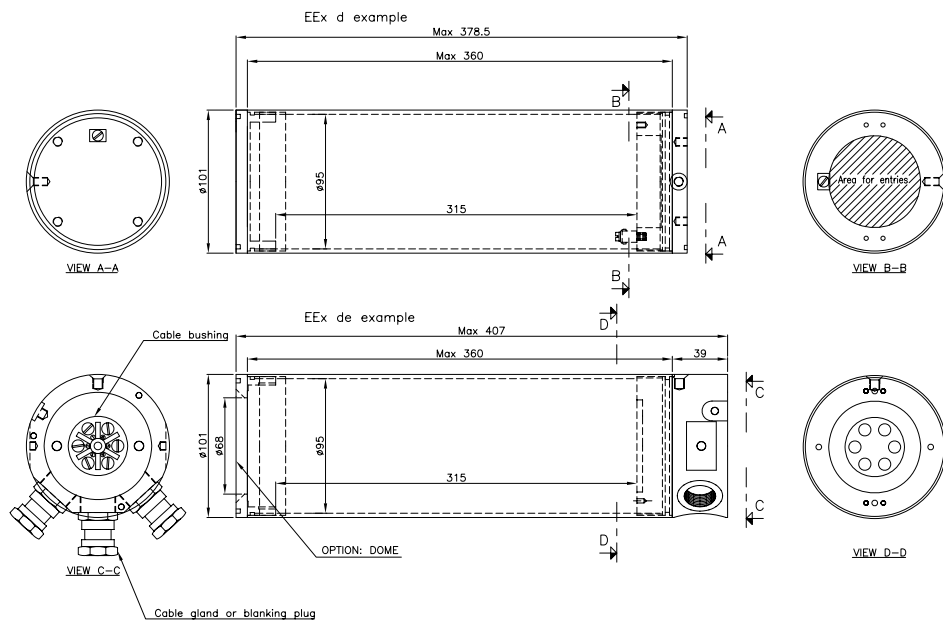


The client performs installation of electrical equipment and subsequently applies to the Certifying Authority (Notified Body) for full certificate of conformity according to ATEX 94/9 EC directive.

TNXCD enclosures are manufactured in the following diameters: 100, 130 and 195 mm. Enclosure lengths are according to measurement table.

The enclosures can be delivered either with or without an inspection window in the front, in flat or domed glass.

Normally EEx d enclosures are delivered in combination with an EEx e/EEx i connection box. Incoming and outgoing cables are terminated in the connection box. Standard TNXCD connection boxes may be varied in size according to requirement. If there is a need for a bigger connection box, all Ex approved Technor TNCN boxes can be used. If required, it is also possible to have a direct entry by utilisation of EEx d glands. In this case the EEx d enclosure is delivered without a connection box.



Hazardous area information & terminology

ATEX Directive

The ATEX Directive, derived from the French "ATmosphères EXplosibles" and formally known as 94/9/EC, contains the ESR (Essential Safety Requirements) to which electrical equipment and protective systems used within potentially explosive atmospheres must conform.

The new ATEX Directive currently in place within the European Union was made mandatory on 1st July 2003. Primarily intended for manufacturers of hazardous area equipment for use in the presence of flammable gases, vapours, fumes or dusts, the new directive requires a quality management system to be implemented.

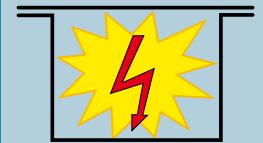
Zone Classification with the presence of GAS	
Zone 1 (Category 2)	An area in which explosive gas is likely to be present during normal operation of the plant.
Zone 2 (Category 3)	An area in which explosive gas is not continuously present, but may exist for a short period of time.

Procedures for the design, manufacture and verification of products are to be approved by a notified body (i.e. DNV, NEMKO, etc.) and all equipment conforming to the new directive will feature CE and Ex Marking.

Applicable EX protection

EEx d Protection

Parts, which can ignite a potentially explosive atmosphere, are surrounded by an enclosure, which are designed to withstand the pressure of an internal explosion and to prevent the propagation of the explosion to the atmosphere surrounding the enclosure.



EEx e Protection

for electrical components that do not spark under normal working conditions but where measures are applied to prevent high temperatures and the occurrence of arcs and sparks internally.

