

Technor

EEx d IIC / IIB Explosion proof enclosures

TNCD-TNBCD



Features

The TNCD / TNBCD range comprises of many standard sizes of enclosures manufactured in SS316 Acid Resistant Stainless steel, this to give the maximum environmental protection. The enclosures allowed for standard electrical components inside. Thus subsequent replacement and maintenance of the installed components is easy, and may be performed by trained electricians. If required, several enclosures may be assembled on a framework, with separate or common EEx e/i connection boxes. The enclosures can be delivered empty with U-component certificate or supplied fully assembled according to client's demands.

- Flexible product range with many standard sizes.
- Ingress protection to meet harsh environment with IP66 as standard.
- Suitable for demanding environments.
- Wide temperature range.
- Many cable entries possibilities.
- Several earthing alternatives.
- May be used with a EEx e/i connection box.
- Window may be fitted in all sides.
- Motor starters.
- Alarm panels for offshore containers.
- Zenerbarriers.
- Transformers.
- Charging units.
- PLC.
- Control panels.
- Terminals.
- High operational reliability and reduced lifetime maintenance costs.
- ATEX and GOST approved.

Applications

The TNCD / TNBCD range of enclosures are designed to meet the harsh environments of the North Sea and are also ideal for Petrochemical and Marine applications as well 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 happy to advise on this.



General Specifications

Material	Acid resistant stainless steel SS316
IP rating TNCD	IP66 (IP67 upon request)
IP Rating TNBCD	IP66 (IP67 and IP68 upon request)
Temperature TNCD	-20°C - +40°C (T6), Option -50°C - +60°C
Temperature TNBCD	-20°C - +50°C (T6), Option -50°C - +60°C
Approvals TNCD	NEMKO 03ATEX263U
Approvals TNBCD	NEMKO 03ATEX264U
Standards	Cenelec EN50014, EN50018
Ex-Code	EEx d IIC/IIB T6 – T4 ⊕ II 2 G/D or II 2(1/2)G/D + IM1
Lid gasket	Viton
Surface treatment	Glas blasted
Earthing between EEx d and EEx e/i enclosures	Through the flange assembly
Lid	With or without hinges, depending on size



Measurement table for EEx d IIC Explosion proof enclosures

External dimensions						Internal dimensions			
TNCD	Wide	Height	Depth	Total Depth	Lid aperture	Wide	Height	Depth	Kg
191918	190	190	180	213	140	170	170	131	16
282827	280	280	270	300	235	260	260	217	37
383827	380	380	270	300	335	360	360	217	60
575727	570	570	270	300	500	550	550	213	125



Viewing window TNCD

The window is placed in centre of the lid. Windows (ø65) can also be placed on the sides or back wall. Viewing windows are available with the following diameters: 65mm, 100mm and 154mm.

Enclosure type	Maximum window diameter
TNCD 1919XX	65mm
TNCD 2828XX	100mm
TNCD 3838XX	100mm
TNCD 5757XX	154mm

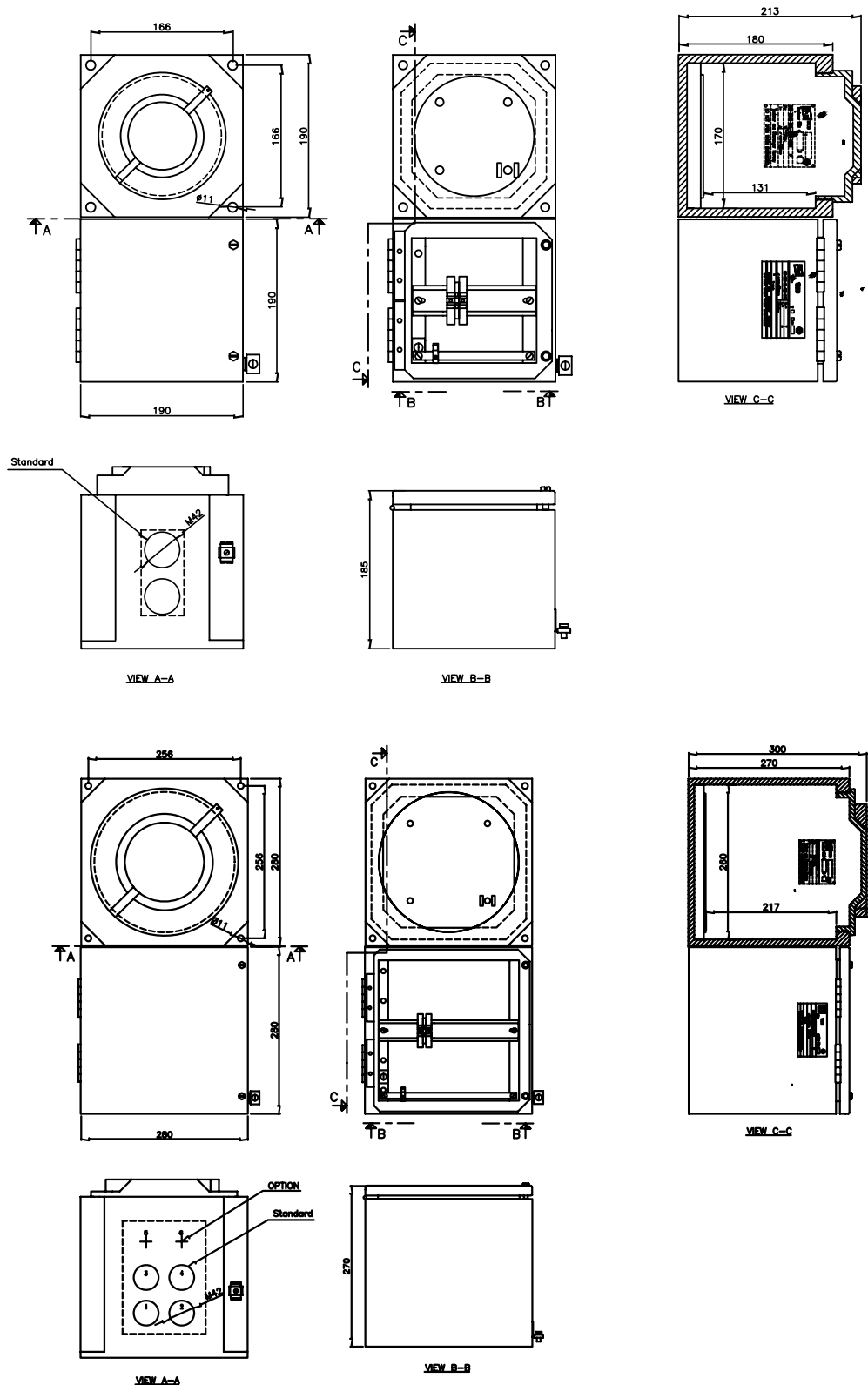


Measurement table for EEx e connection boxes

TNCN/ TNCC	A (Wide)	H (Height)	I (Depth)	Kg
191918	190	190	180	3,0
281927	280	190	270	4,4
282827	280	280	270	6,6
381927	380	190	270	4,6

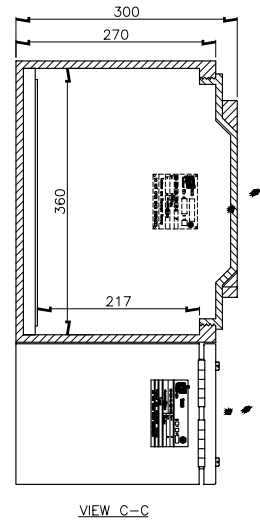
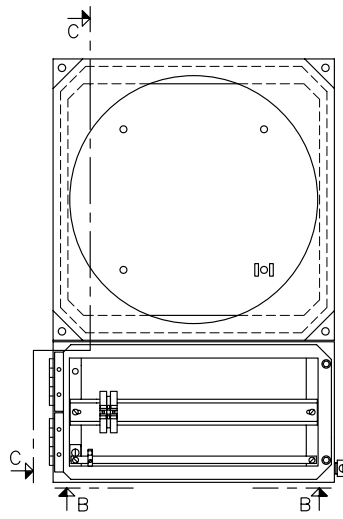
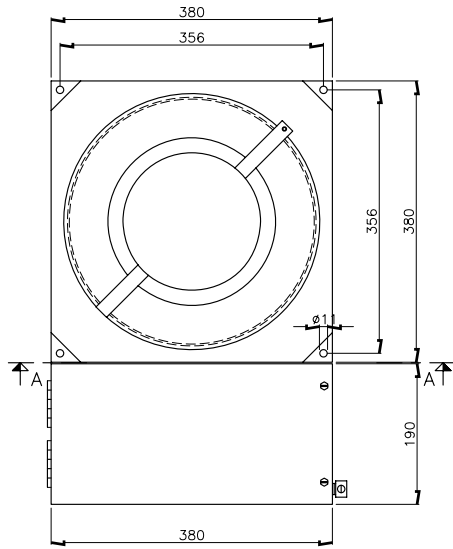
TNCN/ TNCC	A (Wide)	H (Height)	I (Depth)	Kg
383827	380	380	270	10,5
571927	570	190	270	9,6
573827	570	380	270	13,4
575727	570	570	270	19,7

Measures in mm. Other sizes upon request

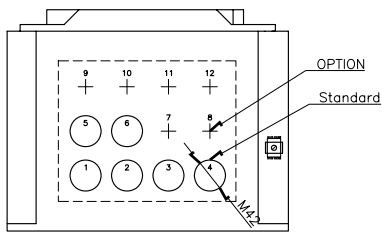


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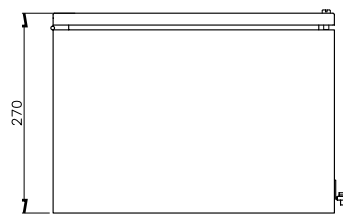
Ex d IIC / IIB Explosion proof enclosures



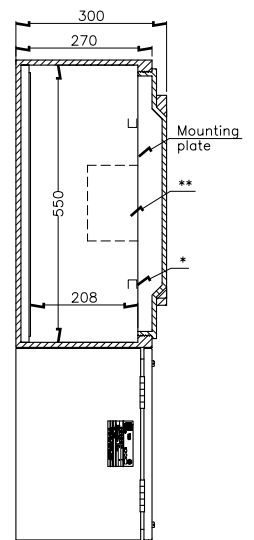
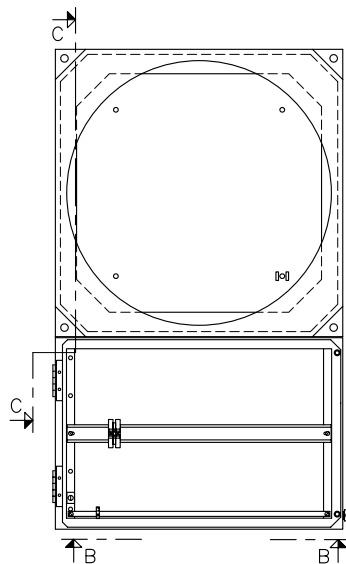
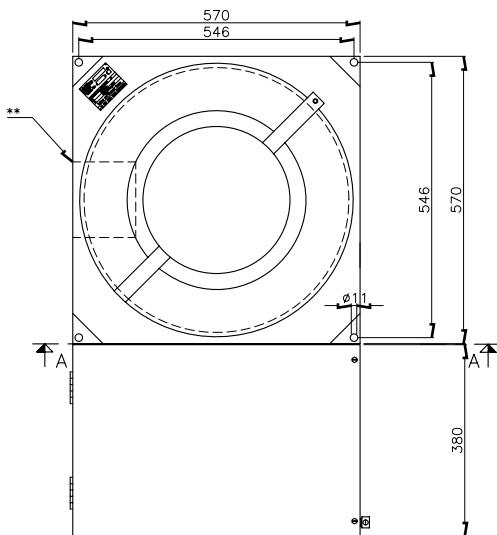
VIEW C-C



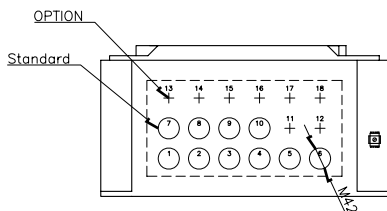
VIEW A-A



VIEW B-B



VIEW C-C



VIEW A-A



VIEW B-B

- * Support rail (17mm)
- ** Internal hinges

Measurement table for EEx d IIB Explosion proof enclosures

TNBCD									
	A	B	C	D	a	b	c	Weight	Window
262531	300	290	315	230	226	216	265	47kg	65/100
323321	360	370	215	260	286	296	165	59kg	65/100
453535	490	390	355	420	416	316	305	89kg	65/100/154
573835	615	420	355	545	541	346	305	113kg	65/100/154

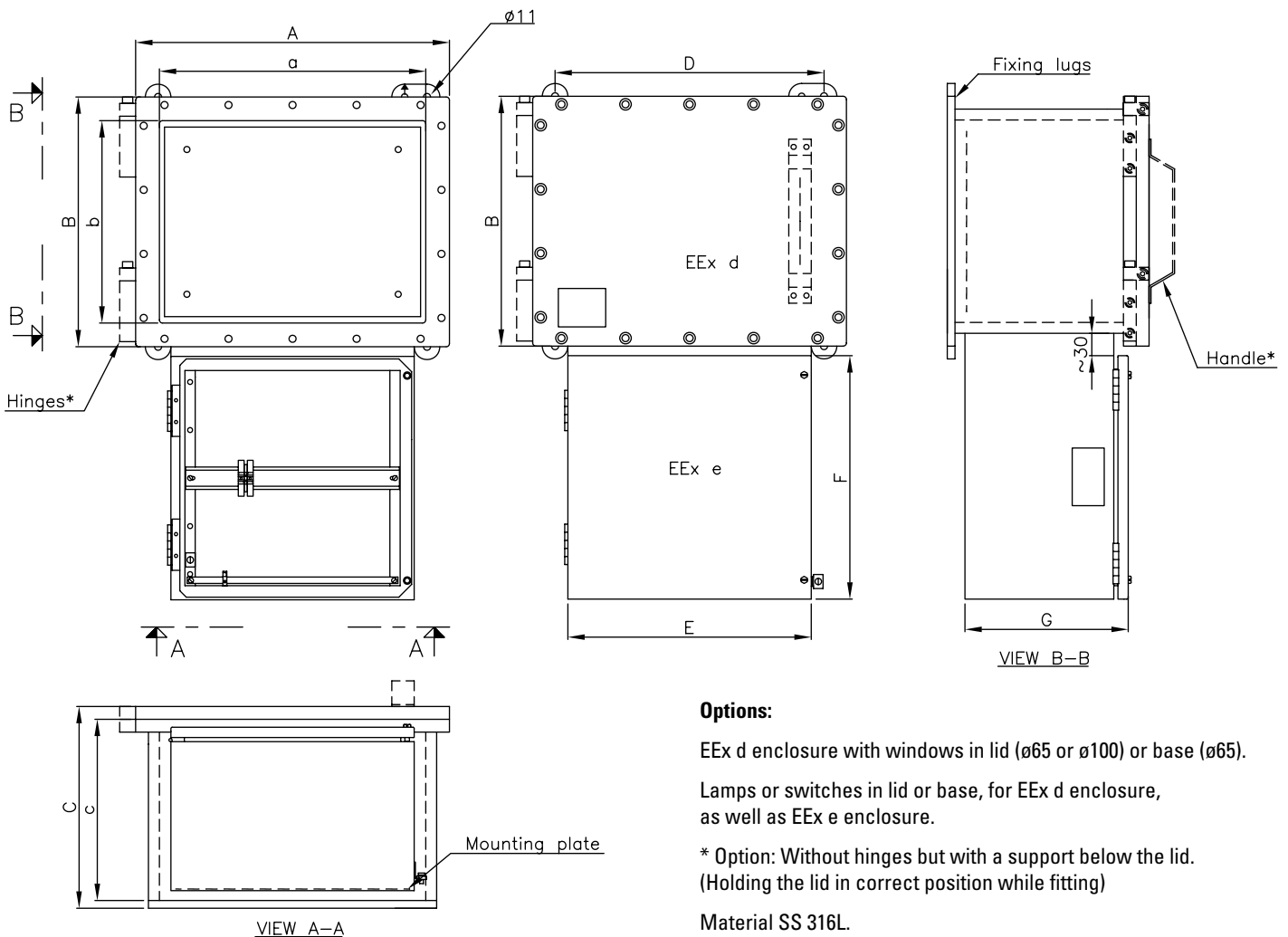


Measurement table for EEx e connection boxes

TNCN/TNCC			
	E	F	G
202025	200	200	255
252015	250	200	155
383821	380	380	255
453825	450	380	255



Control and indication equipment can be fitted directly into the cover of the TNBCD EEx d enclosure, or in the EEx e connection box.



Options:

EEx d enclosure with windows in lid (ø65 or ø100) or base (ø65).

Lamps or switches in lid or base, for EEx d enclosure, as well as EEx e enclosure.

* Option: Without hinges but with a support below the lid. (Holding the lid in correct position while fitting)

Material SS 316L.

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.

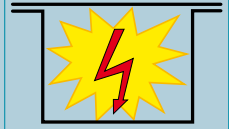
The new ATEX Directive currently in place within the European Union was made mandatory on 1st July 2003. Primarily intended for manufacturers of hazardous area equipment for use in the presence of flammable gases, vapours, fumes or dusts, the new directive requires a quality management system to be implemented.

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

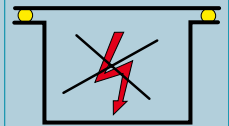
EEx d Protection

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.



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.

