

Technor

EEx ed Control boxes and stations

TNCC/TNUC



Features

The range of control boxes/stations comprises many standard sizes of enclosure. Type TNCC is made in SS316, type TNUC is made in GRP.

- Product range with many standard sizes.
- Ingress protection to meet harsh environment with IP66 as standard for TNCC.
- Wide temperature range (-40°C to +60°C) for TNCC.
- Drainage flange to prevent penetration of water in TNCC.
- Many button and lamp possibilities.
- Several earthing alternatives.
- High voltage terminal- and bus bar systems may be supplied in TNCC.
- TNCC may be used as connection box for flameproof equipment.
- Self-regulating heating cable may be fitted.
- Glass or Lexan windows in lid/door may be fitted.
- High operational reliability and cost efficiency, reduced lifetime maintenance costs.
- ATEX Approved.



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Applications

The range of control boxes/stations are designed to meet the various markets, and are ideal for offshore, Onshore, Petrochemical and Marine applications, and for all kind of industry where an explosive atmosphere may be present. Thousands of Technor control boxes/stations 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 TNCC

Material	Acid resistant stainless steel SS316
IP Rating	IP66 standard (67 and 68 upon request)
Temperature	-40°C to +60°C Option: -40°C to +200°C
Approvals	DNV-2003-OSL-ATEX-0042 GOST
Standards	EN50014, EN50018, EN 50019, EN 50028
Lid/Door gasket	Neoprene (temp. -40°C to +100°C) Silicone (temp. -40°C to +200°C)
Surface treatment	Acidized Pickling as standard Electropolished as an option
Material thickness	Min. 1,5 mm (depending on the box size)
Earthing	Internal earth bar/bracket External earth bracket
Drain plug	Optional
Other options	Ref. TNCN datasheet



TNCC Measurement Table - Range of stocked boxes					
Type	Width [cm]	Height [cm]	Depth [cm]	Volume [dm ³]	Weight [kg]
121009**	12	10	9	1,08	1,5
151510**	15	15	10	2,25	2,5
202010	20	20	10	4,00	3,0
202015	20	20	15	6,00	3,5
204015	20	40	15	12,00	5,4
282815	28	28	15	11,76	5,2
282827	28	28	27	21,17	7,0
302015	30	20	15	9,00	5,0
383815	38	38	15	21,66	8,1
383827	38	38	27	38,99	10,3
384515	38	45	15	25,65	8,9
385715	38	57	15	32,49	10,7
575715	57	57	15	48,74	16,4
575730	57	57	30	97,47	21,4
577620	57	76	20	77,98	21,7
769520	76	95	20	13,00	32,9

The boxes are delivered as standard with left hinged doors held to the enclosure by screws. Quick locks, screws only, or other locking systems can be delivered upon request. Other dimensions upon request
** No hinges - screws only.

General specifications TNUC

Material	Glass fibre reinforced polyester (GRP)
Temperature	-20°C to +40°C
Approvals	DNV-2004-OSL-ATEX-0121
Standards	Cenelec EN50014, EN50019
Lid/Door gasket	Perbunan
Colour	Black
Cover Screws	SS316
Electrical data	Umax = 750V, I _{max} = 500A
Earthing	PE bar and/or earth terminals Earth continuity plate/ earth tag upon request
Other options	Ref. TNUP datasheet



TNUC Measurement Table

Type	Width [cm]	Height [cm]	Depth [cm]	Weight [kg]
121209	123	120	91	1,1
161609	160	160	92	1,5
252512	255	250	120	2,9
361609	360	160	92	2,5
402512	400	250	120	4,3
404117	400	405	165	6,1

The boxes are delivered with screws in lid as standard.

Ex codes for TNCC and TNUC

Ex code	Description
EEx e II T5	Junction box with terminals and other EEx e components
EEx ed IIB/C T5	Control cabinet with control / signalling devices with EEx code 'd'
EEx em II T5	Control cabinet with components of EEx code 'm'
EEx edm IIB/C T5	Control cabinet with components of EEx code 'm' and control /signalling devices code 'd'
EEx ed[ia/ib] IIB/C T5	Control cabinet with control / signalling devices with EEx code 'd' and 'd' components with IS outputs
EEx em[ia/ib] IIB/C T5	Control cabinet with components 'm' including IS outputs
EEx edm[ia/ib] IIB/C T5	Control cabinet with control / signalling devices with EEx code 'd' and components 'm' including IS outputs
EEx edib[ia/ib] IIB/C T5	Control cabinet with control / signalling devices with EEx code 'd' components with IS output, and with 'ib' components
EEx emib[ia/ib] IIB/C T5	Control cabinet with 'm' components including IS outputs, and with 'ib' components
EEx edmib[ia/ib] IIB/C T5	Control cabinet with control / signalling devices code 'd' and components 'm' including IS output, and with 'ib' components.

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.

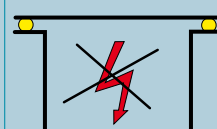
Zone Classification with the presence of GAS

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.

Applicable EX protection

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.



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.

