

**TERMINAL BOXES FOR
OIL IMMERSED TRANSFORMERS**
(Series 2009)





GENERAL FEATURES

The measurement, control, check and data recording circuits for medium and high power, oil-cooled, oil-insulated electric transformers require to bring current signals outside from the tank.

CEDASPE terminal boxes allow an easy connection between external and internal measuring circuit of transformer tank.

CONSTRUCTION

CEDASPE SM2 Series terminal boxes have the following constructional characteristics:

casing made of sealed aluminium alloy, its flanged shape allows an easy fixation to the transformer tank with welded studs; casing has also a lowered bottom in order to prevent air pockets from forming when the box is fitted to the transformer tank.

The cover, in aluminium alloy too, closes hermetically the case and protects the terminals; a nylon lid links cover and housing to avoid any mistake during wiring operation if more terminal boxes are used on the transformer.

The terminals allow the connection between wiring inside and outside the transformer tank and are designed in a such way to avoid unscrew during assembly or wiring operation

The terminal box is provided with an external identification plate and an internal numbered plate for terminals.

MANUFACTURING PROGRAM

Four box sizes as below:

Terminal box type SM2-XS (pag5-36) : max number of terminal 6 max number of cable exit 2

Terminal box type SM2-S (pag5.37) : max number of terminal 12 max number of cable exit 4

Terminal box type SM2-L (pag5.38) : max number of terminal 36 max number of cable exit 6

Terminal box type SM2-XL (pag5.39) : max number of terminal 53 max number of cable exit 4

Drawings at pages 5-36; 5-37; 5-38 and 5-39 illustrate all different execution and location of terminals in standard execution, on demand special execution can be provided.

SETTING TO WORK

Terminal boxes CEDASPE have to be installed as follows

If required (i.e. when terminal boxes on transformer are 2 or more on the same tank) engrave the number of terminal box on the external plate; if the numbering of wiring is different from the numbering of terminals write conversion numbers on the plate inside the box.

Make the wiring inside transformer tank referring to the plate inside the box; wires lug have to be inserted between the two washer M6 and locked by the antirotational nut.

Fit the terminal box on the transformer tank

Make the wiring outside the tank referring to the plate inside the box following the same procedure as above

WORKING CONDITIONS

All the materials, components and constructional characteristics allow the SM2 Series terminal boxes to be used with environmental temperature

-20°C to + 50°C

relative humidity 95% at 20°C * 80% at 40°C * 50% at 50°C

working temperature (mineral oil) -20°C to +110°C

For particular environmental conditions and /or other working conditions, special versions can be supplied.

TEST

Following routine test are performed on 100% of production:

- Visual and dimensional test
- Leakage test on assembled terminal box
- insulation test between terminals ad body at 2500V for 1 min

Result of tests are reported on test certificate

FINISHING

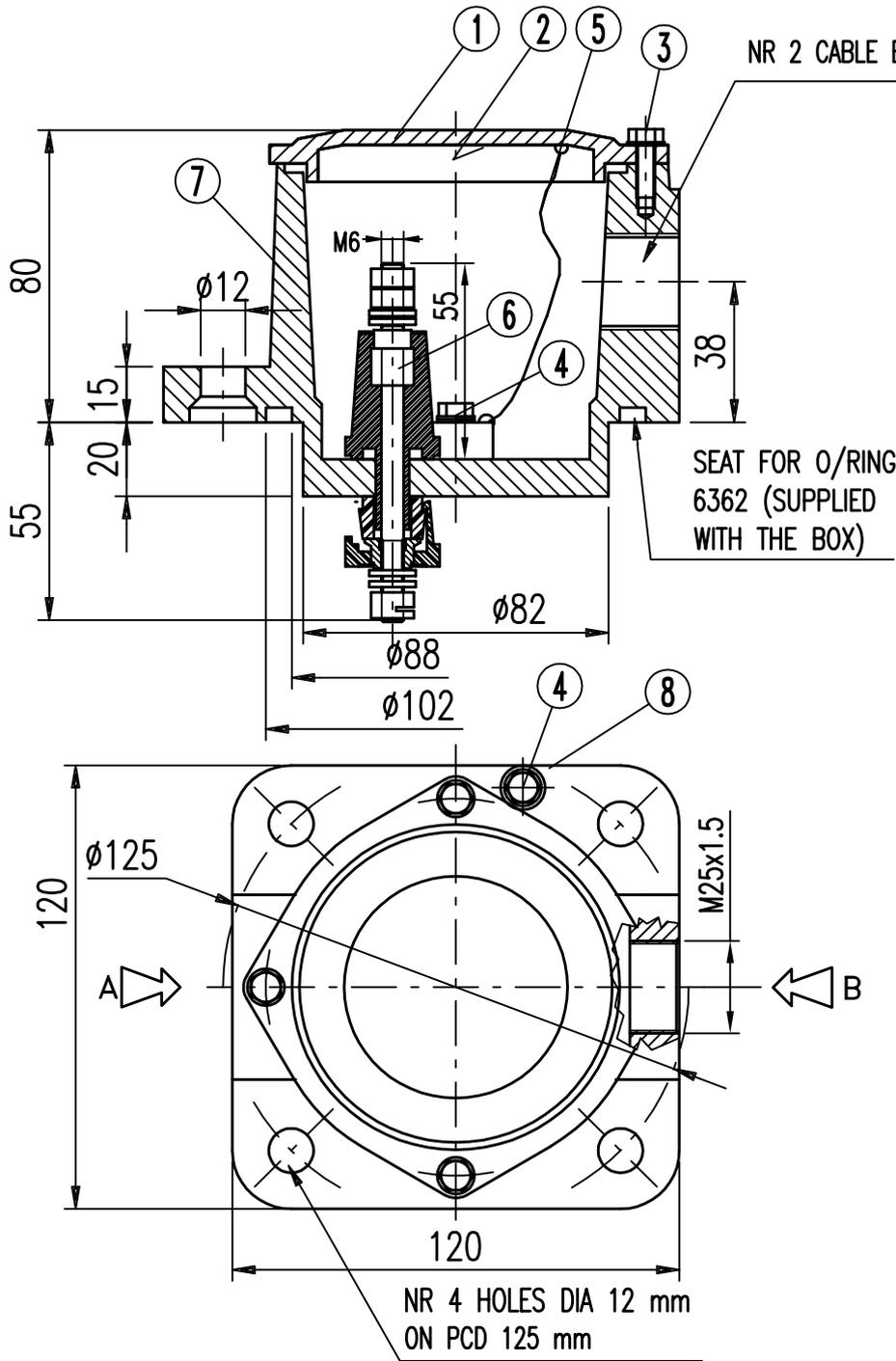
All external fittings are made in s/steel or brass nickel plated; body and cover are painted with one 50 µm-thick coat of two-pack epoxy primer (compatible with mineral transformer oil) on all external and internal surfaces, even those in contact with the oil, plus one 50 µm-thick coat of grey RAL 7030 two-pack polyurethane paint on all external surfaces not in contact with the oil; total thickness 100µm.

ORDERING INSTRUCTIONS

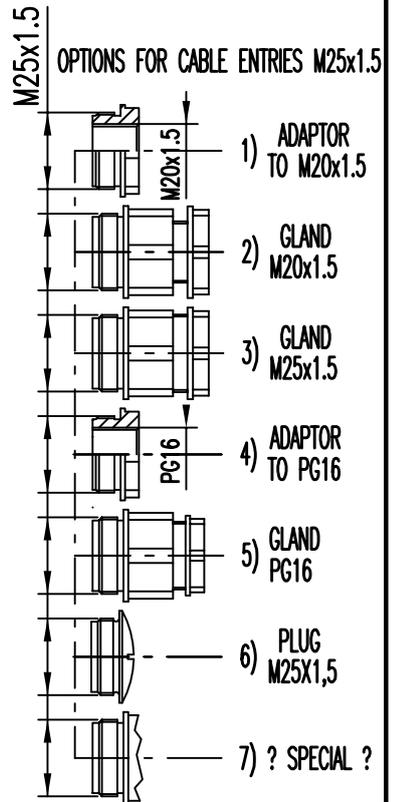
The following information have to be provided to ask an offer or issue an order:

In case of a standard execution: only the code shown on drawing and the additional optional parts

In case of special execution : box size; number of terminals, number of cable exit and their size, special working condition (if present)

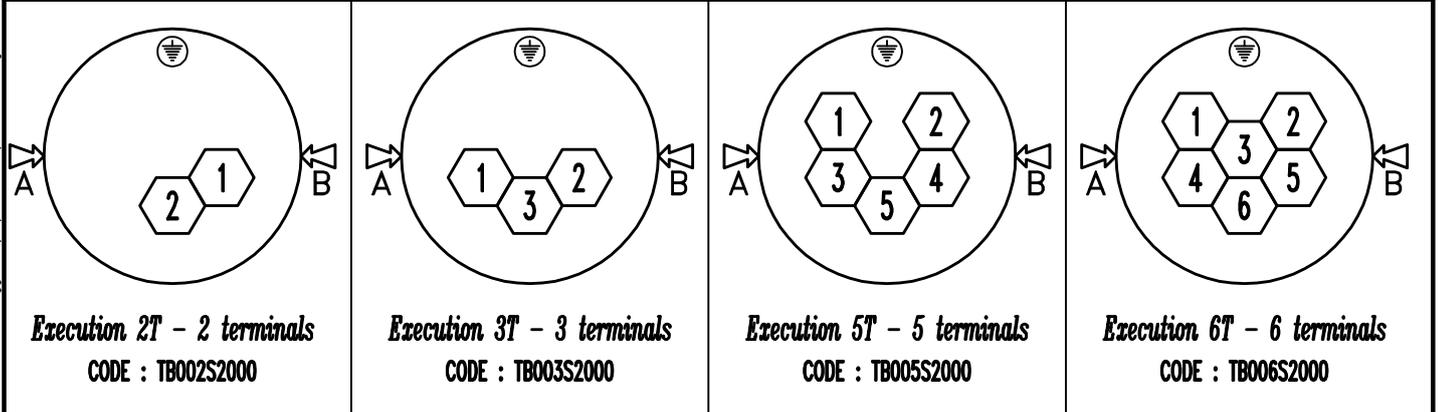


Pos.	DESCRIZIONE / DESCRIPTION
1	COPERCHIO MORSETTIERA TERMINAL BOX COVER
2	TARGHETTA IDENTIFICAZIONE TERMINALE TERMINAL IDENTIFICATION LABEL
3	VITE FISSAGGIO COPERCHIO COVER ASSEMBLY SCREW
4	VITE DI TERRA GROUND TERMINAL
5	CAVO TENUTA COPERCHIO COVER HOLDING SCREW
6	TERMINALE TERMINAL
7	CORPO SCATOLA MORSETTIERA TERMINAL BOX HOUSING
8	TARGHETTA IDENTIFICAZIONE SCATOLA BOX IDENTIFICATION LABEL



SCALA 1:2 SCALE 1:2

Terminals position & numbering in standard execution

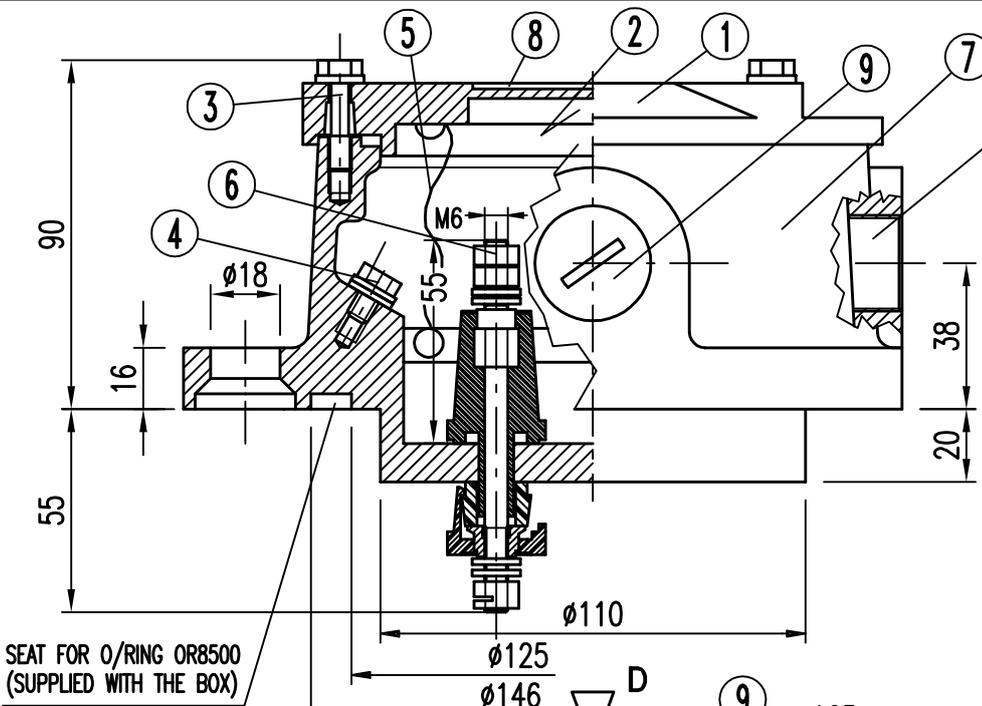


Execution 2T - 2 terminals
CODE : TB002S2000

Execution 3T - 3 terminals
CODE : TB003S2000

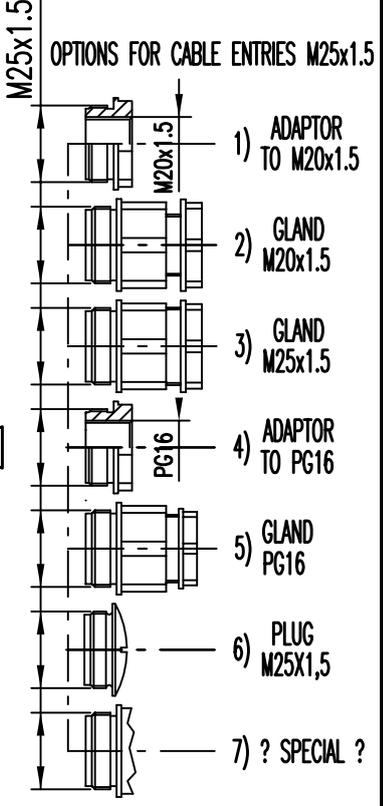
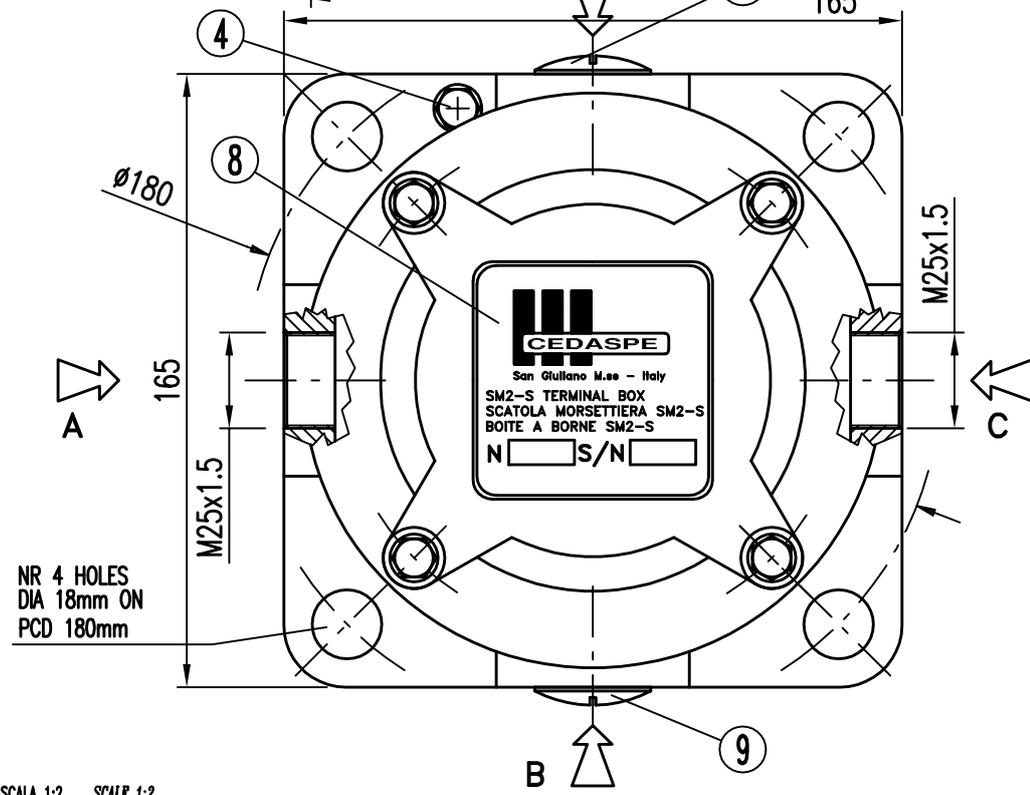
Execution 5T - 5 terminals
CODE : TB005S2000

Execution 6T - 6 terminals
CODE : TB006S2000



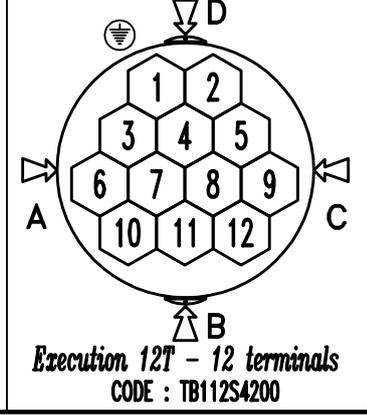
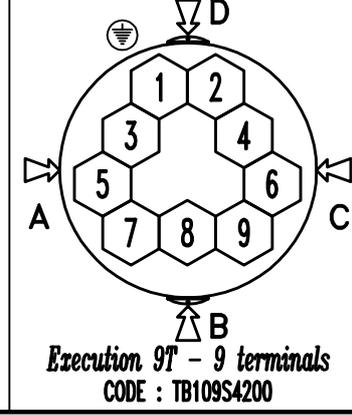
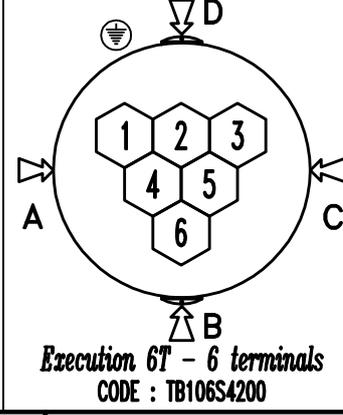
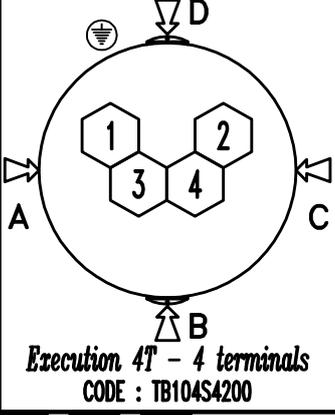
NR 4 CABLE ENTRIES M25x1.5
(2 CLOSED WITH PLUGS)

Pos.	DESCRIZIONE / DESCRIPTION
1	COPERCHIO MORSETTIERA TERMINAL BOX COVER
2	TARGHETTA IDENTIFICAZIONE TERMINALE TERMINAL IDENTIFICATION LABEL
3	VITE FISSAGGIO COPERCHIO COVER ASSEMBLY SCREW
4	VITE DI TERRA GROUND TERMINAL
5	CAVO TENUTA COPERCHIO COVER HOLDING SCREW
6	TERMINALE TERMINAL
7	CORPO SCATOLA MORSETTIERA TERMINAL BOX HOUSING
8	TARGHETTA IDENTIFICAZIONE SCATOLA BOX IDENTIFICATION LABEL
9	TAPPO M25x1,5 PLUG M25x1,5

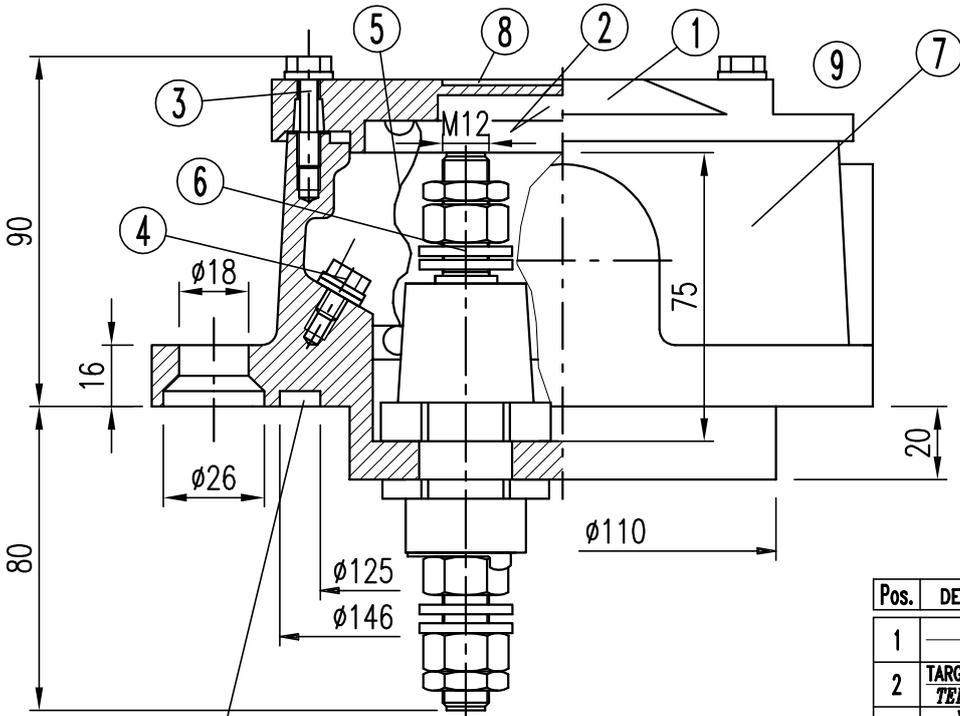


SCALA 1:2 SCALA 1:2

Terminals position & numbering in standard execution

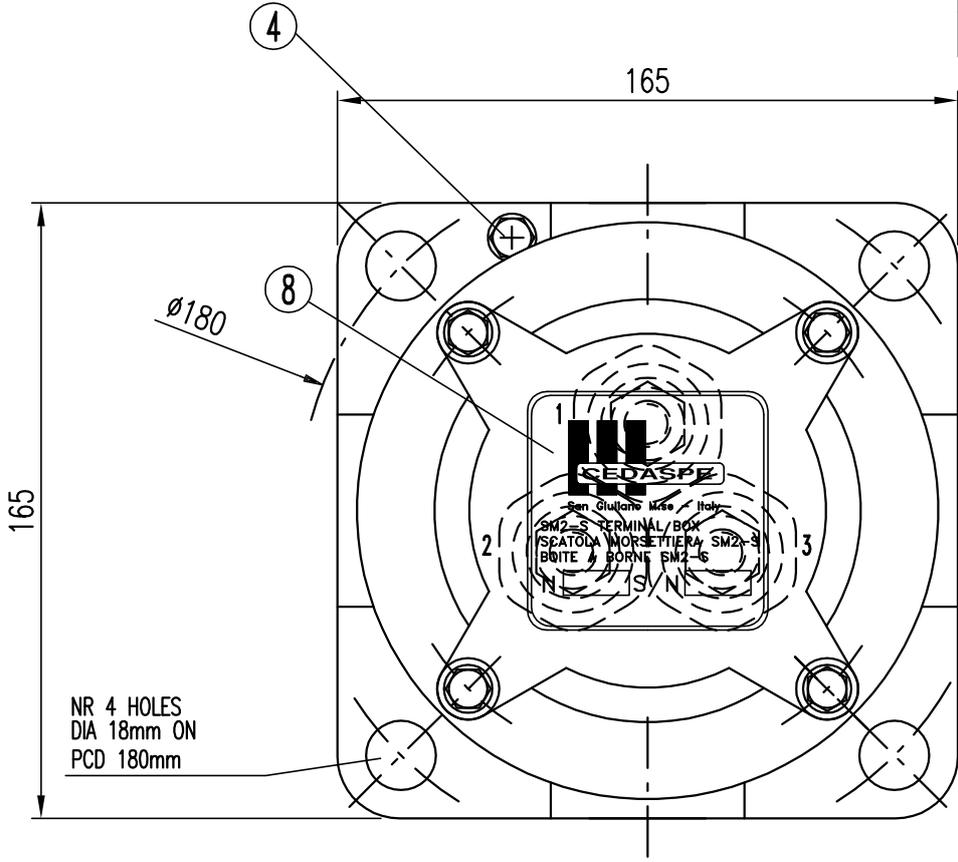


SCATOLA MORSETTIERA TIPO SM2-S
TERMINAL BOX TYPE SM2-S



SEAT FOR O/RING OR8500
(SUPPLIED WITH THE BOX)

Pos.	DESCRIZIONE / DESCRIPTION
1	COPERCHIO MORSETTIERA TERMINAL BOX COVER
2	TARGETTA IDENTIFICAZIONE TERMINALE TERMINAL IDENTIFICATION LABEL
3	VITE FISSAGGIO COPERCHIO COVER ASSEMBLY SCREW
4	VITE DI TERRA GROUND TERMINAL
5	CAVO TENUTA COPERCHIO COVER HOLDING SCREW
6	TERMINALE TERMINAL
7	CORPO SCATOLA MORSETTIERA TERMINAL BOX HOUSING
8	TARGETTA IDENTIFICAZIONE SCATOLA BOX IDENTIFICATION LABEL



NR 4 HOLES
DIA 18mm ON
PCD 180mm

SCALE 1:2



SCATOLA MORSETTIERA MESSA A TERRA NUCLEO
CORE GROUNDING TERMINAL BOX

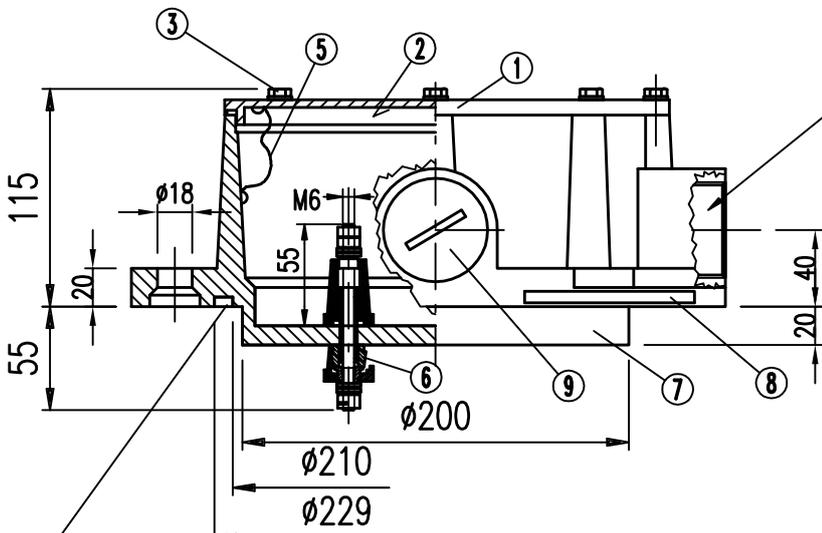
Nr 4 STANDARD CABLE ENTRIES
M50x1.5 (2 CLOSED WITH PLUGS)

FILE = PAG5.39.DWG

LMT [(0,0) (196,286)]

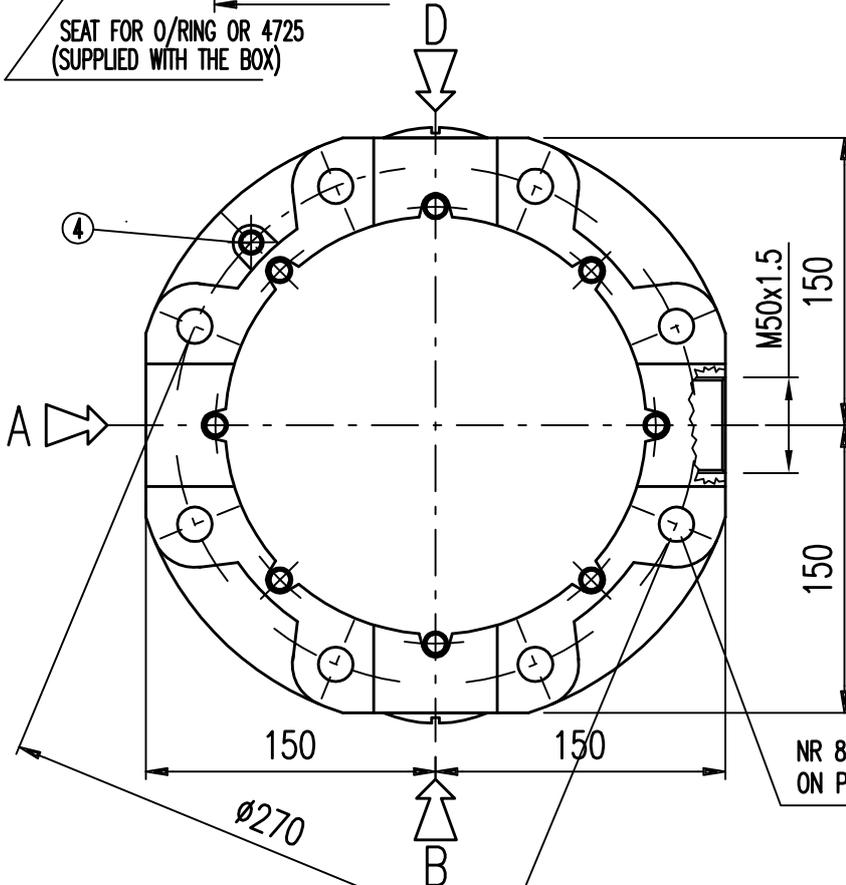
REV. 03 DTD 09/09/08

La CEDASPE S.p.A. si riserva a termini di legge la proprietà del presente disegno con divieto di riprodurlo o comunicarlo a terzi senza sua autorizzazione.



SEAT FOR O/RING OR 4725
(SUPPLIED WITH THE BOX)

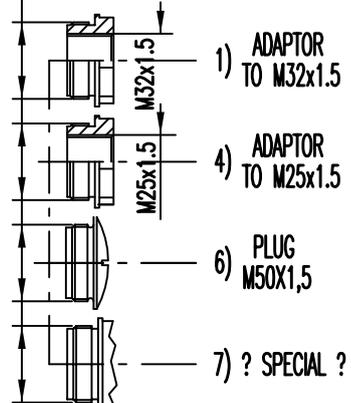
Pos.	DESCRIZIONE / DESCRIPTION
1	COPERCHIO MORSETTIERA TERMINAL BOX COVER
2	TARGHETTA IDENTIFICAZIONE TERMINALE TERMINAL IDENTIFICATION LABEL
3	VITE FISSAGGIO COPERCHIO COVER ASSEMBLY SCREW
4	VITE DI TERRA GROUND TERMINAL
5	CAVO TENUTA COPERCHIO COVER HOLDING SCREW
6	TERMINALE TERMINAL
7	CORPO SCATOLA MORSETTIERA TERMINAL BOX HOUSING
8	TARGHETTA IDENTIFICAZIONE SCATOLA BOX IDENTIFICATION LABEL
9	TAPPO M25x1,5 PLUG M25x1,5



NR 8 HOLES DIA 18 mm
ON PCD 270 mm

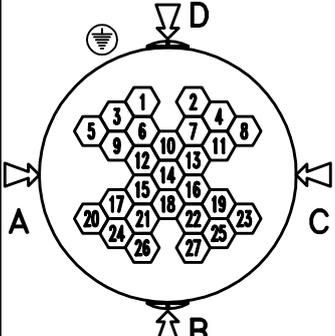
M50x1.5

OPTIONS FOR CABLE ENTRIES M50x1.5

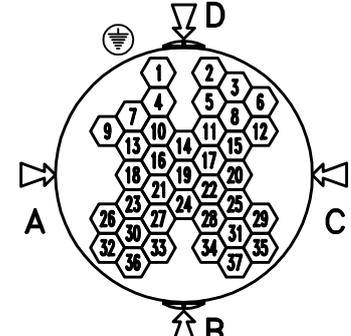


SCALA 1:4 SCALA 1:4

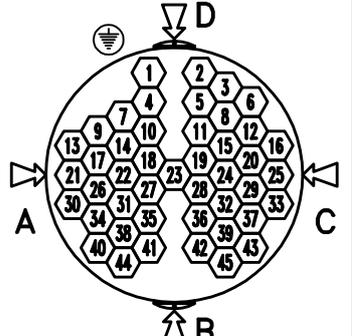
Terminals position & numbering in standard execution



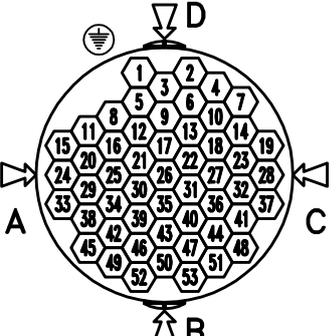
Execution 27T - 27 terminals
CODE : TB327S4200



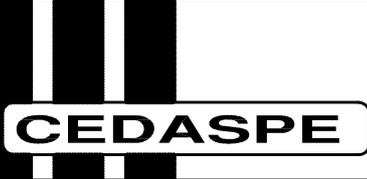
Execution 37T - 37 terminals
CODE : TB337S4200



Execution 45T - 45 terminals
CODE : TB345S4200



Execution 53T - 53 terminals
CODE : TB353S4200



SCATOLA MORSETTIERA TIPO SM2-XL
TERMINAL BOX TYPE SM2-XL