



Box Terminal



TOGI's Box Terminals are the choicest terminal boxes for cable connection of industrial equipment, such as machine tool control, switching, power distribution and instrumentation equipment. The fruit of our rich experience, outstanding development capabilities and intensive testing –

these models offer you the quality of the highest level you can expect in the industry. The basic monocoque design combining box and terminal unit assures easy installation and high cost performance.

BOXTC-Series

☐ Features

- The models of this series feature a mono block structure of box and terminal block. Because of the small size and light weight, it is optimal as a junction for sensor or solenoid wiring.
- The protective class IP-65(IEC) structure enables direct installation on machines and conveyor lines. Also, the terminal blocks can be stacked two- or three-fold.
- Compared with conventional junction boxes, these models realize great labor saving and space saving in installations and wiring.
- The cable diameter can be 3.5mm to 9mm

☐ Examples of Applications

- Junction box for sensor input or solenoid or motor output
- Optimal junction for wiring system involving assembly and disassembly of machinery.

□ Ratings

Rated voltage	AC/DC 250V
Rated current	15A
Insulation resistance	100MΩ or above
Withstand voltage	AC2000V 1min
Applicable wire	1.25mm ² /MAX
Standard clamping torque	1.2N.m(12Kgf.cm)
Protective structure	IP-65(IEC529)
Applicable cable diameter	φ 3.5- φ 9
Operating temperature	-25℃ ~ +60℃

□ Specifications

Box terminal body	Nylon 6 Color5Y7/1
Lid	PBT Color5Y7/1
Terminal screw	M3 × 8



□ Outstanding Environmental Performance

The body resin used by the BOXTM series is a reinforced PBT, which is PBT resin with high environmental resistance mixed with glass fiber. The material was chosen based on the data obtained through many long term running tests of the products on various industrial machinery including machine tools. You can expect reliable operation of the models of this series under a wide range of environmental conditions.

□ Results of chemical resistance tests.

Test solution	Judgment	Test solution	Judgment
Weak acid	◎	Alcohol	◎
Strong acid	△	Ester	○
Oil	◎	Gasoline	◎
Acetone	○	Weak alkali	○
Benzene	○	Strong alkali	×

◎.....Highly resistant and least likely to deteriorate

○.....Minimal weight change and usable depending on conditions

△.....Some weight and dimensional changes and usable for a short time

×.....Not usable due to swelling or dissolution

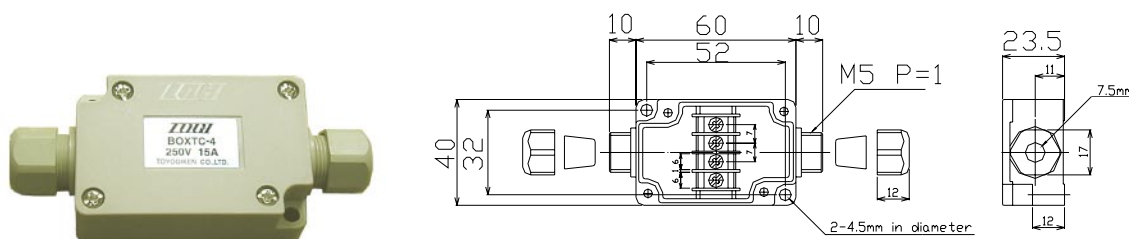
□ Use especially under the following conditions

Use of the BOXTM series featuring reinforced PBT material is strongly recommended especially when oil (cutting oil) may adhere to the box in a hot service environments.

Two each of rubber sleeves and Cable clamps are supplied as accessories for BOXTC Series .

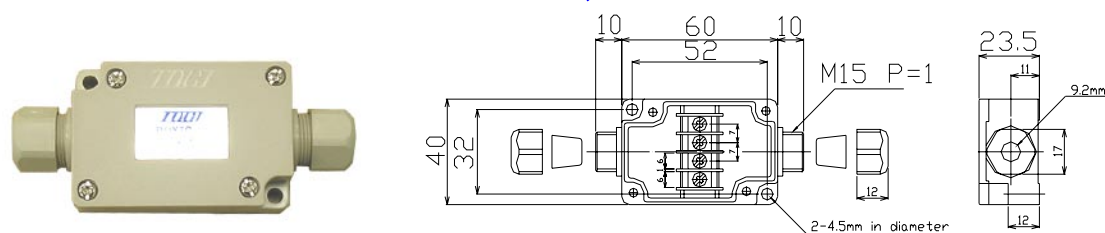
BOXTC-4 (IP65) AC/DC 250V 15A

Recommended cable diameter $\phi 3.5 \sim \phi 7.3$



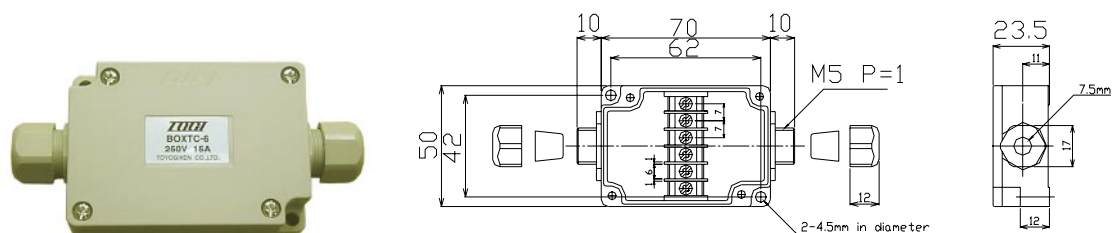
BOXTC-4A (IP65) AC/DC 250V 15A

Recommended cable diameter $\phi 4.0 \sim \phi 5.3$, $\phi 6.0 \sim \phi 9.0$



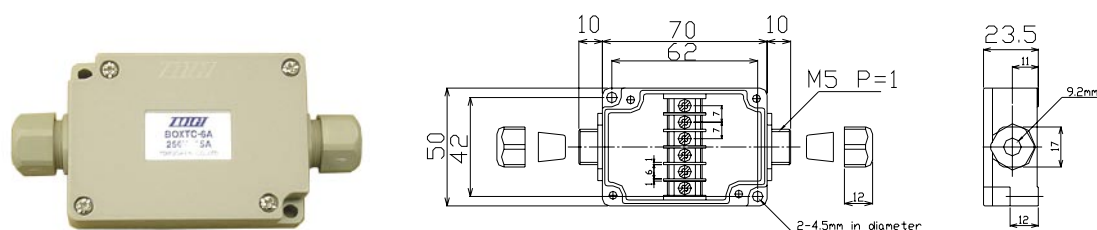
BOXTC-6 (IP65) AC/DC 250V 15A

Recommended cable diameter $\phi 3.5 \sim \phi 7.3$



BOXTC-6A (IP65) AC/DC 250V 15A

Recommended cable diameter $\phi 4.0 \sim \phi 5.3$, $\phi 6.0 \sim \phi 9.0$



BOXTM-Series

□ Features

Light and Strong Box Type with Built in Terminal Unit

The BOXTM series come in the form of compact resin terminal boxes designed for easy installation on industrial equipment.

You are sure to find a number of advantages of the mono block structure combining box and terminal unit. For instance, the time wasted in selecting an applicable terminal model or installing a terminal unit after delivery is now a thing of the past.

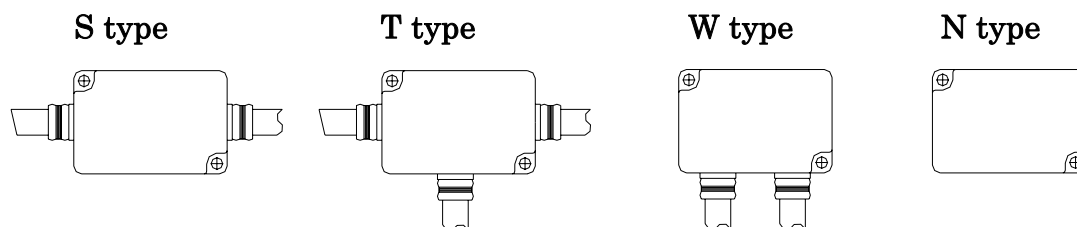
Also , the light weight and compactness allows installation near moving parts or in limited space. The resin material used with the BOXTM series proves quite competent.

For its high quality and easy installation, this series is best suited for applications on industrial machinery, such as machine tools and dedicated machines, as well as in harsh service environment.

□ Common Specifications and Ratings

Rated voltage	AC/DC 600V	Box terminal body	Reinforced PBT(5Y7/1)
Rated current	15A (Box-401 20A)	Terminal screw	M3 × 8
Insulation resistance	100MΩ or above	Gasket	NBR
Withstand voltage	AC2500V 1min	Fire resistance	UL94V-0
Applicable wire	2.0mm ² /MAX	Operating temperature	-25°C ~ +100°C
Standard clamping torque	1.4N.m(14Kgf.cm)	Protective structure	IP-65 & IP-67

1: There are the following four types for the number of wire inlets and their directions

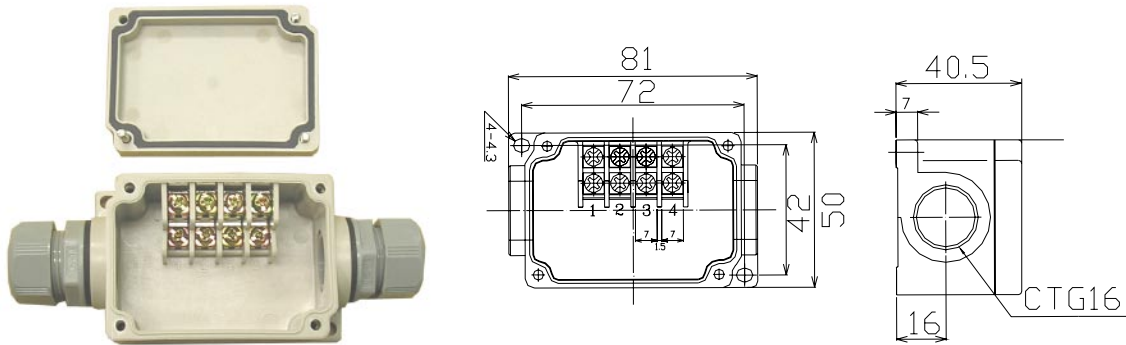


2: Protective structure of Box

All the models of the BOXTM series have protective structure. To protect the live parts and to comply with IP 65 or IP67, please select cable clamps for wiring of the protection grade.

BOXTM-401 (IP67)

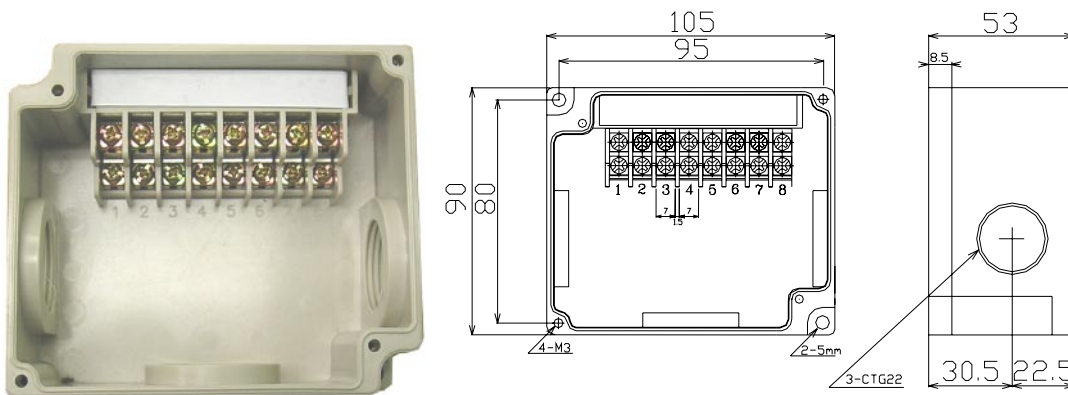
AC/DC 600 V 20A



Cable clamp is an option

BOXTM-801 (IP65)

AC/DC 600 V 15A



BOXTM-802 (IP65)

AC/DC 600 V 15A

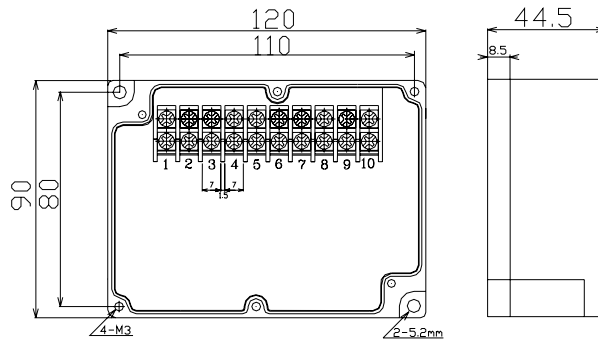
The difference between **BOXTM-801** and **BOXTM-802** is the size of wire inlets hole.

BOXTM-801 : wire inlets hole size is **CTG-22**

BOXTM-802 : wire inlets hole size is **CTG-16**

BOXTM-1001 (IP65)

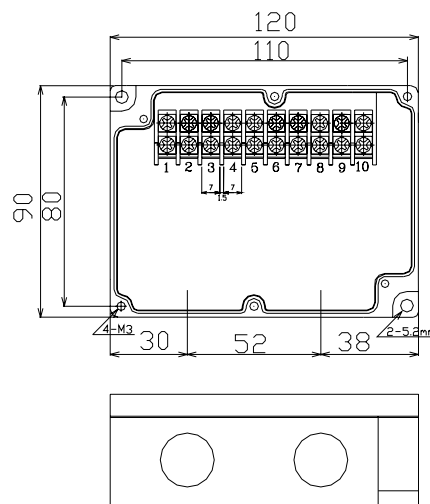
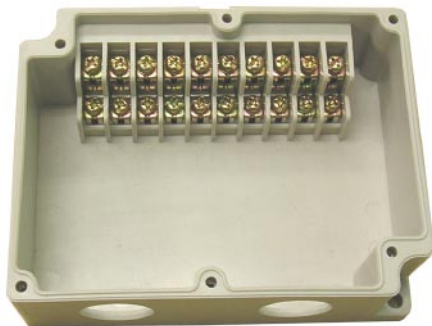
AC/DC 600 V 15A



Holes can be made at your option

BOXTM-1002 (IP65)

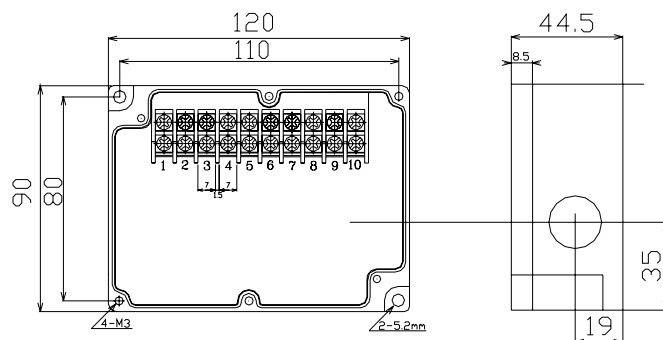
AC/DC 600 V 15A



Wire inlets is W type

BOXTM-1003 (IP65)

AC/DC 600 V 15A



Wire inlets is S type

BOXTM-2000 Series

□ Features

- The terminal block is detachable.
- The terminal block has covers with making seals that can be opened and close.
- Wiring space is provided by the terminal block raised from the bottom of the box.
- The box and other insulating parts employ PBT(UL94V-0) resin that displays superior **heat resistance and chemical resistance**.
- The terminal block mounting plate is provided with a tap (M4) for connection of a grounding conductor.
- This series can be used in various way for various application.
- The protective structure is IP65. (According to the connector specifications)

□ Ratings

Rated voltage	AC/DC 600V
Rated current	15A
Insulation resistance	100M Ω or above
Withstand voltage	AC2500V 1min
Applicable wire	2.0mm ² /MAX
Standard clamping torque	1.4N.m(14Kgf.cm)
Protective structure	IP-65(IEC529)
Operating temperature	-25°C ~ +100°C

□ Specifications

Parts	Material
Box terminal body	Reinforced PBT(5Y7/1)
Lid	Reinforced PBT(5Y7/1)
Gasket	NBR
Terminal block	Reinforced PBT(5Y7/1)
Terminal screw	SWRM M3 × 8

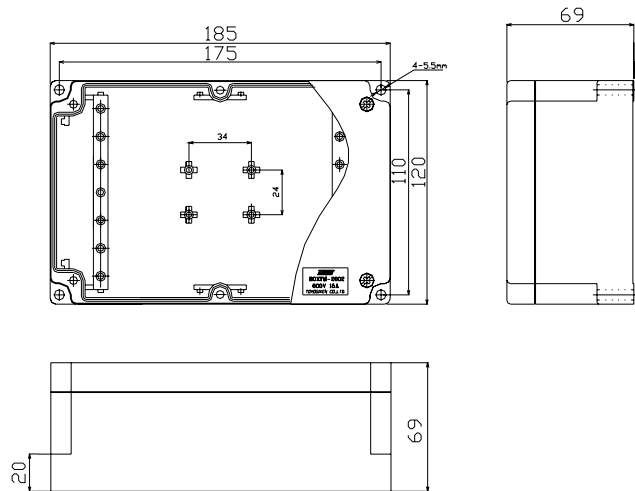
□ Model Designation

BOXTM — 2000



Type	Box Type
2000	Box only Without terminal block, without holes
2001	Box 20poles terminal blocks built in without holes
2002	Box 20poles terminal block built in with holes $\phi 27 \times 2$, $\phi 21 \times 4$
2003	Box only With holes $\phi 27 \times 2$, $\phi 21 \times 4$

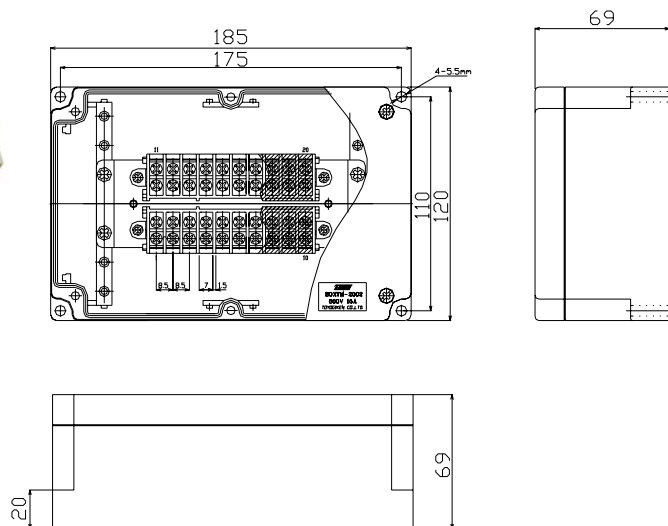
BOXTM-2000 (IP65)



- This model is the body only

Therefore, you can install your terminal block, rails, board or other parts as appropriate.

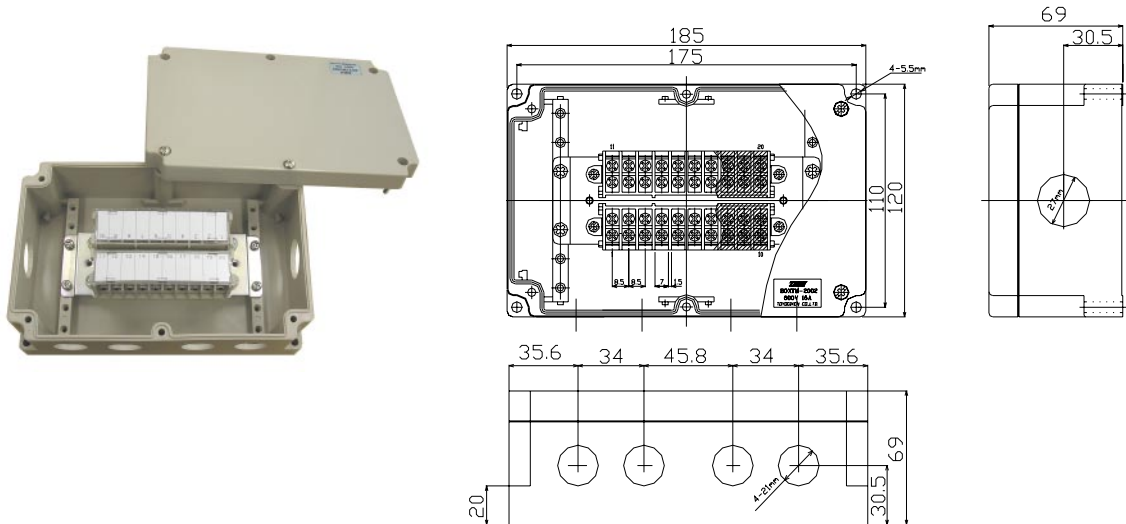
BOXTM-2001 (IP65)



- There is a terminal block(20poles) in the box.

Please drill holes in the box according to the specified drilling position.

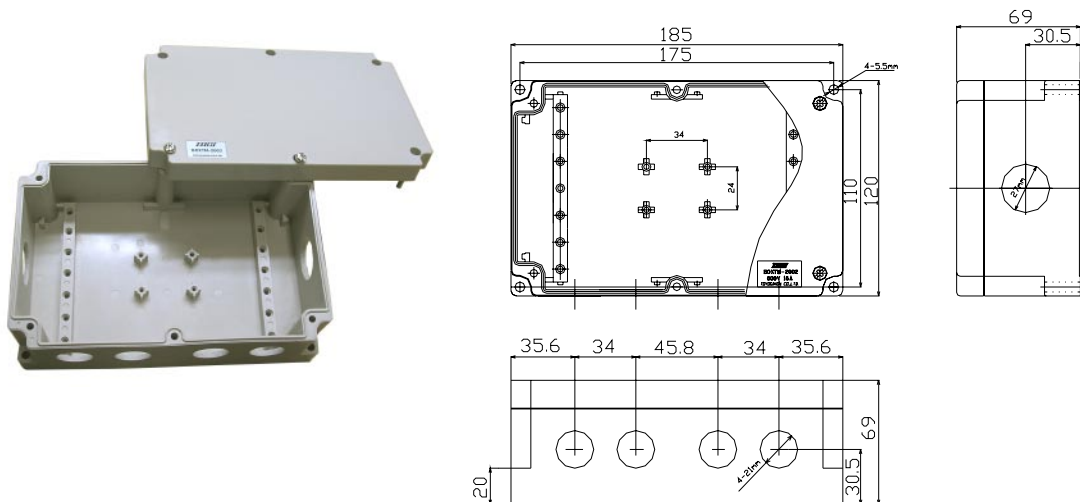
BOXTM-2002 (IP65)



- This is a terminal block (20poles) in the box.

The box has holes (27×2 , 21×4). You are only required to provide waterproof connectors.

BOXTM-2003 (IP65)



- This model is the box only

Therefore, you can install your terminal block, rails, board or other parts as appropriate. The box has holes (27×2 , 21×4).

You are only required to provide waterproof connectors.