

TOYOGIKEN TIBOX®



安全加質量是 TOYOGIKEN TIBOX 箱體的一大成功，加入玻璃纖維的聚碳酸酯有極好的絕緣性能，抗化學腐蝕和抗機械擠壓的性能，根據 EN60529 號標準，達到高要求的 IP66 防護等級，所有的箱體都防塵，防水，能抗 85 度高溫，採用 ABS，PC 等材料制成，外形美觀，性能堅固。TIBOX 廣泛應用於電子、通信、消防設備、控制板、端子箱、PCB 箱、船舶、環境公害設施、住宅設備、水泥、食品、化工藥品、農業畜產業等等。

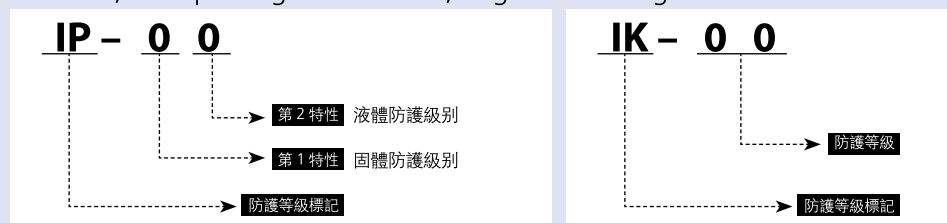
Plusing the high quality of security is to ensure the success of TOYOGIKEN TIBOX in market. Polycarbonate glass fiber with a few good insulation properties, resistance to chemical corrosion and anti-mechanical propeties of extruded, According EN60529 standard, the protect degree is IP66. Dust-proof, waterproof and resistant to high temperature of 85 degrees. Pleasing in appearance and performance in solid quality. Are widely used in electronics, communications, fire prevention facilities, control panels, terminal boxes, PCB containers, ships, household equipment, cement, food, chemical medicine, agriculture and other fields.

TOYOGIKEN TIBOX 產品都具有很好的耐油性、阻燃性和很高的強度。適合各種惡劣的環境下使用真正做到防水、防塵、耐油污，使用通過阻燃性標準 UL94 的材料生產。

TOYOGIKEN TIBOX have a very good oil resistance, flame resistance and high strength. Suitable for a variety of harsh environments.

TIBOX IP.IK 防護等級 TIBOX Ingress Protection Grade

※TIBOX 產品的防水防塵等級為 IP66/67，強度級別為 IK08
Water, dust-proof grade IP66/67, degree of strength IK08



國際電工協會 (IEC) 對電氣儀器或保護裝置的規定如下：

IEC (International Electrotechnical Commission) defines protection structure of electric instruments or protection boxes as follows

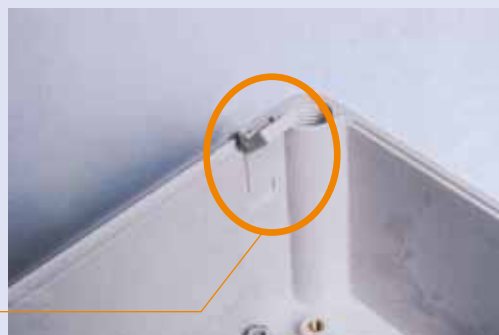
1 項 FIRST NUMBE	固體防護級別 PROTECTION AGAINST SOLID	2 項 SECOND NUMBE	液體防護級別 PROTECTION AGAINST LIQUIDS	1 項 IK CODE	外部衝擊防護級別 PROTECTION AGAINST MECHANICAL IMPACT
IP	測試 (TEST)	IP	測試 (TEST)	IK	測試 (TEST)
0	無保護 No protection		無保護 No protection	0	無保護 No protection
1	超過 50mm 大小固體保護 Protection from sold with size of 50mm over (hand)	1	防垂直降落液體 Protected from faling ctioncl vercaly	01 05	衝擊力小于 1 焦耳 Impact < 1joule
2	超過 12mm 大小固體保護 Protected from solid with size of 12mm over(finger size)	2	防 15 度傾斜角度降落液體 Protected from faling obect with 15 slant	06	衝擊力等于 1 焦耳 Impact=1joule
3	超過 2.5mm 大小固體保護 Protected from solid with size of 2.5mm over(tool, wire size)	3	防 60 度傾斜角度降落液體 Protected from spray with up to 60° slant	07	衝擊力小于 2 焦耳 Impact < 2joule
4	超過 1mm 大小固體保護 Protected from solid with size of 1mm over(tool, wire size)	4	防來自各個方向的潑濺 Protected from spray of all directions	08	衝擊力小于 5 焦耳 Impact < 5joule
5	防塵保護 Protected from dust	5	防止低壓潑濺 Protected from water sprayed with low pressure	09	衝擊力小于 10 焦耳 Impact < 10joule
6	防塵完全保護 Protected from dust perfecty	6	防止高壓潑濺 Protected from water sprayed with high pressure	10	衝擊力小于 20 焦耳 Impact < 20joule
		7	浸在 15cm 到 1m 深的水中半小時防水保護 Protected from sink in water 15cm-1m depth for 30 minutes		
		8	浸在具有壓力 的水中長久防水保護 Protected from sink in water pressure for a long time		

接線盒 Polycarbonate box

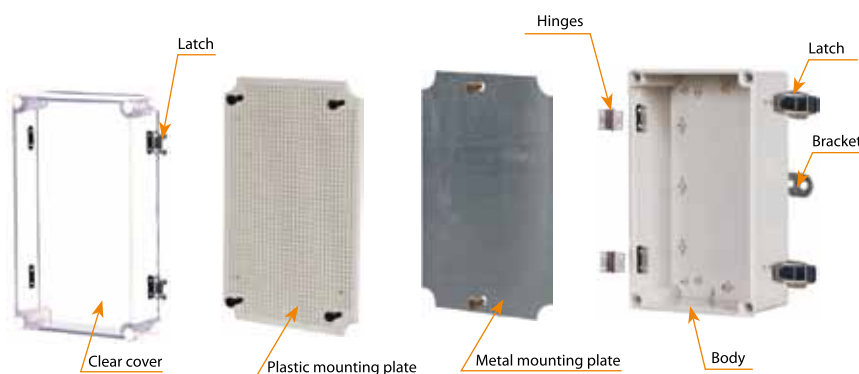


通過支點實現對雙層底板的固定，這種固定方式可以對底板的安裝深度以 1cm 為單位連續調節。
Double plate can be stabilized by the pivot, which is convenient to coordinate the mounting depth of plate continuously at the rate of 1cm.

通過合頁實現對雙層底板的固定，這種固定方式不需要其他的固定裝置，便可以輕鬆的完成。
Double plate can be stabilized by the blade, which can be realized easily without any auxiliary tools.



TIBOX 鎖扣安裝組裝圖 Pictures for mounting TIBOX Latch



TIBOX 螺絲安裝組裝圖 Pictures for mounting TIBOX Screw



接線盒

Polycarbonate box



開關盒，按鈕盒
Switch Box, Button Box

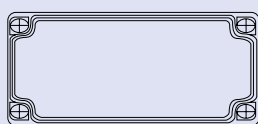
Plastic Enclosure-Switch Box

有極好的絕緣性能，抗化學腐蝕和抗機械擠壓的性能。達到高要求的 IP66 防護等級，所有的箱體都防塵、防水，能抗 80 度高溫。採用 ABS，PC 等材料制成，外形美觀，性能堅固。產品適用於小型終端機、按鈕盒、信號機、繼電器、計量器、通信用接線盒等設備。

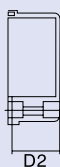
The enclosure is according to EN60529 standard, free from corrosin, compressive property and insulation, widely used in electronics, communications, fire fighting apparatus, control panels, terminal boxes, public accommodation, ship industry, food industry etc. We always give top priority to quality and safety, and your satisfaction is guaranteed. Protection degree:IP66 Temperature range:-40°C to +80°C ABS: Acrulonitrile Butadiene Styrene PC: Poly Carbonate



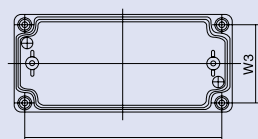
Stainless steel latch+Screw type



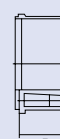
Cover



Allowable error±1mm



Body



Dimension			Screw type		Stainless steel latch +Screw type		Mounting plate		Dimension		
W	H	D	Grey Cover	Clear Cover	Grey Cover	Clear Cover	Plastic	Metal	H3	W3	D1+D2
50 × 65 × 55	DS-AG-0506	DS-AT-0506	DS-AGH-0506	DS-ATH-0506	—	—	52	37	40+15		
65 × 95 × 55	DS-AG-0609	DS-AT-0609	DS-AGH-0609	DS-ATH-0609	—	—	79	50	35+20		
80 × 110 × 45	DS-AG-0811-S	DS-AT-0811-S	DS-AGH-0811-S	DS-ATH-0811-S	DS-0811P	DS-0811	92	62	25+20		
80 × 110 × 60	DS-AG-0811-1S	DS-AT-0811-1S	DS-AGH-0811-1S	DS-ATH-0811-1S	DS-0811P	DS-0811	92	62	35+25		
80 × 110 × 70	DS-AG-0811	DS-AT-0811	DS-AGH-0811	DS-ATH-0811	DS-0811P	DS-0811	92	62	50+20		
80 × 130 × 70	DS-AG-0813	DS-AT-0813	DS-AGH-0813	DS-ATH-0813	DS-0813P	DS-0813	112	62	50+20		
80 × 160 × 55	DS-AG-0816-S	DS-AT-0816-S	DS-AGH-0816-S	DS-ATH-0816-S	DS-0816P	DS-0816	148	68	40+15		
80 × 160 × 90	DS-AG-0816	DS-AT-0816	DS-AGH-0816	DS-ATH-0816	DS-0816P	DS-0816	148	68	75+15		
80 × 180 × 70	DS-AG-0818	DS-AT-0818	DS-AGH-0818	DS-ATH-0818	DS-0818P	DS-0818	162	62	50+20		
80 × 250 × 70	DS-AG-0825	DS-AT-0825	DS-AGH-0825	DS-ATH-0825	DS-0825P	DS-0825	232	62	50+20		
80 × 110 × 85	DS-AG-0811-1	DS-AT-0811-1	DS-AGH-0811-1	DS-ATH-0811-1	DS-0811P	DS-0811	92	62	50+35		
80 × 130 × 85	DS-AG-0813-1	DS-AT-0813-1	DS-AGH-0813-1	DS-ATH-0813-1	DS-0813P	DS-0813	112	62	50+35		
80 × 180 × 85	DS-AG-0818-1	DS-AT-0818-1	DS-AGH-0818-1	DS-ATH-0818-1	DS-0818P	DS-0818	162	62	50+35		
80 × 250 × 85	DS-AG-0825-1	DS-AT-0825-1	DS-AGH-0825-1	DS-ATH-0825-1	DS-0825P	DS-0825	232	62	50+35		
125 × 125 × 75	DS-AG-1212-S	DS-AT-1212-S	DS-AGH-1212-S	DS-ATH-1212-S	DS-1212P	DS-1212	105	105	55+20		
125 × 125 × 100	DS-AG-1212	DS-AT-1212	DS-AGH-1212	DS-ATH-1212	DS-1212P	DS-1212	105	105	80+20		
125 × 175 × 75	DS-AG-1217	DS-AT-1217	DS-AGH-1217	DS-ATH-1217	DS-1217P	DS-1217	157	109	50+25		
125 × 175 × 100	DS-AG-1217-1	DS-AT-1217-1	DS-AGH-1217-1	DS-ATH-1217-1	DS-1217P	DS-1217	157	109	50+50		
140 × 170 × 95	DS-AG-1417	DS-AT-1417	DS-AGH-1417	DS-ATH-1417	DS-1417P	DS-1417	152	122	75+20		
150 × 200 × 100	DS-AG-1520	DS-AT-1520	DS-AGH-1520	DS-ATH-1520	DS-1520P	DS-1520	182	132	80+20		
150 × 200 × 130	DS-AG-1520-1	DS-AT-1520-1	DS-AGH-1520-1	DS-ATH-1520-1	DS-1520P	DS-1520	182	132	80+50		
150 × 250 × 100	DS-AG-1525	DS-AT-1525	DS-AGH-1525	DS-ATH-1525	DS-1525P	DS-1525	232	132	80+20		
150 × 250 × 130	DS-AG-1525-1	DS-AT-1525-1	DS-AGH-1525-1	DS-ATH-1525-1	DS-1525P	DS-1525	232	132	80+50		
200 × 200 × 130	DS-AG-2020	DS-AT-2020	DS-AGH-2020	DS-ATH-2020	DS-2020P	DS-2020	182	182	110+20		
200 × 200 × 95	DS-AG-2020-S	DS-AT-2020-S	DS-AGH-2020-S	DS-ATH-2020-S	DS-2020P	DS-2020	182	182	75+20		
175 × 175 × 100	DS-AG-1717-1	DS-AT-1717-1	DS-AGH-1717-1	DS-ATH-1717-1	DS-1717P	DS-1717	157	157	50+50		
175 × 250 × 75	DS-AG-1725	DS-AT-1725	DS-AGH-1725	DS-ATH-1725	DS-1725P	DS-1725	232	157	50+25		
175 × 250 × 100	DS-AG-1725-1	DS-AT-1725-1	DS-AGH-1725-1	DS-ATH-1725-1	DS-1725P	DS-1725	232	157	50+50		
75 × 125 × 75	DS-AG-0712	DS-AT-0712	DS-AGH-0712	DS-ATH-0712	DS-0712P	DS-0712	107	57	50+25		
75 × 125 × 100	DS-AG-0712-1	DS-AT-0712-1	DS-AGH-0712-1	DS-ATH-0712-1	DS-0712P	DS-0712	107	57	50+50		
140 × 230 × 90	DS-AG-1423	DS-AT-1423	DS-AGH-1423	DS-ATH-1423	DS-1423P	DS-1423	212	122	70+20		
175 × 175 × 75	DS-AG-1717	DS-AT-1717	DS-AGH-1717	DS-ATH-1717	DS-1717P	DS-1717	157	157	50+25		

接線盒 Polycarbonate box



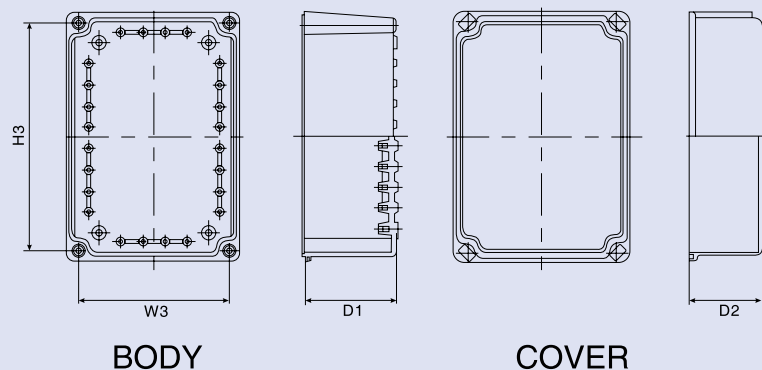
采用高强度 ABS、PC，耐火材料和 UV 添加材料制成，外形美觀大方，具有很高的可塑性和堅固性。適用於端子箱、配電板、儀器盒、電力設備用 BOX 以及控制箱作用方便。

Beautiful appearance, excellent procession and stability should be guaranteed by material such as High Intensity ABS, PC, AC Polyester assured Flammability material and Glass 30% annexing material, The use is convenient for the installation of Terminal Box, the supply Switchboard, Apparatus Box, electrical power supply and Control Box etc.

Plastic Enclosure - Big box

Dimension			Screw type		Stainless steel latch +Screw type		Mounting plate		Dimension		
W	H	D	Grey Cover	Transparent Clear Cover	Grey Cover	Clear Cover	Plastic	Metal	H3	W3	D1+D2
280	190	130	DS-AG-2819	DS-AT-2819	DS-AGH-2819	DS-ATH-2819	DS-2819P	DS-2819	255	165	100+30
280	190	180	DS-AG-2819-1	DS-AT-2819-1	DS-AGH-2819-1	DS-ATH-2819-1	DS-2819P	DS-2819	255	165	100+80
280	280	130	DS-AG-2828	DS-AT-2828	DS-AGH-2828	DS-ATH-2828	DS-2828P	DS-2828	255	255	100+30
280	280	180	DS-AG-2828-1	DS-AT-2828-1	DS-AG-2828-1	DS-ATH-2828-1	DS-2828P	DS-2828	255	255	100+80
280	340	130	DS-AG-2834	DS-AT-2834	DS-AGH-2834	DS-ATH-2834	DS-2834P	DS-2834	255	315	100+30
280	340	180	DS-AG-2834-1	DS-AT-2834-1	DS-AGH-2834-1	DS-ATH-2834-1	DS-2834P	DS-2834	255	315	100+80
280	380	130	DS-AG-2838	DS-AT-2838	DS-AGH-2838	DS-ATH-2838	DS-2838P	DS-2838	255	355	100+30
280	380	180	DS-AG-2838-1	DS-AT-2838-1	DS-AGH-2838-1	DS-ATH-2838-1	DS-2838P	DS-2838	255	355	100+80

Dimension (允許誤差: ±1mm)



接線盒
Polycarbonate box



安裝底板
Mounting Plate



盒蓋螺絲
Cover Screw



盒 蓋
Cover

Plastic Enclosure

Dimension	Grey Cover	Transparent Cover	Metal Mounting plate	Dimension		
				H3	W3	D1+D2
100 × 100 × 50	TB-AG-1010	TB-AT-1010	DS-1010	80	80	40+14
120 × 80 × 50	TB-AG-0812	TB-AT-0812	DS-0812	100	67	40+14
150 × 110 × 70	TB-AG-1115	TB-AT-1115	DS-1115	137	98	49+25
190 × 140 × 70	TB-AG-1419	TB-AT-1419	DS-1419	176	127	51+25
240 × 190 × 90	TB-AG-1924	TB-AT-1924	DS-1924	220	170	70+26
300 × 220 × 120	TB-AG-2230	TB-AT-2230	DS-2230	280	200	76+50
380 × 300 × 120	TB-AG-3038	TB-AT-3038	DS-3038	332	253	78+50

接線盒 Polycarbonate box



在熱銷種的塑料盒產品中，NICE BOX 的功能和作業性最爲優越，齊全，便于使用。

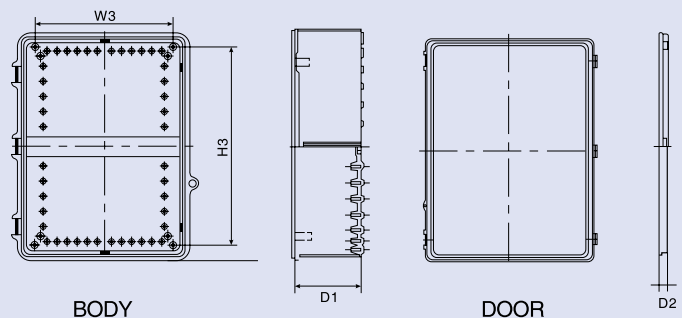
Out of the plastic boxes which are selling at present, It's ability is most excvlient, and the competitivepover is mush higher but the low price is at the level of steel Box. The products were added the eletromagnetlo intorference(EMI) and preventiing substance of the static electricly, and the strong point was given to the relevant mechanical protection of electricity, electron and etc.

The Uses are possible according to the size, size such as, small Terminal Box, Signal, Terminal and Pull, Control Box etc.

Plastic Enclosure - Plastic latch+hinge type

Dimension W H D	Plastic latch+hinge type		Mounting plate		Dimension		
	Grey Cover	Transparent Cover	Plastic	Metal	H3	W3	D1+D2
100 × 150 × 70	NE-AG-1015	NE-AT-1015	DS-1015P	DS-1015	116	66	50+20
100 × 200 × 70	NE-AG-1020	NE-AT-1020	DS-1020P	DS-1020	165	65	50+20
150 × 150 × 90	NE-AG-1515	NE-AT-1515	DS-1515P	DS-1515	120	115	70+20
170 × 220 × 110	NE-AG-1722	NE-AT-1722	DS-1722P	DS-1722	186	136	80+30
190 × 290 × 140	NE-AG-1929	NE-AT-1929	DS-1929P	DS-1929	254	156	110+30
300 × 300 × 140	NE-AG-3030-S	NE-AT-3030-S	DS-3030P	DS-3030	280	280	107+30
290 × 390 × 160	NE-AG-2939	NE-AT-2939	DS-2939P	DS-2939	361	251	132+28
250 × 350 × 150	NE-AG-2535	NE-AT-2535	DS-2535P	DS-2535	312	212	120+30
365 × 465 × 180	NE-AG-3546	NE-AT-3546	DS-3546P	DS-3546	433	323	150+30
400 × 500 × 200	NE-AG-4050	—	DS-4050P	DS-4050	448	346	170+30
396 × 595 × 220	NE-AG-4060	—	DS-4060P	DS-4060	545	347	190+30

Dimension (允許誤差: ± 1mm)
(Allowable tolerance: ± 1mm)



接線盒 Polycarbonate box

Plastic latch+Hinge type



Dimension (尺寸) W × H × D	Grey door Model	Clear door Model	Dimension		
			H3	W3	D1+D2
200 × 300 × 150	NE-AG-2030-S	NE-AT-2030-S	260	160	120+30
200 × 300 × 180	NE-AG-2030	NE-AT-2030	270	170	130+50
300 × 300 × 180	NE-AG-3030	NE-AT-3030	270	270	130+50
300 × 400 × 180	NE-AG-3040	NE-AT-3040	370	270	130+50

Locks+hinge type



Dimension (尺寸) W × H × D	Grey door Model	Clear door Model	Dimension		
			H3	W3	D1+D2
200 × 300 × 180	NE-KG-2030	NE-KT-2030	270	170	130+50
300 × 300 × 180	NE-KG-3030	NE-KT-3030	270	270	130+50
300 × 400 × 180	NE-KG-3040	NE-KT-3040	370	270	130+50

接線盒
Polycarbonate box



* DS-PG-20P *DS-PG-15P

* 變熱型溫度: -40℃ ~ +130℃

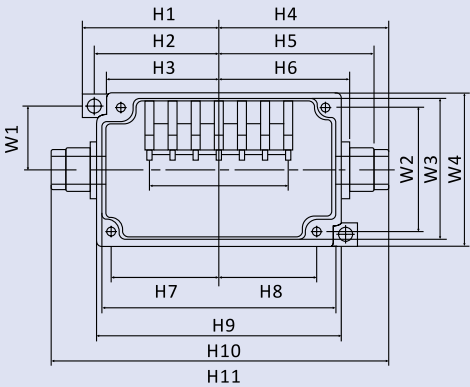
- 材質: Polyester
- 根據用途, 生產 AC、ABS、PC 材質的產品。
- 顏色: 蓋 (灰色)、主機 (灰色)

* Temperature range: -40℃ ~ +130℃

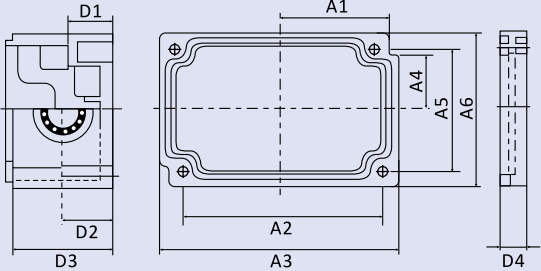
- Material: Polyester
- According to its usage, products being made of ABS, PC, or PC.
- Color: cover(grey); body(grey).

型 號 TYPE	長 × 寬 × 高 W×D×H (Unit: mm/inch 包括蓋子)
DS-MTB-4P	70 × 50 × 40/2.76 × 1.97 × 1.57
DS-MTB-6P	80 × 55 × 40/3.15 × 2.17 × 1.57
DS-PG-10P	110 × 75 × 40/3.74 × 3.74 × 1.57
DS-PG-15P	100 × 200 × 70 / 3.94 × 7.87 × 2.76
DS-PG-20P	160 × 170 × 70 / 6.3 × 6.69 × 2.76

Model\Division	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	W1	W2	W3	W4	D1	D2	D3	D4	A1	A2	A3	A4	A5	A6
DS-MTB-6P	47.5	43.5	39.5	60.5	53.5	44.5	37.5	34.5	81	85	121	23.5	45	51	55	14.5	16	32	8	39.5	72	85	20.5	45	55
DS-MTB-4P	40	36	32	50	45	37	30	27	66	70	100	21	40	46	50	14.5	16	32	8	32	57	70	18	40	50



BODY



COVER

接線盒

Polycarbonate box

☐ Ratings

Rated voltage	AC/DC 250V
Rated current	15A
Insulation resistance	100M Ω 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°C ~ +60°C

☐ Specifications

Box terminal body	Nylon 6 Color5Y7/1
Lid	PBT Color5Y7/1
Terminal	screw M3 $\times$ 8

☐ Outstanding Environmental Performance

The body resin used by the BOXTC 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

接線盒

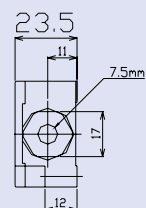
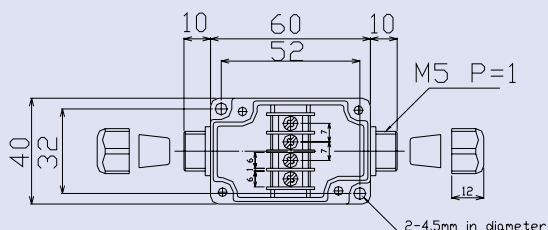
Polycarbonate box

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

BOXTC-4 (IP65)

AC/DC 250V 15A

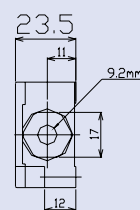
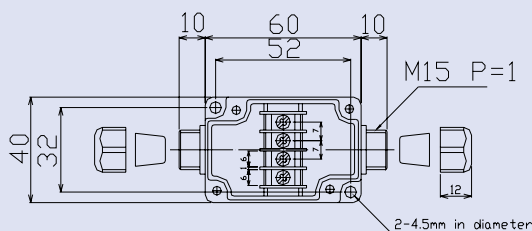
Recommended cable diameter $\phi 3.5 \sim \phi 7.3$



BOXTC-4A (IP65)

AC/DC 250V 15A

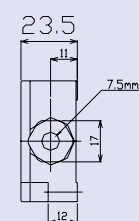
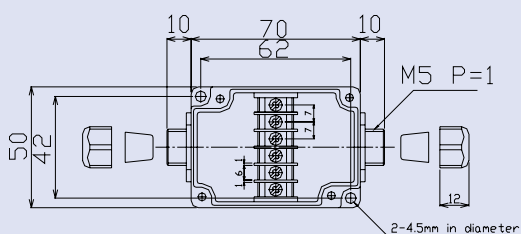
Recommended cable diameter $\phi 4.0 \sim \phi 5.3, \phi 6.0 \sim \phi 9.0$



BOXTC-6 (IP65)

AC/DC 250V 15A

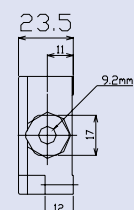
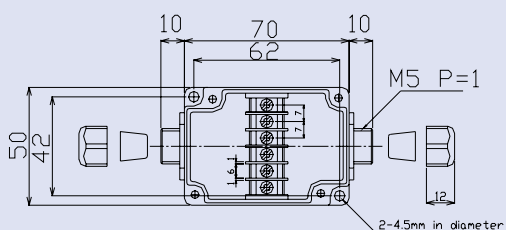
Recommended cable diameter $\phi 3.5 \sim \phi 7.3$



BOXTC-6A (IP65)

AC/DC 250V 15A

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



玻璃纖維箱 Polyester Enclosure



玻璃纤维箱

MIP 系列是新型的開關箱，它由玻璃纖維強化多元酯所製造，達到 IP66、IK9 等級。多元酯的特性是它本身混合 30% 玻璃纖維來強化，使它達到一個高電阻和機械剛度 (IK9) 與重量約 1/3 的金屬箱的效果，同金屬箱相比，MIP 系列具有重量更輕，更適應腐蝕、潮濕的環境等優點。

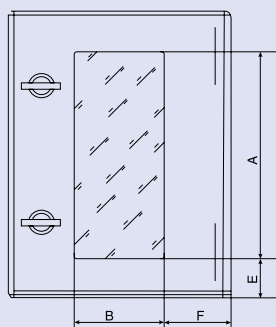
Polyester Enclosure

MIP series is a new type, made of polyesters. The characteristics of the polyesters is its own mix 30% fibre glass, make it reach high resistance and mechanical stiffness, have the same effect of metal enclosure which is 3times heavier than it. Compared with metal enclosure, TIP series is lighter, more adequate for corrosion and dankish environment.

Dimension			Model 型號		Metal Mounting plate		Dimension			
W	H	D	Grey Door 灰色門	Transparent Door 透明門	底 板		A	B	C	D
250 × 300 × 140			MIP-325	MIP-325PT	MP-325		310	150	248	175
300 × 400 × 200			MIP-43	MIP-43PT	MP-43		280	120	60	90
400 × 400 × 200			MIP-44	MIP-44PT	MP-44		280	220	60	90
400 × 500 × 200			MIP-54	MIP-54PT	MP-54		380	220	60	90
400 × 600 × 230			MIP-64	MIP-64PT	MP-64		480	220	60	90
500 × 600 × 230			MIP-65	MIP-65PT	MP-65		480	320	60	90
600 × 800 × 300			MIP-86	MIP-86PT	MP-86		680	420	60	90

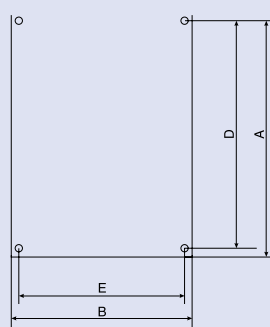
玻璃纖維箱 Polyester Enclosure

透明門
Transparent Door



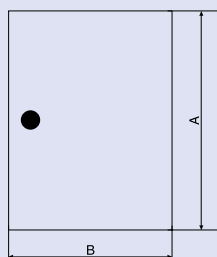
Model	A	B	E	F
MIP-325	220	115	35	75
MIP-43	281	141	52	80
MIP-44	281	221	52	90
MIP-54	381	221	52	90
MIP-64	481	221	52	90
MIP-65	481	321	52	90
MIP-86	681	421	52	90

底板
Mounting plate



Model	A	B	E	F
MP-325	268	213	248	175
MP-43	358	260	338	222
MP-44	358	360	338	322
MP-54	458	360	438	322
MP-64	558	360	538	322
MP-65	558	460	538	422
MP-86	754	556	734	518

裏門
Inner door



Model	A	B
MIP-43	366	258
MIP-44	366	358
MIP-54	466	358
MIP-64	566	358
MIP-65	566	458
MIP-86	766	658

Blank lined area for writing the memo.