

10

단자대류

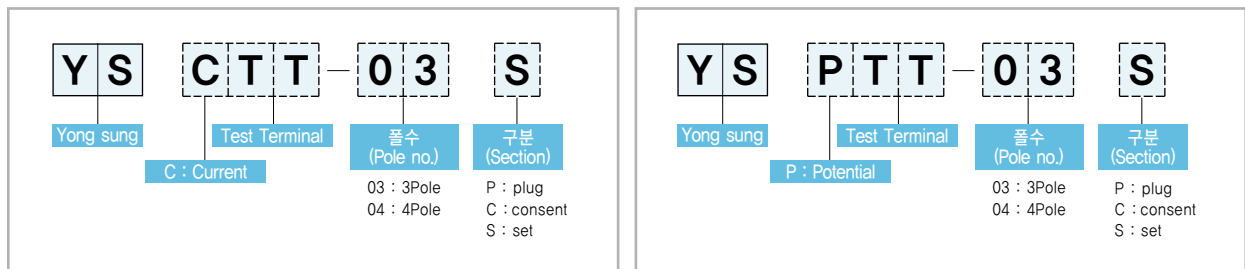
TERMINAL BLOCKS

10-1 시험용 단자대	10-1 Test Terminal Block
10-2 단락회로부 단자대	10-2 Common Terminal Block
10-3 고정식 단자대	10-3 Fixing Terminal Block
10-4 조립식 단자대	10-4 Assembly Terminal Block
10-5 2단 조립식 단자대	10-4 2 Layer Assembly Terminal Block

10-1

시험용 단자대 Test Terminal Block

형식 구분도 | Type Classification Diagram |



특징 | Features |

- 당사의 제품은 전류용, 전압용으로 구분 되어 있습니다. (플러그 삽입이 불가능함)
- 단자Plug 삽입시 회로가 열리지 않도록 접촉자를 설치한 안전한 구조로 되어 있습니다.
- 접촉자의 접촉은 Spring에 의한 탄력형이므로 신뢰성이 높습니다.
- 성형 재질은 ABS를 사용하였으므로 절연성, 내충격성이 우수합니다.
- 단자의 종류는 3P, 4P로 구분되어 있습니다.
- Our product is divided into electronic current parts and voltage parts. (not possible to insert a plug)
- Terminal is of the safe construction installed auxiliary contactor preventing circuit opening when plug inserting.
- As contacting of contactor is coasting type by spring, reliability is high.
- With using ABS resin of molding material, insulation and impact resistance are excellent.
- Terminal types are divided into 3P, 4P.

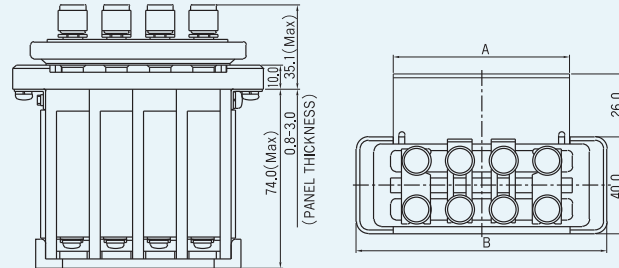
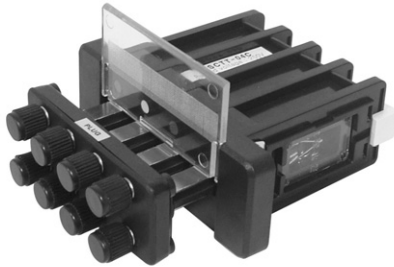
성능 개요 | Performance Summary |

형 식 (Type)	용 도 (Application)	정 격 (Rating)	성 능 (Performance)
YS CTT-03S YS CTT-04S	전류용 (for Current)	AC250V 10A	절연저항 (Insulation resistance) : above 100MΩ (DC 500V, Meg) 내전압 (Withstand voltage : AC 2,500V/min)
YS PTT-03S YS PTT-04S	전압용 (for Voltage)		

외형 / 치수도 | Shape / Dimension Drawing |

(unit : mm)

Test Terminal



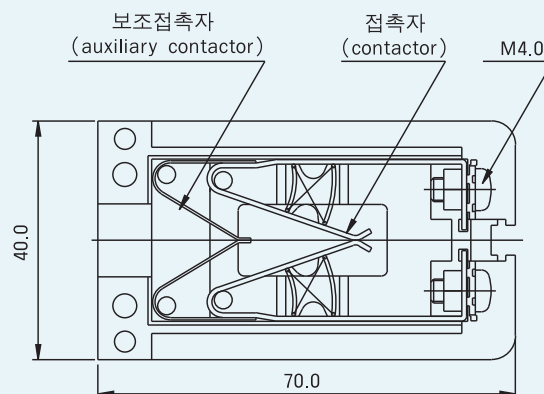
치수구분표

	3P	4P
A	54.8	72.8
B	88.0	106.8

구조 설명 | Structure Explanation |

Plug를 삽입하면 보조접촉자가 개방되어도 접촉자는 개방되지 않는 구조로서, Plug가 접촉자를 개방하기 전에 보조접촉자가 Plug와 연결되므로 회로가 개방되는 일이 없고 평상시에는 보조접촉자가 접촉자의 접촉을 보호해 주는 역할을 합니다.

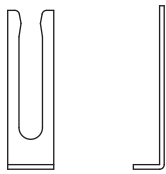
As the structure which contactor is not opened even if auxiliary contactor opened when plugging in, circuit is never opened since auxiliary contactor is connected to plug before opening contactor by plug and, in normal time, auxiliary contactor plays a protective role of contactor's contacting.



제품 설명서 | Manual of Product |

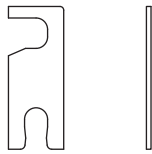
- PTT와 CTT로 구분되어 있으며, Plug 및 Consent 전면부 Color와 형상으로 구분됩니다.
(PTT : RED, CTT : BLACK)
- Common Bar는 별도 포장 되어있습니다.
(CTT 3P : A형 1EA, B형 2EA, C형 1EA),
(CTT 4P : A형 2EA, B형 2EA, D형 1EA)
- Consent는 전면 보호 Cover가 부착 되었습니다.
- It is divided by PTT and CTT, also Plug, front color on Consent and shape.
(PTT : RED, CTT : BLACK)
- Common Bar is packed.
(CTT 3P : A type 1EA, B type 2EA, C type 1EA),
(CTT 4P : A type 2EA, B type 2EA, D type 1EA)
- Front protect cover is attached on Consent.

Common Bar 종류 (Classification Common Bar)



(정면 · Front) (측면 · Side)

A TYPE



(정면 · Front) (측면 · Side)

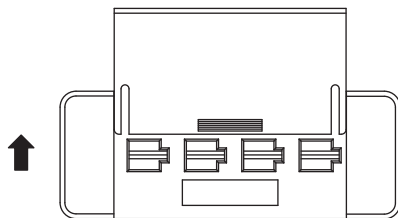
B TYPE



C TYPE (3P전용)



D TYPE (4P전용)



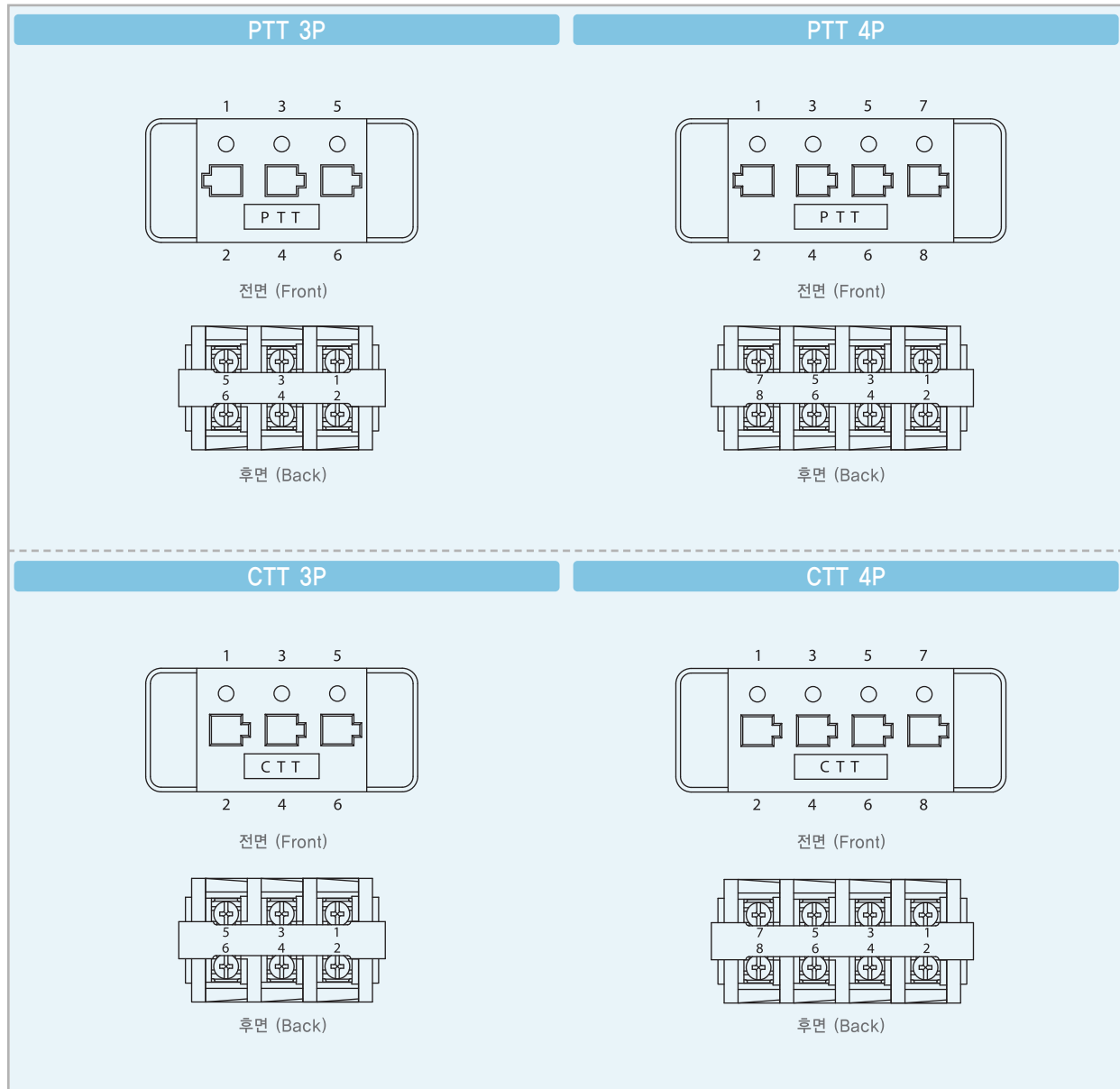
Plug 사용시 (When use Plug)



Plug 사용후 (After use Plug)

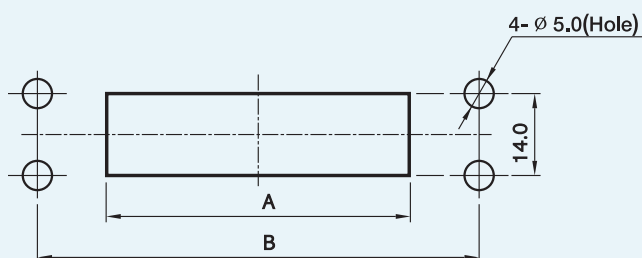
- ※ 주의 : Plug 사용 후 반드시 보호 Cover를 제 위치로 복귀하여 Consent에 이물질이 들어가지 않도록 하십시오.
- ※ Caution : After use Plug, make sure to return protect cover to original position so that foreign bodies do not go into Consent.

외형 구분도 | Shape of Classification Diagram |



판넬 가공 치수 | Cut-out Dimension |

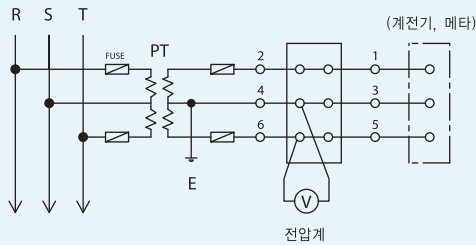
(unit : mm)



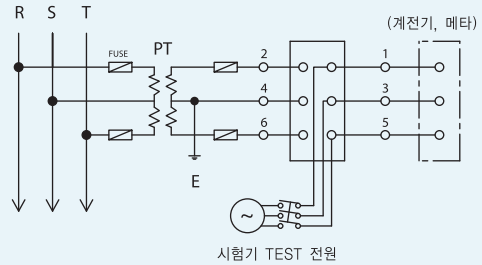
극수(Pole number)	3P	4P
기호(symbol)		
A	52.0	70.0
B	74.3	93.8

표준 회로도 | Standard Circuit Diagram

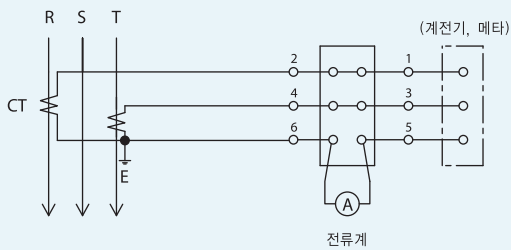
PTT 3P



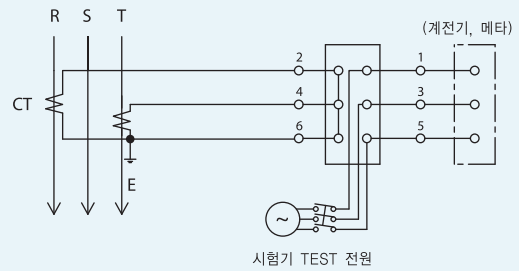
PTT 4P



CTT 3P



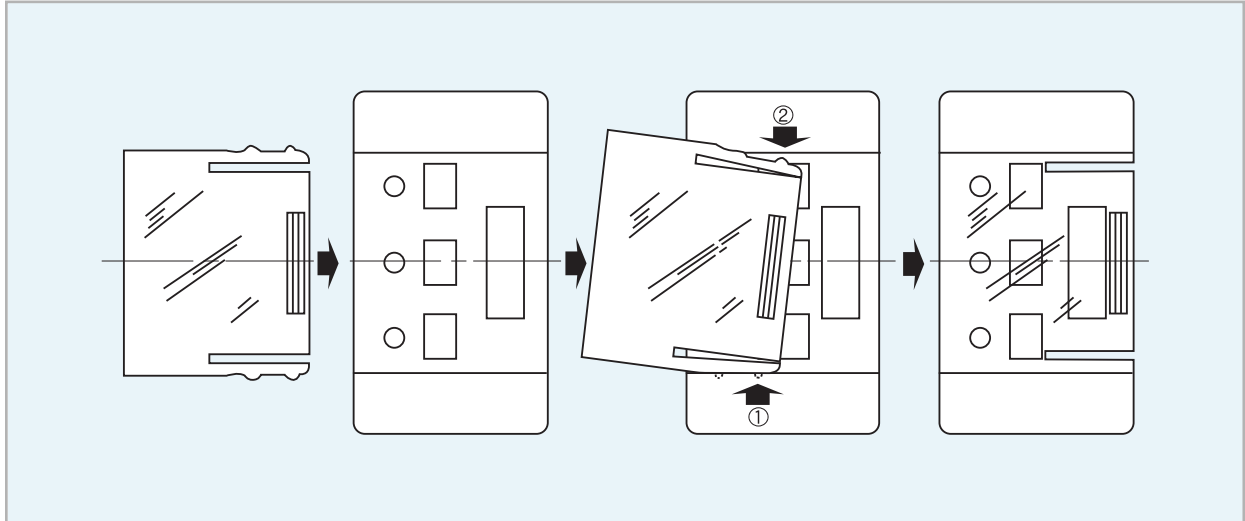
CTT 4P



- ※ 제품 결선 시 주의사항
 - ① Consent Number Plate 결선번호 확인.
 - ② Number Plate 결선번호에 따라 결선.
 - ③ Consent 결선번호에 준하여 Plug Common Bar 조립.
- ※ Instruction when wiring
 - ① Checking wiring number of Consent Number Plate.
 - ② Wiring by wiring number of Number plate.
 - ③ Assembling Plug Common Bar according as wiring number of Consent.
- ※ 경고 : 인명사고 및 막대한 재산상의 피해가 발생할 수 있으므로 반드시 지켜주십시오.
 - TEST TERMINAL 사용 시는 CT 1차측 전원이 없는 상태에서 사용 하십시오.
 - CTT : CT회로가 개방되지 않도록 주의 하십시오.
 - PTT : PT회로가 단락되지 않도록 주의 하십시오.
- ※ Warning : Make sure to follow because casualties and property damage may cause.
 - When use TEST TERMINAL, use it with no CT first power.
 - CTT : Be careful not to open CT circuit.
 - PTT : Be careful not to break PT circuit.

Front Cover 조립 방법 | How to Assemble Front Cover |

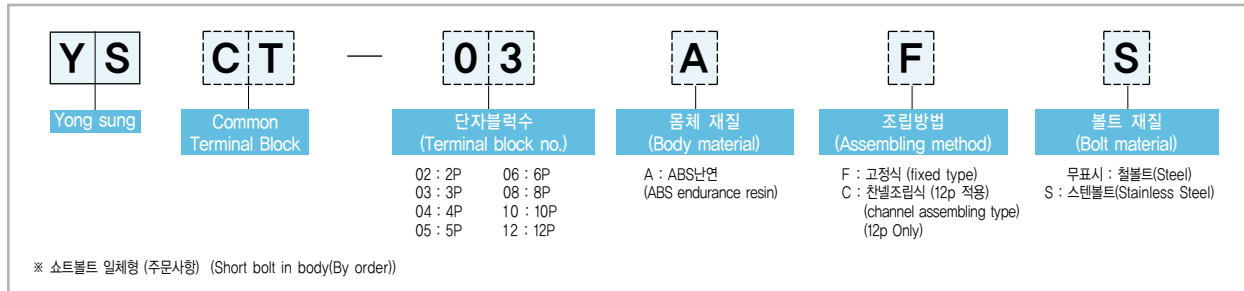
- ① 노출된 부분을 홈에 삽입한다.
- ② 화살표 부분을 누르면서 비스듬히 밀어넣는다.
- ① Insert the exposed part to groove.
- ② Insert diagonally pushing on ① and ②.



10-2

단락회로부 단자대 Common Terminal Block

형식 구분도 | Type Classification Diagram |



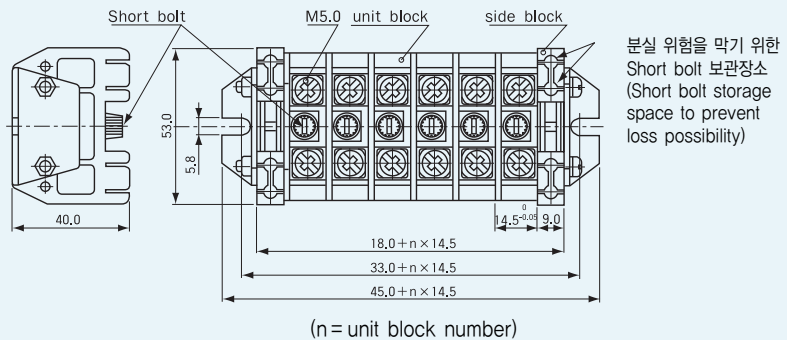
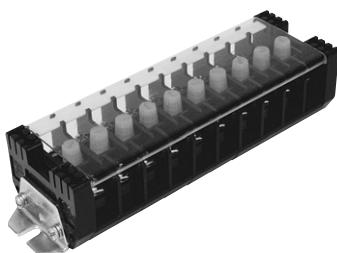
특징 | Features |

- YS CT 단자대는 Short bolt사용에 의하여 CT회로의 단락을 자유로이 행할 수 있으며 Shot bolt를 사용하지 않을 때에는 양쪽의 Side block에 보관할 수 있도록 편리한 구조로 되어있습니다.
- 조립식으로 되어 있기 때문에 필요한 회로수에 따라 Unit block을 증감할 수 있어 경제적입니다.
- 고정식과 채널 조립식으로 구성되어 있습니다.
- YS CT terminal block compose short circuit of CT circuit freely by using short bolt and is of convenient structure which can keep short bolt in both side blocks when not using.
- Due to assembling type, it is economical as unit block can be increased/decreased acc. to circuit number required.
- Consist of fixed type and channel assembling type.

외형 / 치수도 | Shape / Dimension Drawing |

(unit : mm)

Common Terminal

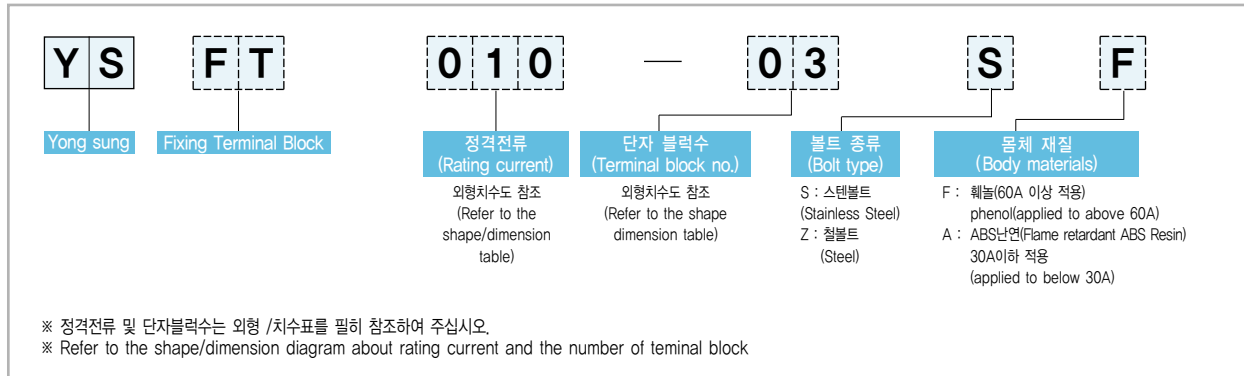


성능 개요 | Performance Summary |

정격절연전압 (Rating insulation voltage)	600V Max.
정격절연전선 (Rating suitable wire)	5.5mm ²
정격전류 (Rating Current)	30A
절연저항 (Insulation resistance)	above 100MΩ (DC 500V. Meg)
내전압 (Withstand voltage)	AC 2,500V/min
사용주위온도 (Ambient temperature)	-25℃ ~ +40℃
상대습도 (Relative humidity)	45 ~ 85%

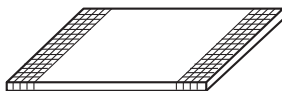
10-3 고정식 단자대 Fixing Terminal Block

형식 구분도 | Type Classification Diagram |



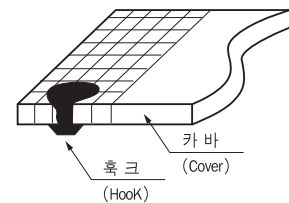
특징 | Features |

- 고정식 단자를 10A~600A까지 개발하여 제품의 질을 높이고 작업에 불편한 점을 개선하여 카바에도 훅크 Pin을 부착하였고 투명도가 좋아 사용하기에 편리합니다.
- 정격전압 600V is max.
- The development of fixing type terminals to 10A~600A increases the product quality and, hook pin is attached to cover in order to improve inconvenience at working and with good transparency it is convenient for use.
- Rating voltage 600V is max.

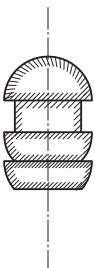


▶ 단자대 카바 (Cover of terminal block)

투명재질로 만들어져 단자대에 표시한 번호판 문자의 식별이 보다 쉬워졌습니다.
With transparent materials, the letter distinction on number plate becomes easier.

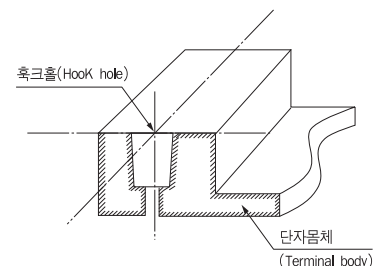


훅크Pin이 카바에 고정된 모양
(The figure of hook pin fixed on cover)

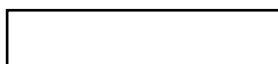


▶ 훅크 Pin (Hook pin)

카바 고정핀으로 훅크타입으로 카바를 열고 닫기가 아주 편리할 뿐만 아니라 견고하게 부착되어 심한 진동에도 잘 견딜 수 있도록 용성 특유의 설계로 제작되었습니다.
As cover fixing pin, Yongsung makes with specific design so that this can be well enduring with firm mounting even if serious vibration is applied as well as cover opening/closing is very convenient due to hook type.



훅크Pin이 카바에 고정되어 있으므로 단자대 몸체에 훅크 Pin 끼듯이 끼웁니다.
(As hook pin is fixed on cover, it is put into body of terminal block like inserting hook pin into body.)



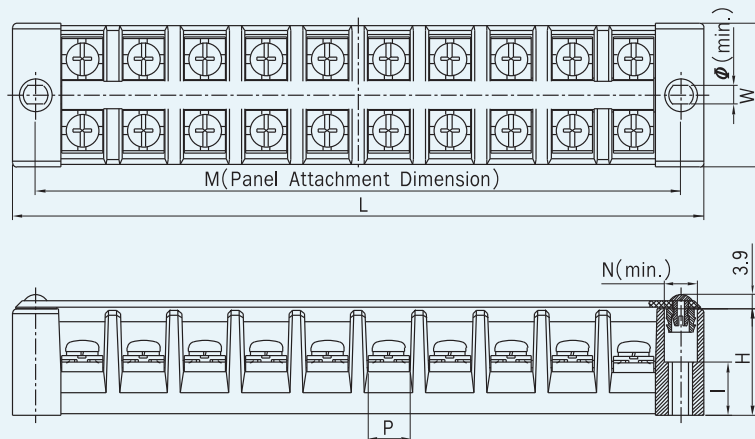
▶ 번호판 (Number plate)

부품 재질 | Part Materials |

부 품 (Part)	재 질 (Materials)
몸 체 (Body)	열경화성 페놀수지, 난연ABS (Thermosetting Phenol Resin, Flame retardant ABS resin)
단 자 (Terminal)	황 동 (Brass)
볼 트 (Bolt)	탄소강 (Carbon Steel)
카 바 (Cover)	AS 수지 (AS Resin), PS 수지 (400A 이상) (PS Resin (above 400A))

외형 / 치수도 | Shape / Dimension Drawing |

(unit : mm)

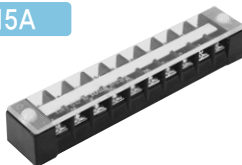


10A



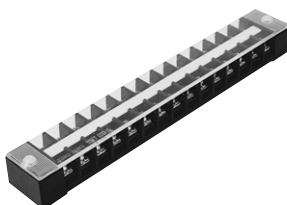
형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT010-02	Ø8.0	52	24	3.5	13	8.2	4.0	42	1.25mm ²	M3.5	8kgf·cm
YSFT010-03											

15A



형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT015-06	Ø8.0	87	24	5.0	19	8.7	4.0	76.5	2mm ²	M3.5	8kgf·cm
YSFT015-10		131						121.5			

20A



형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT020-03	Ø8.0	56	30.2	5.0	19	8.7	4.0	45	2mm ²	M4.0	12kgf·cm
YSFT020-04		67						56			
YSFT020-06		89						78			
YSFT020-10		136						124.5			
YSFT020-12		162						150.5			
YSFT020-15		200						188			
YSFT020-20		257						245			

외형 / 치수도 | Shape / Dimension Drawing |

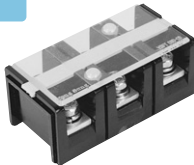
(unit : mm)

30A



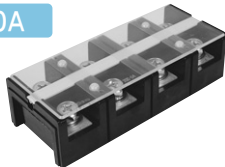
형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT030-03	Ø8.0	67	35	13	26	10.3	4.0	54.5	3.5mm ²	M4.5	15kgf·cm
YSFT030-04		79						68.0			
YSFT030-06		102.5						91.0			
YSFT030-10		156						144.5			

60A



형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT060-03	Ø7.5	83.5	41	20	32.5	15.5	5.0	27.5	14mm ²	M6.0	25kgf·cm
YSFT060-04		111						55.0			

100A



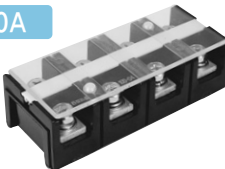
형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT100-03	Ø11.5	105.5	55.5	23	38	23	5.0	34.8	38mm ²	M8.0	60kgf·cm
YSFT100-04		140					6.0	69.6			

150A



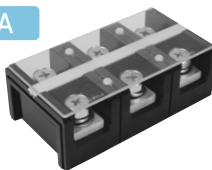
형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT150-03	Ø11.5	116	67.5	26	43	26	7.0	38.8	60mm ²	M8.0	60kgf·cm
YSFT150-04		154.8						77.2			

200A



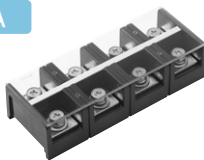
형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT200-03	Ø11.5	134.8	73	29.5	46.5	29	6.5	45	100mm ²	M10.0	100kgf·cm
YSFT200-04		180					7.5	89.5			

300A



형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT300-03	Ø12.5	155.5	83	33.5	49.4	33.7	8.0	51.5	200mm ²	M12.0	120kgf·cm
YSFT300-04		207						103.5			

400A



형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT400-03	Ø12.5	163.0	90	33.5	50	34.0	8.4	55.0	200mm ²	M12.0	120kgf·cm
YSFT400-04		218.0						110.0			

500A



형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT500-03	Ø12.5	193.0	99	43.5	60	43	8.4	65.5	325mm ²	M12.0	120kgf·cm
YSFT500-04		258.5						131.0			

600A

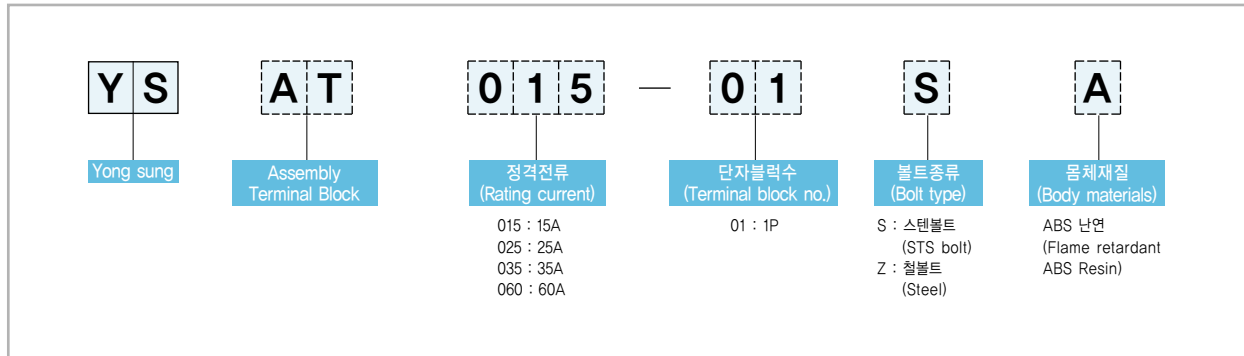


형식(TYPE)	N(min)	L	W	I	H	P	Ø (min.)	M	적용적합전선 (Suitable Wire)	단자볼트 (Terminal Bolt)	조임토크 (Torque)
YSFT600-03	Ø12.5	193.0	99	43.5	60	43	8.4	65.5	325mm ²	M12.0	120kgf·cm
YSFT600-04		258.5						131.0			

10-4

조립식 단자대 Assembly Terminal Block

형식 구분도 | Type Classification Diagram |



특징 | Features |

- 회로 연결 작업시 발생하는 단자나사의 이완현상을 방지하는 구조로써 O형, Y형 형태의 압착단자를 사용이 편리하도록 되어 있습니다.
- 조립식 단자대는 형태나 전류용량이 다른 여러 종류의 단자를 필요한 순서와 개수로 조립할 수 있습니다.
- 설계에 따라 전류와 단자블럭수를 정하여 1회에 부착할 수 있으므로 공단자가 없어 매우 경제적입니다.
- As the structure which prevents slackness phenomenon of terminal screw occurred during circuit connecting, it is also conveniently made to use solderless terminal (O and Y type).
- Assembly type terminal block can be assembled various kinds of terminals with different shape & current capacity as required order and number.
- It is very economical with no void terminal as once attachment is possible by setting current & terminal block No. according to each designing.

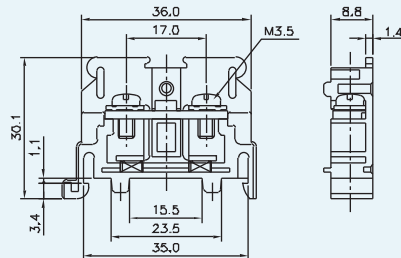
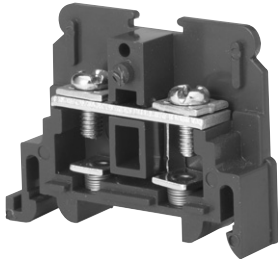
부품 재질 | Part Materials |

부 품 (Part)	재 질 (Materials)
몸 체 (Body)	난연 ABS (Flame Retardant ABS Resin)
단 자 (Terminal)	황 동 (Brass)
볼 트 (Bolt)	탄소강, 스테인레스 (Carbon Steel, Stainless Steel)
카 바 (Cover)	PVC Resin (난연성)
찬 넬 (Channel)	알루미늄 (Al) (Aluminum)

외형 / 치수도 | Shape / Dimension Drawing |

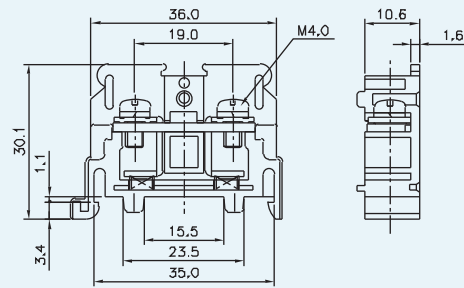
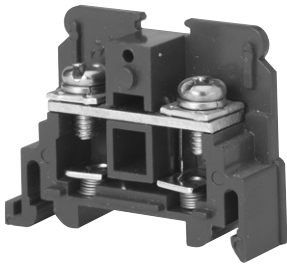
(unit : mm)

15A



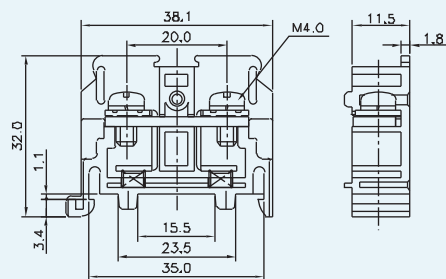
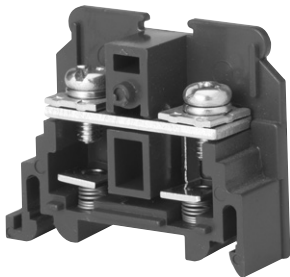
적용적합전선 (Suitable Wire) : 2mm²

25A



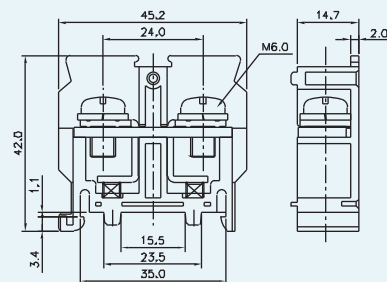
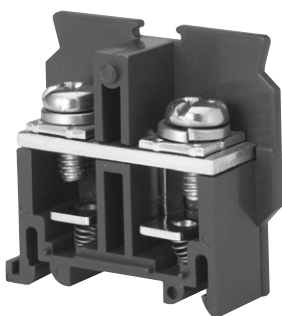
적용적합전선 (Suitable Wire) : 2mm²

35A



적용적합전선 (Suitable Wire) : 3.5mm²

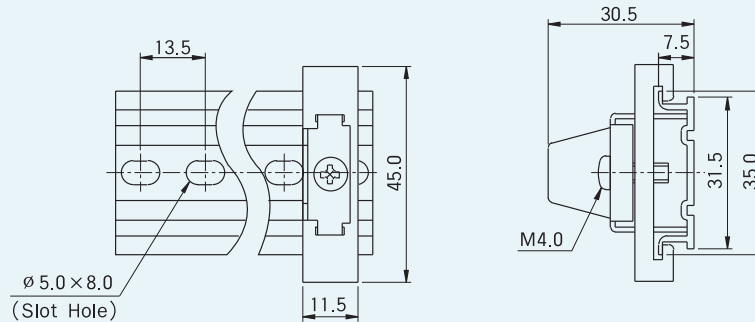
60A



적용적합전선 (Suitable Wire) : 14mm²

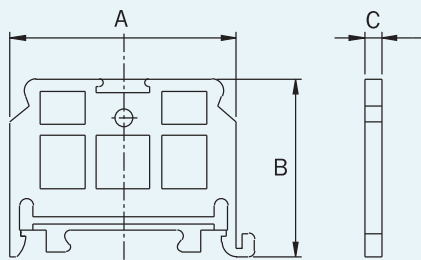
채널 / 스톱퍼 치수도 | Channel / Stopper Dimension Drawing |

(unit : mm)



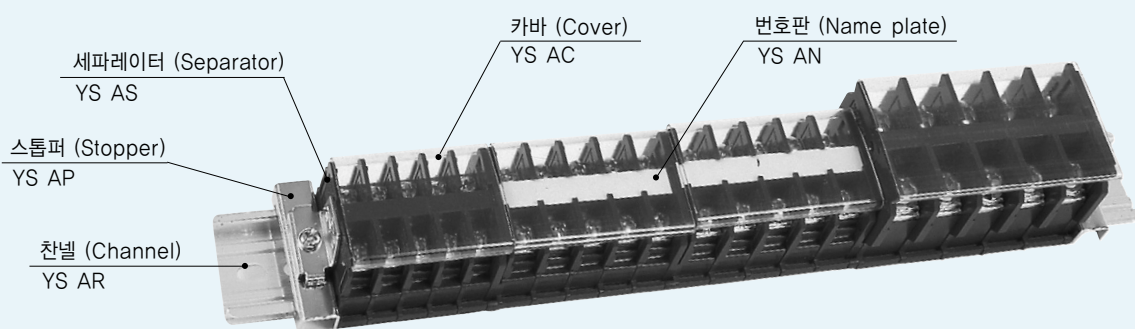
세파레이터 치수도 | Separator Dimension |

(unit : mm)



구분	AS-1		AS-2	AS-3
	15A	25A	35A	60A
A	38.0 ^{+0.1} ₀	38.0 ^{+0.1} ₀	38.0 ^{+0.1} ₀	45.0 ^{+0.1} ₀
B	30.0	30.0	32.0	42.0
C	3.0			

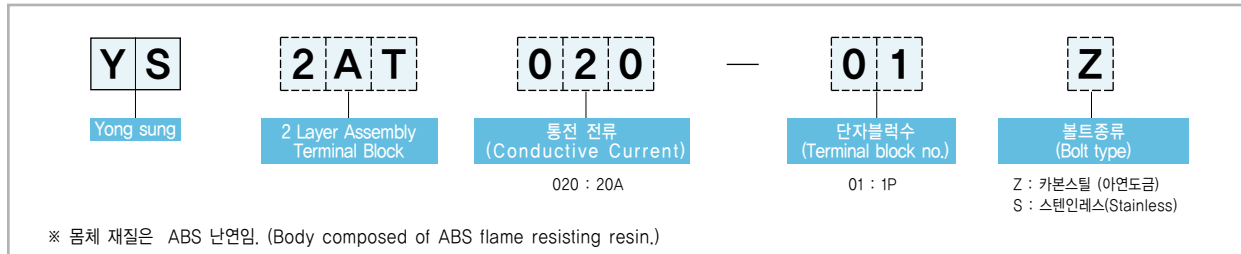
부속품 | Accessories |



- (주) 1. 채널의 YSAR-1은 1M용, YSAR-2는 2M용입니다.
 2. 세파레이터는 YSAS-1 : 15A, 25A공용, YSAS-2 : 35A, YSAS-3 : 60A용입니다.
 3. 카바의 YSAC-1 : 15A~35A용, YSAC-2는 60A용입니다.
 4. 스톱퍼의 볼트 재질은 YSAP-1 : Carbon Steel, YSAP-2 : STS, YSAP-3 : Brass All-Stem 입니다.
- (note) 1. Channel YSAR-1 is used for 1M, Y SAR-2 is for 2M.
 2. Separator YSAS-1 : for 15A, 25A common use, YS AS-2 : for 35A, YS AS-3 : for 60A
 3. Cover YSAC-1 : for 15A~35A, YSAC-2 : for 60A
 4. Materials of stopper bolt is YSAP-1 : Carbon Steel, YSAP-2 : STS, YSAP-3 : Brass All-Stem.

10-5 2단 조립식 단자대 2 Layer Assembly Terminal Block

형식 구분도 | Type Classification Diagram |



제품 특징 및 구조 | Features and Structure of Product |

- 2단 구조로 되어 있어 설치공간이 축소됩니다.
- 단자대 및 세퍼레이터를 임의 위치에서 탈착 가능합니다.
- 배선 연결시 나사가 이탈되지 않아 분실우려가 없습니다.
- 사용자의 안전을 생각하여 1단, 2단 단자 보호커버를 적용하였습니다.
- Double layered structure enable it to save install space.
- Terminal blocks and Separators are detachable from random position.
- Secure from loss since the screw is not come unstuck while wire connecting.
- Applied protection cover for single, double layered terminal in order to secure user safety.

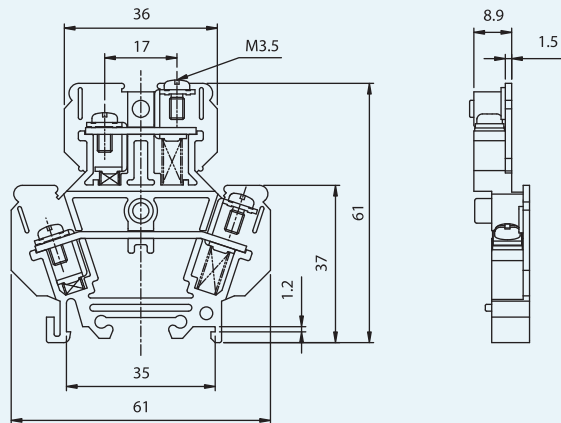
부품 재질 | Part Materials |

부 품 (Part)	재 질 (Materials)
몸체 (Body), 세퍼레이터 (Separator)	ABS (난연) Resin (Flame retardant ABS resin)
단자 (Terminal)	황동 (Brass)
볼트 (Bolt)	Carbon Steel or Stainless Steel (option)
보호커버 (Protection cover)	PVC Resin
번호판 (Name plate)	PVC Resin (WHITE)
스프링 (Spring)	Stainless Steel
플레이트 와셔 (Plate washer)	황동 (Brass)
채널 (Channel)	알루미늄 (Aluminum)

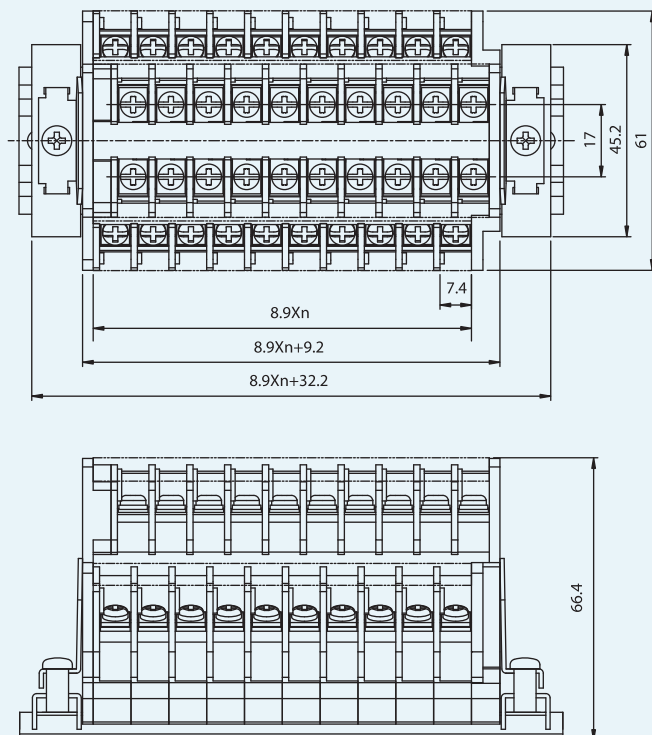
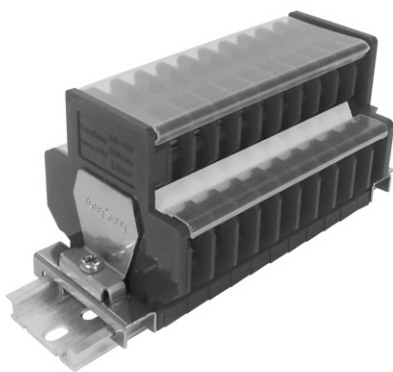
성능 개요 | Performance Summary |

정격절연전압 (Rated Insulation voltage)	Max. 600V
정격 전류 (Rated current)	Max. 20A
내전압 (Withstand voltage)	AC 2,500V/1min
적합전선 (Wire gauge)	2.5 mm ² 이하(below)
사용주위온도 (Ambient temperature)	Max. 54.4℃
상대 습도 (Relative humidity)	Max. 95%

YS 2ATB



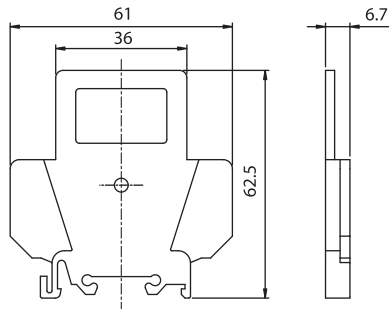
YS 2ATB



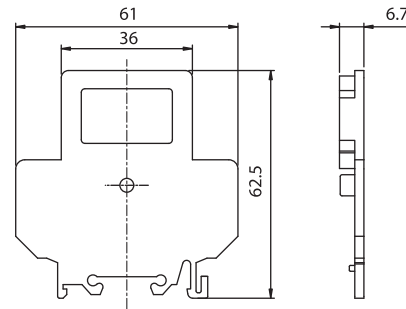
부속품 | Part |

▶ 세퍼레이터 (Separator)

· 세퍼레이터 (Front) : YS2AS-1

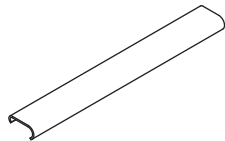


· 세퍼레이터 (Back) : YS2AS-2



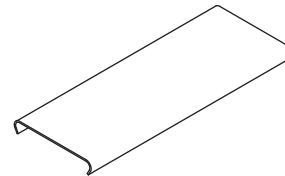
▶ 1단 보호커버 (1 Stage Protection Cover)

· 1단 보호커버 (1M) : YS2AC1-1
· 1단 보호커버 (2M) : YS2AC1-2



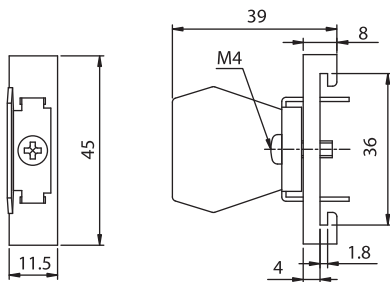
▶ 2단 보호커버 (2 Stage Protection Cover)

· 2단 보호커버 (1M) : YS2AC2-1
· 2단 보호커버 (2M) : YS2AC2-2



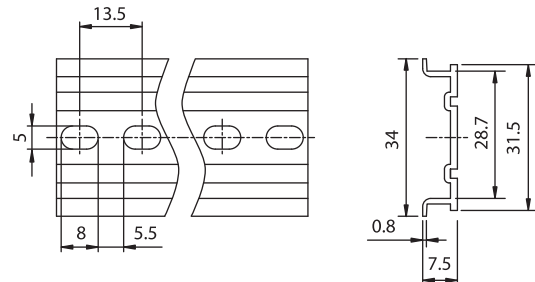
▶ 스톱퍼 (Stoper)

· 스톱퍼 (Carbon Steel) : YS2AP-1
· 스톱퍼 (Stainless) : YS2AP-2



▶ 채널 (Channel)

· 채널 (1M) : YSAR-1
· 채널 (2M) : YSAR-2



▶ 번호판 (Number Plate)

· 번호판 (1M) : YSAN-1
· 번호판 (2M) : YSAN-2

