2 캠 스위치

2-3 C20 타입 캠 스위치 (10A)
C20 Type Cam Switch (10A)

2-3-1 C20 타입 캠 스위치 (일반 타입)
C20 Type Cam Switch (General Type)

■ cULus ■ CCC ■ CE ■ KC ■ IEC IECEE CB SCHEME

형식 구분도 | Type Classification Diagram |

YS	C20	G	–	□2	□2	08	–	66	M4	O	B
YongSung	Cam Switch 20A	스위치 타입 (Switch type)		핸들단수 (Handle stage No.)	접점블럭수 (Contact block No.)	회로번호 (Circuit No.)		전면판 (Front plate)	핸들복귀 및 절환각도 (Handle return & Transfer angle)	핸들종류 (Handle type)	핸들색상(T형 제외) (Handle color) (T type except)

스위치 타입 (Switch type)
G : 일반형 (General Type)

핸들단수 (Handle stage No.)
2 : 2단(Stage)
3 : 3단(Stage)
:
12 : 12단(Stage)
※ 자동복귀는 2단, 3단만 가능 (Only 2 and 3 stage can be applied for spring return type.)

접점블럭수 (Contact block No.)
1 : 1련(Block)
2 : 2련(Block)
:
12 : 12련(Block)
※ 자동복귀는 5련 이하 가능 (Below 5 blocks for spring return type.)
※ 수동복귀는 12련 가능 (Up to 12 blocks for manual return type.)

회로번호 (Circuit No.)
표준회로집참조 (Refer to example of standard circuit)

전면판 (Front plate)
66 : 60X60

핸들복귀 및 절환각도 (Handle return & Transfer angle)
Manual return type
M3 : 수동복귀 30°
M4 : 수동복귀 45°
M6 : 수동복귀 60°
M9 : 수동복귀 90°
Spring return type
A3 : 자동복귀 30°
A4 : 자동복귀 45°

핸들종류 (Handle type)
R : 국화형(Chrysanthemum)
E : 달걀형(Egg)
T : 삼각형(Triangle)
C : 소형지침형(Small compass)
O : 지침형(Compass)
G : 소형권총형(Small pistol)
P : 권총형(Pistol)
Z : 소형당김형 (Small draw)

핸들색상(T형 제외) (Handle color) (T type except)
B : 흑색(Black)
R : 적색(Red)

※ 방수형(IP 56)은 주문제작입니다. (Waterproof type (IP 56) is manufactured by order.)

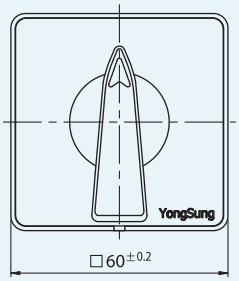
특징 | Features |

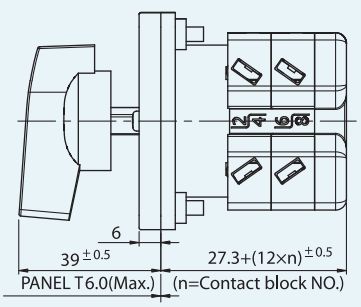
- 캠 스위치 회로구성의 다양성으로 모든 기기에 완벽하게 사용할 수 있습니다.
- IEC 60947-5-1 규격에 부합한 설계로 다양한 인증을 취득한 제품입니다.
- 감전에서 인체를 보호할 수 있도록 단자보호커버를 일체형 구조로 제작했습니다.
- 단자나사가 분리되지 않아 나사 분실 될 우려가 없습니다.
- 러그단자 채택으로 전선 및 압착단자를 자유롭게 결선 할 수 있습니다.

- With various circuit formation of cam switch, it can be applied to all kinds of devices.
- A product has various certificates with design to be applicable to IEC 60947-5-1.
- To prevent electric shock, it applies terminal protect cover.
- Terminal bolts cannot be separated, worry free from losing bolts.
- With adopting lug terminal, easy to connect with cable and crimp-type terminal.

외형 / 치수도 | Shape / Dimension Drawing |

(unit : mm)



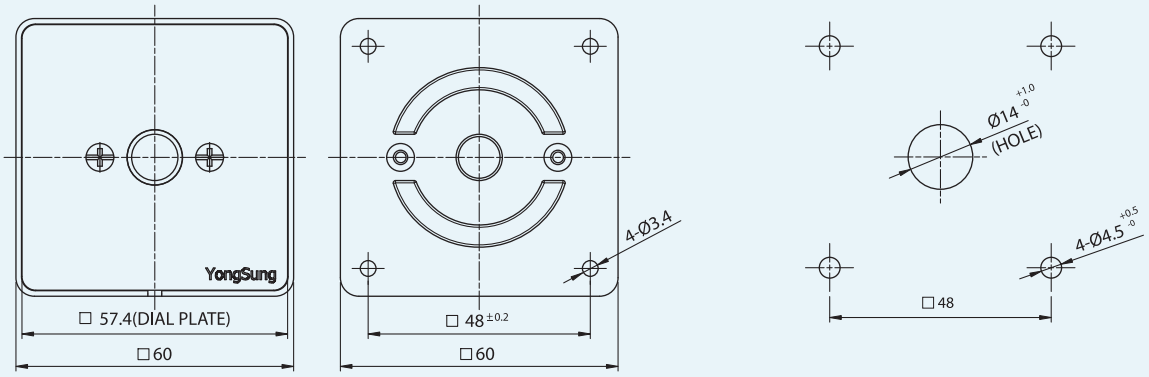


cULus CCC CE KC IEC IECEE CB SCHEME

수동복귀와 자동복귀 외형은 동일함 (Shape is same for both manual return and spring return type.)

전면판 / 판넬 가공 치수 | Front Plate / Cut-out Dimension |

(unit : mm)

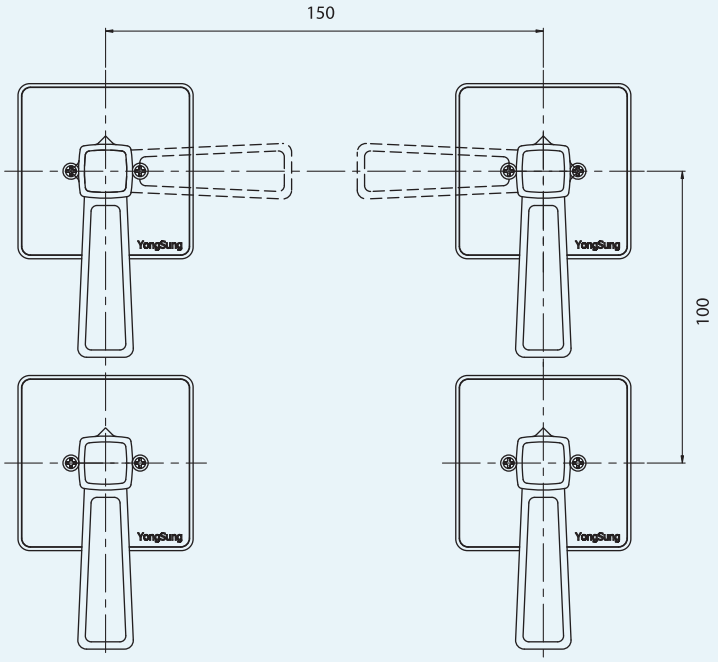


[66 type 전면판 (Front plate)]

※ 참고(Reference) : 판넬 가공치수는 도장두께 0.12mm이하 기준임. (Base coating thickness is below 0.12mm.)

최소 부착 간격도 | Minimum Mounting Dimension |

(unit : mm)



※ 참고사항(Reference) : 아래 최소 부착 간격도는 P형(권총형)을 기준으로 작성함.
(Minimum mounting dimension below is accounting P type handle.)

2 캠 스위치

2-1 캠 스위치 (공통)
Cam Switch (All Type)

특징 | Features |

· 기기의 폭넓은 동작이 가능하도록 다양한 규격으로 연구개발하였습니다.
· 캠 스위치의 생명인 회로구성의 다양성으로 모든 기기에 완벽하게 사용할 수 있습니다. (별도의 회로집 참조)
· 엄격한 실험을 통해 표준화 회로에 따라 균일하게 생산 품질을 향상시켰습니다.
· 캠 스위치는 85년 11월 한국전기연구원개발시험에 합격하여 그 품질의 우수성을 인정받아 한국전력에 많은 납품실적을 올리게 되었습니다.

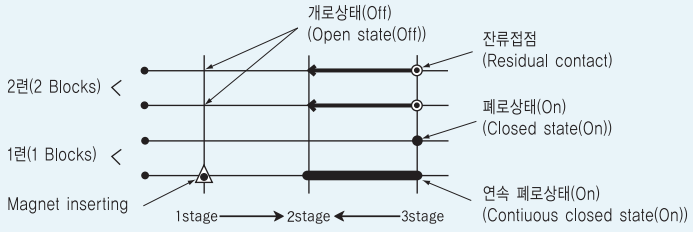
· Researched & Developed with various standard for wide operating of device.
· With various circuit formation which is Cam Switch's key part, can be perfectly applied to all kinds of devices. (Refer to separate circuit collection.)
· Improved production quality according to standardization circuit through strict testing.
· Approved the quality by passing the KERI's R & D Test in 1985/11, Cam Switch has recorded many delivery results in Korea Electric Power Corporation.

접점의 동작 기호 설명 | Explanation of Contact's Operating Marks |

● 폐로위치를 나타낸다. (ON)	● Closed position (ON)
┼ 개로위치를 나타낸다. (OFF)	┼ Open position (OFF)
▬ 폐로위치의 구간을 나타낸다.	▬ Interval of closed position
⊢◎ 잔류 접점을 나타낸다.	⊢◎ Residual contact
◬ DC 20A Magnet 삽입표시를 나타낸다.	◬ Mark of DC 20A magnet inserting contact

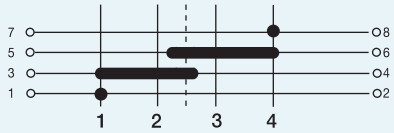
예) YS DNC – 3201A의 표준접속도
핸들 단수 : 3단
접점 블럭수 : 2련
접점 구성 번호 : 01
핸들 동작 : A (자동복귀방식)

Ex) Standard connection diagram of YS DNC – 3201A
Number of handle stage : 3 stages
Number of contact block : 2 blocks
Contact composition No. : 01
Handle operating : A (Spring return type)



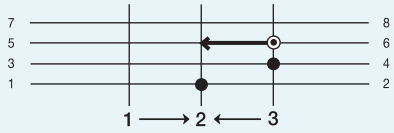
· 절환시 중첩되는 회로 (Circuit superimposed when transfer)

핸들 절환시 단과 단 사이의 중심부에서 개로측 접점과 폐로측 접점이 일정구간 중첩되었다 단락되는 회로
Circuit which open/closed side contacts are superimposed and shorted for a certain distance in the central part between stages when handle transfer.



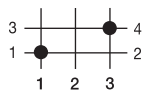
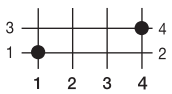
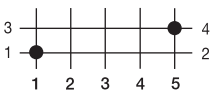
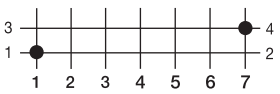
· 잔류 접점회로 (Residual contact circuit)

핸들이 1단 개로(OFF) 상태로 동작했다가 자동 복귀됐을 때 개로(OFF) 상태를 유지하고, 3단 폐로(ON) 상태로 동작했다가 자동 복귀됐을 때는 계속 폐로(ON) 상태로 유지하는 접점회로.
Contact circuit which keeps open state(OFF) when auto-returning after handle Operates at 1 stage open state(OFF), while maintaining closed(ON) state when auto-returning after operating at 3 stage closed(ON) state.

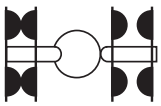
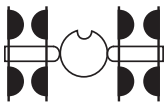
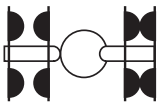


접점 구성시 주의사항 | Remark on Contact Form |

· 캠스위치 안에 내장되어 있는 2접점(4단자)은 캠에 대하여 대조적으로 배치되어 있어서 핸들의 각도가 180° 회전되면 2접점 모두 폐로 또는 개로상태가 되니 임의개조하지 마십시오.
· Please note 2 contacts all will be close or open state if handle angle turns 180° as 2 contacts (4terminals) built-in Cam Switch are arranged in contrast to cam.

예 (Example)	90° 절환 3단일 때 (90° transfer 3 stages)	60° 절환 4단일 때 (60° transfer 4 stages)	45° 절환 5단일 때 (45° transfer 5 stages)	30° 절환 7단일 때 (30° transfer 7 stages)
회로전개도 (Circuit diagram)				

· 내장된 캠과 접점, 핸들위치 (90° 3단의 예)
· Built-in cam and contact, handle position (Example of 90°, 3stages)

핸들위치 (Handle position)			
접점과 캠 (Contact & Cam)			

2 캠 스위치

성능 개요 | Performance Summary |

수명 (Lifetime)	기계적 (Mechanical)	50만회 이상 (Above 500,000 times) (Switching freq : 20times/min.)
	전기적 (Electrical)	10만회 이상 (Above 100,000 times) (Switching freq : 20times/min.)
절연저항 (Insulation resistance)		100MΩ 이상 (Above 100MΩ) (DC 500V. Meg)
접촉저항 (Contact resistance)		50mΩ 이하 (초기치) (Below 50mΩ, initial value)
내전압 (Withstand voltage)		AC 2,500V/min (50~60Hz)
내진동 (Withstand vibration)	내구 (Endurance)	복진폭 (Double amplitude) 1.5mm (10~55Hz)
	오동작 (Malfunction)	복진폭 (Double amplitude) 1.0mm (10~15Hz)
내충격 (Withstand impact)	내구 (Endurance)	약 30g (300 ㎳)
	오동작 (Malfunction)	약 10g (100 ㎳)
사용주위온도 (Ambient temperature)		-20℃ ~ +60℃
상대습도 (Relative humidity)		45 ~ 85%

DN 타입 부품 재질 | Part Materials - DN Type |

부품 (Part)	재질 (Materials)
몸체 (Body)	ABS 내열 수지 (Heat resistance ABS resin) / PC 난연 수지 (Polycarbonate resin)
CAM	아세탈 수지 (Acetal resin) / 나일론 수지 (Nylon resin)
접점 (Contact)	은합금 (Silver alloy)
단자 (Terminal)	황동 (Brass)
볼트 (Bolt)	탄소강 (Carbon steel) / 스테인레스 강 (Stainless steel)
스프링 (Spring)	스테인레스 강 (Stainless steel)

C20 타입 부품 재질 | Part Materials - C20 Type |

부품 (Part)	재질 (Materials)
접점 블럭 (Contact block)	PBT 수지 (PBT resin)
하부 커버 (Under cover)	PBT 수지 (PBT resin)
접점 (Contact)	은합금 (Silver alloy)
캠 (Cam)	아세탈 수지 (Acetal resin)

LKDNC 타입 부품 재질 | Part Materials - LKDNC Type |

부품 (Part)	재질 (Materials)
핸들 (Handle)	PC/ABS 수지 (PC/ABS resin)
키 (Key)	황동 (Ni 도금) (Brass (Ni plating))
하우징 (Housing)	아연 합금 (Cr 도금) (Zn Alloy (Cr plating))
PCB 케이스 (PCB Case)	PBT 수지 (PBT resin)
PCB 단자대 (PCB Terminal block)	PBT 수지 (PBT resin)
몸체 (Body)	ABS 수지 (ABS resin)
접점 블럭 (Contact block)	ABS 수지 (ABS resin)
커버 (Cover)	ABS 수지 (ABS resin)
단자 (Terminal)	황동 (Brass)

접점 정격 | Contact Rated - DNC 10A |

정격절연전압 (Rated insulation voltage)			AC600V, DC250V		
정격통전전류 (Rated conductive current)			20A		
AC	정격전압 (Rated voltage)		110~120V	220~240V	380~440V
	정격전류 (Rated current)	저항부하 (Resistive load)	20A	10A	6A
		유도부하 (Inductive load)	6.6A	3.3A	1.65A
DC	정격전압 (Rated voltage)		110V	125V	220V
	정격전류 (Rated current)	저항부하 (Resistive load)	5A	4.4A	2.5A
		유도부하 (Inductive load)	1A	0.9A	0.5A

유도부하 (Inductive load) ----- COSØ=0.4, $T_{0.95}$ = 300ms

적용규격 (Applied standard) ----- KSC 4519, IEC 60947-5-1

접점 정격 | Contact Rated - DNC 20A |

정격절연전압 (Rated insulation voltage)			DC250V		
정격통전전류 (Rated conductive current)			35A		
DC	정격전압 (Rated voltage)		110V	125V	220V
	정격전류 (Rated current)	저항부하 (Resistive load)	22A	20A	10A
		유도부하 (Inductive load)	4A	3.5A	2A

유도부하 (Inductive load) ----- $T_{0.95}$ = 300ms

적용규격 (Applied standard) ----- KSC 4519, IEC 60947-5-1

※ 직류 20A용은 영구자석이 부착되어 있습니다. (For DC 20A, permanent magnet is attached.)

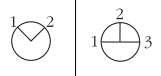
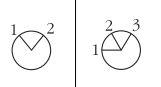
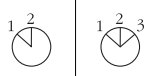
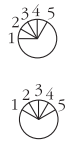
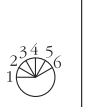
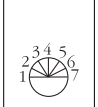
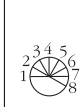
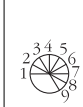
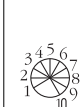
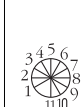
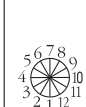
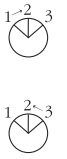
접점 정격 | Contact Rated - DNC 30A |

정격절연전압 (Rated insulation voltage)			AC600V, DC250V		
정격통전전류 (Rated conductive current)			35A		
AC	정격전압 (Rated voltage)		110~120V	220~240V	380~440V
	정격전류 (Rated current)	저항부하 (Resistive load)	30A	30A	15A
		유도부하 (Inductive load)	20A	10A	5A
DC	정격전압 (Rated voltage)		110V	125V	220V
	정격전류 (Rated current)	저항부하 (Resistive load)	10A	8.8A	5A
		유도부하 (Inductive load)	2.5A	2.1A	1.2A

유도부하 (Inductive load) ----- COSØ=0.4, $T_{0.95}$ = 300ms

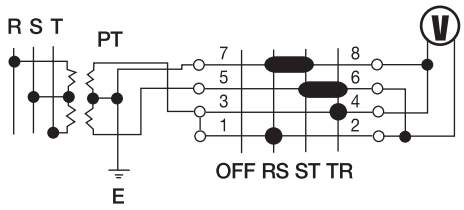
적용규격 (Applied standard) ----- KSC 4519, IEC 60947-5-1

핸들 위치 표준 표본도 | Handle Position Standard Diagram |

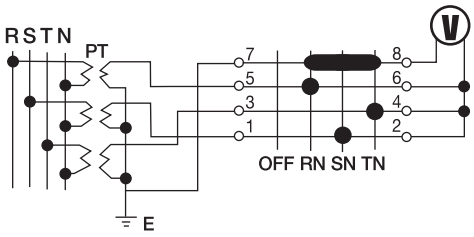
복귀방법 (Return method)	절환각도 (Transfer angle)	각 단 핸들위치 표본 (Each handle position sample)										
		2단 (stage)	3단 (stage)	4단 (stage)	5단 (stage)	6단 (stage)	7단 (stage)	8단 (stage)	9단 (stage)	10단 (stage)	11단 (stage)	12단 (stage)
수동복귀 기호(M) (Manual return mark(M))	90°											
	60°											
	45°											
	30°											
자동복귀 기호(A) (Spring return mark(A))	45°					2단 (2 stage) – 좌측 1단에서 시작, 2단으로 자동복귀 (Start from the left 1 stage and spring return to the 2 stage.) – 우측 2단에서 시작, 1단으로 자동복귀 (Start from the right 2 stage, and spring return to the 1 stage.) 3단 (3 stage) – 핸들이 1단, 3단에서 중앙 2단으로 자동복귀 (Spring handle return from 1, 3 stage to center 2.)					
	30°					핸들이 1, 2, 4, 5단에서 중앙 3단으로 자동복귀 (Spring handle return from 1, 2, 4, 5 stage to center 3 stage.)					
핸들걸림 기호(R) (Handle suspending mark(R))	45°					핸들이 1단, 3단에서 중앙으로 자동복귀. 단, 핸들을 조작할 때는 반드시 앞으로 당겨 조작합니다. (Spring handle return from 1, 3 stage to center. Only in handle operating, pull forward it.)						
혼합복귀 기호(C) (Composite return mark(C))	45°					1단에서 2단으로 자동복귀, 3단에서 2단으로는 수동복귀 (Spring return from 1 stage to 2 stage. Manual return from 3 stage to 2 stage.)						
						3단에서 2단으로 자동복귀, 1단에서 2단으로는 수동복귀 (Spring return from 3 stage to 2 stage. Manual return from 1 stage to 2 stage.)						
	30°					4단일 경우 (Case of 4 stage) 1단에서 2단으로만 자동복귀 (Spring return only from 1 stage to 2 stage.) 5단일 경우 (Case of 5 stage) 1단에서 2단으로만 자동복귀 (Spring return only from 1 stage to 2 stage.) 5단에서 4단으로만 자동복귀 (Spring return only from 5 stage to 4 stage.)					
												
						4단에서 3단으로만 자동복귀 (Spring return only from 4 stage to 3 stage.)						
												

기본 회로예 (전압계 · 전류계 회로) | Example of Basic Circuit (Voltmeter, Amperemeter Circuit) |

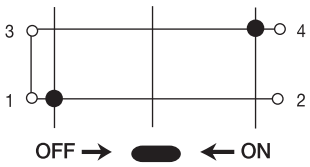
C4210 (Voltmeter, 3Ø 2PT circuit)



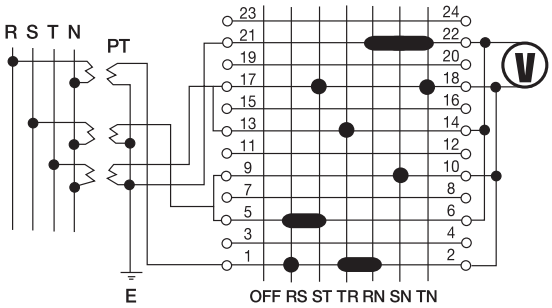
C4211 (Voltmeter, 3Ø 3PT circuit)



C3102A, R

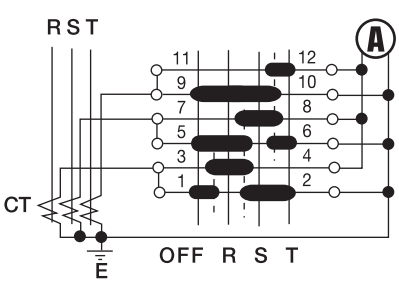


C7602 (Voltmeter, 3Ø 3PT) 복합형 (Composite type)

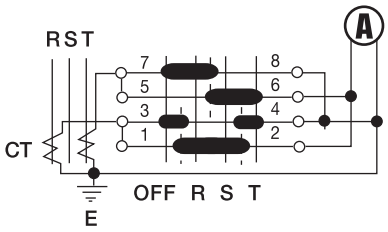


※ 30도 제작불가 (30 degree does not manufactured.)

C4307 (Amperemeter, 3Ø 3CT circuit)

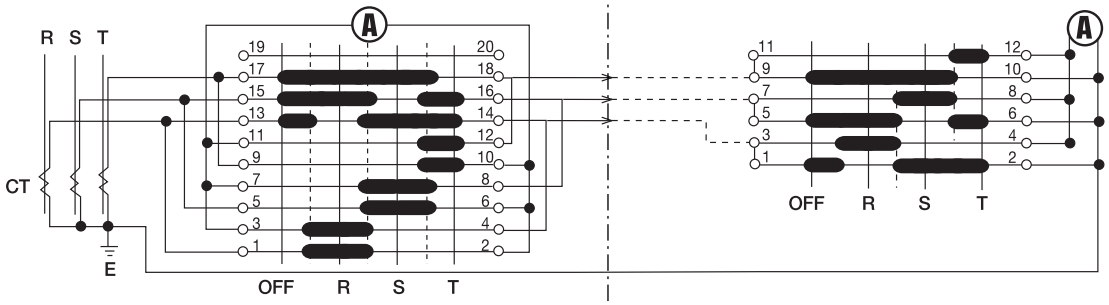


C4213 (Amperemeter, 3Ø 2CT circuit)



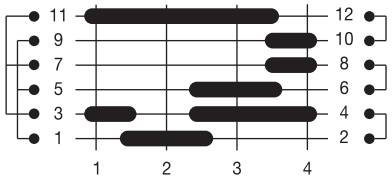
기본 회로예 (전압계 · 전류계 회로) | Example of Basic Circuit (Voltmeter, Amperemeter Circuit) |

C4502 (관통형, AS) (Penetrating type, AS 3Ø 3CT circuit)

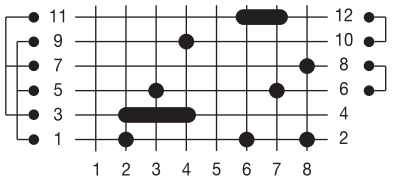


C4307

C4300 (45°)

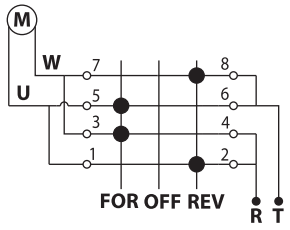


C8300 (45°)

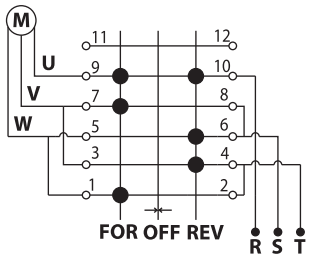


기본 회로예 (모터용 회로) | Example of Basic Circuit (Motor Circuit) |

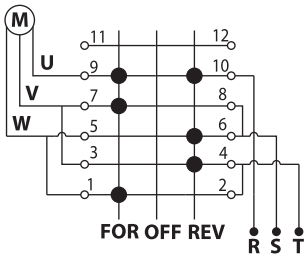
DNC3271 : 단상 모터 가역 회로 (Circuit)



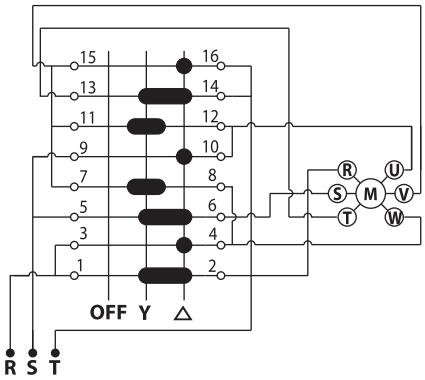
DNC3376A : 3상 모터 가역 회로 (자동복귀) (Circuit)



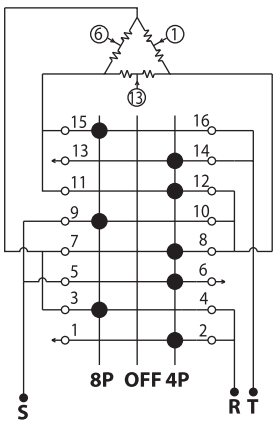
DNC3376 : 3상 모터 가역 회로 (Circuit)



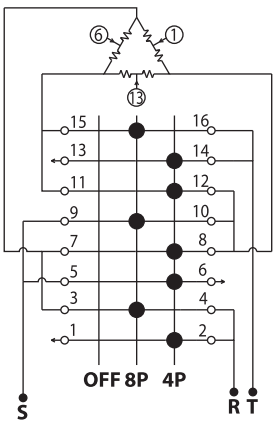
DNC3443 : Y-△ 회로 (Y-△ circuit)



DNC3444 : 4극 8극 회로 (Circuit)



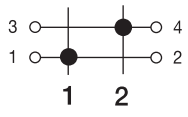
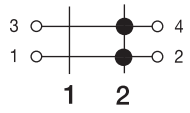
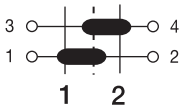
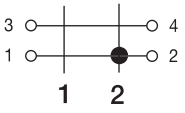
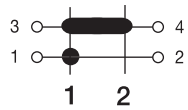
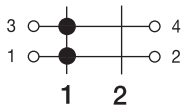
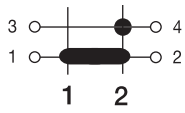
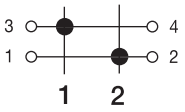
DNC3445 : 8극 4극 회로 (Circuit)



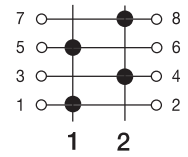
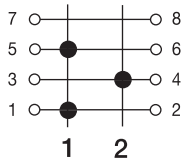
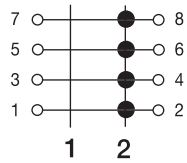
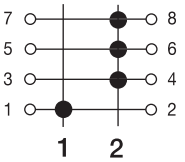
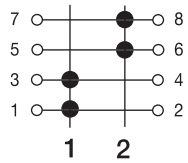
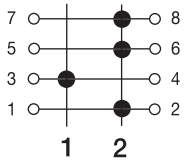
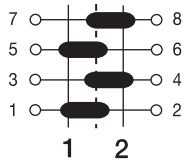
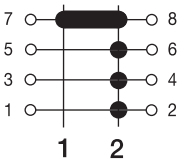
표준 회로집 | Example of Standard Circuit |

주) Position의 표준 절환각도 위배시 contact block 추가됨. Note) When standard transfer angle of position violates, contact block is added.

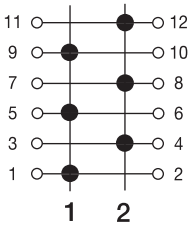
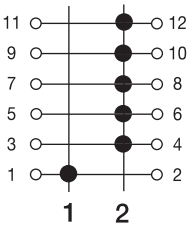
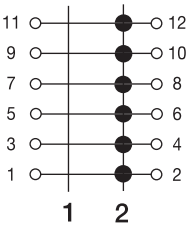
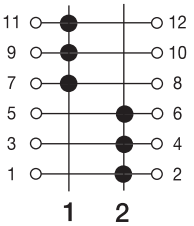
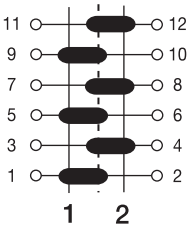
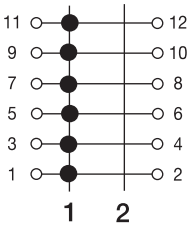
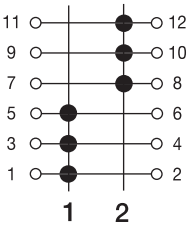
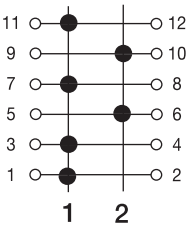
2-position, 1-contact block

C2101	C2102	C2103	C2104
			
C2105	C2106	C2107	C2108
			

2-position, 2-contact block

C2201	C2202	C2203	C2204
			
C2205	C2206	C2207	C2208
			

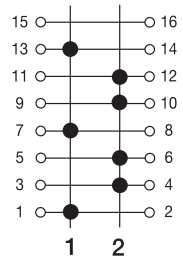
2-position, 3-contact block

C2301	C2302	C2303	C2304
			
C2305	C2306	C2307	C2308
			

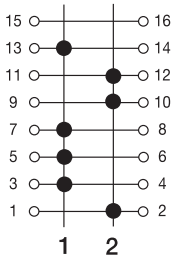
표준 회로집 | Example of Standard Circuit |

2-position, 4-contact block

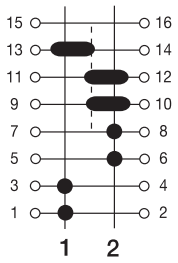
C2401



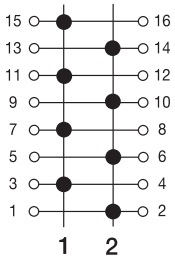
C2402



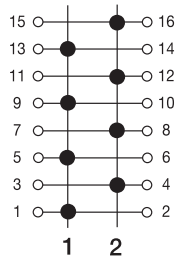
C2403



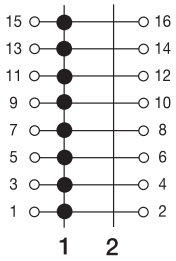
C2404



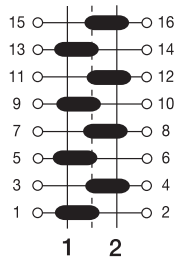
C2405



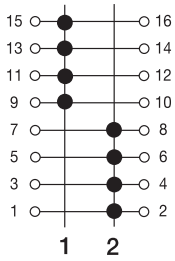
C2406



C2407

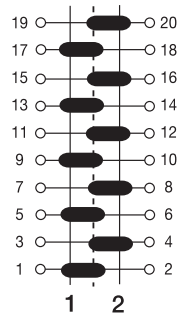


C2408

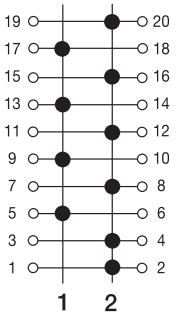


2-position, 5-contact block

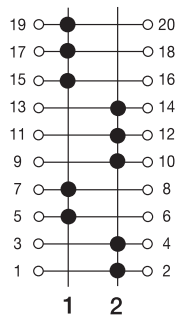
C2501



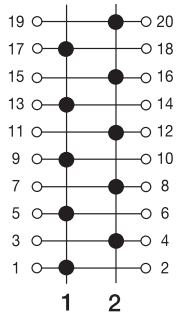
C2502



C2503

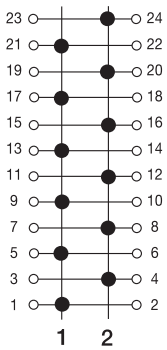


C2504



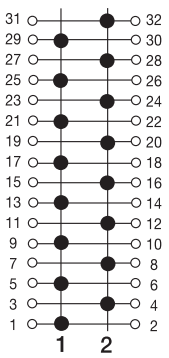
2-position, 6-contact block

C2601



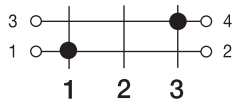
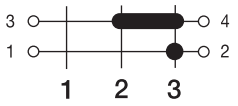
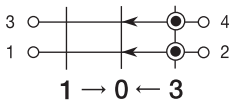
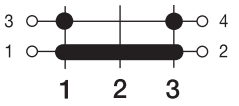
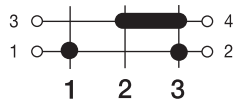
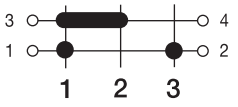
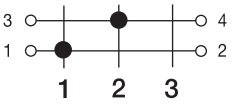
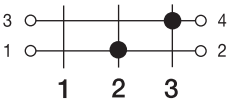
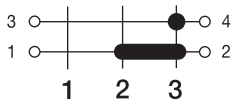
2-position, 8-contact block

C2801

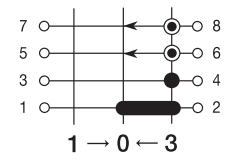
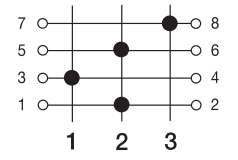
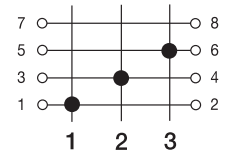
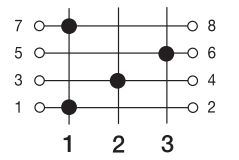
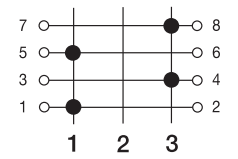
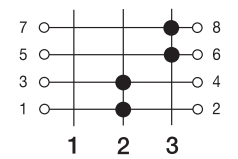
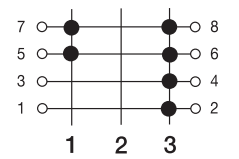
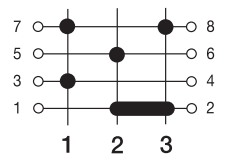
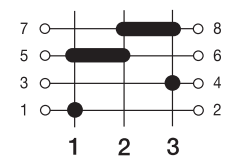
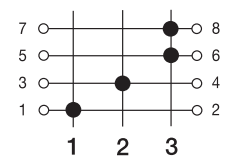
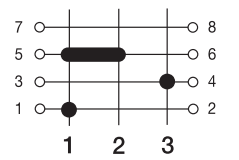
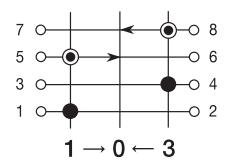
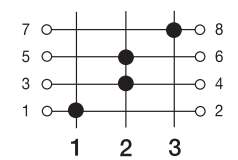
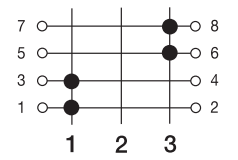
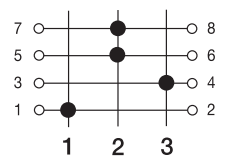
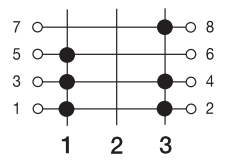


표준 회로집 | Example of Standard Circuit |

3-position, 1-contact block

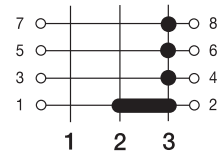
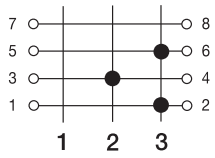
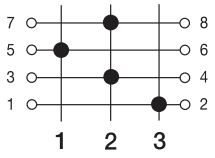
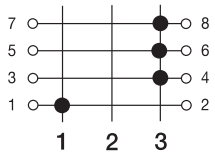
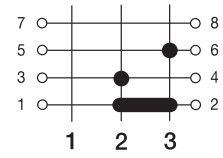
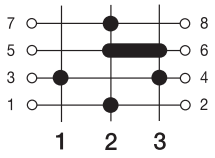
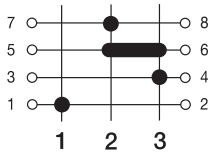
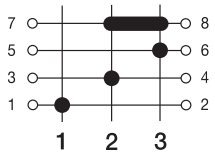
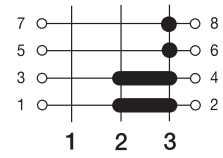
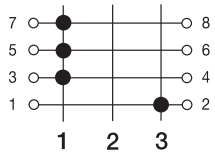
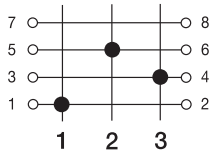
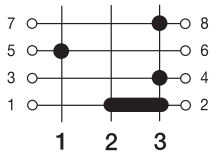
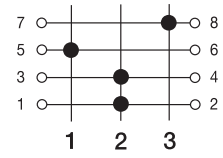
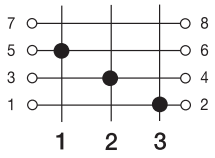
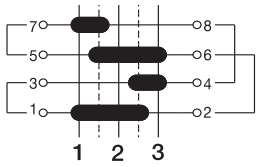
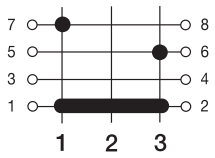
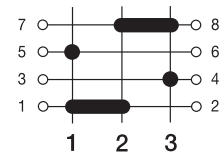
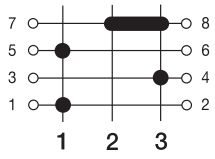
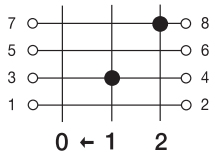
C3102	C3103	C3104A	C3105
			
C3106	**C3107**	**C3108**	**C3109**
			
C3110			
			

3-position, 2-contact block

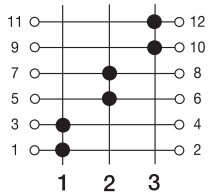
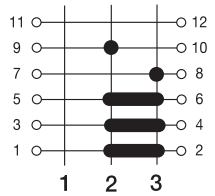
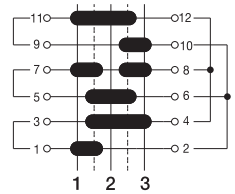
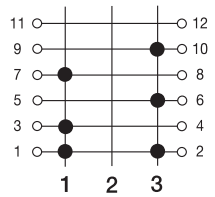
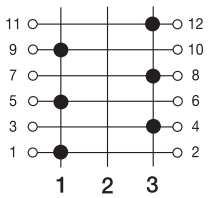
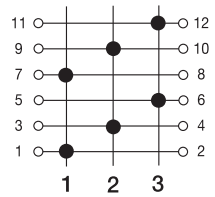
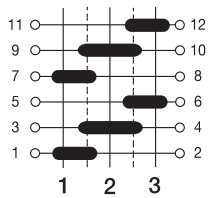
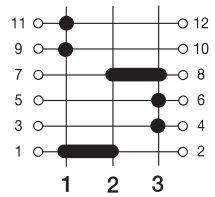
C3201A	C3202	C3203	C3204
			
C3205	**C3206**	**C3207**	**C3208**
			
C3210	**C3211**	**C3212**	**C3213A**
			
C3214	**C3215**	**C3216**	**C3217**
			

표준 회로집 | Example of Standard Circuit |

3-position, 2-contact block

C3218	C3219	C3220	C3221
			
C3222	**C3223**	**C3224**	**C3225**
			
C3226	**C3227**	**C3228**	**C3229**
			
C3230	**C3231**	**C3232**	**C3233**
			
C3234	**C3235**	**C3236**	
			

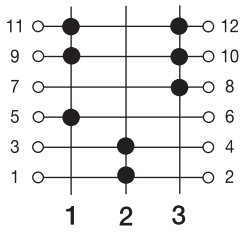
3-position, 3-contact block

C3301	C3302	C3303	C3304
			
C3305	**C3306**	**C3307**	**C3308**
			

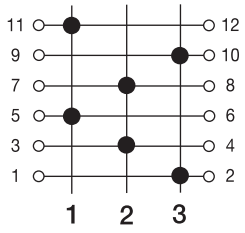
표준 회로집 | Example of Standard Circuit |

3-position, 3-contact block

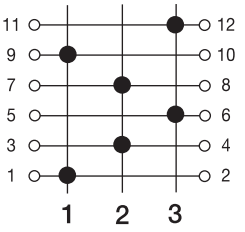
C3309



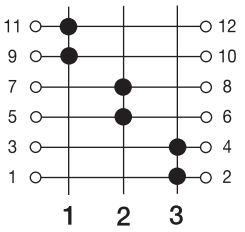
C3310



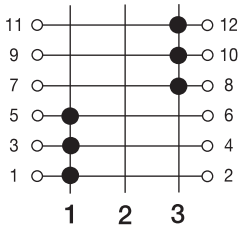
C3311



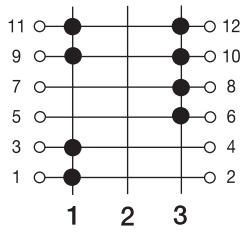
C3312



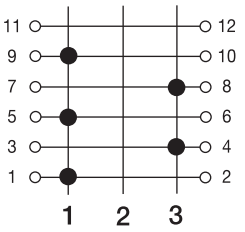
C3313



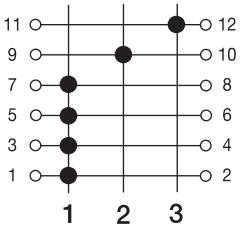
C3314



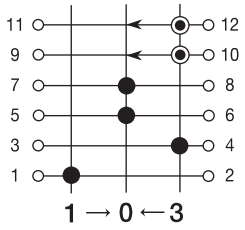
C3315



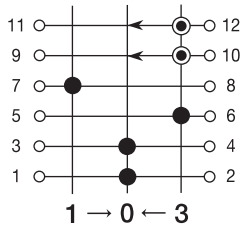
C3316



C3317A

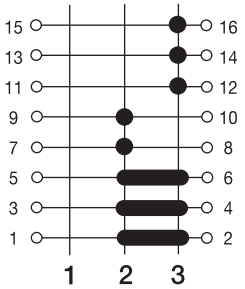


C3318A

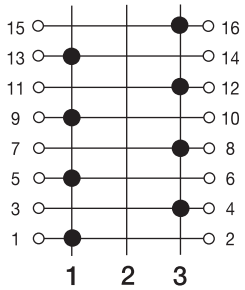


3-position, 4-contact block

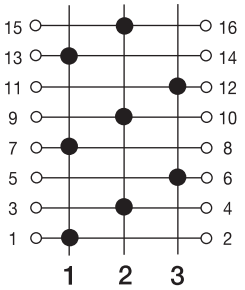
C3401



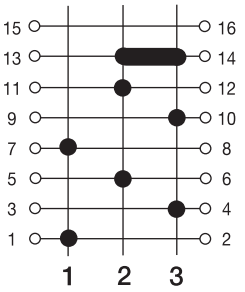
C3402



C3403



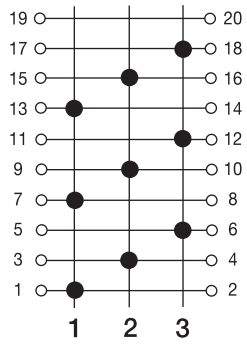
C3404



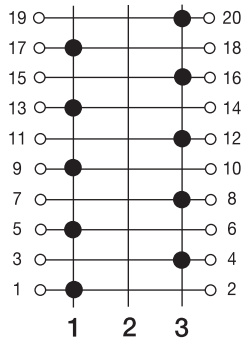
표준 회로집 | Example of Standard Circuit |

3-position, 5-contact block

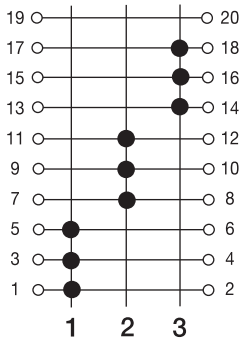
C3501



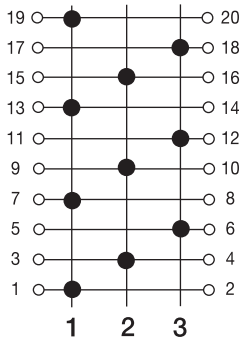
C3502



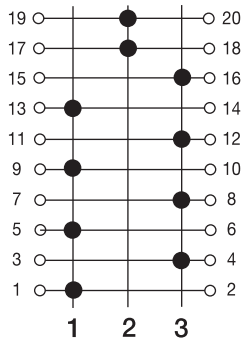
C3503



C3504

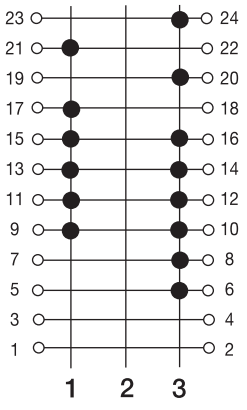


C3505

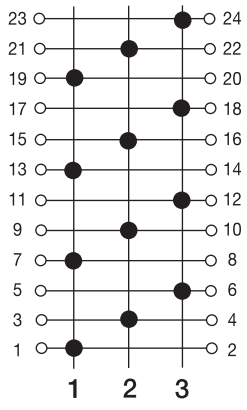


3-position, 6-contact block

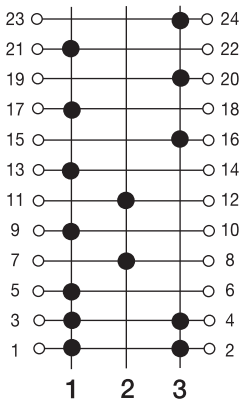
C3601



C3602



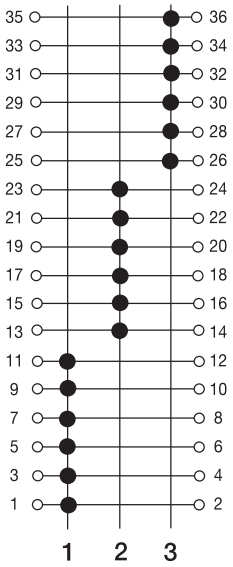
C3603



표준 회로집 | Example of Standard Circuit |

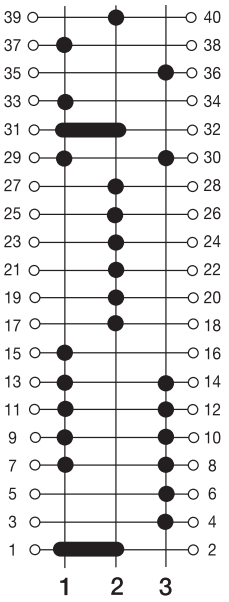
3-position, 9-contact block

C3901



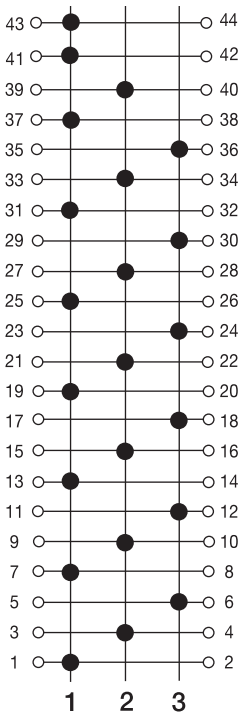
3-position, 10-contact block

C31001 (C3001)

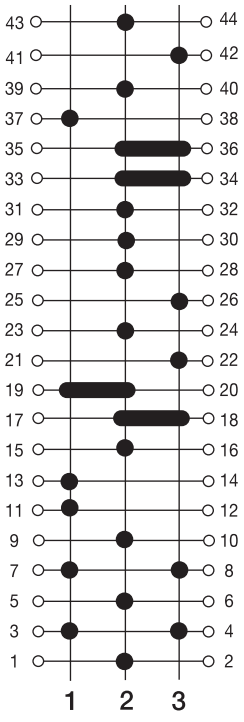


3-position, 11-contact block

C31101 (C3011)

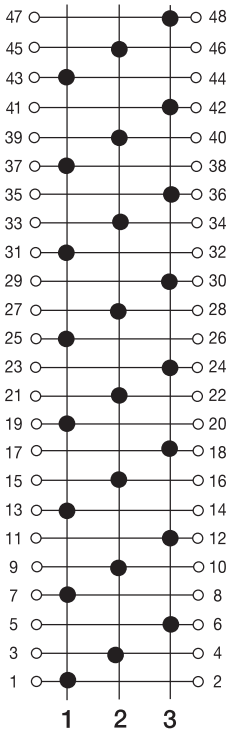


C31103 (C3013)



3-position, 12-contact block

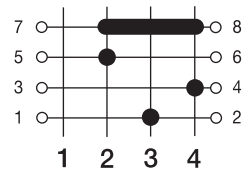
C31201 (C3021)



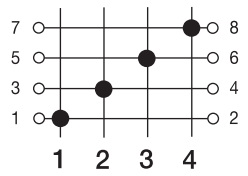
표준 회로집 | Example of Standard Circuit |

4-position, 2-contact block

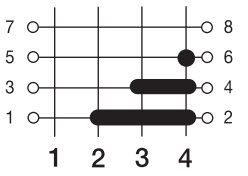
C4201



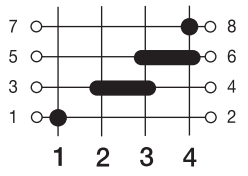
C4202



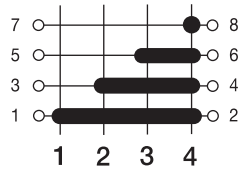
C4203



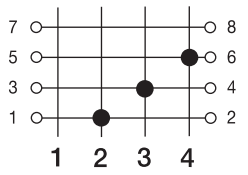
C4204



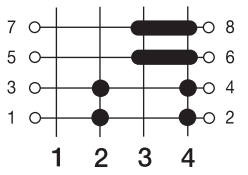
C4205



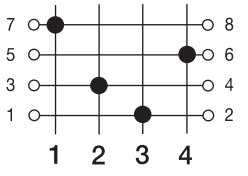
C4206



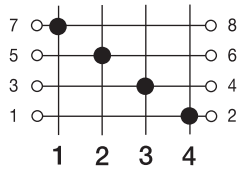
C4207



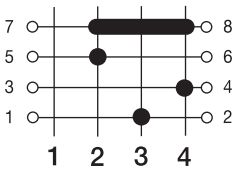
C4208



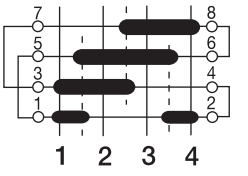
C4209



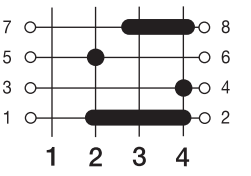
C4212



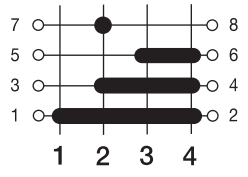
C4214



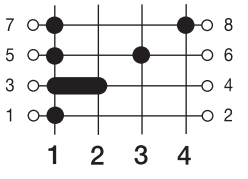
C4215



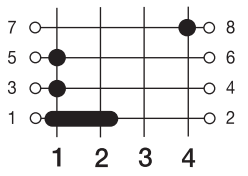
C4216



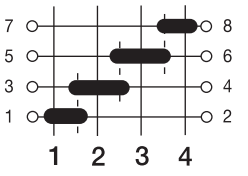
C4217



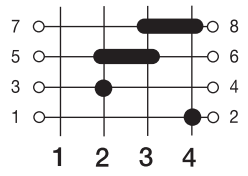
C4220



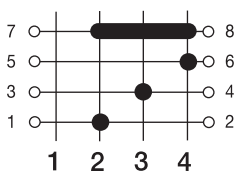
C4229



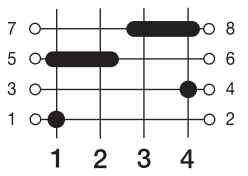
C4230



C4231

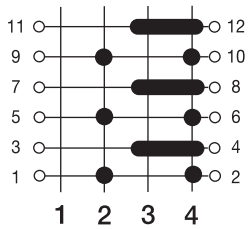


C4241

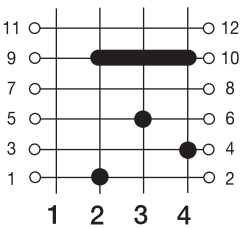


4-position, 3-contact block

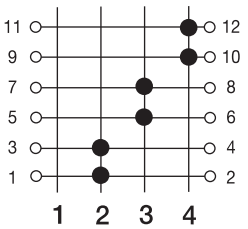
C4303



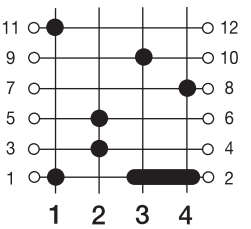
C4304



C4305



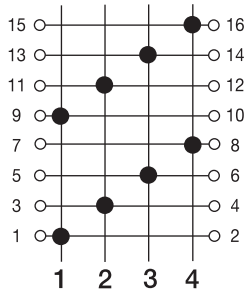
C4306



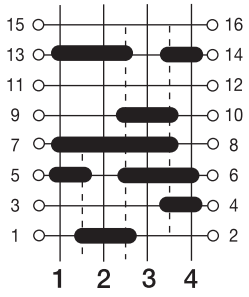
표준 회로집 | Example of Standard Circuit |

4-position, 4-contact block

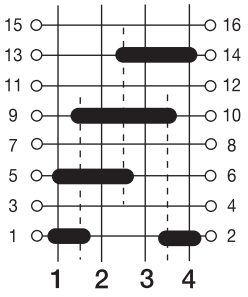
C4403



C4404

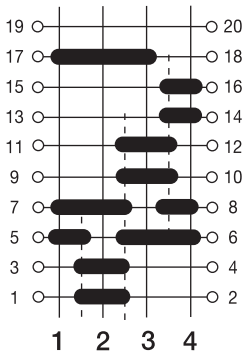


C4405



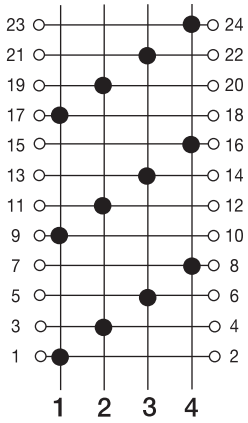
4-position, 5-contact block

C4501



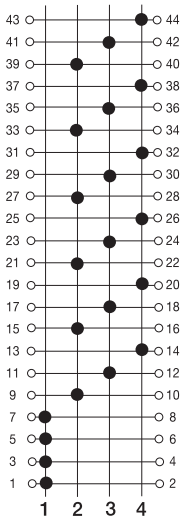
4-position, 6-contact block

C4602



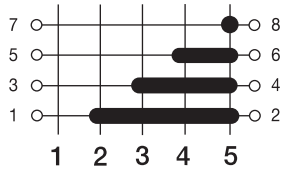
4-position, 11-contact block

C41101 (C4111)

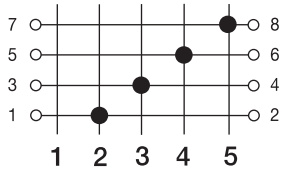


5-position, 2-contact block

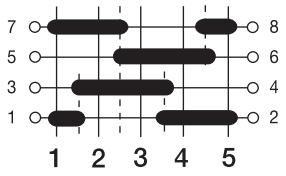
C5201



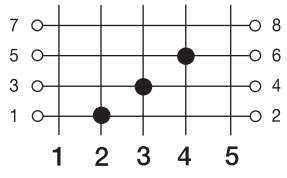
C5202



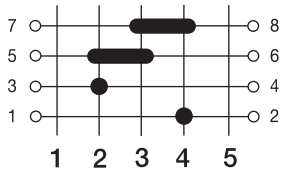
C5203



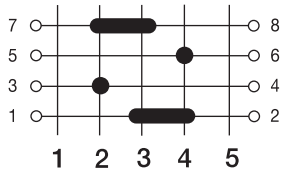
C5204



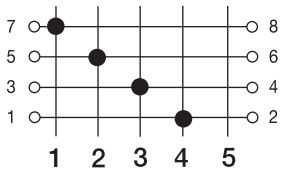
C5205



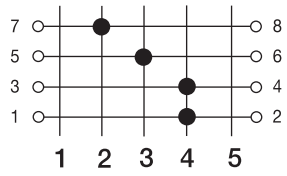
C5206



C5207



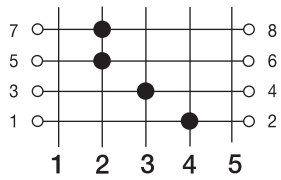
C5208



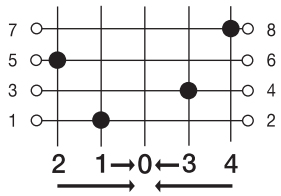
표준 회로집 | Example of Standard Circuit |

5-position, 2-contact block

C5209

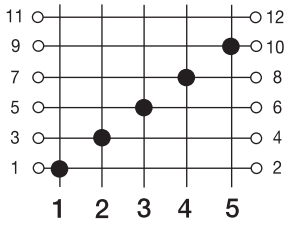


C5210A(30°전용)

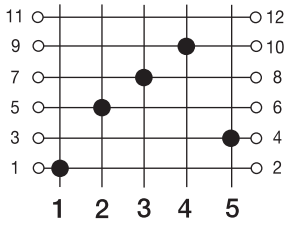


5-position, 3-contact block

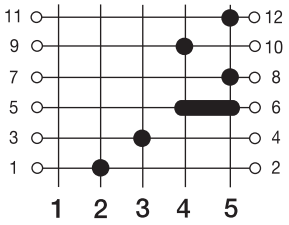
C5301



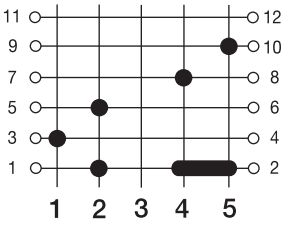
C5302



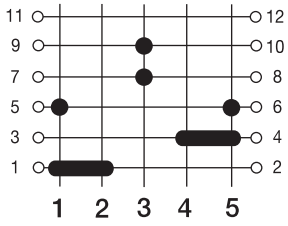
C5303



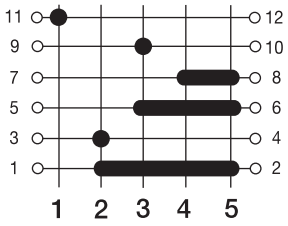
C5304



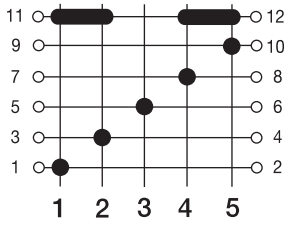
C5305



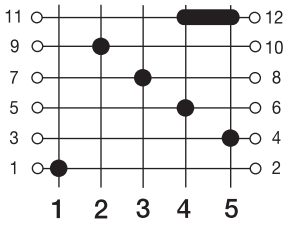
C5306



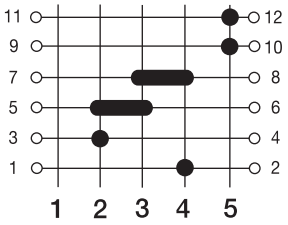
C5309



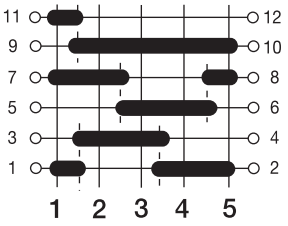
C5310



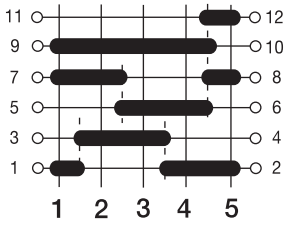
C5311



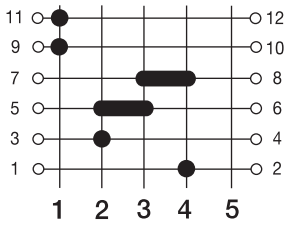
C5312



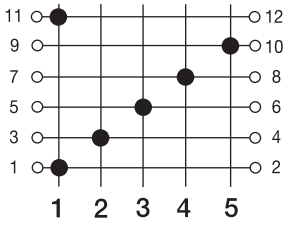
C5313



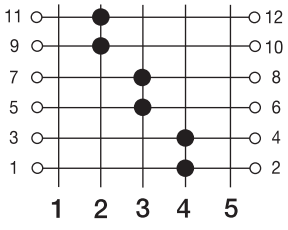
C5314



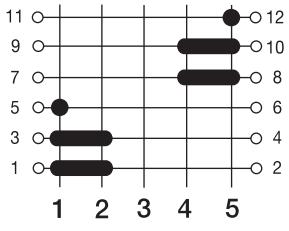
C5315



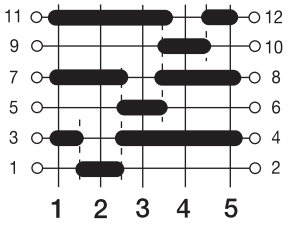
C5316



C5317



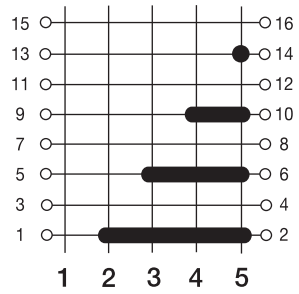
C5318



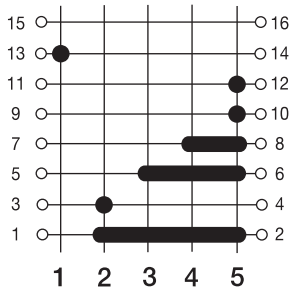
표준 회로집 | Example of Standard Circuit |

5-position, 4-contact block

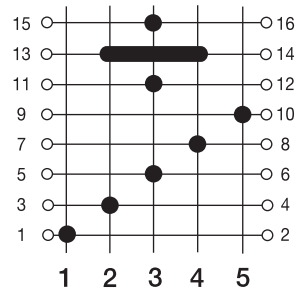
C5401



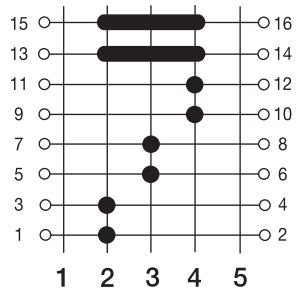
C5402



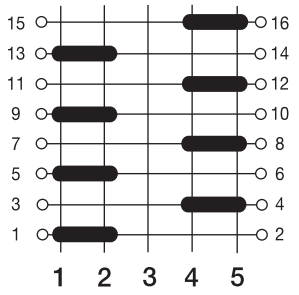
C5403



C5404

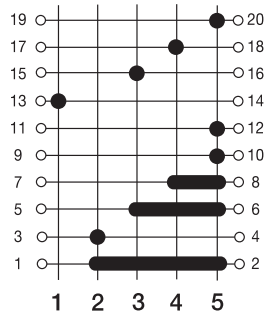


C5405

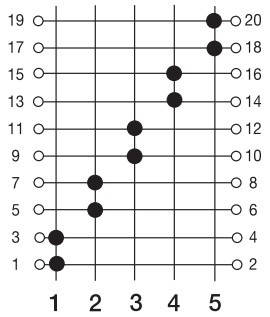


5-position, 5-contact block

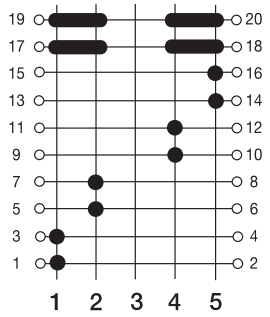
C5501



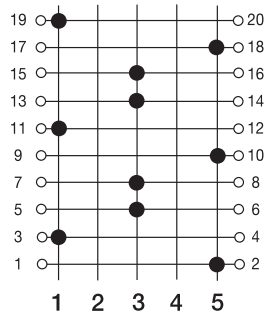
C5502



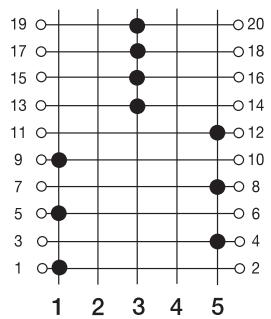
C5503



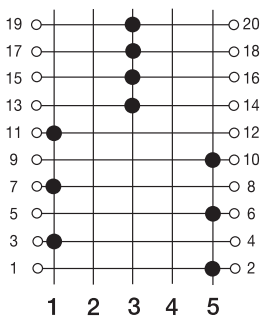
C5504



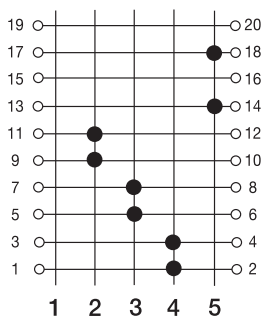
C5505



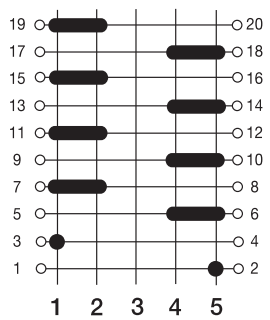
C5506



C5507



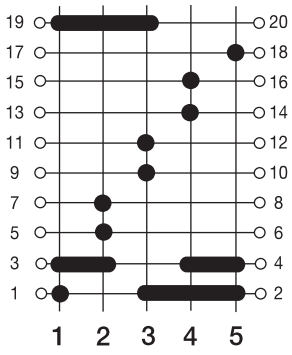
C5508



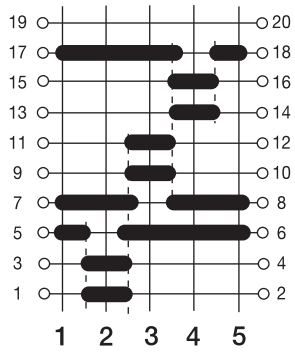
표준 회로집 | Example of Standard Circuit |

5-position, 5-contact block

C5509

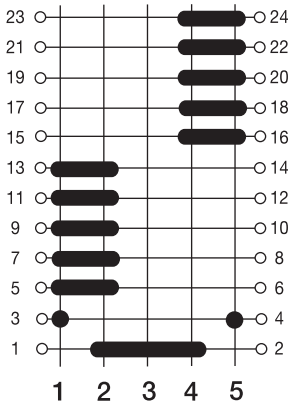


C5510



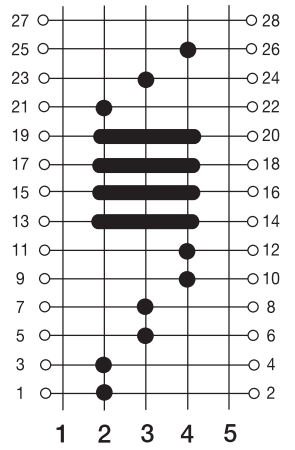
5-position, 6-contact block

C5601



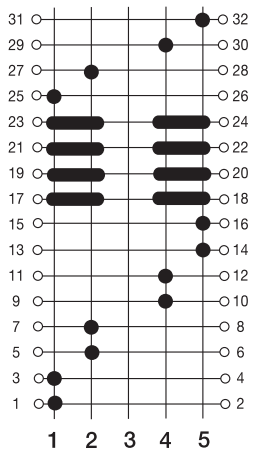
5-position, 7-contact block

C5701

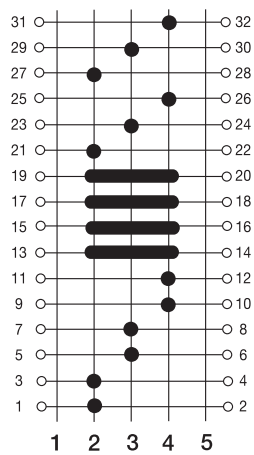


5-position, 8-contact block

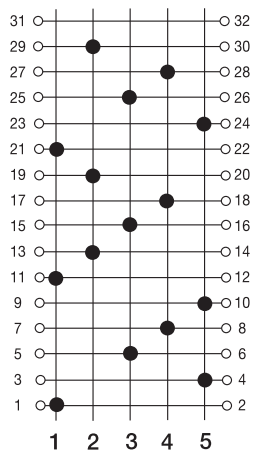
C5801



C5802

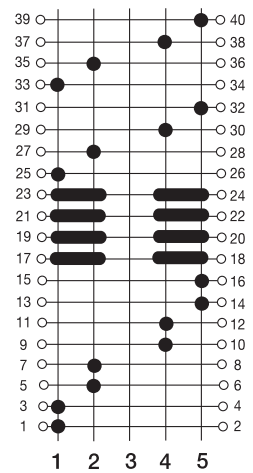


C5803



5-position, 10-contact block

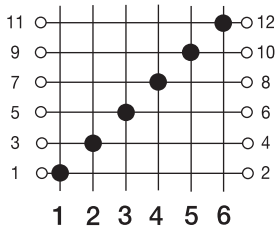
C51001(C5001)



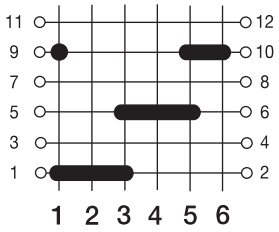
표준 회로집 | Example of Standard Circuit |

6-position, 3-contact block

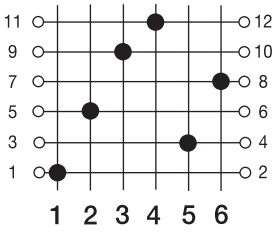
C6301



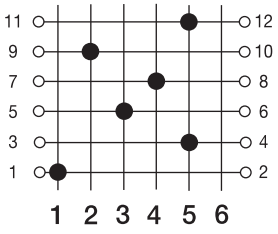
C6302



C6303

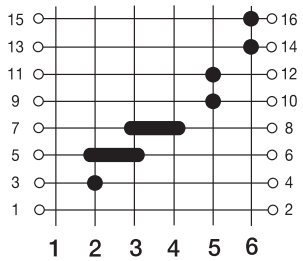


C6304



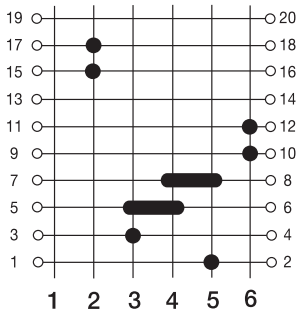
6-position, 4-contact block

C6402



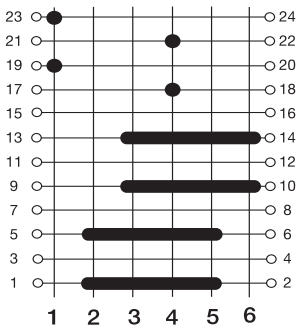
6-position, 5-contact block

C6501

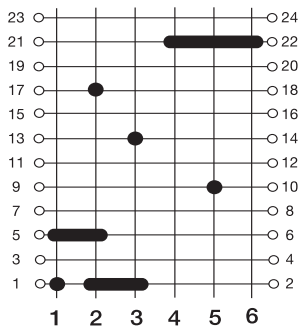


6-position, 6-contact block

C6601



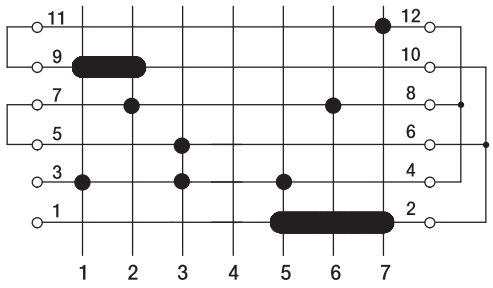
C6602



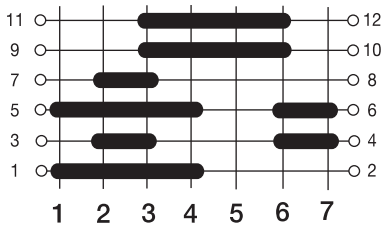
표준 회로집 | Example of Standard Circuit |

7-position, 3-contact block

C7301

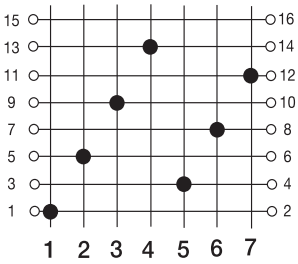


C7302

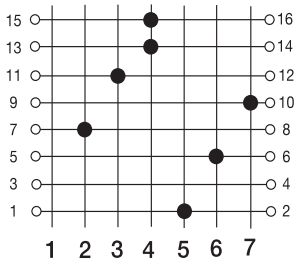


7-position, 4-contact block

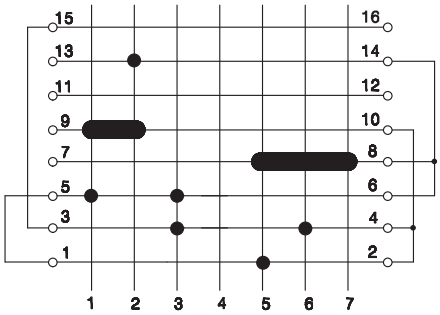
C7401



C7402

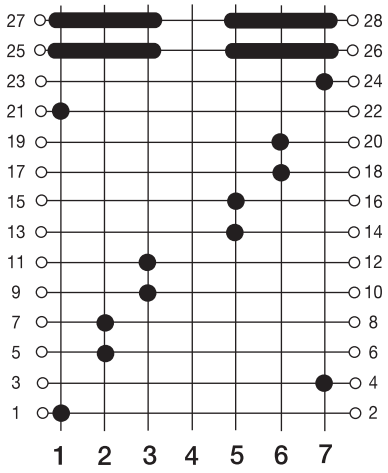


C7403



7-position, 7-contact block

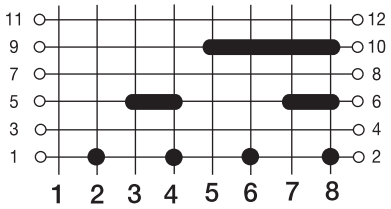
C7701



표준 회로집 | Example of Standard Circuit |

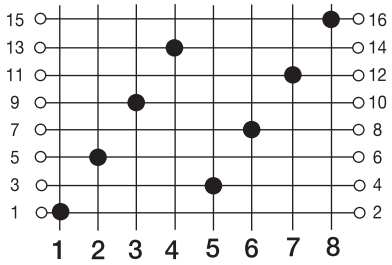
8-position, 3-contact block

C8301

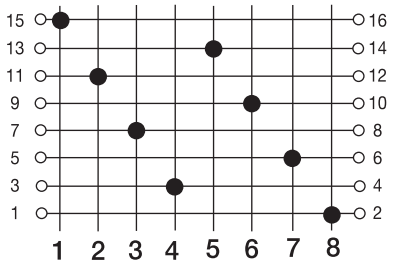


8-position, 4-contact block

C8401

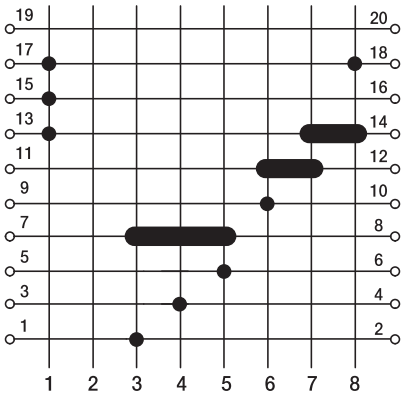


C8402



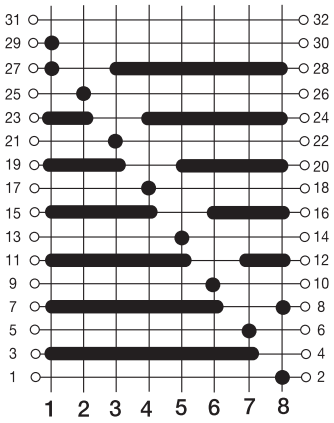
8-position, 5-contact block

C8504



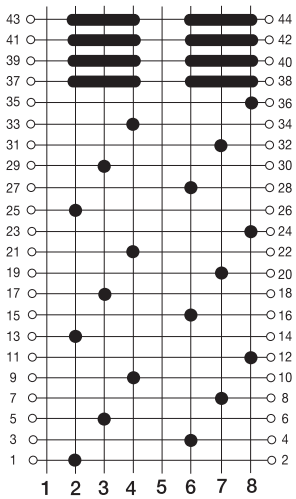
8-position, 8-contact block

C8801



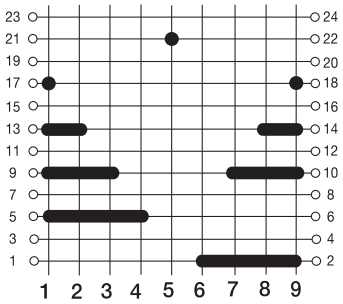
8-position, 11-contact block

C81101 (C8111)



9-position, 6-contact block

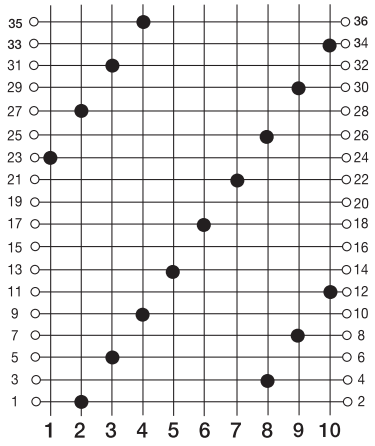
C9601



표준 회로집 | Example of Standard Circuit |

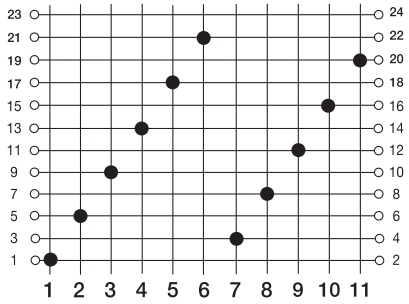
10-position, 9-contact block

C10901 (C1091)



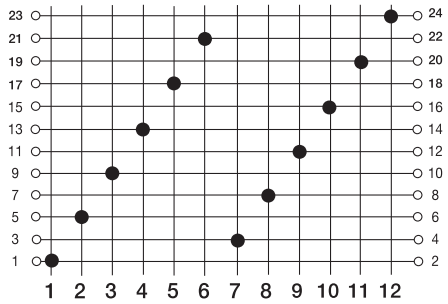
11-position, 6-contact block

C11601 (C1161)

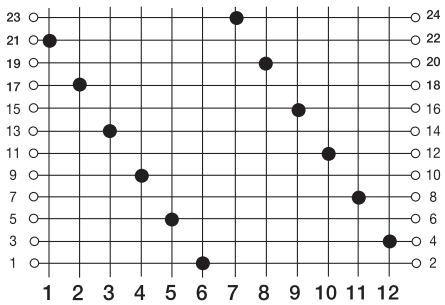


12-position, 6-contact block

C12601 (C1261)

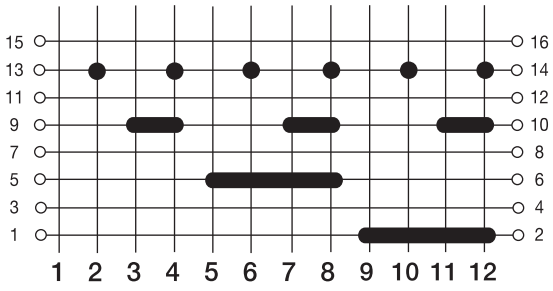


C12602 (C1262)



12-position, 4-contact block

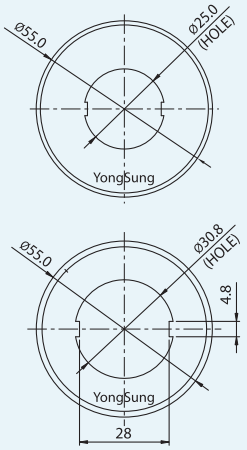
C12401 (C1241)

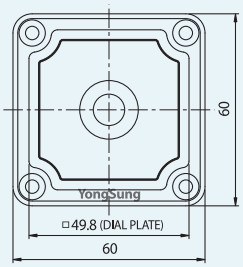


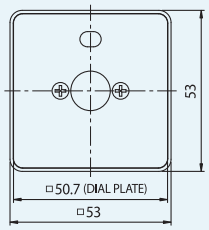
표준 전면판 | Standard Front Plate |

(unit : mm)

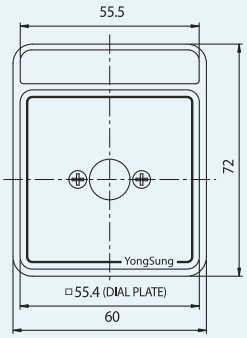
전면판 종류 (Front plate)	외형 치수 (Shape dimension)	전면판 종류 (Front plate)	외형 치수 (Shape dimension)
2 TYPE / 3 TYPE		B TYPE	
5 TYPE		C TYPE	
6 TYPE		D TYPE	



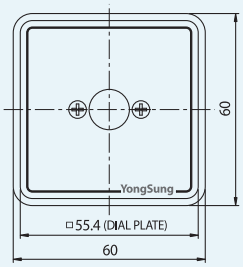


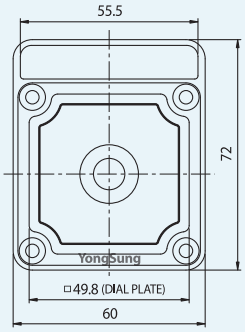


＊ C20 적용 가능
(Available for C20 type)



＊ C20 적용 가능
(Available for C20 type)

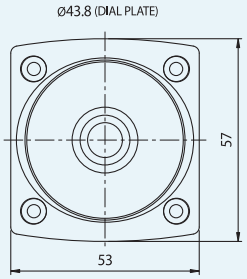


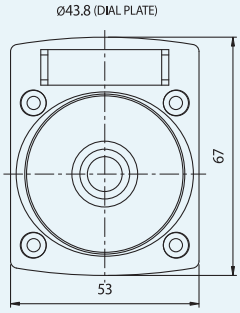


표준 전면판 | Standard Front Plate |

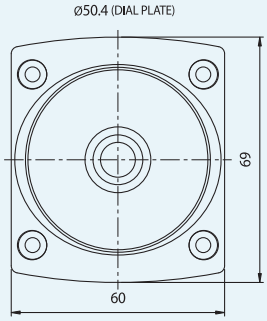
(unit : mm)

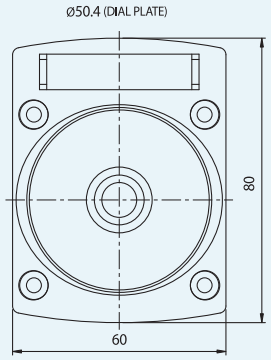
전면판 종류 (Front plate)	외형 치수 (Shape dimension)	전면판 종류 (Front plate)	외형 치수 (Shape dimension)
I TYPE		H TYPE	





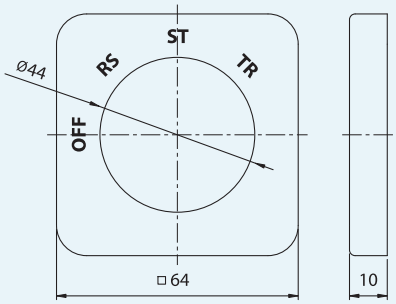
G TYPE		A TYPE	

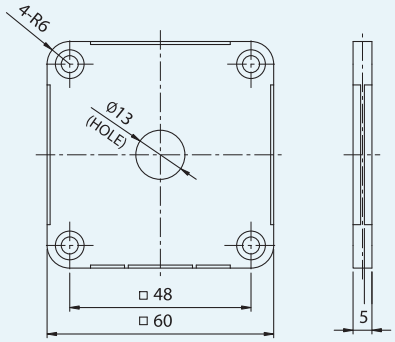




전면판 종류 (Front plate)	외형 치수 (Shape dimension)	
J TYPE	커버 (Cover)	사각판 (Square plate)

＊ J TYPE 핸들전용 명판
(Front plate only
for J Type handle)

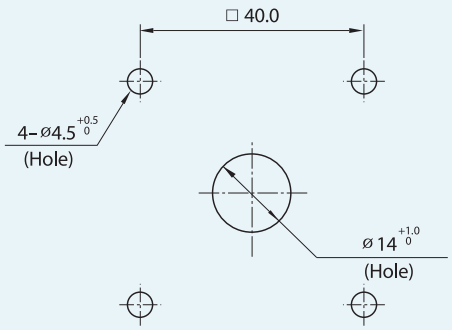




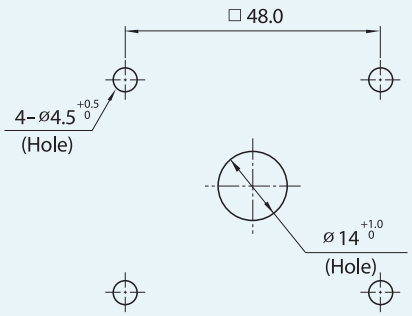
판넬 가공 치수 | Cut-out Dimension |

(unit : mm)

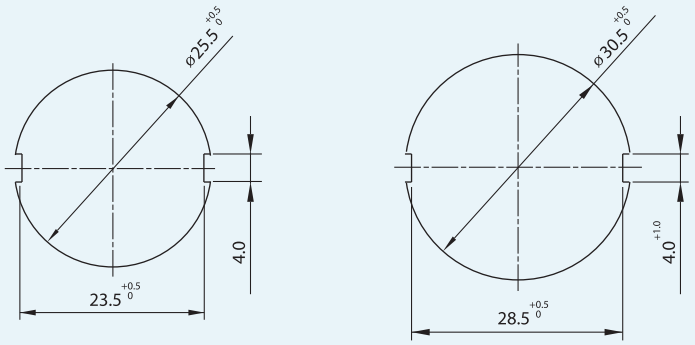
5, H, I TYPE



6, A, B, C, D, G, J TYPE



2 TYPE, 3 TYPE

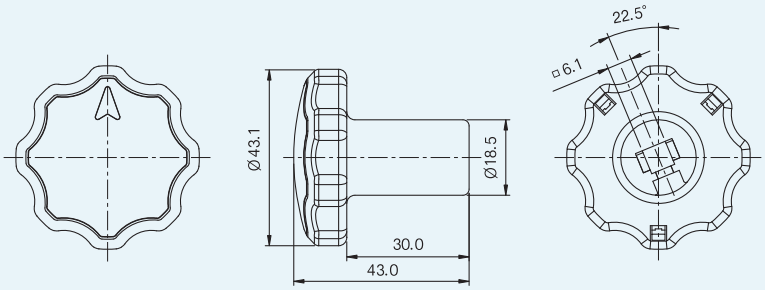


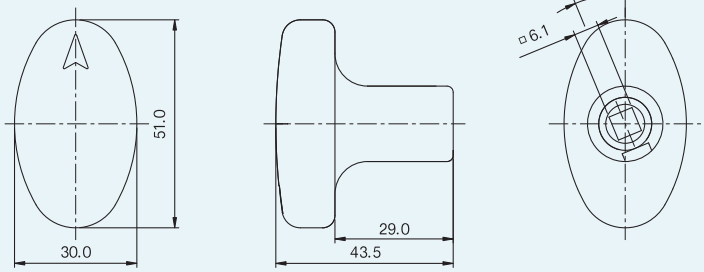
핸들 | Handle |

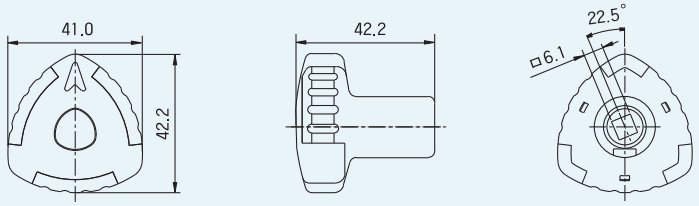
(unit : mm)

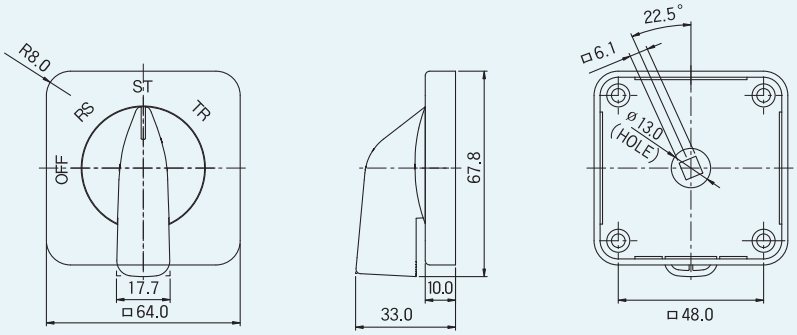
· 스위치에 부착하는 핸들은 절환용, 조정용, 조작용 등 용도에 따라 선택합니다.
(Handle for switch attachment is chosen depending on applications for transfer, adjusting, operating etc.)
· 핸들의 색상은 흑색, 적색 2종류이며, 흑색을 표준으로 합니다. (Handle colors are 2 types of black and red, and black is standard.)

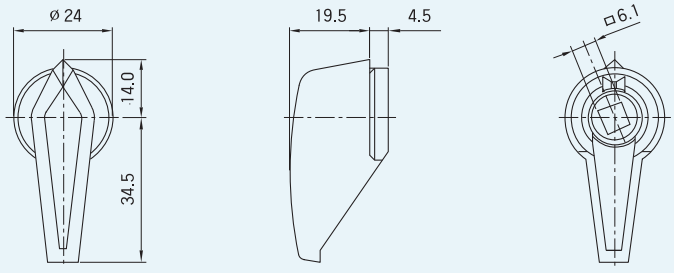
핸들종류 (Handle type)	외형치수 (Shape dimension)
R형 : 국화형 (R type : Chrysanthemum)	
E형 : 달걀형 (E type : Egg)	
T형 : 삼각형 (T type : Triangle)	
J형 : 유럽형 (J type : Europe)	
C형 : 소형 지침형 (C type : Small compass)	







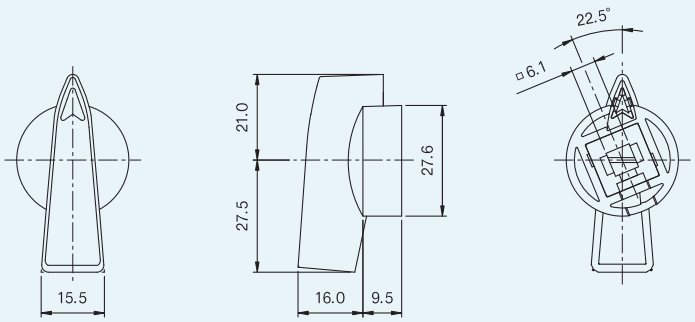




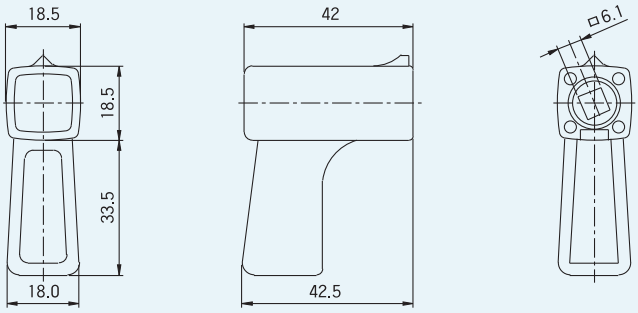
2 캠 스위치

핸들종류 (Handle type)	외형치수 (Shape dimension)

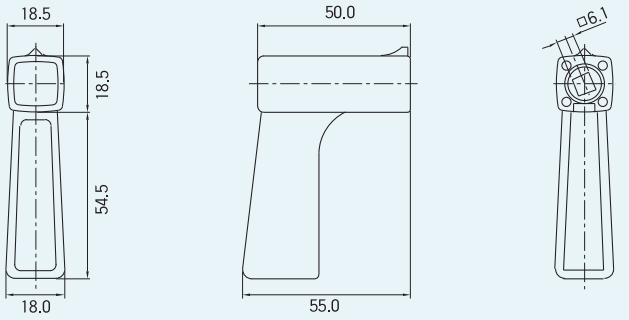
O형 : 지침형 (O type : Compass)



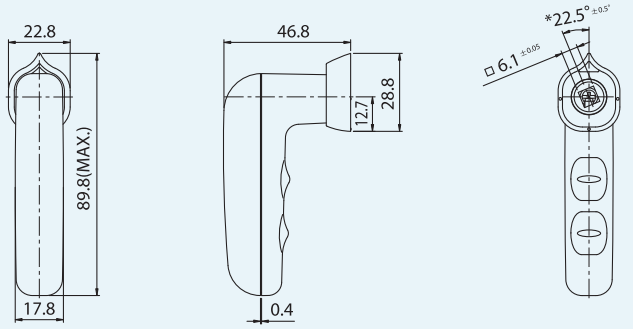
G형 : 소형 권총형 (G type : Small pistol)



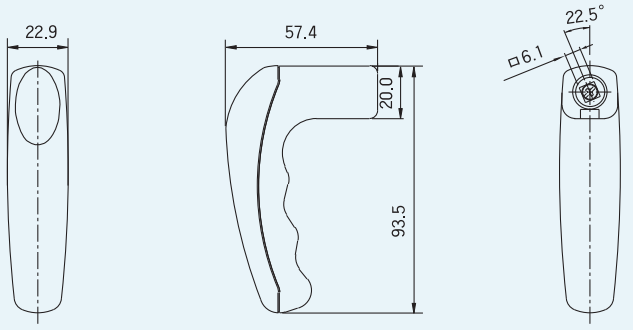
P형 : 권총형 (P type : Pistol)



Z형 : 소형 당김형 (Z type : Small draw)



D형 : 당김형 (D type : Draw)



캠 스위치 연결 단자 | Cam Switch Connection Terminal |

10A CAM						
A	B	C	D	E	대각선 6번 (6th Diagonal)	대각선 7번 (7th Diagonal)
1번, 5번	5번, 9번	2번, 4번	1번, 3번	1번, 9번	3번, 5번	4번, 6번
3번, 7번	2번, 6번	5번, 7번	6번, 8번	2번, 10번	11번, 13번	12번, 14번
6번, 10번	4번, 8번	10번, 12번	9번, 11번	3번, 11번	19번, 21번	20번, 22번
8번, 10번	7번, 11번	18번, 20번	14번, 16번	4번, 12번		
8번, 12번	13번, 17번		22번, 24번	9번, 17번		
9번, 13번				5번, 13번		
						

20A / 30A CAM				C20 CAM		
1번 세로 (1st Column)	2번 세로 (2nd Column)	3번 가로 (3rd Row)	4번 세로 (4th Column)	A 가로 (Row A)	B 세로 (Column B)	C 세로 (Column C)
2번, 6번	1번, 5번	1번, 3번	1번, 2번	1번, 3번	2번, 6번	1번, 5번
4번, 8번	3번, 7번	5번, 7번	2번, 10번	5번, 7번	3번, 7번	4번, 8번
	5번, 9번	2번, 4번		6번, 8번		
		6번, 8번		2번, 4번