

Control Switch

F16 Series



Pilot Light



Non-Illuminated
Push Button Switch



Illuminated
Push Button Switch



Selector Switch



Key Switch



Non-Illuminated
Emergency Stop Switch



Illuminated
Emergency Stop Switch



Non-Illuminated
Emergency Stop Switch With
Name Plate



Non-Illuminated
Emergency Stop Switch With
Name Plate



Non-Illuminated
Mushroom Push Button Switch



Illuminated
Mushroom Push Button Switch

Control Switch

F16 Series

Part Number Description

F16 - 1 2 3 4 5 6 7

Model	KACON F16 Control Switch									
1 Operator Type	1 : Pilot Light			2 : Momentary			3 : Maintained			
	4 : 2 Position selector			5 : 3 Position selector			6 : 2 Position key			
	7 : 3 Position key			8 : Emergency Stop(Nominal)			9 : Push Mushroom			
2 Illumination & Shape	1 : Non-Illuminated Round			2 : Non-Illuminated square			3 : Non-Illuminated Rectangular			
	4 : Non-Illuminated Round(Ø20-Flush Type)			5 : Illuminated Round(Ø20-Flush Type)						
	7 : Illumination Round (LED)			8 : Illumination Square (LED)			9 : Illumination Rectangular (LED)			
3 Contact Form	0 : No Contact		1 : 1N/O + 1N/C		2 : 2N/O + 2N/C		3 : 3N/O + 3N/C			
4 Color	R : Red			G : Green			Y : Yellow			
	W : White			B : Blue			K : Black			
5 Rated voltage	6VDC			12VDC			24VDC			
	220VAC			No mark : Standard (no voltage)						
6 Selector type	2 Position			3 Position						
	Spring Return		Maintained	Spring Return		Maintained				
	0	2		1	6	7	3			
7 Key Operator function (Removal position)	2 Position			3 Position						
	A	B	D	A	B	C	D	E	F	G

Ø20 : Flush Type

General Specification




Contact Ratings	Contact Form	Standard options : 1N/O + 1N/C and more : 2N/O + 2N/C, 3N/O + 3N/C			
	Contact Material	Ag Alloy (24K gold plate)			
	Maximum Switching Current	Max. 5A			
	Maximum Rated Voltage	250VAC / 110VDC			
	Rated Current	Resistance load (AC12/DC12)		Induction load (AC13/DC13)	
		3A	24VDC	0.7A	24VDC
		0.2A	125VDC	0.15A	125VDC
		3A	110VAC	1A	110VAC
		1.5A	250VAC	0.7A	250VAC
	Minimum Switching Current	10mA 5VDC			
LED Module Ratings	Color	Red, Green, Yellow, Blue, White, Black			
	Rated Voltage	24VDC, 12VDC, 6VDC, 220VAC(to be released)			
	Rated Current	Approx. 10mA			
	Life Cycle	50,000 hrs			
	Light Type	LED			
General Ratings	Insulation Resistance	Min. 100M Ω (500VDC)			
	Dielectric Strength	2,000VAC (for 1 minute).			
	Life Cycle	Mechanical	Push button (release) : Min. 1,000,000		
		Electrical	Others : Min. 250,000		
	Frequency Of On/Off	1,200 times / hour			
	Vibration Resistance	Dual wave length 0.1mm(10 ~ 55Hz)			
	Shock Resistance	Malfunction : 100m/s ² Destruction : 500m/s ²			
	Ambient Temperature	-20 ~ +70°C (with no icing)			
	Ambient Humidity	45 ~ 85%RH			
	Degree Of Protection	Key, Selector : IP40 / Others : IP65			

* LED working 50% less than the original brightness after 50000 hours.

Control Switch

F16 Series

Products Selection

Operator Type	Shape	Contact Form	Color	Part Number	Rated Voltage
Ø 16 Illuminated LED Pilot Light   	Round	-	Red	F16-170R	6VDC 12VDC 24VDC
			Green	F16-170G	
			Blue	F16-170B	
			Yellow	F16-170Y	
			White	F16-170W	
			Black	F16-170K	
	Square	-	Red	F16-180R	6VDC 12VDC 24VDC
			Green	F16-180G	
			Blue	F16-180B	
			Yellow	F16-180Y	
			White	F16-180W	
			Black	F16-180K	
	Rectangular	-	Red	F16-190R	6VDC 12VDC 24VDC
			Green	F16-190G	
			Blue	F16-190B	
Yellow			F16-190Y		
White			F16-190W		
Black			F16-190K		

Products Selection

Operator Type	Shape	Contact Form	Color	Part Number	Rated Voltage
Ø 16 Non-Illuminated Momentary Push Button Switch	Round	1N/O + 1N/C	Red	F16-211R	-
			Green	F16-211G	
			Blue	F16-211B	
			Yellow	F16-211Y	
			White	F16-211W	
			Black	F16-211K	
		2N/O + 2N/C	Red	F16-212R	-
			Green	F16-212G	
			Blue	F16-212B	
	3N/O + 3N/C	Yellow	F16-212Y	-	
		White	F16-212W		
		Black	F16-212K		
	Square	1N/O + 1N/C	Red	F16-213R	-
			Green	F16-213G	
			Blue	F16-213B	
			Yellow	F16-213Y	
			White	F16-213W	
			Black	F16-213K	
2N/O + 2N/C		Red	F16-221R	-	
		Green	F16-221G		
		Blue	F16-221B		
3N/O + 3N/C	Yellow	F16-221Y	-		
	White	F16-221W			
	Black	F16-221K			
Rectangular	1N/O + 1N/C	Red	F16-222R	-	
		Green	F16-222G		
		Blue	F16-222B		
		Yellow	F16-222Y		
		White	F16-222W		
		Black	F16-222K		
	2N/O + 2N/C	Red	F16-223R	-	
		Green	F16-223G		
		Blue	F16-223B		
3N/O + 3N/C	Yellow	F16-223Y	-		
	White	F16-223W			
	Black	F16-223K			
Rectangular	1N/O + 1N/C	Red	F16-231R	-	
		Green	F16-231G		
		Blue	F16-231B		
		Yellow	F16-231Y		
		White	F16-231W		
		Black	F16-231K		
	2N/O + 2N/C	Red	F16-232R	-	
		Green	F16-232G		
		Blue	F16-232B		
3N/O + 3N/C	Yellow	F16-232Y	-		
	White	F16-232W			
	Black	F16-232K			
Rectangular	2N/O + 2N/C	Red	F16-233R	-	
		Green	F16-233G		
		Blue	F16-233B		
	3N/O + 3N/C	Yellow	F16-233Y	-	
		White	F16-233W		
		Black	F16-233K		



Control Switch

F16 Series

Products Selection

Operator Type	Shape	Contact Form	Color	Part Number	Rated Voltage
Ø 16 Illuminated LED Momentary Push Button Switch	Round	1N/O + 1N/C	Red	F16-271R	6VDC 12VDC 24VDC
			Green	F16-271G	
			Blue	F16-271B	
			Yellow	F16-271Y	
			White	F16-271W	
		2N/O + 2N/C	Red	F16-272R	6VDC 12VDC 24VDC
			Green	F16-272G	
			Blue	F16-272B	
			Yellow	F16-272Y	
	3N/O + 3N/C	Red	F16-273R	6VDC 12VDC 24VDC	
		Green	F16-273G		
		Blue	F16-273B		
		Yellow	F16-273Y		
		White	F16-273W		
	Square	1N/O + 1N/C	Red	F16-281R	6VDC 12VDC 24VDC
Green			F16-281G		
Blue			F16-281B		
Yellow			F16-281Y		
White			F16-281W		
2N/O + 2N/C		Red	F16-282R	6VDC 12VDC 24VDC	
		Green	F16-282G		
		Blue	F16-282B		
		Yellow	F16-282Y		
3N/O + 3N/C		Red	F16-283R	6VDC 12VDC 24VDC	
		Green	F16-283G		
		Blue	F16-283B		
		Yellow	F16-283Y		
		White	F16-283W		
Rectangular		1N/O + 1N/C	Red	F16-291R	6VDC 12VDC 24VDC
	Green		F16-291G		
	Blue		F16-291B		
	Yellow		F16-291Y		
	White		F16-291W		
	2N/O + 2N/C	Red	F16-292R	6VDC 12VDC 24VDC	
		Green	F16-292G		
		Blue	F16-292B		
		Yellow	F16-292Y		
	3N/O + 3N/C	Red	F16-293R	6VDC 12VDC 24VDC	
		Green	F16-293G		
		Blue	F16-293B		
		Yellow	F16-293Y		
		White	F16-293W		
			Black	F16-293K	



Products Selection

Operator Type	Shape	Contact Form	Color	Part Number	Rated Voltage
Ø 16 Non-Illuminated Maintained Push Button Switch	Round	1N/O + 1N/C	Red	F16-311R	-
			Green	F16-311G	
			Blue	F16-311B	
			Yellow	F16-311Y	
			White	F16-311W	
			Black	F16-311K	
		2N/O + 2N/C	Red	F16-312R	
			Green	F16-312G	
			Blue	F16-312B	
	3N/O + 3N/C	Yellow	F16-312Y		
		White	F16-312W		
		Black	F16-312K		
Red		F16-313R			
Green		F16-313G			
Blue		F16-313B			
Square	1N/O + 1N/C	Yellow	F16-313Y		
		White	F16-313W		
		Black	F16-313K		
		Red	F16-321R		
		Green	F16-321G		
		Blue	F16-321B		
	2N/O + 2N/C	Yellow	F16-321Y		
		White	F16-321W		
		Black	F16-321K		
		Red	F16-322R		
		Green	F16-322G		
		Blue	F16-322B		
	3N/O + 3N/C	Yellow	F16-322Y		
		White	F16-322W		
		Black	F16-322K		
		Red	F16-323R		
		Green	F16-323G		
		Blue	F16-323B		
Rectangular	1N/O + 1N/C	Yellow	F16-323Y		
		White	F16-323W		
		Black	F16-323K		
		Red	F16-331R		
		Green	F16-331G		
		Blue	F16-331B		
	2N/O + 2N/C	Yellow	F16-331Y		
		White	F16-331W		
		Black	F16-331K		
		Red	F16-332R		
		Green	F16-332G		
		Blue	F16-332B		
3N/O + 3N/C	Yellow	F16-332Y			
	White	F16-332W			
	Black	F16-332K			
	Red	F16-333R			
	Green	F16-333G			
	Blue	F16-333B			
-	Yellow	F16-333Y			
	White	F16-333W			
	Black	F16-333K			



Control Switch

F16 Series

Products Selection

Operator Type	Shape	Contact Form	Color	Part Number	Rated Voltage	
Ø 16 Illuminated LED Maintained Push Button Switch	Round	1N/O + 1N/C	Red	F16-371R	6VDC 12VDC 24VDC	
			Green	F16-371G		
			Blue	F16-371B		
			Yellow	F16-371Y		
			White	F16-371W		
			Black	F16-371K		
		2N/O + 2N/C	Red	F16-372R	6VDC 12VDC 24VDC	
			Green	F16-372G		
			Blue	F16-372B		
	3N/O + 3N/C	Yellow	F16-372Y	6VDC 12VDC 24VDC		
		White	F16-372W			
		Black	F16-372K			
	Square	1N/O + 1N/C	Red	F16-373R	6VDC 12VDC 24VDC	
				Green		F16-373G
				Blue		F16-373B
				Yellow		F16-373Y
				White		F16-373W
				Black		F16-373K
2N/O + 2N/C			Red	F16-381R	6VDC 12VDC 24VDC	
			Green	F16-381G		
			Blue	F16-381B		
3N/O + 3N/C		Yellow	F16-381Y	6VDC 12VDC 24VDC		
		White	F16-381W			
		Black	F16-381K			
Rectangular		1N/O + 1N/C	2N/O + 2N/C	Red	F16-382R	6VDC 12VDC 24VDC
				Green	F16-382G	
				Blue	F16-382B	
			3N/O + 3N/C	Yellow	F16-382Y	6VDC 12VDC 24VDC
				White	F16-382W	
				Black	F16-382K	
	2N/O + 2N/C	Red	F16-383R	6VDC 12VDC 24VDC		
		Green	F16-383G			
		Blue	F16-383B			
3N/O + 3N/C	Yellow	F16-383Y	6VDC 12VDC 24VDC			
	White	F16-383W				
	Black	F16-383K				
Rectangular	1N/O + 1N/C	2N/O + 2N/C	Red	F16-391R	6VDC 12VDC 24VDC	
			Green	F16-391G		
			Blue	F16-391B		
		2N/O + 2N/C	Yellow	F16-391Y	6VDC 12VDC 24VDC	
			White	F16-391W		
			Black	F16-391K		
	3N/O + 3N/C	Red	F16-392R	6VDC 12VDC 24VDC		
		Green	F16-392G			
		Blue	F16-392B			
2N/O + 2N/C	Yellow	F16-392Y	6VDC 12VDC 24VDC			
	White	F16-392W				
	Black	F16-392K				
3N/O + 3N/C	Red	F16-393R	6VDC 12VDC 24VDC			
	Green	F16-393G				
	Blue	F16-393B				
2N/O + 2N/C	Yellow	F16-393Y	6VDC 12VDC 24VDC			
	White	F16-393W				
	Black	F16-393K				



Products Selection
















Operator Type	Shape	Contact Form	Color	Selector Type	Operator Function	Part Number
Ø 16 Non-Illuminated Selector Switch (2 Position)	Round	1N/O + 1N/C	Black	Spring Return		F16-411K-0
		2N/O + 2N/C				F16-412K-0
		3N/O + 3N/C				F16-413K-0
		1N/O + 1N/C	Black	Maintained		F16-411K-2
		2N/O + 2N/C				F16-412K-2
		3N/O + 3N/C				F16-413K-2
	Square	1N/O + 1N/C	Black	Spring Return		F16-421K-0
		2N/O + 2N/C				F16-422K-0
		3N/O + 3N/C				F16-423K-0
		1N/O + 1N/C	Black	Maintained		F16-421K-2
		2N/O + 2N/C				F16-422K-2
		3N/O + 3N/C				F16-423K-2
	Rectangular	1N/O + 1N/C	Black	Spring Return		F16-431K-0
		2N/O + 2N/C				F16-432K-0
		3N/O + 3N/C				F16-433K-0
		1N/O + 1N/C	Black	Maintained		F16-431K-2
		2N/O + 2N/C				F16-432K-2
		3N/O + 3N/C				F16-433K-2



Control Switch

F16 Series

Products Selection

Operator Type	Shape	Contact Form	Color	Selector Type	Operator Function	Part Number
Ø 16 Non-Illuminated Selector Switch (3 Position)	 Round	2N/O + 2N/C	Black	Spring Return		F16-512K-1
		3N/O + 3N/C				F16-513K-1
		2N/O + 2N/C	Black	Maintained		F16-512K-3
		3N/O + 3N/C				F16-513K-3
		2N/O + 2N/C	Black	Spring Return		F16-512K-6
		3N/O + 3N/C				F16-513K-6
	2N/O + 2N/C	Black	Spring Return		F16-512K-7	
	3N/O + 3N/C				F16-513K-7	
	 Square	2N/O + 2N/C	Black	Spring Return		F16-522K-1
		3N/O + 3N/C				F16-523K-1
		2N/O + 2N/C	Black	Maintained		F16-522K-3
		3N/O + 3N/C				F16-523K-3
		2N/O + 2N/C	Black	Spring Return		F16-522K-6
		3N/O + 3N/C				F16-523K-6
	2N/O + 2N/C	Black	Spring Return		F16-522K-7	
	3N/O + 3N/C				F16-523K-7	
	 Rectangular	2N/O + 2N/C	Black	Spring Return		F16-532K-1
		3N/O + 3N/C				F16-533K-1
2N/O + 2N/C		Black	Maintained		F16-532K-3	
3N/O + 3N/C					F16-533K-3	
2N/O + 2N/C		Black	Spring Return		F16-532K-6	
3N/O + 3N/C					F16-533K-6	
2N/O + 2N/C	Black	Spring Return		F16-532K-7		
3N/O + 3N/C				F16-533K-7		

Products Selection

















Operator Type	Shape	Contact From	Color	Selector Type	Operator Function	Part Number	
Ø 16 Non-Illuminated Key Switch (2 Position)	Round	1N/O + 1N/C	Black	Spring Return		F16-611K-0A	
		2N/O + 2N/C				F16-612K-0A	
		3N/O + 3N/C				F16-613K-0A	
		1N/O + 1N/C	Black	Spring Return		F16-611K-0B	
		2N/O + 2N/C				F16-612K-0B	
		3N/O + 3N/C				F16-613K-0B	
		1N/O + 1N/C	Black	Maintained		F16-611K-2A	
		2N/O + 2N/C				F16-612K-2A	
		3N/O + 3N/C				F16-613K-2A	
	1N/O + 1N/C	Black	Maintained		F16-611K-2B		
	2N/O + 2N/C				F16-612K-2B		
	3N/O + 3N/C				F16-613K-2B		
	1N/O + 1N/C	Black	Maintained		F16-611K-2D		
	2N/O + 2N/C				F16-612K-2D		
	3N/O + 3N/C				F16-613K-2D		
		Square	1N/O + 1N/C	Black	Spring Return		F16-621K-0A
			2N/O + 2N/C				F16-622K-0A
			3N/O + 3N/C				F16-623K-0A
1N/O + 1N/C			Black	Spring Return		F16-621K-0B	
2N/O + 2N/C						F16-622K-0B	
3N/O + 3N/C						F16-623K-0B	
1N/O + 1N/C			Black	Maintained		F16-621K-2A	
2N/O + 2N/C						F16-622K-2A	
3N/O + 3N/C						F16-623K-2A	
1N/O + 1N/C		Black	Maintained		F16-621K-2B		
2N/O + 2N/C					F16-622K-2B		
3N/O + 3N/C					F16-623K-2B		
1N/O + 1N/C		Black	Maintained		F16-621K-2D		
2N/O + 2N/C					F16-622K-2D		
3N/O + 3N/C					F16-623K-2D		
		Rectangular	1N/O + 1N/C	Black	Spring Return		F16-631K-0A
			2N/O + 2N/C				F16-632K-0A
			3N/O + 3N/C				F16-633K-0A
	1N/O + 1N/C		Black	Spring Return		F16-631K-0B	
	2N/O + 2N/C					F16-632K-0B	
	3N/O + 3N/C					F16-633K-0B	
	1N/O + 1N/C		Black	Maintained		F16-631K-2A	
	2N/O + 2N/C					F16-632K-2A	
	3N/O + 3N/C					F16-633K-2A	
	1N/O + 1N/C	Black	Maintained		F16-631K-2B		
	2N/O + 2N/C				F16-632K-2B		
	3N/O + 3N/C				F16-633K-2B		
	1N/O + 1N/C	Black	Maintained		F16-631K-2D		
	2N/O + 2N/C				F16-632K-2D		
	3N/O + 3N/C				F16-633K-2D		



Control Switch




















F16 Series

Products Selection

Operator Type	Shape	Contact Form	Color	Selector Type	Operator Function	Part Number
Ø 16 Non-Illuminated Key Switch (3 Position) 	Round	2N/O + 2N/C	Black	Spring Return		F16-712K-1C
		3N/O + 3N/C				F16-713K-1C
		2N/O + 2N/C	Black	Spring Return		F16-712K-1E
		3N/O + 3N/C				F16-713K-1E
		2N/O + 2N/C	Black	Spring Return		F16-712K-6D
		2N/O + 2N/C				F16-713K-6D
		2N/O + 2N/C	Black	Spring Return		F16-712K-6E
		3N/O + 3N/C				F16-713K-6E
		2N/O + 2N/C	Black	Spring Return		F16-712K-6F
		3N/O + 3N/C				F16-713K-6F
		2N/O + 2N/C	Black	Spring Return		F16-712K-7A
		3N/O + 3N/C				F16-713K-7A
		2N/O + 2N/C	Black	Spring Return		F16-712K-7E
		3N/O + 3N/C				F16-713K-7E
		2N/O + 2N/C	Black	Spring Return		F16-712K-7G
		3N/O + 3N/C				F16-713K-7G
		2N/O + 2N/C	Black	Maintained		F16-712K-3A
		3N/O + 3N/C				F16-713K-3A
		2N/O + 2N/C	Black	Maintained		F16-712K-3B
		3N/O + 3N/C				F16-713K-3B
2N/O + 2N/C	Black	Maintained		F16-712K-3C		
3N/O + 3N/C				F16-713K-3C		
2N/O + 2N/C	Black	Maintained		F16-712K-3D		
3N/O + 3N/C				F16-713K-3D		
2N/O + 2N/C	Black	Maintained		F16-712K-3E		
3N/O + 3N/C				F16-713K-3E		
2N/O + 2N/C	Black	Maintained		F16-712K-3F		
3N/O + 3N/C				F16-713K-3F		
2N/O + 2N/C	Black	Maintained		F16-712K-3G		
3N/O + 3N/C				F16-713K-3G		



Products Selection




















Operator Type	Shape	Contact From	Color	Selector Type	Operator Function	Part Number
Ø 16 Non-Illuminated Key Switch (3 Position)	Square	2N/O + 2N/C	Black	Spring Return		F16-722K-1C
		3N/O + 3N/C				F16-723K-1C
	Square	2N/O + 2N/C	Black	Spring Return		F16-722K-1E
		3N/O + 3N/C				F16-723K-1E
	Square	2N/O + 2N/C	Black	Spring Return		F16-722K-6D
		3N/O + 3N/C				F16-723K-6D
	Square	2N/O + 2N/C	Black	Spring Return		F16-722K-6E
		3N/O + 3N/C				F16-723K-6E
	Square	2N/O + 2N/C	Black	Spring Return		F16-722K-6F
		3N/O + 3N/C				F16-723K-6F
	Square	2N/O + 2N/C	Black	Spring Return		F16-722K-7A
		3N/O + 3N/C				F16-723K-7A
	Square	2N/O + 2N/C	Black	Spring Return		F16-722K-7E
		3N/O + 3N/C				F16-723K-7E
	Square	2N/O + 2N/C	Black	Spring Return		F16-722K-7G
		3N/O + 3N/C				F16-723K-7G
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3A
		3N/O + 3N/C				F16-723K-3A
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3A(45°)*
		3N/O + 3N/C				F16-723K-3A(45°)*
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3B
		3N/O + 3N/C				F16-723K-3B
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3C
		3N/O + 3N/C				F16-723K-3C
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3D
		3N/O + 3N/C				F16-723K-3D
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3E
		3N/O + 3N/C				F16-723K-3E
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3E(45°)*
		3N/O + 3N/C				F16-723K-3E(45°)*
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3F
		3N/O + 3N/C				F16-723K-3F
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3G
		3N/O + 3N/C				F16-723K-3G
	Square	2N/O + 2N/C	Black	Maintained		F16-722K-3G(45°)*
		3N/O + 3N/C				F16-723K-3G(45°)*

* 45 ° is the type of order.

Control Switch




F16 Series

Products Selection

Operator Type	Shape	Contact From	Color	Selector Type	Operator Function	Part Number
Ø 16 Non-Illuminated Key Switch (3 Position)	Rectangular	2N/O + 2N/C	Black	Spring Return		F16-732K-1C
		3N/O + 3N/C				F16-733K-1C
	Rectangular	2N/O + 2N/C	Black	Spring Return		F16-732K-1E
		3N/O + 3N/C				F16-733K-1E
	Rectangular	2N/O + 2N/C	Black	Spring Return		F16-732K-6D
		3N/O + 3N/C				F16-733K-6D
	Rectangular	2N/O + 2N/C	Black	Spring Return		F16-732K-6E
		3N/O + 3N/C				F16-733K-6E
	Rectangular	2N/O + 2N/C	Black	Spring Return		F16-732K-6F
		3N/O + 3N/C				F16-733K-6F
	Rectangular	2N/O + 2N/C	Black	Spring Return		F16-732K-7A
		3N/O + 3N/C				F16-733K-7A
	Rectangular	2N/O + 2N/C	Black	Spring Return		F16-732K-7E
		3N/O + 3N/C				F16-733K-7E
	Rectangular	2N/O + 2N/C	Black	Spring Return		F16-732K-7G
		3N/O + 3N/C				F16-733K-7G
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3A
		3N/O + 3N/C				F16-733K-3A
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3A(45°)*
		3N/O + 3N/C				F16-733K-3A(45°)*
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3B
		3N/O + 3N/C				F16-733K-3B
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3C
		3N/O + 3N/C				F16-733K-3C
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3D
		3N/O + 3N/C				F16-733K-3D
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3E
		3N/O + 3N/C				F16-733K-3E
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3E(45°)*
		3N/O + 3N/C				F16-733K-3E(45°)*
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3F
		3N/O + 3N/C				F16-733K-3F
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3G
		3N/O + 3N/C				F16-733K-3G
	Rectangular	2N/O + 2N/C	Black	Maintained		F16-732K-3G(45°)*
		3N/O + 3N/C				F16-733K-3G(45°)*

* 45 ° is the type of order.









Products Selection

Operator Type	Shape	Contact Form	Color	Part Number	Rated Voltage
Ø 16 Non-Illuminated Emergency Stop Switch 	Round	1N/O + 1N/C	Red	F16-811R	-
		2N/O + 2N/C		F16-812R	-
		3N/O + 3N/C		F16-813R	-
	+ Name Plate	1N/O + 1N/C	Red + Yellow(Name Plate)	F16-A11R	-
		2N/O + 2N/C		F16-A12R	-
		3N/O + 3N/C		F16-A13R	-
Ø 16 Illuminated LED Emergency Stop Switch 	Round	1N/O + 1N/C	Red	F16-871R	24VDC
		2N/O + 2N/C		F16-872R	
		3N/O + 3N/C		F16-873R	
	+ Name Plate	1N/O + 1N/C	Red + Yellow(Name Plate)	F16-A71R	24VDC
		2N/O + 2N/C		F16-A72R	
		3N/O + 3N/C		F16-A73R	
Ø 16 Non-Illuminated Mushroom Push Button Switch 	Round	1N/O + 1N/C	Red	F16-911R	-
			Green	F16-911G	
			Yellow	F16-911Y	
		2N/O + 2N/C	Red	F16-912R	
			Green	F16-912G	
			Yellow	F16-912Y	
		3N/O + 3N/C	Red	F16-913R	
			Green	F16-913G	
			Yellow	F16-913Y	
	Square	1N/O + 1N/C	Red	F16-921R	
			Green	F16-921G	
			Yellow	F16-921Y	
		2N/O + 2N/C	Red	F16-922R	
			Green	F16-922G	
			Yellow	F16-922Y	
3N/O + 3N/C	Red	F16-923R			
	Green	F16-923G			
	Yellow	F16-923Y			
Rectangular	1N/O + 1N/C	Red	F16-931R	-	
		Green	F16-931G		
		Yellow	F16-931Y		
	2N/O + 2N/C	Red	F16-932R		
		Green	F16-932G		
		Yellow	F16-932Y		
	3N/O + 3N/C	Red	F16-933R		
		Green	F16-933G		
		Yellow	F16-933Y		
Ø 16 Illuminated LED Mushroom Push Button Switch 	Round	1N/O + 1N/C	Red	F16-971R	6VDC 12VDC 24VDC
			Green	F16-971G	
			Yellow	F16-971Y	
	Square	1N/O + 1N/C	Red	F16-981R	6VDC 12VDC 24VDC
			Green	F16-981G	
			Yellow	F16-981Y	
	Rectangular	1N/O + 1N/C	Red	F16-991R	6VDC 12VDC 24VDC
			Green	F16-991G	
			Yellow	F16-991Y	

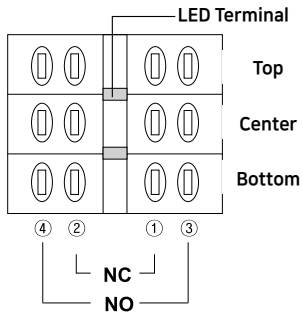
Control Switch

F16 Series

Accessory

	Operator Type	Shape	Contact Form	Color	Part Number	Rated Voltage
	220VAC Trans	-	-	Black	F16 - T1	220VAC
	LED	-	-	Red	F16-S115R 24V	24VAC/DC
					F16-S115R 12V	12VAC/DC
					F16-S115R 6V	6VAC/DC
				Green	F16-S115G 24V	24VAC/DC
					F16-S115G 12V	12VAC/DC
					F16-S115G 6V	6VAC/DC
				Yellow	F16-S115Y 24V	24VAC/DC
					F16-S115Y 12V	12VAC/DC
					F16-S115Y 6V	6VAC/DC
				White	F16-S115W 24V	24VAC/DC
					F16-S115W 12V	12VAC/DC
					F16-S115W 6V	6VAC/DC
Blue	F16-S115B 24V	24VAC/DC				
	F16-S115B 12V	12VAC/DC				
	F16-S115B 6V	6VAC/DC				
	Safety Guard (Ø16 only)	Round	-	Yellow	K16 - G1	-
	Contact Block	-	1N/O + 1N/C	Black	FCB	-
	Empty Block	-	-	Black	FEB	-
	Ø16 Hole Cover	-	-	Black	K16 - S117	-
	Mounting Ring Wrench	-	-	Black	K16 - W1	-
	Terminal Protection	-	-	White	F16 - S116	-

Terminal Arrangement



The figure on the right shows the terminal arrangement and internal switch circuit when the product bottom is viewed from the front.

The factory setting is the contact block 1N/O + 1N/C, and blocks can be added up to 3N/O + 3N/C.

As for the selector and key switch, two- and three-stage switches have different ON/OFF operating points. Refer to the following table. Round/Square Rectangular Emergency Stop/Push Mushroom.

Diagram (Selector / Key Switch)

Types	Contact Form	Left	Middle	Right
	1N/O + 1N/C	-		-
 2 Position	2N/O + 2N/C		-	
	3N/O + 3N/C			
 3 Position	2N/O + 2N/C		-	
	3N/O + 3N/C			

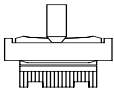
Control Switch

F16 Series

Caution

1. Connection of wires

- 1) soldering
The power consumption of the soldering iron must be 30W or less.
Use a 30 W soldering iron within 5s, and a 20W soldering iron within 10s.
- 2) Tab terminal
Use the #110 tab terminal.
- 3) Wires for connection
Single wire: Maximum $\varnothing 0.8\text{mm}$
Stranded wire: Maximum 0.75mm^2



2. Replacement/installation of the front button and LED

- 1) Button : Use a driver in the groove on the side of the button to remove it
(To insert the button, push it until it clicks.)
- 2) LED : Pull the LED using a tool such as pliers. Assemble it in the reverse sequence of the disassembly.

3. Mounting the product on the panel

- 1) Press both the projections of the contact unit module with two fingers to remove the module from the operating unit.
- 2) The operating unit and contact unit module have their directivity. Use caution for insertion.
- 3) Separate the fixing ring and anti-rotation fixture from the operating unit.
- 4) Insert the operating unit in the panel, and assemble it in the reverse order of the disassembly.
- 5) The fixing ring can be firmly tightened using the K16-W1.

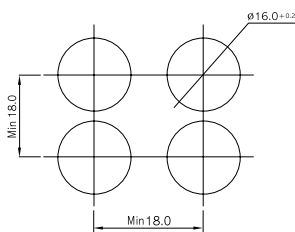
4. Contact block replacement/installation

- 1) Widen four projections on both sides of the contact unit module to separate the contact block.
- 2) Push the contact block into the empty space of the contact unit module to assemble it. The block is mounted with a click sound.
(Be sure to check the left and right sides are firmly locked.)
- 3) A maximum of three (3N/O + 3N/C) contact blocks can be mounted.

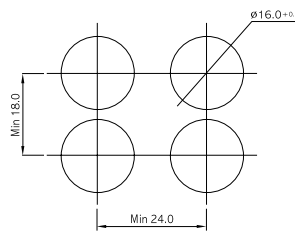
5. When using a F16 small Control Switch as the power switch for the control

Panel Cut-Out

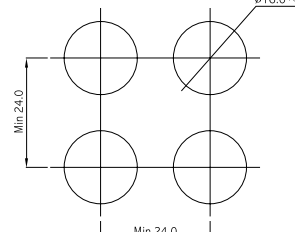
Round/Square ($\varnothing 16$)



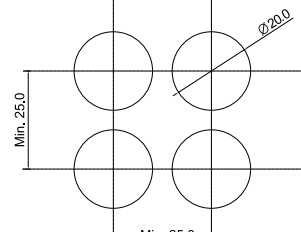
Rectangular ($\varnothing 16$)



Emergency Stop/Push Mushroom ($\varnothing 16$)

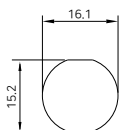


Round($\varnothing 20$)

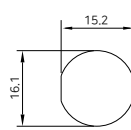


D-Cut

셀렉타, 키

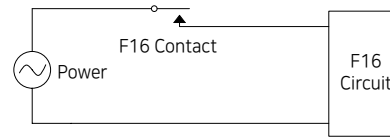


셀렉타, 키 외

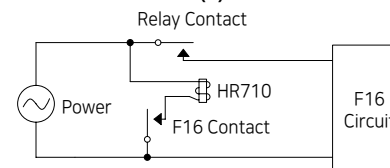


- Note.
1. When processing the panels, consider the usability by the operator when deciding the distance between the holes.
 2. The dimension of the hole should be $\varnothing 16.0 \pm 0.2$ or $\varnothing 20.0 \pm 0.2$.
(If the diameter of the hole is larger than the specified value above, the product may not operate properly.)
 3. When using the protection guards, reconfigure the distances between the holes.
 4. In case of the lever switches, the distances between the holes during the panel processing has some differences among them, be careful about this.
- In case of an Emergency Stop type, the distance is min.41mm between holes from upper, lower,

unit, please follow the following instruction for longer product life span and reliability.



(X)



(O)

6. When rectifying the AC current for the DC power for lighting, the DC power must be a constant voltage source with a ripple range of 10 % or less. Otherwise, the LED life is significantly Reduced

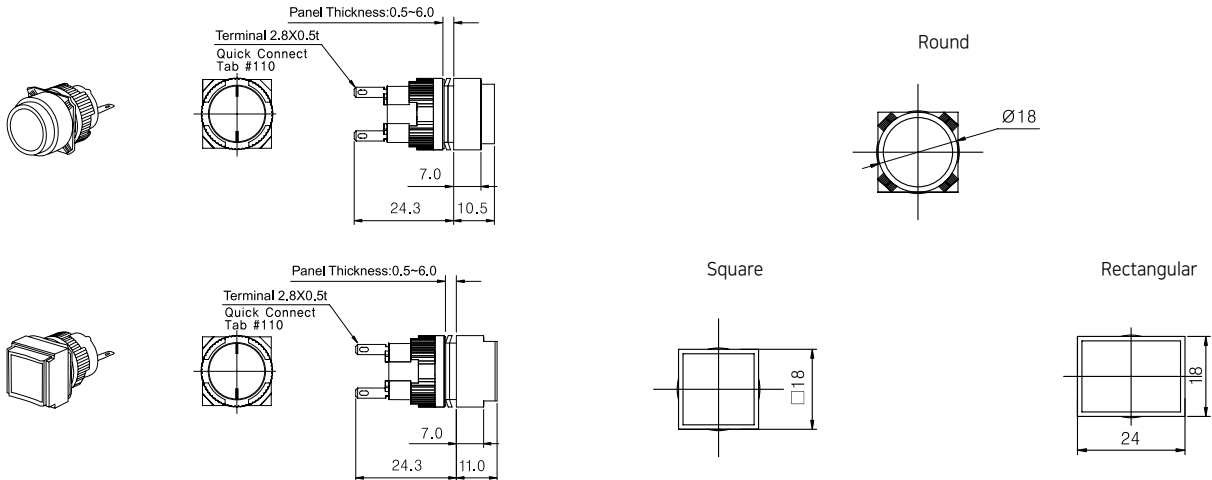
7. Do not apply excessive impact or force to prevent damage to the product. When using the K16-W1 tool, do not tighten the fixing ring with an excessive force, because it may damage the product (When fixing the product on the panel, the tightening torque must be 0.1 ~ 0.23 N·m or less).

8. When soldering the terminal for wiring, comply with the specified temperature and time. Failure to meet the specifications may lead to the damage and thermal deformation to the product.

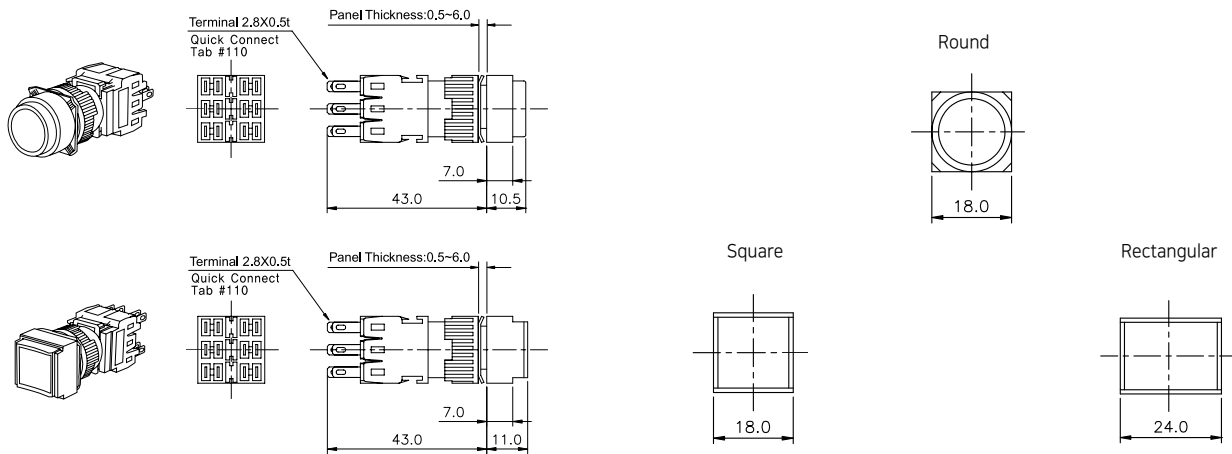
Dimension

unit : mm

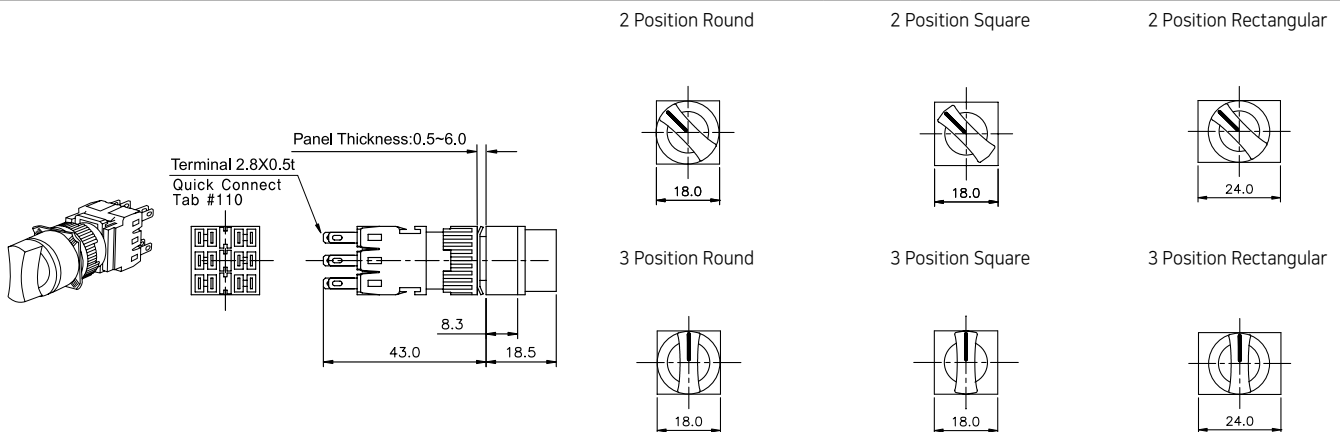
Pilot Light



Momentary & Maintained Push Button Switch



Selector Switch



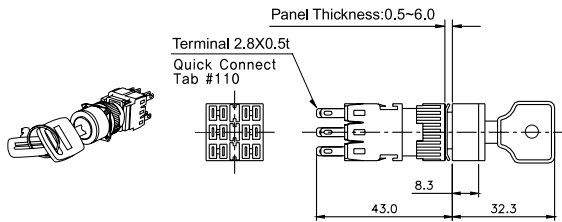
Control Switch

F16 Series

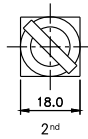
Dimension

unit : mm

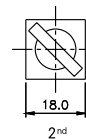
Key Switch



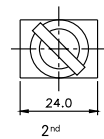
2 Position Round



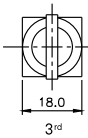
2 Position Square



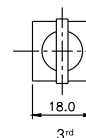
2 Position Rectangular



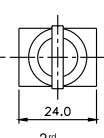
3 Position Round



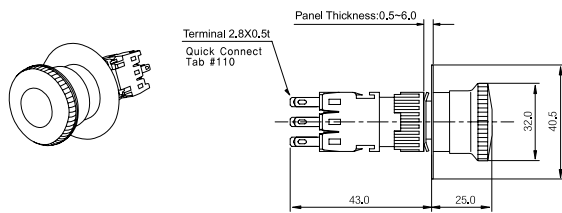
3 Position Square



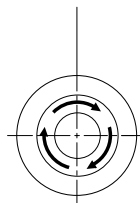
3 Position Rectangular



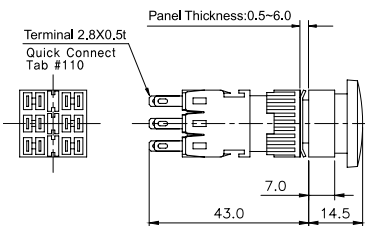
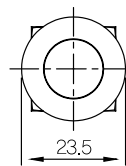
Emergency Stop Switch



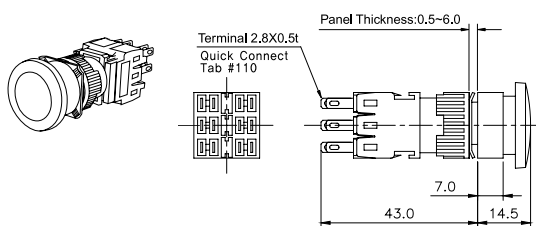
Round



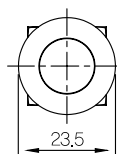
Round



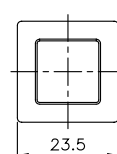
Mushroom Push Button Switch



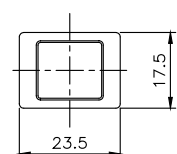
Round



Square



Rectangular

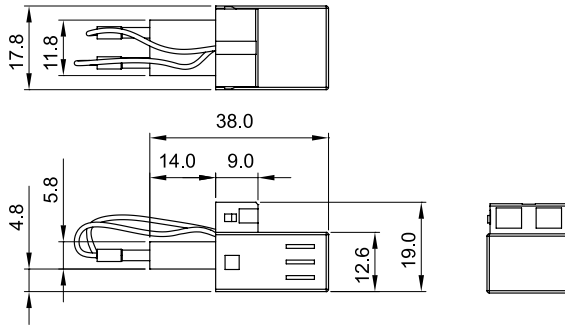


Dimension

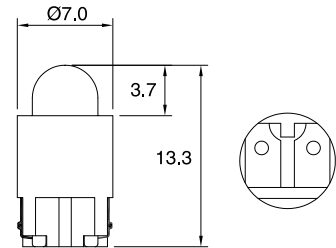
unit : mm

Accessory

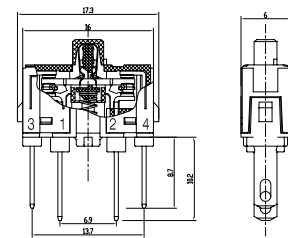
F16 - T1 / 220VAC transformer



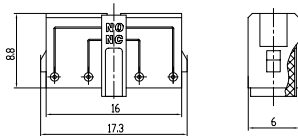
F16 - S115 / LED



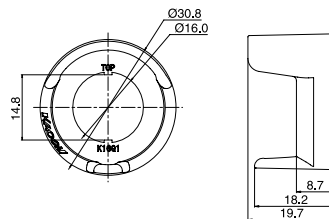
FCB / Contact Block((1N/O + 1N/C)



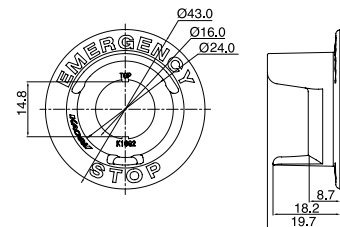
FEB / Empty Block



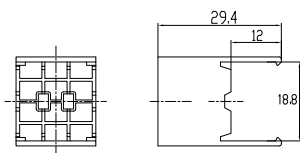
K16 - G1 / Safety Guard



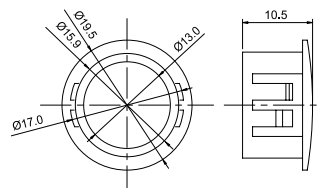
K16 - G2 / Safety Guard



F16 - S116 / Terminal Protection



K16 - S117 / Ø16 Hole Cover



K16 - W1 / Fastening Tool for the Fixture Ring

