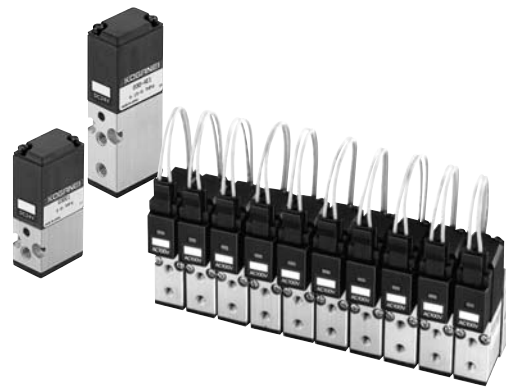
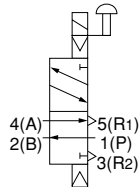
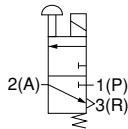
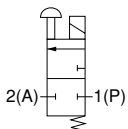


KOGANEI CLEAN SYSTEM SOLENOID VALVES 030 SERIES



Symbols

2-port Normally closed (NC) 3-port Normally closed (NC) 5-port, 2-position Single solenoid



Specifications

Item	Basic model For direct piping, T, F, F01 type manifolds	CS-030E1	CS-030-4E1	CS-V030E1
Number of positions			2 positions	
Number of ports		2, 3 ports	5 ports	2, 3 ports
Valve function		Normally closed (NC)	Single solenoid	Normally closed (NC)
Media		Air		Vacuum
Operation type		Direct acting type	Internal pilot type	Direct acting type
Effective area [Cv]	mm ²	1(P)→2(A)0.6[0.03] 2(A)→3(R)0.8[0.04]	1(P)→4(A),2(B)0.6[0.03] 4(A)→5(R1), 2(B)→3(R2)0.8[0.04]	1(P)→2(A)0.6[0.03] 2(A)→3(R)0.8[0.04]
Port size ^{Note1}		M5×0.8		
Lubrication		Not required		
Operating pressure range	MPa[psi.]	0~0.7 [0~102]	0.15~0.7 [22~102]	-100kPa~0 [-29.53in.Hg~0]
Proof pressure	MPa[psi.]	1.05 [152]		
Response time	ms	DC12V, DC24V		
ON/OFF		10/25 or below		
		AC100V, AC200V		
		15/40 or below		
Maximum operating frequency	Hz	5		
Operating temperature range (atmosphere and media)	°C [°F]	5~50 [41~122]		
Shock resistance	m/s ² [G]	117.7 [12]		
Mounting direction		Any		

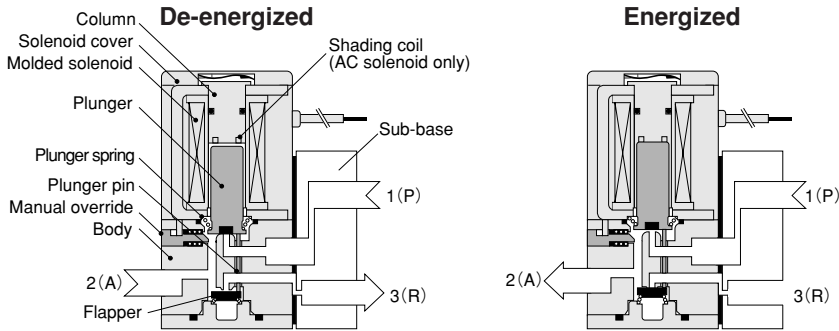
Solenoid Specifications

Item	Rated voltage	DC12V	DC24V	AC100V	AC200V
Type		Flywheel diode incorporated for surge suppression		Shading type	
Operating voltage range	V	10.8~13.2 (12±10%)	21.6~26.4 (24±10%)	90~132 (100 ⁺³² ₋₁₀ %)	180~264 (200 ⁺³² ₋₁₀ %)
Current (when rated voltage is applied)	Frequency Hz	—	—	50	60
	Starting mA (r.m.s.)	—	—	36	32
	Energizing mA (r.m.s.)	130 (1.6W) [140 (1.7W) with LED indicator]	65 (1.6W) [75 (1.8W) with LED indicator]	24	20
Maximum allowable leakage current	mA	8	4	4	2
Insulation resistance	MΩ	Over 100			
Wiring type and lead wire length	Standard	Grommet type: 300mm [11.8in.]			
	Optional	Plug connector type: 300mm [11.8in.] Note: See made to order on p.151.			
Color of lead wire		Brown (+) Black (-)	Red (+) Black (-)	Yellow	White
Color of LED indicator		Red		Yellow	Green
Surge suppression (as standard)		Flywheel diode		Varistor	

Inner Construction and Major Parts

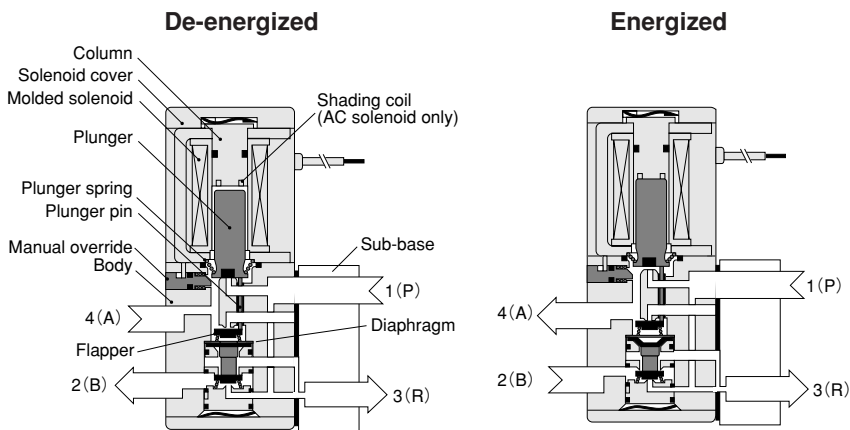
● 2, 3-port

CS-030E1-24



● 5-port

CS-030-4E1-24



Major Parts and Materials

CS-030E1

Parts	Materials
Body	Aluminum alloy (anodized)
O-ring	Synthetic rubber (NBR)
Flapper	
Plunger	Magnetic stainless steel
Column	
Spring	Stainless steel
Sub-base	Aluminum alloy (anodized)
Mounting base	Mild steel (nickel plated)

CS-030-4E1

Parts	Materials
Body	Aluminum alloy (anodized)
O-ring	Synthetic rubber (NBR)
Flapper	
Diaphragm	Synthetic rubber (urethane)
Plunger	Magnetic stainless steel
Column	
Spring	Stainless steel
Sub-base	Aluminum alloy (anodized)
Mounting base	Mild steel (nickel plated)

Manifold Materials

Parts	Materials
Manifold body	Aluminum alloy (anodized)
Block-off plate	Mild steel (nickel plated)
Bracket	
Seal	Synthetic rubber (NBR)

Order Codes

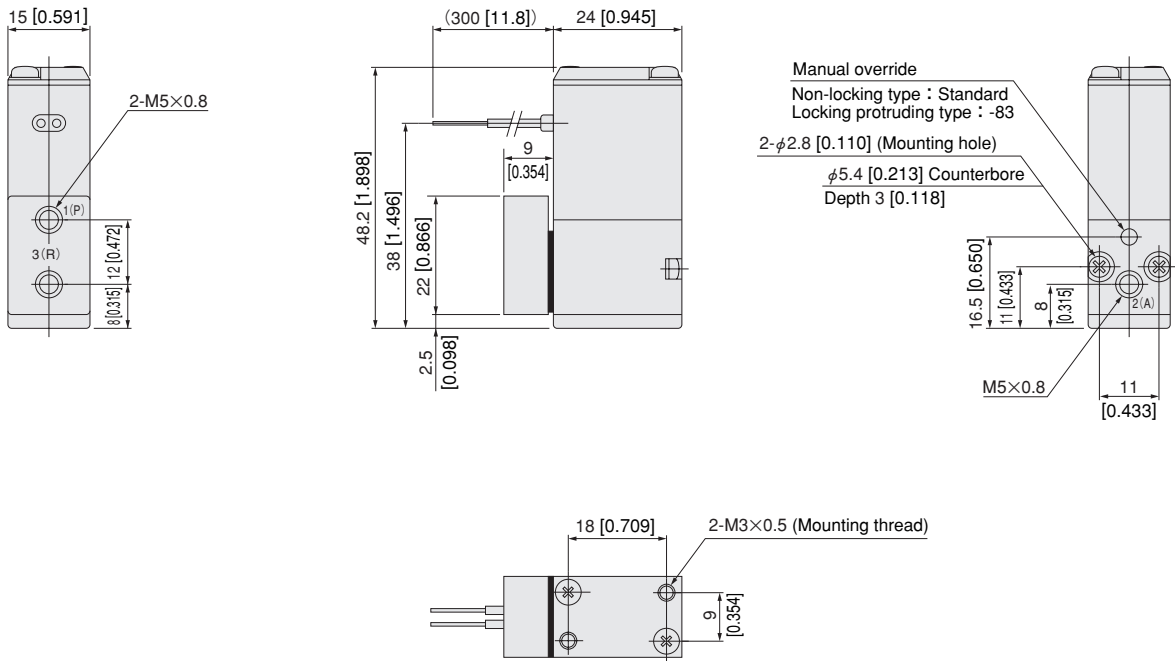
CS - 030E1						AC100V				
Clean system 030 series valve basic model	Number of ports		Sub-base		Manual override		Solenoid			Voltage
	3-port	2-port	Without sub-base (For manifold)	With sub-base (For single unit)	Non-locking type (Standard)	Locking protruding type	Grommet (Standard)	Straight connector	L connector	
CS - 030E1 2-, 3-port for positive pressure	Blank	- 2	Blank ※ Cannot be used as a single unit.	- 24	Blank	- 83	Blank	- PSL	- PLL	DC12V DC24V AC100V AC200V
CS - 030 - 4E1 5-port for positive pressure	—									
CS - V030 E1 2-, 3-port for vacuum	Blank	- 2								

Manifold Order Codes

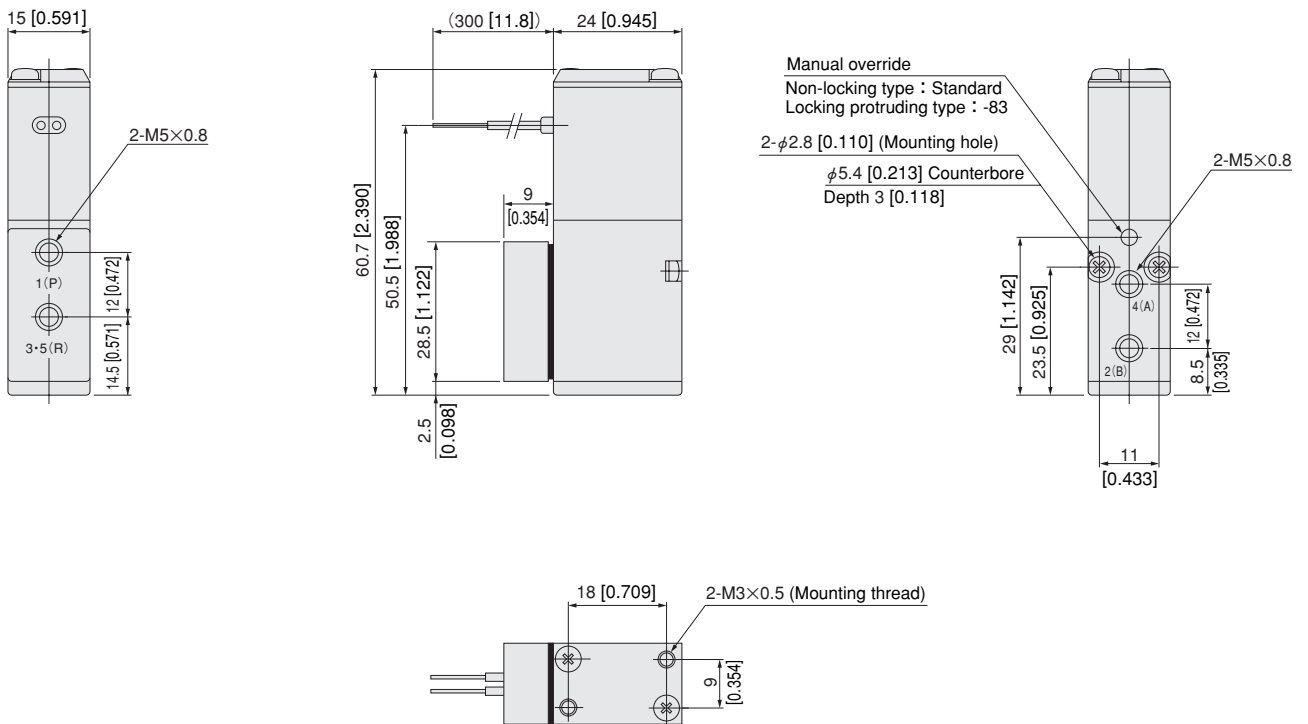
CS - YM						
Clean system 030 series manifold basic model	Number of units	Manifold model	Station	Clean system mounting valve model		
CS-YM	2 : 2 units	T : T type (2-, 3-port only)	● Valve mounting position from left, as viewed from the front	● When using a manifold-mounted valve as a single unit, mount a sub-base for the piping.		
	3 : 3 units	F : F type (2-, 3-, 5-port only)	Stn.1 : First	● For details of valve models, see the order codes listed above.		
	⋮	F01 : F01 type (Combination mounting of 2-, 3-, 5-port. Connecting port Rc1/8.)	Stn.2 : Second	● Enter CS-BP when closing a station with a block-off plate without mounting a valve.		
	10 : 10 units		⋮	⋮		
	20 : 20 units		Stn.20 : 20th			
	● For 11 or more stations, use F01 only.					

Dimensions of Solenoid Valve mm [in.]

● CS-030E1-24

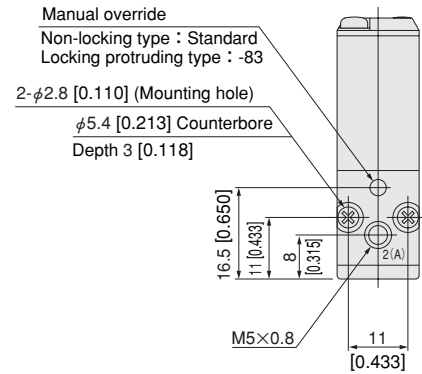
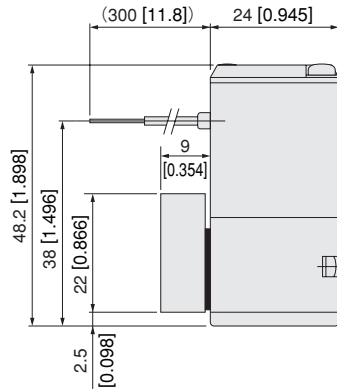
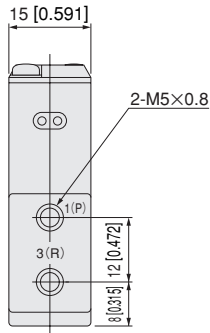


● CS-030-4E1-24



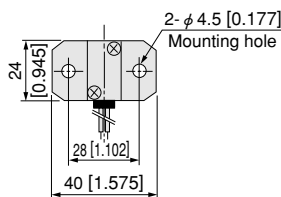
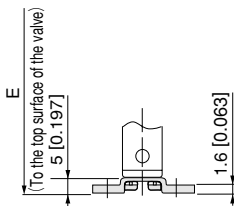
Dimensions of Solenoid Valve mm [in.]

●CS-V030E1-24



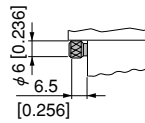
Additional Parts (To be ordered separately)

- Mounting base : 030-21

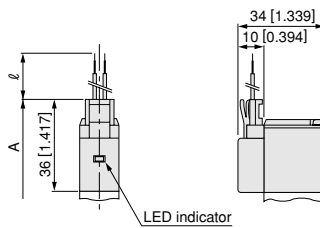


● Options

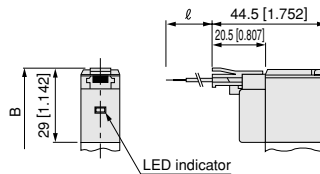
- Locking protruding type manual override : -83



- Solenoid with straight connector : -PSL



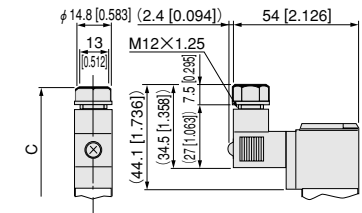
- Solenoid with L connector : -PLL



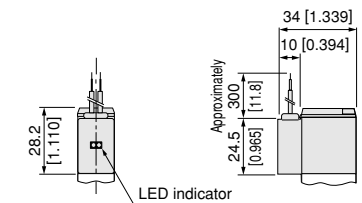
※ The lead wire direction is to the side with the manual override and 4(A), 2(B) port.

● Made to Order

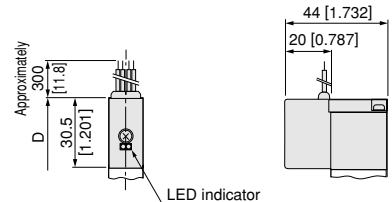
- Solenoid with DIN connector : -39



- Solenoid with LED indicator : -L



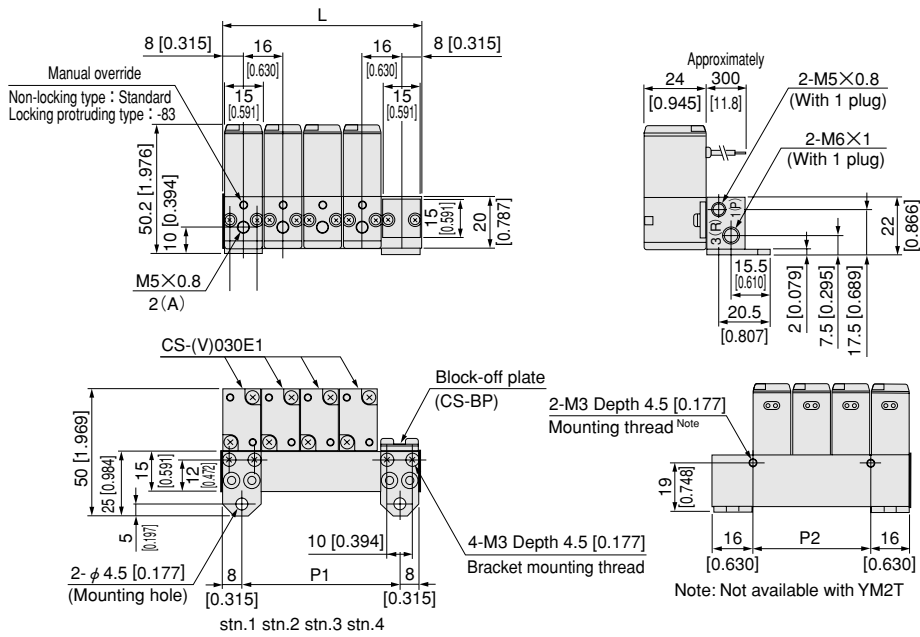
- Built-in interface unit : -FA



Model	Code	A	B	C	D	E	ℓ (Lead wire length)	Remark
CS-030E1, CS-V030E1		56 [2.205]	49 [1.929]	64.1 [2.524]	50.5 [1.988]	53.2 [2.094]	-PSL, -PLL: 300 [11.8]	Overall length to the end of the valve
CS-030-4E1		68.5 [2.697]	61.5 [2.421]	76.6 [3.016]	63 [2.480]	65.7 [2.587]	Made to order: -1L: 1000 [39], -3L: 3000 [118]	

Dimensions of Manifold for 2-, 3-port Valve mm [in.]

●CS-YM□T

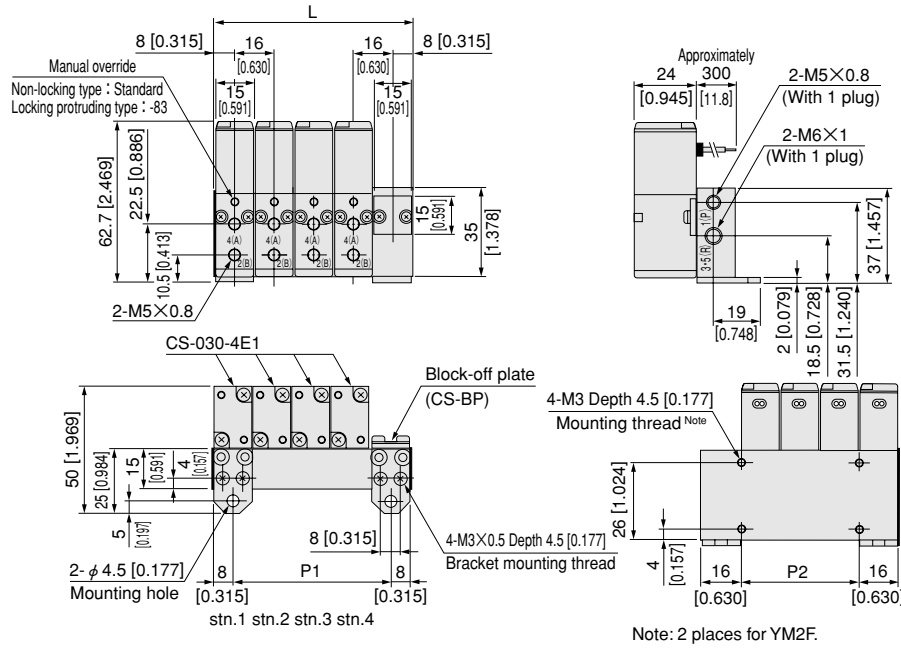


Unit dimensions

Model	L	P1	P2
CS-YM2T	32 [1.260]	16 [0.630]	—
CS-YM3T	48 [1.890]	32 [1.260]	16 [0.630]
CS-YM4T	64 [2.520]	48 [1.890]	32 [1.260]
CS-YM5T	80 [3.150]	64 [2.520]	48 [1.890]
CS-YM6T	96 [3.780]	80 [3.150]	64 [2.520]
CS-YM7T	112 [4.409]	96 [3.780]	80 [3.150]
CS-YM8T	128 [5.039]	112 [4.409]	96 [3.780]
CS-YM9T	144 [5.669]	128 [5.039]	112 [4.409]
CS-YM10T	160 [6.299]	144 [5.669]	128 [5.039]

Manifold for Combination Mounting of 2-, 3-, 5-port Valves mm [in.]

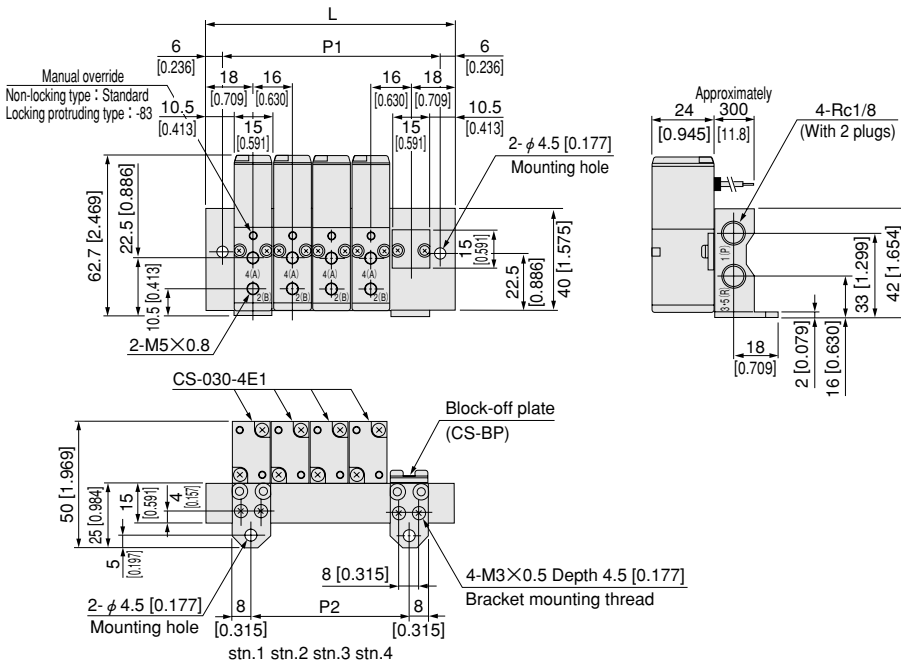
●CS-YM□F



Unit dimensions

Model	L	P1	P2
CS-YM2F	32 [1.260]	16 [0.630]	—
CS-YM3F	48 [1.890]	32 [1.260]	16 [0.630]
CS-YM4F	64 [2.520]	48 [1.890]	32 [1.260]
CS-YM5F	80 [3.150]	64 [2.520]	48 [1.890]
CS-YM6F	96 [3.780]	80 [3.150]	64 [2.520]
CS-YM7F	112 [4.409]	96 [3.780]	80 [3.150]
CS-YM8F	128 [5.039]	112 [4.409]	96 [3.780]
CS-YM9F	144 [5.669]	128 [5.039]	112 [4.409]
CS-YM10F	160 [6.299]	144 [5.669]	128 [5.039]

●CS-YM□F01



Unit dimensions

Model	L	P1	P2
CS-YM2F01	52 [2.047]	40 [1.575]	16 [0.630]
CS-YM3F01	68 [2.677]	56 [2.205]	32 [1.260]
CS-YM4F01	84 [3.307]	72 [2.835]	48 [1.890]
CS-YM5F01	100 [3.937]	88 [3.465]	64 [2.520]
CS-YM6F01	116 [4.567]	104 [4.094]	80 [3.150]
CS-YM7F01	132 [5.197]	120 [4.724]	96 [3.780]
CS-YM8F01	148 [5.827]	136 [5.354]	112 [4.409]
CS-YM9F01	164 [6.457]	152 [5.984]	128 [5.039]
CS-YM10F01	180 [7.087]	168 [6.614]	144 [5.669]
CS-YM11F01	196 [7.717]	184 [7.244]	160 [6.299]
CS-YM12F01	212 [8.346]	200 [7.874]	176 [6.929]
CS-YM13F01	228 [8.976]	216 [8.504]	192 [7.559]
CS-YM14F01	244 [9.606]	232 [9.134]	208 [8.189]
CS-YM15F01	260 [10.236]	248 [9.764]	224 [8.819]
CS-YM16F01	276 [10.866]	264 [10.394]	240 [9.449]
CS-YM17F01	292 [11.496]	280 [11.024]	256 [10.079]
CS-YM18F01	308 [12.126]	296 [11.654]	272 [10.709]
CS-YM19F01	324 [12.756]	312 [12.283]	288 [11.339]
CS-YM20F01	340 [13.386]	328 [12.913]	304 [11.969]