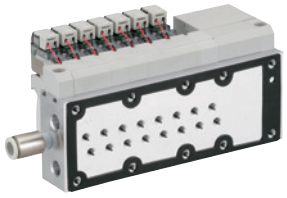
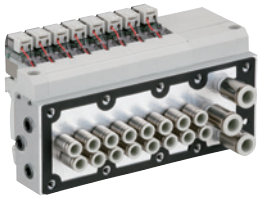
Limited Edition News

CKD

Separation of Electricity and Air via Rear Piping

Select from 4 types according to your working environment

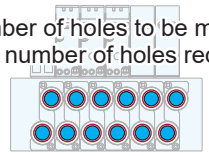
Connection port	Mounting direction	Without gasket	With gasket *1
Port P/R	Side		
Port A/B	Rear		
Port P/R	Rear		
Port A/B	Rear		

*1. Gasket material:Fluoro rubber

Installation image on control panel

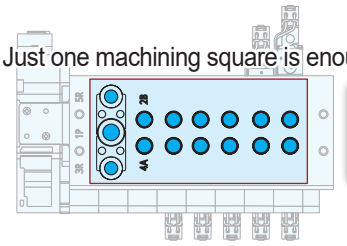
Before When not using rear piping solenoid valves

The number of holes to be machined is the number of holes required



After When using rear piping solenoid valves

Just one machining square is enough.



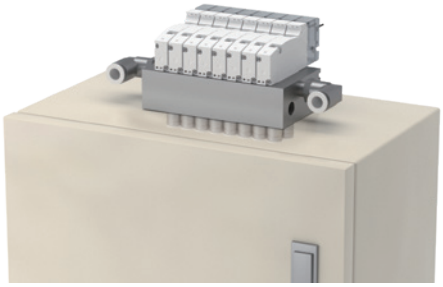
Reduced machining hours!

Installation INSIDE the control panel

Applications Food processing machinery, water treatment plants, chemical plants

Merits Easy machining of control panel opening. As it is a gasket sealant, it also supports washing of equipment with water

Installation OUTSIDE the control panel



Applications Semiconductor manufacturing equipment

Merits By installing the solenoid valve outside the panel, the installation space inside the panel can be utilized effectively

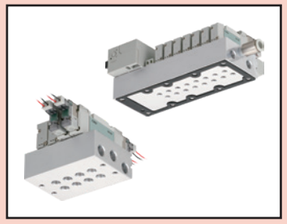
Directional control valve manifold Rear Piping Series [Special Specification Product]

CKD Corporation

https://www.ckd.co.jp/en/

LN-023AA

●Contact a CKD Sales representative for special specifications of this product.



Pilot operated 3, 5-port valve, back piping, discrete/reduced wiring manifold

M3GB1/2, M4GB1/2 Series

●Compatible cylinder diameter: ø20 to ø80

Manifold common specifications

Item	Content
Manifold type	Integrated Base
Mounting method	Direct mount
Supply / Exhaust method	Common supply/common exhaust (exhaust check valve built-in)
Internal pilot exhaust method	Main valve/pilot valve common exhaust (pilot exhaust check valve built-in)
Piping direction	Valve top direction
Valve Type and Operation Method	Pilot operated soft spool valve
Operating Fluid	Compressed Air
Max. Operating Pressure MPa	0.7
Min. Operating Pressure MPa	0.2
Proof Pressure MPa	1.05
Ambient Temperature °C	-5 to 55 (No freezing)
Fluid temperature °C	5 to 55
Manual Device	Non-locking/locking common (standard)
Lubrication (*1)	Not Required
Degree of protection (*2)	Dust-proof
Vibration resistance m/s²	50 or less
Shock resistance m/s²	300 or less
Atmosphere	Cannot be used in corrosive gas atmosphere

*1:Use turbine oil Class 1 ISOVG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.

*2:Avoid dripping water or oil, etc., during use. IP65 (water jet proof) applies for DIN terminal box specifications. However, the specified outer diameter of the cord and tightening torque must be used for fixing in place.

Electrical specifications

Item		Content					
Rated Voltage V		24 DC	12 DC	5 DC	3 DC	100 VAC	200 VAC
Allowable voltage fluctuation		±10%					
Holding Current A (*3)	Standard	0.015 (0.017)	0.030 (0.034)	0.072 (0.082)	0.120 (0.136)	0.009 (0.009)	0.006 (0.006)
	With low heat generation/power saving circuit	0.005	0.010	-		-	
Power Consumption W (*3)	Standard	0.35 (0.40)		0.35 (0.40)		-	
	With low heat generation/power saving circuit	0.1		-		-	
Apparent power VA (*3)	Standard	-		-		0.93 (0.98)	1.20 (1.40)
Heat Resistance Class		B					
Surge Suppressor		Option					
Indicator		Lamp (option)					

*3 Values in ( ) apply when lamp is included. In addition, the type with Low exoergic/energy saving circuit is only available with lamp.

Model No. Notation

M 4GB1 8 0R - M5 - E2 A - 8 - FL□□□□□□ - 3

1 Model No. 2 Switching position class 3 Port Size 4 Electrical connections 5 Option 6 Station No. *1 7 Voltage

M 4GB2 1 0R - 06 - T51 A - 8 - FL□□□□□□ - 3

1 Model No. 2 Switching position class 3 Port Size 4 Electrical connections 5 Option 6 Station No. *1 7 Voltage

3 Port Size

Type	Piping	Code	3GB1	3GB2	4GB1	4GB2
Push-in fitting	ø1.8	C18	●		●	
	ø4	C4	●		●	
	ø6	C6	●	●	●	●
	ø8	C8		●		●
Female thread	M5	M5	●		●	
	Rc1/8	06		●		●

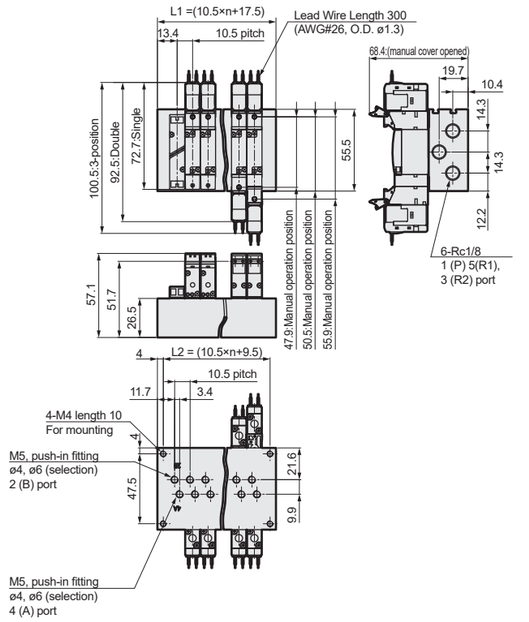
*1. With "□", select the order model No., and our company will fill in the 6 digits.
*2. Single valves for base mounting are 3/4GB1□9 and 3/4GB2□9.
*3. DIN rail mount type is not supported.
*4. The maximum number of stations is 16.
*5. Refer to the "Model No." on the CKD Components Product Website (https://www.ckd.co.jp/kiki/en/) → for details on the M4G□ Series (specifications, model No., safety precautions).
*6. Type with gasket is limited to 8 stations and 12 stations.

Click!

External Dimensions:Individual wiring manifold

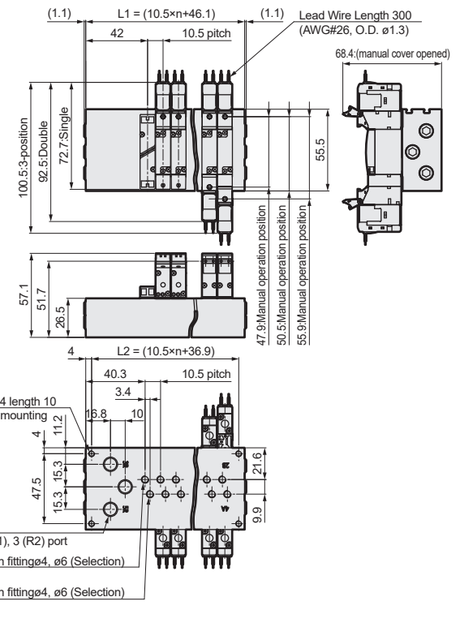
Dimensions diagram is an internal pilot dimensions diagram.

● M4GB1 air supply and exhaust port on both sides



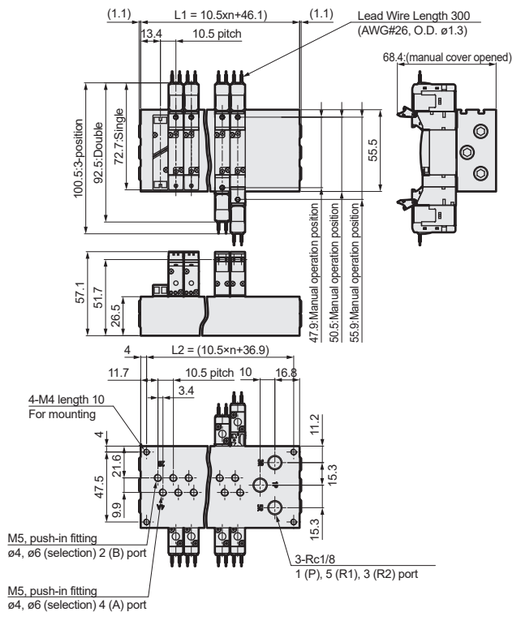
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	38.5	49.0	59.5	70.0	80.5	91.0	101.5	112.0	122.5	133.0	143.5	154.0	164.5	175.0	185.5
L2	30.5	41.0	51.5	62.0	72.5	83.0	93.5	104.0	114.5	125.0	135.5	146.0	156.5	167.0	177.5

● M4GB1 supply/exhaust port left (supply/exhaust port rear piping)



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	65.9	76.4	86.9	97.4	107.9	118.4	128.9	139.4	149.9	160.4	170.9	181.4	191.9	202.4	212.9
L2	57.9	68.4	78.9	89.4	99.9	110.4	120.9	131.4	141.9	152.4	162.9	173.4	183.9	194.4	204.9

● M4GB1 supply/exhaust port right (supply/exhaust port rear piping)

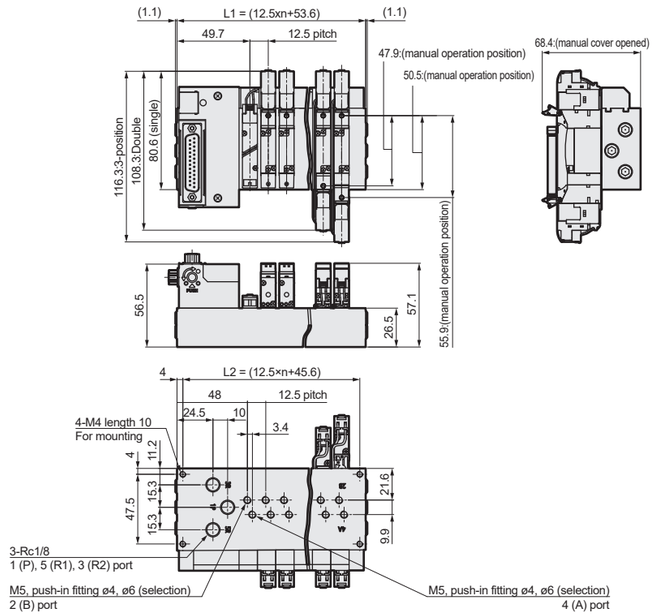


Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	65.9	76.4	86.9	97.4	107.9	118.4	128.9	139.4	149.9	160.4	170.9	181.4	191.9	202.4	212.9
L2	57.9	68.4	78.9	89.4	99.9	110.4	120.9	131.4	141.9	152.4	162.9	173.4	183.9	194.4	204.9

External Dimensions: Reduced wiring manifolds

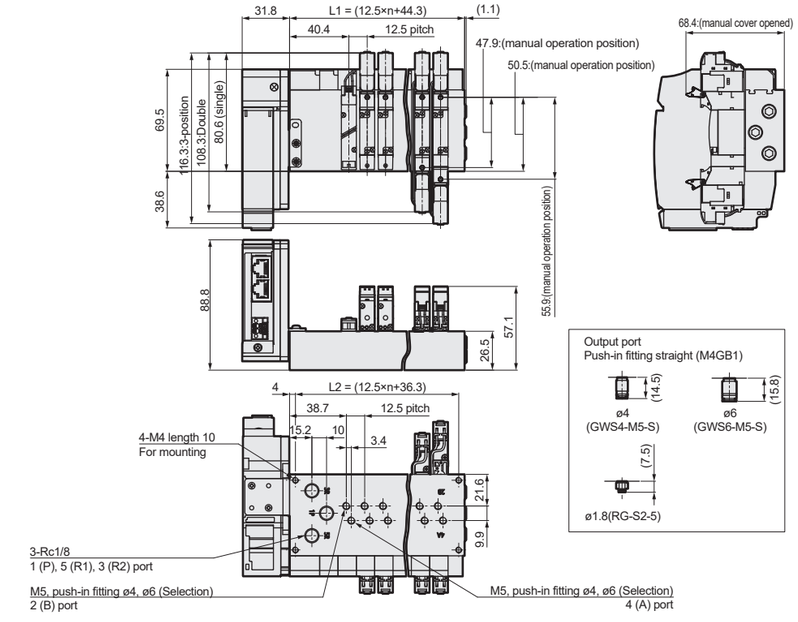
Dimensions diagram is an internal pilot Dimensions diagram.

● M4GB1 reduced wiring (air supply and exhaust port rear piping)



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	78.6	91.1	103.6	116.1	128.6	141.1	153.6	166.1	178.6	191.1	203.6	216.1	228.6	241.1	253.6
L2	70.6	83.1	95.6	108.1	120.6	133.1	145.6	158.1	170.6	183.1	195.6	208.1	220.6	233.1	245.6

● M4GB1 serial transmission (supply and exhaust port rear piping)

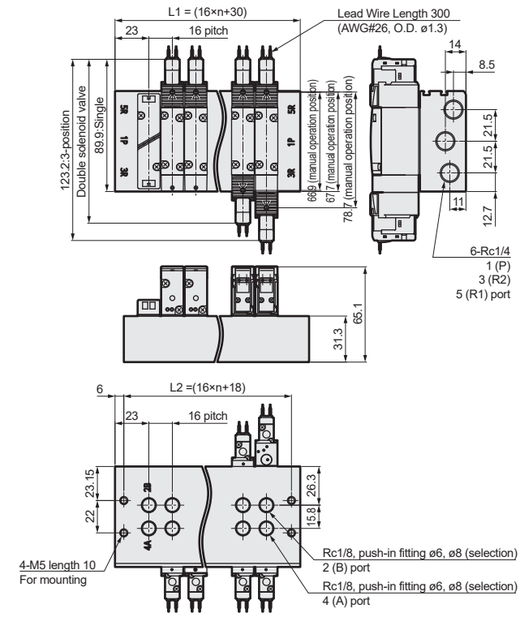


Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	69.3	81.8	94.3	106.8	119.3	131.8	144.3	156.8	169.3	181.8	194.3	206.8	219.3	231.8	244.3
L2	61.3	73.8	86.3	98.8	111.3	123.8	136.3	148.8	161.3	173.8	186.3	198.8	211.3	223.8	236.3

External Dimensions: Individual wiring manifold

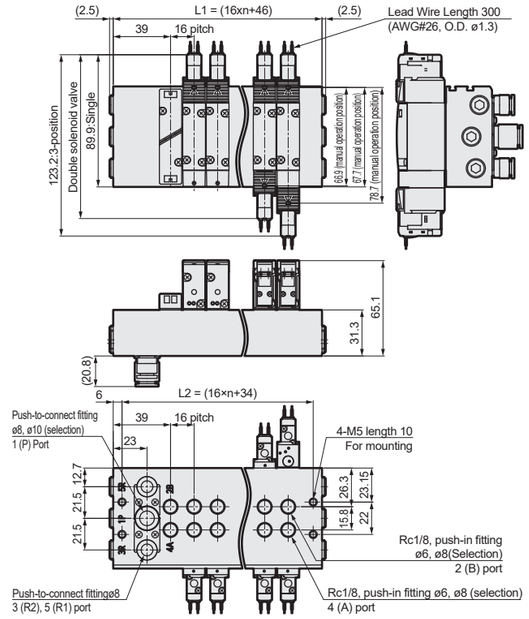
Dimensions diagram is an internal pilot Dimensions diagram.

● M4GB2 air supply and exhaust port on both sides



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286
L2	50	66	82	98	114	130	146	162	178	194	210	226	242	258	274

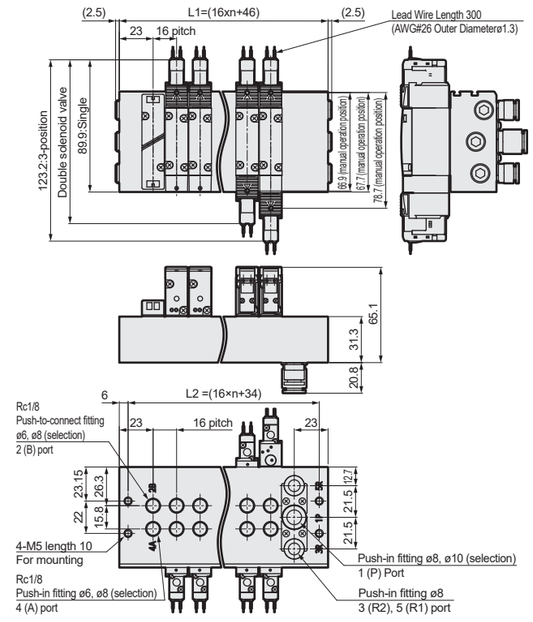
● M4GB2 supply/exhaust port right (supply/exhaust port rear piping)



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302
L2	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290

* The supply and exhaust port rear piping specifications of Fittings M4GB2 are only compatible with the cartridge butt specifications.

● M4GB2 supply/exhaust port left (supply/exhaust port rear piping)

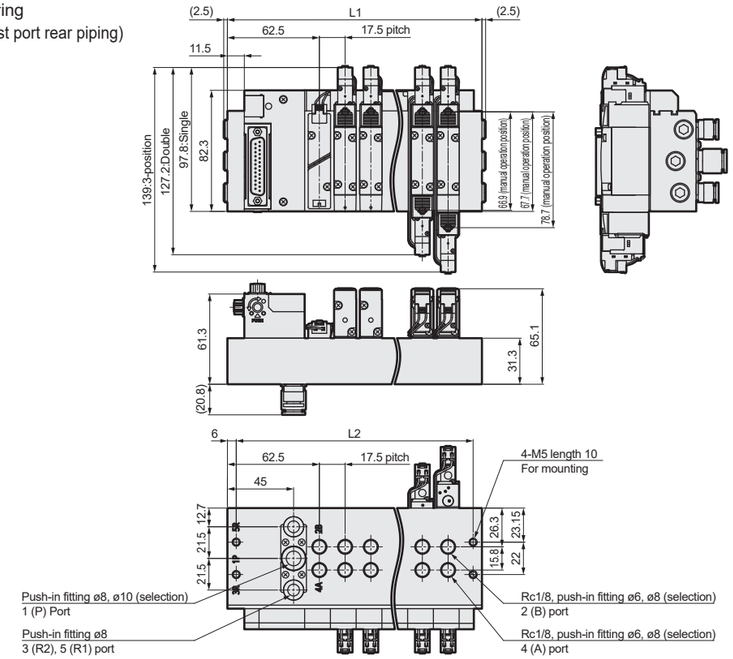


Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302
L2	66	82	98	114	130	146	162	178	194	210	226	242	258	274	290

External Dimensions: Reduced wiring manifolds

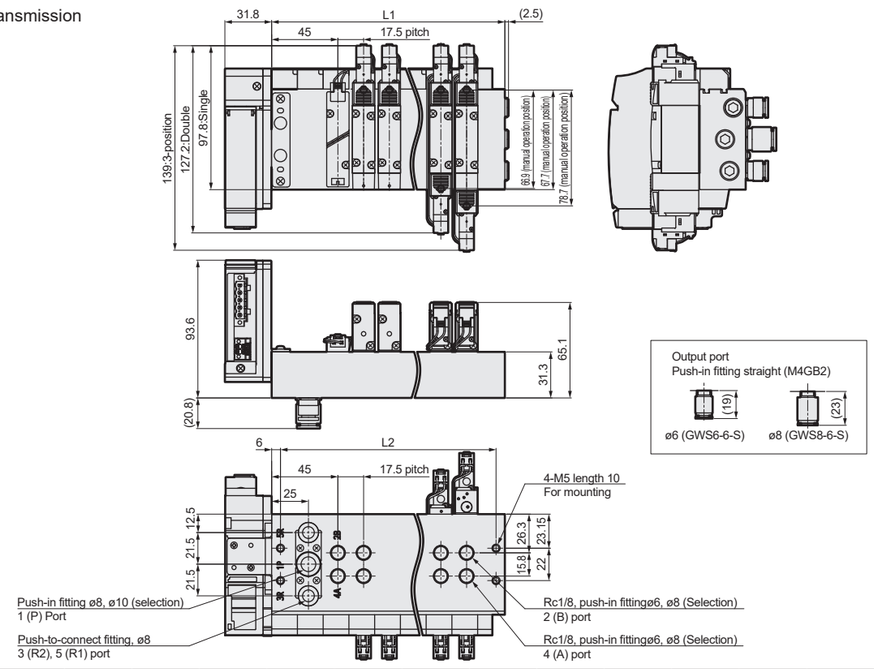
Dimensions diagram is an internal pilot Dimensions diagram.

● M4GB2 reduced wiring
(air supply and exhaust port rear piping)



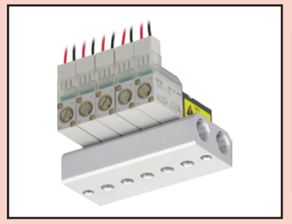
Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	103.0	120.5	138.0	155.5	173.0	190.5	208.0	225.5	243.0	260.5	278.0	295.5	313.0	330.5	348.0
L2	91.0	108.5	126.0	143.5	161.0	178.5	196.0	213.5	231.0	248.5	266.0	283.5	301.0	318.5	336.0

● M4GB2 serial transmission



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L1	88.5	106.0	123.5	141.0	158.5	176.0	193.5	211.0	228.5	246.0	263.5	281.0	298.5	316.0	333.5
L2	76.5	94.0	111.5	129.0	146.5	164.0	181.5	199.0	216.5	234.0	251.5	239.0	286.5	304.0	321.5

* The rear piping specifications of the air supply and exhaust port of Fittings M4GB2 are only compatible with the cartridge butt specifications.



Direct Acting 3-Port Valves Rear piping Individual wiring manifold

M3QRB Series

●Compatible cylinder diameter : ø6 to ø25

Common Specifications

Item	Content
Valve Type and Operation Method	Direct acting poppet valve
Operating Fluid	Compressed air, low vacuum
Max. Operating Pressure MPa	0.70
Min. Operating Pressure MPa	Low Vacuum -100 kPa
Proof Pressure MPa	1.05 (low vacuum:-101 kPa)
Max. operating pressure differential MPa	0.70
Ambient Temperature °C	−5 to 50 (no freezing)
Fluid temperature °C	5 to 50
Oiling	Not possible *1
Enclosure	Dust-proof
Vibration resistance m/s^2	50 or less
Shock resistance m/s^2	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1:Lubrication will degrade the performance.

Electrical specifications

Item		Standard Specification	Large flow rate specifications H
Rated Voltage V	DC	24/12	
Energizing rate		Intermittent *2	Continuous *3
Allowable voltage fluctuation		±10%	
Starting Current A	24 VDC	-	0.13
	12 VDC	-	0.27
Holding Current A	24 VDC	0.08	0.10
	12 VDC	0.17	0.20
Power consumption W		2.0	2.4 *4
Heat Resistance Class		B	

*2:Limit continuous energizing to within 5 minutes and energization ratio to 50% or less. Min. excitation time for self-hold is 50 ms or more.
*3:CKDComponents Product Website (https://www.ckd.co.jp/kiki/en/)→ "Model No."→ Instruction Manuals for precautions for continuous energization.
*4:3.2 W for 20 ms after start.

Model No. Notation

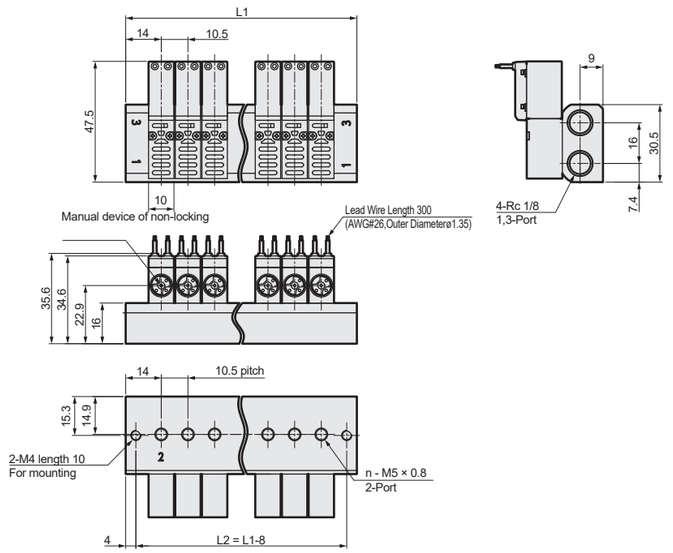
M 3QRB1 ❶ 0R − M5 ❷ ❸ − ❹ − FL□□□□□□ *1 − ❺

❶ Switching position class
❷ Electrical connections
❸ Flow rate
❹ Station No.
❺ Voltage

*1. After the order model number is selected, we will enter a 6-digit code for the "□".
*2. The max. station No. is 16.
*3. Refer to the "Model No." on the CKD Components Product Website (https://www.ckd.co.jp/kiki/en/) → for details on the M3QRB Series (specifications, model No., safety precautions).

Click!

Dimensions



Station No.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
L	38.5	49.0	59.5	70.0	80.5	91.0	101.5	112.0	122.5	133.0	143.5	154.0	164.5	175.0	185.5
L1	30.5	41.0	51.5	62.0	72.5	83.0	93.5	104.0	114.5	125.0	135.5	146.0	156.5	167.0	177.5

Related Products

Compatible with Rechargeable Batteries Components P4☐ Series

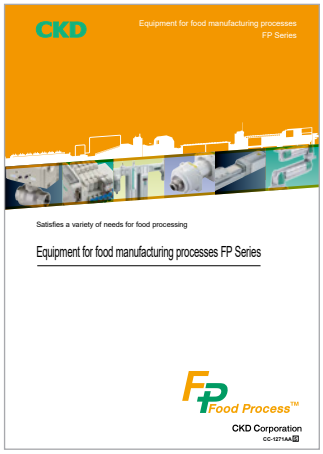
Catalog No. CC-1226AA

- Material restrictions
  Restricted materials for configuration parts
- Environment/Supply air
  Long service life even in dew point ADP -80°C environments
- Stable operation
  Contributing to a system that never stops
- Low particle generation
  Suppresses dust generation of metal wear powder
- Counters dust
  Long service life even in dusty environments

Click!

Products for Food Manufacturing Processes FP Series

Catalog No. CC-1271AA



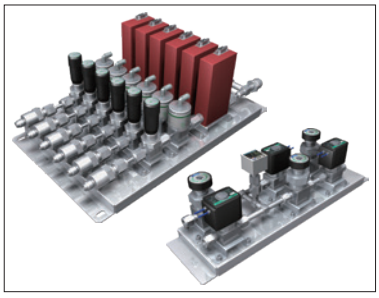
- An extensive lineup of everything from Air Filters to Actuators allows for secure and safe use in food processing.
- FP1 Series uses food grade (NSF H1) lubricant to eliminate concerns about contamination by lubricants
- FP2 Series, in addition to FP1, uses resin/rubber materials compliant with Food Sanitation Act

Click!

Clean Unit FICS Series

Catalog No. CC-1163AA

Unitizing products for semiconductor manufacturing equipment! Solving your problems such as "uncertainty in component selection," "insufficient design time," and "no space for cleanroom assembly"! Units assembled in a cleanroom using Dry-Fine and cleanroom-compatible components.



Click!

For details, refer to CKD Components Product site (https://www.ckd.co.jp/kiki/en/)→ "Model No."

CKD Corporation
[Website]
https://www.ckd.co.jp/en/

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2026.01