

Discrete valve Body piping

3GD1, 2, 3 /4GD1, 2, 3 Series

Applicable cylinder bore size: ø20 to ø100

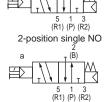






#### JIS symbol

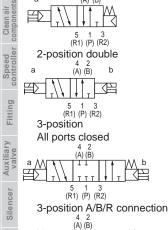
3-port valve 2-position single NC (A)



Two 3-port valves integrated (A side valve: NC, B side valve: NC)



5-port valve 2-position single





(A) (B) 5 1 3 (R1) (P) (R2)

## Common specifications

-	
Item	Description
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressureMPa	0.7
Min. working pressureMPa	0.2
Proof pressure MPa	1.05
Ambient temperature°C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual override	Non-locking/locking common
Pilot exhaust method	Main valve/pilot valve common exhaust
Lubrication (*1)	Not required
Degree of protection(*2)	Dust-proof
Vibration resistancem/s <sup>2</sup>	50 or less
Shock resistance m/s <sup>2</sup>	300 or less
Atmosphere	Cannot be used in corrosive gas environments

- \*1 Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
- \*2 Avoid dripping water or oil, etc., during use. IP65 (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		Descr	ription			
Rated voltage V	24 DC	12 DC	100 AC	200 AC		
Voltage fluctuation range		±1	0%			
Holding current A (*3)	0.015 (0.017)	0.030 (0.034)	0.009 (0.009)	0.006 (0.006)		
Power consumption W (*3)	0.35 (	(0.40)	_			
Apparent power VA (*3)(*4)	-	-	0.93 (0.98)	1.40		
Thermal class		E	3			
Surge suppressor	Option					
Indicator	Lamp (option)					

- \*3: Values in ( ) apply when lamp is included.
- \*4: 200 VAC is the value of DIN terminal box (with lamp).

#### Individual specifications

Item		3GD1	3GD2	3GD3	4GD1	4GD2	4GD3
Port size	Port A/B	Push-in fitting ø4, ø6	Push-in fitting ø4, ø6, ø8	Push-in fitting ø8, ø10	Push-in fitting ø4, ø6	Push-in fitting ø4, ø6, ø8	Push-in fitting ø8, ø10
		M5	Rc1/8	Rc1/4	M5	Rc1/8	Rc1/4
	Port P/R1/R2	M5	Rc1/8	Rc1/4	M5	Rc1/8	Rc1/4

#### Performance/characteristics by model

Item		3GD1		3GD2		3GD3		4GD1		4GD2		4GD3			
		ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF		
time		Two 3-port v	alves integrated	12	15	15	30	-	-	-	-	-	-	-	-
ıse	2-position	Single	15	25	20	30	25	40	15	25	20	30	25	40	
		Double	-	-	-	-	-	-	15	-	20	-	25	-	
Respor		3-position	A/B/R connection	-	-	-	-	-	-	20	30	25	35	35	50

Values with lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality.

Item				3GD1	3GD2	3GD3	4GD1	4GD2	4GD3
Weight g			Grommet lead wire	48 (41)	110 (80)	144 (102)	48 (41)	115 (85)	153 (111)
	ے	gle	E-connector	50 (43)	112 (82)	146 (104)	50 (43)	117 (87)	155 (113)
	itio	Single	DIN terminal box	-	147 (117)	178 (136)	-	152 (122)	187 (145)
	2-position		Grommet lead wire	-	-	-	65 (58)	133 (103)	175 (129)
	5	Double	E-connector	-	-	-	69 (62)	137 (107)	179 (133)
		Do	DIN terminal box	-	-	-	-	176 (146)	215 (169)
	o	<b>"</b>	Grommet lead wire	-	-	-	67 (60)	145 (115)	184 (142)
	3-position	ports sed	E-connector	-	-	-	71 (64)	149 (119)	188 (146)
	3-p	음	DIN terminal box	-	-	-	-	188 (158)	224 (182)

<sup>·</sup> Values in ( ) do not include the pipe adaptor. Values for the E-connector include the socket assembly (with 300 mm lead wire). For the EJ-connector, add 16 g/connector to the E-connector weight.

#### Flow characteristics

Madal Na	Solenoid position		P →	A/B	A/B→	R1/R2
Model No.	30	lenoia position	C[dm³/(s-bar)]	b	C[dm³/(s-bar)]	b
	Two 3-p	oort valves integrated	0.98	0.45	0.71	0.34
	2-positi	on	1.2	0.47	0.72	0.37
3GD1 4GD1		All ports closed	1.1	0.39	0.70	0.34
	3-position	A/B/R connection	1.1	0.33	0.72	0.34
		P/A/B connection	1.3	1.3 0.61 0.72		0.36
	Two 3-port valves integrated		1.8	0.29	2.3	0.32
	2-positi	on	2.4	0.33	2.8	0.30
3GD2 4GD2		All ports closed	2.2	0.28	2.5	0.28
	3-position	A/B/R connection	2.3	0.26	2.8	0.27
		P/A/B connection	2.5	0.38	2.4	0.30
	2-positi	on	3.4	0.29	4.0	0.24
2002 4002		All ports closed	3.1	0.27	3.4	0.28
3GD3 4GD3	3-position	A/B/R connection	3.1	0.33	4.1	0.20
		P/A/B connection	3.5	0.43	3.4	0.32

<sup>\*1 :</sup> Effective cross-sectional area S and sonic conductance C are converted as S  $\approx$  5.0 x C.

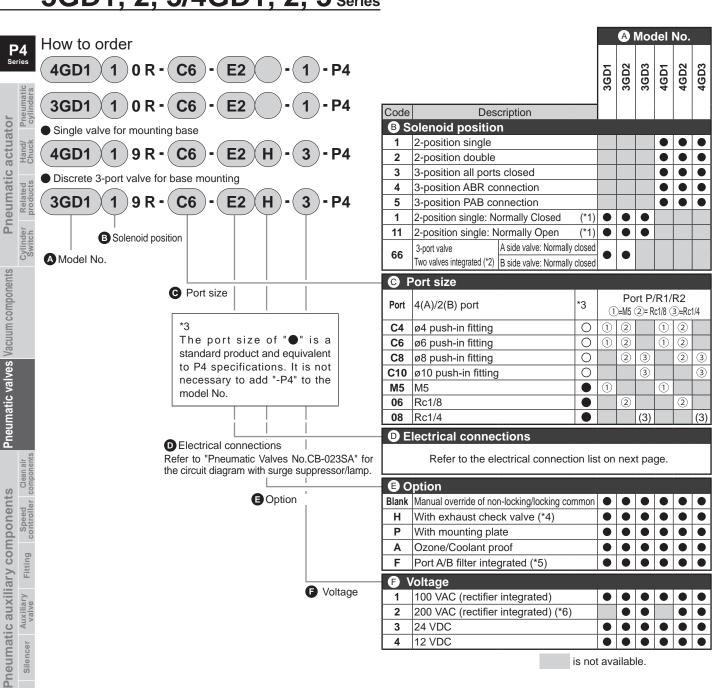
Ozone-proof specifications • Coolant proof specifications

Can be selected with "How to order" Item © option "A" on page 280.

CE marking specifications

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

<sup>•</sup> The weight of the two 3-port valves integrated type is the same as that of 2-position double.



## Precautions for model No. selection

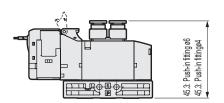
- \*1 3GDNFor the Normally Closed, the piping connection 2 (B) and 3 (R2) ports are plugged. and, 3GDN- Normally Open type, 5 (R1) Avoid plugging the port. This may cause
- \*2 Dimensions are the same as the respective 2-position double solenoid.
- \*4 3-position all ports closed and PAB connection are not provided with the exhaust check valve. Refer to "Pneumatic Valves No.CB-023SA" for details on the exhaust check valve.
- \*5 A filter is built into port P as standard.
- \*6 DIN terminal box only is supported.

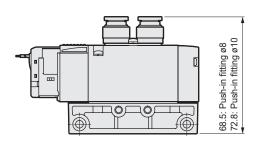
Electric actuator Fluid control components Gas generator

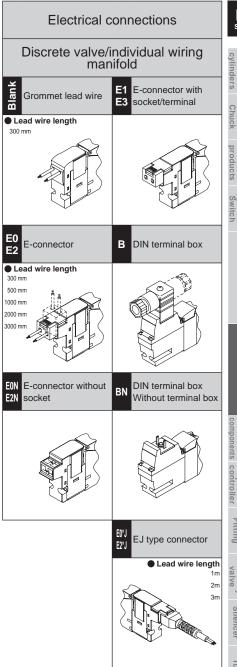
				A I	Mod	lel	No	
[Elec	ctrical connections list]		3GD1	3GD2	3GD3	4GD1	4GD2	4GD3
<b>D</b> E	lectrical connections							
Blank	Grommet Lead wire(300 mm)	(*7)				•	•	•
В	DIN terminal box (Pg7) with surge suppressor/lamp	(*8)(*10)					•	•
BN	DIN terminal box (Pg7) (without terminal box) With surge suppressi	or (*8)(*10)					•	•
E-con	nector (upward/lateral common)							
E0	Lead wire (300 mm)	(*9)				•	•	
E00	Lead wire (500 mm)	(*9)	•					
E01	Lead wire (1000 mm)	(*9)	•	•	•	•	•	•
E02	Lead wire (2000 mm)	(*9)	•	•	•	•	•	•
E03	Lead wire (3000 mm)	(*9)	•	•	•	•	•	•
E0N	Without lead wire (Without socket)	(*9)	•	•	•	•	•	•
E1	Without lead wire (socket/terminal attached)	(*9)	•	•	•	•	•	•
E2	Lead wire (300 mm) with surge suppressor/lamp		•	•	•	•	•	•
E20	Lead wire (500 mm) with surge suppressor/lamp		•	•	•	•	•	•
E21	Lead wire (1000 mm) with surge suppressor/lamp		•	•	•	•	•	•
E22	Lead wire (2000 mm) with surge suppressor/lamp		•	•	•	•	•	•
E23	Lead wire (3000 mm) with surge suppressor/lamp		•	•	•	•	•	•
E2N	Without lead wire (without socket) with surge suppress	or/lamp	•	•	•	•	•	•
E3	Without lead wire (socket/terminal attached) with surge suppre	essor/lamp	•	•	•	•	•	•
EJ-co	nnector (socket with cover, upward/la	ateral c	omr	non	1)			
E01J	Lead wire (1000 mm)	(*9)	•		•			•
E02J	Lead wire (2000 mm)	(*9)	•	•	•	•	•	•
E03J	Lead wire (3000 mm)	(*9)	•	•	•	•	•	•
E21J	Lead wire (1000 mm) with surge suppressor/lamp		•	•	•	•	•	•
E22J	Lead wire (2000 mm) with surge suppressor/lamp		•	•	•	•	•	•
E23J	Lead wire (3000 mm) with surge suppressor/lamp		•	•	•	•	•	•

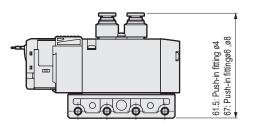
*7: The grommet lead wi	re specifications are	compatible with DC voltage of	nlv
1. The grottine lead wi	ie specilications are	companible with DC voltage t	וווע.

<sup>\*8:</sup> A lamp comes with the terminal box.





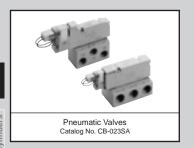




<sup>\*9:</sup> AC voltage is with a rectifier circuit.

<sup>\*10:</sup> The terminal box conforms to EN175301-803 Type C (former DIN 43650-C). Refer to "Pneumatic Valves No.CB-023SA" for details.

Clean air components



Discrete valve Base piping

# 3GE1, 2/4GE1, 2, 3 Series

Applicable cylinder bore size: ø20 to ø100

as standard







#### JIS symbol

Two 3-port valves integrated (A side valve: NC, B side valve: NC)



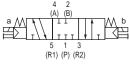
5-port valve 2-position single



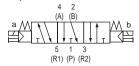
2-position double



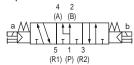
3 position All ports closed



3-position A/B/R connection



3-position P/A/B connection



#### Common specifications

Item		Description			
Valve and	Operation	Pilot operated soft spool valve			
Working f	luid	Compressed air			
Max. workin	g pressureMPa	0.7			
Min. working	g pressureMPa	0.2			
Proof pres	ssure MPa	1.05			
Ambient te	emperature °C	-5 to 55 (no freezing)			
Fluid tem	perature °C	5 to 55			
Manual o	verride	NNlock/lock common (standard)			
Pilot exhaust	Internal pilot	Main valve/pilot valve common			
method	Internal pilot	exhaust			
Lubricatio	n (*1)	Not required			
Degree of	protection(*2)	Dust-proof			
Vibration re	esistance m/s <sup>2</sup>	50 or less			
Shock resi	stance m/s <sup>2</sup>	300 or less			
Atmosphe	ere	Cannot be used in corrosive gas environments			

- \*1 Use turbine oil Class 1 ISO VG32 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

	Pedinediations						
Item	Description						
Rated voltageV	24 DC   12 D0		100 AC	200 AC			
Voltage fluctuation range		±1	0%				
Holding current A	0.015	0.030	0.009	0.006			
(*3)	(0.017)	(0.034)	(0.009)	(0.006)			
Power consumption	0.35(	0.40\	-				
W (*3)	0.33(	0.40)					
Apparent power VA			0.93	1.40			
(*3)(*4)		-	(0.98)	1.40			
Thermal class		E	3				
Surge suppressor	Option						
Indicator	Lamp (Option)						

- \*3: Values in ( ) apply when lamp is included.
- \*4: 200 VAC is the value of DIN terminal box (with lamp).

#### Individual specifications

Item		3GE1/4GE1	3GE2/4GE2	4GE3	
Port size	Port A/B	Rc1/8	Rc1/4	Rc1/4, Rc3/8	
	Port P/R1/R2	Rc1/8	Rc1/4	Rc1/4, Rc3/8	

#### Performance/characteristics by model

Item			3GE1/4GE1		3GE2	/4GE2	4GE3	
iteiii	item			OFF	ON	OFF	ON	OFF
Response	Two 3-port va	lves integrated	12	15	15	30	_	_
	2-position	Single	15	25	20	30	25	40
time		Double	15	_	20	_	25	_
ms	3-position	ABR connection	20	30	25	35	35	50

Values with a lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality.

#### Weight

Item				3GE1/4GE1	3GE2/4GE2	4GE3
Weight	g	Single	Grommet lead wire	80 (38)	158 (76)	221 (102)
	,	=	E-connector	82 (40)	160 (78)	223 (104)
	-position	<u> </u>	DIN terminal box	=	195 (113)	255 (136)
		Double	Grommet lead wire	97 (55)	175 (93)	240 (121)
	C	·	E-connector	101 (59)	179 (97)	244 (125)
			DIN terminal box	-	218 (136)	280 (161)
	9	All ports	Grommet lead wire	98 (56)	186 (104)	249 (130)
	ositic		E-connector	102 (60)	190 (108)	253 (134)
	c	<u>م-</u> 0	DIN terminal box	-	229 (147)	289 (170)

<sup>·</sup> Values in ( ) do not include the pipe adaptor. Values for the E-connector include the socket assembly (with 300 mm lead wire). For the EJ-connector, add 16 g/connector to the E-connector weight.

#### Flow characteristics

Madel No	Calamaid manition		$ extsf{P}  ightarrow$	A/B	A/B→	R1/R2
Model No.	50	lenoid position	C[dm³/(s-bar)"	b	C[dm³/(s-bar)"	b
	Two 3-p	oort valves integrated	0.92	0.08	1.1	0.26
2054	2-positi	on	1.3	0.27	1.2	0.22
3GE1 4GE1		All ports closed	1.1	0.31	1.1	0.27
4GL1	3-position	A/B/R connection	1.1	0.31	1.3	0.29
		P/A/B connection	1.4	0.30	1.1	0.26
	Two 3-port valves integrated		1.7	0.42	2.1	0.26
2052	2-position		2.6	0.20	2.6	0.19
3GE2 4GE2		All ports closed	2.3	0.32	2.2	0.22
4GL2	3-position	A/B/R connection	2.2	0.23	2.6	0.16
		P/A/B connection	2.4	0.10	2.4	0.22
	2-positi	on	4.3	0.24	4.2	0.24
4GE3		All ports closed	3.3	0.40	3.4	0.27
4GE3	3-position	A/B/R connection	3.3	0.36	4.2	0.18
		P/A/B connection	4.5	0.28	3.4	0.30

<sup>\*1:</sup> Formula to calculate sonic conductance C from effective cross-sectional area S is S≈5.0xC.

Ozone-proof specifications • Coolant proof specifications

Can be selected with "How to order" Item (E) option "A" on page 284.

CE marking specifications

<sup>•</sup> The weight of the two 3-port valves integrated type is the same as that of 2-position double.

<sup>•</sup> Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".



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ow to order Discrete valve		·	(	A M	ode	l No	о.
	a5 510	inuaru	22	23	22	23	١,
GE1 1 0 R - 06 - E2 - 3			3GE1	3GE2	4GE1	4GE2	i
GE1 (66) 0 R - (06) - (E2) (-3)	Code	Description					
	<b>B</b> 9	Solenoid position					
single valve for mounting base	1	2-position single			•		Ŀ
GE1 (1) 9 R - 00 - (E2)(H)-(3)	2	2-position double			•		Ŀ
	3				•	•	Ľ
GE1 (66) 9 R - 00 -(E2 (H)-(3)	-				•	•	ļ
	5				•	•	L
B Solenoid position	66		•	•			
Model No.						=	
Port size				Port	P/R	/R2	
	Port	4(A)/2(B) port	(2):	=Rc1/8 (			
	06	Rc1/8	2		2	Ť	Γ
	08	Rc1/4		3		3	Ť
							İ
alve of mounting base  1 9 R - 00 - E2 H - 3  666 9 R - 00 - E2 H - 3  3 -3-position ABR connection 5 -3-position ABR connection 5 -3-position ABR connection 66 700 - 3-position ABR connection 67 Too 3-port valves A lade valve Normally Close integrated (*1) B side valve-Normally Close integrated (*1) B side valve-Normally Close (*1) D connection 7 Refer to "Pneumatic Valves No.CB-0253A" for the circuit diagram with surge suppressor of lamp.  1 Port size  Port 4(A)/2(B) port  1 Refer to "Pneumatic Valves No.CB-0253A" for the circuit diagram with surge suppressor of lamp.  2 Port size  Port 4(A)/2(B) port  1 Refer to "Pneumatic Valves No.CB-0253A" for the circuit diagram with surge suppressor and induction and surge suppressor and induction an	•	•	•	•	Ī		
	O F	Flectrical connections					i
Electrical connections			•		•	•	Ī
	-	DIN terminal box (Pg7) With surge suppressor and indicator lamp (*6)(*8)		•		•	t
diagram with surge suppressor/	BN	DIN terminal box(Pg7)(Without terminal box)With surge suppressor(*6)(*8)		•		•	t
lamp.	E-co	nnector (upward/lateral common)					Ì
	E0	Lead wire (300 mm) (*7)	•		•	•	Ī
	E00	Lead wire (500 mm) (*7)	•		•	•	Î
	E01	Lead wire (1000 mm) (*7)	•	•	•	•	I
	E02	Lead wire (2000 mm) (*7)	•	•	•	•	I
	E03	Lead wire (3000 mm) (*7)	•	•	•	•	ļ
		, , ,	•	•	•	•	1
	E1		•	•	•	•	1
		Lead wire (300 mm) With surge suppressor and indicator lamp	•	•	•	•	1
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F Voltage							Ţ
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mensions is the same dimensions as the respective 2-position double solenoid.	4	12 VDC				-	+

is not available.

- \*2: 3-position all ports closed and PAB connection are not 2. 3-position air ports closed and PAB connection are not provided with the exhaust check valve. Refer to "Pneumatic Valves No.CB-023SA" for details on the exhaust check valve.

  \*3: A filter is built into port P as standard.

  \*4: Only the DIN terminal box is supported.

  \*5: The grommet lead wire specifications are compatible with DC voltage only.

  \*6: A lamp comes with the terminal box.

  \*7: AC voltage is with a restifications.

- \*7: AC voltage is with a rectifier circuit.

   \*8: The terminal box conforms to EN175301-803 Type C (former DIN 43650-C). Refer to "Pneumatic Valves No.CB-023SA" for details.



Pneumatic Hand/ cylinders Chuck Pneumatic actuator

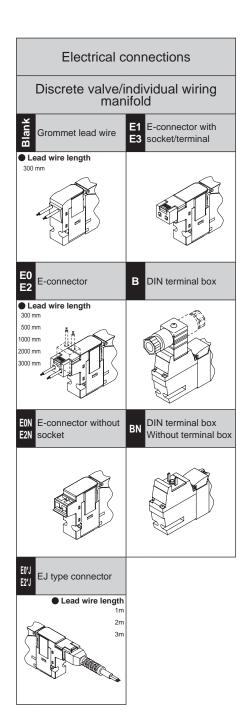
Vacuum components Pneumatic valves

Pneumatic auxiliary components

Clean air Speed components controller Fitting Auxiliary Silencer valve

Tube

Gas generator Fluid control components Electric actuator



Auxiliary



Individual wiring manifold Body piping Direct mount/DIN rail mount

# M3GD1, 2, 3 -(D) /M4GD1, 2, 3 -(D) Series

Applicable cylinder bore size: ø20 to ø100

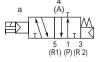






#### JIS symbol

3-port valve 2-position single NC



2-position single NO (B)



Two 3-port valves integrated (A side valve: NC, B side valve: NC)

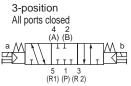


5-port valve 2-position single

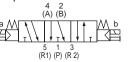


2-position double 4 2 (A) (B)

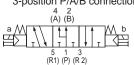
5 1 3 (R1) (P) (R 2)



3-position A/B/R connection



3-position P/A/B connection



#### Manifold common specifications

		<u> </u>				
Item		Description				
Manifold		Integrated base				
Mounting m	ethod	Direct mount/DIN rail mount				
Air supply a	nd exhaust	Common supply/common exhaust				
method		(With internal exhaust check valve)				
Pilot exhaust	Internal pilot	Main valve/pilot valve common exhaust (Standard)				
method	Internal pilot	(Pilot exhaust check valve built-in)				
Piping direc	tion	Valve top direction				
Valve and c	peration	Pilot operated soft spool valve				
Working flui	d	Compressed air				
Max. workin	g pressure MPa	0.7				
Min. working	g pressure MPa	0.2				
Proof press	ure MPa	1.05				
Ambient ter	nperature °C	-5 to 55 (no freezing)				
Fluid tempe	rature °C	5 to 55				
Manual ove	rride	Non-locking/locking common				
Lubrication	(*1)	Not required				
Degree of p	rotection (*2)	Dust-proof				
Vibration re	sistance m/s <sup>2</sup>	50 or less				
Shock resis	tance m/s <sup>2</sup>	300 or less				
Atmosphere	9	Cannot be used in corrosive gas environments				

- Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
- 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			Descr	iption					
Rated voltage	٧	24 DC	12 DC	100 VAC	200 VAC				
Voltage fluctuation rang	е	±10%							
Holding current A (	*3)	0.015 (0.017)	0.030 (0.034)	0.009 (0.009)	0.006 (0.006)				
Power consumptionW (	*3)	0.35 (	(0.40)		-				
Apparent power VA (*	*3) (*4)	-	-	0.93 (0.98)	1.40				
Thermal class		В							
Surge suppressor		Option							
Indicator			Lamp (	option)					

\*3: Values in ( ) apply when lamp is included.

\*4: 200 VAC is the value of DIN terminal box (with lamp).

#### Individual specifications

		M3GD1	/M4GD1	M3GD2	M4GD2	M3GD3/M4GD3		
Item		Direct D		Direct	DIN rail	Direct	DIN rail	
		mount	mount	mount	mount	mount	mount	
Max. station No.	Standard (Internal pilot)	20 stations	16 stations	20 stations	16 stations	20 stations	16 stations	
	Port A/B	Push-in fitting ø4, ø6 M5		Push-in fitting		Push-in fitting		
<b>5</b>				ø4, ø6, ø8		ø8, ø10		
Port size				Rc1/8		Rc1/4		
	Port P/R1/R2	Rc	1/8	Rc	1/4	Rc3/8		
Manifold base Weight calculation formula (n: station No.)		23n+52	25n+60	47p.164	40~+02	74n+88	76n   117	
			2511+60	47n+64	49n+92	7411+88	76n+117	

Refer to "Cautions for mounting the DIN rail" and "Pneumatic Valves No.CB-023SA", and select the manifold. For 10 or more manifold station No. (5 stations for 4G3), use ports on both sides for air supply and exhaust. The manifold base weight is the value for screw specifications.

# M3GD1, 2, 3/M4GD1, 2, 3 Series

Individual wiring manifold; Body piping

#### Performance/characteristics by model

Item		M3GD1		M3GD2		M3GD3		M4GD1		M4GD2		M4GD3		
Item			ON	OFF	ON	OFF								
Response time ms	Two 3-port valves integrated		12	15	15	30	-	-	-	-	-	-	-	-
	2-position	Single	15	25	20	30	25	40	15	25	20	30	25	40
		Double	-	-	-	-	-	-	15	-	20	-	25	-
	3-position	A/B/R connection	-	-	-	-	-	-	20	30	25	35	35	50

Values with lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality.

#### Flow characteristics

Madal Na	Colonoid modition		$P \to$	A/B	A/B→R1/R2					
Model No.	501	enoid position	C[dm³/(s·bar)]	b	C[dm³/(	[s⋅bar)]	b			
	Two 3-p	oort valves integrated	0.86	0.31	1.1	(0.66)	0.19	(0.22)		
M3GD1	2-positi	on	0.99	0.20	1.2	(0.70)	0.20	(0.12)		
M4GD1		All ports closed	0.94	0.23	1.1	_	0.20	_		
W4GD1	3-position	A/B/R connection	0.93	0.18	1.3	(0.70)	0.23	(0.02)		
		P/A/B connection	1.1	0.28	1.1	_	0.23	_		
	Two 3-port valves integrated		1.7	0.40	2.3	(1.7)	0.29	(0.32)		
M3GD2	2-position		2.3	0.36	2.9	(1.7)	0.24	(0.33)		
M4GD2		All ports closed	2.1	0.35	2.5	_	0.32	_		
W4GD2	3-position	A/B/R connection	2.2	0.37	2.9	(1.8)	0.32	(0.29)		
		P/A/B connection	2.4	0.34	2.5	_	0.33	_		
	2-position	on	3.2	0.37	3.8	(2.5)	0.13	(0.28)		
M3GD3		All ports closed	2.9	0.35	3.3	_	0.35			
M4GD3	3-position	A/B/R connection	3.0	0.34	3.8	(2.6)	0.12	(0.27)		
		P/A/B connection	3.3	0.30	3.3	_	0.32	_		

<sup>\*1:</sup> Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 × C.

Ozone-proof specifications • Coolant proof specifications

Can be selected with "How to order" Item (E) option "A" on page 288.

CE marking specifications

<sup>\*2:</sup> Values in ( ) are with the exhaust check valve.

<sup>•</sup> Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

S

How to order Manifold model No. A Model No. \* Be sure to fill in the "Manifold specifications (M)(4GD1)(1)0R-(C6)-(E2)(H)(D)-(3GD2 3GD3 4GD2 4GD3 4GD1 sheet" (pages 312 to 314). 3-port manifold model No. Description (M)(3GD1)(1)0R-(C6)-(E2)(H)(D)-(**B** Solenoid position 2-position single Discrete valve for integrated base 2-position double (4GD1)(1)9 R-(C6)-(E2)(H) 3-position all ports closed 3 • 3-position ABR connection 4 Discrete 3-port valve for base mounting 3-position PAB connection (3GD1)(1)9 R-(C6)-(E2)(H) 2-position single: Normally Closed (\*1) 2-position single: Normally Open (\*1) 11 3-port valve A valve side: Normally Closed 66 Two valves integrated(\*1) (\*2) B valve side: Normally Closed **B** Solenoid position Mix manifold (when there are multiple solenoid positions) A Model No. Port size Port size Port P/R1/R2 4(A), 2(B) port (2) = Rc1/8 (3) = Rc1/4 (4) = Rc3/8 \*3  $\overline{\circ}$ ø4 push-in fitting 2 The port size of "●" is a ø6 push-in fitting 0 2 3 3 standard product and equivalent C8 ø8 push-in fitting 0 3 4 3 (4) to P4 specifications. It is not C10 ø10 push-in fitting 0 4 4 necessary to add "-P4" to the 0 СХ Push-in fitting mix (\*4) 2 3 4 2 3 (4) model No. M5 M5 • 2 2 06 Rc1/8 • (3) (3) Rc1/4 D Electrical connections D Electrical connections Refer to the next page for electrical connections Option Option Blank | Manual override of non-locking/locking common With exhaust check valve • Α Ozone/coolant proof Port A/B filter built in (\*6) Air supply spacer (\*7)Exhaust spacer (\*7) Mount type Mount type Blank Direct mount ullet ullet ullet ullet ullet ullet ullet00000 DIN rail mount G Station No. G Station No. 2 2 stations to Refer to page 286 for the max. station number per model. 20 Voltage Precautions for model No. selection Woltage 100 VAC (rectifier integrated) M4GD\*80R when using a mixture of 3, 5-port 2 200 VAC (rectifier integrated) • • valves. When using a mixture with the masking 24 VDC plate, M3GD\*80R. 3 12 VDC

is not available.

- Dimensions are the same as the respective 2-position double solenoid.
- Push-in fitting cannot be mixed with the single valve 4(A) or 2(B) port.
- The 3-position all ports closed and PAB connection are not provided with the exhaust check valve specifications (H). Refer to "Pneumatic Valves No.CB-023S" for details on the exhaust check valve.
- A filter is built into port P as standard.
- Specify the spacer mounting position and quantity on the manifold specifications sheet. Stacking of spacers is not possible. Combination with a masking plate is not possible. Refer to pages 302 to 303 for details.

  DIN terminal box only is supported. Two 3-port
- valves integrated type is not available.

P4 Series

**Pneumatic actuator** 

vacuum components Pneumatic valves

Pneumatic auxiliary components

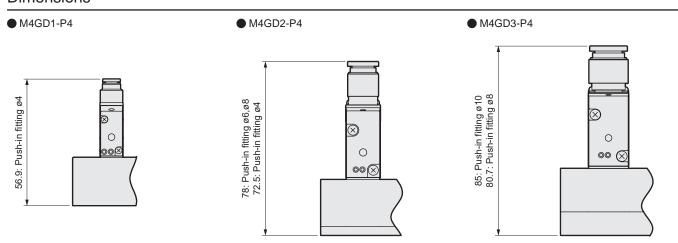
#### Individual wiring manifold; Body piping

[Elec	[Electrical connections list]												
		(	A	Mod	lel	No							
		_	Q	က	_	2	္ဗ						
		3GD1	3GD2	3GD3	4GD1	4GD2	4GD3						
<b>D</b> E	lectrical connections	(1)	(*)	(*)	4	4	4						
	Grommet Lead wire(300 mm) (*9)												
В	DIN terminal box (Pg 7) With surge suppressor and indicator lamp (*10)(*12)		•	•		•	•						
BN	DIN terminal box (Pg7) (without terminal box) With surge suppressor (*10)(*12)		•	•		•							
E-con	connector (upward/lateral direction common)												
E0	Lead wire (300 mm) (*11)		•	•	•	•							
E00	Lead wire (500 mm) (*11)				•	•							
E01	Lead wire (1000 mm) (*11)	•	•	•	•	•							
E02	Lead wire (2000 mm) (*11)		•	•	•	•							
E03	Lead wire (3000 mm) (*11)	•	•	•	•	•							
E0N	Without lead wire (without socket) (*11)		•	•									
E1	Without lead wire (with socket/terminal) (*11)	•	•	•	•	•							
E2	Lead wire (300 mm) With surge suppressor and indicator lamp		•	•									
E20	Lead wire (500 mm) With surge suppressor and indicator lamp	•	•	•	•	•							
E21	Lead wire (1000 mm) With surge suppressor and indicator lamp	•	•	•	•	•							
E22	Lead wire (2000 mm) With surge suppressor and indicator lamp	•	•	•	•	•							
E23	Lead wire (3000 mm) With surge suppressor and indicator lamp		•	•	•	•							
E2N	Without lead wire (without socket)With surge suppressor and indicator lamp	•	•	•	•	•							
E3	Without lead wire (with socket/terminal)With surge suppressor and indicator lamp		•	•									
	nnector (socket with cover, upward/lateral directi	on (	com	mo	n)	_							
E01J	Lead wire (1000 mm) (*11)	•	•	•	•	•							
E02J	Lead wire (2000 mm) (*11)												
E03J	Lead wire (3000 mm) (*11)												
E21J E22J	Lead wire (1000 mm) With surge suppressor and indicator lamp	•											
_	Lead wire (2000 mm) With surge suppressor and indicator lamp												
E23J	Lead wire (3000 mm) With surge suppressor and indicator lamp												

<sup>\*9:</sup> The grommet lead wire specifications are compatible with DC voltage only.

## Electrical connections Discrete valve/individual wiring manifold E-connector with Grommet lead wire socket/terminal Lead wire length 300 mm E-connector DIN terminal box Lead wire length 300 mm 500 mm 1000 mm 3000 mn DIN terminal box E-connector without (without terminal E2N socket EJ type connector Lead wire length 1000 mm 2000 mn 3000 m

#### **Dimensions**



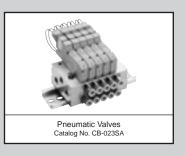
<sup>\*</sup>Fitting dimensions of P4 Series are different from the standard when mounted. For other dimensions, refer to the M4GD1 to 3 Series in "Pneumatic Valves (No. CB-023SA)".

Gas generator Fluid control components Electric actuator

<sup>\*10:</sup> A lamp comes with the terminal box.

<sup>\*11:</sup> AC voltage is with a rectifier circuit.

<sup>\*12</sup> The terminal box conforms to EN175301-803Type C (former DIN 43650-C). Refer to "Pneumatic Valves No.CB-023SA" for details.



Individual wiring manifold Base piping Direct mount/DIN rail mount

# M3GE1, 2/M4GE1, 2, 3-(D) Series

Applicable cylinder bore size: ø20 to ø100



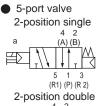




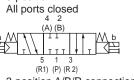
#### JIS symbol

Two 3-port valves integrated (A side valve: NCB side valve: NC)



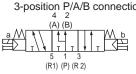








(R1) (P) (R 2) 3-position P/A/B connection



#### Manifold common specifications

Marino	u common	i specifications			
Item		Description			
Manifold		Integrated base			
Mounting m	nethod	Direct mount/DIN rail mount			
Air supply an	d exhaust method	Common supply/common exhaust (With internal exhaust check valve)			
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (Standard) (Pilot exhaust check valve built-in)			
Piping direction		Side direction of base			
Valve and operation		Pilot operated soft spool valve			
Working flu	id	Compressed air			
Max. workin	g pressure MPa	0.7			
Min. workin	g pressure MPa	0.2			
Proof press	ure MPa	1.05			
Ambient ter	mperature °C	-5 to 55 (no freezing)			
Fluid tempe	erature °C	5 to 55			
Manual ove	erride	Non-locking/locking common			
Lubrication	(*1)	Not required			
Degree of p	protection (*2)	Dust-proof			
Vibration re	sistance m/s <sup>2</sup>	50 or less			
Shock resis	stance m/s <sup>2</sup>	300 or less			
Atmosphere	Э	Cannot be used in corrosive gas environments			

- Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
- 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		Description						
Rated voltage	V	24 DC	12 DC	100 AC	200 AC			
Voltage fluctuation	range		±10	0%				
Holding current	A(*3)	0.015 (0.017)	0.030 (0.034)	0.009 (0.009)	0.006 (0.006)			
Power consumption	n W(*3)	0.35 (	(0.40)		-			
Apparent power	Apparent power VA(*3)		_	0.93 (0.98)	1.40			
Thermal class		В						
Surge suppressor		Option						
Indicator		Lamp (option)						

<sup>\*3:</sup> Values in ( ) apply when lamp is included.

## Individual specifications

		M3GE1	/M4GE1	M3GE2	/M4GE2	M4GE3		
Item	Item		DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount	
Max. station No.	Standard (Internal pilot)	20 stations	16 stations	20 stations	16 stations	20 stations	16 stations	
Port size	ort size Port A/B		Push-in fitting ø4, ø6 M5		Push-in fitting ø4, ø6, ø8 Rc1/8		n fitting ø10 1/4	
	Port P/R1/R2	Rc	1/8	Rc	1/4	Rc3/8		
	Manifold base Weight calculation formula (n: station No.)		36n+115	71n+106	73n+134	113n+170	115n+119	

Refer to "Cautions for mounting the DIN rail" and "Pneumatic Valves No.CB-023SA", and select the manifold. For 10 or more manifold station No. (5 stations for 4G3), use ports on both sides for air supply and exhaust. The manifold base weight is the value for screw specifications.

<sup>\*4: 200</sup> VAC is the value of DIN terminal box (with lamp).

## M3GE1, 2/M4GE1, 2, 3 Series

Individual wiring manifold; Base piping

#### Performance/characteristics by model

Item			M3GE1/M4GE1		M3GE2	/M4GE2	M4GE3		
iteiii	nem			OFF	ON	OFF	ON	OFF	
Deenenee	Two 3-port valves integrated		12	15	15	30	-	-	
Response time	2-position	Single	15	25	20	30	25	40	
		Double	15	-	20	-	25	-	
ms	3-position	A/B/R connection	20	30	25	35	35	50	

Values with a lamp/surge suppressor are shown. The response times are values with working pressure of 0.5 MPa at 20°C, without lubrication. They depend on the pressure and the lubricant quality.

#### Flow characteristics

Medal Na	Cal	anaid naaitian	P	A/B		A/B→R1/R2				
Model No.	501	enoid position	C[dm³/(s-bar)]	b	C[dm³/(	s-bar)]	b			
	Two 3-p	oort valves integrated	0.86	0.35	1.1	(0.67)	0.22	(0.23)		
M3GE1	2-positi	on	1.1	0.22	1.2	(0.70)	0.20	(0.10)		
M4GE1		All ports closed	0.98	0.22	1.1	_	0.24			
W4GE1	3-position	A/B/R connection	0.97	0.35	1.3	(0.68)	0.22	(0.24)		
		P/A/B connection	1.1	0.38	1.1	_	0.21			
	Two 3-port valves integrated		1.7	0.44	2.1	(1.6)	0.32	(0.30)		
M3GE2	2-position		2.4	0.34	2.7	(1.7)	0.24	(0.31)		
		All ports closed	2.2	0.34	2.4	_	0.29			
M4GE2	3-position	A/B/R connection	2.2	0.34	2.8	(1.8)	0.24	(0.27)		
		P/A/B connection	2.4	0.29	2.4	_	0.29			
	2-positi	on	3.5	0.34	3.8	(2.6)	0.11	(0.27)		
MACES		All ports closed	3.1	0.33	3.3	_	0.22	_		
M4GE3	3-position	A/B/R connection	3.0	0.30	3.8	(2.7)	0.11	(0.22)		
		P/A/B connection	3.6	0.36	3.3		0.28			

<sup>\*1:</sup> Effective cross-sectional area S and sonic conductance C are converted as S  $\approx$  5.0  $\times$  C.

Ozone-proof specifications • Coolant proof specifications

Can be selected with "How to order" Item © option "A" on page 292.

CE marking specifications

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

<sup>\*2:</sup> Values in ( ) are with the exhaust check valve.

5

How to order A Model No. Manifold model No. \*Be sure to fill in the "Manifold specifications 4GE2 4GE3 sheet" (pages 312 to 314). 3**GE**2 4**GE1** (M) 4GE1(1) 0R - (C6) - (E2)(H)(D) - ( (3) - P4Code Description 3-port manifold model No. B Solenoid position (M)(3GE1)(66) OR - (C6) - (E2)(H)(D) - ( 2-position single 2 2-position double Discrete valve for integrated base 3 3-position all ports closed • (4GE1)(1)9R - 00 -(E2)(H) 4 3-position ABR connection • 3-port discrete valve for integrated base 5 3-position PAB connection 3-port valve A side valve: Normally Closed (3GE1)66)9R - 00 -(E2)(H) Two valves integrated 66 B side valve: Normally Closed (\*1) (\*2) Mix manifold **B** Solenoid position • lacktriangle(when there are multiple solenoid positions) C Port size © Port size P/R1/Port R2 (\*3)Port 4(A), 2(B) port A Model No. 0 ø4 push-in fitting 2 3 2 3 \*3 0 2 3 2 C6 ø6 push-in fitting (3) The port size of "●" is a 0 3 3 C8 ø8 push-in fitting standard product and equivalent C10 ø10 push-in fitting 0 (4) to P4 specifications. It is not 0 necessary to add "-P4" to the СХ Push-in fitting mix 2 3 2 3 (4) model No. М5 M5 • (2) 06 Rc1/8 3 3 Rc1/4 Discrete valve for integrated base • • • D Electrical connections D Electrical connections Refer to the next page for electrical connections. Option Blank | Manual override of non-locking/locking common With exhaust check valve (\*4)Ozone/coolant proof F Port A/B filter built in (\*5) • **Z**1 Air supply spacer (\*6) • lacktrian**Z**3 Exhaust spacer (\*6) • Mount type Mount type Blank Direct mount (\*7)) • • • DIN rail mount • • G Station No. GStation No. 2 2 stations to to Refer to page 290 for the max. station number per model Voltage Woltage 100 VAC (rectifier integrated) A Precautions for model No. selection 2 200 VAC (rectifier integrated) (\*8) • lacktriangle• 24 VDC 3 lacktrian• lacktriangle

12 VDC

is not available

• 

4

- \*1: M4GE\*80R when using a mixture of 3, 5-port valves. When using a mixture with the masking plate, M3GF\*80R
- \*2 Dimensions is the same dimensions as the respective 2-position double solenoid.
- \*4: The 3-position all ports closed and PAB connection are not provided with the exhaust check valve specifications (H). Refer to "Pneumatic Valves No.CB-023SA" for details on the exhaust check valve.
- \*5: A filter is built into port P as standard.
- \*6: Specify the spacer mounting position/ quantity in the manifold specifications sheet. Stacking of spacers is not possible. Combination with masking plates is not possible. Refer to pages 302 to 303 for details.
- Direct mount M4GE1 cannot be changed to DIN rail mount after purchase.
- \*8: Only the DIN terminal box is supported. Two 3-port valves integrated type is not available.

Individual wiring manifold; Base piping

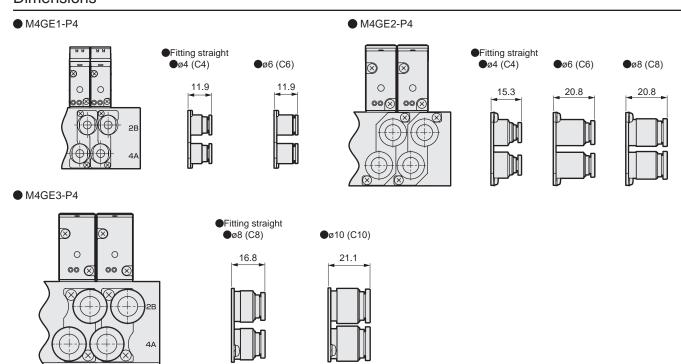
[Electrical connection list] A Model No. E 3 E 3 E

	3GE	3GE	4GE	4GE	4GE
lectrical connections					
Grommet lead wire (300 mm) (*9)	•	•	•	•	•
DIN terminal box (Pg7) With surge suppressor and indicator lamp (*10)(*12)		•		•	•
DIN terminal box (Pg7)(without terminal box) With surge suppressor (*10)(*12)		•		•	•
nector (upward/lateral common)					
Lead wire (300 mm) (*11)	•		•	•	•
Lead wire (500 mm) (*11)	•	•	•	•	•
Lead wire (1000 mm) (*11)	•	•	•	•	•
Lead wire (2000 mm) (*11)	•	•	•	•	•
Lead wire (3000 mm) (*11)	•	•	•	•	•
Without lead wire (without socket) (*11)	•	•	•	•	•
Without lead wire (with socket/terminal) (*11)	•	•	•	•	•
Lead wire (300 mm) Surge suppressor-With indicator lamp	•	•	•	•	•
Lead wire (500 mm) Surge suppressor-With indicator lamp	•	•	•	•	•
Lead wire (1000 mm) Surge suppressor-With indicator lamp	•	•	•	•	•
Lead wire (2000 mm) Surge suppressor-With indicator lamp	•	•	•	•	•
Lead wire (3000 mm) Surge suppressor-With indicator lamp	•	•	•	•	•
Without lead wire (without socket) Surge suppressor-With indicator lamp	•	•	•	•	•
Without lead wire (socket/terminal included) surge suppressor-With indicator lamp	•	•	•	•	•
nnector (socket with cover, upward/lateral commo	on)				
Lead wire (1000 mm) (*11)	•	•	•	•	•
Lead wire (2000 mm) (*11)	•	•	•	•	•
Lead wire (3000 mm) (*11)	•	•	•	•	•
Lead wire (1000 mm) Surge suppressor-With indicator lamp	•	•	•	•	•
Lead wire (2000 mm) Surge suppressor-With indicator lamp	•	•	•	•	•
Lead wire (3000 mm) Surge suppressor-With indicator lamp	•	•	•	•	•
	DIN terminal box (Pg7) With surge suppressor and indicator lamp (*10)(*12) DIN terminal box (Pg7)(without terminal box) With surge suppressor (*10)(*12) nector (upward/lateral common)  Lead wire (300 mm) (*11) Lead wire (500 mm) (*11) Lead wire (500 mm) (*11) Lead wire (2000 mm) (*11) Lead wire (2000 mm) (*11) Without lead wire (without socket) (*11) Without lead wire (with socket/terminal) (*11) Lead wire (300 mm) Surge suppressor-With indicator lamp Lead wire (500 mm) Surge suppressor-With indicator lamp Lead wire (1000 mm) Surge suppressor-With indicator lamp Lead wire (2000 mm) Surge suppressor-With indicator lamp Lead wire (3000 mm) Surge suppressor-With indicator lamp Lead wire (socket/terminal included) surge suppressor-With indicator lamp Without lead wire (without socket) Surge suppressor-With indicator lamp Without lead wire (socket/terminal included) surge suppressor-With indicator lamp Nithout lead wire (socket/terminal included) surge suppressor-With indicator lamp Nithout lead wire (2000 mm) Surge suppressor-With indicator lamp Nithout lead wire (socket/terminal included) surge suppressor-With indicator lamp Lead wire (1000 mm) (*11) Lead wire (2000 mm) (*11) Lead wire (2000 mm) Surge suppressor-With indicator lamp Lead wire (2000 mm) (*11) Lead wire (2000 mm) Surge suppressor-With indicator lamp Lead wire (2000 mm) Surge suppressor-With indicator lamp	Grommet lead wire (300 mm) (*9)  DIN terminal box (Pg7) With surge suppressor and indicator lamp (*10)(*12)  DIN terminal box (Pg7)(without terminal box) With surge suppressor (*10)(*12)  nector (upward/lateral common)  Lead wire (300 mm) (*11)  Lead wire (500 mm) (*11)  Lead wire (1000 mm) (*11)  Lead wire (2000 mm) (*11)  Without lead wire (without socket) (*11)  Without lead wire (with socket/terminal) (*11)  Lead wire (300 mm) Surge suppressor-With indicator lamp  Lead wire (500 mm) Surge suppressor-With indicator lamp  Lead wire (1000 mm) Surge suppressor-With indicator lamp  Lead wire (2000 mm) Surge suppressor-With indicator lamp  Lead wire (3000 mm) Surge suppressor-With indicator lamp  Lead wire (2000 mm) Surge suppressor-With indicator lamp  Lead wire (without socket) Surge suppressor-With indicator lamp  Without lead wire (without socket) Surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (without socket) Surge suppressor-With indicator lamp  Mithout lead wire (socket/terminal included) surge suppressor-With indicator lamp  Nocket with cover, upward/lateral common)  Lead wire (1000 mm) Surge suppressor-With indicator lamp  Lead wire (1000 mm) Surge suppressor-With indicator lamp  Lead wire (2000 mm) Surge suppressor-With indicator lamp  Lead wire (2000 mm) Surge suppressor-With indicator lamp  Lead wire (2000 mm) Surge suppressor-With indicator lamp	Grommet lead wire (300 mm)  DIN terminal box (Pg7) With surge suppressor and indicator lamp (*10)(*12)  DIN terminal box (Pg7)(without terminal box) With surge suppressor (*10)(*12)  nector (upward/lateral common)  Lead wire (300 mm)  Lead wire (500 mm)  Lead wire (1000 mm)  Lead wire (2000 mm)  Lead wire (2000 mm)  Without lead wire (without socket)  Without lead wire (without socket/terminal)  Lead wire (300 mm) Surge suppressor-With indicator lamp  Lead wire (500 mm) Surge suppressor-With indicator lamp  Lead wire (1000 mm) Surge suppressor-With indicator lamp  Lead wire (2000 mm) Surge suppressor-With indicator lamp  Lead wire (3000 mm) Surge suppressor-With indicator lamp  Lead wire (3000 mm) Surge suppressor-With indicator lamp  Lead wire (3000 mm) Surge suppressor-With indicator lamp  Without lead wire (without socket) Surge suppressor-With indicator lamp  Without lead wire (without socket) Surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Lead wire (1000 mm)  Lead wire (1	Grommet lead wire (300 mm)  DIN terminal box (Pg7) With surge suppressor and indicator lamp (*10)(*12)  DIN terminal box (Pg7)(without terminal box) With surge suppressor (*10)(*12)  nector (upward/lateral common)  Lead wire (300 mm)  Lead wire (500 mm)  Lead wire (1000 mm)  Lead wire (2000 mm)  Lead wire (2000 mm)  Without lead wire (without socket)  Without lead wire (with socket/terminal)  Lead wire (300 mm) Surge suppressor-With indicator lamp  Lead wire (1000 mm) Surge suppressor-With indicator lamp  Lead wire (2000 mm) Surge suppressor-With indicator lamp  Lead wire (3000 mm) Surge suppressor-With indicator lamp  Without lead wire (without socket) Surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Lead wire (2000 mm)  Lead wire (2000 mm)  Lead wire (2000 mm)  Lead wire (3000 mm)  Lead wire (3000 mm)  (*11)   Grommet lead wire (300 mm)  DIN terminal box (Pg7) With surge suppressor and indicator lamp (*10)(*12)  DIN terminal box (Pg7)(without terminal box) With surge suppressor (*10)(*12)  nector (upward/lateral common)  Lead wire (300 mm)  Lead wire (500 mm)  Lead wire (1000 mm)  Lead wire (2000 mm)  Lead wire (2000 mm)  Without lead wire (without socket)  Without lead wire (with socket/terminal)  Lead wire (300 mm) Surge suppressor-With indicator lamp  Lead wire (1000 mm) Surge suppressor-With indicator lamp  Lead wire (2000 mm) Surge suppressor-With indicator lamp  Lead wire (3000 mm) Surge suppressor-With indicator lamp  Lead wire (3000 mm) Surge suppressor-With indicator lamp  Lead wire (2000 mm) Surge suppressor-With indicator lamp  Lead wire (3000 mm) Surge suppressor-With indicator lamp  Lead wire (3000 mm) Surge suppressor-With indicator lamp  Without lead wire (without socket) Surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Without lead wire (socket/terminal included) surge suppressor-With indicator lamp  Lead wire (1000 mm)  urge suppressor-With indicator lamp  Lead wire (1000 mm)  Lead wire (1000 mm)  Lead wire (1000 mm)  Lead wire (2000 mm)  Lead wire (2	

<sup>\*9:</sup> The grommet lead wire specifications are compatible with DC voltage only.

## Electrical connections Discrete valve/individual wiring manifold E1 E-connector with Grommet lead wire socket/terminal Lead wire length DIN terminal box E-connector Lead wire length 500 mm 1000 mm 2000 mm 3000 mn DIN terminal box E-connector without BN (without terminal box) EJ type connector Lead wire length 2000 m

#### **Dimensions**



<sup>\*</sup>Fitting dimensions of P4 Series are different from the standard when mounted. For other dimensions, "Pneumatic Valves (No.CB-023SA) M4GE1 to 3 series.

<sup>\*10:</sup> A lamp comes with the terminal box.

<sup>\*11:</sup> AC voltage includes a rectifier circuit.

<sup>\*12:</sup> The terminal box conforms to EN175301-803Type C (former DIN 43650-C). Refer to "Pneumatic Valves No.CB-023SA" for details.

Clean air

Speed

Fitting

Auxiliary



Reduced wiring manifold body piping Direct mount/DIN rail mount

# **Series Series**

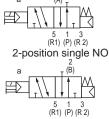
Cylinder bore size: ø20 to ø100





#### JIS symbol

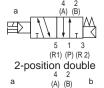
3-port valve 2-position single NC



Two 3-port valves integrated (A side valve: NC, B side valve: NC)



5-port valve 2-position single

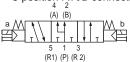


5 1 3 (R1) (P) (R 2) 3-position

All ports closed 2 (B) (R1) (P) (R 2)

3-position A/B/R connection 4 2 (A) (B) 

(R1) (P) (R 2) 3-position P/A/B connection (A) (B)



## Manifold common specifications

	00111111011	<u>'</u>
Item		Description
Manifold		Reduced wiring integrated base
Mounting m	ethod	Direct mount/DIN rail mount
Air supply a	nd exhaust	Common supply/common exhaust
method		(With internal exhaust check valve)
Pilot exhaust		Main valve/pilot valve common exhaust (Standard)
method Internal pilot		(Pilot exhaust check valve built-in)
Piping direction		Valve top direction
Valve and operation		Pilot operated soft spool valve
Working fluid		Compressed air
Max. working pressure MPa		0.7
Min. working	g pressure MPa	0.2
Proof pressi	ure MPa	1.05
Ambient ten	nperature °C	-5 to 55 (no freezing)
Fluid tempe	rature °C	5 to 55
Manual ove	rride	Non-locking/locking common
Lubrication (	*1)	Not required
Degree of protection (*2)		Dust-proof
Vibration resistance m/s <sup>2</sup>		50 or less
Shock resis	tance m/s <sup>2</sup>	300 or less
Atmosphere		Cannot be used in corrosive gas environments

- Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
- Avoid dripping water or oil, etc., during use.

#### Electrical specifications

Item	Description						
item	T1□, T3	0□, T5□	T6G1, T8□				
Rated voltage V	24 DC 12 DC		24 DC				
Voltage fluctuation range(*3)	±10	0%	+10%, -5%				
Holding current A	0.017	0.034	0.017				
Power consumption W	0.4						
Thermal class	В						
Surge suppressor	Zener diode						
Indicator	LED						

<sup>\*3</sup> T6G1, T8□As the voltage drop occurs due to the internal circuit of the (serial transmission), pay attention to the voltage fluctuation range.

#### Individual specifications

Common specifications

	P			
Item		M3GD1/M4GD1	M3GD2/M4GD2	M3GD3/M4GD3
Port size	Port A/B	Push-in fitting ø4, ø6 M5	Push-in fitting ø4, ø6, ø8 Rc1/8	Push-in fitting ø8,ø10 Rc1/4
	Port P/R1/R2	Rc1/8	Rc1/4	Rc3/8

#### T1□, T30□, T5□

Item	M3GD1/M4GD1		M3GD2	M4GD2	M3GD3/M4GD3		
item	Direct mount	t mount DIN rail mount D		DIN rail mount	Direct mount DIN rail mour		
Max. station No.	20 stations	16 stations	20 stations	16 stations	16 stations		
Manifold base weight calculation formula (n: station No.) g	29n+215	31n+228	54n+264	56n+297	84n+320	86n+354	

#### T6G1

Item	M3GD1/M4GD1	M3GD2/M4GD2	M3GD3/M4GD3		
iteiii	DIN rail mount	DIN rail mount	DIN rail mount		
Max. station No.	16 stations	16 stations	16 stations		
Manifold base weight calculation formula (n: station No.) g	31n+375	56n+444	86n+501		

#### T8

. 5						
D a see	M3GD1	/M4GD1	M3GD2/	M4GD2	M3GD3/	M4GD3
Item	Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount
Max. station No.	20 stations	16 stations	20 stations	16 stations	16 sta	ntions
Manifold base weight calculation formula (n: station No.) g	50n+305	52n+332	57n+259	60n+290	150n+384	153n+416

The manifold base weight is the value for screw connection specifications with DIN rail, wiring block or slave unit. Note that the maximum number of stations in the manifold is also limited by the maximum number of solenoid points per wiring specification as shown on the right.

P4 Series

# M<sup>3</sup> GD1/2/3-T\*(D) series Reduced wiring manifolds; Body piping

#### Flow characteristics

Model No.	o. Solenoid position		P →	<b>P</b> → <b>A</b> /B			A/B→R1/R2			
wodel no.			C[dm³/(s·bar)]	b	C[dm³/(	s-bar)]	b			
	Two 3-p	ort valves integrated	0.86	0.31	1.1	(0.66)	0.19	(0.22)		
M3GD1	2-position	on	0.99	0.20	1.2	(0.70)	0.20	(0.12)		
		All ports closed	0.94	0.23	1.1	_	0.20	_		
M4GD1	3-position	A/B/R connection	0.93	0.18	1.3	(0.70)	0.23	(0.02)		
		P/A/B connection	1.1	0.28	1.1	_	0.23			
	Two 3-port valves integrated		1.7	0.40	2.3	(1.7)	0.29	(0.32)		
M3GD2	2-position	on	2.3	0.36	2.9	(1.7)	0.24	(0.33)		
		All ports closed	2.1	0.35	2.5	_	0.32	_		
M4GD2	3-position	A/B/R connection	2.2	0.37	2.9	(1.8)	0.32	(0.29)		
		P/A/B connection	2.4	0.34	2.5	_	0.33	_		
	2-position	on	3.2	0.37	3.8	(2.5)	0.13	(0.28)		
M3GD3		All ports closed	2.9	0.35	3.3	_	0.35	_		
M4GD3	3-position	A/B/R connection	3.0	0.34	3.8	(2.6)	0.12	(0.27)		
		P/A/B connection	3.3	0.30	3.3	_	0.32			

<sup>\*1:</sup> Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 × C.

#### Wiring specifications

Item	<b>T10</b> □ Common terminal block	<b>T11</b> □ Common terminal block	T30□ D-sub-connector		T50□ able 20-	pin	T51□ Flat cable 20-pin	T: Flat cal	52⊡ ble 10-p	in I		T53[ able		oin
Connector and terminal block specifications	M3 thread fastening 18 terminals	Clamping 26 terminals	I 1-clin-connector 25-nin I		'		MIL-C-83503 standard compliant pressure welding socket 20-pin	MIL-C-83503 standard compliant pressure welding socket 10-pin			MIL-C-83503 standard compl pressure welding socket 26-			
Max. number of solenoids	16 points	24 points	nts 24 points		5 points		18 points	8 points			24 poir		nts	
Manifold internal wiring		R	efer to "Pneuma	tic Val	ves No.	CB-C	023SA" for details	S.						
Wiring block position Blank: Left side R: Right side	I Wi	Right side: T a solenoid side  Right side: T R a solenoid side  b solenoid side  Wiring block Ist station 2nd station 3nd station 8th station Ist station 2nd station 3nd station 8th station Ist station 3nd station 8th station Ist station 3nd station 8th station Ist station 3nd station 8th station												
Array method	(Example) For Manifold specific	cations	d wiring (sequentia	ıl) :Blan	k		Double wiring: W							
Blank: Standard sequential	S D S	_	ctor pin No. 1	2 3 2a 2b	4 5 3a 4a	6 4b	Connector pin No		2 3 Blank 2a	4 2b	5 3a	6 Blank	-	8 4b
W: Double wiring	1st station 3rd stati 2nd station 4t	on			3a   1a					1=2	00			-~

#### Serial transmission slave unit specifications

Download the communication setting file from the CKD website (https://www.ckd.co.jp/en/).

Item		T6G1 <sup>⁺1</sup>				
Network n	ame	CC-Link ver1.10				
Power supply Unit side		24 VDC ±10%				
voltage	Valve side	24 VDC +10% -5%				
Current	Unit side	100mA or less (when all output points are ON)				
consumption	Valve side	15 mA or less (when all output points are OFF)				
No. of outp	out points	16 points				
Occupied number		1 station				
Operation	display	LED (power supply and communication status)				

<sup>\*1:</sup> CC-Link is ver. 1.10.

lt a un		T8G1	T8GP1	T8P1	T8PP1	T8EC1	T8ECP1	T8EN1	T8ENP1	T8D1	T8DP1	T8EB1	T8EBP1	T8EP1	T8EPP1
Item		T8G2	T8GP2	T8P2	T8PP2	T8EC2	T8ECP2	T8EN2	T8ENP2	T8D2	T8DP2	T8EB2	T8EBP2	T8EP2	T8EPP2
Communication protocol		CC-Link ver. 1.10 PROFIBUS-DP (V0)		Ethe	EtherCAT EtherNet/IP		DeviceNet		CC-Link IEF Basic		PROFINET				
Power supply	Unit side				24 VD0	C ±10%		11 to 25 VDC				24 VDC	£10%		
voltage	Valve side		24 VDC+10%, -5%												
		60 mA	A or less 60 mA or less 110 mA or les						or less		or less	130 mA or less		130 mA or less	
Current	Unit side							(when all output points are ON)		(when all output points are ON)		(when all outpu points are ON)			
		1	,		,				, ,	1	,	1	,	<u> </u>	
consumption	Valve side	T8□1:1	5mA or le			or less (v nt is not i		output po	ints are	15 m <i>A</i>			II output s not inc		e ON)
No. of out	tput points						T8□1:	16-point	T8□2: 32	2 points					
Occupied number 1 station															
Operation	n display	LED (power supply and communication status)													
Output NPN output   NPN output					NPN output	PNP output	NPN output	PNP output							

<sup>\*2:</sup> Values in ( ) are with the exhaust check valve.



Pne Pneumatic actuator

Vacuum components

Clean air

Pneumatic auxiliary components

Fitting

generator Gas Electric actuator Fluid control components

How to order A Model No. Manifold model No. \* Be sure to fill in the "Manifold specifications sheet" (pages 315 to 326). 3GD3 4GD2 3GD2 4GD3 4GD1 3601 (M)4GD1(1)0 R - (C6) - (T30)W(H)(D) - ( Code Description 3-port manifold model No. **B** Solenoid position (M)(3GD1)(1)0R-(C6)-(T30)(W)(H)(D)-(2-position single Discrete valve for integrated base • 2 2-position double (4GD1)(1)9 R -(C6)- A2N 3 3-position all ports closed 4 3-position ABR connection 3-port discrete valve for integrated base 5 3-position PAB connection 3)-P4 - A2N 1 2-position single Normally Closed • (\*1)• A2N indicates the 11 2-position single Normally Open (\*1)A-connector Two 3-port valves integrated A side valve: Normally Closed B Solenoid position (downward), with 66 (\*1)(\*2)B side valve: Normally Closed lamp/surge suppressor and no Mix manifold 8 • • A Model No. lead wire. (when there are multiple solenoid positions) Port size Port P/R1/R2 Port size **Port** 4(A), 2(B) port \*3 (2)= Rc1/8 (3)=Rc1/4 (4)=Rc3/8 C4 ø4 push-in fitting 0 2 3 D Reduced wiring connection ø6 push-in fitting C6 0 3 2 3 Zener diode is used as a surge suppressor. C8 ø8 push-in fitting 0 3 4 3 4 ø10 push-in fitting 0 4) 4 C10 CX Push-in fitting mix (\*4) 0 3 4 2 3 4 2 \*3 M5 M5 2 (2) The port size of "O" is a standard product and equivalent to P4 06 Rc1/8 (3) specifications. It is not necessary 80 Rc1/4 to add "-P4" to the model No. Reduced wiring (lamp and surge suppressor provided as standard) Refer to the next page for electrical connections **■** Terminal/Connector pin array Terminal/Connector Blank Standard wiring (\*5)pin array method Double wiring (\*5)Option Refer to "Pneumatic Valves No.CB-Option 023SA" for the model No. of cables Blank Non-locking/Locking common manual override with D-sub-connector. With exhaust check valve (\*6)Refer to "Pneumatic Valves No.CB-023SA" for the model No. of cables Α Ozone/Coolant proof for flat cable connector. F Port A/B filter built in (\*7)**Z**1 Air supply spacer (\*8)Precautions for model No. selection **Z**3 (\*8) • • Exhaust spacer \*1 M4GD\*80R when using a mixture of 3, 5-port valves. When using a mixture with the **6** Mount type masking plate, M3GD\*80R. **G** Mount Blank Direct mount \*2 Dimensions are the same as the respective type 2-position double solenoid. DIN rail mount \*4 Push-in fitting cannot be mixed with the Station No. single valve 4(A) or 2(B) port. Station \*5 Blank...The wiring will be based on the type 2 stations 2 No. of valve mounted. to to W\*...All wired as double solenoid regardless of the type of valve used. 20 Refer to page 294 for the max. station number per model. \*6 The 3-position all ports closed and PAB Voltage connection are not provided with the exhaust check valve specifications (H). Voltage 24 VDC 3 Refer to "Pneumatic Valves No.CB-023SA' 12 VDC

302 to 303 for details.

for details on the exhaust check valve. \*7 A filter is built into port P as standard. \*8 Specify the spacer mounting position/ quantity in the manifold specifications sheet. Stacking of spacers is not possible. Combination with masking plates is not possible. Refer to pages

# M<sup>3</sup>GD1/2/3-T\*(D) Series

Reduced wiring manifolds; Body piping

3GD1 3GD2 3GD3 4GD1 4GD2 4GD2 4GD2	A Model No.									
	3GD1	3GD2	3GD3	4GD1	4GD2	4GD3				

Code	Description							
Reduce	ced wiring (lamp and surge suppressor	provided as	sta	nda	rd)	12/2	4 VI	DC
T10	Common terminal block (M3	Left-sided specs.					•	
T10R	thread)	Right-sided specs.					•	
T11	Common terminal block	Left-sided specs.					•	
T11R	(clamping)	Right-sided specs.						
T30	D-sub-connector	Left-sided specs.			•		•	
T30R	D-sub-connector	Right-sided specs.				•	•	
T50	20-pin flat cable connector	Left-sided specs.					•	
T50R	(with power supply terminal)	Right-sided specs.					•	
T51	20-pin flat cable connector	Left-sided specs.					•	
T51R	(without power supply terminal)	Right-sided specs.					•	
T52	10-pin flat cable connector	Left-sided specs.	•	•	•		•	
T52R	(without power supply terminal)	Right-sided specs.	•	•	•	•	•	
T53	26-pin flat cable connector	Left-sided specs.					•	
T53R	(without power supply terminal)	Right-sided specs.	•		•	•	•	•

T53R	(without power supply terminal)	Right-sided specs.	•	•	•	•	•	•
D Seria	l transmission (lamp/surge suppress	or provided	as :	star	ıdar	'd) 2	24 V	DC
T6G1	CC-Link (connector)	NPN 16 points	•			•		•
T8G1		NPN 16 points	•	•	•			•
T8G2	CC-Link	NPN 32 points	•					•
T8GP1	(thin type)	PNP 16 points	•					•
T8GP2		PNP 32 points	•		•			•
T8P1		NPN 16 points	•					
T8P2	PROFIBUS-DP	NPN 32 points	•		•			
T8PP1	(thin type)	PNP 16 points	•	•	•			•
T8PP2		PNP 32 points	•					
T8EC1		NPN 16 points	•					•
T8EC2	EtherCAT	NPN 32 points	•	•	•			•
T8ECP1	(thin type)	PNP 16 points						•
T8ECP2	]` ,	PNP 32 points		•	•			
T8EN1		NPN 16 points	•	•	•			•
T8EN2	EtherNet/IP	NPN 32 points			•			
T8ENP1	(thin type)	PNP 16 points	•	•	•			
T8ENP2	( 31 - 7	PNP 32 points	•	•	•			•
T8D1		NPN 16 points	•		•			
T8D2	DeviceNet	NPN 32 points	•	•	•			
T8DP1	(thinType)	PNP 16 points	•	•	•			•
T8DP2	<u> </u>	PNP 32 points	•		•			
T8EB1		NPN 16 points		•	•	•		
T8EB2	CC-Link IEF Basic	NPN 32 points	•	•	•	•		
T8EBP1	(thinType)	PNP 16 points		•				
T8EBP2	<u> </u>	PNP 32 points	•	•	•	•		
T8EP1		NPN 16 points	•			•		
T8EP2	PROFINET	NPN 32 points	•	•				
T8EPP1	(thinType)	PNP 16 points	•	•	•	•		•
T8EPP2		NPN 32 points	•	•	•	•		•
A2N	Without lead wire (without socket With surge suppressor and indicate)		•	•	•	•	•	•

Ozone-proof specifications

Coolant proof specifications

Can be selected with "How to order" Item F option "A" on page 296.

CE marking specifications

- Voltage -

• Standard voltage of 24 VDC or less is CE markingcompatible even if the model No. is not indicated with "ST".

Cylinder



Reduced wiring manifolds Base piping Direct mount/DIN rail mount

# M3GE1/2-T\*(D) Series M4GE1/2/3-T\*(D) Series • Cylinder bore size: Ø20 to Ø100

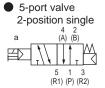




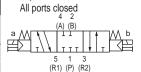
#### JIS symbol

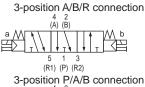
Two 3-port valves integrated (A side valve: NC, B side valve: NC)

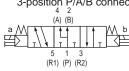












Manifold common specifications

iviaiiiioi	u commi	ni specilications					
Item		Item					
Manifold		Reduced wiring integrated base					
Mounting r	method	Direct mount/DIN rail mount					
Air supply method	and exhaust	Common supply/common exhaust (With internal exhaust check valve)					
Pilot exhaust method	Internal pilot	Main valve/pilot valve common exhaust (Standard) (Pilot exhaust check valve built-in)					
Piping dire	ction	Side direction of base					
Valve and	operation	Pilot operated soft spool valve					
Working flu	uid	Compressed air					
Max. working pressureMPa		0.7					
Min. working	pressureMPa	0.2					
Proof pres	sure MPa	1.05					
Ambient te	mperature°C	-5 to 55 (no freezing)					
Fluid temp	erature °C	5 to 55					
Manual ov	erride	Non-locking/locking common					
Lubrication	n (*1)	Not required					
Degree of p	rotection (*2)	Dust-proof					
Vibration re	sistancem/s <sup>2</sup>	50 or less					
Shock resi	stance m/s <sup>2</sup>	300 or less					
Atmospher	re	Cannot be used in corrosive gas environments					

- \*1 Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.
- \*2 Avoid dripping water or oil, etc., during

Electrical specifications

Item	Item						
item	T1□, T3	0□, T5□	T6G1, T8⊟				
Rated voltage V	24 DC	12 DC	24 DC				
Voltage fluctuation range (*3)	±10	0%	+10%, -5%				
Holding current A	0.017	0.034	0.017				
Power consumption W	0.4						
Thermal class	В						
Surge suppressor	Zener diode						
Indicator	LED						

<sup>\*3</sup> T6G1, T8

As the voltage drop occurs due to the internal circuit of the (serial transmission), pay attention to the voltage fluctuation range.

#### Manifold individual specifications

Common specifications

oommon op com				
Item		M3GE1/M4GE1	M3GE2/M4GE2	M3GE3/M4GE3
Port size	Port A/B	Push-in fittingø4, ø6	Push-in fittingø4,ø6,ø8	Push-in fitting ø8,ø10
	POILAVE	M5	Rc1/8	Rc1/4
	Port P/R1/R2	Rc1/8	Rc1/4	Rc3/8

T1□, T30□, T5□

Item	M3GE1/M4GE1		M3GE2	M4GE2	M3GE3/M4GE3		
item	Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount	
Max. station No.	20 stations	16 stations	20 stations	16 stations	16 sta	itions	
Manifold base weight calculation formula (n: station No.) q	43n+335	45n+348	80n+398	82n+431	124n+548	126n+562	

T6G1

Item	M3GE1/M4GE1	M3GE2/M4GE2	M3GE3/M4GE3
item	DIN rail mount	DIN rail mount	DIN rail mount
Max. station No.	16 stations	16 stations	16 stations
Manifold base weight calculation formula (n: station No.) g	45n+495	82n+578	126n+729

T8\_

Item	M3GE1/M4GE1		M3GE2	M4GE2	M3GE3/M4GE3		
item	Direct mount	DIN rail mount	Direct mount	DIN rail mount	Direct mount	DIN rail mount	
Max. station No.	20 stations	16 stations	20 stations	16 stations	16 sta	ations	
Manifold base weight calculation formula (n: station No.) g	46n+305	49n+332	83n+318	86n+350	128n+384	132n+416	

The manifold base weight is the value for screw connection specifications with DIN rail, wiring block or slave unit. Note that the maximum number of stations in the manifold is also limited by the maximum number of solenoid points per wiring specification as shown on the right.

#### Flow characteristics

Model No.	Solenoid position		$ extsf{P}  ightarrow$	A/B		A/B→R1/R2					
wodei no.	301	enoia position	C[dm³/(s-bar)]	b	C[dm <sup>3</sup> /(	s-bar)]	b				
	Two 3-port valves integrated		0.86	0.35	1.1	(0.67)	0.22	(0.23)			
M3GE1	2-position	on	1.1	0.22	1.2	(0.70)	0.20	(0.10)			
		All ports closed	0.98	0.22	1.1	_	0.24	_			
M4GE1	3-position	A/B/R connection	0.97	0.35	1.3	(0.68)	0.22	(0.24)			
		P/A/B connection	1.1	0.38	1.1		0.21				
	Two 3-port valves integrated		1.7	0.44	2.1	(1.6)	0.32	(0.30)			
M3GE2	2-position		2.4	0.34	2.7	(1.7)	0.24	(0.31)			
		All ports closed	2.2	0.34	2.4		0.29				
M4GE2	3-position	A/B/R connection	2.2	0.34	2.8	(1.8)	0.24	(0.27)			
		P/A/B connection	2.4	0.29	2.4		0.29				
	2-position	on	3.5	0.34	3.8	(2.6)	0.11	(0.27)			
M4GE3	1	All ports closed	3.1	0.33	3.3		0.22				
WI4GES		A/B/R connection	3.0	0.30	3.8	(2.7)	0.11	(0.22)			
		P/A/B connection	3.6	0.36	3.3	_	0.28				

<sup>\*1:</sup> Effective cross-sectional area S and sonic conductance C are converted as S  $\approx$  5.0  $\times$  C.

#### Wiring specifications

Item	<b>T10</b> □ Common terminal block	T11□ Common terminal block	T30□ D-sub-connector	T50□ Flat cable 20	-pin	T51□ Flat cable 20-pin		52□ ole 10-pin	Fla	T53 cable	
Connector and terminal	M3 thread fastening	Clamping 26	D-sub-connector 25-pin			L-C-83503 standard compliant					rd compliant
block specifications	18 terminals	terminals	'	pressure welding socke				ng socket 10-pin	-		ocket 26-pin
Max. number of solenoids	16 points	24 points	24 points	16 point		18 points		oints	2	24 poi	nts
Manifold internal wiring			efer to "Pneumat			235A" for details	S.				
	Left side: T□a	a solenoid side	Rig	ht side: T□	R	a solenoid side					
Wiring block position Blank: Left side R: Right side	_	o solenoid side	3rd station 6th state	b solenoid side							
	(Example) For										
Array method	Manifold specifica	Standard v      Stan	viring (sequential):	Blank	Do	ouble wiring: W					
Blank: Standard		Connector	pin No. 1 2	3 4 5	6 C	Connector pin No.	1 :	2 3 4	5	6 7	8
sequential		Valve solen	oid No. 1a 2a	2b 3a 4a	4b V	alve solenoid No.	1a B	ank 2a 2b	3a	Blank 4	a 4b
W: Double wiring	2b 4b	)									
9	1st station 3rd station										
	2nd station 4th s	station									

#### Serial transmission slave unit specifications

Download the communication setting file from the CKD website (https://www.ckd.co.jp/en/).

Item		T6G1 <sup>`1</sup>
Network n	name	CC-Link ver1.10
Power supply	Unit side	24 VDC ±10%
voltage	Valve side	24 VDC +10% -5%
	Unit side	100mA or less (when all output points are ON)
consumption	Valve side	15 mA or less (when all output points are OFF)
No. of out	put points	16 points
Occupied number		1 station
Operation display		LED (power supply and communication status)

<sup>\*1:</sup> CC-Link is ver. 1.10.

ltom		T8G1	T8GP1	T8P1	T8PP1	T8EC1	T8ECP1	T8EN1	T8ENP1	T8D1	T8DP1	T8EB1	T8EBP1	T8EP1	T8EPP1
Item		T8G2	T8GP2	T8P2	T8PP2	T8EC2	T8ECP2	T8EN2	T8ENP2	T8D2	T8DP2	T8EB2	T8EBP2	T8EP2	T8EPP2
Communic	cation protocol	CC-Link	ver. 1.10	PROFIBU	S-DP (V0)	Ethe	rCAT	Ether	Net/IP	Devi	eNet	CC-Link	IEF Basic	PROF	INET
Power supply	Unit side				24 VD0	C ±10%			11 to 2	5 VDC		24 VDC	±10%		
voltage	Valve side														
Current	Unit side		ss (when all	60 mA or le			ess (when all	ess (when all		ss (when all	130 mA or le	١.		ss (when all	
Current	OTHE SIGC		nts are ON)	output poir			nts are ON)	output poir		output poir	its are ON)	output poir	nts are ON)	output poir	its are ON)
consumption	Valve side	T8□1:	15mA or le		:20mA or d current i		n all outpu	ut points a	re ON)	15 mA			utput poin		l) Load
NI C	and a state			LUat	u current i	S HOL IHO		40	T0 0 00			unentisi	ot include	u	
No. of out	put points						18∐1:	16-point	T8□2: 32	points					
Occupied	number							1 sta	ation						
Operation	display		LED (power supply and communication status)												
Output		NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output

Pneumatic actuator

Vacuum components Pneumatic valves

Pneumatic auxiliary components

Clean air Speed components controller Fitting Auxiliary Silencer

<sup>\*2:</sup> Values in ( ) are with the exhaust check valve.



Pne Pneumatic actuator

5

/acuum components

Pneumatic auxiliary components

Fitting

Auxiliary

generator Gas

Electric actuator Fluid control components

A Model No. How to order \* Be sure to fill in the "Manifold specifications Manifold model No. sheet" (pages 315 to 326). 4GE2 (M)(4GE1)(1) 0R - (C6) - (T30)(W)(H)(D)-(-)-(3)-P4 4**GE1** Code Description 3-port manifold model No. **B** Solenoid position 2-position single 1 (M)(3GE1)(66) OR - (C6) - (T30) (H)(D)-(2 2-position double Discrete valve for integrated base 3-position all ports closed 3 • • (4GE1)(1)9R - (00)- A2N (H)• 4 3-position ABR connection 5 3-position PAB connection 3-port discrete valve for integrated base A side valve: Normally Closed Two 3-port valves 66 (3GE1)66 9R - (00) - A2N  $(\mathbf{H})$ integrated (\*1) (\*2) B side valve: Normally Closed Mix manifold (when there are multiple A2N indicates the solenoid positions) A-connector (downward) B Solenoid position with lamp/surge © Port size suppressor and no lead Port P/R1/R2 Port 4(A), 2(B) port \*3 2= Rc1/8 3=Rc1/4 4=Rc3/8 A Model No. C4 ø4 push-in fitting 0 2 2 \*3 C6 ø6 push-in fitting 0 (2) 3 2 3 4 The port size of "O" is a standard product and equivalent to P4 C8 ø8 push-in fitting 0 3 4 specifications. It is not necessary C10 ø10 push-in fitting 0 4 Port size to add "-P4" to the model No. Push-in fitting mix CX 0 2 3 2 3 4 **M5** M5 2 2 Terminal/connector 06 Rc1/8 • (3) 3 pin array 08 Rc1/4 • • 00 Discrete valve for integrated base lacksquareD Reduced wiring (lamp and surge suppressor provided as standard) Reduced wiring Refer to the next page for electrical connections connection E Terminal/connector pin array Zener diode is used as a surge suppressor. Blank Standard wiring (\*4) Double wiring Option Option Blank Manual override of non-locking/locking common With exhaust check valve • Α Ozone/coolant proof F Port A/B filter built in (\*6) Refer to "Pneumatic Valves No.CB-• • **Z**1 Air supply spacer (\*7) 023SA" for the model No. of cables Exhaust spacer (\*7) with D-sub-connector. Refer to "Pneumatic Valves No.CB-023SA" for the model No. of cables **6** Mount type G Mount type (\*8) for flat cable connector. Blank Direct mount DIN rail mount • • • • H Station No. Station No. Precautions for model No. selection 2 2 stations to to \*1 M4GE\*80R when using a mixture of 3, 5-port valves. When using a mixture with the masking 20 Refer to page 298 for the max. station number per model. plate, M3GE\*80R. Voltage \*2 Dimensions are the same as the respective Voltage 24 VDC ullet

3

12 VDC

is not available.

 $\bullet | \bullet | \bullet | \bullet$ 

- 2-position double solenoid.
- \*4 Blank...The wiring will be based on the type of valve mounted.
  - W\*...All wired as double solenoid regardless of the type of valve used.
- \*5 3-position all ports closed and P A B connection are not provided with the exhaust check valve specifications (H). Refer to "Pneumatic Valves No.CB-023SA" for details on the exhaust check valve.
- \*6 A filter is built into port P as standard.
- \*7 Specify the spacer mounting position/ quantity in the manifold specifications sheet. Stacking of spacers is not possible. Combination with masking plates is not possible. Refer to pages 302 to 303 for details.
- \*8 Direct mount M4GE1 is available after purchaseThis cannot be changed to the DIN rail mount type.

Tube

M4GE1/2/3-T\*(D Reduced wiring manifolds; Base piping

Ozone-proof specifications

A Model No.

4GE1

3GE2 3**GE1** 

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lacktriangle•

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lacktrianlacksquare

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lacksquare

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lacksquare• lacksquarelacksquare•

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NPN 16 points

lacktrianlacktrian•

Left-sided specs.

Right-sided specs.

NPN 16 points

NPN 32 points

PNP 16 points

PNP 32 points

NPN 16 points

NPN 32 points

PNP 16 points

PNP 32 points

NPN 16 points

NPN 32 points

PNP 16 points

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NPN 16 points

NPN 32 points

PNP 16 points

PNP 32 points

NPN 16 points

NPN 32 points

PNP 16 points

PNP 32 points

Serial transmission (lamp/surge suppressor provided as standard) 24 VDC

Code

T10

**T10R** 

T11

**T11R** 

T30

**T30R** 

T50

T50R

T51

T51R

T52

T52R

T53

T53R

T6G1

T8G1

T8G2

T8GP1

T8GP2

T8P1

**T8P2** 

T8PP1

T8PP2

T8EC1

T8EC2

T8ECP1

T8ECP2

T8EN1

T8EN2

T8ENP1

T8ENP2

T8D1

T8D2

T8DP1

T8DP2

**T8EB1** 

T8EB2

T8EBP1

T8EBP2

T8EP1

T8EP2

T8EPP1

T8EPP2

A2N

Description D Reduced wiring (lamp and surge suppressor provided as standard) 12/24 VDC

Common terminal block (M3 thread)

Common terminal block (clamping)

20-pin flat cable connector

20-pin flat cable connector

10-pin flat cable connector

26-pin flat cable connector

CC-Link(Connector)

CC-Link

(thin type)

(thin type)

**EtherCAT** 

(thin type)

EtherNet/IP

(thin type)

DeviceNet

CC-Link IEF Basic

Without lead wire (without socket) With surge suppressor and indicator lamp

(Thin)

(Thin)

**PROFINET** 

PROFIBUS-DP

(with power supply terminal)

(without power supply terminal)

(without power supply terminal)

(without power supply terminal)

D-sub-connector

4GE2

•

•

•

•

•

Coolant proof specifications

Can be selected with "How to order" Item (F) option "A" on page 300.

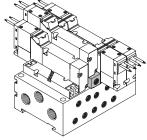
\*\* - Voltage -ST

Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

CE marking specifications

Related products

## Air supply spacer

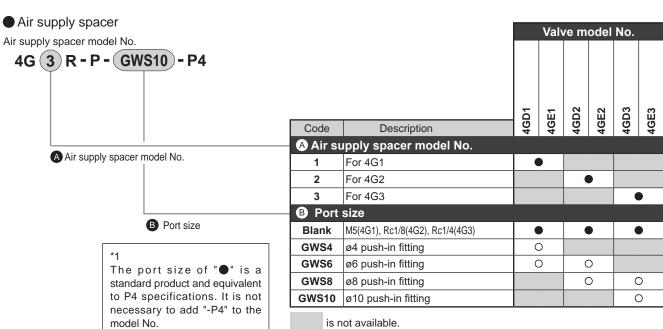


#### **Specifications**

Model	P →	A/B	A/B	Weight a				
No.	C(dm³/(s-bar))	b	C(dm³/(s-bar))	b	Weight g			
4G1	0.70	0.23	0.93	0.16	8			
4G2	1.6	0.17	1.8	0.16	35			
4G3	2.6	0.22	3.1	0.14	56			

<sup>\*1:</sup> Values are when a valve is mounted.

How to order discrete units



Accessories: 2 Mounting screws, 2 PR check valves, 1 body gasket

#### Precautions for model No. selection

<sup>\*2:</sup> Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

<sup>\*2:</sup> Specify the air supply spacer mounting position and quantity on the manifold specifications sheet of each catalog.

<sup>\*3:</sup> Combination with the masking plate is not supported.

# M4GD1 to 3/M4GE1 to 3 Series

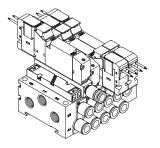
P4 Series

Pneumatic actuator

Vacuum components Pneumatic valves

#### Related products

#### Exhaust spacer

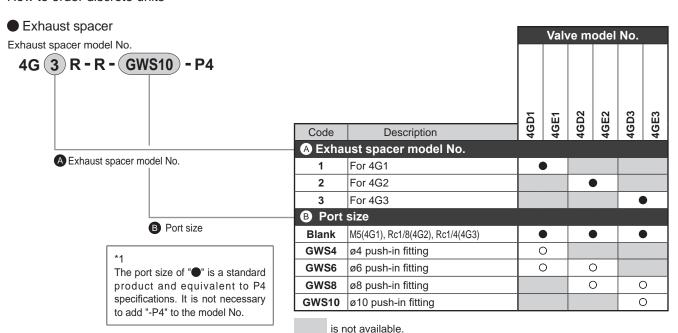


#### **Specifications**

Model	P →	A/B	A/B	Woight a			
No.	C(dm³/(s-bar))	b	C(dm³/(s-bar))	b	Weight g		
4G1	0.94	0.28	0.68	0.33	7		
4G2	1.5	0.24	1.9	0.24	34		
4G3	3.4	0.21	2.9	0.27	58		

<sup>\*1:</sup> Values are when a valve is mounted.

#### How to order discrete units



Accessories: 2 Mounting screws, 2 PR check valves, 1 body gasket

#### Precautions for model No. selection

<sup>\*2:</sup> Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

<sup>\*2:</sup> Specify the exhaust spacer mounting position and quantity on the manifold specifications sheet of each catalog.

<sup>\*3:</sup> Combination with the masking plate is not supported.

#### Related products

## P4 Series

Pneumatic

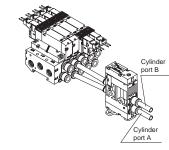
Pneumatic actuator Related

Speed

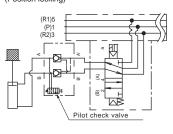
Auxiliary Fitting

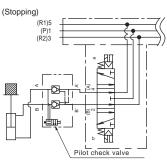
## Related products

#### Pilot check valve



JIS symbol (Position locking)



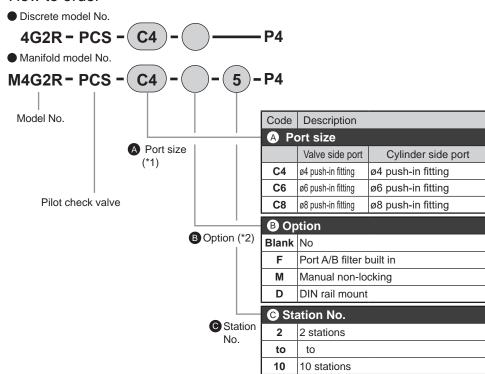


Example of leak comparison All ports closed (solenoid) valve 10 cm³/min or less Pilot check valve (4G2R-PCS) 0 to 0.3 cm<sup>3</sup>/min

## **Specifications**

ltem	4G2R-PCS-*-*
Effective cross-sectional area mm²	11
Weight g	200

#### How to order

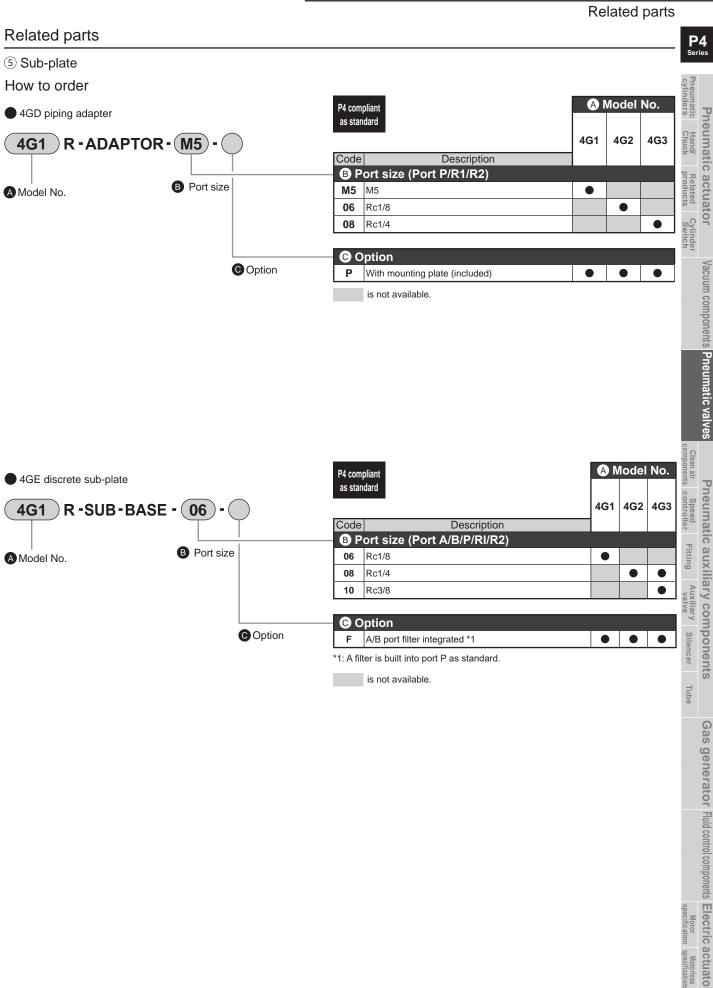


A Depending on use conditions, the pilot check valve body may emit resonance noise due to the air flow when the cylinder operates, but this is not an abnormality. Adjust the pipe length and bore size in that case.

#### Precautions for model No. selection

- \*1: Contact CKD for information on mixing port sizes.
- \*2: The following applies when blank is selected as an option. Manual override: Non-locking/locking common Mounting method: Direct mounting

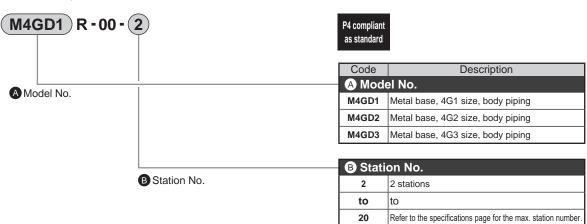
# M4GD1 to 3/M4GE1 to 3 Series



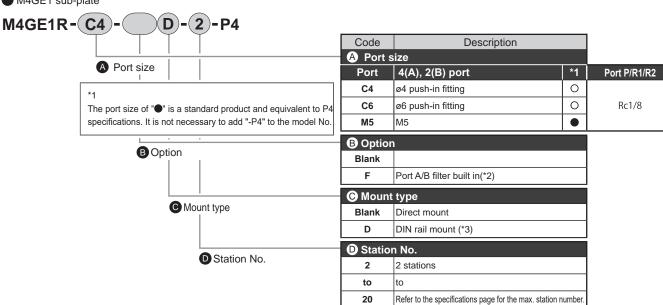
Related parts

6 Manifold sub-plate kit individual wiring

M4GD sub-plate



■ M4GE1 sub-plate

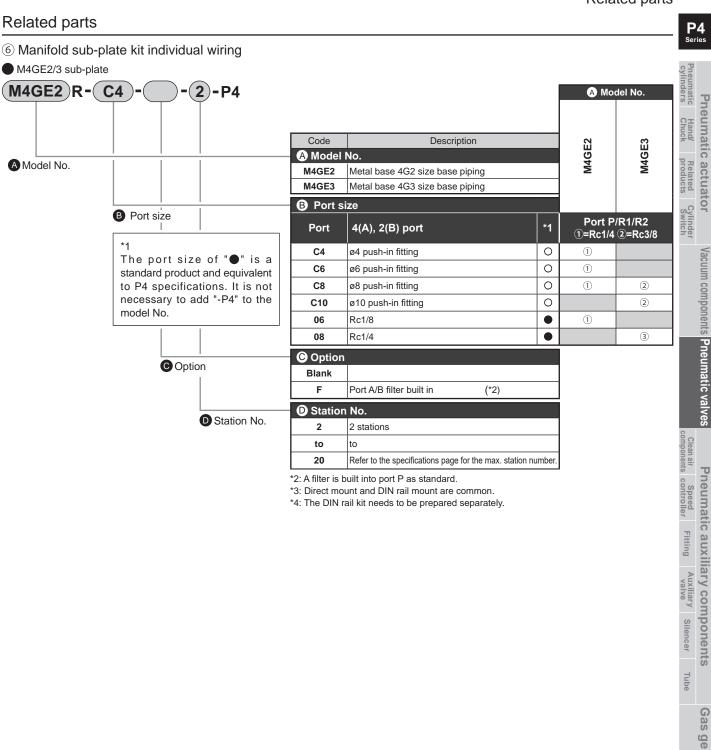


<sup>\*2:</sup> A filter is built into port P as standard.

<sup>\*3:</sup> The DIN rail kit needs to be prepared separately.

# M4GD1 to 3 /M4GE1 to 3 Series

Related parts



**CKD** 

P4 Series

**Pneumatic actuator** 

vacuum components Pneumatic valves

#### Related parts

A Model No.

P4 Series

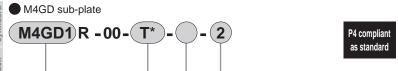
Pneumatic actuator Related

Pneumatic valves Vacuum components

Pneumatic auxiliary components

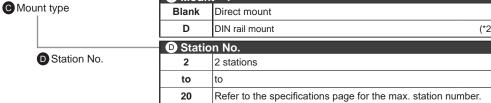
Related parts

7 Manifold sub-plate kit reduced wiring



Description Code A Model Metal base, 4G1 size, body piping M4GD1 M4GD2 Metal base, 4G2 size, body piping M4GD3 Metal base, 4G3 size, body piping B Reduced wiring connection

IVI4GD3	Interal base, 403 size, body piping	
B Reduc	ced wiring connection	
T10	Common townsing I block (MA2 three d)	Left-sided specs
T10R	Common terminal block (M3 thread)	Right-sided specs
T11	Common terminal black (clamping)	Left-sided specs
T11R	Common terminal block (clamping)	Right-sided specs
T30	D-sub-connector	Left-sided specs
T30R	D-sub-connector	Right-sided specs
T50	20-pin flat cable connector	Left-sided specs
T50R	(with power supply terminal)	Right-sided specs
T51	20-pin flat cable connector	Left-sided specs
T51R	(without power supply terminal)	Right-sided specs
T52	10-pin flat cable connector	Left-sided specs
T52R	(without power supply terminal)	Right-sided specs
T53	26-pin flat cable connector	Left-sided specs
T53R	(without power supply terminal)	Right-sided specs
T56	20-pin flat cable connector (without power supply terminal) For serial transmission slave unit OPP3 connection	Left-sided specs
T81	For serial transmission slave (adapter) station OPP7 connection (16-point output)	Left-sided specs
T82	For serial transmission slave (adapter) station OPP7 connection (32-point output)	Left-sided specs
 <b>©</b> Mount	t *1	
Blank	Direct mount	
D	DIN rail mount	(*2)
	•	

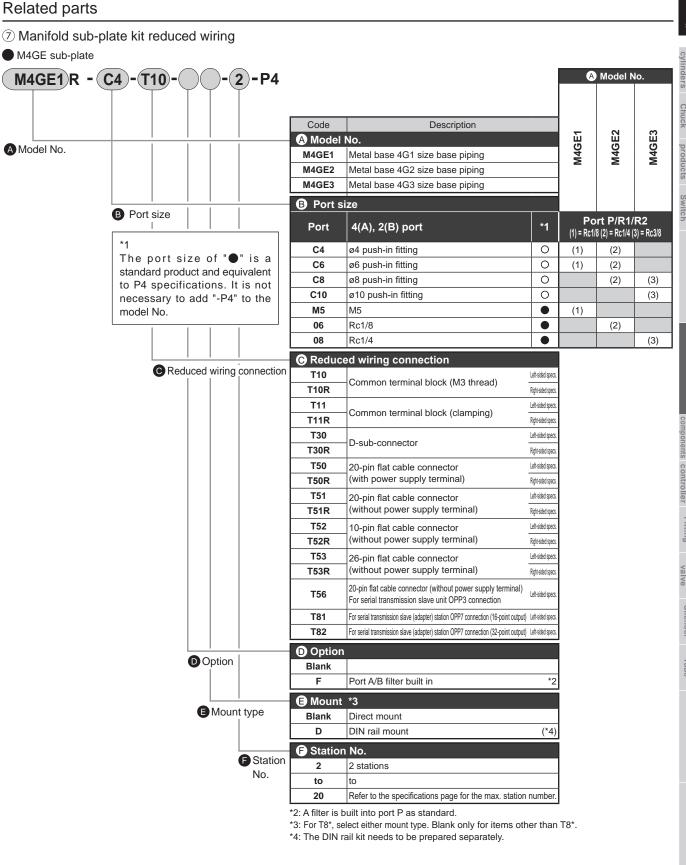


<sup>\*1:</sup> For T8\*, select either mount type. Blank only for items other than T8\*.

<sup>\*2:</sup> The DIN rail kit needs to be prepared separately.

## M4GD1 to 3 /M4GE1 to 3 series

Related parts



CKD

309

## How to fill out metal base M4G Series manifold specifications sheet

Manifold model No. (example)

M 4 G 1 8 OR- CX - T30 Solenoid valves Port size Electrical

Solenoid position

Terminal connector Station No. Voltage

# Precautions for fitting mi

The port A/B fitting can be selected freely by indicating "CX" in the por size area.

#### Selectable cartridge fittings

C4, C6, x (plug) 4G2 C4, C6, C8, × (plug) C8, C10, × (plug)

\*Port A/B fitting mix is not available for body piping

#### How to use base piping M4GE\*10 as a 3-port valve

This can be used as NO/NC b attaching a plug cartridge on one sid CX column.

Switching method	Plug mounting port
NC (Normally Closed)	В
NO (Normally Open)	А

For female thread specifications, indicate the required number of plugs in the "Thread plug" area at the end. Female threads and cartridge fitting cannot be used together in one manifold set.

													con	nec	tior	ıs	pin	array	metho	Dd									
ix	Solono	oid valve model No.		g CX														on po											Quantity
	JUICITO	olu valve model No.	Α	В	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	ő
	4G E	1 1 9R-CX	C6	Χ.	0	0																							2
ed	4G E	1 1 9R-[C6]		1,41.			0	0																					2
rt	4G E	1 2 9R- C6			Ľ	١ ١	l		0	0																			2
	4G E	1 5 9R-CX	C6	C4		Indi	cate	e X	for	Ĺ	0	0																	2
	4G 🔚	]1[]]9R-[_]]	<u>.</u>			a pl	ug																						
╗	3G D	] 1[[] 9R-[[]]		ļ 	<u> </u>	I				Ė																			
		1[]] 9R-[]	Fi	ll in "C	X" wh	nen																							
	Masking 4G1	R-MP(S)	L:	anging																									
ole	Masking 4G1	R-MP(D)	fitt	ting cor	mbin	ation	ال.ا						0																1
	part											ng p	lug										Т	hre	ade	d plu	ıg		
by   L2=   Day   GWP 4-B   Cable with D-sub-connector														G۱	VP (	6-B						4	4G1	R-N	/15P	'			
by S Cable with D-sub-connector								ctor	40	GR-C	ABL	E-D0	<b>-</b> -			F	ush-in f	itting tu	ibe ren	nover (a	attache	d as sta	andard	) 🔽 No	t requir	red (che	eck the	box)	
uc																			/ [										

of port A/B. Indicate "X" in the fitting \*A reference circuit diagram for the above manifold (example) is shown on the next page.

If the tube remover (standard accessory) is not required, place a check.

From the manifold specifications for each model, select and fill out the appropriate form.

- Individual wiring...M4G <sup>D</sup> 1 (Page 312), M4G <sup>D</sup> 2 (Page 313), M4G <sup>D</sup> 3 (Page 314)
- Reduced wiring
- · Common terminal block (T1\*), D-sub-connector (T30)
- Flat cable connector (T5\*)
- · Serial transmission (T6G1)
- Serial transmission (T8\*)
- : M4G<sub>E</sub><sup>D</sup>1 (Page 315), M4G<sub>E</sub><sup>D</sup>2 (Page 316), M4G<sub>E</sub><sup>D</sup>3 (Page 317)
- : M4G<sup>E</sup><sub>E</sub>1 (Page 318), M4G<sup>E</sup><sub>E</sub>2 (Page 319), M4G<sup>E</sup><sub>E</sub>3 (Page 320) : M4G<sup>E</sup><sub>E</sub>1 (Page 321), M4G<sup>E</sup><sub>E</sub>2 (Page 322), M4G<sup>E</sup><sub>E</sub>3 (Page 323) : M4G<sup>E</sup><sub>E</sub>1 (Page 324), M4G<sup>E</sup><sub>E</sub>2 (Page 325), M4G<sup>E</sup><sub>E</sub>3 (Page 326)

Manifold specifications sheet

## How to fill out wiring specifications sheet

Not required for standard wiring and double wiring.

Wiring specifications sheet (example)

Complete these specifications when specifying the wiring order and additional cables.

	Connec	tor p	oinNO.										Inst	allat	ion p	oosit	ion			_/			
Т3	0/T30R	T5	0/T50R/T6*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
1		1		а																			
	14	2			а																		
2		3				а																	
	15	4																		$\Box /\!/$			
3		5					а													//			
	16	6																		Ш			
4		7						а												Ш			
	17	8						b												_//			
5		9	-Power supply						а											Ш			
	18	10	+(COM) Power supply						b				L.	ļ	l	l	l	l	l				
6		11								а				Spa	re o	re cable wiring							
	19	12								b			;	Р				s1					
7		13									а				ı	I	ı	ŗ	ŗ.,_				
	20	14									b	Ι.	,,;;										
8		15										(a)								$\Box /\!/$			
	21	16										(b)								$/\!/$			
9		17																		Ш			
	22	18																		Ш			
10		19	-Power supply																	M			
	23	20	+(COM) Power supply																	$\square$			
11																							
	24																						
12																							
	25																						
13	(COM)																						

Note that when T50 wiring is used, the COM polarity is + (plus).

When T50 wiring is used, connector pin numbers 9, 10, 19, and 20 cannot be specified, because they are used for the external input power supply.

\* Wiring is sequential from connector pin No. 1 in standard wiring. Contact CKD for special wiring order

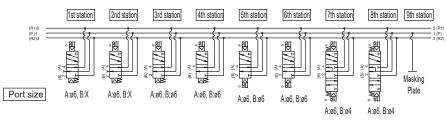
#### Precautions regarding spare wiring

①Spare wires are provided on the masking plate for the reduced wiring manifold. (Refer to "Pneumatic Valves No.CB-023SA") The number of wires for spare wiring can be specified by selecting the masking plate within the specifications. 4G \*R -MP(S)...1 pc.

4G \*R -MP(D)...2 pcs.

Indicate (a) or (b) in manifold specifications sheet for masking plate reserved wires.

Reference circuit diagram Manifold on the previous page No. (Example of description) simplified circuit diagram.



\* The manifold station numbers are set in order from the left with the piping port facing forward.

M4G1	individual	wiring

M4G ₽ Manif	fold specifica	Date issued / /										
				Company								
<ul><li>Contact</li></ul>	<ul><li>Quantity se</li></ul>	t(s)	e /	Contact								
Slip No.		Order No.		Order No.								
● Manifold model No.												
M GP1	0R-	=		-								
	lenoid position F		ner options Mount ty									
Fittii	ing CX		installation position	tity								
Solenoid valve model No.	B 1 2 3 4 5	6 7 8 9 10 11 12		17   18   19   20   21   22   23   24   78								
4G 1 9R-												
4G 1 9R-												
4G 1 9R-												
4G 1 9R-												
4G 1 9R-												
3G [ ]1 [ ]9R-[ ]												
3G [ ]1 [ ]9R-[ ]												
Masking plate 4G1R-MP-												
Air supply spacer 4 G1R-P-												
Exhaust spacer 4G1R-R-												
Bu L2=   D		Blanking plug		Threaded plug								
Mounting Mounting Wounting Wou	GWP 4-B	GWP 6-B	3	4G1R-M5P								
multiple of 12.5.	Push-in fitting tube remover (attac	hed as standard) Not required (	check the box)									

M4G₽2Manifold specif						:if	ifications sheet									Date issued / /										Pne			
																,		-	Com		/							Pneumatic cylinders	D
Contact			Qu	antity	У		S	et(s)	1		• D	elive	ery d	ate		/		Contact											neu
Slip No.									0	rder	No.							Order No.									Hand/ Chuck	m	
Manifold model No.																													atic
M G 2										]-	[				  -  -					[ [		<b>-</b> [		] _	P	4	Related products	Pneumatic actuator	
Solenoid valves	model No Fitting CX					F	ort	size		Elect	rical ection	าร	)ther o			Mou		е		Statio	n No	. Vo	oltaç	ge			d Cylinder ts Switch	ator	
Solenoid valve model No.	A	ig CX B	1	2	3	4	5	6	7	8	9	10	11	12	13	14	positi 15	on 16	17	18	19	20	21	22	23	24	Quantity	vitc	
4G 2 9R-																												her	
4G 2 9R-																													Vacuum components
4G 2 9R-																													n com
4G 2 9R-																													pon
4G 2 9R-																													ents
3G [ ]2 9R-																													Pneumatic valves
3G 2 9R- Masking plate																													lmat
4G2R-MP-																													ic v
Air supply spacer 4G2R-P-																													alve
Exhaust spacer 4G2R-R-																												con	
																												lean a ipone	
																												ir nts o	Pn
																												Clean air Speed components controller	eur
D	ped			1			1	1	E	3lank	ing p	lug	1							<u> </u>	Τ		Thr	eade	d plu	g		ed	Pneumatic
Output L2=	*Write an integer							GWP 6-B GWP 8-B								-B 4G2R-06P							Fitti	c au					

M4G2 individual wiring

M4G3 individual wiring

Included

GWP 8-B

\* Write an integer multiple of 12.5

# Pneumatic actuator

_	
ts	Clean air components
nponent	Speed
ary con	Fitting
ic auxilia	Auxiliary valve
Pneumati	Silencer
<u>_</u>	Tube
as generator	
Ō	
onents	

M4G P3Ma	nif	ol.	d	er	۵۵	ci	fic	`a'	ti/	٦n	2	el	20	ام	ŀ				Date	issu	ıed	/	1	/			
IVITO E SIVIC		Oi	u	<b>3</b>	76	CI	110	,a	LIV	<i>)</i>	3	JI	16	G				-	Com	pan	у						
<ul><li>Contact</li></ul>			Qua	antit	у		S	et(s)			<ul><li>D</li></ul>	elive	ery d	ate		/			Cont	act							
Slip No.									С	rder	No.								Orde	er No	).						
Manifold model No.																											
M GP3	[				0 F	₹.	• [				• [		;	, ! ! !			1; 1; 1;			;	<b>-</b> [-	;	-	; i i	]-	P	4
Solenoid valves		olenoid							t size			ctrica necti	l ons	Othe	r optio	ns	Мо	unt ty	/ре					Voltaç			
Solenoid valve model No.	Fitting	CX B	1	2	3	4	5	6	7	8	9	10	Va 11	lve ir		ation	position	on 16	17	18	19	20	21	22	23	24	Quantity
4G 3 9R-			Ė		3	4	J	0	<u>'</u>	0	9	10	<u> </u>	12	13	14	13	10	17	10	13	20	21	22	20	24	Ö
4G 3 9R-																											
4G 3 9R-																											
4G 3 9R-																											
4G 3 9R-																											
3GD3 9R-																											
3GD3 9R-																											
Masking plate 4G3R-MP-																											
Air supply spacer 4G3R-P-																											
Exhaust spacer 4G3R-R-																											

Blanking plug

GWP 10-B

Threaded plug

4G3R-08P

Included parts

ā

GWP 4-B

Cable with D-sub-connector

Date issued

d/ Related Cylinder	atic actuator
	Vacuum components P
	Pneumatic valves
Clean air	P
Speed	Pneumatio
Fitting	ic auxiliary c
Auxiliary valve	ary components
Silencer	po

M4G ध-T1·3 Manifolo	d specifications	sheet
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/14G E1-11-3	Walliou	spec	,iiicalioiis s	Sileet	Company	
Contact	<ul><li>Quantity</li></ul>	set(s)	<ul><li>Delivery date</li></ul>	/	Contact	
Slip No.			Order No.		Order No	

● Ma	nifolo	d m	odel No	).																										
M			G E	1			0F	<b>?</b> -				-[						); !; !;					] •	• [_		- [		] -	P	4
	lenoid			S	olenoid p	osition	1		Р	ort s	ize	Red	uced v	iring 1	Terminal Arra	connecty metho	tor pin	Opti	ion	M	ount t	ype		Stat	ion N	o. \	/oltag	е		
Soleno	id val	ve m	odel No.	Fit	ting CX	1	2	3	4	5	6	7	8	9	10	Va 11	lve ir	ıstalla	ation	ositio	on 16	17	18	19	20	21	22	23	24	Quantity
4G	1		9R-	1 A	В			3	4	5	0		0	9	10	11	12	13	14	15	16	17	10	19	20	21	22	23	24	ō
4G	1		9R-	1																										-
4G	1	:	9R-																											
4G	- 4 5	:	9R-	1																										$\Box$
4G		:																												
3G	<del></del>			1																										
3G	1	9F	₹-																											
Masking <b>4G1</b>	plate R-MP	P(S)-	. [																											
Masking <b>4G1</b>	plate		[																											
Air sup			[																											
Exhaus <b>4G</b> 1																														
Вu		[		- P							В	lanki	ng pl	ug											Thre	aded	plug			

GWP 6-B

4GR-CABLE-D0□-□

	Connector	ons sheet (Not requ	Π											itior											
	T11/T11R	T30/T30R	1	2	3	4	5	6	7	8	9	10	11		14	15	16	17	18	19	20	21	22	23	24
1	1	1																							
2	2	14																							
3	3	2																							
4	4	15																							
5	5	3																							
6	6	16																							
7	7	4																							
8	8	17																							
9	9	5																							
10	10	18	_																						
11	11	6	_																						
12	12	19	_																						
13	13	7	_																						
14	14	20	_																						
15	15	8	_																						
16	16	21																							
COM	17	9	$\perp$																						
COM	18	22																							
	19	10																							
	20	23																							
	21	11																							
	22	24																							
	23	12	$\perp$																						
	24	25	$\perp$																						
	COM	13 (COM)																							
	COM																								

Push-in fitting tube remover bracket (Included as standard) Non required (Check)

4G1R-M5P

Gas generator Fluid control components Electric actuator

Motor Moorless specification specifications

M4G2 reduced wiring

M4	4 <b>G</b>	jĘ	2	-	1:3	3 M	ar	<b>1</b> IT	Ol	d	sp	e)	CI	tic	a	tic	on	S	SI	ne	et		Com			/		'			
● Cc	ntac	t					Qu	ıantit	y		S	et(s)			<b>D</b>	elive	ry da	ate		/		-	Cont		,						
Sli	o No	٠.							-			. ,	0	rder	No.							(	Orde	r No	).						
<ul><li>Ma</li></ul>	nifol	ld m	node	el No																		_									
M		!	G	De E	2			0F	<b>?</b> -				-[		-1;-				[		][- ][.				- []	;	- [		] -	P	4
	oleno				Sole	enoid po	sition			Po	rt si	ze	Red	uced winection	ring Te	erminal/	connect metho	or pin d	Optio	on	Мс	ount t	уре		Stat			Voltag			
Solen	oid va	lve r	node	l No.	Fitt	ing CX	1	2	3	4	5	6	7	8	9	10	Va 11	lve ir	nstalla 13	tion	ositio 15	on 16	17	18	19	20	21	22	23	24	Quantity
4G	2		9R-																												
4G	2		9R-				T																								
4G	2		9R-	<del>} = = = 1</del>			1																								Г
4G	2		9R-				T																								Г
4G	2		9R-				T																								
3G	2	9	R-				1																								Г
3G		9	R-	== 1			$\top$																								
Maskir 4G2	g plate		)- :																												
Maskir 4G2	g plate	-	- :-																												
Air su	ply sp	pace		1																											
Exhau 4G2	st spa	cer																													
bui	12-	[			ped								В	lanki	ng p	lug									Τ		Thre	eaded	d plug	3	
Mounting	L2=	1	intege		Included			P 4-B		sub-c	conne	octor		lanki WP 6	<u> </u>		CP (	CABL	E D0		P 8-E	3			+	4		eaded -06P	d plug	3	_

Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

4GR-CABLE-D0□-□

		or pin No.	Installation position   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19   20   21   2   3   4   4   5   16   17   18   19   20   21   2   3   4   4   5   6   7   8   9   10   10   10   10   10   10   10																$\neg$							
T10/T10R	T11/T11R		1	2	3	4	5	6	7	8	9	10							17	18	19	20	21	22	23	24
1	1	1																								$\Box$
2	2	14																								
3	3	2																								
4	4	15																								
5	5	3																								
6	6	16																								
7	7	4																								
8	8	17																								
9	9	5																								
10	10	18																								
11	11	6																								
12	12	19																								
13	13	7																								
14	14	20																								
15	15	8																								
16	16	21																							_	
COM	17	9																							_	
COM	18	22	_																						_	
	19	10																								$\sqcup$
	20	23	_																							$\sqcup$
	21	11	_																							$\sqcup$
	22	24																								Ш
	23	12	$\vdash$	-		_		<u> </u>		_	_	_		_	_	_	_	_		_		_				
	24	25	$\vdash$	-		_		<u> </u>		_	_	_		-	_	_		_		_						
	COM	13 (COM)	$\vdash$	_		_		_		_	_	_		_		_		_		_		_				
	COM																									

Cable with D-sub-connector

Threaded plug

4G3R-08P

Motor specification	
Motorle specificat	

# Date issued MAG P3-T1-3 Manifold enecifications shoot

M4G3 reduced wiring

Included parts

\* Write an integer multiple of 12.5

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GWP 8-B

Cable with D-sub-connector

IVITO ES- I	1 3	IVIA		O.	u	9				Ca	LLI	OI.	13	3	116	-		^am	nanı							
										• -					,		-		pany	у						
Contact		● Q	uantit	У		S	et(s)			• D	elive	ery d	ate		/		-	Cont	act							
Slip No.								0	rder	No.							(	Orde	r No	).						
<ul><li>Manifold model No</li></ul>	).																									
M GE	3		0F	<b>?</b> -	[		;	-[]						[		11.				<b>-</b> [-	]	- [		] -	P	4
Solenoid valves	Soleno	id position	n		Po	ort si	ze	Reduc	ed wir	ing Te	rminal/ Array	connec	ctor pin od	Opt	ion	Мо	ount t	ype		Stat			Voltag			
Solenoid valve model No.	Fitting (	CX										Va	alve ir	nstalla	ation	positi	on									Quantity
,, ,, ,	A .	B 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	ő
4G 3 9R-																										
4G 3 9R-																										
4G 3 9R-																										
4G 3 9R-																										
4G 3 9R-																										
3GD3 9R-																										
3GD3 9R-																										
Masking plate 4G3R-MP(S)-	1																									
Masking plate 4G3R-MP(D)-																										
Air supply spacer 4G3R-P-																										
Exhaust spacer 4G3R-R-																										

Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

Blanking plug

GWP 10-B

4GR-CABLE-D0□-□

	Connecto			Installation position  1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21															_							
	T11/T11R		30R	1	2	3	4	5	6	7	8	9						16	17	18	19	20	21	22	23	24
1	1	1		Г																						
2	2		14																							
3	3	2																								
4	4		15																							
5	5	3																								
6	6		16																							
7	7	4																								
8	8		17																							
9	9	5																								
10	10		18																							
11	11	6																								
12	12		19																							
13	13	7																								
14	14		20																							
15	15	8																								
16	16		21																							
COM	17	9																								
COM	18		22																							
	19	10																								
	20		23																							
	21	11		$oxed{oxed}$																					L	
	22		24	$oxed{oxed}$																					L	
	23	12		<u> </u>																						
	24		25	$ldsymbol{ldsymbol{ldsymbol{eta}}}$																						
	COM	13 (COI	M)	_																						
	COM																									

M4G1	reduced wiring	

M4G₽1-T	5M	an	ifo	olo	d s	sp	e	cif	ic	at	tic	n	S	sł	ne	et			Date	e iss	ued		/	/			
						•													Con	npan	у						
Contact			Qu	ıantit	ty		S	et(s)			• [	)eliv	ery c	late		/			Con	tact							
Slip No.									C	Orde	No.								Orde	er N	٥.						
● Manifold model No.																											
M GP1				0F	<b>?</b> -				-[						); ][						<b>-</b> []		-		] -	· P	4
Solenoid valves	Sol	enoid po	osition	1		Р	ort s	ize	Rec	duced v nection	viring 7 1	Termin pin ar	al/coni ray me	nector ethod	Opti	ion			type		Sta	tion N	lo.	Voltag	je		
Solenoid valve model No.	Fitt	ing CX	1	2	3	4	5	6	7	8	9	10	Va 11	lve ir	nstalla 13	ation 14	positi 15	on 16	17	18	19	20	21	22	23	24	Quantity
4G 1 9R-			<u> </u>		3	4	3	0		0	9	10	111	12	13	14	13	10	17	10	19	20	21	22	23	24	-
4G 1 9R-																											
4G 1 9R-																											
4G 1 9R-																											
4G 1 9R-																											H
3G 1 9R-																											
3G 1 9R-																											
Masking plate 4G1R-MP(S)-																											H
Masking plate																											
AG1R-MP(D)- Air supply spacer																											
4 G1R-P- Exhaust spacer																											H
4G1R-R-																						$\vdash$					H
			$\vdash$									$\vdash$															$\vdash$
,								Щ		<u> </u>									_			<u> </u>					
Wounting L2=	Included			GWP	1-P			Т	ianki	ing pl	ug		WP	6-B					+		46	Thre 1 <b>R-N</b>		d plug	]		
* Write an integer multiple of 12.5.	Inclu	Pus				remo	ver (	<u> </u>	ed a	l s star	ndard				(chec	k the	box)		+		46	117-11	JF				

Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

Push-in fitting tube remover (attached as standard) Not required (check the box)  $\ \Box$ 

Triming ope	Connecto									-								sitic	_								
T50/T50R	T51/T51R	T52/T52R	T53/T53R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	1	1																								
2	2	2	2																								
3	3	3	3																								
4	4	4	4																								
5	5	5	5																								
6	6	6	6																								
7	7	7	7																								
8	8	8	8																								
9 - Power supply	9		9																								
10 +(COM) Power supply	10	10 сом	10																								
11	11		11																								
12	12		12																								
13	13		13																								
14	14		14																								
15	15		15																								
16	16		16																								
17	17		17																								
18	18		18																								
19 - Power supply	19 сом		19																							$\perp$	
20 +(COM) Power supply	20 сом		20																							_	
			21																							_	
			22																								
			23																								
			24	<u> </u>																						$\vdash$	
			25 сом	<u> </u>																							
			26 сом																								

<sup>\*</sup> Note that when T50 wiring is used, the COM polarity is + (plus).

<sup>\*</sup> When T50 wiring is used, connector pin numbers 9, 10, 19, and 20 cannot be specified, because they are used for the external input power supply.

26

СОМ

<sup>\*</sup> Note that when T50 wiring is used, the COM polarity is + (plus).

<sup>\*</sup> When T50 wiring is used, connector pin numbers 9, 10, 19, and 20 cannot be specified, because they are used for the external input power supply.

M4G3 reduced wirin	g
--------------------	---

14(423-1 <i>5</i>	Manifold sp	ecitio	ations sha	19 <i>6</i>	Date issued / /	
17010 10		COIIIC			Company	
Contact	<ul><li>Quantity</li></ul>	set(s)	<ul><li>Delivery date</li></ul>	1	Contact	
Slip No.			Order No.		Order No.	

_		l model No																											
M	[	GP:	3			0F	<b>?</b> -				-								11			1	<b>-</b> [		-		-	P	4
		valves		enoid po							Red	uced v nection	viring <sup>·</sup>	Termin pin ar	al/coni ray me	nector ethod	Opti	ion	М	ount	type		Sta	tion N	lo. \	Voltag	е		
Soleno	id valv	re model No.	Fitt A	ing CX	1	2	3	4	5	6	7	8	9	10	Va 11	alve ir	nstalla 13	ation <sub>1</sub>	oositio	on 16	17	18	19	20	21	22	23	24	Quantity
4G	3	9R-			<u> </u>	2	3	-	1		<u> </u>	-	3	10		12	13	14	13	10	17	10	13	20	21	22	2.5	24	0
4G	3	9R-																											
4G	3	9R-																											
4G	3	9R-																											
4G	3	9R-																											L
3GD3		9R-																											L
3GD3		9R-																											
Masking 4G3F	R-MP	(S)-																											
Masking 4G3F		(D)-																											
Air sup		ader																											
Exhaus 4G3R		er																											
nting	L2=		pep								Blank	ing p	lug											Thre	eadec	d plug	]		
Mounting rail	* Write	t	Included part			GWF	8-B							G	WP 1	0-B							40	3R-0	)8P				

Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

<u> </u>	Connecto	\ I			J.					1				1	o to l	latio	n pc	, aiti a				-					
						_		_		_						_	_					T					Γ.,
T50/T50R	T51/T51R	T52/T52R	T53/T53R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	1	1																			_					_
2	2	2	2																			<u> </u>					$\vdash$
3	3	3	3																								_
4	4	4	4																								
5	5	5	5																								
6	6	6	6																								
7	7	7	7																								
8	8	8	8																								
9 - Power supply	9	9 сом	9																								
10 +(COM) Power supply	10	10 сом	10																								
11	11		11																								
12	12		12																								
13	13		13																								
14	14		14																								
15	15		15																								
16	16		16																								
17	17		17																								
18	18		18																								
19 - Power supply	19 сом		19																								
20 +(COM) Power supply	20 сом		20																								
			21																								
			22																								
			23																								
			24	İ																							
			25 сом																								
			26 сом																		М						
* \\// T_CO																											

<sup>\*</sup> When T50 wiring is used, the COM polarity is + (positive).

<sup>\*</sup> When T50 wiring is used, connector pin numbers 9, 10, 19, and 20 cannot be specified, because they are used for the external input power supply.

# M4G1 Serial transmission P4

M4G <sup>2</sup> 1-T6G	i1Ma	ınıto	ld	sp	ec		cat	ioi	าร	sn	ee		ate iss ompar			/			Pneumatic cylinders
■ Contact	•	Quantity		se	t(s)		<ul><li>Del</li></ul>	ivery o	late	/		_	ontact						natic ders
Slip No.		,				Order						_	rder N						Hanna Hanna
● Manifold model No.																			Hand/ Chuck
M G 1	[	OF	<b>?</b> -	;			T60	<b>31</b>	<u></u>	1	 !		D	- [	] -	3	] <b>-</b>	<b>P4</b>	ttic Hand/ Related Cors Chuck products S
Solenoid valves	Solenoid p		•		rt size		al transr		Terminal/o	connector	: Optio	<sup>;</sup>		Statio	on No.	Voltage	•	•	Related products
Solenoid valve model No.	tting CX								pin a alve ins	rray								tity	SN CV
A	В	1 2	3	4	1	5	6	7	8	9	10	11	12	13	14	15	16	Quantity	Cylinder Switch
	+ +																	+	
4G 1 9R-	+					+											+	+	- 2
4G 1 9R-	+																+	+	COIII
4G 1 9R-	+ +														+		+	+	Jolle
4G 1 9R-	+ +						+	$\dashv$								+	+	+	S S
3G 1 9R-							+										+	+	L E C
3G 1 9R-							+										+	+	vacuum components Friedmant varves
4G1R-MP(S)- Masking plate	+					+										+	+	+	- 4
4G1R-MP(D)- Air supply spacer	+																-	+	-   Z
4 G1R-P- Exhaust spacer	+																-	+	Clean air components
4G1R-R-	$\perp$														<u> </u>	<u> </u>			an air
Mounting  L2=	_	GWP 4-B			Blan	iking pl	ug	GWP	6-B		Τ			4G1	Threa R-M5P	ded plu	g 		S CO C
* Write an integer multiple of 12.5.	Push-	in fitting tube	remo	ver (att	ached	as stan	dard) N	Not requ	uired (cl	heck th	e box)								Speed
Wiring specifications sheet  Connector pin No.	(Not require	ed for standa	ard wi	ring/do	uble w	viring. C	Complet	e these		ication			ying the	e wiring	order	and add	ditional	l cables	Fitting (
T6G1			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Auxi va
	1																		Auxiliary valve
	2																		Sillo
	3																		
	4																		
	5																		Tube
T6G1: CC-Link 16 points	7																	$\vdash$	
1001. CO-LIIK 10 points	8																	-	dd
	9																	-	9
	10 COI	М																$\vdash$	<u> </u>
	11																	_	5
	12																		Motor specificat
	13																		60
	14																		OLCOLL
	15																		ipolie
	16																		sp 🗖
	17																		Motor specificatio
1						1		1											÷ =

20 COM

M4G2 Serial transmission
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M4G <sub>2</sub> 2-T6G1Manifold	specifications	sheet
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//4G <sup>2</sup> 2-T6G1	Manifold :	sne	cifications	sheet	Date issued / /
11012 1001	maillioid .	оро	Jiiioatioiio	011000	Company
Contact	<ul><li>Quantity</li></ul>	set(s)	<ul><li>Delivery date</li></ul>	/	Contact
Slip No.			Order No.		Order No.

<ul> <li>Manifold model</li> </ul>	No.																		
M G	<b>2</b>			OF	<b>?-</b> [		-	- T6	G1					D -	• [	]-[	3	- P	4
Solenoid valves		Solenoi	d positior	n		Port si	ze S	erial trar	nsmissi	on <sup>Termir</sup>	nal/connector in array	Option	n		Station	No. \	/oltage		
	Fit	ting CX	Т							Valve i	nstallation	position							.≥
Solenoid valve model I	No. A	В	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Quantity
4G 2 9R-																			
4G 2 9R-																			
4G 2 9R-																			
4G 2 9R-																			
4G 2 9R-																			
3G 2 9R-																			
3G 2 9R-	]																		
Masking plate 4G2R-MP(S)-																			
Masking plate 4G2R-MP(D)-																			
Air supply spacer 4G2R-P-																			
Exhaust spacer																			
Worth Tark Tark Tark Tark Tark Tark Tark Tark	ded						Bla	nking p	lug							Thre	eaded pl	ug	
* Write an integer multiple of 12.5	Included		GWP 4	I-В			GW	P 6-B			G	WP 8-I	В			4G2-	06P		

Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

Connector pin No.		Installation position															
T6G1		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1																
	2																
	3																
	4																
	5																
	6																
T6G1: CC-Link 16 points	7																
	8																
	9																
	10 COM																
	11																
	12																
	13																
	14																
	15																
	16																
	17																
	18																
	19																
	20 COM																

Date issued Company

Contact

Option

Order No.

Station No.

# Pneumatic auxi

Auxiliary Silencer Tube	liary components
	Gas generator
	Huid control compo

Solenoid valve model No.		ig CX											n positio	'11						<del>2</del>	2 =
Soleriold valve illoder No.	Α	В	1	2	3	4		5	6	7	8	9	10	11	12	13	14	15	16	Quantit	/linder witch
4G 3 9R-																					2 27
4G 3 9R-																					
4G 3 9R-																					
4G 3 9R-																					
4G 3 9R-																					
3GD3 9R-																					
3GD3 9R-																					-
Masking plate																					-
4G3R-MP(S)-																					
4G3R-MP(D)-							_													$\perp$	
4G3R-P-																					com
Exhaust spacef 4G3R-R-																					ean ai iponei
fing L2=	ded						Blan	king pl	ug								Thread	led plu	g		r nts c
Mounting L2=	Included part		GW	/P 8-B						GWP	10-B					4G3I	R-08P				Clean air Speed components controller
														•							ler
<ul><li>Wiring specifications s</li></ul>	heet (N	lot reau	ired for	standa	ard wir	ina/do	ıble w	irina. C	omple	te thes	e spec	ification	s when	specify	ina the	wiring	order a	and ad	ditional	cables	F
Connector pin				T								tallatio				9					Fitting
T6G					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A
		1																			<sup>2</sup> a ≅
								_	+	_											e a
		2																			Auxiliary valve
		2																			
																					iary Silencer ve
		3																			Silencer
		3 4 5																			
T6G1: CC-Link 16 points		3 4 5 6																			Silencer
T6G1: CC-Link 16 points		3 4 5																			Silencer

Delivery date

Serial transmission Terminal/connector

pin array

Order No.

M4G3 Serial transmission

Contact

Slip No.

Manifold model No.

Solenoid valves

M4G<sup>₽</sup>3-T6G1Manifold specifications sheet

set(s)

Port size

Quantity

Solenoid position

13 14 15

Tube

M4G₽1-T	8M	ar	if	olo	s k	pe	ecit	fic	at	ioi	าร	sł	1e	et		Da <sup>-</sup>	te iss	ued	/	/			
						٠.										Co	mpar	ny					
<ul><li>Contact</li></ul>			<b>●</b> Q	uanti	ty		set(s	s)		De	livery	/ date		/		Со	ntact						
Slip No.								(	Order	No.						Ord	der N	0.					
<ul> <li>Manifold model No</li> </ul>	).							•															
M G P	1	 ! !			R	- [			-[-									- [		-[3	3 -	·P	4
	So						Port s						onnector						on No				
Solenoid valve model No.		g CX									_		_		osition								Quantity
4G 1 9R-	A	В	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	ਰੋ
<del></del>																							
4G 1 9R-																							-
4G 1 9R-																							
4G 1 9R-																							
4G 1 9R-																							
3G 1 9R-																							
3G 1 9R-																							
Masking plate 4G1R-MP(S)-																							
Masking plate																							
4G1R-MP(D)- Air supply spacer																							$\vdash$
4 G1R-P-																							
Exhaust spacer 4G1R-R-																							
,	Ъ	Τ						Blank	king pl	ug	1					Т			Thre	aded	plug		
* Write an integer multiple	Included			GWF	9 4-B						GW	P 6-B						4G	1R-M5	P			
integer multiple	Inclu	Push	ush-in fitting tube remover (attached as standard) Not required (check the box)																				

Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

Connector pin No.										Ins	tallatio	n posi	tion								
T 8*		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	1																				
T8G1 CC-Link NPN 16 p	oints 2																				
T8G2 32 p	oints 3																				
T8GP1 PNP 16 p	oints 4																				
T8GP2 32 p																					
T8P1 PROFIBUS-DP NPN 16 p																					
T8P2 32 p																					
T8PP1 PNP 16 p	oints 8																				
T8PP2 32 p	oints 9																				
T8EC1 EtherCAT NPN 16 p	oints 10																				
T8EC2 32 p	oints 11																				
T8ECP1 PNP 16 p	oints 12																				
T8ECP2 32 p	oints 13																				
T8EN1 EtherNet/IP NPN 16 p	pinte 14																				
T8EN2 32 p	oints 15																				
T8ENP1 PNP 16 p	into 16																				
T8ENP2 32 p	17																				
T8D1 DeviceNet NPN 16 p																					
T8D2 32 p	19																				
T8DP1 PNP 16 p	20																				
T8DP2 32 p																					
T8EB1 CC-Link NPN 16 p																					
T8EB2 IEF Basic 32 p																					
T8EBP1 PNP 16 p																					
T8EBP2 32 p	_																				
T8EP1 PROFINET NPN 16 p	_																				
T8EP2 32 p																					
T8EPP1 PNP 16 p																					
T8EPP2 32 p																					
	31																				
	32																				

M4G2 Serial transmission thin

M4G ₽2-T	8M	an	if	olo	e b	ne	3Ci	ific	at	ioi	ns	S	he	et		Da	te iss	ued	/	/			
		••••			_	Έ,								•		Со	mpar	ny					
<ul><li>Contact</li></ul>			Qu	ıantit	У		set(	s)		De	elivery	date		/		Со	ntact						
Slip No.								(	Order	No.						Or	der N	0.					
<ul><li>Manifold model No.</li></ul>																							
M GP2					R	-[			-[-			, ! !					;	-[-		-[3	3 -	. P	4
Solenoid valves													onnector										
Solenoid valve model No.	Fitting													ation po									Quantity
4G 2 9R-	A	В	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	3
4G 2 9R-																							
4G 2 9R-																							
4G 2 9R-																							
4G 2 9R-																							
3G[]2 9R-																							
3G 2 9R-																							Ш
Masking plate 4G2R-MP(S)-																							
Masking plate 4G2R-MP(D)-																							
Air supply spacer 4G2R-P-																							
Exhaust spacer 4G2R-R-																							
Button L2= L2= L2= L2= Monthly	Included part	·							Blankiı	ng plu	g									Threa	aded p	lug	
* Write an integer multiple of 12.5.	Inclu part		GW	P 4-B	3			(	GWP 6	6-B				GWI	9-B				40	2R-06	βP		

Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

	Connector pin No.												Ins	tallatio	n posi									
	T 8*				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
				1																				
T8G1	CC-Link	NPN	16 points	2																				
T8G2			32 points	3																				
T8GP1		PNP	16 points	4																				
T8GP2			32 points	5																				
T8P1	PROFIBUS-DP	NPN	16 points	6																				
T8P2			32 points	7																				
T8PP1		PNP	16 points	8																				
T8PP2			32 points	9																				
T8EC1	EtherCAT	NPN	16 points	10																				
T8EC2			32 points	11																				
T8ECP1		PNP	16 points	12					_															
T8ECP2			32 points	14																				
T8EN1	EtherNet/IP	NPN	16 points	15																				
T8EN2			32 points	16																				
T8ENP1		PNP	16 points	17																				
T8ENP2			32 points	18																				
T8D1	DeviceNet	NPN	16 points	19																				
T8D2			32 points	20																				
T8DP1		PNP	16 points	21																				
T8DP2			32 points	22																				
T8EB1	CC-Link	NPN	16 points	23																				
T8EB2	IEF Basic		32 points	24																				
T8EBP1		PNP	16 points	25																				
T8EBP2			32 points	26																				
T8EP1	PROFINET	NPN	16 points	27																				
T8EP2			32 points	28																				
T8EPP1		PNP	16 points	29																				
T8EPP2			32 points	30																				
				31																				
				32																				

Clean air components

L2=

\* Write an integer multiple of 12.5

Included

part

GWP 8-B

M4G	3 Seri	al t	rans	mis	ssio	n th	nin													
M4G	₽3-T	8M	ani	fol	d s	pe	cifi	ca	tio	ns	sh	eet		Da —	ate issi	ued	/	/		
						•								Co	ompan	У				
Contact				Quan	ntity		set(s)		• [	Delivery	/ date	/		Co	ontact					
Slip No.								Ord	der No.					Or	der No	o.				
<ul><li>Manifold</li></ul>	l model No	ο.																		
M	GP	3			0R	<b>-</b> [			;	       	; i i				; ;	- [	- [	3	- P	4
Solenoid			Solenoid						Serial trans			nector (								
Solenoid valv	e model No.	Fitt	ting CX	1	2	3	1 4	5	6	Val	ve install	ation pos	ition 10	11	12	13	14	15	16	Quantity
4G 3	9R-	1 ^		<b>-</b> '-	2	3	4	- 3	- 6		0	9	10	- 11	12	13	14	15	10	f
4G 3	9R-																		<u> </u>	T
4G 3	9R-	1																		T
4G 3	9R-	1																		T
4G 3	9R-																			Г
3GA3	9R-																			Г
3GA3	9R-																			Г
Masking plate 4G3R-MP																				Т
Masking plate 4G3R-MP																				
Air supply spa		1																		$\vdash$
Exhaust space	er																			
			+																	_

Wiring specifications sheet (Not required for standard wiring/double wiring. Complete these specifications when specifying the wiring order and additional cables)

**GWP 10-B** 

Threaded plug

4G3R-08P

Blanking plug

Connector pin No.								Ir	nstallatio	n position	on						
T 8*		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	1																
T8G1 CC-Link NPN 16 po	ints 2																
T8G2 32 pc	ints 3																
T8GP1 PNP 16 po																	
T8GP2 32 pc																	
T8P1 PROFIBUS-DP NPN 16 pc																	
T8P2 32 pc																	
T8PP1 PNP 16 pc	ints 8																
T8PP2 32 pc	ints 9																
T8EC1 EtherCAT NPN 16 po	ints 10																
T8EC2 32 pc	ints 11																
T8ECP1 PNP 16 po	ints 12																
T8ECP2 32 pc	ints 13	-															
T8EN1 EtherNet/IP NPN 16 po	inte 14																
T8EN2 32 pc	15																
T8ENP1 PNP 16 po	ints 16	-															
T8ENP2 32 pc	ints 17																
T8D1 DeviceNet NPN 16 po	ints 19																
T8D2 32 pc	ints 20																
T8DP1 PNP 16 po																	
T8DP2 32 pc	_     - '																
T8EB1 CC-Link NPN 16 po																	
T8EB2 IEF Basic 32 pc																	
T8EBP1 PNP 16 po	_																
T8EBP2 32 po	_																
T8EP1 PROFINET NPN 16 po																	
T8EP2 32 pc	_																
T8EPP1 PNP 16 po																	
T8EPP2 32 pc	_																
	31																
	32																

Cylinder

Fitting



Individual wiring block manifold Body piping

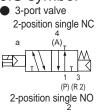
# MN4GD1, 2 Series

Cylinder bore size: ø20 to ø80





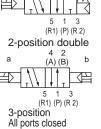
## JIS symbol

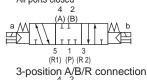


(R1) (P) (R 2) Two 3-port valves integrated (A side valve: NC,B side valve: NC)

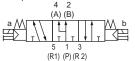


5-port valve 2-position single 4 2 a (A) (B)





5 1 3 (R1) (P) (R 2) 3-position P/A/B connection



#### Manifold common specifications

Marinold Commit	ni opeomoationo
Item	Description
Manifold	Block manifolds
Mounting method	DIN rail mount
Air supply and exhaust method	Common supply/common exhaust (With internal exhaust check valve)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve built-in)
Piping direction	Valve top direction
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual override	Non-locking/locking common
Lubrication (*1)	Not required
Degree of protection (*2)	Dust-proof
Vibration resistance m/s <sup>2</sup>	50 or less
Shock resistance m/s <sup>2</sup>	300 or less
Atmosphere	Cannot be used in corrosive gas environments

- \*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

	Descr	ription	
24 DC	12 DC	100 VAC	200 VAC
	±10	0%	
0.015 (0.017)	0.030 (0.034)	0.009 (0.009)	0.006 (0.006)
0.35 (	(0.40)		-
-	-	0.93 (0.98)	1.40
	E	3	
	Opt	tion	
	Lamp (	option)	
	0.015 (0.017)	24 DC 12 DC ±10 0.015 (0.017) 0.030 (0.034) 0.35 (0.40) - E Op	±10%  0.015 (0.017)

<sup>\*3:</sup> Values in ( ) apply when lamp is included. \*4: 200 VAC is the value of DIN terminal box (with lamp).

#### Individual specifications

Item		MN3GD1/MN4GD1	MN3GD2/MN4GD2
Max. station	on No.	24 stations	20 stations
	Port A/B	Push-in fitting ø4	Push-in fitting ø4, ø6, ø8
Port size		M5	Rc1/8
	P/R Port	Push-in fitting ø6, ø8	Push-in fitting ø8, ø10

- For DIN rail mounting, refer to "Mounting orientation" in "Pneumatic Valves No.CB-023SA".
- For weight, refer to "Pneumatic Valves No.CB-023SA".

## Individual wiring block manifold; Body piping

# Performance/characteristics by model

Item			MN3GD1	MN4GD1	MN3GD2/MN4GD2				
iteiii			ON	OFF	ON	OFF			
Response - time	Two 3-port va	lves integrated	12	15	15	30			
	2 position	Single	15	25	20	30			
	2-position	Double	15	-	20	-			
ms	3-position	A/B/R connection	20	30	25	35			

Values with lamp/surge suppressor are shown. The response times are values with supply pressure of 0.5 MPa at 20°C and without lubrication. They depend on the pressure and the lubricant quality.

#### Flow characteristics

Madal Na	Solenoid position		$P \to$	A/B→R						
Model No.			C[dm³/(s·bar)]	b	C[dm <sup>3</sup> /	/(s⋅bar)]	ı	)		
MN3GD1 MN4GD1	Two 3-p	ort valves integrated	0.87	0.37	1.0	(0.68)	0.14	(0.22)		
	2-posit	ion	0.98	0.33	1.2	(0.71)	0.11	(0.27)		
		All ports closed	0.92	0.34	1.0	-	0.16	-		
WIN4GD1	3-position	A/B/R connection	0.92	0.29	1.1	(0.69)	0.13	(0.22)		
		P/A/B connection	1.1	0.35	1.1	-	0.17	-		
	Two 3-port valves integrated		1.7	0.37	2.2	(1.6)	0.13	(0.21)		
MN3GD2	2-posit	ion	2.2	0.21	2.5	(1.7)	0.19	(0.10)		
MN4GD2		All ports closed	2.0	0.25	2.3	-	0.10	-		
WIN4GD2	3-position	A/B/R connection	2.0	0.27	2.5	(1.7)	0.18	(0.12)		
		P/A/B connection	2.3	0.31	2.3	-	0.16	-		

<sup>\*1:</sup> Effective cross-sectional area S and sonic conductance C are converted as S  $\approx$  5.0 x C.

Ozone-proof specifications | • | Coolant proof specifications

Can be selected with "How to order" Item © option "A" on page 330.

## CE marking specifications

• Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

<sup>\*2:</sup> Values in ( ) are with the exhaust check valve.

MN4GD1, 2 Series Individual wiring block manifold; Body piping How to order Manifold model No. MN4GD1 1 0 R- C6 - E2 H - 10 - 3 - P4 3-port manifold model No. MN3GD1(1) 0 R-(C6)-(E2)H-10-(3)-P4 Discrete valve block with solenoid valve (N4GD1)(1) 0 R-(C6)-(E2)(H) Discrete 3-port valve block with solenoid valve (N3GD1)(1)0 R-(C6)-(E2)(H) Discrete solenoid valve (4GD1)(1)9 R-(C6)-(E2)(H) Discrete 3-port solenoid valve (3GD1)(1)9 R-(C6)-(E2)(H) (3)-P4 **B** Solenoid position 2-position single 2-position double **B** Solenoid position 3 3-position all ports closed 4 3-position ABR connection 5 3-position PAB connection A Model No. 1 2-position single: Normally Closed 2-position single: Normally Open 11 Two 3-port valves integrated A side valve: Normally Closed (\*2)(\*3) B side valve: Normally Closed Mix manifold (when there are multiple 8 solenoid positions) © Port siza (port A/B) C Port size(\*1) Type C4 ø4 push-in fitting C6 ø6 push-in fitting The port size of "O" is a standard C8 ø8 push-in fitting product and equivalent to P4 CX Push-in fitting mix specifications. It is not necessary to add "-P4" to the model No. М5 Rc1/8 06 D Electrical connections D Electrical connections

Option

G Voltage

# Precautions for model selection

- \*1: Specify the port P/R bore size with the supply and exhaust block model No. in the manifold specifications sheet.
- \*2: MN4GD\*80R when using a mixture of 4, 5-port valves. MN3GD\*80R when used with a masking plate.
- \*3: Dimensions is the same dimensions as the respective 2-position double solenoid.
- \*5: The push-in fitting cannot be mixed with the single valve's 4(A) or 2(B) port.
- \*6 The 3-position all ports closed and PAB connection are not provided with the exhaust check valve specifications (H). Refer to "Pneumatic Valves No.CB-023SA" for details on the exhaust check valve.
- \*7: A filter is built into port P as standard
- \*8: Specify the spacer mounting position/quantity in the manifold specifications sheet. Stacking of spacers is not possible. Combination with masking plates is not possible. Refer to pages 347 to
- **348 for details.**Only the DIN terminal box is supported. Two 3-port valves integrated type is not available.

Refer to the following page for electrical connections

<b>B</b>	Option							
Blan	k Manual override of non-locking/lock	ing common			•	•	•	•
Н	With exhaust check valve	(*6) ●			•	•	•	•
Α	Ozone/coolant proof	•			•	•	•	•
F	Port A/B filter built in	(*7)	•	•	•	•	•	•
Z1	Air supply spacer	(*8)	•	•	•			
Z3	Exhaust spacer	(*8)	•	•	•			
	0! N							

A Model No.

MN4GD2

• 

 $\bullet \mid \bullet$ 

• •

N)3GD1 N)3GD2

Manifold

MN3GD2 MN4GD1

• 

0 0

0

0

•

MN3GD

(\*2) •

(\*2)

(\*5)0 Discrete valve block with

solenoid valve/discrete solenoid valve

(N)4GD2

N)4GD1

• •

•

0

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0

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\*4

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0

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0  $\circ$ 

0

• •

• •

			tation No.					
Station	n No.	1	1 station					Ī
		to	to	•	•	•		
		24	24 stations (Max. station number for MN3GD2/MN4GD2 is 20.)					

┪	G A	oltage								
	1	100 VAC (rectifier integrated)	•	•	•	•	•	•	•	•
ĺ	2	200 VAC (rectifier integrated) (*9)		•		•		•		•
ĺ	3	24 VDC	•	•	•	•	•	•	•	•
ĺ	4	12 VDC		•	•	•	•	•	•	

is not available.

Electrical connections

Discrete valve/individual wiring manifold

E-connector with

socket/terminal

DIN terminal box

DIN terminal box

Without terminal box

EJ type connector

Lead wire length

E2\*J

# Individual wiring block manifold; Body piping

Grommet lead wire

Lead wire length 300 mm

E-connector

E-connector without

Lead wire length 300 mm 500 mm 1000 mm 3000 mr

E2N

socket

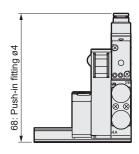
#### [Electrical connection list]

				A (	loc	let	No	).	
			Man	ifold	t			/e bloo lve/dis	
		3-po	rt valve	5-por	t valve			d valve	
		=	22	2	22	7	)2	7	2
		MN3GD1	MN3GD2	MN4GD1	MN4GD2	(N)3GD1	(N)3GD2	(N)4GD1	(N)4GD2
		Σ	Σ	Ž	Ž	Ê	Ê	Ž	È
<b>D</b> E	lectrical connections								
	Grommet lead wire (300 mm) (*10)								
В	DIN terminal box (Pg 7) With surge suppressor/lamp (*11)(*13								
BN	DIN terminal box (Fg7) (without terminal box) With surge suppressor (*11)(*13								
	nector (upward/lateral direction common)								
E0	Lead wire (300 mm) (*12		•	•		•	•	•	•
E00	Lead wire (500 mm) (*12	-	•	•	•	•	•	•	•
E01	Lead wire (1000 mm) (*12	+	•	•	•	•	•	•	•
E02	Lead wire (2000 mm) (*12	_	•	•	•	•	•	•	•
E03	Lead wire (3000 mm) (*12	+	•	•	•	•	•	•	•
E0N	Without lead wire (without socket) (*12	•	•	•	•	•	•	•	•
E1	Without lead wire (with socket/terminal) (*12	•	•	•	•	•	•	•	•
E2	Lead wire (300 mm) with surge suppressor/lamp	•	•	•	•	•	•	•	•
E20	Lead wire (500 mm) with surge suppressor/lamp	•	•	•	•	•	•	•	•
E21	Lead wire (1000mm) with surge suppressor/lamp	•	•	•	•	•	•	•	•
E22	Lead wire (2000 mm) with surge suppressor/lamp	•	•	•	•	•	•	•	•
E23	Lead wire (3000 mm) with surge suppressor/lamp	•	•	•	•	•	•	•	•
E2N	Without lead wire (without socket) with surge suppressor/lamp	•	•	•	•	•	•	•	•
E3	Without lead wire (socket/terminal attached) with surge suppressor/lamp		•	•	•	•	•	•	•
	nnector (socket with cover, upward/lateral	_	ctio	n co	omr	nor	1)		
E01J	Lead wire (1000 mm) (*12	+	•	•	•	•	•	•	•
E02J	Lead wire (2000 mm) (*12		•	•	•	•	•	•	•
E03J	Lead wire (3000 mm) (*12	•	•	•	•	•	•	•	•
E21J	Lead wire (1000mm) with surge suppressor/lamp	•	•	•	•	•	•	•	•
E22J	Lead wire (2000 mm) with surge suppressor/lamp	•	•	•	•	•	•	•	•
E23J	Lead wire (3000 mm) with surge suppressor/lamp	•	•			•	•	•	•

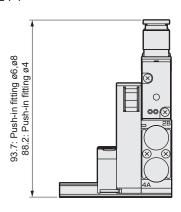
<sup>\*10:</sup> The grommet lead wire specifications are compatible with DC voltage only.



MN4GD1-P4



MN4GD2-P4



<sup>\*</sup>Fitting dimensions of P4 Series are different from the standard when mounted. For other dimensions, "Pneumatic Valves (No.CB-023SA) MN4GD1, 2 Series.

P4 Series

**Pneumatic actuator** 

Cylinder

vacuum components Pneumatic valves

Pneumatic auxiliary components

Gas generator Fluid control components Electric actuator



<sup>\*11:</sup> A lamp comes with the terminal box.

<sup>\*12:</sup> AC voltage includes a rectifier circuit.

<sup>\*13:</sup> The terminal box conforms to EN175301-803 Type C (former DIN 43650-C). Refer to "Pneumatic Valves No.CB-023SA" for details.



Individual wiring block manifold Base piping

# MN4GE1, 2 Series

Cylinder bore size: ø20 to ø80

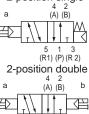


#### JIS symbol

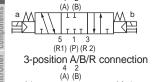
Two 3-port valves integrated (A side valve: NC, B side valve: NC)



5-port valve 2-position single



5 1 3 (R1) (P) (R 2) 3-position All ports closed



5 1 3 (R1) (P) (R 2) 3-position P/A/B connection



# Manifold common enceifications

Manifold commo	on specifications
Item	Description
Manifold	Block manifolds
Mounting method	DIN rail mount
Air supply and exhaust method	Common supply/common exhaust (With internal exhaust check valve)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve built-in)
Piping direction	Side direction of base
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual override	Non-locking/locking common
Lubrication (*1)	Not required
Degree of protection (*2)	Dust-proof
Vibration resistance m/s <sup>2</sup>	50 or less
Shock resistance m/s <sup>2</sup>	300 or less
Atmosphere	Cannot be used in corrosive gas environments

- \*1 Turbine oil Class 1 ISOVG32 for lubricationfor vacuum piping. 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		Descr	iption				
Rated voltage V	24 DC	12 DC	100 VAC	200 VAC			
Voltage fluctuation range		±10%					
Holding currentA (*3)	0.015 (0.017)	0.030 (0.034)	0.009 (0.009)	0.006 (0.006)			
Power consumptionW (*3)	0.35 (	0.35 (0.40)					
Apparent power VA (*3) (*4)		-	0.93 (0.98)	1.40			
Thermal class		E	3				
Surge suppressor		Opt	tion				
Indicator		Lamp (	option)	_			

<sup>\*3:</sup> Values in ( ) apply when lamp is included.

#### Individual specifications

Item		MN3GE1/MN4GE1		
Max. station No.		24 stations	20 stations	
Dort oizo	Port A/B Push-in fitting ø4, ø6		Push-in fitting ø4, ø6, ø8	
Port size	P/R Port	Push-in fitting ø6, ø8	Push-in fitting ø8, ø10	

<sup>•</sup> For DIN rail mounting, refer to "Mounting orientation" in "Pneumatic Valves No.CB-023SA".

<sup>\*4: 200</sup> VAC is the value of DIN terminal box (with lamp).

For weight, refer to "Pneumatic Valves No.CB-023SA".

#### Individual wiring block manifold; Base piping

# Performance/characteristics by model

Item			MN3GE1	/MN4GE1	MN3GE2	MN4GE2
iteiii			ON	OFF	ON	OFF
Response	Two 3-port	valves integrated	12	15	15	30
time ms	2-position Single		15	25	20	30
		Double	15	-	20	-
	3-position	A/B/R connection	20	30	25	35

Values with lamp/surge suppressor are shown. The response times are values with supply pressure of 0.5 MPa at 20°C and without lubrication. They depend on the pressure and the lubricant quality.

#### Flow characteristics

Madal Na	Solenoid position		$P \to$	A/B	A/B→R					
Model No.			C[dm³/(s-bar)]	b	C[dm³/(s-bar)]	b				
	Two 3-port valves integrated		0.86	0.35	1.0 (0.66)	0.15 (0.25)				
MN3GE1 MN4GE1	2-positio	n	1.0	0.30	1.1 (0.72)	0.11 (0.26)				
	3-position	All ports closed	0.96	0.32	1.0 -	0.14 -				
		A/B/R connection	0.96	0.29	1.2 (0.71)	0.11 (0.30)				
		P/A/B connection	1.1	0.31	1.0 -	0.15 -				
	Two 3-port valves integrated		1.7	0.42	2.2 (1.6)	0.15 (0.19)				
	2-position		2.4	0.35	2.5 (1.7)	0.19 (0.19)				
MN3GE2 MN4GE2		All ports closed	2.2	0.38	2.3 -	0.17 -				
	3-position	A/B/R connection	2.2	0.38	2.5 (1.7)	0.18 (0.20)				
		P/A/B connection	2.3	0.29	2.3 -	0.15 -				

<sup>\*1:</sup> Formula to calculate sonic conductance C from effective cross-sectional area S is S≈5.0xC.

Ozone-proof specifications | • | Coolant proof specifications

Can be selected with "How to order" Item © option "A" on page 334.

CE marking specifications

· Standard voltage of 24 VDC or less is CE marking-compatible even if the model No. is not indicated with "ST".

<sup>\*2:</sup> Values in ( ) are with the exhaust check valve.

200

plate.

How to order

Manifold model No.

MN4GE1 1 0 R - C6 - E2 H - 10 - 3 - P4

3-port manifold model No.

(MN3GE1)66 0 R - (C6) - (E2)(H) - (10) - (3) - P4

Discrete valve block with solenoid valve

(N4GE1)(1)0 R-(C6)-(E2)(H)

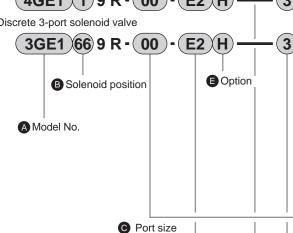
Discrete 3-port valve block with solenoid valve

(N3GE1)66)0 R-(C6)-(E2)(H)

Discrete solenoid valve

4GE1 (1)9 R-(00) -(E2)(H)

Discrete 3-port solenoid valve



D Electrical connections

(\*2)

# A Precautions for model selection

- \*1 Ports A and B plug specifications are available for 2-position single only. Specify the port P/R bore size with the supply and exhaust block model No. in the manifold specifications sheet.
- \*2 For a discrete solenoid valve, select "00" for Port size. \*3 MN4 GE\*80R when using a mixture of 4, 5-port valves. MN3GE\*80R when used with a masking
- \*4 Dimensions are the same as the respective 2-position double solenoid.
- \*5 The push-in fitting cannot be mixed with the single valve's 4(A) or 2(B) port.
- \*6 The 3-position all ports closed and PAB connection are not provided with the exhaust check valve specifications (H). Refer to "Pneumatic Valves No.CB-023SA" for details on the exhaust check valve.
- \*7 A filter is built into port P as standard.
- \*8 Specify the spacer mounting position/ quantity in the manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. Refer to pages 347 to 348 for details.
- \*9 DIN terminal box only is supported. Two 3-port valves integrated type is not available.

-		Z Z Z	MN3	NN AN	N N N	(N)3	(N)3	(N)4	(N)
B Sc	olenoid position								
1	2-position single			•	•			•	•
2	2-position double				•				
3	3-position all ports closed				•			•	
4	3-position ABR connection				•			•	
5	3-position PAB connection				•			•	
66	Two 3-port valves integrated A side valve: Normally Closed								
66	(*5)(*6) B side valve: Normally Closed	┖	_				_		
8	Mix manifold (when there are multiple solenoid positions)	•	•	•	•	•	•	•	•
<b>A</b> Pa	ort size (nort A/R)								

A Model No.

Discrete valve block

with solenoid valve/ Discrete solenoid valve

GE2 GE2 GE1 GE2

Manifold

GE1

<b>©</b> Po	rt size (port A/B)								
Туре									
C4	ø4 push-in fitting								•
C6	ø6 push-in fitting								•
C8	ø8 push-in fitting						•		•
СХ	Push-in fitting mix (*	7)	•		•				
Single side plug specs.	Port A	Port B							
C4NC	ø4 push-in fitting			•	•				
C6NC	ø6 push-in fitting	Plug							•
C8NC	ø8 push-in fitting								•
C4NO		ø4 push-in fitting							•
C6NO	Plug	ø6 push-in fitting		•	•			•	•
C8NO		ø8 push-in fitting			•				•
00	Discrete valve for int	egrated base				•	•		•

#### **D** Electrical connections

Refer to the following page for electrical connections

<b>⑤</b> Op	tion						
Blank	Manual override of non-locking/locking commor		•	•	•		
Н	With exhaust check valve (*6		•	•	•		
Α	Ozone/coolant proof		•	•	•		
F	Port A/B filter built in (*7		•	•	•		
Z1	Air supply spacer (*8		•	•			
Z3	Exhaust spacer (*8		•	•			
		_					

Station No Station No. 1 station to to 24 stations (Max. station number for MN4GE2 is 20.) 24

**G** Voltage

_	G Vol	tage								
9	1	100 VAC (rectifier integrated)	•		•		•	•	•	•
	2	200 VAC (rectifier integrated) (*9)				•		•		•
	3	24 VDC	•	•	•	•	•	•		•
	4	12 VDC	•		•		•			

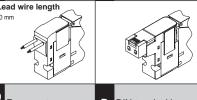
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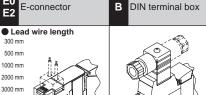
Individual wiring block manifold; Base piping

[Elec	trical connection list]			N	loc	del	No	).	
		ı	Man	ifolo	t			alve bl	
			ort valves rated	5-port	t valve			ioid va lenoid	
		E1	E2	E1	E2	E1	E2	E1	E2
		MN3GE	MN3GE2	MN4GE1	MN4GE2	(N)3GE1	(N)3GE2	(N)4GE1	(N)4GE2
		Σ	ξ	Σ	Σ	Z	Ž	S	Z
<b>D</b> E	lectrical connections								
Blank	Grommet lead wire (300 mm) (*10)	•	•	•	•	•	•	•	
В	DIN terminal box (Pg 7) With surge suppressor/lamp (*11)(*13)		•		•		•		
BN	DIN terminal box (Pg7) (without terminal box) With surge suppressor (*11)(*13)		•		•		•		•
E-con	nector (upward/lateral direction common)								
E0	Lead wire (300 mm) (*12)	•		•		•	•	•	
E00	Lead wire (500 mm) (*12)	•	•			•	•	•	
E01	Lead wire (1000 mm) (*12)	•		•	•	•	•	•	
E02	Lead wire (2000 mm) (*12)	•	•	•	•	•	•	•	
E03	Lead wire (3000 mm) (*12)	•				•	•		
E0N	Without lead wire (without socket) (*12)	•				•	•	•	
E1	Without lead wire (socket/terminal attached) (*12)	•	•	•	•	•	•	•	
E2	Lead wire (300 mm) with surge suppressor/lamp	•				•	•		
E20	Lead wire (500 mm) with surge suppressor/lamp	•	•				•		
E21	Lead wire (1000mm) with surge suppressor/lamp	•	•			•	•	•	
E22	Lead wire (2000 mm) with surge suppressor/lamp	•	•			•	•		
E23	Lead wire (3000 mm) with surge suppressor/lamp	•				•	•		
E2N	Without lead wire (without socket) with surge suppressor/lamp	•	•				•		
E3	Without lead wire (socket/terminal attached) with surge suppressor/lamp	•					•	•	
EJ-co	nnector (socket with cover, upward/lateral d	irec	ctio	n co	omr	nor	1)		
E01J	Lead wire (1000 mm) (*12)	•	•			•	•	•	
E02J	Lead wire (2000 mm) (*12)	•	•	•	•	•	•	•	
E03J	Lead wire (3000 mm) (*12)			•		•	•	•	
E21J	Lead wire (1000mm) with surge suppressor/lamp	•	•	•	•	•	•	•	
E22J	Lead wire (2000 mm) with surge suppressor/lamp	•	•	•	•	•	•	•	•
E23J	Lead wire (3000 mm) with surge suppressor/lamp	•	•	•	•	•	•	•	

<sup>\*10:</sup> The grommet lead wire specifications are compatible with DC voltage only.

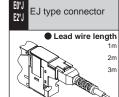
# Electrical connections P4 Series Discrete valve/individual wiring manifold Grommet lead wire socket/terminal Lead wire length













Pneumatic auxiliary components

**Pneumatic actuator** 

vacuum components Pneumatic valves

Cylinder

Tube

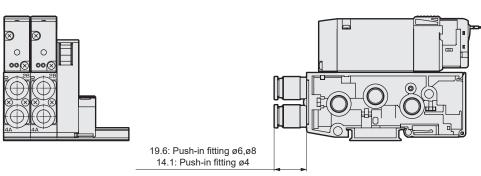
Gas generator Fluid control components Electric actuator

#### **Dimensions**





MN4GE2-P4



Fitting dimensions of P4 Series are different from the standard when mounted. For other dimensions, "Pneumatic Valves (No.CB-023SA) MN4GE1, 2 Series.

<sup>\*11:</sup> A lamp comes with the terminal box.

<sup>\*12:</sup> AC voltage is with a rectifier circuit.

<sup>\*13:</sup> The terminal box conforms to EN175301-803 Type C (former DIN 43650-C). Refer to "Pneumatic Valves No.CB-023SA" for details.

Cylin

Auxiliary Fitting

Electric actuator Fluid control components Gas generator

Pneumatic Valves Catalog No. CB-023SA

Reduced wiring block manifold **Body piping** 

# MN4GD1, 2-T\* Series

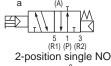
Cylinder bore size: ø20 to ø80





## JIS symbol

3-port valve 2-position single NC

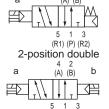




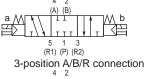
Two 3-port valves integrated (A side valve: NC, B side valve: NC)



5-port valve 2-position single a (A) (B)



(R1) (P) (R 2) 3-positionAll ports closed



(R1) (P) (R2)

3-position P/A/B connection (R1) (P) (R2)

# Manifold common specifications

Item	Description
Manifold	Block manifolds
Mounting method	DIN rail mount
Air supply and exhaust	Common supply/common exhaust
method	(With internal exhaust check valve)
Pilot exhaust method	Main valve/pilot valve common exhaust (Pilot exhaust check valve built-in)
Piping direction	Valve top direction
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual override	Non-locking/locking common
Lubrication (*1)	Not required
Degree of protection (*2)	Dust-proof
Vibration resistance m/s <sup>2</sup>	50 or less
Shock resistance m/s <sup>2</sup>	300 or less
Atmosphere	Cannot be used in corrosive gas environments

#### Electrical specifications

Item		Descri	ption
пеш	T1□, T3	0□, T5□	T6G1, T7□, T8□
Rated voltage V	24 DC	12 DC	24 DC
Voltage fluctuation range (*3)	±10	0%	+10%, -5%
Holding current A	0.017	0.034	0.017
Power consumptionW		0.4	ļ
Thermal class		В	
Surge suppressor		Zener d	diode
Indicator		LE	)

\*3: T6G1, T7, T8As the voltage drop occurs due to the internal circuit of the (serial transmission), pay attention to the voltage fluctuation range.

#### Individual specifications

Item						MN3G	D1/M	N4GD1	1				
itein		T10	T11	T30	T50	T51	T52	T53	T6G1	T7*1	T8*1/2		
Max. station No.	Standard wiring	16 stations	24 stations	24 stations	16 stations	18 stations	8 stations	24 stations	16 stations	8/16 stations	16/24 stations		
IVIAX. SIAIIUII INU.	Double wiring	8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	8 stations	4/8 stations	8/16 stations		
Max. numb	er of solenoids	16 points	24 points	24 points	16 points	18 points	8 points	24 points	16 points	8/16 points	16/32 points		
Port size Port A/B			Push-in fitting ø4 M5										
POIT SIZE	P/R Port					Push-	in fitting	ø6, ø8	3				
Item						MN3G	D2/MI	N4GD2	2				
item		T10	T11	T30	T50	T51	T52	T53	T6G1	T7*1	T8*1/2		
Max. station No.	Standard wiring	16 stations	20 stations	20 stations	16 stations	18 stations	8 stations	20 stations	16 stations	8/16 stations	16/20 stations		
IVIAX. SIAIIUII INU.	Double wiring	8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	8 stations	4/8 stations	8/16 stations		
Max. number of solenoids													
Max. numb	er of solenoids	16 points	24 points	24 points	16 points	18 points	8 points	24 points	16 points	8/16 points	16/32 points		
	er of solenoids Port A/B	16 points	24 points	24 points			8 points ng ø4, ø			8/16 points	16/32 points		

<sup>•</sup> For weight, refer to "Pneumatic Valves No.CB-023SA".

#### Flow characteristics

Madel No	Color	aid maaitian	P →	A/B		A/B→R					
Model No.	Soler	noid position	C[dm³/(s·bar)]	b	C[dm	³(s·bar)]	b				
	Two 3-pc	ort valves integrated	0.87	0.37	1.0	(0.68)	0.14	(0.22)			
MN3GD1	2-positi	on	0.98	0.33	1.2	(0.71)	0.11	(0.27)			
MN4GD1		All ports closed	0.92	0.34	1.0	-	0.16	-			
MN4GD1	3-position	A/B/R connection	0.92	0.29	1.1	(0.69)	0.13	(0.22)			
		P/A/B connection	1.1	0.35	1.1	-	0.17	-			
	Two 3-port valves integrated		1.7	0.37	2.2	(1.6)	0.13	(0.21)			
MN3GD2	2-positi	on	2.2	0.21	2.5	(1.7)	0.19	(0.10)			
		All ports closed	2.0	0.25	2.3	-	0.10	-			
MN4GD2	3-position	A/B/R connection	2.0	0.27	2.5	(1.7)	0.18	(0.12)			
		P/A/B connection	2.3	0.31	2.3	-	0.16	-			

<sup>\*1:</sup> Effective cross-sectional area S and sonic conductance C are converted as S  $\approx$  5.0 x C.

<sup>\*1:</sup> Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.

<sup>\*2:</sup> Dust-proof degree of protection. Not drip-proof. Avoid dripping water or oil, etc., during use.

<sup>\*2:</sup> Values in ( ) are with the exhaust check valve.

# Reduced wiring block manifold; Body piping

# Reduced wiring specifications

Item	T10	T11	T30	T50	T51	T52	T53
Туре	l	Common terminal block Clamping method	D-sub-connector	20-pin flat cable connector without power supply terminal	20-pin flat cable connector without power supply terminal	10-pin flat cable connector without power supply terminal	26-pin flat cable connector without power supply terminal
	_	_	D-sub-connector 25-pin	MIL-C-83503 standard	MIL-C-83503 standard	MIL-C-83503 standard	MIL-C-83503 standard
Connector				compliant pressure welding	compliant pressure welding	compliant pressure welding	compliant pressure welding
				socket 20-pin	socket 20-pin	socket 10-pin	socket 26-pin

#### Serial transmission slave unit specifications

Download the communication setting file from the CKD website (https://www.ckd.co.jp/en/).

Iter	n	T6G1
Netw	ork name	CC-Link ver. 1.10
	Unit side	24 VDC ±10%
supply voltage	Valve side	24 VDC +10%, -5%
u C	Unit side	100 mA or less
mptic	Utilit Side	(when all output points are ON)
Current consumption	Valve side	15 mA or less
ent c	valve side	(when all output points are OFF)
Curr	Communication side	
No. o	f output points	16 points
Occu	ıpied number	1 station
Oper	ation display	LED (power supply and communication status)
Outp	ut	NPN

Iter	<b>.</b>	T7G1	T7L1*1	T7D1	T7S1	T7SP1			
					-	-			
Netv	vork name	CC-Link ver. 1.10	SAVE NET	DeviceNet*2	Com	ooNet			
pply	Unit side			24 VDC +10%, -5%					
Power supply voltage	Valve side		Cor	mmon power supply term	inal				
	Valve side Communication side	_		11 to 25 VDC *3	14.0 to 26.4 VDC				
Current consumption	Unit side		110 mA or less		40 mA	or less			
'nπ		(wh	en all output points are C	ON)	(when all outpu	t points are ON)			
cons	Valve side	L	oad current is not include	ed	Load current is not included				
rent	Communication			50 m A an lana	65 mA or less (all points ON: 24 VDC				
Ö	side	_	_	50 mA or less	95 mA or less (all p	oints ON: 14 VDC)			
No. c	of output points	16 points	16 points	16 points	16 p	oints			
0		4 station	4 station	O hudaa	Word	slave			
Occi	upied number	1 station	1 station	2 bytes	1 node (1	6 points)			
Ope	ration display		LED (powe	r supply and communica	tion status)				
Outr	out		NPN		NPN PNF				

Iten	n	T8G1 T8G2	T8GP1 T8GP2	T8P1 T8P2	T8PP1 T8PP2	T8EC1 T8EC2	T8ECP1 T8ECP2	T8EN1 T8EN2	T8ENP1 T8ENP2	T8D1 T8D2	T8DP1 T8DP2	T8EB1 T8EB2	T8EBP1 T8EBP2	T8EP1 T8EP2	T8EPP1 T8EPP2
Comm	unication protocol	CC-Link	ver. 1.10	PROFIBU	S-DP (V0)	Ethe	rCAT	Etherl	Net/IP	Devid	eNet	CC-Link	EF Basic	PROF	INET
Álddns	Unit side				24 VD0	C ±10%				11 to 25 VDC 24 VDC ±10%					
Power supply voltage	Valve side		24 VDC+10%, -5%												
Current consumption	Unit side		60 mA or less (when all output points are ON) output points are ON) output points are ON) output points are ON) output points are ON) output points are ON) output points are ON) output points are ON) all output points are ON)										130 mA or all output po	,	
sonsı				7		nA or les	S					15 mA	or less		
ento	Valve side			Т	8□2:20r	nA or les	s			(When a	all output	points ar	e ON) Lo	ad curre	nt is not
Curr		(Wł	nen all ou	ıtput poin	ts are Ol	N) Load o	current is	not inclu	ded			inclu	ıded		
No. o	of output							T8□1: 1	6 points						
point	s							T8□2: 3	2 points						
Occu	pied number		1 station												
Oper	ation display		LED (power supply and communication status)												
Outp	ut	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output

<sup>\*1</sup> Transmission bit rate of 128 bits and half-duplex transmission method are supported. Contact CKD for other specifications.

<sup>\*2</sup> Also compatible with DeviceNet compliant networks (DLNK, etc.)

<sup>\*3</sup> The communication power supply (V+, V- on the DeviceNet cable) is insulated from the power supply terminal (unit power supply/valve power supply).

How to order Manifold model No. W(H)-10-(3)-P4 MN4GD1 (1) 0R - (C6) - ( T30 3-port manifold model No. (W)(H)-(10)-(3)-P4 (MN3GD1 (1) OR - (C6) - ( T30 Discrete valve block with solenoid valve (H)(N4GD1)(1)0R-(C6)-(A2N\*1 Discrete 3-port valve block with solenoid valve (N3GD1)(1)0R-(C6)-(A2N\*1 Discrete solenoid valve A Model No. ( 4GD1 (1 ) 9R - ( C6 ) A<sub>2</sub>N Manifold 3-port valve 5-port valve Discrete 3-port solenoid valve (N)4GD1 MN4GD2 MN3GD1 (N)3GD2 (N)4GD2 MN3GD2 MN4GD1 (N)3GD1 (H)3)-P4 3GD1 (1) 9R - (C6 A<sub>2</sub>N **B** Solenoid position **B** Solenoid position 2-position single • • 2 2-position double A Model No. 3 • 3-position all ports closed 4 3-position ABR connection • • • 5 3-position PAB connection 1 2-position single Normally Closed (\*2) 11 2-position single Normally Open(\*2) Two 3-port valves integrated A side valve: Normally Closed 66 (\*2)(\*3) B side valve:Normally Closed 8 Mix manifold (when there are multiple solenoid positions) © Port size(port A/B) Port size \*4 Type (\*1)0 C4 ø4 push-in fitting 00 0 |0|0|0 C6 ø6 push-in fitting 0 0 0 0 The port size of "O" is a standard 0 0  $\overline{\circ}$ 0 C8 ø8 push-in fitting product and equivalent to P4 СХ 0 0 0 0 Push-in fitting mix (\*5)) specifications. It is not necessary M5 M5 • • to add "-P4" to the model No. Rc1/8 06 D Reduced wiring connection, serial transmission Reduced wiring connection Refer to the next page for reduced wiring and serial transmission. Precautions for model selection E Terminal/connector pin array Terminal/connector Standard wiring Blank (\*6)\*1: Specify the port P/R bore size with the supply and exhaust pin array method W Double wiring • • • (\*6)block model No. in the manifold specifications sheet. \*2: Select MN4GD\*80R when mixing with 4, 5R port valves. MN3GD\*80R when used mixed with a Option Manual override of non-locking/locking common Blank lacktrianmasking plate. \*3: Dimensions are the same as the respective With exhaust check valve Н (\*7)2-position double solenoid. Ozone/coolant proof lacktriangle\*5: The push-in fitting cannot be mixed with the single valve's 4(A) or 2(B) port. F . . . . Port A/B filter built in (\*8) \*6: Blank...The wiring will be based on the type of **Z**1 (\*9)• • Air supply spacer valve mounted. W\*...All wired as double solenoid regardless of **Z**3 • • • Exhaust spacer (\*9)the type of valve used. G Station No. \*7: The 3-position all ports closed and PAB G Station No. connection are not provided with the 1 station 1 exhaust check valve specifications (H). Refer to "Pneumatic Valves No.CB-023SA" for details on the exhaust check valve. 24 24 stations (Refer to page 336 for the max. station number per model) \*8: A filter is built into port P as standard. Specify the Voltage spacer mounting position/quantity in the manifold specifications sheet. Voltage 24 VDC \*9: Stacking of spacers is not possible. 12 VDC Combination with the masking plate is

is not available.

for details.

not supported. Refer to pages 347 to 348

A Model No. Manifold Discrete valve block with solenoid valve/
3-port valve 5-port valve Discrete solenoid valve/ MN3GD1 MN4GD1 (N)3GD1 (N)3GD2 (N)4GD1 (N)4GD2

<b>⋒</b> Pod	uced wiring (lamp and surge suppress	or provided a	_	_	nde	_	_	_	V	10
T10	luced wiring (lamp and surge suppress	Left-sided specs.	15	ola	liuc	alu	) 14	4724	· VI	
T10R	Common terminal block (M3 thread)	Right-sided specs.								-
T11		Left-sided specs.								-
T11R	Common terminal block (clamping)	Right-sided specs.								-
T30		Left-sided specs.								-
T30R	D-sub-connector	Right-sided specs.								_
T50	20-pin flat cable connector (with	Left-sided specs.								$\dashv$
T50R	power supply terminal)	Right-sided specs.								-
T51	20-pin flat cable connector (without	Left-sided specs.		_	-	-				=
T51R	power supply terminal)	Right-sided specs.								
T52	10-pin flat cable connector (without	Left-sided specs.								
T52R	power supply terminal)	Right-sided specs.		-	-	-				
T53	26-pin flat cable connector (without									
	power supply terminal)	Right-sided specs.								
D Se	rial transmission (lamp/surge suppres	sor provided	l a	s s	tar	ıda	rd)	24	VI	)C
T6G1	CC-Link	NPN 16 points					,			
T7D1	DeviceNet	NPN 16 points		-	-	-				
T7G1	CC-Link	NPN 16 points								
T7L1	SAVE NET	NPN 16 points								
T7S1		NPN 16 points								
T7SP1	CompoNet	PNP 16 points								
T8G1		NPN 16 points								
T8G2		NPN 32 points								
T8GP1	CC-Link	PNP 16 points								
T8GP2		PNP 32 points								
T8P1		NPN 16 points								
T8P2	DDOEIDI IC DD	NPN 32 points		-	_	-				
T8PP1	PROFIBUS-DP	PNP 16 points								
T8PP2		PNP 32 points	•	•		•				
T8EC1		NPN 16 points	•			•				
T8EC2	EtherCAT	NPN 32 points	•	•	•	•				
T8ECP1	Ellercat	PNP 16 points	•							
T8ECP2		PNP 32 points								
T8EN1		NPN 16 points			•					
T8EN2	EtherNet/IP	NPN 32 points		-	-	-				
T8ENP1	20.0.140011	PNP 16 points		-	-	-				
T8ENP2		PNP 32 points								
T8D1		NPN 16 points		-	-	-				
T8D2	DeviceNet	NPN 32 points								
T8DP1		PNP 16 points	_	_	-	_				
T8DP2		PNP 32 points		-	-	_				
T8EB1		NPN 16 points				•				
T8EB2	CC-Link IEF Basic	NPN 32 points	•							
T8EBP1		PNP 16 points								
T8EBP2		PNP 32 points								
T8EP1		NPN 16 points								
T8EP2	PROFINET	NPN 32 points								
T8EPP1		PNP 16 points								
T8EPP2	With put land using fields and and the	PNP 32 points	•							
A2N	Without lead wire (without socket)	With surge suppressor and indicator lamp								

is not available.

Ozone-proof specifications

Coolant proof specifications

Can be selected with "How to order" Item F option "A" on page 338.

CE marking specifications

- Voltage -ST

· Standard voltage of 24 VDC or less is CE markingcompatible even if the model No. is not indicated with "ST". Clean air

Speed

Pneumatic Valves Catalog No. CB-023SA

Reduced wiring block manifold Base piping

# MN4GE1, 2-T\* Series

Cylinder bore size:ø20 to ø80





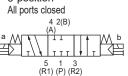
#### JIS symbol

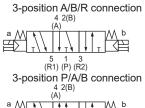
Two 3-port valves integrated (A side valve: NC, B side valve: NC)

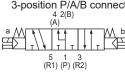












#### Manifold common specifications

Item	Description
Manifold	Block manifolds
Mounting method	DIN rail mount
Air supply and exhaust	Common supply/common exhaust
method	(With internal exhaust check valve)
Pilot exhaust method	Main valve/pilot valve common exhaust
Filot extraust metriou	(Pilot exhaust check valve built-in)
Piping direction	Side direction of base
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.7
Min. working pressure MPa	0.2
Proof pressure MPa	1.05
Ambient temperature °C	-5 to 55 (no freezing)
Fluid temperature °C	5 to 55
Manual override	Non-locking/locking common
Lubrication (*1)	Not required
Degree of protection (*2)	Dust-proof
Vibration resistance m/s <sup>2</sup>	50 or less
Shock resistance m/s <sup>2</sup>	300 or less
Atmosphere	Cannot be used in corrosive gas environments

#### Electrical specifications

Item		Descri	otion
iteiii	T1□,T3	0□, T5□	T6G1, T7□, T8□
Rated voltage V	24 DC	12 DC	24 DC
Voltage fluctuation range (*3)	±10	0%	+10%, -5%
Holding current A	0.017	0.034	0.017
Power consumptionW		0.4	
Thermal class		В	
Surge suppressor		Zener d	diode
Indicator		LE	)

\*3 : T6G1, T7□, T8□As the voltage drop occurs due to the internal circuit of the (serial transmission), pay attention to the voltage fluctuation range.

## Individual specifications

Item		MN3GE1/MN4GE1											
itein		T10	T11	T30	T50	T51	T52	T53	T6G1	T7*1	T8*1/2		
	Standard wiring												
IVIAX. SIALIUIT IVU.	Double wiring	8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	8 stations	4/8 stations	8/16 stations		
Max. numb	er of solenoids	16 points	24 points	24 points	16 points	18 points	8 points	24 points	16 points	8/16 points	16/32 points		
Dort oizo		Push-in fitting ø4,ø6											
Port size Port A/B P/R Port			Push-in fittingø6, ø8										

#### • For weight, refer to "Pneumatic Valves No.CB-023SA".

Item		MN3GE2/MN4GE2											
itein		T10	T11	T30	T50	T51	T52	T53	T6G1	T7*1	T8*1/2		
	Standard wiring												
IVIAX. SIALIUIT IVU.	Double wiring	8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	8 stations	4/8 stations	8/16 stations		
Max. numb	er of solenoids	16 points	24 points	24 points	16 points	18 points	8 points	24 points	16 points	8/16 points	16/32 points		
Dort oizo	Port A/B P/R Port				ı	Push-in	fittingø	4, ø6, ø	<b>9</b> 8				
POIT SIZE	P/R Port					Push-i	n fitting	ø8, ø10	)				

#### • For weight, refer to "Pneumatic Valves No.CB-023SA".

#### Flow characteristics

Model	Cale	aid maaitian	P →	A/B		A/B	→R	
No.	Solenoid position		C[dm³/(s·bar)]	b	C[dm <sup>3</sup>	/(s·bar)]		b
	Two 3-p	ort valves integrated	0.86	0.35	1.0	(0.66)	0.15	(0.25)
MN3GE1	2-posit	ion	1.0	0.30	1.1	(0.72)	0.11	(0.26)
MN4GE1		All ports closed	0.96	0.32	1.0	-	0.14	-
MIN4GET	3-position	A/B/R connection	0.96	0.29	1.2	(0.71)	0.11	(0.30)
		P/A/B connection	1.1	0.31	1.0	-	0.15	-
	Two 3-p	ort valves integrated	1.7	0.42	2.2	(1.6)	0.15	(0.19)
MN3GE2	2-posit	ion	2.4	0.35	2.5	(1.7)	0.19	(0.19)
MN4GE2		All ports closed	2.2	0.38	2.3	-	0.17	-
MIN4GE2	3-position	A/B/R connection	2.2	0.38	2.5	(1.7)	0.18	(0.20)
		P/A/B connection	2.3	0.29	2.3	-	0.15	-

<sup>\*1:</sup> Effective cross-sectional area S and sonic conductance C are converted as  $S \approx 5.0 \text{ x C}$ .

<sup>\*1:</sup> Use turbine oil Class 1 ISO VG32 for lubrication. Excessive or intermittent lubrication results in unstable operation.

<sup>\*2:</sup> Dust-proof degree of protection. Not drip-proof. Avoid dripping water or oil, etc., during use.

<sup>\*2:</sup> Values in ( ) are with the exhaust check valve.

# Reduced wiring block manifold; Base piping

# Reduced wiring specifications

Item	T10	T11	T30	T50	T51	T52	T53
Туре	I -	Common terminal block Clamping method	connector	20P flat cable connectorWith power supply terminal	connectorWithout nower	10P flat cable connectorWithout power supply terminal	26P flat cable connectorWithout power supply terminal
Connector	_	_	D-sub-connector 25-pin	MIL-C-83503 standard compliant Pressure welding socket 20-pin	MIL-C-83503 standard compliant Pressure welding socket 20-pin	MIL-C-83503 standard compliant Pressure welding socket 10-pin	MIL-C-83503 standard compliant Pressure welding socket 26-pin

### Serial transmission slave unit specifications

Download the communication setting file from the CKD website (https://www.ckd.co.jp/en/).

Item		T6G1
	ork name	CC-Link ver. 1.10
Power supply voltage	Unit side	24 VDC ±10%
Power voltage	Valve side	24 VDC +10%, -5%
umption	Unit side	100 mA or less (when all output points are ON)
Current consumption	Valve side	15 mA or less (when all output points are OFF)
Curl	Communication side	
No. o	f output points	16 points
Occu	ıpied number	1 station
Oper	ation display	LED (power supply and communication status)
Outp	ut	NPN

Item	1	T7G1	T7L1∗₁	T7D1	T7S1	T7SP1
Netw	ork name	CC-Link ver. 1.10	SAVE NET	DeviceNet*2	Comp	ooNet
pply	Unit side			24 VDC +10%, -5%		
Power supply	Valve side		Cor	mmon power supply term	inal	
Power s voltage	Communication side	_		11 to 25 VDC *3	14.0 to 2	6.4 VDC
ption	Unit side	()	110 mA or less	DAI)		or less
Current consumption	Valve side	•	nen all output points are Co pad current is not include	,		t points are ON) s not included
Current	Communication side	_	_	50 mA or less	65 mA or less (all 95 mA or less (all	points ON:DC24V)
No. o	f output points	16 points	16 points	16 points	16 p	oints
Occi	ipied number	1 station	1 station	2 bytes	Word 1 node (1	slave 16 points)
Oper	ation display		LED (powe	r supply and communica	tion status)	
Outp	ut		NPN		NPN	PNP

Iten	n	T8G1 T8G2	T8GP1 T8GP2	T8P1 T8P2	T8PP1 T8PP2	T8EC1 T8EC2	T8ECP1 T8ECP2	T8EN1 T8EN2	T8ENP1 T8ENP2	T8D1 T8D2	T8DP1 T8DP2	T8EB1 T8EB2	T8EBP1 T8EBP2	T8EP1 T8EP2	T8EPP1 T8EPP2
Comm	unication protocol	CC-Link	ver. 1.10	PROFIBU	S-DP (V0)	Ethe	rCAT	Ether	Net/IP	Devid	eNet	CC-Link	IEF Basic	PROF	INET
Supply	Unit side				24 VD0	C ±10%				11 to 25 VDC 24 VDC ±10%					
Power supply voltage	Valve side						2	24 VDC+	10%, -5%	, 0					
tion	Unit side	60 mA or le	or less (when all   60 mA or less (when all   110 mA or less (when all   120 mA or less (when all   70 mA or less (when all   130											ss (when all	
dun	Offic Side	output poi	nts are ON)	output poi	nts are ON)	output poir	nts are ON)	output poir	its are ON)	output points are ON) output points are ON) output points are ON)					
consumption				-	Γ8⊡1:15r	nA or les	s			15 m 1 a	r loop (\A	lban all a	utnut nais	ata ara O	NI) Lood
ento	Valve side			-	Γ8 <u>□</u> 2:20r	nA or les	s			15 IIIA 0			utput poir		N) Load
Current		(WI	nen all ou	ıtput poir	its are Of	N) Load o	current is	not inclu	ded		cu	irrent is n	ot include	ea	
No. o	of output							T8□1: 1	6 points						
point	s		T8□2: 32 points												
Occu	pied number	1 station													
Oper	ation display		LED (power supply and communication status)												
Outp	ut	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output	NPN output	PNP output

<sup>\*1</sup> Transmission bit rate of 128 bits and half-duplex transmission method are supported. Contact CKD for other specifications.

Pneumatic actuator

Vacuum components Pneumatic valves

Pneumatic auxiliary components

ir Speed Fitting Auxiliary Silencer

valve valve

<sup>\*2</sup> Also compatible with DeviceNet compliant networks (DLNK, etc.)

<sup>\*3</sup> The communication power supply (V+, V- on the DeviceNet cable) is insulated from the power supply terminal (unit power supply/valve power supply).

Reduced wiring block manifold; Base piping

P4 Series

Pne Hand/ Chuck

Pneumatic actuator

How to order Manifold model No T30 (W)(H)-(10)-(3)-P4 (MN4GE1)(1)0R - (C6) 3-port manifold model No. (W)(H)-(10)-(3)-P4 (MN3GE1)66)0R - (C6)-( T30 Discrete valve block with solenoid valve  $(\mathbf{H})$ (N4GE1)(1)0R - (C6) - (A2N\*1) Related Discrete 3-port valve block with solenoid valve (H)( N3GE1 )66)0R -( C6 )-( A2N \*1 )) A Model No. Manifold Discrete valve block Discrete solenoid valve with solenoid valve 5-port valve discrete solenoid valve (H)4GE1 (1)9R - (00) A2N Discrete 3-port solenoid valve MN4GE2 (N)3GE2 (N)3GE1 (N)4GE1 (N)4GE2 MN4GE1 MN3GE (3GE1)66)9R - (00  $(\mathbf{H})$ 3)-P4 A<sub>2</sub>N **B** Solenoid position B Solenoid position 2-position single Terminal/connector 2 • • • 2-position double A Model No. pin array 3 3-position all ports closed 3-position ABR connection • • • • 4 5 3-position PAB connection • • • • Two 3-port valves integrated A side valve: Normally Closed 66 B side valve: Normally Closed (\*3)(\*4) Mix manifold (when there are Clean air • multiple solenoid positions) Port size(Port A/B) Port size Model ø4 push-in fitting C4 C6 ø6 push-in fitting • • • C8 ø8 push-in fitting Auxiliary Fitting Push-in fitting mix (\*5) CX Port B Reduced wiring Port A C4NC ø4 push-in fitting • • connection, serial C6NC • ø6 push-in fitting transmission C8NC ø8 push-in fitting • • C4NO • ø4 push-in fitting Plug C6NO ø6 push-in fitting • C8NO lø8 push-in fittina Discrete valve for integrated base Precautions for model selection Reduced wiring connection, serial transmission Refer to the next page for reduced wiring and serial transmission. \*1: Ports A and B plug specifications are available for 2-position single only. Specify the port P/R ■ Terminal/connector pin array bore size with the supply and exhaust block Blank Standard wiring model No. in the manifold specifications sheet.
\*2: For a discrete solenoid valve, select 00 for port size. (\*6) W Double wiring \*3: MN4GE\*80R when using a mixture of 4, 5-port Option valves. MN3GE\*80R when used with a masking Option Blank Manual override of non-locking/locking common ● ● ● ● ● ● With exhaust check valve \*4: Dimensions is the same dimensions as the 000000 Δ Ozone/coolant proof respective 2-position double solenoid. \*5: The push-in fitting cannot be mixed with the F Port A/B filter built in (\*8) discrete valve's 4(A) or 2(B) port. **Z**1 (\*9) • • • • Air supply spacer \*6: Blank...The wiring will be based on the type of **Z**3 000 Exhaust spacer (\*9)valve mounted. W\*...All wired as double solenoid regardless of G Sta ation No. the type of valve used. G Station No. 1 station \*7: The 3-position all ports closed and PAB to to connection are not provided with the exhaust check valve specifications (H). Refer to "Pneumatic Valves No.CB-023SA" 24 24 stations (Max. station number for MN4GE2 is 20. Voltage for details on the exhaust check valve. Woltage 24 VDC \*8: A filter is built into port P as standard. 3 Motor \*9: Specify the spacer mounting position/ 12 VDC quantity in the manifold specifications

is not available.

sheet. Stacking of spacers is not possible. Combination with the masking

plate is not supported. For details, see Pages 347 to 348.

	A Model No.										
	Man	ifold		Discrete valve block							
3-por	value	5-		oid va							
ino valves	integrated	va	lve	discr	ete sol	enoid	valve				
Ш	品	GE1	IGE2	GE1	GE2	GE1	2				
<b>MN3GE1</b>	3	<b>→</b>		3	ଞ୍ଚ	ত্র	ᅙ				
Ž	Ž	Ž	Ž	ŝ	Ž	È	È				
_	_	_	_	=	=	≕	_				

Reduce	a wiring (iamp and surge suppres	ssor provided as	sta	na	ara)	12	124	٧L	U	
T10	Common terminal block (M3 thread)	Left-sided specs.			•					
T10R	Common terminal block (ws thread)	Right-sided specs.								
T11	Common terminal block (slamping)	Left-sided specs.								
T11R	Common terminal block (clamping)	Right-sided specs.								
T30	D-sub-connector	Left-sided specs.								
T30R	D-sub-connector	Right-sided specs.								
T50	20-pin flat cable	Left-sided specs.								
T50R	Connector (with power supply terminal)	Right-sided specs.								
T51	20-pin flat cable	Left-sided specs.								
T51R	Connector (without power supply terminal)	Right-sided specs.								
T52	10-pin flat cable	Left-sided specs.								
T52R	Connector (without power supply terminal)	Right-sided specs.								
T53	26-pin flat cable	Left-sided specs.								
T53R	Connector(without power supply terminal)	Right-sided specs.								

	Commodor(Mandat power dappi) terminar)		-						_	_
D Serial tr	ansmission (lamp/surge suppres				rd)	24	VD	С		
	CC-Link	NPN 16 points			•					
	DeviceNet	NPN 16 points								
T7G1	CC-Link	NPN 16 points			•					
T7L1	SAVE NET	NPN 16 points	-	_						
T7S1	CompoNet	NPN 16 points								
T7SP1	Componer	PNP 16 points	-	_						
T8G1		NPN 16 points								
T8G2	CC-Link	NPN 32 points	_		_					
T8GP1	JOO-LINK	PNP 16 points								
T8GP2		PNP 32 points								
T8P1		NPN 16 points			_					
T8P2	PROFIBUS-DP	NPN 32 points		_	•	_				
T8PP1		PNP 16 points	_	_	•					
T8PP2		PNP 32 points								
T8EC1		NPN 16 points								
T8EC2	EtherCAT	NPN 32 points								
T8ECP1	Lineroal	PNP 16 points								
T8ECP2		PNP 32 points								
T8EN1		NPN 16 points								
T8EN2	EtherNet/IP	NPN 32 points								
T8ENP1	Luienveun	PNP 16 points								
T8ENP2		PNP 32 points								
T8D1		NPN 16 points								
T8D2	DeviceNet	NPN 32 points								
T8DP1	Boriogivet	PNP 16 points		-		_				
T8DP2		PNP 32 points			•	_				
T8EB1		NPN 16 points		_	•	_				
T8EB2	CC-Link IEF Basic	NPN 32 points		-						
T8EBP1	Dasic	PNP 16 points		_	•	_				
T8EBP2		PNP 32 points			_					
T8EP1		NPN 16 points	_							
T8EP2	PROFINET	NPN 32 points								
T8EPP1	I NOT INET	PNP 16 points								
T8EPP2		PNP 32 points			•					
A2N	Without lead wire (without socket)	With surge suppressor					•	•	•	•
/ 1211	The state of the s	and indicator lamp							<u> </u>	Ľ

Ozone-proof specifications

Coolant proof specifications

Can be selected with "How to order" Item F option "A" on page 342.

CE marking specifications

- Voltage -

· Standard voltage of 24 VDC or less is CE markingcompatible even if the model No. is not indicated with Block manifold: piping section

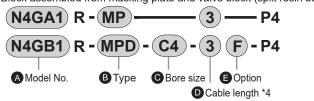
# **Piping**

#### A. Discrete valve block with solenoid valve

Block assembled from solenoid valve body and valve block (split resin base). For model selection, refer to the following pages. Body piping individual wiring:Page 330, base piping individual wiring:Page 334, Body piping reduced wiring:Page 338, base piping reduced wiring:Page 342

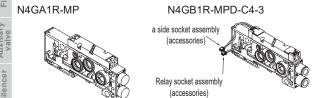
#### B. Discrete valve block with masking plate

Block assembled from masking plate and valve block (split resin base).

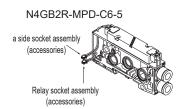


			• cable length							
A Model No.		<b>В</b> Тур	е	C Bore size (1	for base piping, this must be co	nfigured)				
N4GA1	r	MP	For individual wiring	C4	ø4 push-in fitting					
N4GA2	ı	MPS	For reduced wiring single	C6	ø6 push-in fitting					
N4GB1	ı	MPD	For reduced wiring double/3-position	C8	ø8 Push-in fitting *1					
N4GB2				Single side plug specs	Port A	Port B				
				C4NC	ø4 push-in fitting					
D Cable length	า *2	<b>(3</b> Ор	tion	C6NC	ø6 push-in fitting	Plug				
Blank For indivi	dual wiring	Blank	No option	C8NC	ø8 Push-in fitting *1					
Select the leng	th from	F	Port A/B filter built in	C4NO		ø4 push-in fitting				
page 345 .				C6NO	Plug	ø6 push-in fitting				
*2 A socket assemb	alv is inc	ı luded wi	ith purchases for reduced	C8NO		ø8 Push-in fitting *1				

wiring station expansion. Select the cable length from the following page • Fill in the cable length field. If ordering with the manifold specifications sheet, the cable length can be omitted.

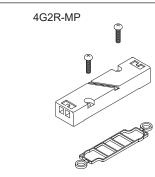






#### B-1. Masking plate



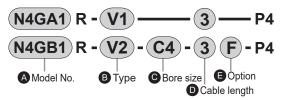


<sup>\*1</sup> Only 4GE2 is supported.

#### **Piping**

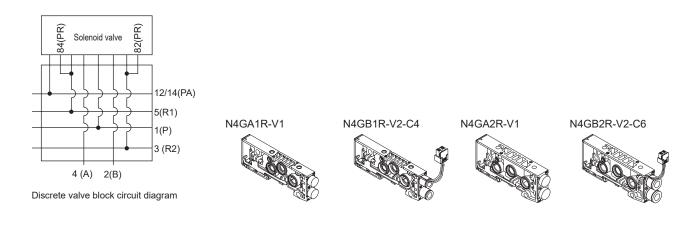
#### C. Discrete valve block (separate item only)

Discrete valve block (split resin base).



A Model No.	В Тур	е	C Bore size (	for base piping, this must be	configured)
N4GA1	V1	For individual wiring	C4	ø4 push-in fitting	
N4GA2	VI	For reduced wiring single	C6	ø6 push-in fitting	
N4GB1	V2	For reduced wiring double/3-position	C8	ø8 Push-in fitting *1	
N4GB2			Single side plug specs.	Port A	Port B
			C4NC	ø4 push-in fitting	
Cable length	<b>(3</b> 0)	ntion	C6NC	ø6 push-in fitting	Plug
Blank For individual wirin			C8NC	ø8 Push-in fitting *1	
8	F		C4NO		ø4 push-in fitting
Select a length from the following	<u> </u>	. S.C. V.D. I.I.C.I Dulle III	C6NO	Plug	ø6 push-in fitting
N	J	CE	C8NO		ø8 Push-in fitting *1

<sup>\*1</sup> Only 4GE2 is supported.



#### Valve block for expansion Cable length

Calculate the distance W between the expansion position and the wiring block (Fig. 1), << Select a cable with appropriate length from Table 1>>. Note that the required socket assembly differs between the a side solenoid and b side solenoid. While Fig. 1 shows the wiring block with left side specifications, similarly calculate the distance W between the expansion position and the wiring block for the right side specifications. Calculation of W

#### For MN4G1

W=(10.5xn)+(16xm)+(10.5xl)

For MN4G2

W=(16xn)+(18xm)+(10.5xl)

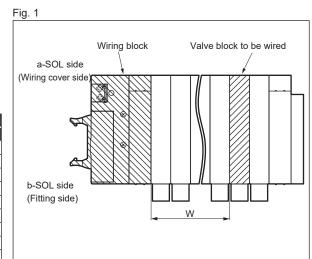
n/m/l: No. of valve blocks/supply and exhaust blocks/partition blocks

• For MN4GX

Calculate W using the mix block width of 16.

[Table 1] W length - selection No. compatibility table

Selection	Tiongai colocacii ito	Type of wiring	
No.	T10/11(R)	T30/5*/6(R)	T7*/T8*
2		0	25 or less
3	20 or less	Over 0 to 30	Over 25 to 55
4	Over 20 to 70	Over 30 to 80	Over 55 to 105
5	Over 70 to 120	Over 80 to 130	Over 105 to 155
6	Over 120 to 170	Over 130 to 180	Over 155 to 205
7	Over 170 to 260	Over 180 to 270	Over 205 to 295
8	Over 260 to 350	Over 270 to 360	Over 295 to 385
9	Over 350 to 450	Over 360 to 460	Over 385 to 485
10	Over 450 to 570	Over 460 to 580	Over 485 to 605



Block manifold: piping section

Fitting

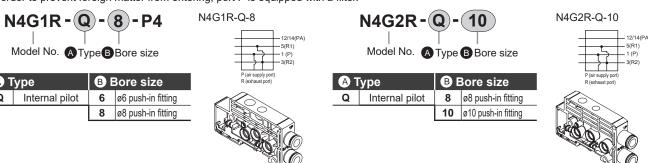
Electric actuator Fluid control components

# **Piping**

As problems may occur depending on the configuration, make selections with a sufficient understanding of the features of each block.

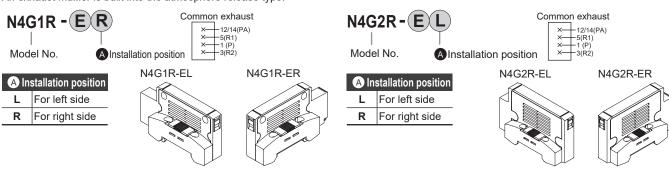
#### D. Supply and exhaust block

The supply and exhaust block can be installed at any position adjacent to the valve block. As there is no set number of units, install two or more units when necessary for combinations with partition blocks or in order to increase the flow rate for supply and exhaust. In order to prevent foreign matter from entering, port P is equipped with a filter.



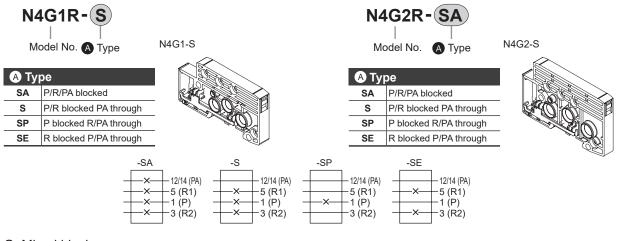
#### E. End block

Install on both ends of the manifold for individual wiring. Install on opposite sides of the wiring block for reduced wiring. An exhaust muffler is built into the atmosphere release type.



#### F. Partition block

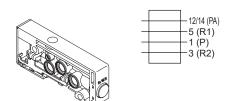
Multi-pressure mixing and measures for back pressure increase prevention can be achieved by combining partition blocks and supply and exhaust blocks.



#### G. Mixed block

Install when 4G1 and 4G2 will be mixed within the same manifold. Installation positions are 4G1 on the left side of the mixed block and 4G2 on the right side.





Pneumatic actuator

Vacuum components Pneumatic valves

Pneumatic auxiliary components

Gas generator Fluid control components Electric actuato

Air supply spacer

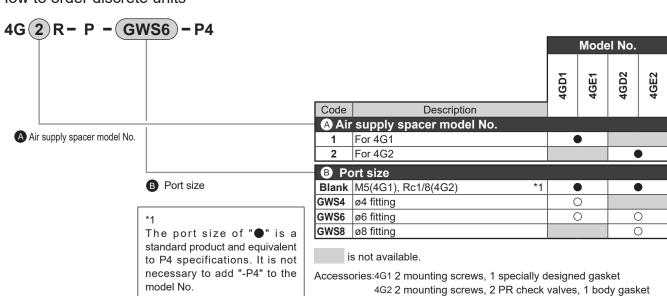
Related products

# **Specifications**

Madal Na	P→	A/B	A/B	→R	Majasht a
Model No.	C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b	Weight g
4G1	0.70	0.23	0.93	0.16	8
4G2	1.6	0.17	1.8	0.16	35

- \*1: Values are when a valve is mounted.
- \*2: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C.

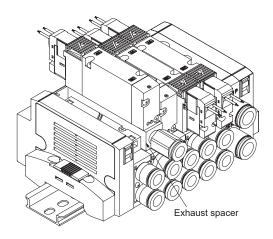
How to order discrete units



# Precautions for model selection

- Specify the positions and quantity of air supply spacers for manifold in the manifold specifications sheet.
- If the port A/B fitting is elbow, turn the air supply port of the air supply spacer toward the reverse side ("a" solenoid side).
- If the elbow (upward) port A/B fitting is used for the reduced wiring manifold, the air supply spacer cannot be selected.
- Combination with the masking plate is not supported.

Exhaust spacer

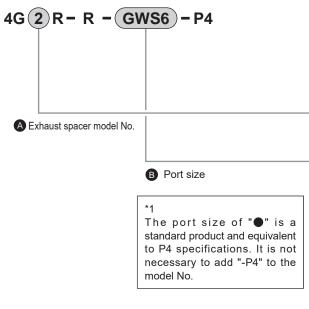


#### **Specifications**

Madel Na	P→	A/B	A/B	→R	Weight a
Model No.	C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b	Weight g
4G1	0.94	0.28	0.68	0.33	7
4G2	1.5	0.24	1.9	0.24	34

- \*1: Values are when a valve is mounted.
- \*2: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 x C

How to order discrete units



			4GD1	4GE1	4GD2	4GE2
	Code	Description				
$\dashv$	A Ex	haust spacer model No.				
	1	For 4G1		•		
	2	For 4G2				
$\dashv$	В Ро	ort size				
	Blank	M5 thread (4G1), Rc thread (4G2) *1		•		
	GWS4	ø4 fitting		0		
	GWS6	ø6 fitting		0		
	GWS8	ø8 fitting				

Model No.

is not available.

Accessories:4G1 2 mounting screws, 1 specially designed gasket 4G2 2 mounting screws, 2 PR check valves, 1 body gasket

# A Precautions for model selection

- Specify the positions and quantity of air supply spacers for manifold in the manifold specifications sheet.
- If the port A/B fitting is elbow, turn the air supply port of the air supply spacer toward the reverse side ("a" solenoid side).
- If elbow upward port A/B fitting is used for the reduced wiring manifold, the exhaust spacer cannot be selected.
- Combination with the masking plate is not

# MN4GD/4GE Series

Manifold specifications sheet

# How to fill out block manifold MN4G Series manifold specifications sheet

Manifold model No. (example)

MN	4 GD1 8		01	R-			C)	<	-			5(				W				ŀ	1	] -			8	]-		,	3	] -		<b>P4</b>
_	odel No. B Solenoid pos			) to se	_		ort s				Electrica (Reduction		ctions (	<b>B</b> T	ermina Note:	al/conn Fill in f	ector p	pin uced v	<b>(F</b> ) viring.)		tion	1	(	<b>G</b> 9	Stati	ion N	۱o. <b>(</b>	<b>)</b> v	olta'	ıge		
		Π									OUTITIOU	uonj		-	_	yout			0,												$\neg$	
Part name	Model No.	1	2	3	4	5	6	7	8	9	10	11	12	13	_	<del>_</del>	<del>.</del>	_	18	19	20	21	22	23	24	25	26	27	28	29	30	Quantity
Wiring block	N4G1R-T [50]	0																								$\top$	Т				$\neg$	1
With solenoid	N4GD1 1 0R- C4		0	0																						П					$\Box$	2
valve	N4GD1 2 0R- C6					0																									$\neg$	1
Valve block	N4GD1 3 0R- C4				0																											1
(344 page)	N4GD1 0R-																															
	N4GD1 OR-																															
	N4GD1 OR-																															
	N3GD1 1 0R- C4										0																					3
	N3GD1 0R-																															
Valve block with	N4GA1R-MP																															
masking plate	N4GA1R-MPS																															
(344 page)	N4GA1R-MPD						0																									1
Supply and	N4G1R-Q - 8L							0					0																			2
exhaust block	N4G1R-Q -																															
(346 page)	N4G1R-Q [																															
Partition block	N4G1R-S A								0																	П						1
(346 page)	N4G1R-S																															
	N4G1R-S																															
End block	N4G1R-E R													О																	$\Box$	1
(346 page)	N4G1R-E																															
	. ,		Blanking plug										Tag plate (included)										D.									
Mounting rail	L2=		GWP 4-B								Tag plate (included)  A  Push-in fitting tube remover (standard attachment) [VIVot required (check)]										nclude											
	(How to calculate length on next page)	С	able	able with D-sub-connector 4GR-CABLE-D0⊡-□ Push-in fitting tube remover (standard attachment) [					t).[☑	Not r	requir	eck)	일																			

If the tube remover (standard accessory) is not required, place a check.

#### Preparing manifold specifications sheet

- Complete from the left end, with the piping port facing forward. (Block components (Pneumatic Valves No.CB-023SA) and layout.)
- Write the total number of blocks specified in the quantity field in the table far right.
- Mark a circle for attachments that are required.
- Indicate the mounting rail length. (Fill in only when a length other than the standard length is required.)
- As there are manifold specifications sheets for each of the various series, fill in the form for the corresponding specifications.

• MN4GD1: Page 352

· MN4GE1: Page 353

· MN4GD2: Page 354

· MN4GE2: Page 355

· MN4GDX1/2 (mix manifold): Page 356

· MN4GEX1/2 (mix manifold): Page 357

<sup>\*</sup> A circuit diagram of the above manifold model No. (example) is provided on the following page. Use for reference.

#### Manifold specifications sheet

P4 Series

Pneumatic

Pneumatic actuator

Vacuum components

Pneumatic valves

Clean air

Pneumatic auxiliary components

Mounting rail model No.: N4GR-BAA Length

#### Mounting rail length (L2)

- ①Determine the rail length using the calculation method shown below. The obtained length is standard.
- ②For standard length, length (L2) is not required on the specifications sheet. If you need a length other than the standard length, please enter it.
- How to determine the length of the mounting rail

$$\begin{array}{c} \begin{array}{c} \text{Valve} \\ \text{Block} \end{array} \begin{array}{c} \text{Supply and} \\ \text{attless} \end{array} \begin{array}{c} \text{Partition} \\ \text{Block} \end{array} \begin{array}{c} \text{Quantity} \end{array} \begin{array}{c} \text{Partition} \\ \text{Unantity} \end{array} \begin{array}{c} \text{Partition} \\ \text{Unantity} \end{array} \begin{array}{c} \text{Uniffy} \end{array} \begin{array}{c} \text{Wiring block} \end{array} \begin{array}{c} \text{Mixed block} \\ \text{Mixed block} \end{array}$$

Mounting rail length (L2) = L2'x 12.5 A, B, C, D, and E indicate the length (width) of each block.

L2': 
$$\frac{L1+40}{12.5}$$
  $\rightarrow$  round up to integer

Rail mounting pitch (L3) = L2 - 12.5

Block length (width) dimensions table

(mm)

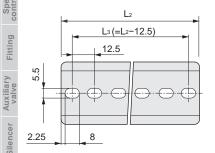
	MN4GD/E1 M		MN4GD/E2	MN4G1	/2MIX				
			WIN4GD/ET	WIN4GD/EZ	MN4GD/E1	MN4GD/E2			
Α	Valve block		10.5	16	10.5	16			
В	Supply and e	xhaust block	16	18	16	18			
С	Partition bloc	k	10.5	10.5	10.5	10.5			
	Individual wi	ring	41.2	46.2	43	.7			
		T10/T11	83.9	86.4	86	.4			
		T10R/T11R	83.9	86.4	83	.9			
D	For reduced	T30/T5*	69.4	71.9	71.	.9			
ט	wiring	T30R/T5*R	69.4	71.9	69.	.4			
	Wiring block	T6G1	143.6	146.1	146	5.1			
		T7*	64.4	66.9	66	.9			
		T8*	64.4	66.9	66.9				
Е	Mixed block				16	3			

<sup>\*</sup> The end block is not uded in wiring block.

#### Mounting rail length quick reference table

L¹:Manifold Length	47.5 or less	47.5 Over to 60 or less	60 to 72.5	72.5 to 85	85 to 97.5	97.5 to 110	110 to 122.5	122.5 to 135	135 to 147.5	147.5 to 160	160 to 172.5	172.5 to 185	185 to 197.5	197.5 to 210	210 to 222.5	222.5 to 235	235 to 247.5	247.5 to 260	260 to 272.5	272.5 to 285	285 to 297.5	297.5 to 310	310 to 322.5	322.5 to 335	335 to 347.5	347.5 to 360
L²:Rail Length	87.5	100	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350	362.5	375	387.5	400
PitchL3	75	87.5	100	112.5	125	137.5	150	162.5	175	187.5	200	212.5	225	237.5	250	262.5	275	287.5	300	312.5	325	337.5	350	362.5	375	387.5

<sup>\*1:</sup> When L1 exceeds this table range, calculate according to "How to calculate mounting rail length".



Pneumatic actuator

Gas generator Fluid control components Electric actuato

/acuum components | Pneumatic valves

Pneumatic auxiliary components

# How to fill out wiring specifications sheet

Not required for standard wiring and double wiring.

Wiring specifications sheet (Example)

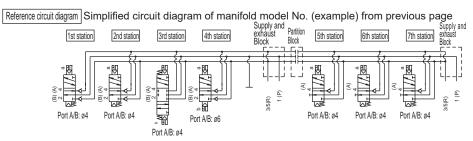
\* The following example has been filled out in accordance with the manifold specifications sheet on the previous page.

	Connecto	or pin No.													Valve	e No											
T50/T50R	T51/T51R	T52/T52R	T53/T53R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	1	1	а																						П	
2	2	2	2		а																						
3	3	3	3				а																				
4	4	4	4				b																				
5	5	5	5					а																			
6	6	6	6					b																			
7	7	7	7			а																					
8	8	8	8			b																					
9 - Power supply	9	9 <sub>COM</sub>	9																								
10 + (COM) Power supply	10	10 <sub>COM</sub>	10																								
11	11		11						а																		
12	12		12							а																	
13	13		13								а																
14	14		14																								
15	15		15																								
16	16		16																								
17	17		17																								
18	18		18																								
19 - Power supply	19 <sub>сом</sub>		19																								
20 + (COM) Power supply	20 <sub>COM</sub>		20																								
			21																								
			22																								
			23																							Ш	Ш
			24																							Ш	Ш
			25 <sub>COM</sub>																								
			26 <sub>COM</sub>																								

<sup>\*</sup> When T50/T50R, the COM polarity is+(Positive) be careful.

#### Notes on wiring specifications

- (1) Fill in and attach to the manifold specifications sheet for anything other than the standard wiring or double wiring. Consult with CKD, as products will be custom made in this case.
- 2)The valve No. is determined by counting the valve blocks only in order from the left with the ports facing forward. Note that this differs from the installation position numbers.
- 3As the connector pin No. and valve No. differ for each reduced wiring method (T1\*/T30/T5\*/T6G1/T7\*/T8\*), fill out the form upon reviewing the precautions for each reduced wiring method ("Pneumatic Valves No.CB-023SA").
- (4) Wiring (socket assembly) is included with valve blocks with masking plates. Both A and B sides for "-MPS" and "-MPD".
- (5) Double solenoids or 3-position solenoid valves cannot be assembled to "-MPS". Order valve block with solenoid valve and carry out expansion.
- (6)It is not possible to install spare wires for station expansion in advance. Wire the socket assembly of the solenoid valve for station expansion. For the procedure for station expansion, refer to "Pneumatic Valves No.CB-023SA".



- \* The manifold station numbers are set in order from the left with the piping port facing forward. (Wiring blocks, supply and exhaust blocks, partition block, and end block are not included in the manifold station No.)
- \* Select a model No. from the page for block configurations (pneumatic valves No.CB-023SA) and specification model No.
- \* With piping port facing front, arrangement positions are set in order from the left.

P4 Series

Cylinder Related Hand/ Pneumatic Switch products Chuck cylinders Pneumatic actuator

Pneumatic valves Vacuum components

Pneumatic auxiliary components

Gas gene
Fluid control components
Electric actuator

<ul><li>Contact</li></ul>		● Q	uan	tity s	set(	s)		De	elive	ery	date	e /													Date	iss	sue	d —	/		/	
Slip No.										(	Ord	er N	lo.											(	Com	ıpa	ny					
Manifold I	model No.																							(	Con	tact	t					
MN	GD1 0I	R-				_				- ]	[-						_[		-			-P	4	(	Orde	er N	10.					
A Model	No. B Solenoid position	n	<b>©</b>	Port		e <b>(</b>	Ele (R	ectrica	al con	nection riring	ons	<b>B</b> T	ermin (Note:	al/cor	necto for re	r pin	(B)	Optic	n .	(		tation		D \	/olta	age						
Relet to Block corning	urations (Friedmatic valves No.CB-	0233A) IC	Selec	l ule ilic	Juein	10.	CO	nnec	illOI1)				(				pos														$\Box$	
Part name (Page)	Model No.	1	2	3	4	5	6	7	8	9	10	11	12	13		T	<u> </u>	T	18	19	20	21	22	23	24	25	26	27	28	29	30	Quantity
Wiring block	N4G1R-T																															
Valve block with solenoid valve	N4GD1 0R-																															
(344 page)	N4GD1 0R-																															
	N4GD1 0R-																										L	L	L			
	N4GD1 0R-																											L		_		
	N4GD1 0R-																										L	_	<u> </u>			
	N4GD1 0R-																										$\vdash$	-	L			
	N3GD1 0R-																										$\vdash$	-	L			
	N3GD1 0R-																	<u> </u>									$\vdash$	_	H		Н	
Valve block with masking plate	N4GA1R-MP																										$\vdash$	$\vdash$	$\vdash$			
(344 page)	N4GA1R-MPS N4GA1R-MPD	_														H											$\vdash$	$\vdash$	┝			
Air supply	4 G1R-P-														<u> </u>												<u></u>	<u> </u>	<u> </u>			
spacer (Page 347)	4 G1R-P-																											-				
Exhaust spacer																											$\vdash$	$\vdash$	H			
(Page 348)	4G1R-R-	_																														
Supply and	N4G1R-Q -															<u> </u>												$\vdash$				
exhaust block (Page 346)	N4G1R-Q -																										-	$\vdash$	_			
(* 292 2 10)	N4G1R-Q -																											$\vdash$				
Partition block	N4G1R-S																											$\perp$				
(Page 346)	N4G1R-S																															
	N4G1R-S																															
End block	N4G1R-E																											Т				
(Page 346)	N4G1R-E																															
Mounting rail	L <sub>2</sub> =						•	Blar	nking	plug	9	•							•			Tag	plate	e (att	achn	nent	)			-		ırts
	* Write an integer multipl	e				G	WP	4-B														Α										Included parts
	of 12.5. (How to determine the length page 350)	ne l	Cable	e with	D-sı	ub-c	onne	ector			4GF	R-CA	BLE-	D0	]-[]				Pı	ısh-i	n fitti				ver (a			as st	anda	ırd)		Incl

MN4GD1 Block manifold specifications sheet

MN4G		JUN												<i>y</i> (	3111		<i>5</i> (								_	to:	00:	مط	/		/	
Contact			•	Qua	antit	y s	et(s)		D	eliv	Ť	date		_									$\neg$		_	ite is			/		/	
Slip No.	a dal Na											Ord	er iv	10.												mp: onta						
Manifold m		1.	_	;		-;			·		-;	;					1 1-		;	;		-; -	_	_		der						
NNC			OR-			_	-										-			<b>-</b> [		-, -	Ρ4	_								
A Model efer to "Block configur	No. B Solo							١.	Reduction Reduct		riring	ons <b>E</b>	Tei ray (N	minal lote: F	/conn ill in f	ector or rec	pin luced	<b>(F)</b> (wiring.	Optio	on		G	Station	n No.	<b>D</b> V	'olta	ge					
nor to Block configur	Tations (Friedman	0 141100 110.	05 02007	1,100		-	201110.		OTITICS	otionj								positi														£
Part name (Page)	Mod	del No.		1	2	3	4	5	6 7	7 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24 2	25 2	26 2	27 28	29	30	Quantity
Viring block	N4G1R-T																															
alve block with	N4GE1	0R-																														
olenoid valve 344 page)	N4GE1	0R-																														
	N4GE1	0R-																														
	N4GE1	0R-																														
	N4GE1	0R-																														
	N4GE1	0R-																														
	N3GE1	0R-																														
	N3GE1	0R-																														
alve block with	N4GB1R-I	MP-																														
asking plate 344 page)	N4GB1R-I	MPS-																														
	N4GB1R-I	MPD-																														
air supply	4 G1R-P-																															
pacer 347 page)	4 G1R-P-																															
xhaust spacer	4G1R-R-										İ															T	T	Ť				
Page 348)	4G2R-R-																															
Supply and	N4G1R-Q	-																										1				
xhaust block 346 page)	N4G1R-Q	-									T															1	1	$\dagger$				
	N4G1R-Q	-					$\top$	$\uparrow$			T															$\uparrow$	$\uparrow$	$\top$				
artition block	N4G1R-S							T			İ															T	T	Ť				
346 page)	N4G1R-S																									$\dagger$	1	$\dagger$				
	N4G1R-S						$\top$																			$\top$	$\top$	$\top$				
nd block	N4G1R-E										Ť																$\exists$	$\top$				
346 page)	N4G1R-E																											$\dagger$				
Nounting rail	,	1	;						Bla	ankin	g plu	ıg		<u> </u>	<u> </u>							-	Tag p	plate	(atta	chme	ent)					ι
	L2=					WD			Τ				ID 6	<b>D</b>						B1			T								$\dashv$	d parts

4GR-CABLE-D0□-□

\* Write an integer multiple of 12.5. (How to determine the length page 350)

Cable with D-sub-connector

Push-in fitting tube remover (attached as standard)

□Not required (check)

$\mathbf{P}\mathbf{A}$	
4.7	
Series	

Contact

Pneumatic actuator

components

Pneumatic valves Vacuum components

Pneumatic auxiliary components

Electric actuator Fluid control components Gas generator

Slip No.			Order No.		Company
<ul><li>Manifold m</li></ul>	nodel No.				Contact
MN (	3D2 0R-		1 [	F	Order No.
A Model		© Port size D Electrical or (Reduced	onnections	tor pin <b>(F)</b> Option <b>(G)</b> Station No.	
		,		ayout position	Vii
Part name (Page)	Model No.	1 2 3 4 5 6 7 8	8 9 10 11 12 13 14	4 15 16 17 18 19 20 21	22 23 24 25 26 27 28 29 30 O
Wiring block	N4G2R-T				
Valve block with solenoid valve	N4GD2 0R-				
(344 page)	N4GD2 0R-				
	N4GD2 0R-				
	N4GD2 0R-				
	N4GD2 0R-				
	N3GD2 0R-				
	N3GD2 0R-				
Valve block with	N4GA2R-MP-				
masking plate (344 page)	N4GA2R-MPS-				
	N4GA2R-MPD-				
Air supply spacer	4G2R-P-				
(Page 347)	4G2R-P-				
Exhaust spacer (Page 348)	4G1R-R-				
Supply and	N4G2R-Q -				
exhaust block (Page 346)	N4G2R-Q -				
	N4G2R-Q -				
Partition block (Page 346)	N4G2R-S				
(1 age 640)	N4G2R-S				
	N4G2R-S				
End block (Page 346)	N4G2R-E N4G2R-E				
Mounting rail	l a=		Blanking plug		Tag plate (attachment)
	* Write an integer multiple	GWP 4-B	GWP 6-B	GWP 8-B	A populor
	of 12.5. (How to determine the length page 350)	Cable with D-sub-conr	nector	4GR-CABLE-D0□-□	

Date issued

/ /

MN4GD2 Block manifold specifications sheet

Quantity set(s)
Delivery date /

Contact			•	Qu	anti	ty s	et(s	)	•	Del	ive	ry d	ate	/												D	ate i	issı	ued	i	/		/		Series
Slip No.												0	rde	r N	0.											<u>C</u>	omp	an	у						Pneumatic cylinders
<ul><li>Manifold m</li></ul>	nodel No.																									C	onta	act							Pne
MN C	GE2	(	0R-				-												-		-	-		-   -	P4	. 9	rder	· No	Ο.						Hand/ Chuck
A Model	No. B Solen	oid pos	ition		<b>O</b> F	ort	size	<b>D</b>	Ele (R	ectrica educ	l conr	nection	ns	ÐT	ermin	al/con	necto	r pin	<b>3</b>	Ор	tion	G	Sta	tion N	No.	V	olta'	ge							ti C &
Refer to "Block configu	rations" (Pneumatic	/alves No.	.CB-023S	A) to s	elect t	he mo	del No.		CO	nnec	tion)		- 6	array	(Note:	Fill in	for re	educe	d wirir	ng.)									_						Related products
Part name (Page)	Mode	el No.		1	2	3	4	5	6	7	8	9	10	11	12	13	La <sub>3</sub>	/out 15	posit	ion 17	18	19	20	21	22	23	24	25	26	27	28	29	30	Quantity	Pneumatic actuator  tic Hand Related Cylinder  rs Chuck products Switch
Wiring block	N4G2R-T																																		
Valve block with solenoid valve	N4GE2	0R-																																	Vacuum components Pneumatic valves
(344 page)	N4GE2	0R-																																	ompon
	N4GE2	0R-																																	ents P
	N4GE2	0R-																																	neum
	N4GE2	0R-																																	atic va
	N4GE2	0R- 0R-																									+								
	N3GE2	0R-																									+								Clean a
Valve block with	N4GB2R-M																										1								Pneumat Clean air Speed components controller
masking plate (344 page)	N4GB2R-M	PS-																																	amat beed troller
	N4GB2R-M	PD-																																	Pneumatic auxiliary  Speed Fitting Aux va
Air supply spacer	4G2R-P-																																		ciliary  Auxi val
(Page 347)	4G2R-P-																																		
Exhaust spacer (Page 348)	4G1R-R-																																		components liary silencer
	4G2R-R-	, ,	<u> </u>																																ents
Supply and exhaust block	N4G2R-Q	-																																	Tube
(Page 346)	N4G2R-Q	-																																	Gas
	N4G2R-Q	<b>!-</b> !	<u></u> ]																								1								gen
Partition block (Page 346)	N4G2R-S N4G2R-S																										+								erato
	N4G2R-S																																		or Fluid
End block	N4G2R-E																										1								Gas generator Fluid control components
(Page 346)	N4G2R-E																										+								ompone
Mounting rail			. <u>;                                    </u>			<u> </u>							В	Blank	ing p	lug	<u> </u>		I	<u> </u>							Та	ag pl	ate (	(atta	chme	ent)		rts	nts Ele
	L <sub>2</sub> =				G	WP	4-B						GW	P 6-	В					(	3WP	8-B							В					Included parts	Motor Moto specification specific
	* Write an inte of 12.5. (How the length page	v to dete				Ca	able v	vith l	D-su	ıb-co	nnec	tor					<u> </u>	40	GR-C	CABL	E-D	0												Inclu	Mot

Slip No.											C	)rde	r No	0.											С	omp	pan	у					
<ul><li>Manifold m</li></ul>	nodel No																						_		С	onta	act						
MN	GD.	V12	D_		1	_		[		1		[		1			1_[			_[		1_	Ρ	1	0	rde	r No	٥.					
		<b>^   2</b>	.IX-[_					Flec	ctrical c	i onnect	ions	 •								TL.													
A Mod Refer to "Block configu		natic Valves	s No.CB-02	_		size he mod		(Re	duced	l wirin(	۲ .	array	ermir (Note)	na⊮coi e: Fill i	nnecto n for r	or pin educe	d wiri	) Op ng.)	tion	G	Statio	on No	U	VOI	tage	Э							
-				Ť				0011	incono	11)								posit	tion														
Part name (Page)	N	Model No	).	1	2	3	4	5	6 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Quantity
Wiring block	N4G	R-T																													$\exists$		
Valve block with	N4GD	0R	-					Ì																							Ī		
solenoid valve (344 page)	N4GD	0R	-	===																													
	N4GD	0R	-																														
	N4GD	0R	-																														
	N4GD	0R	-																														
	N4GD	0R	-																								_						
	N3GD	0R	-																								L						
	N3GD	0R	-																								<u></u>						
Valve block with masking plate	N4GA	R-N	ИP																								L						
(344 page)	N4GA		MPS																								L				$\dashv$		
	N4GA	R-N	MPD		<u> </u>																						L	L			_		
Air supply spacer (Page	4 G1R-P																																
347)	4G2R-P-	• <u> </u>																													_		
Exhaust spacer (Page 348)	4G1R-R-	-																									_						
	4G2R-R	-																									<u>_</u>						
Mixed block	N4G12R	-MIX																															
Supply and exhaust block	N4G	R-Q																															
(Page 346)	N4G	R-Q	-																														
	N4G	R-Q	<u> </u>																								L						
Partition block (Page 346)	N4G	R-S	S																														
	N4G	R-S	S																								L						
	N4G	R-S	S					1																			L						
End block (Page 346)	N4G	R-I					_	-																			_				$\dashv$		
	N4G	R-I	Ε	<u>.  </u>																							<u></u>						
Mounting rail	L2=															ВІ	ankir	ng pl	ug														arts
	* Write an	integer	multiple		G۱	<b>VP</b>	-В					GWP	-	-В					G۷	VΡ	-Е	3				(	GWP	, [	-В				Included parts
	of 12.5.( the length	How to	determin	e	D Cal	ole wi	th sub	-con	necto	r		4GR	-CAE	BLE-	D0□					Pı	ısh-ir	n fitti					stand (chec		attacl	hmer	ıt)		Incl

Quantity set(s)

Delivery date /

Date issued

#### MN4GE1/2 Mix manifold specifications sheet Date issued Contact Delivery date / Quantity set(s) Company Slip No. Order No. **Pneumatic actuator** Contact Manifold model No. Order No. MN GEX12R- Electrical connections A Model No. © Port size (Reduced wiring Refer to "Block configurations" (Pneumatic Valves No.CB-023SA) to select the model No. array (Note: Fill in for reduced wiring.) connection) Quantity Part name Model No. 2 3 4 5 6 7 10 11 12 13 14 15 16 17 18 19 20 21 22 23 25 26 28 N4G Wiring block Vacuum components Pneumatic valves Valve block with N4GE ORsolenoid valve (344 page) 0R-N4GE N4GE 0R-N4GE 0R-N4GE 0R-N4GE 0R-N3GE 0R-N3GE 0R-Pneumatic auxiliary components N4GB R-MP-Valve block with masking plate (Page 344) N4GB R-MPS-N4GB R-MPD-Air supply spacer 4 G1R-P-(Page 347) 4G2R-P-Exhaust spacer 4G1R-R-(Page 348) 4G2R-R-N4G12R-MIX Mixed block Supply and N4G R-Q Gas generator Fluid control components Electric actuato exhaust block (Page 346) N4G R-Q N4G Partition block N4G R-S (Page 346) N4G R-S N4G R-S End block N4G (Page 346) N4G R-E Mounting rail Blanking plug Included parts

GWP

Write an integer multiple

the length 350 page)

-B

Cable with D-sub-connector

GWP

-В

4GR-CABLE-D0□-□

GWP

-В

-В

GWP

Push-in fitting tube remover (attached as standard)

■Not required (check)

# Common terminal block (T10/T11) wiring specifications sheet

Fill in and attach to the manifold specifications sheet for anything other than the standard wiring or double wiring. (Available as made to order) \* Not required with standard wiring/double wiring.

	quired wi		indui	G WIII	1119/0	Oubi	O VVIII	119.																	
	or pin No.												Valve	e No.											
T10	T11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1																								
2	2																								
3	3																								
4	4																								
5	5																								
6	6																								
7	7																								
8	8																								
9	9																								
10	10																								
11	11																								
12	12																								
13	13																								
14	14																								
15	15																								
16	16																								
COM	17																								
COM	18																								
	19																								
	20																								
	21																								
	22																								
	23																								
	24																								
	СОМ																								
	COM	I									1														

# D-sub-connector (T30) wiring specifications sheet

\* Fill in and attach to the manifold specifications sheet for anything other than the standard wiring or double wiring. (Available as made to order) \* Not required with standard wiring/double wiring.

Connector pin No.												Valve	e No.											
T30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1																								
14																								
2																								
15																								
3																								
16																								
4																								
17																								
5																								
18																								
6																								
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7																								
20																								
8																								
21																								
9																								
22																								
10																								
23																								
11																								
24																								
12																								
25																								
13 (COM)																								

# Flat cable connector (T50/T51/T52/T53) wiring specifications sheet

\* Fill in and attach to the manifold specifications sheet for anything other than the standard wiring or double wiring. (Available as made to order)

\* Not required with standard wiring/double wiring

	Connector	or pin No.									—	_			Valve	e No		_	_		_			_			$\neg$
T50/T50R	T51/T51R	T52/T52R	T53/T53R	1	2	3	4	5	6	7	8	9	10	11	12	_	_	15	16	17	18	19	20	21	22	23	24
1 30/1301	1	1	1	<del> </del>	-	"	-	5		<u>'</u>			10	l	12	13	14	13	10	17	10	13	20	21	22	23	
2	2	2	2	_																					$\vdash$	$\square$	Н
3	3	3	3	$\vdash$							$\vdash$															$\vdash$	$\dashv$
4	4	4	4							H	H														$\vdash$	$\dashv$	Н
5	5	5	5	$\vdash$						$\vdash$	Н														$\Box$	$\vdash$	Н
6		6	6	$\vdash$							Н															$\vdash$	П
7	7	7	7								П															$\exists$	П
8	8	8	8																						$\Box$	$\sqcap$	П
9 - Power supply	9	9 <sub>COM</sub>	9																							$\Box$	П
10 <sub>+ (COM) Power supply</sub>		10 <sub>COM</sub>	10																							$\sqcap$	П
11	11		11																								
12	12		12																							П	
13	13		13																							П	
14	14		14																								
15	15		15																								
16	16		16																								
17	17		17																								
18	18		18																								
19 <sub>- Power supply</sub>	19 <sub>COM</sub>		19																								Ш
20 <sub>+ (COM)</sub> Power supply	20 <sub>COM</sub>		20																								Ш
			21																								Щ
			22																								Щ
			23								$\square$													<u> </u>	Ш	لــــا	Ш
			24																					<u> </u>	Ш	لــــا	Щ
			25 <sub>COM</sub>	_																				<u> </u>		لـــــا	Ш
			26 <sub>COM</sub>																								Ш

<sup>\*</sup> Note that when the wiring method is T50/T50R, the COM polarity will be + (positive).

#### Serial transmission ( T6G1/T7\*) wiring specifications sheet

\* Fill in and attach to the manifold specifications sheet for anything other than the standard wiring or double wiring. (Available as made to order)

\* Not required with standard wiring/double wiring.

Control transporter in a	Connect	or pin No.								Valve	e No.							
Serial transmission	T6G1	T7*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Connector type	1	1																
T6G1: CC-Link 16 points	2	2																
	3	3																
	4	4																
	5	5																
	6	6																
	7	7																
	8	8																
	9	9																
	10 <sub>COM</sub>	10																
	11	11																
	12	12																
Thin slot-insertion type	13	13																
T7D1: DeviceNet 16 points	14	14																
T7G1:CC-Link 16 points T7L1: SAVE NET 16 points	15	15																
T7S1: CompoNet 16 points (NPN)	16	16																
T7SP1: CompoNet 16 points (PNP)	17	17																
	18	18																
	19	19																
	20 <sub>COM</sub>	20																

Serial transmission (T8\*) wiring specifications sheet

\* Fill in and attach to the manifold specifications sheet for anything other than the standard wiring or double wiring. (Available as made to order) Not required with standard wiring/double wiring.

	unca with star		<u> </u>	Connector	$\overline{}$											Valve	e No.										
	Serial transmis	sion		Pin No.	1	2	3	4	5	6	7	8	9	10	11	_	13	15	16	17	18	19	20	21	22	23	24
T8G1			16 points	1																							
T8G2	1	NPN	32 points	2																							
T8GP1	CC-Link		16 points	3																							
T8GP2		PNP	32 points	4																							
T8P1		NPN	16 points	5																							
T8P2	PROFIBUS-DP	INPIN	32 points	6																							
T8PP1	PROFIBUS-DP	PNP	16 points	7																							
T8PP2		FINE	32 points	8																							
T8EC1		NPN	16 points	9																							
T8EC2	EtherCAT	INIIN	32 points	10																							
T8ECP1		PNP	16 points	11																							
T8ECP2			32 points	12																							
T8EN1		NPN	16 points	13																							
T8EN2	EtherNet/IP		32 points	14									_														
T8ENP1	_	PNP	16 points	15																							H
T8ENP2			32 points	16																							
T8D1	-	NPN	16 points	17																							H
T8D2 T8DP1	DeviceNet		32 points 16 points	18																							
T8DP1	-	PNP	32 points	19																						$\vdash$	H
T8EB1			16 points	20																						H	-
T8EB2	CC-Link	NPN	32 points	21																							
T8EBP1	IEF Basic		16 points									_	_													H	<u> </u>
T8EBP2	1	PNP	32 points	22																							
T8EP1			16 points	23																							
T8EP2	-	NPN	32 points	24																							
T8EPP1	PROFINET		16 points	25																							
T8EPP2	1	PNP	32 points	26	_																						Ш
				27																							
				28								_					_					_				<u> </u>	
				29																							
				30																							
				31																							
				32																							