Series variation

MN4GA/4GB-FP1 Series

- * Refer to page 77 for metal base (integrated).
- * Refer to page 161 for the master valve.

		manifold	ndividual wiring	1	pı	wiring manifold	Reduced		
רופרווור מרוחמוטו	cylinders	Electronic components	components	components	valves	components	removing filter	components	valves
Electric actuator	Pneumatic	FRL/Auxiliary components Programmatic valves	Vacuum	Main line	Fluid control	Main line	Antibacterial/Bacteria-	Vacuum	Fluid control

						Valve per	formance		
		Appearance series	Model No.	Electrical connections	JIS symbol	Flow characteristics C [dm³/ (s·bar)]	Cylinder bore size	Voltage (V)	
anifold	pipi	MN4GA180R	MN4GA1	Blank -E□	3-port valve 2-position single NC a (A)T	1.0 to 1.2	ø20 to ø40	10400	
Individual wiring manifold	Body		MN4GA2	Blank -E□ -B	2-position single NO	2.2 to 2.5	ø40 to ø80	AC100 AC200 DC24	
dual wi	Base side piping	MN4GB180R	MN4GB1	Blank -E□	a (B) 5 1 3 (R)(P) (R2)	1.0 to 1.2	ø20 to ø40	DC12 (*2)	
Individ	Base sic		MN4GB2	Blank -E□ -B	• 5-port valve 2-position single a (A) (B)	2.2 to 2.5	ø40 to ø80	,	
		Terminal block MN4GA280R	MN4GA1 (N3GA1) (N4GA1)	-T10 T11	5 1 3 (R ₁) (P) (R ₂) 2-position double	1.0 to 1.2	ø20 to ø40	DC24	
	dic		MN4GA2 (N3GA2) (N4GA2)	(-A2N)	a (A) (B) b	2.2 to 2.5	ø40 to ø80	DC12	
		Connector MN4GA280R	MN4GA1 (N3GA1) (N4GA1)	-T30 T5□	3-position all ports closed (A) (B) (B) (A) (B) (B) (A) (B) (B) (B) (B) (B) (B) (B) (B) (B) (B	1.0 to 1.2	ø20 to ø40	DC24	
	Body I		MN4GA2 (N3GA2) (N4GA2)	(-A2N)	5 1 3 (R ₁) (P) (R ₂) 3-position A/B/R connection 4 2 (A) (B)	2.2 to 2.5	ø40 to ø80	DC12	
manifold		Serial transmission MN4GA180R	MN4GA1 (N3GA1) (N4GA1)	-T6□ -T7□	a M Mb 5 1 3 (R) (P) (Rs) 3-position P/A/B connection 4 2	1.0 to 1.2	ø20 to ø40	DC24	
ring me		The state of the s	MN4GA2 (N3GA2) (N4GA2)	-T8□ (-A2N)	4 2 (A) (B) 5 1 3 (B) (P) (Re) Two 3-port valves integrated	2.2 to 2.5	ø40 to ø80	DG2 4	
Reduced wiring		Terminal block MN4GB180R	MN4GB1 (N4GB1)	-T10 T11	NC/NC	1.0 to 1.2	ø20 to ø40	DC24	
Reduc	ور		MN4GB2 (N4GB2)	(-A2N)	a 4/A) 5(R.) NC/NO h 2(B)	2.2 to 2.5	ø40 to ø80	DC12	
		Connector MN4GB180R	MN4GB1 (N4GB1)	-T30 T5□	a 4/A) 5(R.)	1.0 to 1.2	ø20 to ø40	DC24	
	Base side		MN4GB2 (N4GB2)	(-A2N)	NO/NC - 1(P)	2.2 to 2.5	ø40 to ø80	DC12	
		Serial transmission MN4GB280R	MN4GB1 (N4GB1)	-T6□ -T7□	NO/NO 5(R)	1.0 to 1.2	ø20 to ø40	DC24	
			MN4GB2 (N4GB2)	-T8□ (-A2N)	a 4(A) (R2)	2.2 to 2.5	ø40 to ø80	DC24	

Series variation

- *1: Effective cross-sectional area S and sonic conductance C are converted as S \approx 5.0 \times C. *2: The grommet lead wire specifications are compatible with DC voltage only.
- *3: Only compatible with base piping models.
 *4: Specification for reduced wiring manifold equipped. Only 12/24 VDC is supported.

														I I	or read	uccu v		ectri					7 7 0 0	7 13 34	pporte	u.	.uator
		Sw	itch	ing p	osit	ion			P	VB p	oipin	g po	rt	Single	unit, in	dividua	wiring		Jai C	Rec	duce	d wi	ring				
2	2-pos	sitio	1	3-p	osit	ion	egrated			ush- fittin			nale ead				×		al block		supply terminal	supply terminal		ion			Pneumatic cylinders
Normally closed	Normally open	gle	Double	All ports closed	ABR connection	PAB connection	Two 3-port valves integrated		94	9ø	88	M5	Rc1/8	Grommet lead (*2)	E-connector	EJ-connector	DIN terminal box	A-connector (*4)	Common terminal block	D-sub-connector	Flat cable with power supply terminal	Flat cable without power supply terminal		Serial transmission		Page	Pneumatic valves FRL/Auxiliary components Electronic components
Nor	Nor	Single	Doc	₽ E	ABF	PAE	ΙM	Μ×	C4	C6	C8	M5	06	Blank	E□	E⊡J	В□	A2N	T1[T30	T50	T5_	T6_	T7_	T8□		-RL/Auxi Electro
•	•	•	•	•	•	•	0	•	•	•		•		•	•	•										127	iliary componer
•	•	•	•	•	•	•	0	•		•	•		•	•	•	•	•										
		•	•	•	•	•	0	•	•	•				•	•	•										131	Vacuum components
		•	•	•	•	•	0	•		•	•			•	•	•	•										
•	•	•	•	•	•	•	0	•	•	•	•	•	•					•	•								Main line components
•	•	•	•	•	•	•	0	•	•	•		•															Fluic
•	•	•	•	•	•	•	0	•		•	•		•							•	•	•				135	Fluid control valves
•	•	•	•	•	•	•	0	•	•	•		•						•					•	•	•		Main compoi
•	•	•	•	•	•	•	0	•		•	•		•														n line onents
		•	•	•	•	•	0	•	•	•								•	•								Antiba
		•	•	•	•	•	0	•		•	•															,	Antibacterial/Bacteria- removing filter
		•	•	•	•	•	0	•	•	•								•		•	•	•				139	
		•	•	•	•	•	0	•		•	•																Vacuum components
		•	•	•	•	•	0	•	•	•								•					•	•	•		um ients
		•	•	•	•	•	0	•		•	•																Fluid va

Electric actuator Pneumatic valves FRL/Auxiliary components

			1 Series			
Electric actuator		Electrical c	onnections		Manual override	Other options
lectric a	Discrete valve/i man		Reduced win	ring manifold	Wandar Overnide	Outer options
	Grommet lead wire	E-connector with socket/terminal S L	T10 Common terminal block M3 thread specifications (left side)	T50 supply terminal (left	Non-locking/locking common	H With exhaust check valve
alves Pneumatic cylinders	• Lead wire length 300 mm				(Standard equipment)	Standard for pilot exhaust
Pneumatic valves	E-connector	A-connector downward without socket	Common terminal block T10R M3 thread specifications (right side)	Flat cable with power supply terminal (right side)		Port A/B filter integrated
FRL/Auxiliary components Pne Electronic components	Lead wire length 300 mm 500 mm 1 m 2 m 3 m					A/B port filter
	E-connector without socket	● For AC voltage, (a) dimension is 3.5 mm longer than DC	Common terminal block Clamping specification (left side)		① For non-locking, push to turn on and release to turn	Z1 Air supply spacer Z3 Exhaust spacer
Vacuum ts components		voltage.			off ② For locking, push and turn 90° clockwise to hold the on state Turn anti-clockwise to unlock OFF	Air supply spacer
Main line components	E-connector with socket/terminal	B DIN terminal box (BN: Without terminal box)	Common terminal block T11R Clamping specification (right side)	Flat cable without power supply terminal (right side)	M Non-locking	Z2 In-stop valve spacer
Fluid control cc					Protective cover Manual button ① Push to turn ON, release to turn OFF	
	E-connector	E0*J EJ-connector	T30 D-sub-connector (left side)	T6*0 Serial transmission		W1 Single spare wiring
ria- Main line components		• Lead wire length 1 m 2 m 3 m				Spare wiring Holder
Antibacterial/Bacteria- removing filter	E-connector without socket SL	E2*J EJ-connector	T30R D-sub-connector (right side)	T7*0 Serial transmission T7*1 Thin slot		Q Reduced wiring duct
Vacuum Ar						Reduced wiring duct
				T8*1 Serial transmission Thin slot		
Fluid control valves						

Electrical connection circuit diagram

	Elec	ctrical connections	Without lead wire	With lead wire		With surge suppressor	Without socket	Circuit diagram
	Blank	Grommet lead wire		•		V		(±) O DC (∓) O
	E0	E-connector		•				(±) O
	E0*J	EJ-connector		•				DC
	E0N	E-connector					•	(to) 0 100 VAC
	E1	E-connector	•					(to)
	E2	E-connector		•	•	•		(±) O
	E2*J	EJ-connector		•	•	•		DC + / / / /
	E2N	E-connector			•	•	•	(to) 0 100 2 100 100 100 100 100 100 100 100
	E3	E-connector	•		•	•		VAC (to)
	A2N	A-connector			•	•	•	(±) O
	В	DIN terminal box	•		•	•		(t) (T) (to) (VAC (to) (value) (to) (value) (to) (value) (valu
	BN	DIN terminal box (without terminal box)						(to) 0 200 VAC (to) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	E2	E-connector		•	•	•		0.0 N.
S	E2*J	EJ-connector		•	•	•		DC Z
Option	E2N	E-connector			•	•	•	(‡) 0
ŏ	A2N	A-connector			•	•	•	
	E2	E-connector		•	•	•		(+) O THE TELES
ш	E2*J	EJ-connector		•	•	•		DC Control circuit
Option	E2N	E-connector			•	•	•	(±) Outro
ō	A2N	A-connector			•	•	•	

cylinders

Fluid control

components



Individual wiring block manifold **Body piping**

MN4GA1/2-FP1 Series

Applicable cylinder bore size: ø20 to ø80

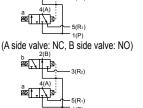




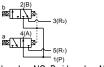
JIS symbol

3-port valve 2-position single NC (A) (R₁) (P) (R₂) 2-position single NO

(R₁) (P) (R₂) Two 3-port valves integrated (A side valve: NC, B side valve: NC)



(A side valve: NO, B side valve: NC)



(A side valve: NO, B side valve: NO)



5-port valve 2-position single

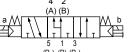


4 2 (A) (B) (R₁) (P) (R₂)

3-position all ports closed (R₁) (P) (R₂)

3-position A/B/R connection

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



Manifold common specifications

Marinola comm	ion opcomodiono
Descriptions	Content
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 *3
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 (standard)
Degree of protection *1	Dust-proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Cannot be used in corrosive gas environments

- *1: Avoid water drops 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.
- *2: The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

Electrical specifications

Descripti	ons		Cor	ntent				
Rated voltag	ge V	DC24	DC12	AC100	AC200			
Voltage fluc	tuation range		±1	0%				
Holding current	Standard	0.015 (0.017)	0.030 (0.034)	0.009 (0.009)	0.006 (0.006)			
A (*3)	With low exoergic/energy circuit	0.005	0.010	-				
Power consumption	Standard	0.35 ((0.40)	-	•			
W (*3)	With low exoergic/energy circuit	0.	.1	-				
Apparent power VA (*3)	Standard	-	-	0.93 (0.98)	1 40			
Thermal cla	SS			В				
Surge supp	ressor		Op	otion				
Indicator			Lamp	(option)				

^{*3:} Values in () apply when lamp is attached. In addition, the type with low exoergic/energy circuit is only available with

Individual specifications

Descri	otions		MN3GA1/MN4GA1	MN3GA2/MN4GA2
Max. stat	ion No.		24 stations	20 stations
Port size	Metric fitting/ M5,	A/B Port	Push-in fitting ø4, ø6 M5	Push-in fitting ø4, ø6, ø8 Rc1/8
	Rc thread	P/R Port	Push-in fitting ø6, ø8	Push-in fitting ø8, ø10

Descript	ione		MN3GA1	/MN4GA1	MN3GA2	/MN4GA2
Descript	10115		ON	OFF	ON	OFF
Deenenee	Two 3-port va	lves integrated	9	12	12	29
Response	2 position	Single	15	15	19	19
time	2-position	Double	9	-	18	-
ms	3-position	ABR connection	8	15	17	30

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.

MN4GA1/2-FP1 Series Individual wiring block manifold; body piping

Flow characteristics

Model No	Color	soid position	P→	A/B	A/B→	R1/R2
Model No.	Solei	oid position	C[dm³/ (s·bar)]	b	C[dm³/ (s·bar)]	b
	Two 3-po	ort valves integrated	0.87	0.37	1.0 (0.68)	0.14 (0.22)
MN3GA1	2-positi	on	0.98	0.33	1.2 (0.71)	0.11 (0.27)
MN4GA1		All ports closed	0.92	0.34	1.0 —	0.16 —
WIN4GA I	3-position	ABR connection	0.92	0.29	1.1 (0.69)	0.13 (0.22)
		PAB connection	1.1	0.35	1.1 —	0.17 —
	Two 3-po	ort valves integrated	1.7	0.37	2.2 (1.6)	0.13 (0.21)
MN3GA2	2-position		2.2	0.21	2.5 (1.7)	0.19 (0.10)
MN4GA2		All ports closed	2.0	0.25	2.3 —	0.10 —
WIN4GAZ	3-position	ABR connection	2.0	0.27	2.5 (1.7)	0.18 (0.12)
		PAB connection	2.3	0.31	2.3 —	0.16 —

^{*1:} Effective cross-sectional area S and sonic conductance C are converted as S \approx 5.0 \times C.

Electric actuator Pneumatic cylinders Pneumatic valves FRL/Auxiliary components Electronic components Main line components Fluid control valves Main line components Antibacterial/Bacteria-removing filter Vacuum components Fluid control valves

^{*2:} Values in () are with built-in exhaust check valve.

MN4GA1/2-FP1 Series Individual wiring block manifold; body piping

Electric actuator

Pneumatic cylinders

FRL/Auxiliary components Electronic components

Vacuum components

Main line components

Fluid control valves

Main line components

Antibacterial/Bacteriaremoving filter

components Vacuum

Fluid control valves

How to order				A Mode					lel No.		
Manifold model No.					Ī.		ifolo	1 [Discre	te valve	
MN4GA1 1 0 R - C6 - E2 H - 10 - C	3-FP1						5-p	ort		olenoid ete sol valve	
3-port manifold model No.									-		. 7
MN3GA1 1 0 R - C6 - E2 H - 10 -	3-FP1				MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GAZ	4GA2
Discrete valve block with solenoid valve		Code		Content	Ž	Ē	Ē	Ξ	Z	Z Z	(E
N4GA1(1) 0 R - (C6) - (E2)(H)	3-FP1	B 5	Solenoid p	osition							
	3 11 1	1	2-position sir	ngle				•		•	•
Discrete 3-port valve block with solenoid valve		2	2-position do				•	•	4	•	, •
(N3GA1)(1) 0 R - (C6) - (E2)(H) —	(3)-FP1	3	3-position all				•	•	\downarrow	•	
Discrete solenoid valve		5	<u> </u>	BR connection AB connection			•	•	+		
4GA1(1) 9 R - (C6) - (E2(H) - (3-FP1	1	<u>'</u>	ngle: Normally closed *2	•	•			•		
	3 1 F 1	11	<u> </u>	gle: Normally open *2	•	•			• (•	
Discrete 3-port solenoid valve		66		A side valve: Normally closed	0	0			0 0	5	
3GA1 1 9 R - C6 - E2 H	3-FP1		3-port valve	B side valve: Normally closed A side valve: Normally closed					+		+
A Model No.		67	Two valves	B side valve: Normally open	0	0			이	기	
		76	integrated	A side valve: Normally open	0	0					
B Solenoid position			*2	B side valve: Normally closed	Ľ	Ľ					
		77		A side valve: Normally open B side valve: Normally open	0	0				o	
		8	Mix manifold (wher	there are multiple solenoid positions)	•	•	•	•	•	•	
		0	ort size (po	ort A/B)							
Port size		Туре		ic fitting/Rc thread							
*1		C4	ø4 Push-in fi	tting	•				•	•	,
		C6	ø6 Push-in fi	tting	•	•	•	•	• (•	•
		C8	ø8 Push-in fi			•		•	- (
		CX	Push-in fitting	g mix *3	•	•	•	•			+
		M5 06	Rc1/8						٠,		
			Electrical co	nnactions		_		_			
■ Electrical conn	ections			ng page for electrical conne	ectio	ns					
			,	ig page for electrical control	,00			_	_		
■ Option			Option Non-locking/loc	cking common manual override							
		M		manual override	•	•	•	•	• (•	
		Н	With exhaust	t check valve *4	•	•	•	•	• (•	•
		s	Surgeless	*5	•	•	•	•	• (•	•
Precautions for model selection		E		energy saving circuit *5, *6	•	•	•	•	• (•	•
*1: Specify the port P/R bore size with the		F Z1	Port A/B filter		•	•	•	•	• (, •
supply and exhaust block model No. in the		Z2	Air supply sp In-stop valve		•		•	•	+	+	+
manifold specifications sheet. *2: Select MN4GA*80 when mixing with		Z3	Exhaust space	<u>'</u>	•	•	•	•	\dagger		
4/5-port valves. Further, select MN3GA*80		(a) :	Station No.								
when mixing with masking plate. *3: Push-in fitting cannot be mixed with the	ation No.	1	1 station					П	П	Т	
single valve 4(A) or 2(B) port.		to	to		•	•	$ \bullet $	\bullet			
*4: 3-position all ports closed and PAB		24	24 stations (Max. sta	tion number for MN3GA2/MN4GA2 is 20.)							
connection are not provided with the exhaust check valve (H).	■\/altaga	G۱	/oltage								
*5: In addition, surgeless "S" and low exoergic/	G Voltage	1	•	ctifier circuit integrated)	•	•		•	• [•	•
energy circuit "E" cannot be selected together.		2	,	ctifier circuit integrated) *9		•		•	•		
*6: Surgeless specifications.		3	24 VDC 12 VDC								
*7: A filter is built into port P as standard. *8: Specify the spacer mounting			not available.		_	_		<u> </u>	<u>- '</u>		
position and quantity in manifold specifications sheet. Stacking of				e-to-order product.							

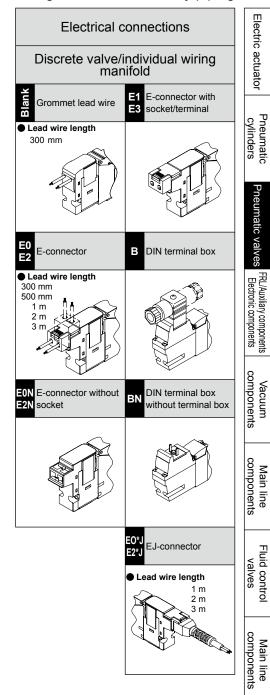
spacers is not possible. Combination with the masking plate is not supported. Refer to pages 149 to 150 for details.
*9: Only the DIN terminal box is supported.

MN4GA1/2-FP1 Series Individual wiring block manifold; body piping

[Electrical connection list]

			(V	loc	lel	No) .	
		N	/lan	ifol	d			alve b	
			ort lve		ort Ive			soler	
					Ι				
		GA1	GAZ	GA1	GAS	ĞΑ	GA2	4GA	4GA2
		MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2	N) 4	(N)
O E	lectrical connections								
	Grommet lead wire (300 mm) *10								
В	DIN terminal box (Pg7) With surge suppressor/lamp *11	Ť	•	Ĭ	•	Ĭ	•		•
BN	DIN terminal box (Pq7) (without terminal box) With surge suppressor *11		•		•		•		•
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 included) *14	•	•	•	•	•	•	•	•
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 suppressor/lamp	•	•	•	•	•	•	•	•
E3	Without lead wire (with socket/terminal) With surge suppressor/lamp		•	•	•	•	•	•	•
EJ-co	nnector (socket with cover, upward/lateral c	lired	ctio	n co	omr	nor	1)		
	Lead wire (1000 mm) *12	•	•	•	•	•	•	•	•
	Lead wire (2000 mm) *12	•	•	•	•	•	•	•	•
	Lead wire (3000 mm) *12	•	•	•	•	•	•	•	•
	Lead wire (1000 mm) With surge suppressor/lamp	•	•	•	•	•	•	•	•
-	Lead wire (2000 mm) With surge suppressor/lamp	•	•	•	•	•	•	•	•
E23J	Lead wire (3000 mm) With surge suppressor/lamp		•	•	•	•	•	lacksquare	•

^{*10:} The grommet lead wire specifications are compatible with DC voltage only.



Fluid control

Antibacterial/Bacteriaremoving filter

Vacuum components

Fluid control valves

^{*11:} A lamp comes with the terminal box.

^{*12:} AC voltage includes a rectifier circuit.

Pneumatic cylinders

components





Individual wiring block manifold Base side piping

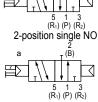
MN4GB1/2-FP1 Series

Applicable cylinder bore size: ø20 to ø80



JIS symbol

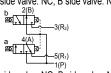
3-port valve 2-position single NC (A)



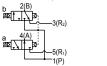
Two 3-port valves integrated (A side valve: NC, B side valve: NC)



(A side valve: NC, B side valve: NO)



(A side valve: NO, B side valve: NC)



(A side valve: NO, B side valve: NO)

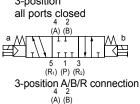


● 5-port valve 2-position single

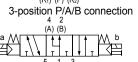


4 2 (A) (B) , B

> (R₁) (P) (R₂) 3-position



5 1 3 (R₁) (P) (R₂)



Manifold common specifications

Manifold comn	non specifications			
Descriptions	Content			
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	Lateral direction from 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 *3			
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 (standard)			
Degree of protection *1	Dust-proof			
Vibration resistance m/s ²	50 or less			
Shock resistance m/s ²	300 or less			
Atmosphere	Cannot be used in corrosive gas environments			
	•			

- *1: Avoid water drops 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.
- *2: The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

Electrical specifications

Electrical specifications										
Description	ons	Content								
Rated voltag	ge V	DC24	DC12	AC100	AC200					
Voltage fluct	tuation range	±10%								
Holding current	Standard	0.015 (0.017)	0.030 (0.034)	0.009 (0.009)	0.006 (0.006)					
A (*3)	With low exoergic/energy circuit	0.005	0.010	-						
Power consumption	Standard	0.35	(0.40)		-					
W (*3)	With low exoergic/energy circuit	0	.1	-						
Apparent power VA (*3)	Standard		-	0.93 (0.98)	1.40					
Thermal cla	SS	В								
Surge suppr	essor	Option								
Indicator		Lamp (option)								

^{*3:} Values in () apply when lamp is included. In addition, the type with low exoergic/energy circuit is only available with

Individual specifications

Descrip	Descriptions		M3GB1/M4GB1	M3GB2/M4GB2
Max. stati	on No.		24 stations	20 stations
Davit sins	Metric	A/B Port	Push-in fitting ø4, ø6	Push-in fitting ø6, ø8
Port size	fitting	P/R Port	Push-in fitting ø6, ø8	Push-in fitting ø8, ø10

Dogo	rintiono		MN3GB1	/MN4GB1	MN3GB2/MN4GB2			
Desc	Descriptions		ON	OFF	ON	OFF		
	nse Two 3-po	t valves integrated	9	12	12	29		
time	me 2 positio	Single	15	15	19	19		
	ms 2-position	Double	9	-	18	-		
	3-positio	n ABR connection	8	15	17	30		

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.

MN4GB1/2-FP1 series Individual wiring manifold; base piping

Flow characteristics

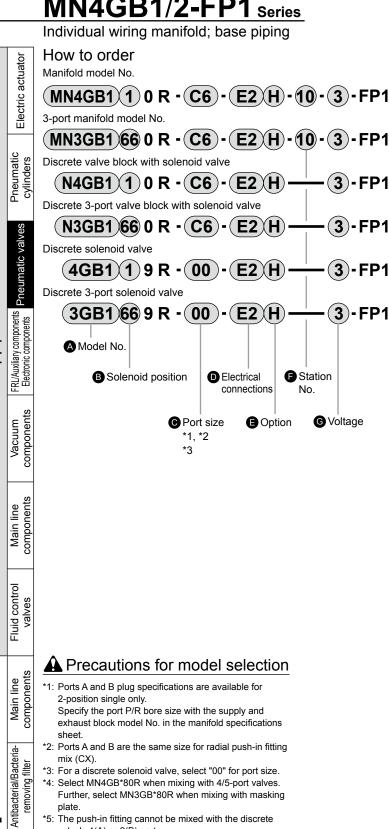
Madal Na			P	A/B	A/B→R1/R2				
Model No.	Sole	noid position	C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b			
	Two 3-po	rt valves integrated	0.86	0.35	1.0 (0.66)	0.15 (0.25)			
MN3GB1 MN4GB1	2-position	ı	1.0	0.30	1.1 (0.72)	0.11 (0.26)			
		All ports closed	0.96	0.32	1.0 —	0.14 —			
		3-position	ABR connection	0.96	0.29	1.2 (0.71)	0.11 (0.30)		
		PAB connection	1.1	0.31	1.0 —	0.15 —			
	Two 3-po	rt valves integrated	1.7	0.42	2.2 (1.6)	0.15 (0.19)			
	2-position	ı	2.4	0.35	2.5 (1.7)	0.19 (0.19)			
MN3GB2 MN4GB2		All ports closed	2.2	0.38	2.3 —	0.17 —			
WIN4GB2	3-position	ABR connection	2.2	0.38	2.5 (1.7)	0.18 (0.20)			
			PAB connection	2.3	0.29	2.3 —	0.15 —		

^{*1:} Effective cross-sectional area S and sonic conductance C are converted as S \approx 5.0 \times C.

Electric actuator Pneumatic valves FRL/Auxiliary components Electronic components Main line components Fluid control valves Main line components Antibacterial/Bacteria-removing filter Vacuum components Fluid control valves

^{*2:} Values in () are with the exhaust check valve.

MN4GB1/2-FP1 Series



- *2: Ports A and B are the same size for radial push-in fitting mix (CX).
- *3: For a discrete solenoid valve, select "00" for port size.
- *4: Select MN4GB*80R when mixing with 4/5-port valves. Further, select MN3GB*80R when mixing with masking
- *5: The push-in fitting cannot be mixed with the discrete valve's 4(A) or 2(B) port.
- *6: 3-position all ports closed and PAB connection are not provided with the exhaust check valve (H).
- *7: In addition, surgeless "S" and low exoergic/energy circuit "E" cannot be selected together.
- *8: Surgeless specifications.
- *9: A filter is built into port P as standard.
- *10: Specify the spacer mounting position and quantity in manifold specifications sheet. Stacking of spacers is not possible. Combination with the masking plate is not supported. Only single solenoid can be selected together with radial push-in fitting (upward). Refer to pages 149 to 150 for
- *11: Only the DIN terminal box is supported.

			A Model No.							
			Λ	/lan	ifol	d			alve b	
				valve valves rated		ort Ive			oid v soler ve	
			MN3GB1	MN3GB2	MN4GB1	MN4GB2	N) 3GB1	N) 3GB2	I) 4GB1	(N) 4GB2
Code	Cor	ntent	Σ	Σ	Σ	Σ	Z	Z	Z	릭
B Sol	enoid position									
1	2-position single				•	•			•	•
2	2-position double				•	•			•	•
3	3-position all port	s closed			•	•			•	•
4	3-position ABR co	onnection			•	•			•	•
5	3-position PAB co	nnection			•	•			•	•
66	As	side valve: Normally closed side valve: Normally closed	0	0			0	0		
67		side valve: Normally closed side valve: Normally open	0	0			0	0		
76		A side valve: Normally open B side valve: Normally closed		0			0	0		
77	l —	side valve: Normally open	0	0			0	0		
8	Mix manifold (when there ar	e multiple solenoid positions)	•	•	•	•	•	•	•	•
© Por	t size (port A/B	3)								
Туре		g/Rc thread								
C4	ø4 Push-in fitting		•	•	•	•	•	•	•	◂
C6	ø6 Push-in fitting		•	•	•	•	•	•	•	•
C8	ø8 Push-in fitting	-		•		•		•		•
СХ	Push-in fitting mix	*5	•	•	•	•				
Single side plug specifications	A Port	B Port							_	
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	mounting base					•			•

D Electrical connections

Refer to the next page for electrical connections

■ Op¹	tion									
Blank	Non-locking/locking common manual of	override	•	•	•	•	•	•	•	•
M	Non-locking manual override	•	•	•	•	•	•	•	•	
Н	With exhaust check valve	•	•	•	•	•	•	•	•	
S	Surgeless	*7	•	•	•	•	•	•	•	•
E	Low exoergic/energy saving circuit	*7, *8	lacktriangle	•	•	•	•	•	•	•
F	Port A/B filter integrated	*9	•	•	•	•	•	•	•	•
Z1	Air supply spacer	*10	•	•	•	•				
Z2	Z2 In-stop valve spacer *10		•	•	•	•				
Z 3	Exhaust spacer *10				•	•				

ı	Sta	tion No.					
-	1	1 station					
1	to	to		lacksquare	lacksquare		
-	24	24 stations (Max. station number for MN4GB2 is 20.)					

G Voltage									
1	100 VAC (rectifier circuit integrated)	•	•	•	•	•	•	•	•
2	200 VAC (rectifier circuit integrated) *11		•		•		•		•
3	24 VDC	•	•	•	•	•	•	•	•
4	12 VDC	•	•	•	•	•	•	•	•

is not available.

O indicates a made-to-order product.

Fluid control

valves

removing filter

MN4GB1/2-FP1 series Individual wiring manifold; base piping

[Electrical connection list] A Model No. Manifold Discrete				alvo k	olock					
			3-port	valve	alves 5-port		with solenoid valve			alve
			integ	rated				vai	VE	
			MN3GB1	MN3GB2	MN4GB1	MN4GB2	(N) 3GB1	(N) 3GB2	(N) 4GB1	(N) 4GB2
			Ž	Ž	Ž	Ž	Î	î	ź	Î
Code	Content			_	_					
D Ele	ctrical connections									
Blank	Grommet lead wire (300 mm)	*12	•	•	•	•	•	•	•	•
В	DIN terminal box (Pg7) With surge suppressor/lamp *1			•		•		•		•
BN	DIN terminal box (Pg7) (without terminal box) With surge suppressor/lamp *1			•		•		•		•
E-conne	nnector (upward/lateral direction common)									
E0	Lead wire (300 mm)	*14	•	•	•	•	•	•	•	•
E00	Lead wire (500 mm)	*14	•	•	•	•	•	•	•	•
E01	Lead wire (1000 mm)	*14	•	•	•	•	•	•	•	•
E02	Lead wire (2000 mm)	*14	•	•	•	•	•	•	•	•
E03	Lead wire (3000 mm)	*14	•	•	•	•	•	•	•	•
E0N	Without lead wire (without socket)	*14	•	•	•	•	•	•	•	•
E1	Without lead wire (socket/terminal include	d) *14	•	•	•	•	•	•	•	•
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 suppressor/lamp	•	•	•	•	•	•	•	•
E3	Without lead wire (with socket/terminal)	With surge suppressor/lamp	•	•	•	•	•	•	•	•
EJ-conn	ector (socket with cover, upward/lateral di	rection common)								
E01J	Lead wire (1000 mm)	*14	•	•	•	•	•	•	•	•
E02J	Lead wire (2000 mm)	*14	•	•	•	•	•	•	•	•
E03J	Lead wire (3000 mm)	*14	•	•	•	•	•	•	•	•
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	•	•	•	•	•	•	•	•

is not available.

Electric actuator Pneumatic cylinders Pneumatic valves FRL/Auxiliary components Electronic components Vacuum components Main line components Fluid control valves Main line components Antibacterial/Bacteriaremoving filter Vacuum components Fluid control valves

^{*12:} The grommet lead wire specifications are compatible

with DC voltage only.

*13: A lamp comes with the terminal box.

^{*14:} AC voltage includes a rectifier



Reduced wiring block manifold **Body piping**

MN4GA1/2-T*-FP1 Series

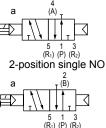
Applicable cylinder bore size: ø20 to ø80





JIS symbol

3-port valve 2-position single NC



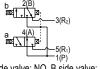
Two 3-port valves integrated (A side valve: NC, B side valve: NC)



(A side valve: NC, B side valve: NO)



(A side valve: NO, B side valve: NC)



(A side valve: NO, B side valve: NO)



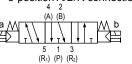
5-port valve 2-position single



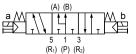


3-position all ports closed

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



3-position P/A/B connection



Manifold common specifications

Descriptions	Content
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 *3
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 (standard)
Degree of protection *1	Dust-proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Cannot be used in corrosive gas environments

Electrical specifications

	.ca. cpcc						
Descrip	otions	Content					
Rated vol	tage	T1□, T3	0□, T5□	T6□, T7□, T8□			
	V	DC24	DC12	DC24			
Voltage fluc	ctuation range (*3)	±1	0%	+10%, -5%			
Holding	Standard	0.017	0.034	0.017			
current	With low exoergic/	0.005	0.010	0.005			
A	energy saving circuit	0.003	0.010	0.003			
Power	Standard		0.4				
consumption	With low exoergic/		0.1				
W	energy saving circuit		0.1				
Thermal o	class	В					
Surge sup	pressor *4	Zener diode					
Indicator			LED				

- *3: T6□, T7□ and T8□ (serial transmission) may experience voltage drops due to internal circuitry, so care should be taken when regulating voltages.
- *4: If low exoergic/energy circuit or surgeless types are selected then there will be a diode.
- *1: Dust-proof degree of protection. Not drip-proof. Avoid dripping water or oil, etc., during use.
- *2: The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.

Individual specifications

Doo	ovintion o						MN3	GA1/MI	N4GA1			
Des	criptions		T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2
Max.	Standard wiring		16 stations	24 stations	24 stations	16 stations	18 stations	8 stations	24 stations	8/16 stations	8/16 stations	16/24 stations
station No.	Double wiring		8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	4/8 stations	4/8 stations	8/16 stations
Max.	x. number of solenoids		16-points	24-points	24-points	16-points	18-points	8-points	24-points	8/16-points	8/16-points	16/32-points
Port	Metric fitting/	A/B Port		Push-in fitting ø4, ø6 M5								
size	M5, Rc thread	P/R Port		Push-in fitting ø6, ø8								
Doo			MN3GA2/MN4GA2									
Des	criptions		T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2
Max.	Standard wiring		16 stations	20 stations	20 stations	16 stations	18 stations	8 stations	20 stations	8/16 stations	8/16 stations	16/20 stations
station No.	Double wiring		8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	4/8 stations	4/8 stations	8/16 stations
Max.	number of solenoids		16-points	24-points	24-points	16-points	18-points	8-points	24-points	8/16-points	8/16-points	16/32-points
Port	Metric fitting/	A/B Port				Pus	sh-in fittir	ng ø4, ø	6, ø8 l	Rc1/8		
size	M5, Rc thread	P/R Port	Push-in fitting ø8, ø10									

Flow characteristics

Model No.	Solo	noid position	P→	A/B	A/B→R1/R2				
woder No.	Sole	noid position	C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b			
	Two 3-port valves integrated		0.87	0.37	1.0 (0.68)	0.14 (0.22)			
MN3GA1	2-position		0.98	0.33	1.2 (0.71)	0.11 (0.27)			
MN4GA1		All ports closed	0.92	0.34	1.0 —	0.16 —			
WIN4GA I	3-position	ABR connection	0.92	0.29	1.1 (0.69)	0.13 (0.22)			
		PAB connection	1.1	0.35	1.1 —	0.17 —			
	Two 3-p	ort valves integrated	1.7	0.37	2.2 (1.6)	0.13 (0.21)			
MN3GA2	2-positio	on	2.2	0.21	2.5 (1.7)	0.19 (0.10)			
MN4GA2		All ports closed	2.0	0.25	2.3 —	0.10 —			
MINTOAL	3-position	ABR connection	2.0	0.27	2.5 (1.7)	0.18 (0.12)			
		PAB connection	2.3	0.31	2.3 —	0.16 —			

- *1: Effective cross-sectional area S and sonic conductance C are converted as S ≈ 5.0 × C.
 - *2: Values in () are with the exhaust check valve.

Reduced wiring specifications

Descriptions	T10	T11	T30	T50	T51	T52	T53
Туре	Common terminal block M3 thread	block clamping		connector with power supply terminal	supply terminal	supply terminal	26P Flat cable connector, no power supply terminal
Connector	_	_	D-sub-connector 25-pin	compliant pressure	MIL-C-83503 standard compliant pressure welding socket 20-pin	compliant pressure	MIL-C-83503 standard compliant pressure welding socket 26-pin

Serial transmission slave unit specifications

Descriptions	T6G1	T6C0∗1	T6C1∗1						
Network name	CC-Link ver1.10	Compo	DBus/S						
Power Unit side		24 VDC ±10%							
supply voltage Valve side		24 VDC +10%, -5%							
Unit side		100 mA or less (when all output points are ON)							
Unit side Valve side	15 mA or less (when all output points are OFF)								
Output points	16 point	8 point	16 point						
Occupied No.	1 station	1 Node address (8-point mode)	2 Node address (8-point mode)						
Operation display		LED (power supply and communication status)							
Output format		NPN							

Des	criptions	T7C0*2	T7C1∗2	T7G1	T7L1∗₃	T7D1	T7S1	T7SP1			
Netw	ork name	Compo	Bus/S	CC-Link ver1.10	SAVE NET	DeviceNet*4,*5	Comp	ooNet			
Power	Unit side	24 VD0	C ±10%		2	4 VDC +10%, -59	%	_			
supply	Valve side	24 VDC +	10%, -5%	Common power supply terminal							
voltage	Communication side	_	_	_	_	11 to 25 VDC *6	14.0 to 2	6.4 VDC			
nption	Unit side	50 mA (when all output	or less points are ON)	(whom	110 mA or less	ro ONI)	40 mA or less				
consumption	Valve side	15 mA (when all output	or less points are OFF)	`	all output points a current is not incl	(when all output points are ON) Load current is not included					
Current	Communication side	_	_	_	_	50 mA or less	65 mA or less (all p 95 mA or less (all p	,			
Outp	ut points	8 point	16 point	16 point	16 point	16 point	16 p	ooint			
Occupied No.		1 Node address 2 Node address (8-point mode) (8-point mode)		1 station	1 station	2 bytes	Word slave 1 node (16 points)				
Oper	ation display			nication status)							
Outp	ut format	-	-	NPN		NPN	PNP				

Des	criptions		T8GP1												
Commun	ication system name				S-DP (V0)		rCAT		Net/IP				IEF Basic		
Power	Unit side							24 VD0	C ±10%						
supply voltage Valve side 24 VDC +10%, -5%															
ion	Unit side	(when a	or less all output are ON)	(when a	or less Ill output are ON)	(when a	A or less all output are ON)		or less Il output are ON)		or less Ill output are ON)	(when a	or less Ill output are ON)	130 mA (when a points a	
Current consumption	Valve side	T8 ☐ 1: 15 mA or less T8 ☐ 2: 20 mA or less (when all output points are ON) Load current is not included Load current is not included													
Output points T8 1: 16 points T8 2: 32 points															
Occupied No. 1 station															
Opera	ation display					LED ((power su	ipply and	commun	nication s	tatus)				
Outp	ut format	NPN Output PNP Output NPN Output PNP Output PNP Output PNP Output PNP Output NPN Output PNP Output NPN Output PNP Output NPN Output NPN Output PNP Output NPN Output PNP Output NPN Output													

^{*1} Long-distance communication mode is not supported.

Fluid control valves

Electric actuator

Pneumatic valves FRL/Auxiliary components Electronic components

Main line components

Fluid control Main line components

removing filter

Antibacterial/Bacteria-

Vacuum components

^{*2} Long-distance communication mode is supported.

^{*3} Transmission bit rate of 128 bits and half-duplex transmission method are supported. Contact CKD for other specifications.

^{*4} DeviceNet compliant networks (DLNK, etc.) are supported as well.

^{*5} Contact CKD for EDS file. EDS file: A text file of parameters for communication with various companies' master units

^{*6} Communication power supply (V+ and V- of DeviceNet cable) is isolated from power supply terminals (unit power supply/valve power supply).

MN4GA1/2-T*-FP1 series Reduced wiring block manifold; body piping

		reduced willing block manifold, body piping											
	'n	How to order						A) N	/loc	lel	No		
	Electric actuator					N		ifol		_	rete va	_	ock
	actr	Manifold model No.				-		5-p	_		soleno		
	i Si	MN4GA1 1 0 R - C6 - T30 W H - 10 - 3 - FP1					lve			/Dis	crete s valv		oid
	ct					Ë		-		\vdash	Valv		\dashv
	Ele	3-port manifold model No.				-	Ŋ	_	7	-	Ŋ	-	ارہ
ł		MN3GA1 1 0 R - C6 - T30 W H - 10 - 3 - FP1				MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2	(N) 4GA1	(N) 4GA2
	0	WINJUAT TO K - CO - TJU VV TI - TU - G - TF T				₽	2	₹	<u>¥</u>	3	3	4	4
	Pneumatic cylinders	Discrete valve block with solenoid valve	Code		Content	Į≥	Σ	≥	Σ	٤	٤	٤	듹
	E a	NACAA A O D CC ANI TA VIII 2 EDA										\rightarrow	
	ë ë	(N4GA1)(1) 0 R - (C6) - (A2N)(1) (H) - (3) - FP1		Solenoid p									
	ا م	Discrete 3-port valve block with solenoid valve	1	2-position s	single							•	•
			2	2-position of	louble			•	•			•	┛
	/es	(N3GA1)(1) 0 R - (C6) - (A2N)(1)(1)(1) + (3) - FP1	3	3-position a	all ports closed			ullet	•				•
	/al	* When a cable is required, refer	4	3-position A	ABR connection			•	•			ullet	•
	<u>ic</u>	to page 147 and specify the cable length for (♣1). When not	5	3-position F	PAB connection			•	•	П		•	•
	naf	required, leave the space	1	2-position si	ngle: Normally closed *2	0	0			0	0		
	enr	blank.	11	+ -	igle: Normally open *2	+	-	Н	Н	0	0	\dashv	
	Pneumatic valves	Discrete solenoid valve	H.,	_ position sil	A side valve: Normally closed	Ť				Н		\dashv	
		4GA1 (1) 9 R - (C6) - (A2N (H) - (3) - FP1	66		B side valve: Normally closed	0	0						
	oner Jent			3-port	A side valve: Normally closed	+	\vdash			\vdash	\dashv		
	d mod m	Discrete 3-port solenoid valve	67	valve	B side valve: Normally open	10	0			0			
•	ary c	3GA1 (1) 9 R - (C6) - (A2N) (H) - (3) - FP1		Two valves	A side valve: Normally open	1	-				+		
	FRL/Auxiliary components Electronic components	3-FF1	76	integrated	B side valve: Normally closed	0	0			이			
	RL/A Elec		 	*2	A side valve: Normally open	1	-						
ŀ	正	A Model No.	77		B side valve: Normally open	10	0			이			
	w		8	Mix manifold (wher	there are multiple solenoid positions)	•	•			•			_
	Vacuum components	B Solenoid position		,		_	<u> </u>	Ľ	Ľ	<u> </u>	<u> </u>	<u> </u>	=
	Vacuum	Port size	G I	Port size (p	oort A/B)								
	/ac	*1	Type	Metric	: fitting/Rc thread								
	_ <u>0</u>	'	CF	ø1.8 barbed fitti	ng (compatible tube UP-9102-**)							•	
			C18	ø1.8 push-in fitti	ng (compatible tube UP-9402-**)	•		•		•		•	
ĺ			C4	ø4 Push-in	fittina	•				•		•	
	e hts		C6	ø6 Push-in		•							
	Main line components		C8	+								-	\exists
	Ë Ø		-	ø8 Push-in			۲			\square	_	\dashv	_
	ĭ E		СХ	Push-in fitti	ng mix *3	•	•			Ш	\Box	4	
	٥	A Precautions for model selection	M5	M5		•			Ш		Щ	•	
ł			06	Rc1/8			•						•
	_	*1: Specify the port P/R bore size with the		Reduced w	viring connection, s	eria	al fi	an	smi	issi	on		
	ntr	supply and exhaust block model No. in the			-							_	
	uid control valves	manifold specifications sheet. *2: Select MN4GA*80R when mixing with serial transmission	Relei	to the next	page for reduced wiring	and	sei	iai t	rans	311118	SION	_	ᆜ
	à s	4/5-port valves. Further, select	■.	Terminal/c	onnector pin array								
	ᇤ	MN3GA*80R when mixing with masking	Blank	Standard w	riring *4	•	•			•	lacksquare	•	•
		plate. pin array	w	Double wiri	na *4		•			•	•	•	•
		*3: Push-in fitting cannot be mixed with the	W1	+	vith single spare wiring) *4, *5	+-	•	•	•	•			
	nts	single valve 4(A) or 2(B) port.	_		onigio opuio minig/ +, o		<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	긜
	Main line components	*4: BlankThe wiring will be based on the type	_	Option									
	ain npc	of valve used. W*All wired for double	Blank	Non-locking/loc	cking common manual override	•	•		lacksquare		lacksquare	ullet	•
	≥ [solenoid valves regardless of the type of valve used.	М	Non-locking	manual override	•	•		•	•	•	•	•
	٦	*5: Spare wiring (A type socket	н	 	st check valve *6	•	•			•		•	•
ł	<u>.</u>	assembly) is included on the cap	s	Surgeless	*7	-	•					•	•
	teri er	side for single types. A holder for	E	+ -	energy saving circuit *7, *8							-	•
	Antibacterial/Bacteria- removing filter	retaining the socket assembly is	Q									-	=
	ving	included for single unit valves	-	Reduced w		Ť	-					₽	4
	acte	(A2N).	F	+	er integrated *9	-							╝
.	re libr	*6: 3-position all ports closed and PAB	Z1	Air supply s	spacer *10	•	•		•				
•	₹	connection are not provided with the exhaust check valve (H).	Z2	In-stop valv	re spacer *10	•	•						
٠	(0	*7: Surgeless "S" and low exoergic/energy	Z 3	Exhaust sp	acer *10	•	•	•	•				
	E iii	circuit "E" cannot be selected together.		Matian Na				\equiv	\equiv	\equiv			
	Vacuum components	*8: Surgeless specifications.		Station No	•	F							
	Jp Jp	*9: A filter is built into port P as standard.	1	1 station		-							
	~ ÿ	*10: Specify the spacer mounting	to	to		•	•						
	-	position and quantity in manifold	24		(Refer to page 238 for	آ							
		specifications sheet. Stacking of		the max. sta	ation number per model)		匚	\square	Ш				
	<u>5</u>	spacers is not possible. Combination with the masking	(A)	/oltage									
	Fluid control valves	plate is not supported.	3	24 VDC									7
	id cont valves	Refer to pages 149 to 150 for	4	12 VDC								-	\exists
	<u>`</u> <u>=</u> >	details.	_									_	_
	т		is	not available	e. O ind	icate	s a	mad	ie-to)-orc	ler p	rodu	ıct.
- 1													

MN4GA1/2-T*-FP1 series Reduced wiring block manifold; body piping

					A	Мо	del 1	No.		
				Man	ifold				alve b	
			3-port	tvalve	5-port	valve			noid va lenoid	
			1	8	1	8				
			MN3GA1	MN3GA2	MN4GA1	MN4GA2	(N) 3GA1	(N) 3GA2	(N) 4GA1	(N) 4GA2
			N3(ž Ž	4 4	A	3	3	4	4
			Σ	Σ	Σ	Σ	Z	Z	ᇰ	ᇰ
Rec	duced wiring (lamp and surge suppressor prov	rided as standa	rd) 1	2/24	1 VD	С				
T10		Left-sided specifications	•							
T10R	Common terminal block (M3 thread)	Right-sided specifications								
T11		Left-sided specifications	•	•	•	•				
T11R	Common terminal block (clamping) -	Right-sided specifications	•	•	•	•				
T30		Left-sided specifications	•	•	•	-				
T30R	D-sub-connector -		Ť	<u> </u>	-	Ť				
-		Right-sided specifications	•	•	•	•				
T50		Left-sided specifications	•	•	•	•				
T50R		Right-sided specifications	•	•	•	•				
T51	-	Left-sided specifications	•	•	•	•				
T51R		Right-sided specifications	•	•	•	•				
T52		Left-sided specifications	•	•	•	•				
T52R	(without power supply terminal)	Right-sided specifications	•	•	•	•				
T53	26-pin flat cable connector	Left-sided specifications	•	•	•	•				
T53R	(without power supply terminal)	Right-sided specifications	•	•	•	•				
(i) Sei	ial transmission (lamp and surge suppressor p	provided as sta	nda	rd) 2	4 VI	nc.				
T6C0		NPN 8 points	nerel	-uj 2						
T6C1	- CompoBus/S	NPN 16 points								
T6G1		·	-			•				
		NPN 16 points	_	•	•	•				
T7C0	CompoBus/S -	NPN 8 points	-	•	•	-				
T7C1		NPN 16 points	•	•	•	•				
T7D1		NPN 16 points	•	•	•	•				
T7G1		NPN 16 points	•	•	•	•				
T7L1		NPN 16 points	•	•	•	•				
T7S1	- CompoNet	NPN 16 points	•	•	•	•				
T7SP1	·	PNP 16 points	•	•	•	•				
T8G1	 -	NPN 16 points	•	•	•	•				
T8G2	CC-Link -	NPN 32 points	•	•	•	•				
T8GP1		PNP 16 points	•	•	•	•				
T8GP2	1	PNP 32 points	•	•	•	•				
T8P1	<u>_</u>	NPN 16 points	•		•	•				
T8P2	DDOCIDLIC DD	NPN 32 points	•	•	•	•				
T8PP1	PROFIBUS-DP -	PNP 16 points	•	•	•	•				
T8PP2	Ī	PNP 32 points	•	•	•	•				
T8EC1		NPN 16 points	•	•	•	•				
T8EC2		NPN 32 points	•	•	•	•				
T8ECP1	- EtherCAT	PNP 16 points	•	•	•	•				
T8ECP2	-	PNP 32 points	•	•	•	•				
T8EN1		NPN 16 points	•	•	•	•				
T8EN2	-	NPN 32 points	•	•	•	•				
T8ENP1	EtherNet/IP -	PNP 16 points	•	•	•	•				
T8ENP2	 	PNP 32 points	•	•	•	•				
T8D1		NPN 16 points	•	•	•	•				
T8D2	-		•	•		_				
T8DP1	DeviceNet -	NPN 32 points		-	_	-				
<u> </u>		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	<u> </u>	PNP 16 points	•	•	•	•				
T8EPP2		PNP 32 points	•	•	•	•				
A2N		with surge suppressor and indicator lamp					•	•	•	•

removing filter



Reduced wiring block manifold Base side piping

MN4GB1/2-T*-FP1 Series

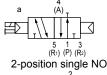
Applicable cylinder bore size: ø20 to ø80





JIS symbol ● 3-port valve

2-position single NC

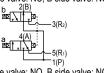




Two 3-port valves integrated (A side valve: NC, B side valve: NC)



(A side valve: NC, B side valve: NO)



(A side valve: NO, B side valve: NC)

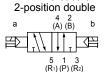


(A side valve: NO, B side valve: NO)

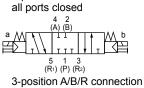


● 5-port valve 2-position single 4 2 (A) (B)





3-position





5 1 3 (R₁) (P) (R₂) 3-position P/A/B connection 4 2 (A) (B)



Manifold common specifications

Descriptions	Content
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	Lateral direction from 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 *3
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 (standard)
Degree of protection *1	Dust-proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Cannot be used in corrosive gas environments

Electrical specifications

	Descri	ptions		Con	tent			
	Rated vo	ltage	T1□, T3	0□, T5□	T6□, T7□, T8□			
		V	DC24	DC12	DC24			
	Voltage fluctu	ation range (*3)	±10	0%	+10%, -5%			
-	Holding	Standard	0.017	0.034	0.017			
-	current A	With low exoergic/ energy saving circuit	0.005	0.010	0.005			
	Power	Standard		0.	.4			
	consumption W	With low exoergic/ energy saving circuit		0	.1			
	Thermal	class	В					
	Surge sup	pressor (*4)		Zener	diode			
	Indicator			LE	D			

- *1: Dust-proof degree of protection. Not drip-proof. Avoid dripping water or oil, etc., during use.
- *2: The working pressure range is 0 to 0.7 MPa when the external pilot (option code: K) is selected. Set the external pilot pressure between 0.2 and 0.7 MPa.
- *3: T6□, T7□ and T8□ (serial transmission) may experience voltage drops due to internal circuitry, so care should be taken when regulating voltages.
- *4: If low exoergic/energy circuit or surgeless types are selected then there will be a diode.

Individual specifications

Descriptions				MN3GB1/MN4GB1									
Des	cription	15	T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2	
May	station No.	Standard wiring	16 stations	24 stations	24 stations	16 stations	18 stations	8 stations	24 stations	8/16 stations	8/16 stations	16/24 stations	
iviax.	Station No.	Double wiring	8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	4/8 stations	4/8 stations	8/16 stations	
Max.	number of	solenoids	16-points	24-points	24-points	16-points	18-points	8-points	24-points	8/16-points	8/16-points	16/32-points	
Port	Port Metric A/B Port			Push-in fitting ø4, ø6									
size	fitting	P/R Port					Push-	in fittin	g ø6, ø	8			

Doc	orintion						MN30	GB2/N	IN4GE	32		
Des	scription	15	T10	T11	T30	T50	T51	T52	T53	T6*0/1	T7*0/1	T8*1/2
Max	station No.	Standard wiring	16 stations	20 stations	20 stations	16 stations	18 stations	8 stations	20 stations	8/16 stations	8/16 stations	16/20 stations
IVIAX.	Station No.	Double wiring	8 stations	12 stations	12 stations	8 stations	9 stations	4 stations	12 stations	4/8 stations	4/8 stations	8/16 stations
Max.	number of	solenoids	16-points	24-points	24-points	16-points	18-points	8-points	24-points	8/16-points	8/16-points	16/32-points
Port	Metric	A/B Port					Push-ir	n fitting	ø4, ø6, i	ø 8		
size	fitting	P/R Port					Push-	in fitting	ø8, ø1	0		

Flow characteristics

Model No.	901	enoid position	P→A/B		A/B→F	R1/R2
wouel No.	301	enoia position	C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b
	Two 3-	oort valves integrated	0.86	0.35	1.0 (0.66)	0.15 (0.25)
MN3GB1	2-positi	on	1.0	0.30	1.1 (0.72)	0.11 (0.26)
MN4GB1		All ports closed	0.96	0.32	1.0 —	0.14 —
WINAGDI	3-position	ABR connection	0.96	0.29	1.2 (0.71)	0.11 (0.30)
		PAB connection	1.1	0.31	1.0 —	0.15 —
	Two 3-	oort valves integrated	1.7	0.42	2.2 (1.6)	0.15 (0.19)
MN3GB2	2-positi	on	2.4	0.35	2.5 (1.7)	0.19 (0.19)
MN4GB2		All ports closed	2.2	0.38	2.3 —	0.17 —
WINTODZ	3-position	ABR connection	2.2	0.38	2.5 (1.7)	0.18 (0.20)
		PAB connection	2.3	0.29	2.3 —	0.15 —

^{*1:} Effective cross-sectional area S and sonic conductance C are converted with the formula S ≈ 5.0 × C.

^{*2:} Values in () are with the exhaust check valve.

Reduced wiring block manifold; base piping

Reduced wiring specifications

Descriptions	T10	T11	T30	T50	T51	T52	T53
Туре	Common terminal block M3 thread	Common terminal block clamping	connector	supply terminal	20P Flat cable connector, no power supply terminal	supply terminal	supply terminal
Connector	_	_	D-sub-connector 25-pin	compliant pressure	MIL-C-83503 standard compliant pressure welding socket 20-pin	compliant pressure	MIL-C-83503 standard compliant pressure welding socket 26-pin

Serial transmission slave unit specifications

Descriptions	T6G1	T6C0∗1	T6C1∗₁
Network name	CC-Link ver1.10	Compo	bBus/S
Power Unit side		24 VDC ±10%	
voltage Valve side		24 VDC +10%, −5%	
Unit side		100 mA or less (when all output points are ON)	
Unit side Valve side		15 mA or less (when all output points are OFF)	
Output points	16 point	8 point	16 point
Occupied No.	1 station	1 Node address (8-point mode)	2 Node address (8-point mode)
Operation display	L	ED (power supply and communication state	rs)
Output format		NPN	

Des	criptions	T7C0∗2	T7C1 _{*2}	T7G1	T7L1∗₃	T7D1	T7S1	T7SP1
	ork name		Bus/S	CC-Link ver1.10	SAVE NET	DeviceNet*4,*5	Comp	ooNet
Power	Unit side	24 VD0	C ±10%		2	4 VDC +10%, −59	%	
supply	Valve side	24 VDC +	10%, -5%		Comm	on power supply to	erminal	
voltage	Communication side	-	_		_	11 to 25 VDC *6	14.0 to 2	6.4 VDC
o	Unit side		or less points are ON)	(vulnara	110 mA or less	ONI)	40 mA	
Current insumption	Valve side		or less points are OFF)	,	all output points a current is not inc	,	-	t points are ON) s not included
000	Communication side	_	_	_	_	50 mA or less	65 mA or less (all p 95 mA or less (all p	•
Outp	ut points	8 point	16 point	16 point	16 point	16 point	16 p	oint
Occi	ıpied No.	1 Node address (8-point mode)	2 Node address (8-point mode)	1 station	1 station	2 bytes		slave (6 points)
Oper	ation display			LED (power su	ipply and commu	nication status)	,	
Outp	ut format			NF	PN			PNP

Doo	ovintiono	T8G1	T8GP1	T8P1	T8PP1	T8EC1	T8ECP1	T8EN1	T8ENP1	T8D1	T8DP1	T8EB1	T8EBP1	T8EP1	T8EPP1
Des	criptions	T8G2	T8GP2	T8P2	T8PP2	T8EC2	T8ECP2	T8EN2	T8ENP2	T8D2	T8DP2	T8EB2	T8EBP2	T8EP2	T8EPP2
Commur	nication system name	CC-Link	k ver1.10	PROFIBL	JS-DP(V0)	Ethe	rCAT	Etherl	Net/IP	Devi	ceNet	CC-Link	EF Basic	PROF	INET
	Unit side							24 VD0	£10%						
supply voltage	Valve side						2	4 VDC +1	10%, -59	%					
	Unit side	60 mA or le	ess (when all	60 mA or le	ss (when all	120 mA or	less (when	120 mA or	less (when	70 mA or le	ss (when all	130 mA or	less (when	130 mA or	less (when
pi ji	Offic Side	output poi	nts are ON)	output poi	nts are ON)	all output po	ints are ON)	all output po	ints are ON)	output poir	nts are ON)	all output po	ints are ON)	all output po	ints are ON)
Current consumption				Т	8□1: 15	mA or le	ss					15 mA	or less		
O Si	Valve side			Т	8□2: 20	mA or le	ss				•	all output	•	,	
ŏ		(wl	nen all ou	tput poin	ts are Of	N) Load c	urrent is	not includ	ded		Load	current i	s not incl	uded	
Outp	ut points						T8□1: 1	6 points	T8□2:	32 points	3				
Occu	ıpied No.							1 sta	ition						
Oper	ation display					LED (power su	ipply and	commun	nication s	tatus)				
Outp	ut format	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
										_	_	_			

^{*1} Long-distance communication mode is not supported.

Antibacterial/Bacteria-

removing filter

Electric actuator

Pneumatic valves FRL/Auxiliary components Electronic components

Main line components

Fluid control

Main line components

Vacuum components Fluid control valves

^{*2} Long-distance communication mode is supported.

^{*3} Transmission bit rate of 128 bits and half-duplex transmission method are supported. Contact CKD for other specifications.

^{*4} DeviceNet compliant networks (DLNK, etc.) are supported as well.

^{*5} Contact CKD for EDS file: A text file of parameters for communication with various companies' master units
*6 Communication power supply (V+ and V- of DeviceNet cable) is isolated from power supply terminals (unit power supply/valve power supply).

MN4GB1/2-T*-FP1 Series

		WIN4GDI/Z-I -FP I Series
		Reduced wiring block manifold; base piping
	ator	How to order
	Electric actuator	 Manifold model No. MN4GB1 1 0 R - C6 - T30 W H - 10 - 3 - FP1 3-port manifold model No.
	s iic	MN3GB1 66 0 R - C6 - T30 W H - 10 - 3 - FP1
	Pneumatic cylinders	• Discrete valve block with solenoid valve N4GB1 1 0 R - C6 - A2N*1 H 3 - FP1
	alves	Obscrete 3-port valve block with solenoid valve N3GB1 66 0 R - C6 - A2N*1 H 3 - FP1
	Pneumatic valves	* When a cable is required, refer to page 147 and specify the cable length for (**_1*). When not required, leave the space blank.
	FRL/Auxiliary components Pn Electronic components	Single solenoid valve 4GB1 1 9 R - 00 - A2N H 3 - FP1
F P 1	diany com	● Discrete 3-port solenoid valve 3GB1 66 9 R - 00 - A2N
	FRL/Au) Electro	
	Vacuum components	B Solenoid position Port size A Model No. *1 *2 *3 A Voltage
	s	Reduced wiring Option
	Main line components	connection
	Mai	E Terminal/connector pin array
	Fluid control valves	
		▲ Precautions for model selection
	Main line components	*1: Ports A and B plug specifications are available for 2-position single only.
	Mair	Specify the port P/R bore size with the supply and exhaust block model No. in the manifold specifications sheet. *2: Ports A and B are the same size for radial push-in fitting mix (CX).
	nia-	*3: For a discrete solenoid valve, select "00" for Port size. *4: Select MN4GB*80R when mixing with 4, 5-port valves. Further,
	bacterial/Bacte removing filter	select MN3GB*80R when mixing with masking plate.*5: Push-in fitting cannot be mixed with the single valve 4(A) or 2(B) port.
	Antibacterial/Bacteria- removing filter	*6: BlankThe wiring will be based on the type of valve used. W*All wired for double solenoid valves regardless of the type of valve used.
F P 2		*7: Spare wiring (A type socket assembly) is included on the cap side for single types.
	Vacuum components	A holder for retaining the socket assembly is included for single unit valves (A2N). *8: 3-position all ports closed and PAB connection are
	Vac	not provided with the exhaust check valve (H). *9: In addition, surgeless "S" and low exoergic/energy circuit "E" cannot be selected together.
		*10: Surgeless specifications. *11: A filter is built into port P as standard.
	Fluid control valves	*12: Specify the spacer mounting position and quantity in manifold specifications sheet. Stacking of spacers is not possible.
	Fluid o	Combination with the masking plate is not supported. Cannot be selected together with radial push-in fitting (upward).
		Refer to pages 149 to 150 for details.

					A	Мо	del	No.		
				Man	ifolo	d			alve l	
				3-port	5-p	ort			noid v soler	
				ves rated		lve	7013		lve	ioiu
			B1	B2	B1	B2	19	B2	B1	B2
			MN3GB	MN3GB2	MN4GB1	MN4GB2	3GB1	3GB2	4GB1	4GB2
Code	Cor	ntent	Ź	É	É	É	Ê	2	(Z	Ê
B Soleno	oid position									
1	2-position single				•	•			•	•
2	2-position double				•	•			•	•
3	3-position all ports cl	osed			•	•			•	•
4	3-position ABR conn	ection			•	•			•	•
5	3-position PAB conn				•	•			•	•
66	3-port valve	A side valve: Normally closed B side valve: Normally closed	0	0			0	0		
67	Two valves	A side valve: Normally closed B side valve: Normally open	0	0			0	0		
76	integrated	A side valve: Normally open B side valve: Normally closed	0	0			0	0		
77	*4	A side valve: Normally open	0	0			0	0		
8	Mix manifold (when there are	B side valve: Normally open multiple solenoid positions)	•	•	•	•	•	•	•	•
© Port s	ize (port A/B)									
Туре		g/Rc thread								
C4	ø4 Push-in fitting		•		•		•			
C6	ø6 Push-in fitting		•	•	•	•	•	•	•	•
C8	ø8 Push-in fitting			•		•		•		•
СХ	Push-in fitting mix	*5	•	•	•	•				
Single side plug specifications	A Port	B Port		•						
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 mo	ounting base					•	•	•	•
	ed wiring connected next page for electr									
	nal/connector pin									_
Blank	Standard wiring	<u> </u>	•	•	•	•	•	•	•	
w	Double wiring	*6	•	•	•	•	•	•	•	•
W1	Double wiring (with sing		•	•	•	•	•	•	•	•
Option	: 1									
Blank	1	mmon manual override	•	•	•	•	•	•	•	•
М	Non-locking manual		•	•	•	•	•	•	•	•
Н	With exhaust check		•	•	•	•	•	•	•	•
s	Surgeless	*9	•	•	•	•	•	•	•	•
Е	Low exoergic/energy	saving circuit *9, *10	•	•	•	•	•	•	•	•
Q	Reduced wiring duct		•	•	•	•	•	•	•	•
F	Port A/B filter integra	ited *11	•	•	•	•	•	•	•	•
<u> </u>							İ	i –		

Specify the spacer mounting position and quantity in manifold specifications sheet.

Stacking of spacers is not possible.

Combination with the masking plate is not supported.

Cannot be selected together with radial push-in fitting (upward).

Refer to pages 149 to 150 for details.

is not available.

*12 • • • •

*12

• • • •

. . .

•

Z1

Z2

Z3

to 24

(H) Voltage 3

G Station No.

Air supply spacer

Exhaust spacer

1 station

24 VDC

12 VDC

In-stop valve spacer

24 stations (Max. station number for MN4GB2 is 20.)

O indicates a made-to-order product.

MN4GB1/2-T*-FP1 series Reduced wiring block manifold; base piping

Code Common terminal block (MS thread) Common terminal blo	[Wiring	g method list]				A	Мо	del I	No.		
Code	[5eueue.,			Mar			Disc	rete v		
Code Content				Two: valves ir	3-port ntegrated	5-por	valve				
Code Content				19	B2	19	B2	18	B2	Į.	1B2
Triggramma				136	33	446	446	36	36		4G
T10R	Code	Conten	t	Σ	Ž	Ž	Ž	Z	Z	Z	Z
Total Common terminal block (N3 thread)	Red	uced wiring (lamp and surge suppr	essor provided as standard) 12/2	4 V	C					
Tit Tit Tit Common terminal block (clamping)		Common terminal block (M3 thread)		•	•	•	_				
Triangle		, ,		•	•	•	_				
T300		Common terminal block (clamping)	<u>-</u>	-		-					
T30R D-sub-connector Right-sided specifications D-sub-connector Left-sided specifications D-sub-connector D-sub-connector Left-sided specifications D-sub-connector D-sub-connector Left-sided specifications D-sub-connector D-sub-connector Left-sided specifications D-sub-connector D-sub-connector D-sub-connecto			- ·		•	+-					
T50R		D-sub-connector	<u></u>	•	•	•	H				
T511 20-pin flat cable connector Left-sided specifications 0	T50	20-pin flat cable connector	Left-sided specifications	•	•	•	•				
T51R	T50R	1 .	Right-sided specifications	•	•	•	•				
T52	T51	20-pin flat cable connector	Left-sided specifications	•	•	•	•				
T52R	T51R	(without power supply terminal)	Right-sided specifications	•	•	•	•				
T53 26-pin flat cable connector Left-sided specifications	T52	4 '	Left-sided specifications	•	•	•	•				
TSSR		, , , , ,		•	•	•	-				
Serial transmission (lamp and surge suppressor provided as standard) 24 VDC		4 .		1	•	•	•				
TECO CompoBus/S NPN 8 points				<u> </u>	•	•	•				
TeC1		al transmission (lamp and surge su		lard) 2	24 V	DC					
TGG1		CompoBus/S	<u> </u>		•	•	•				
TrC0		CC Link	·		-	<u> </u>	<u> </u>				
TrC1		CC-LITIK	· · · · · · · · · · · · · · · · · · ·		_		-				
T7D1 DeviceNet NPN 16 points		CompoBus/S			-	•	_				
T7G1 CC-Link		DeviceNet	· · · · · · · · · · · · · · · · · · ·	•	-	•	<u> </u>				
T7S1 CompoNet PNP 16 points	T7G1	CC-Link	· · · · · · · · · · · · · · · · · · ·	•	•	•	•				
T7SP1 CompoNet	T7L1	SAVE NET	NPN 16 points	•	•	•	•				
T891	T7S1	CompoNot	NPN 16 points	•	•	•	•				
T8G2 T8GP1 T8GP2 T8GP1 T8GP2 T8GP1 T8GP2 T8GP1 T8GP2 T8P1 T8P2	T7SP1	Componer	PNP 16 points	•	•	•	•				
T8GP1 T8GP2 PNP 16 points	T8G1		NPN 16 points	•	•	•	•				
T8GP2		CC-Link	<u>-</u>	•	•	•	÷				
T8P1 T8P2 PROFIBUS-DP	-		<u> </u>	•	-	•	_				
T8P2 T8PP1 T8PP2 PROFIBUS-DP PROFIBUS-DP PNP 16 points DeviceNet PNP 32 points DeviceNet DeviceNet PNP 32 points DeviceNet D			· · · · · · · · · · · · · · · · · · ·	•	•	•	<u> </u>				-
T8PP1							-				
T8PP2		PROFIBUS-DP		1							
TREC1 TREC2 TRECP1 EtherCAT EtherCAT EtherCAT NPN 16 points	-			+		1					
TREC2 EtherCAT E			· · · · · · · · · · · · · · · · · · ·	•	•	-	<u> </u>				
T8ECP1				•	•	•	•				
T8EN1 T8EN2 EtherNet/IP EtherNet/IP EtherNet/IP NPN 32 points		EtherCAI		•	-	H	-				
T8EN2 EtherNet/IP	T8ECP2		PNP 32 points	•	•	•	•				
T8ENP1 EtherNet/IP	T8EN1		NPN 16 points	•	•	•	•				
T8ENP1		 EtherNet/IP		•	-	-	_				
T8D1 T8D2 T8DP1 T8DP1 T8DP2 PNP 16 points PNP 32 points NPN 16 points NPN 32 points PNP 16 points PNP 32 points PROFINET NPN 16 points NPN 32 points		1		+ -	-	-	-				
T8D2 T8DP1 NPN 32 points ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●			· · · · · · · · · · · · · · · · · · ·	•	_	<u> </u>	-				
T8DP1 DeviceNet						-					
T8DP2 PNP 32 points ●		DeviceNet				-	_				
T8EB1 T8EB2 CC-Link IEF Basic NPN 16 points NPN 32 p	-		-			1	<u> </u>				
T8EB2 T8EBP1 CC-Link IEF Basic NPN 32 points ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●			· · · · · · · · · · · · · · · · · · ·			-	<u> </u>				
T8EBP1 CC-Link IEF Basic PNP 16 points		1		•	-	-	-				
T8EP1 T8EP2 T8EPP1 T8EPP2 PROFINET PNP 16 points		CC-Link IEF Basic		•	•	•	•				
T8EP2 T8EPP1 PROFINET NPN 32 points ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ● ●	T8EBP2		<u>-</u>	•	•	•	•				
T8EPP1 PNP 16 points Image: Control of the point of	T8EP1		NPN 16 points	•	•	•	•				
T8EPP1 PNP 16 points Image: Control of the point of	T8EP2	PROFINET	NPN 32 points	•	•	•	•				
	T8EPP1	I NOT INET	PNP 16 points	•	•	•	•				
A2N Without lead wire (without socket) with surge suppressor and indicator lamp	T8EPP2		PNP 32 points	•	•	•	•				
	A2N	Without lead wire (without socket)	with surge suppressor and indicator lan	np				•	•		•

핕	Vacuum Main line Fluid control Main I	um Main line Fluid control Main I	neats components Valves components
\exists	nonents valves cor	Fluid control Main line	Fluid control Main line Antibacterial/Bacteria-
Fluid control	Main I	Main line A	Main line Antibacterial/Bacteria-
	fain I	fain line A	1ain line Antibacterial/Bacteria-

4G1/2 mix manifolds

MN3GAX12, MN4GAX12 MN4GBX12-FP1 Series

Applicable cylinder bore size: ø20 to ø80



NSF H1

Pneumatic

Main line components

Fluid control

removing filter

components Vacuum

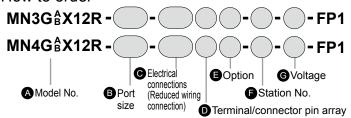
Specifications

Pneumatic Valves Catalog No. CB-023SA

Common with all series.

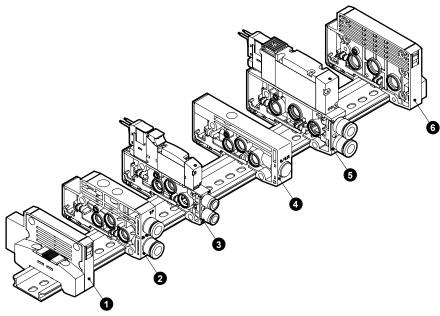
For individual wiring, refer to page 127 (body piping) or page 131 (base piping), and for reduced wiring, refer to page 135 (body piping) or page 139 (base piping).

How to order



The model No. will be "MN G X12R-". Other items are common with the example of model No. for each series. For individual wiring, refer to page 129 (body piping) or page 133 (base piping), and for reduced wiring, refer to page 137 (body piping) or page 141 (base piping).

Manifold components explanation and parts list



* Notes on 4G1/2 mix manifolds With the fitting at the front, the left side of the mixed block is the 4G1 Series and the right side the 4G2 Series. (Note that these position settings cannot be reversed.)

List of main components (refer to pages 145 to 150 for details)

No.	Component name	Model No. (example)
1	End block L	N4G1R-EL
2	Supply and exhaust block	N4G1R-Q-8-FP1
3	Discrete valve block with solenoid valve	N4GB110R-C6-H-3-FP1
4	Mixed block	N4G12R-MIX-FP1
5	Discrete valve block with solenoid valve	N4GB210R-C8-H-3-FP1
6	End block R	N4G2R-ER-FP1

Weight

N4G12R-MIX: 49 g

Refer to the specifications of each series for other components.

		F # 1					77	, ,	
Electric actuator	Pneumatic	FRL/Auxiliary components	Vacuum	Main line	Fluid control	Main line	Antibacterial/Bacteria-	Vacuum	Fluid control
בופטווט מטוממוטו	cylinders	Electronic components	components	components	valves	components	removing filter	components	valves

Block manifold: piping section

Electric actuator

Pneumatic cylinders

FRL/Auxiliary components Electronic components components Vacuum

> Main line components Fluid control

components Main line

valves

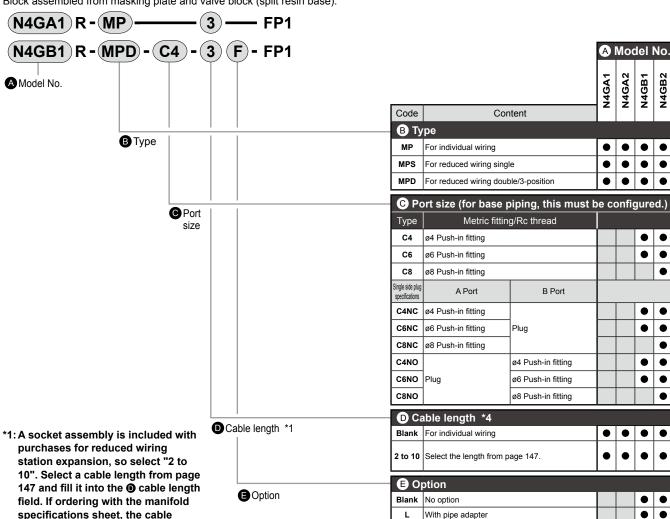
Piping

A. Discrete valve block with solenoid valve

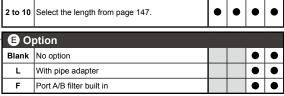
Block assembled from solenoid valve body and valve block (split resin base). For model selection, refer to the following pages. Body piping individual wiring: page 129, base piping individual wiring: page 133, body piping reduced wiring: page 137, base piping reduced wiring: page 141

B. Discrete valve block with masking plate

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



specifications sheet, the cable length can be omitted.



is not available.

indicates a made-to-order product.

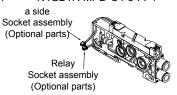
N4GA1R-MP-FP1

N4GB1R-MPD-C4-3-FP1

N4GB1R-MPD-C4-3L-FP1

N4GA2R-MP-FP1

N4GB2R-MPD-C6-5-FP1 Socket assembly (Optional parts) Relay Socket assembly (Optional parts)





Block manifold: piping section

Electric actuator

Pneumatic

FRL/Auxiliary components Electronic components

components

Main line components

Fluid control

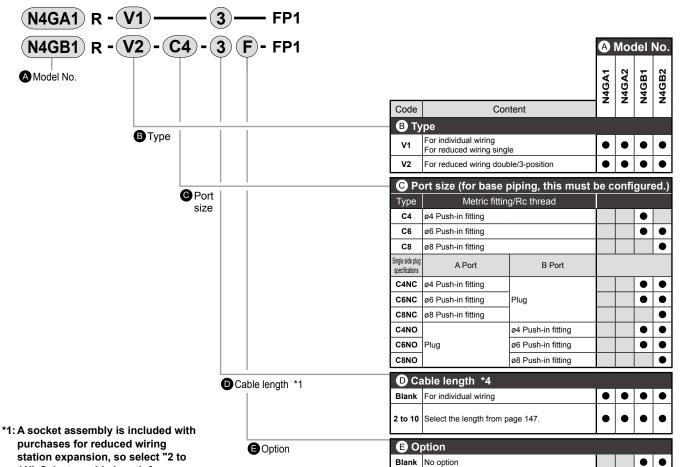
Main line components

removing filter

Piping

C. Discrete valve block (separate item only)

Discrete valve block (split resin base).

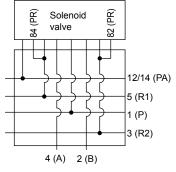


station expansion, so select "2 to 10". Select a cable length from page 147 and fill it into the ① cable length field. If ordering with the manifold specifications sheet, the cable length can be omitted.

With pipe adapter • \bullet Port A/B filter built in

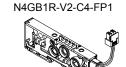
is not available.

indicates a made-to-order product.



Discrete valve block circuit diagram









Antibacterial/Bacteria-Vacuum components

Fluid control

Block manifold: piping section

Electric actuator

Pneumatic cylinders

Pneur

FRL/Auxiliary components Pneuma Electronic components

Vacuum

Fluid control rowsymbols

Main line components

Fluid control Vacuum valves components

Piping

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

C. Discrete valve block (separate item only)

Valve block for expansion Cable length

Calculate the distance W between the expansion position and the wiring block (Fig. 1), and select an appropriate cable length from [Table 1]. Note that the required socket assembly will differ between the a side solenoid and the 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

 $W = (10.5 \times n) + (16 \times m) + (10.5 \times l)$

• For MN4G2

 $W = (16 \times n) + (18 \times m) + (10.5 \times l)$

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

• For MN4GX

Calculate W using the mix block width of 16.

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

Selection No.	Type of wiring						
Selection 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				
		•					

Fig. 1

Wiring block

a-SOL side
(Wiring cover side)

b-SOL side
(Fitting side)

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.



A Bore size		B Exhaust		
6	ø6 Push-in fitting	Blank	Common exhaust	
8	ø8 Push-in fitting	X *1	Atmospheric release	

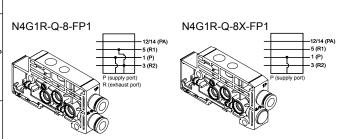
^{*1:} For X, select atmosphere release (EX) for the end block

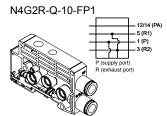


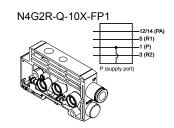
A Bore size		ВЕх	haust	
	8	ø8 Push-in fitting	Blank	Common exhaust
	10	ø10 Push-in fitting	X *1	Atmospheric release

^{*2:} Select 6*M or 8*M when using a silencer with inch fitting specifications.

^{*3:} For X, select atmosphere release (EX) for the end block







MN4GA/4GB-FP1 Series Block manifold: piping section

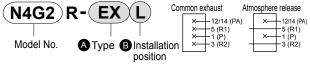
Piping

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.



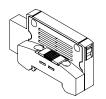
A Type		B Installation positio		
E Common exhaust		L	For left side	
EX	Atmospheric release	R	For right side	



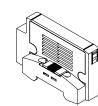
A T	A Type		B Installation position		
E	E Common exhaust		For left side		
EX	EX Atmospheric release		For right side		



N4G1R-ER-FP1







N4G2R-EL-FP1



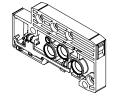
N4G2R-ER-FP1

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.

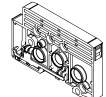


А Тур	A Type					
SA	P/R/PA blocked					
S P/R blocked PA through						
SP	P blocked R/PA through					
SE	R blocked P/PA through					





A Type				
SA P/R/PA blocked				
S	P/R blocked PA through			
SP	P blocked R/PA through			
SE	R blocked P/PA through			



-SA	-S	-	-SP		-SE	
	-12/14 (PA)	12/14 (PA) -5 (R1) -1 (P) -3 (R2)	-x	-12/14 (PA) -5 (R1) -1 (P) -3 (R2)	x	-12/14 (PA) -5 (R1) -1 (P) -3 (R2)

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

Electric actuator

components

Related products

Electric actuator

Pneumatic cylinders

FRL/Auxiliary components Electronic components

components

components

Fluid control

Main line components

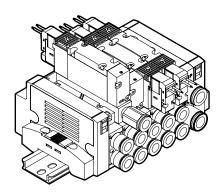
Antibacterial/Bacteriaremoving filter

Vacuum components

Fluid control

valves

Air supply spacer



How to order discrete units



A Air supply spacer model No. B Port size
*1, *2

A Precautions for model selection

- *1 Blank indicates (1) M5, (2) Rc1/8.
- 2 Blank indicates the FP1 specifications or equivalent as standard, and thus does not require "FP1" at the end of the model number.
- 3 Specify the positions and quantity of air supply spacers for manifold in the manifold specifications sheet.
- *4 Combination with the masking plate is not supported.

Specifications

Model No	P→A/B		A/B	Weight	
Model No.	C[dm³/(s·bar)]	b	C[dm ³ /(s·bar)]	b	g
4G1	0.70	0.23	0.93	0.16	8
4G2	1.6	0.17	1.8	0.16	35

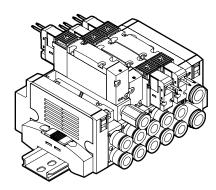
- *1: Values are when a valve is mounted.
- *2: Effective cross-sectional area S and sonic conductance C are converted as S \approx 5.0 \times C.

			Model No.			
		4GA1	4GB1	4GA2	4GB2	
Code	Content	7	4	4	4	
A Air	supply spacer model No.					
1	For 4G1					
2	For 4G2					
В Ро	rt size					
Blank	M5 thread (4G1), Rc thread (4G2)	(1)	(2	2)	
GWS4	ø4 Fitting					
GWS6	ø6 Fitting			•)	
GWS8	ø8 Fitting			•)	

is not available.

Optional parts: 4G1 mounting screws (2), dedicated gasket (1) 4G2 mounting screws (2), PR check valves (2), body gasket (1)

Exhaust spacer



How to order discrete units



A Exhaust spacer model No.

B Port size *1, *2

Precautions for model selection

- *1 Blank indicates (1) M5, (2) Rc1/8.
- *2 Blank indicates the FP1 specifications or equivalent as standard, and thus does not require "FP1" at the end of the model number.
- *3 Specify the positions and quantity of air supply spacers for manifold in the manifold specifications sheet.
- *4 Combination with the masking plate is not supported.

Specifications

Madel No	P→	P→A/B		→R	Weight
Model No.	C[dm³/(s·bar)]	b	C[dm³/(s·bar)]	b	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 \approx 5.0 \times C.

		Model No.			
		4GA1	4GB1	4GA2	4GB2
Code	Content	\	`	`	`
A Ex	haust spacer model No.				
1	For 4G1				
2	For 4G2				
В Ро	rt size				
Blank	M5 thread (4G1), Rc thread (4G2)	(1)		(2)	
GWS4	ø4 Fitting				
GWS6	ø6 Fitting				
GWS8	ø8 Fitting				

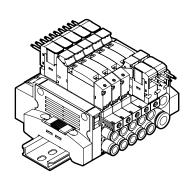
is not available.

Optional parts: 4G1 mounting screws (2), dedicated gasket (1) 4G2 mounting screws (2), PR check valves (2), body gasket (1)

Block manifold; related products Block manifold; related parts

Related products

In-stop valve spacer

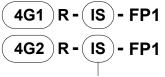


Specifications

Model	P→	A/B	A/B	→R	Weight
No.	C [dm³/ (s·bar)]	b	C [dm³/ (s·bar)]	b	g
4G1	0.54	0.03	0.82	0.27	17
4G2	1.5	0.17	1.6	0.20	63

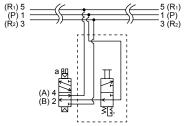
- *1: Values with base piping and 2-position valve mounted.
- *2: The effective cross-sectional area when discharging residual pressure is 1.0 mm² (reference value).
- *3: Effective cross-sectional area S and sonic conductance C are converted as S \approx 5.0 \times C. Optional parts: PR check valve 2, body gasket 1

How to order discrete units



In-stop valve spacer



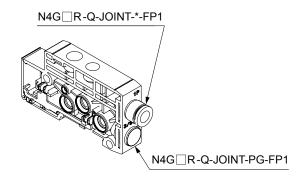


A Precautions for model No. selection

- *1: Specify the spacer mounting position and quantity in manifold specifications sheet.
- *2: When retrofitting to the reduced wiring manifold, the existing wiring may be too short. Contact CKD for details.

Related parts

1. MN4G cartridge push-in fitting for supply and exhaust block



1.1 MN4G1 supply and exhaust block, fitting for 1(P), 3/5(R)

Bore size	Part model No.
ø6 Straight	N4G1R-Q-JOINT-6-FP1
ø8 Straight	N4G1R-Q-JOINT-8-FP1
Plug cartridge	N4G1R-Q-JOINT-PG-FP1

1.2 MN4G2 supply and exhaust block, fitting for 1(P), 3/5(R)

Bore size	Part model No.
ø8 Straight	N4G2R-Q-JOINT-8-FP1
ø10 Straight	N4G2R-Q-JOINT-10-FP1
Plug cartridge	N4G2R-Q-JOINT-PG-FP1

C	כ	
ne		
ä		
<u>at</u>		

rRL/Auxiliary components
Electronic components

Vacuum component

Main line components

Fluid control valves

	[= = = = = = = = = = = = = = = = = = = =		,				
Electric actuator	cylinders	nic components	components Electro	components	valves	components	removing filter	components
Electric actuator	Pneumatic	iliary components	Vacuum FRL/Aux	Main line	Fluid control	Main line	Antibacterial/Bacteria-	Vacuum

FP1

How to fill out block manifold MN4G Series manifold specifications sheet

_		1 1 8 1	, , ,
•	Manifold	model No.	(example)

MN 4GA1 8 0R- CX - T50 **6** Option **6** Station Woltage

(Reduced wiring pin array (Note: Fill in connection) for reduced wiring.)

Part name	Model No.														La	yout	posi	tion														Ouantite
Part name	Woder 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	N4G1R-T [50]	0																														1
Valve block with	N4GA1 1 0R- C4		0	0																												2
solenoid valve	N4GA1 2 0R- C6					0																										1
(page 145)	N4GA1 3 0R- C4				0																											1
	N4GA1 0R-																															
	N4GA1 0R-																															
	N4GA1 0R-																															
	N3GA1 [1] 0R- [C4]									0	0	0																				3
	N3GA1 0R-																															
Valve block with	N4GA1R-MP																															
masking plate	N4GA1R-MPS																															
(page 145)	N4GA1R-MPD						0																									1
Supply and	N4G1R-Q - 8L							0					0																			2
exhaust block	N4G1R-Q -																															
(page 147)	N4G1R-Q -																															
Partition block	N4G1R-S A								0																	Ī						1
(page 148)	N4G1R-S																															
	N4G1R-S																															
End block	N4G1R-E R													0											İ	Ì	İ					1
(page 148)	N4G1R-E																															
	. ,	İ	•	•	•	_		Blar	king	plug	1										Sile	ncer		•	_		Та	g pla	ate (ii	nclud	ed)	
Mounting rail	L₂= [[] (How to calculate length	G	WP4	1-B			G	WP6				GI	WP8	-В			SI	LW-I	H6			s	LW-	Н8	T			A			<u> </u>	Included
	on next page)	С	able	with	D-sı	ıh-co	onne	ctor	Т	4	GR-	CAB	Ι F-Γ	00 -				Push	-in fitti	ina tut	ne rem	nover ((includ	led as	stan	dard) I	☑ Not	requir	ed (ch	eck the	hox)	parts

A circuit diagram of the above manifold model No. (example) is provided on the following page. Use for reference.

Place a check here if the tube remover

No.

Preparing the manifold specifications

- Complete from the left end, with the piping port facing forward. (Include the model No. of the block selected from block configurations (pages 145 to 150) and instructions for the arrangement thereof.)
- Indicate the total number of blocks specified in thecolumn for quantity on the right end of the table.
- Mark a circle for optional parts 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.
 - MN4GA1: page 154
 - MN4GB1: page 154
 - MN4GA2: page 155
 - MN4GB2: page 155
 - MN4GA×1/2 (Mix manifold): page 156
 - MN4GB×1/2 (Mix manifold): page 156

Mounting rail length (L2)

- ① Determine the rail length using the calculation method shown below. The obtained length is standard.
- ② For standard length, length (L2) is not required on the specifications sheet. Indicate the length when using a non-standard length.
- How to determine the length of the mounting rail

 $\begin{array}{c} \begin{array}{c} \text{Valve Quantity} \\ \text{block Quantity} \end{array} \begin{array}{c} \text{Supply and block Quantity} \\ \text{block Quantity} \end{array} \begin{array}{c} \text{Supply and plock Quantity} \end{array} \begin{array}{c} \text{Partition Quantity} \\ \text{block Quantity} \end{array} \begin{array}{c} \text{Wiring Mixed block} \\ \text{block} \end{array} \end{array}$ $\text{Manifold length (L1) = (A \times \boxed{}) + (B \times \boxed{}) + (C \times \boxed{}) + D + E \\ \text{Mounting rail length (L2) = L2' \times 12.5} \\ \text{L2':} \begin{array}{c} \text{A. B. C. D. and E indicate the length (width) of each block.} \end{array}$

Rail mounting pitch (L3) = L2-12.5

Block length (width) dimensions table

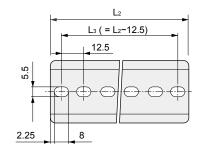
						(
			MN4GA/B1	MN4GA/B2	MN4G1	/2MIX
			MIN4GA/B1	MIN4GA/BZ	MN4GA/B1	MN4GA/B2
Α	Valve block		10.5	16	10.5	16
В	Supply and	exhaust block	16	18	16	18
С	Partition blo	ock	10.5	10.5	10.5	10.5
	Individual v	/iring	41	46	44	.5
		T10/T11	83.8	86.3	86	.3
		T10R/T11R	83.8	86.3	83	.8
	Wiring	T30/T5*	69.3	71.8	71	.8
D	block for reduced	T30R/T5*R	69.3	71.8	69	.3
	wiring	T6*	143.5	146	14	6
	,,, ,,,,,	T7*	64.3	66.8	66	.8
		T8*	64.3	66.8	66	.8
Е	Mixed block	(16	3

^{*} The end block is included in the wiring block.

DIN rail length quick reference table

·· Manifold Length		47.5 Over	60	72.5	85	97.5	110	122.5	135	147.5	160	172.5	185	197.5	210	222.5	235	247.5	260	272.5	285	297.5	310	322.5	335	347.5
Maı		to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to	to
-	47.5 or less	60 or less	72.5	85	97.5	110	122.5	135	147.5	160	172.5	185	197.5	210	222.5	235	247.5	260	272.5	285	297.5	310	322.5	335	347.5	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
Pitch L ₃	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

^{*1:} When L1 exceeds this table, calculate the length by referring to "How to calculate the length of the mounting rail".



Electric actuator

(mm)

cylinders

Pneumatic valv

FRL/Auxiliary components Electronic components

Vacuum components

Main line components

Fluid control

Main line Antibacterial/Bacteriacomponents removing filter

FP2

Vacuum Fluid control components valves

Electric actuator

Pneumatic cylinders

'Auxiliary components

FRL/Auxiliary component Electronic components components Vacuum Main line components

Fluid control valves

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.

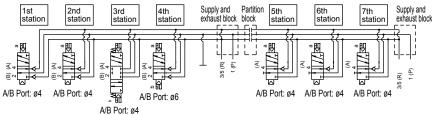
	Connecto													,	Valve												Ť
T50/T50R	T51/T51R	T52/T52R	T53/T53R	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	1	1	1	а																							
2	2	2	2		а																						
3	3	3	3				а																				
4	4	4	4				b																				
5	5	5	5					а																			
6	6	6	6					b																			
7	7	7	7			а																					
8	8	8	8			b																					
9 -power supply	9	9 сом	9																								
10 + (COM) power supply	10	10 _{сом}	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 _{COM}		19																								
	20 _{COM}		20																								
			21																								
			22																								
			23																								
			24																								
			25 _{COM}																								
			26 _{COM}																								

^{*} Note that when the wiring method is T50/T50R, the COM polarity will be + (positive).

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 made to order in this case.
- 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.
- 3 As the connector pin No. and valve No. differ for each reduced wiring method (T1*/T30/T5*/T6*/T7*/T8*), fill out the form upon reviewing the notes for each.
- Wiring (socket assembly) is included with valve blocks with masking plates. A side only for "-MPS". Both A and B sides for "-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 expansion of stations. For the procedure for station expansion, refer to "Pneumatic Valves (CB-023SA)".

Reference circuit diagram Simplified circuit diagram of manifold model No. (example) from previous page



- The manifold station numbers are set in order from the left with the piping port facing forward. (The electrical blocks, supply and exhaust blocks, partition block, and end block are not included in thenumber of manifold stations.)
- Select the model No. from block configuration (pages 145 to 150) and each specification model No. page.
- * With piping port facing front, arrangement positions are set in order from the left.

MN4G Contact Slip No.	A/E	51	-r	- F		Qu					na		t (s		a			● C er N	Deli					S :		10	et				_		iss pan		l	1		1		Tiecilic actuator	Electric actuator	
■ Manifold n	nodel	No.																													_	ont	act r N	0.				<u> </u>		cylinders	Pneumatic	
MN Model N	lo. B	So po	ole osit	noi	id 1	from	Po	rt s	Rize	e	Ele (R	ectric educ (pag	ed w	onned iring 15 to	ctions conn 150).	ectio	on)	•	pin a	rray	(No	ote: F wirin	Fill in g.)			ptic	on		Sta		•		·FI ′olta								┙	
Part name (Description Page)		N	lode	el No	0.		-	1	2	3	4	5	6	7	8	9	10	11	1:	2 1	Т	Lay		posit 16	ion 17	18	19	20	21	22	23	24	25	26	27	28	29	30	Qty.	Fileumanc valves	natio valv	
Wiring block	N4G	1R-	т	,																																						
Valve block with solenoid valve (page 145)	N4G N4G		1		OF																																			Electronic components	Auxiliary com	FP1
(page 140)	N4G		1		0F																																			onents	ponents	
	N4G		1		0F																																			components	Vacuum	
	N4G N4G		1		OF																																			nents	m	
	N3G		1		0F																																			comp	Ма	
Valve block with	N3G N4G		1	<u> </u>	0F	1	i												l	<u> </u>	1																			components	n line	
masking plate (page 145)	N4G				1R-	MP	s													1																					끝	
Air supply	N4G 4G1F	2-P			1R-	MP	D												<u> </u>	<u> </u>																				valves	Fluid control	
spacer (page 149)	4G1F		1																																							
Exhaust spacer (page 149)	4G1F	R-R	- [components	Main li	
In-stop valve spacer (page 150)	4G1F	R-IS	<u>;</u>		1 1																																			ents	ne	
Supply and exhaust block (page 147)	N4G				-																																			removing filter	Antibacteria	
	N4G	1R-	Q		-																																			ng filter	al/Bacteri	_
Partition block (page 148)	N4G		-																																							FP2
	N4G	1R-	s																																					components	Vacuum	
End block (page 148)	N4G	1R-	E																																					ıts		
Mounting roll	N4G	1R-	E		<u></u>		<u> </u>							Pla	nking	n plu			<u></u>									Sile	ncer					Tai	a pla	te (in		led)		valves	Fluid control	
Mounting rail	L₂= *Write	an i	 nteg	er i	_ nulti	ple o	of	GI	WP4	-В			G	iWP(, Piu	ਬ	(SWF	'8-E	3			SI	LW-	Н6		Sile		LW-I	18			ıd	у ріа А	(111	Joint		Included parts	es	ontrol	
	12.5. (How t length:				the		-	C	able	with	D-s	sub-c	onn	ector			4GF	R-CA	BLE	-D0) -					Pι	ısh-i						nclud			anda	rd)		Inclu			

Electric actuator	MN4G	A/B2-FP1 Bl	ock man	ifold s	pecifications	s sheet	
ric ac	Contact	Quar	ntity s	et (s)	Delivery date	,	Date issued / /
Electi	Slip No.				Order No.	C	Company
						<u>C</u>	Contact
Pneumatic cylinders	Manifold m	nodel No.				<u>C</u>	Order No.
ylind	MAL	G 2	0R-	1 [-FP1
F 2		lo. B Solenoid G Po		cal connections	Terminal/connecto	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	
Pneumatic valves		position s field, select the model No. fro	(Redu	ced wiring connect	ion) pin array (Note: Fil	ll in No	
ıtic va	Part name				Layout	t position	
emme	(Description Page)	Model No.	1 2 3 4	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 Qty.
ents Proc	Wiring block	N4G2R-T					
FRL/Auxiliary components Electronic components	Valve block with solenoid valve	N4G 2 0R-					
/Auxiliary ectronic o	(page 145)	N4G 2 0R-					
F R		N4G 2 0R-					
um nents		N4G 2 0R-					
Vacuum components		N4G 2 0R-					
		N4G 2 0R-					
ne ents		N3G 2 0R-					
Main line components		N3G 2 0R-					
2 0	Valve block with masking plate	N4G 2R-MP					
lor	(page 145)	N4G 2R-MPS					
Fluid control valves		N4G 2R-MPD					
in A	Air supply spacer	4G2R-P-					
ts	(page 149)	4G2R-P-					
Main line components	Exhaust spacer (page 149)	4G2R-R-					
Comp	In-stop valve spacer (page 150)	4G2R-IS					
eria-	Supply and exhaust block	N4G2R-Q -					
Antibacterial/Bacteria- removing filter	(page 147)	N4G2R-Q -					
ibacteri		N4G2R-Q -					
	Partition block (page 148)	N4G2R-S					
um	(page 112)	N4G2R-S					
Vacuum components		N4G2R-S					
ŏ	End block (page 148)	N4G2R-E					
ntrol		N4G2R-E					
Fluid control valves	Mounting rail	L ₂ =	CWD4 P	Blanking p		Silencer	Tag plate (included)
Flui >		*Write an integer multiple of	GWP4-B		GWP8-B GWP10-B	SLW-H8	A Barry
		12.5. (How to determine the length: page 152)	GWP6-B Cable with D-sub		GWP10-B 4GR-CABLE-D0□-□	SLW-H10	

FP2

																											_		:			,		,		lic	٠
Contact				(Q ua	ntit	у		5	set ((s)			(D	eliv	ery	date	Э	1					_		_	ate				/		/		lectric actuator	.
Slip No.														Ord	er N	ю.											Co	omp	oan	У						ator	٠
																											_	onta									1
Manifold m	odel	No																									<u>Or</u>	der	r No).						cylir	Pneumatic
MN	(3			X12	R-	. [_	ĺ			-]	[[-	-			-	[_	FF	21						cylinders	mati
A Mod									size		Ele	ectrica	ıl cor	 nectio	ns		•			/conn			•	Op	tior	1		 Stati				olta	ge			'	
Vhen filling in this	s field,	seled	ct the	e mod	lel No. fr	om "I	Block	con	figura	tions				ing co 150)		tion)				(Note							Ν	lo.								Pne	
Part name																		Lay	out	oositi	on															umai	ı
(Description Page)		N	lode	l No.		1	2	3	4	5	6	7 8	3 9	9 10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	Qty.	Pneumatic valves	
Wiring block	N4G		R	-Т																																_	_
Valve block with	N4G			0R-			T			T	T	Ť	Ť	T	T					T			T	T								П				Electro	Ω /A
solenoid valve (page 145)	N4G			0R-	<u> </u>																															nic con	ilia V
page,	N4G		<u> </u>	0R-		1						+								1																Electronic components	mnone
	N4G			0R-	<u> </u>	1				+			+											\forall												8 8	7
	N4G		<u>L</u>	0R-	<u> </u>	1	\vdash				+	+	+	+						\dashv			+	+										\vdash		com	≦
	N4G	<u> </u>	<u> </u>	0R-	<u> </u>								+											+												components	Vacuum
	N3G	L	<u>L</u>	0R-	<u> </u>	1	\vdash			+	+	+	+	+						\dashv			+	+								\exists		\vdash		nts -	
	N3G	L1	<u> </u>	OR-	<u> </u>	1				+			+																					\vdash		0	٦
		[]	<u> </u>	<u> </u>	<u> </u>	1	<u> </u>			<u> </u>	<u> </u>	$\frac{\perp}{}$	+	+	<u> </u>					\dashv			<u> </u>	<u> </u>								\dashv	\dashv	\dashv	_	components	Main line
Valve block with masking plate	N4G	<u> </u>			-MP					+	-	+	+	+	+					\dashv			-	+								\vdash	\vdash	\vdash		onent	line
(page 145)	N4G	<u> </u>		!	-MPS					+		-	+	-	-					-				-								\vdash	\vdash	\vdash	=	S	4
	N4G	<u> </u>		R	-MPD					1			+	<u> </u>	<u> </u>									4								=	=			;	괴
Air supply spacer	4G1	R-P	-										+											4												valves	힌
page 149)	4G2	R-P	-																															Щ		Se	Fluid control
Exhaust spacer (page 149)	4G1	R-R	-																																		\dashv
page 143)	4G2	R-R	-																																	con :	S
n-stop valve	4G1	R-1	S																																	components	Main line
spacer (page 150)	4G2	R-1	S																																	ents	ਜ਼
Mixed block page 148)	N4G	12R	-MI	x																																	An
Supply and	N4G		R-0	Q	-					Ì	Ť	Ť			Ì					Ì												П		Ħ		remov	ihacte
exhaust block (page 147)	N4G		R-0	2	-								T																							/ing fil	rial/Ba
	N4G		R-0	2	-																															removing filter	cteria-
Partition block	N4G			 R-S	<u>: </u>	1				1			t																			\exists		\exists	=		_
(page 148)	N4G			R-S						+	+	+	+	+						\dashv			+													ompo	Vacuum
	N4G	ļ		R-S								+	+	+						\dashv				+												components	3
and blook	N4G	<u> </u>		R-E	<u> </u>	1				$\frac{1}{1}$	<u> </u>	$\frac{\perp}{\parallel}$	+	+	+					+			+	$\frac{1}{1}$								\exists	\dashv	\dashv	_	S	
End block page 148)	N4G	ļ		R-E R-E					\vdash	+	+	+	+	+						\dashv			+	+	\dashv	\dashv	+	\dashv					\dashv	\dashv	\dashv	;	ᆈ
	1446	<u> </u>			<u>!j</u>									<u> </u>										\dashv					0					닉	\dashv	valves	Fluid control
Mounting rail	L ₂ =		nter	or ~	ultiple of	-		7		Т		[]	_	Blank	T .		1					1_1		\dashv				-	Siler						Included parts	SS	ntro
	12.5		_	er mu nine tl	ultiple of	GW	/P	-В		9	GWP		В		GV	/P	-В			GWF	1	-В			SLW					SLV		andaı		_	Sludeo		

Pneumatic cylinders

nponents Programatic

Main line Vacuum FRL/Auxiliary components components components

Fluid control valves

Vacuum Antibacterial/Bacteria- Main line components removing filter components

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 on a made to order basis)

*	Not	rea	uired	with	standa	rd wirin	a/c	doub	le	wirina.	

	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																								

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 on a made to order basis)

* Not required with standard wiring/double wiring.

ſ	Connector p													Valve	e No.											
Ì	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
Ì	1																									
ı		14																								
Ì	2																									
Ì		15																								
Ì	3																									
Ì		16																								
Ì	4																									
Ì		17																								
Ì	5																									
Ì		18																								
Ì	6																									
Ì		19																								
Ì	7																									
Ì		20																								
Ì	8																									
ı		21																								
Ì	9																									
Ì		22																								
Ì	10																									
Ì		23																								
Ì	11																									
Ì		24																								
Ì	12																									
Ì		25																								
Ì	13 (COI	M)																								

Fluid control valves

Pneumatic cylinders

Pneumatic valves FRL/Auxiliary components Electronic components

Main line components

Fluid control valves

Main line components

Antibacterial/Bacteriaremoving filter

Vacuum components

Fluid control valves

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

* Not required with	standard wiring/double wiring.
NOLIEUUIIEU WILI	Statiuatu Withu/uouble Withu.

	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																								
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 _{COM}	9																								
10 + (COM) power supply	10	10 _{COM}	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 _{COM}		20																								
			21																								
			22																								
			23																								
			24																								
			25 _{COM}																								
			26 _{COM}																								

^{*} Note that when the wiring method is T50/T50R, the COM polarity will be + (positive).

Serial transmission (T6*/T7*) wiring specifications sheet

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

* Not required with standard wiring/double wiring.

0 - 1 - 1 - 1 1 1	Connec	tor pin No.								Valv	e No.							
Serial transmission	T6*	T7*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Connector	1	1																
T6C0: CompoBus/S 8-points	2	2																
T6C1: CompoBus/S 16-points	3	3																
T6G1: CC-Link 16-points	4	4																
	5	5																
	6	6																
	7	7																
	8	8																
	9	9																
	10 _{COI}	и 10																
	11	11																
	12	12																
Thin slot-insertion	13	13																
T7C0: CompoBus/S 8-points	14	14																
T7C1: CompoBus/S 16-points	15	15																
T7D1: DeviceNet 16-points	16	16																
T7E0: S-LINK 8-points	17	17																
T7E1: S-LINK 16-points T7G1: CC-Link 16-points	18	18																
T7L1: SAVE NET 16-points	19	19																
	20 _{COI}	₄ 20																

Pneumatic cylinders

FRL/Auxiliary components Electronic components components

Vacuum

Main line components Fluid control valves

Main line components

Antibacterial/Bacteriaremoving filter

components Vacuum Fluid control valves

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 on a made to order basis)

	Serial transmiss	sion		Connecto pin No.	r											Valve	e No.											
	Senai transmiss	SIOTI		T8*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
T8G1		NDN.	16-point	1																								
T8G2	1	NPN	32-point	2																								
T8GP1	CC-Link	PNP	16-point	3																								
T8GP2	1	PNP	32-point	4																								
T8P1		NPN	16-point	5																								
T8P2	PROFIBUS-DP	INPIN	32-point	6																								
T8PP1	T KOI IBOS-BI	PNP	16-point	7																								
T8PP2		FINE	32-point	8																								T
T8EC1	_	NPN	16-point	9																								\vdash
T8EC2	EtherCAT		32-point	10	t																							
T8ECP1		PNP	16-point	11																								\vdash
T8ECP2		1	32-point	12																								\vdash
T8EN1		NPN	16-point	13	1																							├
T8EN2	EtherNet/IP		32-point	14																								⊢
T8ENP1		PNP	16-point	_	\vdash																							⊢
T8ENP2 T8D1			32-point	15	-																							⊢
T8D1	-	NPN	16-point 32-point	16	-																							⊢
T8DP1	DeviceNet		16-point	17																								ــــ
T8DP2	-	PNP	32-point	18																								╙
T8EB1			16-point	19																								╙
T8EB2	CC-Link	NPN	32-point	20																								L
T8EBP1	IEF Basic		16-point	21																								L
T8EBP2	1	PNP	32-point	22																								L
T8EP1			16-point	23																								
T8EP2	PROFINET	NPN	32-point	24																								
T8EPP1	PROFINET	PNP	16-point	25																								
T8EPP2		PINE	32-point	26																								
				27																								
				28																								T
				29																								\vdash
		<u> </u>	30	t																							t	
				31																								H
				32	\vdash	-				\vdash	<u> </u>			-						-		-	-	-	\vdash	\vdash	\vdash	\vdash