

4TB

Pilot operated 4, 5-port valve

Reduced wiring valve

Overview

The 4TB series is a PLC supporting reduced wiring 4, 5-port valve employing the plug-in method with the coil unit concentrated on a single side. Suitable for operating cylinders of $\phi 20$ to $\phi 180$.

Features

Extensive options

Various spacers and protective structures of IP65 (4TB3/4) are available.

A lightweight and compact is available.

Heat-resistant resin, push-in fitting equipped, and DIN rail method (4TB1/2) models are available.

Flexible increase and decrease of manifold station No.

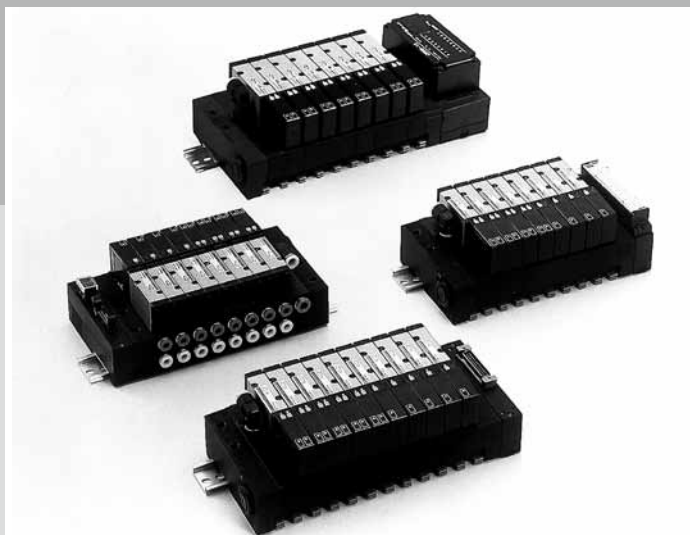
The block manifold system has been employed.

Supports PLC control.

With serial transmission and common terminal blocks, etc., wiring variations are available to support various networks starting with the UNIWIRE system.

Easy piping work and maintenance

With the employment of the plug-in block manifold, dead space has been greatly reduced. A sleek design with no protrusions or dents.



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4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

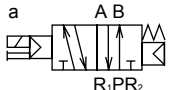
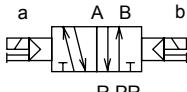
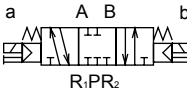
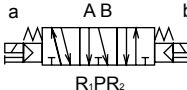
Series variation



Discontinue

4TB Series

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

Series external appearance	Model No.	Position Number of solenoids JIS symbol	Flow characteristics C [dm ³ /(s·bar)]	Applicable cylinder bore size	Voltage (V)	
			*1			
Single unit  	4TB3	● 2-position single 	4.9 to 7.8	φ63 to φ125	100 AC 200 AC 24 DC	
	4TB4	● 2-position double 	9.8 to 14.6	φ125 to φ180	Option 110 AC 220 AC 12 DC	
Reduced wiring manifold    	MN4TB1	● 3-position all ports closed 	0.51 to 1.6	φ20 to φ50	100 AC 200 AC 24 DC	
	MN4TB2		2.1 to 2.8	φ40 to φ80		
	M4TB3	● 3-position A/B/R  ● 3-position P/A/B 	4.9 to 8.8	φ63 to φ125	Option 110 AC 220 AC 12 DC	
	M4TB4		9.6 to 13.8	φ125 to φ180		

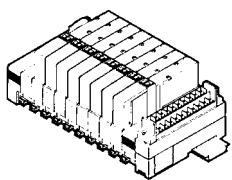
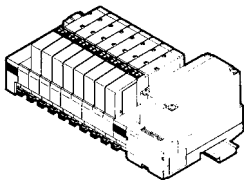
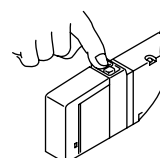
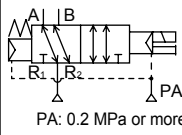
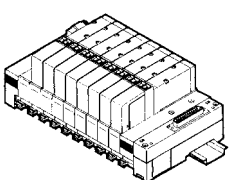
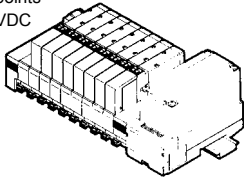
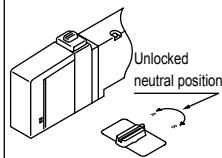
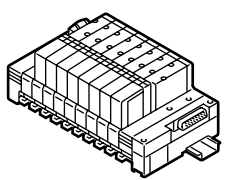
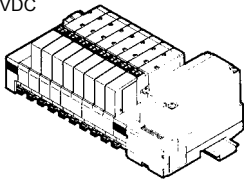
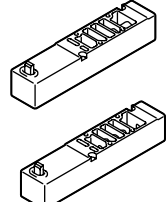
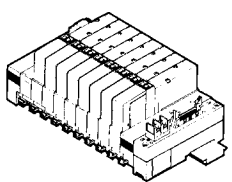
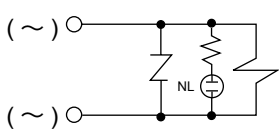
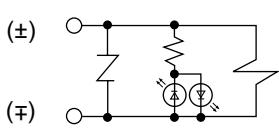
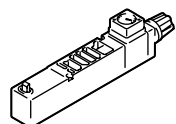
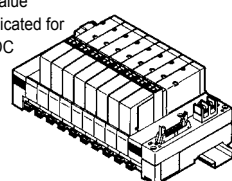
*1: Effective cross-sectional area S and sonic conductance C are converted as $S \approx 5.0 \times C$.

*2: Only Rc1/4 with 4TB3 and only Rc3/8 with 4TB4

	Switching position						Port size of A/B port								Electrical connections						Selection page
	2-position single	2-position double	3-position all ports closed	3-position A/B/R connection	3-position P/A/B connection	Mix	Female thread				Push-in fitting				Terminal block	VA connector (degree of protection IP65)	Common terminal block	D sub-connector	Flat cable connector	Serial transmission	
							Rc1/4	Rc3/8	Rc1/2	Rear piping *2	φ 4	φ 6	φ 8	φ 10							
	●	●	●	●	●		●	●		●					●	●					1084
	●	●	●	●	●			●	●	●					●	●					1084
	●	●	●	●	●	●					●	●	●				●	●	●	●	1090
	●	●	●	●	●	●						●	●	●			●	●	●	●	1090
	●	●	●	●	●	●	●	●		●							●			●	1100
	●	●	●	●	●	●		●	●	●							●			●	1100

* Refer to the following page for details on wiring method and other options.

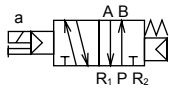
4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

	Wiring method		Manual override	Option
4GA/B M4GA/B MN4GA/B 4GA/B (mastr) 4GD/E M4GD/E MN4GD/E 4GA4/B4 MN3E MN4E W4GA/B2 W4GB4 4TB 4L2-4/ LMF0 MN3S0 MN4S0 4SA/B0 4KA/B 4KA/B (mastr) 4F 4F (mastr) PV5G GMF PV5 GMF PV5S-0 3QR 3QB MV3QR 3MA/B0 3PA/B P/M/B NP/NAP/ NVP 4F*0EX 4F*0E HNV HSV 2QV 3QV SKH PCD Silencer TotAirSys (Total Air) TotAirSys (Gamma) Ending	T10 Common terminal block ● Common wires are connected inside beforehand ● Terminal block wiring 	T6C1 T6D1 T6G1 Serial transmission ● Supports PLCs of various manufacturers [OMRON Corporation, Mitsubishi Electric Co., Ltd.] ● Output points: 16 points (8 points for some models) ● Dedicated for 24 VDC 	Blank Non-locking 	K External pilot  PA: 0.2 MPa or more
	T30 D sub-connector upward facing (4TB1/2 only) ● 25P, dedicated for 12/24 VDC 	T6A0 T6J0 Serial transmission UNIWIRE supported ● UNIWIRE SYSTEM compatible (T6A0) ● UNIWIRE H SYSTEM compatible (T6J0) ● Output points: 8 points ● Dedicated for 24 VDC 	M1 Locking  Unlocked neutral position	P Drip-proof (4TB3, 4 only) ● IP65 or equivalent
	T31 D sub-connector lateral facing (4TB1/2 only) ● 25P, dedicated for 12/24 VDC 	T6A1 T6J1 Serial transmission UNIWIRE supported ● UNIWIRE system compatible (T6A1), UNIWIRE H system compatible (T6J1) ● Output points: 16 points ● Dedicated for 24 VDC 		P R Independent supply spacer Independent exhaust spacer (4TB3, 4 only) 
	T50 Flat cable connector (4TB1/2 only) ● 20P, dedicated for 12/24 VDC ● Compliant with MIL standards (MIL-C-83503) 	<u>Internal circuit diagram with surge suppressor/lamp</u> AC  DC 		A SR-B P Spacer regulator (4TB3, 4 only) ● A port regulator ● B port regulator ● P port regulator 
	T50A Flat cable connector with amplification circuit (4TB1/2 only) ● Used when voltage drop is large and interferes with proper operation of valves ● Used for driving from control equipment with a small output current value ● 20P, dedicated for 12/24 VDC 			

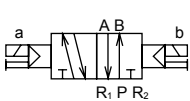
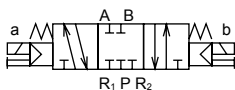
MEMO	4GA/B
	M4GA/B
	MN4GA/B
	4GA/B (mastr)
	4GD/E
	M4GD/E
	MN4GD/E
	4GA4/B4
	MN3E MN4E
	W4GA/B2
	W4GB4
	4TB
	4L2-4/ LMF0
	MN3S0 MN4S0
	4SA/B0
	4KA/B
	4KA/B (mastr)
	4F
	4F (mastr)
	PV5G GMF
	PV5 GMF
	PV5S-0
	3QR 3QB
	MV3QR
	3MA/B0
	3PA/B
	P/M/B
	NP/NAP/ NVP
	4F*0EX
	4F*0E
	HMV HSV
	2QV 3QV
	SKH
	PCD
	Silencer
	TotAirSys (Total Air)
	TotAirSys (Gamma)
	Ending

Single unit
5-port valve**4TB3/4TB4 Series**● Cylinder bore size: $\phi 63$ to $\phi 180$ **JIS symbol**

- 5-port valve
2-position single



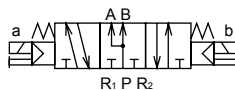
2-position double

3-position
all ports closed

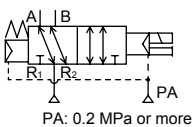
3-position A/B/R connection



3-position P/A/B connection



- External pilot



PA: 0.2 MPa or more

(Code indicates 2-position single)

Common specifications 1 MPa = 10 bar

Descriptions	Content
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	1.0 (≈ 150 psi, 10 bar)
Min. working pressure MPa	2-position 0.15 (≈ 22 psi) (single), 0.10 (≈ 15 psi) (double) 3-position 0.20 (≈ 29 psi, 2 bar)
Proof pressure MPa	1.50 (≈ 220 psi, 15 bar)
Ambient temperature °C	5 (41°F) to 50 (122°F)
Fluid temperature °C	5 (41°F) to 50 (122°F)
Lubrication	Not required
Degree of protection	Dust-proof (IP65 equivalent: option)
Vibration resistance m/s^2	50 or less
Shock resistance m/s^2	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: The working pressure when the external pilot (option code: K) has been selected is 0 to 1.0 MPa. In addition, use the pilot with a pressure of 0.2 to 1.0 MPa.

Electrical specifications

Descriptions	Content
Rated voltage	AC 100, 200(50/60 Hz) V DC 24
Voltage fluctuation range	$\pm 10\%$
Starting current A	AC 100 V 0.056 / 0.044 200 V 0.028 / 0.022
Holding current A	AC 100 V 0.028 / 0.022 200 V 0.014 / 0.011
Power consumption W	DC 24 V 0.080 AC 100 V 1.8 / 1.4 200 V 1.8 / 1.4
Thermal class	B (molded coil)
Temperature rise °C	50

Reference: 100 VAC 50/60 Hz can be used with a rated voltage of 110 VAC 60 Hz and 200 VAC 50/60 Hz can be used with 220 VAC 60 Hz.

Individual specifications

Descriptions	4TB3	4TB4
Port size	R port Rc3/8 P/A/B port Rc1/4 / Rc3/8 PR port Rc1/8 PA port Rc1/8	Rc1/2 Rc3/8 / Rc1/2
Response time *1 ms	2-position 30 or less 3-position 50 or less	50 or less 70 or less
Weight g	2-position Single 733 Double 750 3-position 767	1062 1080 1110

*1: As G and NPT threads can also be used for piping port screws, contact CKD for details.

*2: The response time is the value at 0.5 MPa working pressure, with no lubrication, and with the power ON. It depends on the pressure and the lubricant quality.

Flow characteristics

Model No.	Solenoid position	C[dm ³ /(s·bar)]	b
4TB3	2-position	7.0	0.25
	3-position	All ports closed 5.9	0.35
		A/B/R connection 4.9	0.38
		P/A/B connection 7.8	0.15
4TB4	2-position	12.4	0.23
	3-position	All ports closed 11.9	0.30
		A/B/R connection 9.8	0.34
		P/A/B connection 14.6	0.24

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

Copper and PTFE free specifications

- Copper- and PTFE-based materials are not used in the flow path.

(AC) ** - Voltage - **P6**

(DC) Standard specifications

Coolant proof specifications

(Catalog No. CC-N-375A)

- Special structure with outstanding oil and water resistance

** - **A** - Voltage

How to order single valve

- Sub-plate

4TB3 1 0 - 08 - M1 L R - 1

- Single solenoid valve for manifold

4TB3 1 9 - 00 - M1 L - 1

A Model No. B Solenoid position

C Port size
*1

D Manual override

E Display/protection circuit
Refer to page 1082 for the circuit diagram with surge suppressor/lamp.

F Electrical connections
*2

G Other options

H Voltage

[Example of model No.]
4TB310-08-M1LRK-3

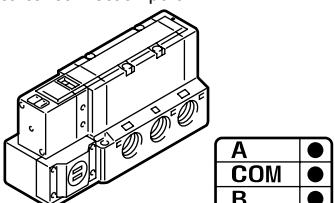
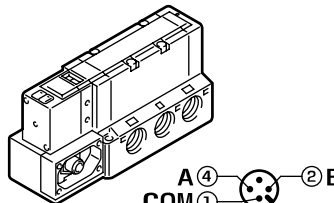
A Model : 4TB3

- B Solenoid position : 2-position single
C Port size : Cylinder port is Rc1/4
D Manual operating device: Locking
E Display/protection circuit: With surge suppressor and indicator lamp
F Electrical connections : VA connector
G Other options : External pilot
H Voltage : 24 VDC

⚠ Precautions for model No. selection

*1: Port size indicates P/A/B ports.
The R port is Rc3/8 with 4TB3 and Rc1/2 with 4TB4 while the PR/PA ports are Rc1/8.

*2. Electrical connections

Shape / terminal arrangement	Terminal thread size for Electrical connection port M3, 5 PF1/2	
		
Name	Terminal block	*3 VA connector
Code	Blank	R

- VA connector connection cable example

Manufacturer	*5: Model No. (overview)
OMRON Corporation	XS2F-D421-C80-A
	XS2F-D421-C81-A
Correns Corp.	TM-4DSX1H4
	TM-4DSB1H4
Azbil Corp.	PA5-4ISX2HK
	PA5-4ISB2HK

*3: Note that with the VA connector (R), the cable side connector format will differ depending on the power supply (AC, DC) being used.

*4: With the above connection cables, the top row is for single-sided connectors while the bottom row is for both-sided connectors (male/female).

*5: The model No. shown is a representative model No. of the DC type with 4 cores. For details, contact each manufacturer.

		A Model No.	
		4TB3	4TB4
Code	Content		
B Solenoid position			
1	2-position single	●	●
2	2-position double	●	●
3	3-position all ports closed	●	●
4	3-position A/B/R connection	●	●
5	3-position P/A/B connection	●	●
C Port size			
08	Rc 1/4	●	●
08Y	Rc 1/4 (rear piping)	●	●
10	Rc 3/8	●	●
10Y	Rc 3/8 (rear piping)	●	●
15	Rc 1/2	●	●
D Manual override			
Blank	Non-locking	●	●
M1	Locking	●	●
E Display/protection circuit			
Blank	Without surge suppressor/lamp	●	●
L	with surge suppressor and indicator lamp	●	●
F Electrical connections			
Blank	Terminal block	●	●
R	VA connector (degree of protection IP65)	●	●
G Other options			
Blank	No option	●	●
K	External pilot	●	●
H Voltage			
1	Standard	100 VAC (50/60 Hz)	●
2		200 VAC (50/60 Hz)	●
3		24 VDC	●
4	Option	12 VDC	●
5		110 VAC (50/60 Hz)	●
6		220 VAC (50/60 Hz)	●

4GA/B

M4GA/B

MN4GA/B

4GA/B (mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/

LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (mastr)

4F

4F (mastr)

PV5G

GMF

PV5

GMF

PV5S-0

3QR

3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F*0EX

4F*0E

HNV

HSV

2QV

3QV

SKH

PCD

Silencer

TotAirSys

(Total Air)

TotAirSys

(Gamma)

Ending

4TB3/4TB4 Series

Single valve

Internal structure and parts list

4GA/B

M4GA/B

MN4GA/B

4GA/B
(mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/
LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B
(mastr)

4F

4F
(mastr)PV5G
GMFPV5
GMF

PV5S-0

3QR
3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/
NVP

4F*0EX

4F*0E

HMV
HSV2QV
3QV

SKH

PCD

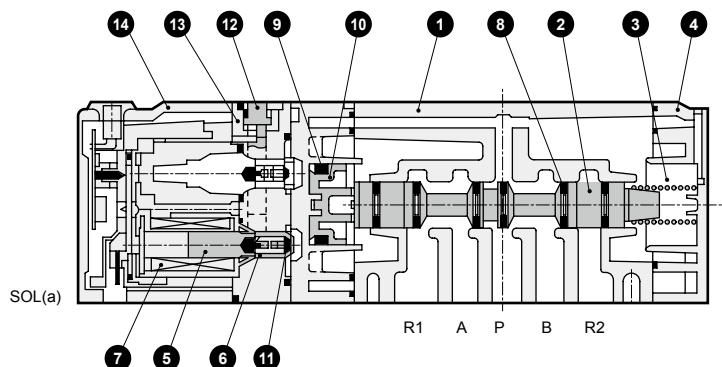
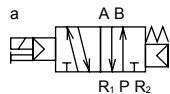
Silencer

TotAirSys
(Total Air)TotAirSys
(Gamma)

Ending

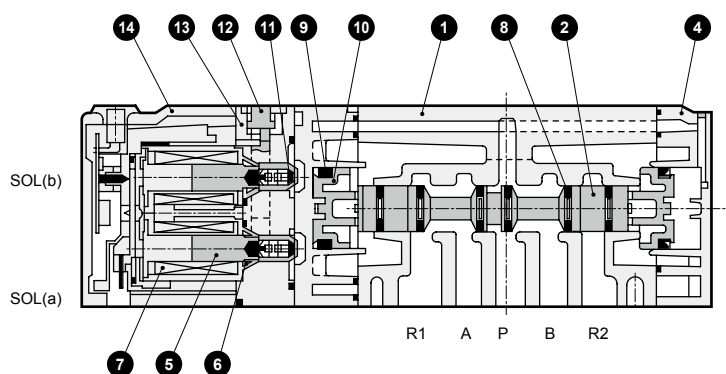
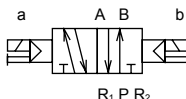
4TB319/4TB419

● 2-position single



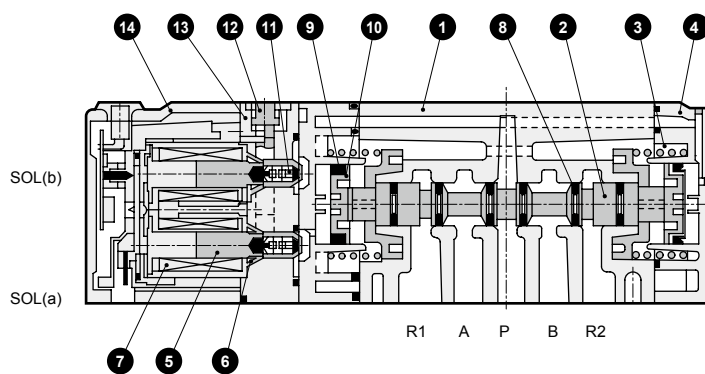
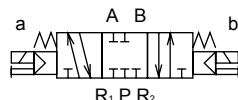
4TB329/4TB429

● 2-position double



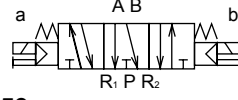
4TB339/4TB439

● 3-position all ports closed



4TB349/4TB449

● 3-position A/B/R connection



4TB359/4TB459

● 3-position P/A/B connection



Main parts list

Repair parts list

No.	Part name	Material	No./part name Model No.	2 8 9 10 Spool/piston assembly	5 6 7 14 Coil assembly
1	Body	Aluminum alloy die-casting	4TB310	4T9-111	4TB310 - E Display/protection circuit - COIL - H Voltage
2	Valving element (spool)	Aluminum	4TB320	4T9-112	4TB320 - E Display/protection circuit - COIL - H Voltage
3	Valve spring	Stainless steel wire for springs	4TB330	4T9-113	4TB330 - E Display/protection circuit - COIL - H Voltage
4	Cap	Resin	4TB340	4T9-114	4TB340 - E Display/protection circuit - COIL - H Voltage
5	Plunger	-	4TB350	4T9-115	4TB350 - E Display/protection circuit - COIL - H Voltage
6	Plunger spring	-	4TB410	4T9-116	4TB410 - E Display/protection circuit - COIL - H Voltage
7	Coil assembly	-	4TB420	4T9-117	4TB420 - E Display/protection circuit - COIL - H Voltage
8	Spool packing	Nitrile rubber	4TB430	4T9-118	4TB430 - E Display/protection circuit - COIL - H Voltage
9	Y-shaped packing	Nitrile rubber	4TB440	4T9-119	4TB440 - E Display/protection circuit - COIL - H Voltage
10	Piston	Resin	4TB450	4T9-120	4TB450 - E Display/protection circuit - COIL - H Voltage
11	Valve seat	Nitrile rubber			
12	Manual button	Resin			
13	Pilot valve	Resin			
14	Cover	Resin			

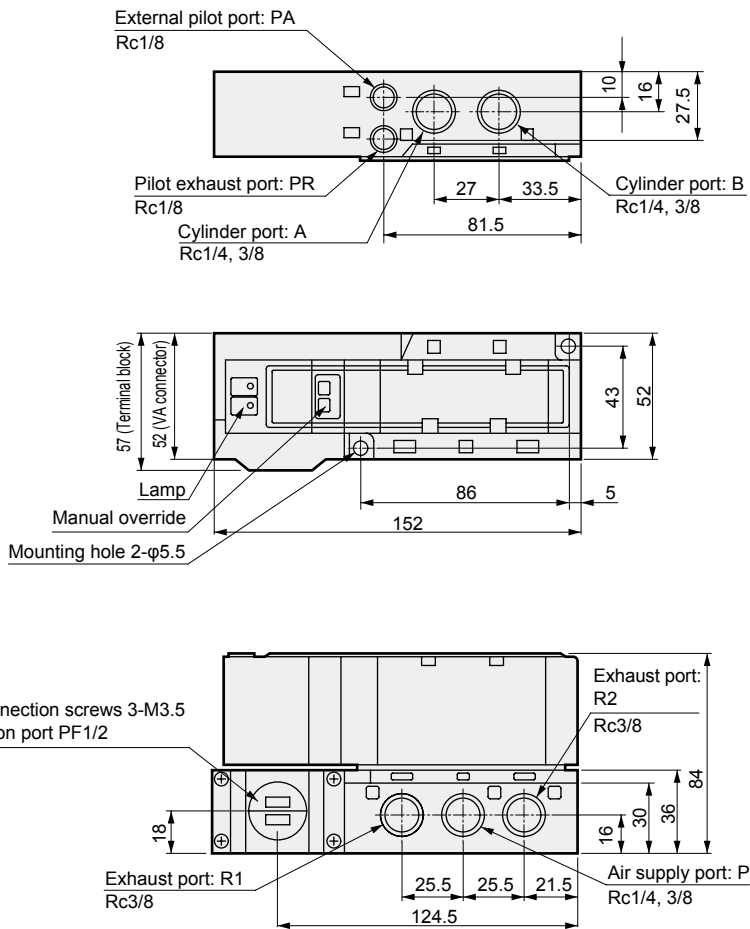
● 4TB3*0 and 4TB4*0 are common in terms of their solenoid positions.

Dimensions

4TB3*0



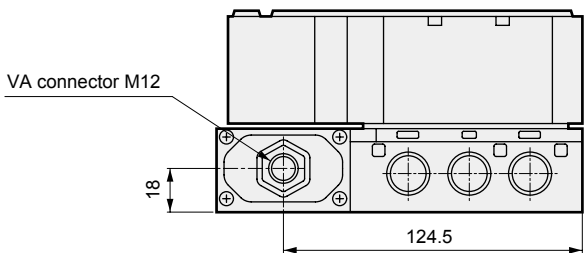
● Terminal block



4TB3*0-*R

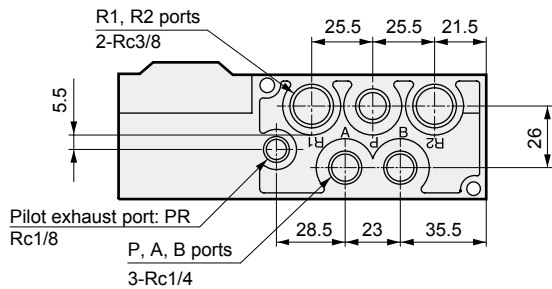


● VA connector



4TB3*0-08Y

● Rear piping



4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4TB4 Series

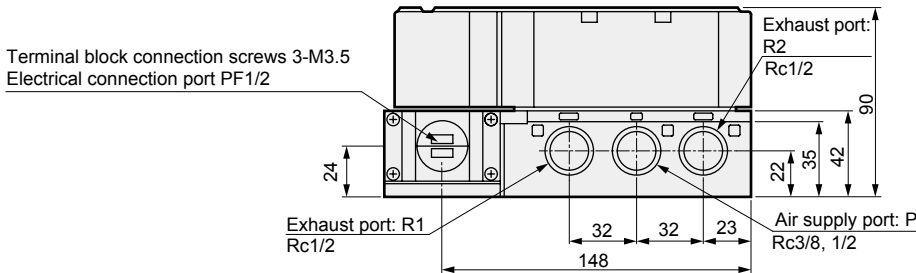
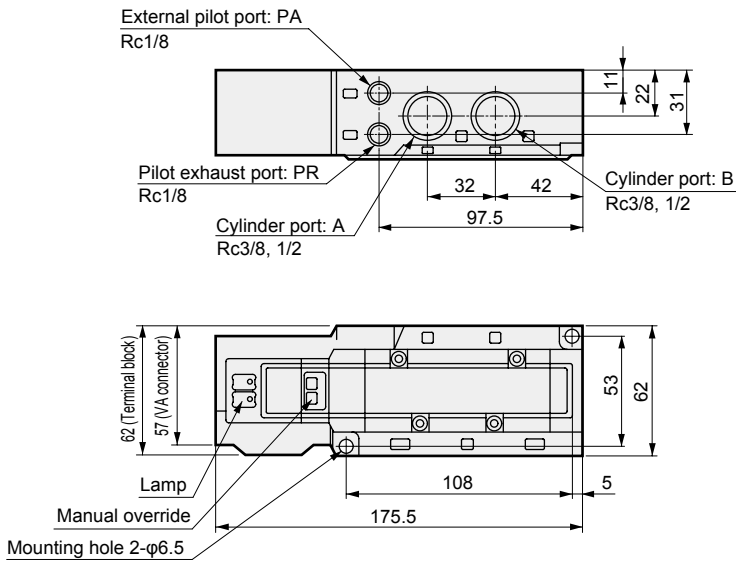
Single valve; sub-plate piping

Dimensions

4TB4*0



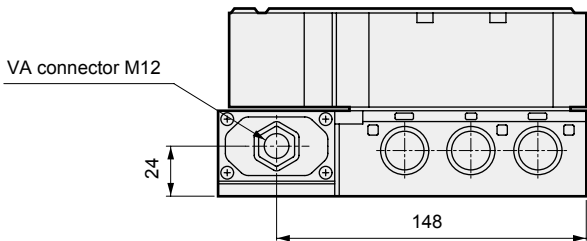
● Terminal block



4TB4*0-*.R

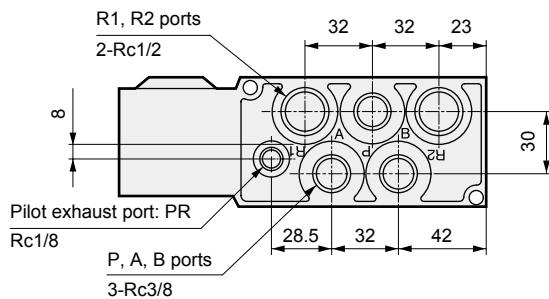


● VA connector



4TB4*0-08Y

● Rear piping



MEMO

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

Reduced wiring block manifold
4-port valve DIN rail mount

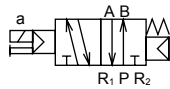
MN4TB1/2 Series

● Cylinder bore size: $\phi 20$ to $\phi 80$

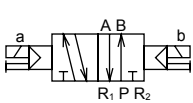


JIS symbol

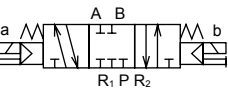
- 5-port valve
2-position single



- 2-position double



- 3-position
all ports closed



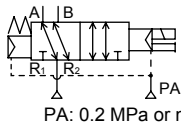
- 3-position A/B/R connection



- 3-position P/A/B connection



- External pilot



(Code indicates 2-position single)

Common specifications

Descriptions	Content
Manifold method	Block manifold system
Manifold	Common supply, common exhaust
Station No.	≥2 stations (See next page: wiring specs)
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	0.70 (≈100 psi, 7 bar)
Min. working pressure MPa	2-position 0.15 (≈22 psi) (single), 0.10 (≈15 psi) (double) 3-position 0.20 (≈29 psi, 2 bar)
Proof pressure MPa	1.05 (≈150 psi, 10.5 bar)
Ambient temperature °C	5 (41°F) to 50 (122°F)
Fluid temperature °C	5 (41°F) to 50 (122°F)
Lubrication	Not required
Degree of protection	Dust-proof
Vibration resistance m/s ²	50 or less
Shock resistance m/s ²	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: The working pressure when the external pilot (option code: K) has been selected is 0 to 0.7 MPa. In addition, use the pilot with a pressure of 0.2 to 0.7 MPa.

Individual specifications

Descriptions	4TB1	4TB2
Port size		
P/R port	Push-in fitting (φ6, φ8)	Push-in fitting (φ8, φ10, φ12)
A/B Port	Push-in fitting (φ4, φ6, φ8)	Push-in fitting (φ6, φ8, φ10)
PA port	Push-in fitting (φ6)	
Response time ms	2-position 20 or less 3-position 30 or less	

*1: The response time is the value at 0.5 MPa working pressure, with no lubrication, and with the power ON. It depends on the pressure and the lubricant quality.

Flow characteristics

Model No.	Solenoid position	C[dm ³ /(s·bar)]	b
4TB1	2-position	1.2	0.22
	3-position	All ports closed	0.58
		A/B/R connection	0.51
		P/A/B connection	1.6
4TB2	2-position	2.4	0.30
	3-position	All ports closed	2.3
		A/B/R connection	2.1
		P/A/B connection	2.8

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

Weight

Descriptions	4TB1	4TB2
Solenoid valve only (g)		
2-position single	130	150
2-position double	135	155
3-position	140	160

Block	4TB1	4TB2
Masking plate (g)	42	55
End block NE (g)	73	87
Supply and exhaust block internal pilot (g)	60	78
Supply and exhaust block external pilot (g)	60	78
Supply block NP (g)	60	78
Exhaust block NR (g)	60	78
Valve block (g)	49	65

Block	4TB1/2
Wiring block T10 (g)	99
Wiring block T20 (g)	128
Wiring block T30 (g)	78
Wiring block T31 (g)	78
Wiring block T50 (g)	76
Wiring block T6* (g)	335

Slave unit specifications (Refer to page 1130 for the applicable PLC compatibility table.)

Descriptions	T6D1 *1
Unit side power supply voltage	24 VDC ±10%
Valve side power supply voltage	24 VDC +10%, -5%
Unit side current consumption	100 mA or less (when all output points are ON)
Valve side current consumption	15 mA or less (when all points are OFF)
Output points	16 points

Descriptions	T6C1	T6G1 *2	T6A1 T6A0	T6J1 T6J0
Unit side power supply voltage	24 VDC ±10%		24 VDC	
Valve side power supply voltage	24 VDC +10%, -5%		+10%, -5% (Common power supply terminal)	
Unit side current consumption	40 mA or less (when all output points are ON)	100 mA or less (when all output points are ON)	200 mA or less when all output points are ON (Note that current consumption of valve body is not included.)	150 mA or less when all output points are ON (Note that current consumption of valve body is not included.)
Valve side current consumption	15 mA or less (when all points are OFF)			
Output points	16 points		T6A1: 16 points T6A0: 8 points	T6J1: 16 points T6J0: 8 points

*1: Contact CKD for EDS file. (EDS file: A text file of parameters for communication with various companies' master units)

*2: CC-Link is Ver. 1.10.

Manifold wiring specifications *2

Descriptions	Content	Max. station No.		
		2-position single	2-position double solenoid 3-position	Mix manifold (solenoid No. of points)
Common terminal block *2	T10	Terminal thread size M3.5	19 stations (19 points)	9 stations (19 points)
D sub-connector	T30, T31	It is possible to connect D sub-connectors (25 terminals) compliant with MIL standards	20 stations	10 stations (20 points)
Flat cable connector	T50, T50A	Press welding connector MIL-C-83503 compliant, press welding socket 20P, strain relief equipped, flat cable 1.27 mm pitch 20 pts	16 stations	8 stations (16 points)
Serial transmission (with dedicated unit)	T6A0	UNIWIRED SYSTEM compatible	8 stations	4 stations (8 points)
	T6A1		16 stations	8 stations (16 points)
	T6C1	CompoBus/S compatible	16 stations	8 stations (16 points)
	T6D1	DeviceNet compatible	16 stations	8 stations (16 points)
	T6G1	CC-Link compatible	16 stations	8 stations (16 points)
	T6J0	UNIWIRED H SYSTEM compatible	8 stations	4 stations (8 points)
	T6J1		16 stations	8 stations (16 points)

*1 : Consult with CKD to use a number of manifold stations greater than the max. station number for each wiring specification.

*2 : For 10 stations or more with the common terminal block (T10), wiring specifications sheet (pages 1138 to 1139) will be necessary.

Copper and PTFE free specifications

- Copper- and PTFE-based materials are not used in the flow path.

** - Voltage - **P6**

Coolant proof specifications (Catalog No.CC-N-375A)

- Special structure with outstanding oil and water resistance

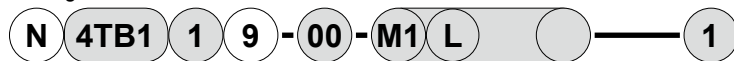
** - **A** - Station No. - Voltage

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

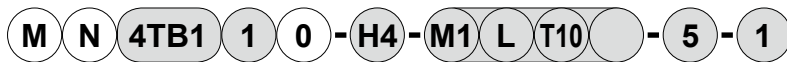
MN4TB1/2 Series

How to order reduced wiring manifold 4 port valve

- Single solenoid valve for manifold



- Block manifold



* Be sure to fill in the "Manifold specifications sheet" (pages 1136 to 1140).

A Model No.

	4TB1	4TB2

Code	Content
------	---------

B Solenoid position			
1	2-position single	●	●
2	2-position double	●	●
3	3-position all ports closed	●	●
4	3-position A/B/R connection	●	●
5	3-position P/A/B connection	●	●
8	Mix manifold (when there are multiple solenoid positions)	●	●

C Port size			
H4	φ4 push-in fitting	●	
H6	φ6 push-in fitting	●	●
H8	φ8 push-in fitting	●	●
H10	φ10 push-in fitting		●
HX	Bore size mix	●	●

D Manual override			
Blank	Non-locking	●	●
M1	Locking	●	●

E Display/protection circuit			
Blank	Without surge suppressor/lamp	●	●
L	With surge suppressor and indicator lamp	●	●

F Wiring method			
T10	Common terminal block	●	●
T30	D sub-connector upward facing	(1)	(1)
T31	D sub-connector lateral facing	(1)	(1)
T50	Flat cable connector	(1)	(1)
T50A	Flat cable connector with amplification circuit	(2)	(2)

Serial transmission			
T6A0	UNIWIRED SYSTEM compatible (8 points)	(2)	(2)
T6A1	UNIWIRED SYSTEM compatible (16 points)	(2)	(2)
T6C1	CompoBus/S compatible (16 points)	(2)	(2)
T6D1	DeviceNet compatible (16 points)	(2)	(2)
T6G1	CC-Link compatible (16 points)	(2)	(2)
T6J0	UNIWIRED H SYSTEM compatible (8 points)	(2)	(2)
T6J1	UNIWIRED H SYSTEM compatible (16 points)	(2)	(2)

G Other options			
Blank	No option	●	●
K	External pilot	●	●

H Manifold station No.			
2	2 stations		
to	to	●	●
n	Each max. station No. (Confirm wiring specs on previous page.)		

I Voltage			
1	Standard	100 VAC 50/60 Hz	●
2	Standard	200 VAC 50/60 Hz	●
3	Standard	24 VDC	●
4	Standard	12 VDC	●
5	Option	110 VAC 50/60 Hz	●
6	Option	220 VAC 50/60 Hz	●

- Refer to page 1127 for the model No. of cables with D sub-connector.
- Refer to page 1131 for the model No. of cables for flat cable connector.

⚠ Precautions for model No. selection

*1: The supply and exhaust block for the external pilot is supply and exhaust block (1NQSH*K) only: individual supply blocks (1NPSH*) or exhaust blocks (1NRSH*) cannot be used. Consult with CKD for use of supply blocks and/or exhaust blocks.

[Example of model No.]

MN4TB110-H6-M1LT10K-8-3

Model: MN4TB1

- Solenoid position : 2-position single
- Port size : The cylinder port is a φ6 push-in fitting
- Manual operating device : Locking
- Display/protection circuit : With surge suppressor and indicator lamp
- Wiring method : Common terminal block
- Other options : External pilot
- Manifold station No. : 8 stations
- Voltage : 24 VDC

● Other options

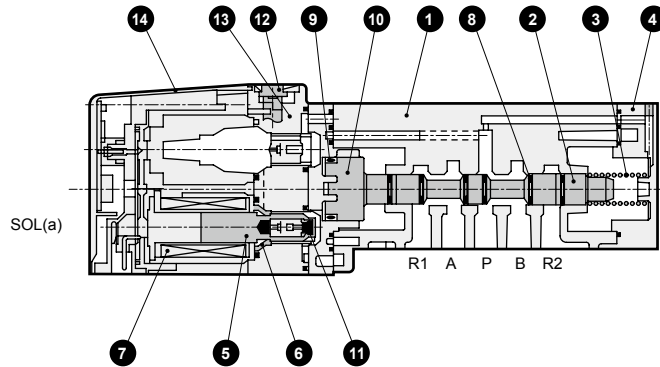
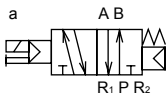
● Manifold station No.

● Voltage

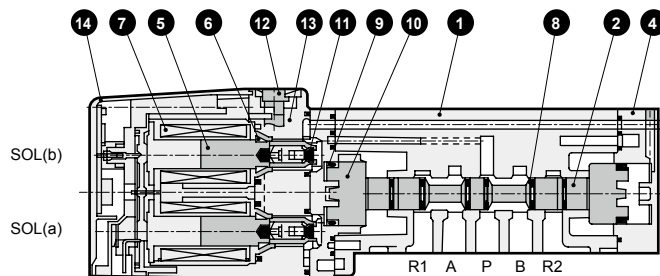
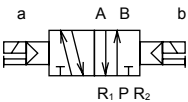
Internal structure and parts list

4TB119/4TB219

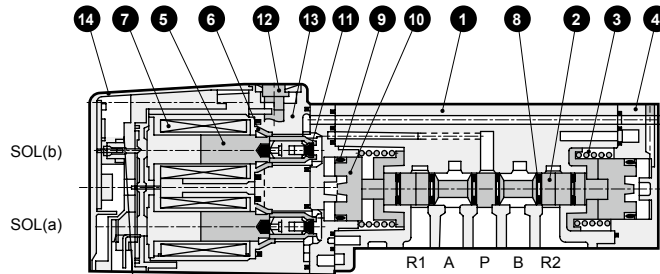
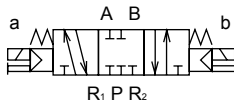
● 2-position single

**4TB129/4TB229**

● 2-position double

**4TB139/4TB239**

● 3-position all ports closed

**4TB149/4TB249**

● 3-position A/B/R connection

**4TB159/4TB259**

● 3-position P/A/B connection



Main parts list

No.	Part name	Material
1	Body	Aluminum alloy die-casting
2	Valving element (spool)	Aluminum
3	Valve spring	Stainless steel wire for springs
4	Cap	Resin
5	Plunger	-
6	Plunger spring	-
7	Coil assembly	-
8	Spool packing	Nitrile rubber
9	Y-shaped packing	Nitrile rubber
10	Piston	Resin
11	Valve seat	Nitrile rubber
12	Manual button	Resin
13	Pilot valve	Resin
14	Cover	Resin

Repair parts list

No./part name	Model No.	2 8 9 10	5 6 7 14
		Spool/piston assembly	Coil assembly
4TB110	4T9-101		4TB110- Display/protection circuit - COIL - Voltage
4TB120	4T9-102		
4TB130	4T9-103		4TB120- Display/protection circuit - COIL - Voltage
4TB140	4T9-104		
4TB150	4T9-105		
4TB210	4T9-106		4TB210- Display/protection circuit - COIL - Voltage
4TB220	4T9-107		
4TB230	4T9-108		4TB220- Display/protection circuit - COIL - Voltage
4TB240	4T9-109		
4TB250	4T9-110		

● 4TB1*0 and 4TB2*0 are common in terms of their solenoid positions.

4GA/B

M4GA/B

MN4GA/B

4GA/B (mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/

LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (mastr)

4F

4F (mastr)

PV5G

GMF

PV5

GMF

PV5S-0

3QR

3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

PCD

Silencer

TotAirSys

(Total Air)

TotAirSys

(Gamma)

Ending

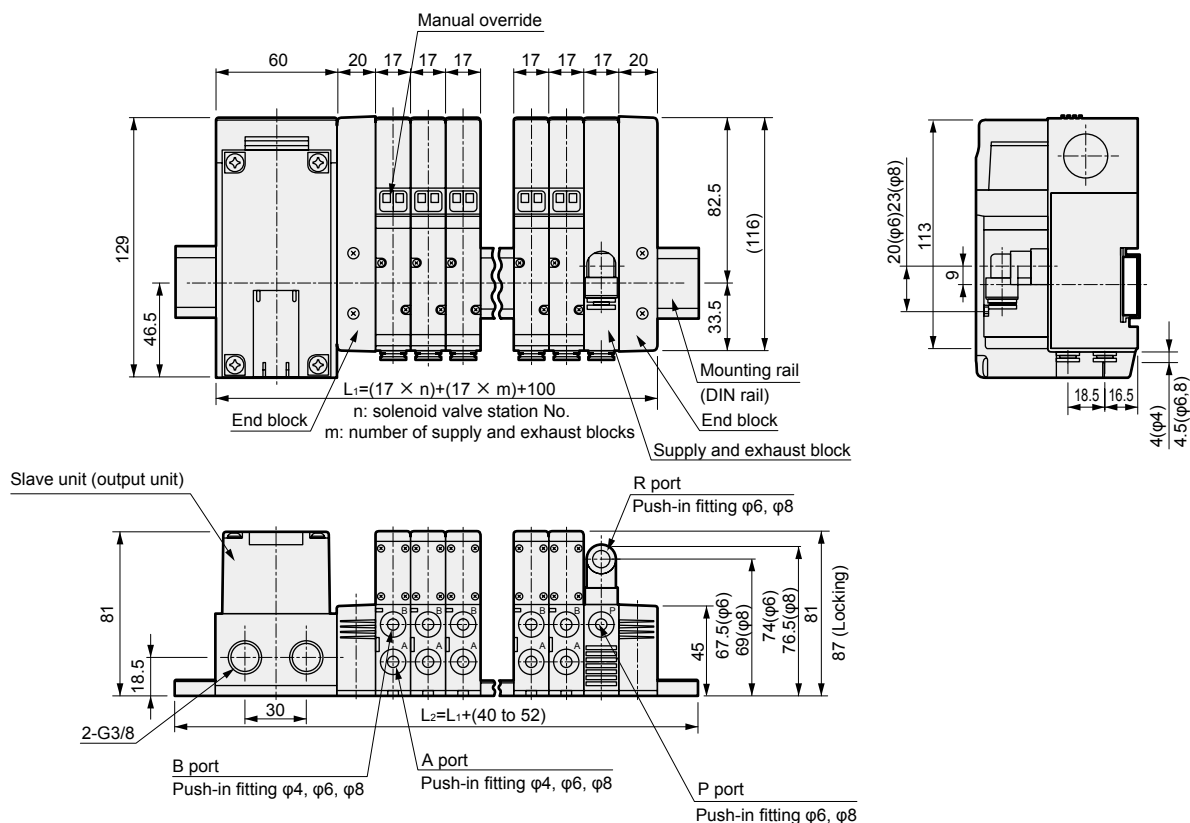
MN4TB1 Series

Reduced wiring block manifold; DIN rail mounting

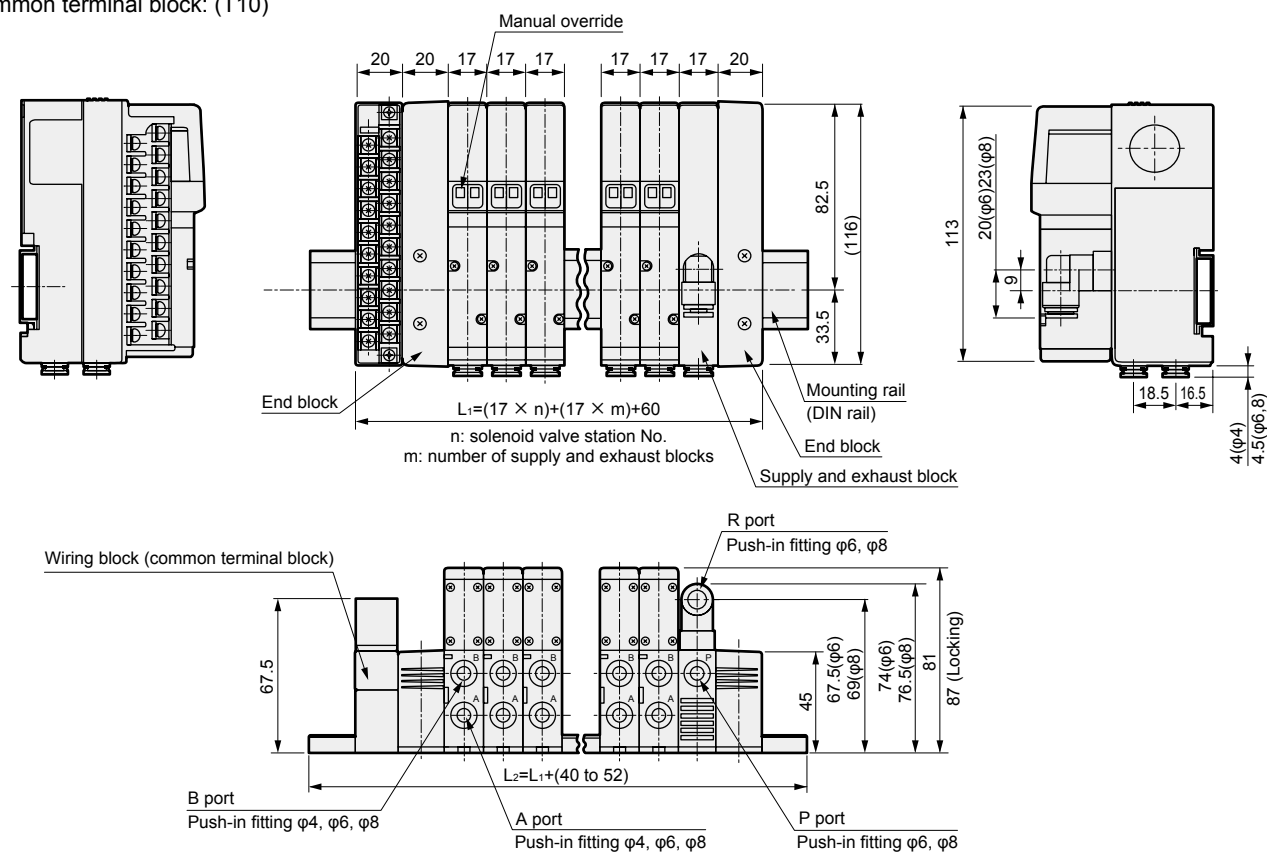
Dimensions

**MN4TB1*0-*-*(T6A0 to T6J1) -***

- Serial transmission: (T6A0/T6A1/T6C1/T6D1/T6G1/T6J0/T6J1)

**MN4TB1*0-*-*T10-***

- Common terminal block: (T10)

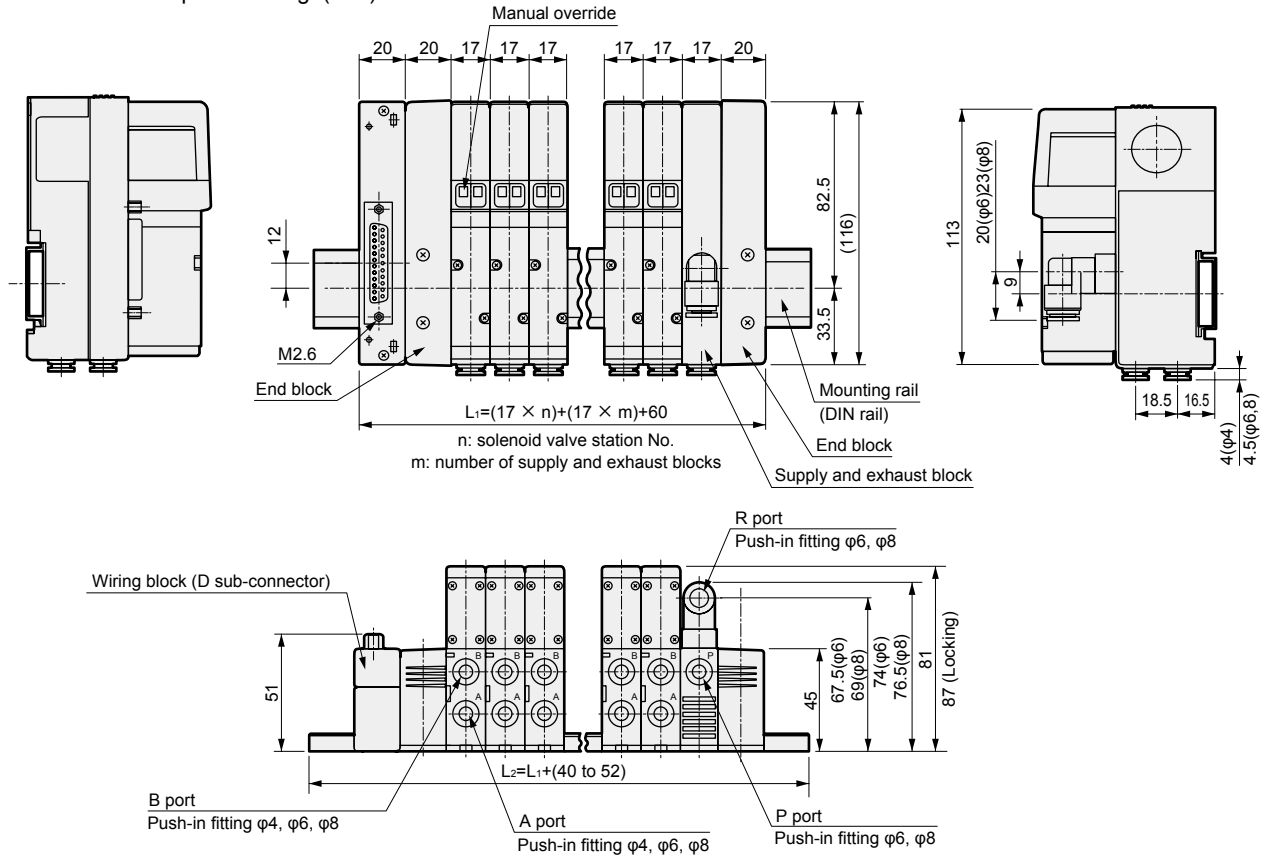


Dimensions



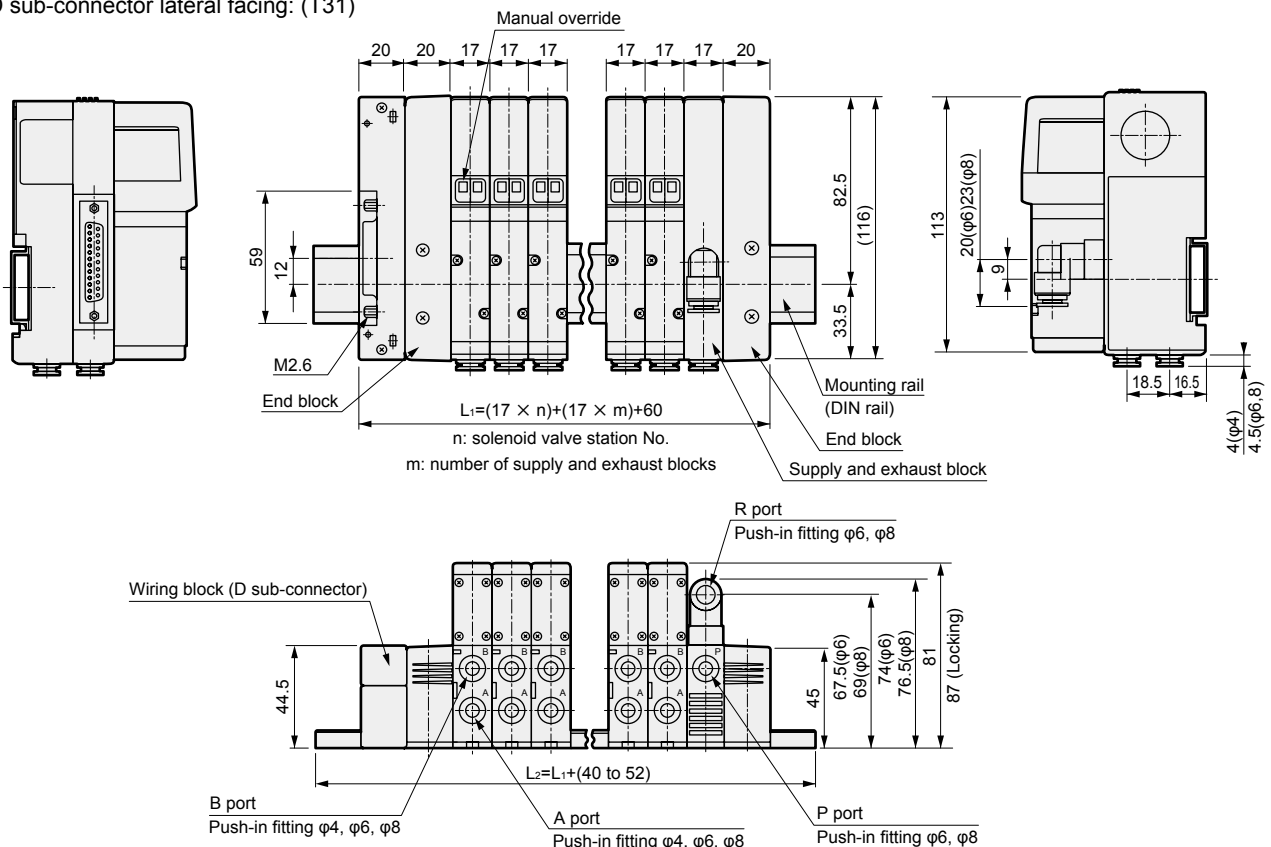
MN4TB1*0-*T30-*

- D sub-connector upward facing: (T30)



MN4TB1*0-*T31-*

- D sub-connector lateral facing: (T31)



4GA/B

M4GA/B

MN4GA/B

4GA/B

(mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/

LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B

(mastr)

4F

4F

(mastr)

PV5G

GMF

PV5

GMF

PV5S-0

3QR

3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

PCD

Silencer

TotAirSys

(Total Air)

TotAirSys

(Gamma)

Ending

MN4TB1 Series

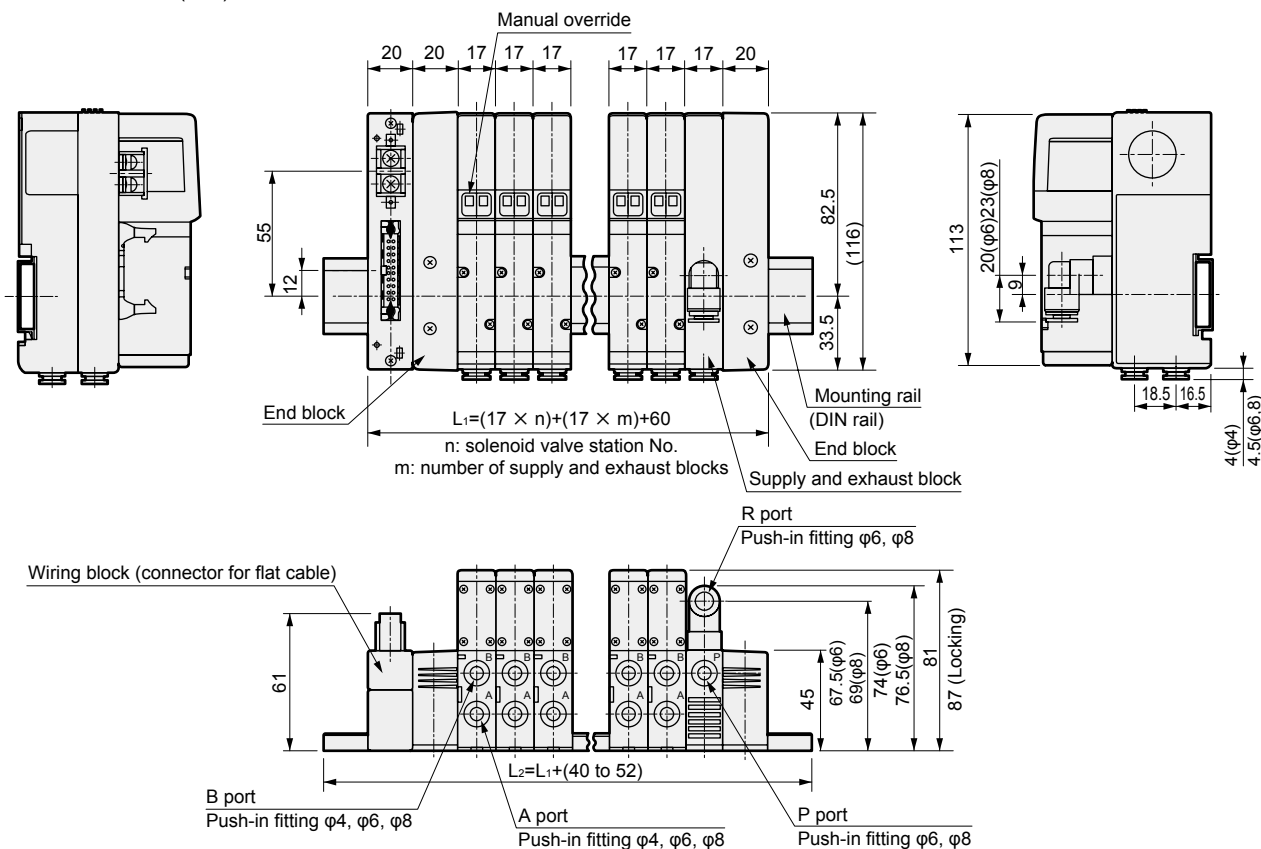
Reduced wiring block manifold; DIN rail mounting

Dimensions

MN4TB1*0-*T50*

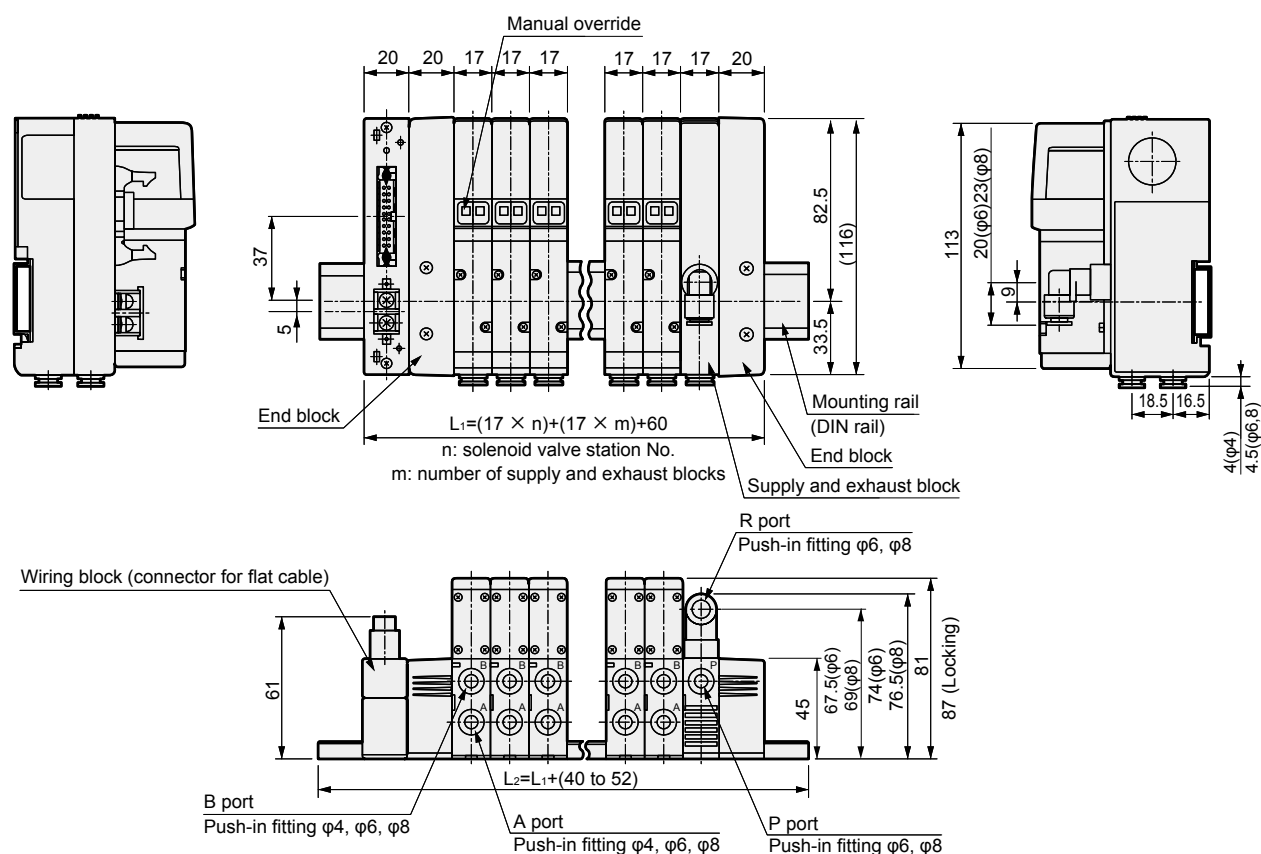


● Flat cable connector: (T50)



MN4TB1*0-*T50A*

● Flat cable connector with amplification circuit: (T50A)

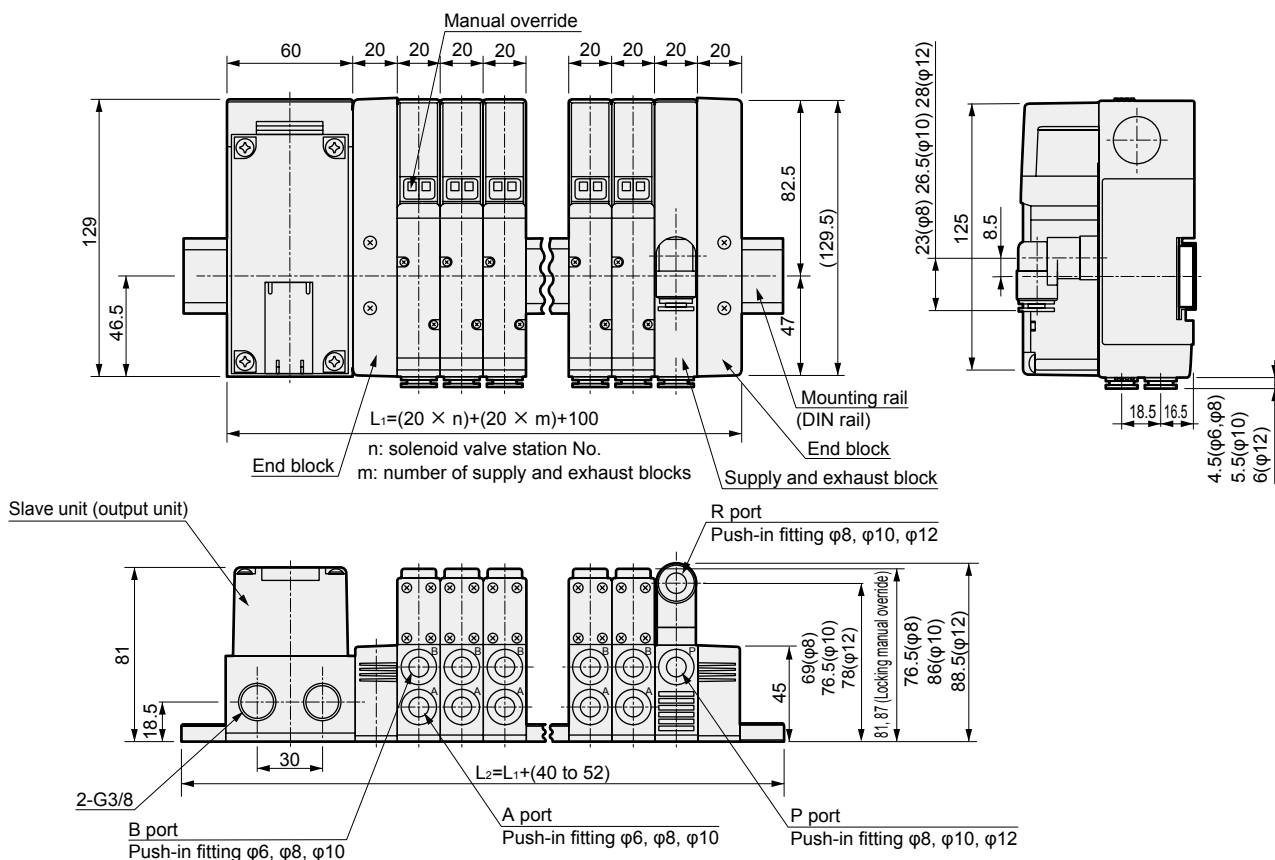


Dimensions



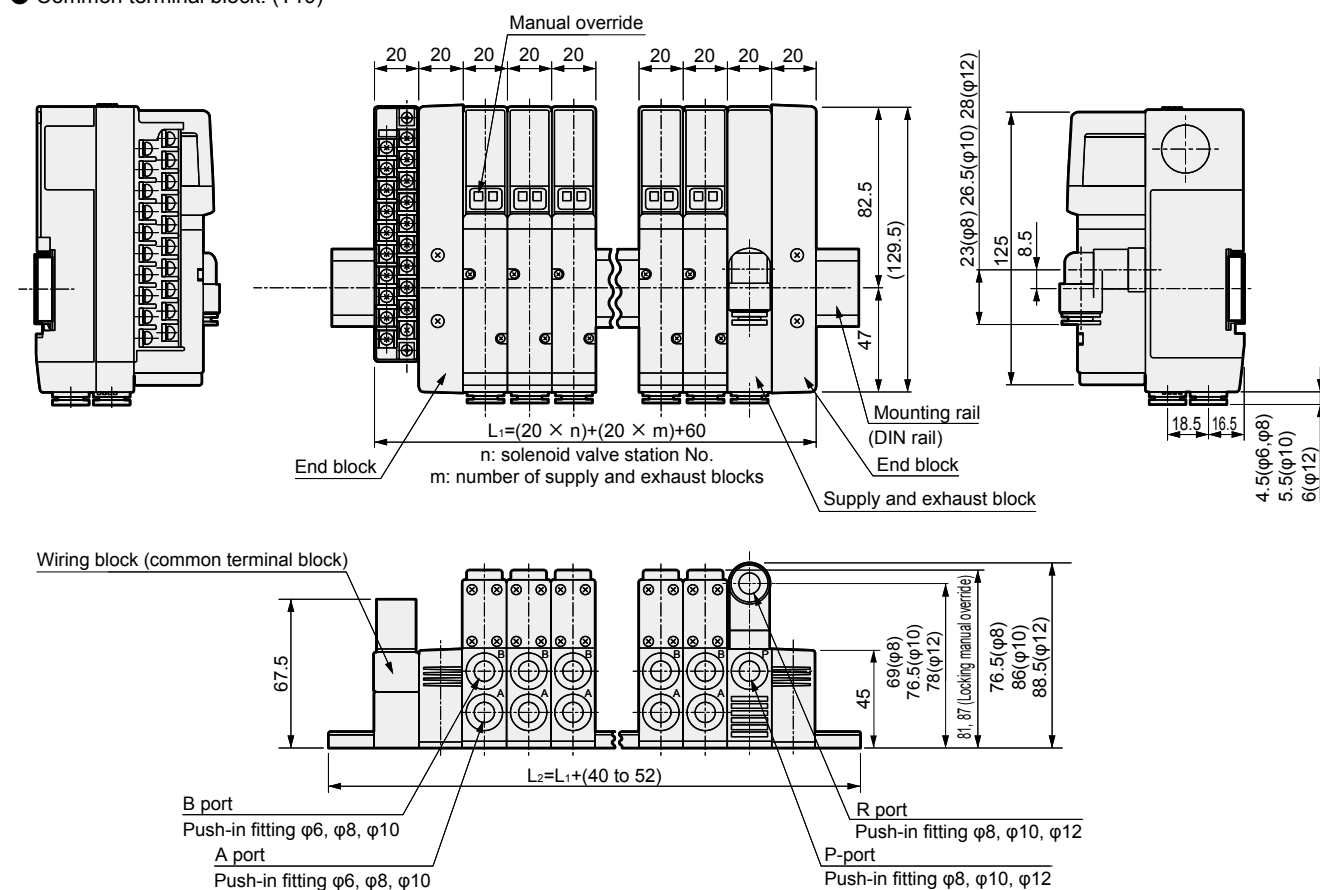
MN4TB2*0-*-* (T6A0 to T6J1) -*

- Serial transmission: (T6A0/T6A1/T6C1/T6D1/T6G1/T6J0/T6J1)



MN4TB2*0-*-*T10-*

- Common terminal block: (T10)



4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

MN4TB2 Series

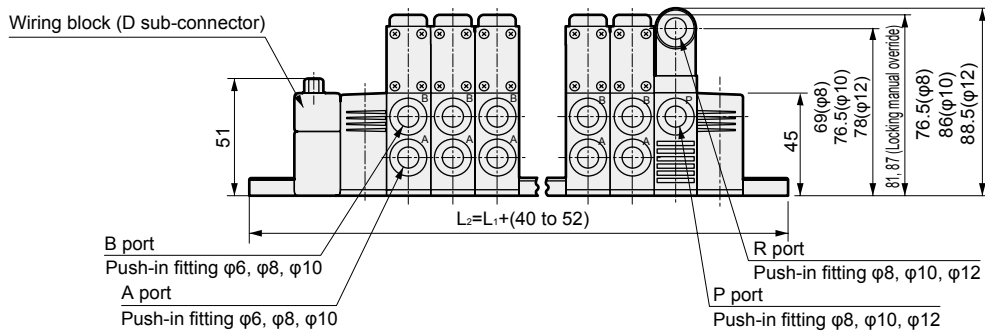
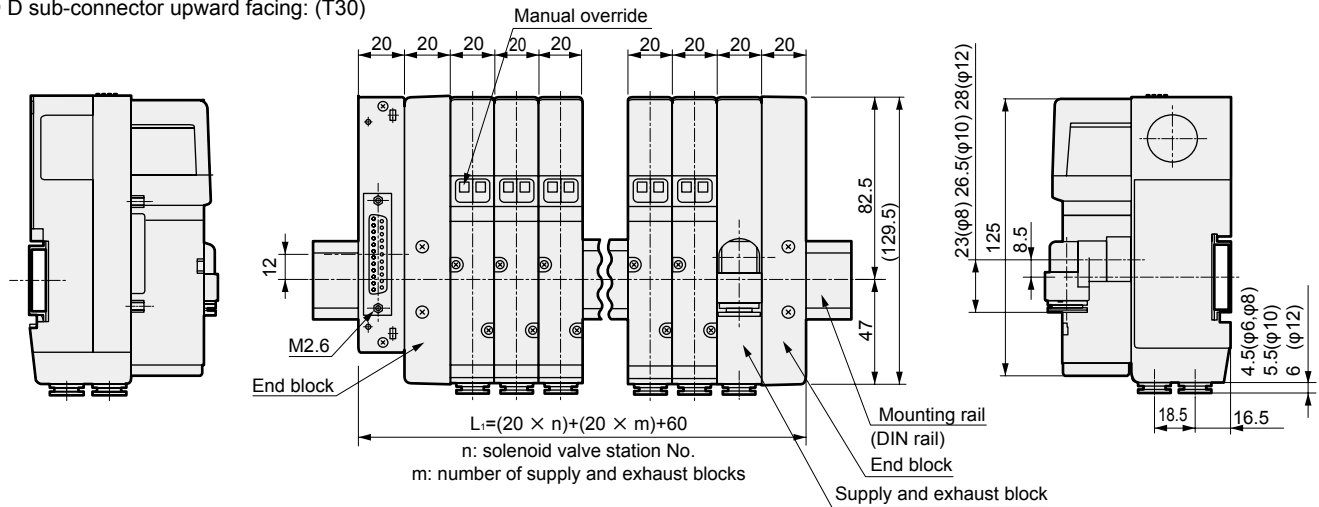
Reduced wiring block manifold; DIN rail mounting

Dimensions



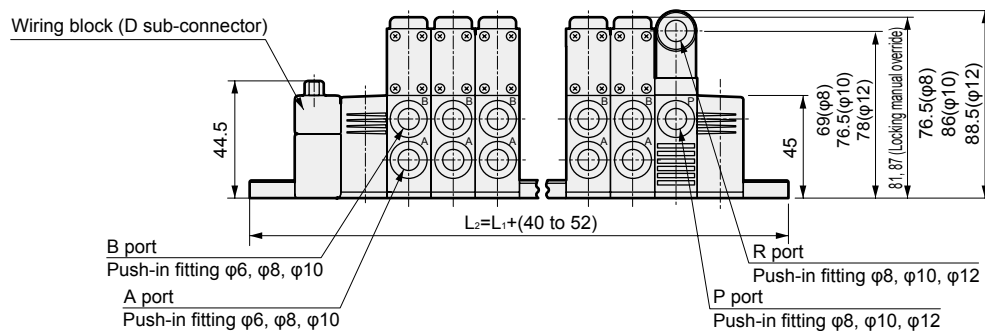
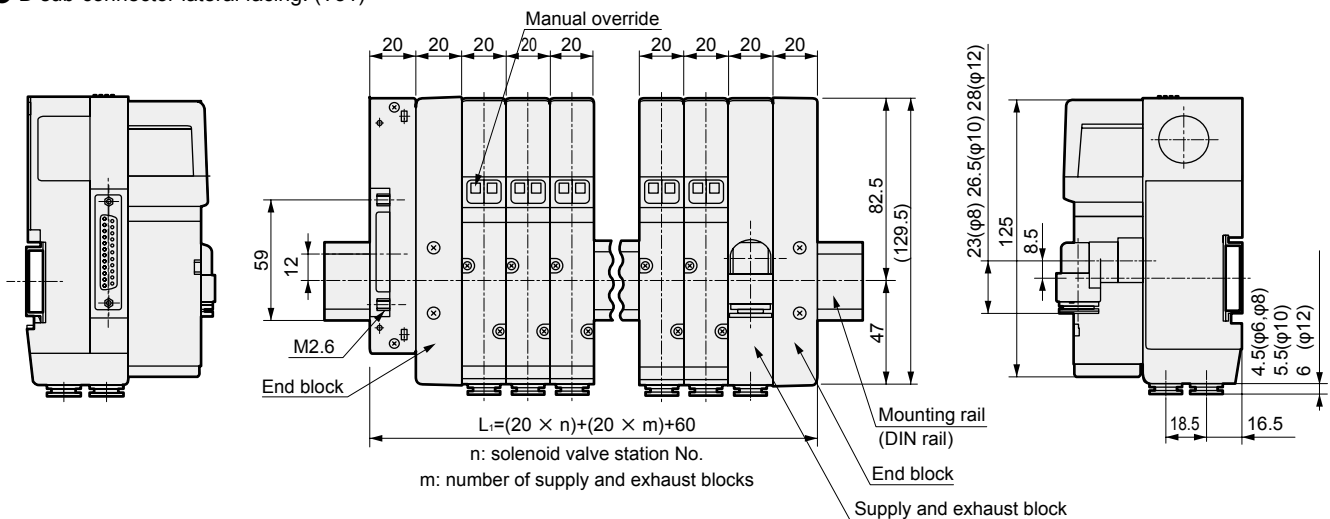
MN4TB2*0-*T30-*

● D sub-connector upward facing: (T30)



MN4TB2*0-*T31-*

● D sub-connector lateral facing: (T31)

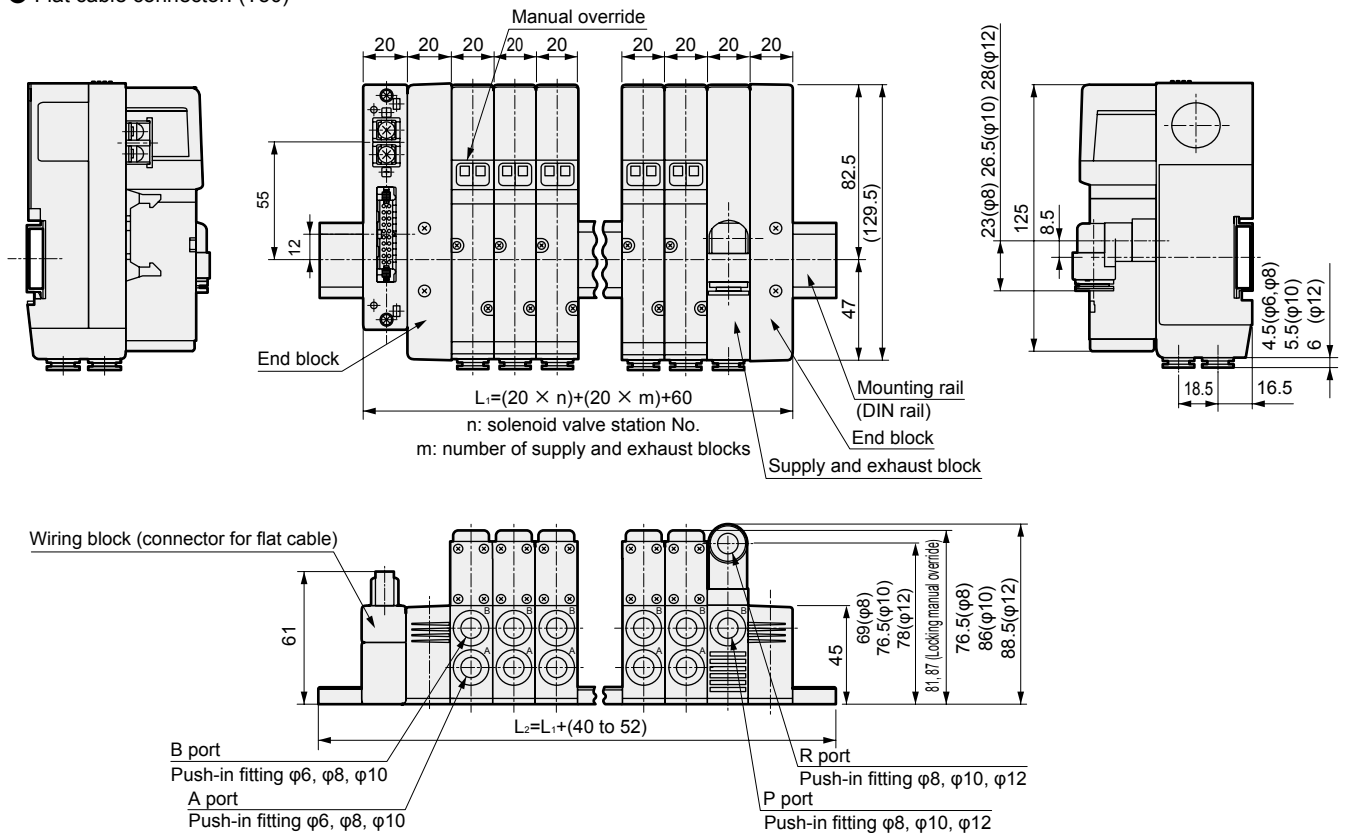


Dimensions

MN4TB2*0-*T50-*

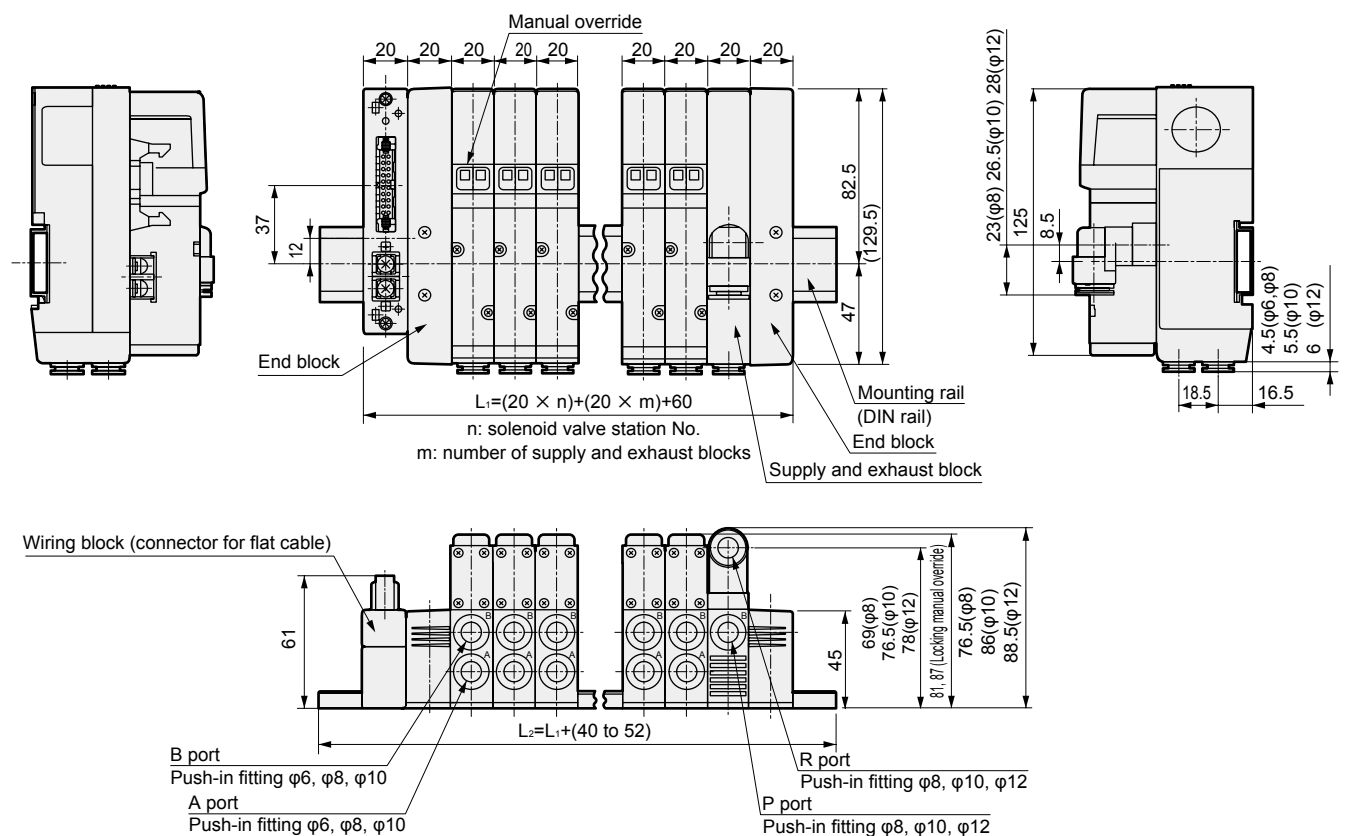


- Flat cable connector: (T50)



MN4TB2*0-*T50A-*

- Flat cable connector with amplification circuit: (T50A)



4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

Discontinue

Reduced wiring manifold
5-port valve direct mounting

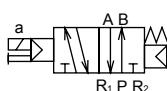
M4TB3/4 Series

● Cylinder bore size: $\phi 63$ to $\phi 180$

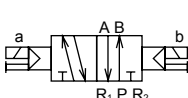


JIS symbol

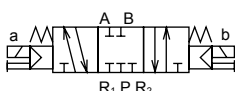
● 5-port valve
2-position single



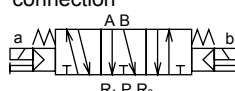
2-position double



3-position
all ports closed



3-position A/B/R
connection



3-position P/A/B connection



Common specifications 1 MPa = 10 bar

Descriptions	Content
Manifold method	Block manifold system
Manifold	Common supply, common exhaust
Station No.	≥ 2 stations (See next page: wiring specs)
Valve and operation	Pilot operated soft spool valve
Working fluid	Compressed air
Max. working pressure MPa	1.0 (≈ 150 psi, 10 bar)
Min. working pressure MPa	2-position 0.15 (≈ 22 psi) (single), 0.10 (≈ 15 psi) (double)
3-position	0.2 (≈ 29 psi, 2 bar)
Proof pressure MPa	1.5 (≈ 220 psi, 15 bar)
Ambient temperature $^{\circ}\text{C}$	5 (41°F) to 50 (122°F)
Fluid temperature $^{\circ}\text{C}$	5 (41°F) to 50 (122°F)
Lubrication	Not required
Degree of protection	Dust-proof (IP65 equivalent: option)
Vibration resistance m/s^2	50 or less
Shock resistance m/s^2	300 or less
Atmosphere	Cannot be used in corrosive gas environment.

*1: The working pressure when the external pilot (option code: K) has been selected is 0 to 1.0 MPa. In addition, use the pilot with a pressure of 0.2 to 1.0 MPa.

Electrical specifications

Descriptions	Content
Rated voltage	AC50/60 Hz 100, 200
V DC	24
Voltage fluctuation range	$\pm 10\%$ (When using serial transmission $\pm 10\%$, -5%)
Starting current	AC 100 V 0.056 / 0.044
A 200 V	0.028 / 0.022
Holding current	AC 100 V 0.028 / 0.022
A 200 V	0.014 / 0.011
DC	24 V 0.080
Power consumption	AC 100 V 1.8 / 1.4
W 200 V	1.8 / 1.4
DC	24 V 1.9
Thermal class	B (molded coil)
Temperature rise $^{\circ}\text{C}$	50

Reference: 100 VAC 50/60 Hz can be used with a rated voltage of 110 VAC 60 Hz and 200 VAC 50/60 Hz can be used with 220 VAC 60 Hz.

Individual specifications

Descriptions	4TB3	4TB4
P/R port	Rc1/2	
Port size *1	A/R port Rc1/4 / Rc3/8	Rc3/8 / Rc1/2
PR port	Rc1/8	
PA port	Rc1/8	
Response time	2-position 30 or less	50 or less
*2 ms 3-position	50 or less	70 or less

*1: As G and NPT threads can also be used for piping port screws, contact CKD for details.

*2: The response time is the value at 0.5 MPa working pressure, with no lubrication, and with the power ON. It depends on the pressure and the lubricant quality.

Flow characteristics

Model No.	Solenoid position	C [$\text{dm}^3/(\text{s} \cdot \text{bar})$]	b
4TB3	2-position	7.2	0.24
	3-position	All ports closed 6.0	0.33
		A/B/R connection 4.9	0.36
		P/A/B connection 8.8	0.12
4TB4	2-position	12.3	0.22
	3-position	All ports closed 11.5	0.25
		A/B/R connection 9.6	0.32
		P/A/B connection 13.8	0.21

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

Weight

Descriptions	4TB3	4TB4
Solenoid valve only (g)	2-position single 330	440
	2-position double 350	460
	3-position 360	490

Block	4TB3	4TB4
Masking plate (g)	82	111
Sub-plate (g)	414	640
End block NE (g)	380	541
Valve block NS (g)	344	521
Wiring block T10 (g)	1098	1314
Wiring block T6* (g)	1156	1370

Slave unit specifications (Refer to page 1130 for the applicable PLC compatibility table.)

Descriptions	T6D1 *1
Unit side power supply voltage	24 VDC ±10%
Valve side power supply voltage	24 VDC +10%, -5%
Unit side current consumption	100 mA or less (when all output points are ON)
Valve side current consumption	15 mA or less (when all points are OFF)
Output points	16 points

Descriptions	T6C1	T6G1 *2	T6A1 T6A0	T6J1 T6J0
Unit side power supply voltage	24 VDC ±10%		24 VDC	
Valve side power supply voltage	24 VDC +10%, -5%		+10%, -5% (Common power supply terminal)	
Unit side current consumption	40 mA or less (when all output points are ON)	100 mA or less (when all output points are ON)	200 mA or less when all output points are ON (Note that current consumption of valve body is not included.)	150 mA or less when all output points are ON (Note that current consumption of valve body is not included.)
Valve side current consumption	15 mA or less (when all points are OFF)			
Output points	16 points		T6A1: 16 points T6A0: 8 points	T6J1: 16 points T6J0: 8 points

*1: Contact CKD for EDS file. (EDS file: A text file of parameters for communication with various companies' master units)

*2: CC-Link is Ver. 1.10.

Manifold wiring specifications *1

Descriptions		Content	Max. station No.		
			2-position single	2-position double solenoid 3-position	Mix manifold (solenoid No. of points)
Common terminal block	T10 *2	Terminal thread size M3.5	19 stations (19 points)	9 stations	19 stations (19 points)
Serial transmission (with dedicated unit)	T6A0	UNIWIRED SYSTEM compatible	8 stations	4 stations	(8 points)
	T6A1		16 stations	8 stations	(16 points)
	T6C1	CompoBus/S compatible	16 stations	8 stations	(16 points)
	T6D1	DeviceNet compatible	16 stations	8 stations	(16 points)
	T6G1	CC-Link compatible	16 stations	8 stations	(16 points)
	T6J0	UNIWIRED H SYSTEM compatible	8 stations	4 stations	(8 points)
	T6J1		16 stations	8 stations	(16 points)

*1 : Consult with CKD to use a number of manifold stations greater than the max. station number for each wiring specification.

*2 : For 10 stations or more with the common terminal block (T10), wiring specifications (pages 1143 to 1144) will be necessary.

Copper and PTFE free specifications

- Copper- and PTFE-based materials are not used in the flow path.

(AC)** - Voltage - **P6**

(DC) Standard specifications

Coolant proof specifications

(Catalog No.CC-N-375A)

- Special structure with outstanding oil and water resistance

** - **A** - Station No. - Voltage

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4TB3/4 Series

How to order reduced wiring manifold

- Single solenoid valve for manifold

4TB3 1 9 - 00 - M1 L — 1

- Block manifold

M 4TB3 1 0 - 08 - M1 L T10 — 5 - 1

* Be sure to fill in the "Manifold specifications sheet" (pages 1141 to 1144).

A Model No.

B Solenoid position

C Port size

D Manual override

E Display/protection circuit
Refer to page 1082 for the circuit diagram with surge suppressor/lamp.

F Wiring method
Note: (2) is dedicated for 24 VDC

G Other options

H Manifold station No.

I Voltage

- Refer to page 1127 for the model No. of cables with D sub-connector.
- Refer to page 1131 for the model No. of cables for flat cable connector.

⚠ Precautions for model No. selection

*1: For a combination of external pilot K and IP65 degree of protection, list the model No. in order of KP.

[Example of model No.]

M4TB310-10-M1LT10K-8-3

Model: M4TB3

- B** Solenoid position : 2-position single
- C** Port size : Cylinder port is Rc3 / 8
- D** Manual override : Locking
- E** Display/protection circuit : With surge suppressor and indicator lamp
- F** Wiring method : Common terminal block
- G** Other options : External pilot
- H** Manifold station No. : 8 stations
- I** Voltage : 24 VDC

A Model No.

4TB3

4TB4

Code	Content		
B Solenoid position			
1	2-position single	●	●
2	2-position double	●	●
3	3-position all ports closed	●	●
4	3-position A/B/R connection	●	●
5	3-position P/A/B connection	●	●
8	Mix manifold (when there are multiple solenoid positions)	●	●

C Port size			
08	Rc1/4	●	
08Y	Rc1/4 (rear piping)	●	
10	Rc3/8	●	●
10Y	Rc3/8 (rear piping)		●
15	Rc1/2		●
HX	Bore size mix	●	●

D Manual override			
Blank	Non-locking	●	●
M1	Locking	●	●

E Display/protection circuit			
Blank	Without surge suppressor/lamp	●	●
L	With surge suppressor and indicator lamp	●	●

F Wiring method			
T10	Common terminal block	●	●
Serial transmission			
T6A0	UNIWIRED SYSTEM compatible (8 points)	(2)	(2)
T6A1	UNIWIRED SYSTEM compatible (16 points)	(2)	(2)
T6C1	CompoBus/S compatible (16 points)	(2)	(2)
T6D1	DeviceNet compatible (16 points)	(2)	(2)
T6G1	CC-Link compatible (16 points)	(2)	(2)
T6J0	UNIWIRED H SYSTEM compatible (8 points)	(2)	(2)
T6J1	UNIWIRED H SYSTEM compatible (16 points)	(2)	(2)

G Other options			
Blank	No option	●	●
K	External pilot *1	●	●
P	Degree of protection IP65	●	●
CL	Common exhaust block/cleaner (left side)	●	●
CR	Common exhaust block/cleaner (right side)	●	●

H Manifold station No.			
2	2 stations	●	●
to	to		
n	Each max. station No. (Confirm wiring specs on previous page)		

① Voltage				
1	Standard	100 VAC 50/60 Hz	●	●
2		200 VAC 50/60 Hz	●	●
3		24 VDC	●	●
4	Option	12 VDC	●	●
5		110 VAC 50/60 Hz	●	●
6		220 VAC 50/60 Hz	●	●

MEMO	4GA/B
	M4GA/B
	MN4GA/B
	4GA/B (mastr)
	4GD/E
	M4GD/E
	MN4GD/E
	4GA4/B4
	MN3E MN4E
	W4GA/B2
	W4GB4
	4TB
	4L2-4/ LMF0
	MN3S0 MN4S0
	4SA/B0
	4KA/B
	4KA/B (mastr)
	4F
	4F (mastr)
	PV5G GMF
	PV5 GMF
	PV5S-0
	3QR 3QB
	MV3QR
	3MA/B0
	3PA/B
	P/M/B
	NP/NAP/ NVP
	4F*0EX
	4F*0E
	HMV HSV
	2QV 3QV
	SKH
	PCD
	Silencer
	TotAirSys (Total Air)
	TotAirSys (Gamma)
	Ending

M4TB3 Series

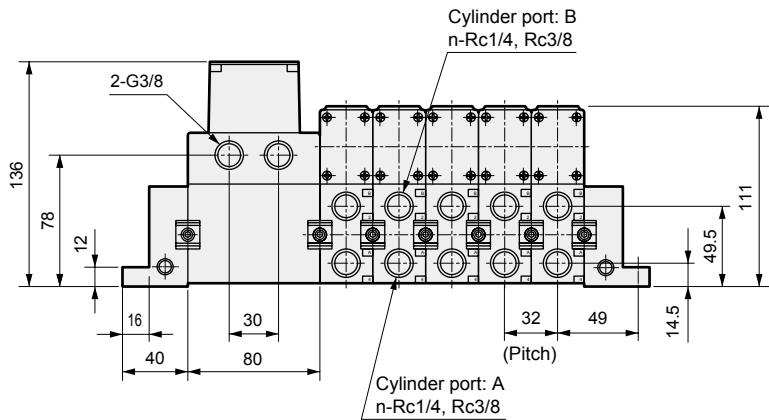
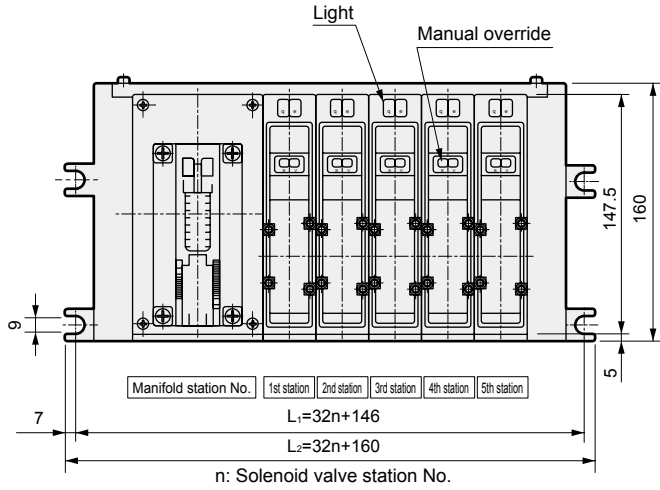
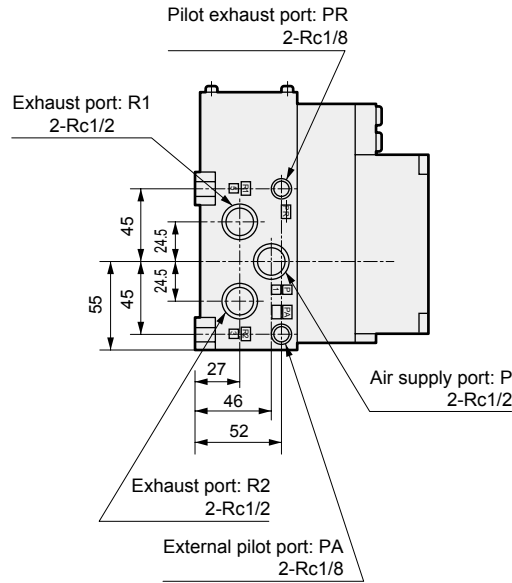
Reduced wiring manifold; direct mounting

Dimensions



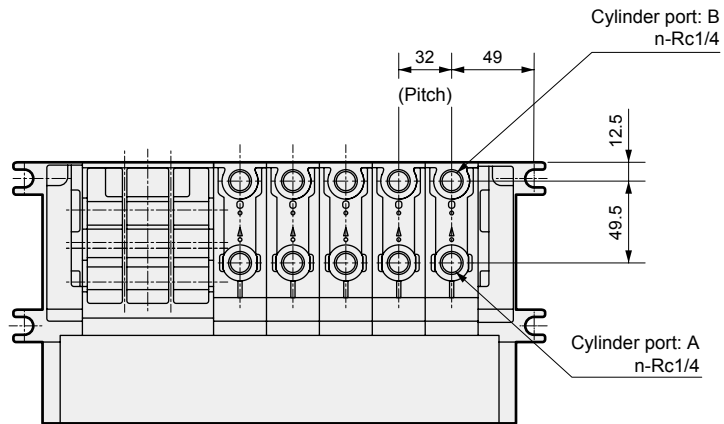
M4TB3*0-**-*(T6A0 to T6J1) -*

● Serial transmission: (T6A0/T6A1/T6C1/T6G1/T6J0/T6J1)



M4TB3*0-08Y-*T6-*

● Rear piping: (08Y)



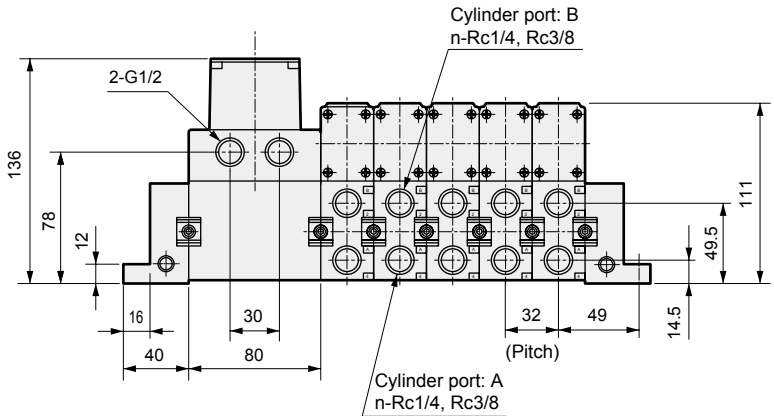
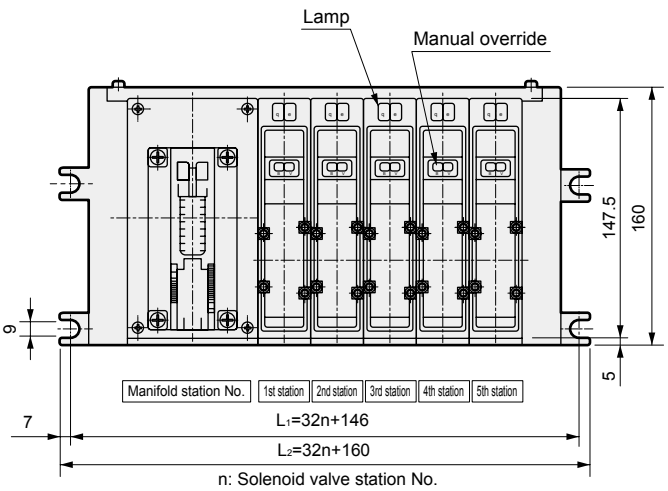
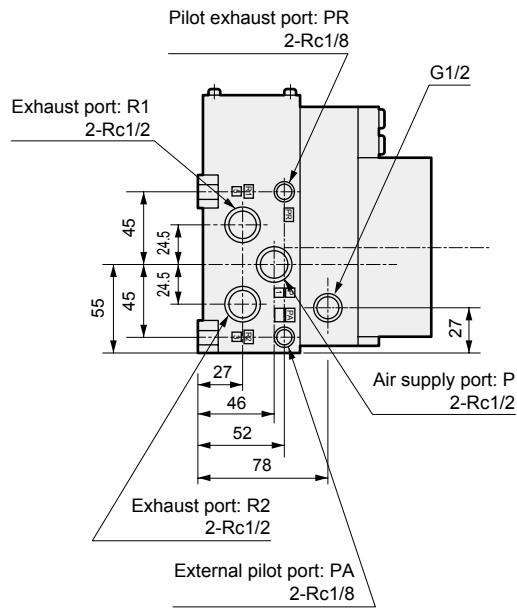
Station No.	2	3	4	5	6	7	8	9	10
L1	210	242	274	306	338	370	402	434	466
L2	224	256	288	320	352	384	416	448	480

Dimensions



M4TB3*0-*. (T6D1) -*

● Serial transmission: (T6D1)



Station No.	2	3	4	5	6	7	8	9	10
L1	210	242	274	306	338	370	402	434	466
L2	224	256	288	320	352	384	416	448	480

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4TB3 Series

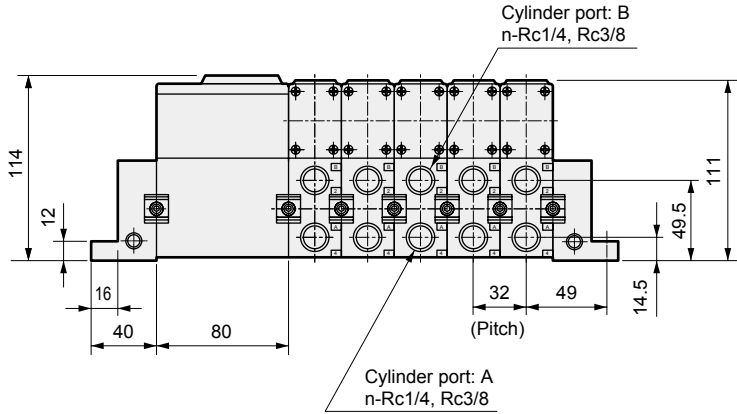
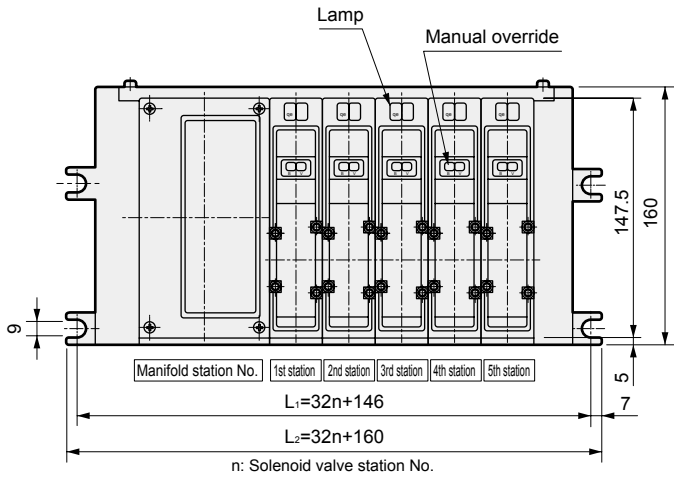
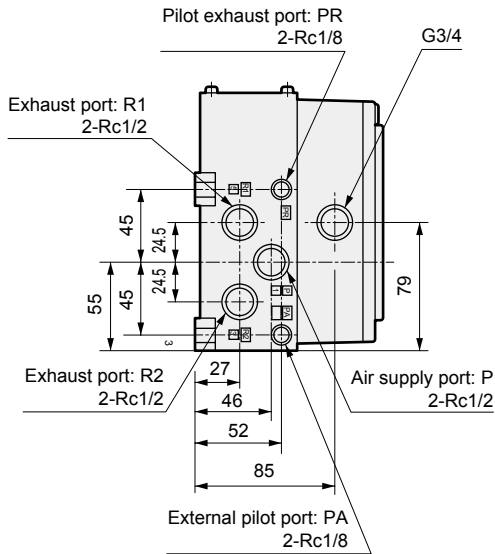
Reduced wiring manifold; direct mounting

Dimensions



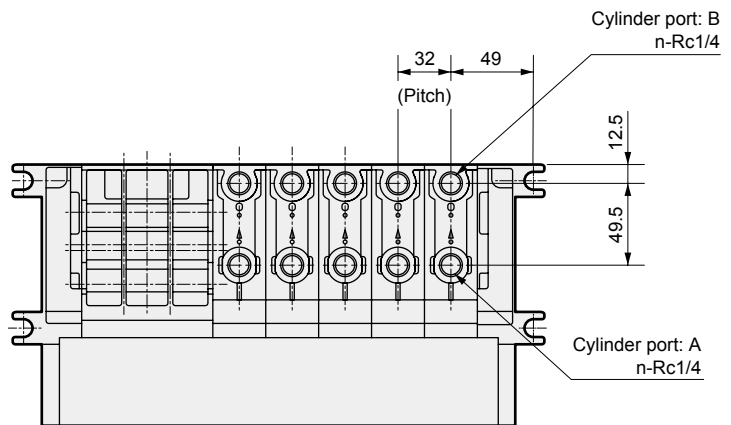
M4TB3*0-*T10*

● Common terminal block: (T10)



M4TB3*0-08Y-*T10*

● Rear piping: (08Y)

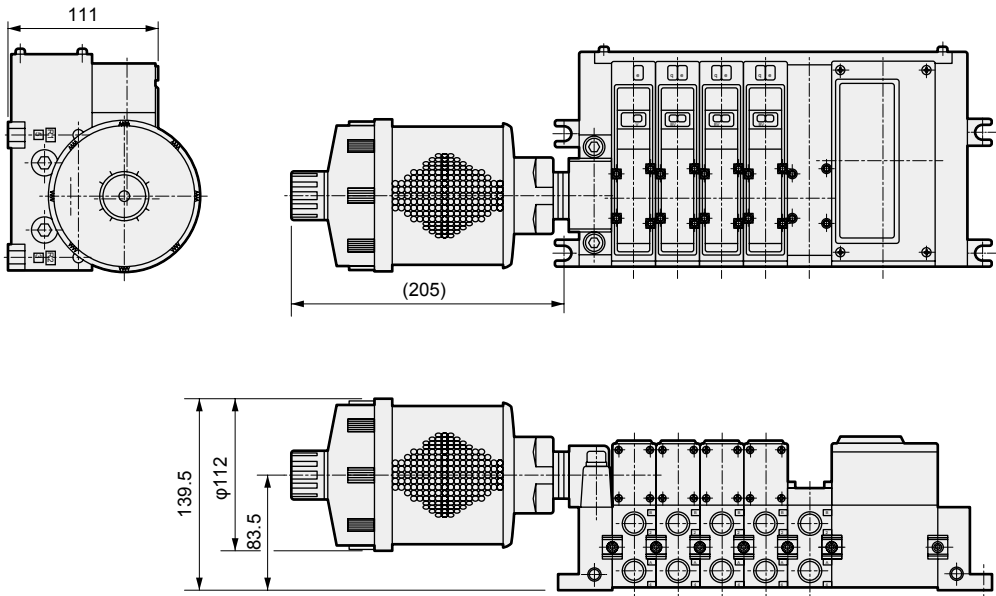


Station No.	2	3	4	5	6	7	8	9	10
L1	210	242	274	306	338	370	402	434	466
L2	224	256	288	320	352	384	416	448	480

Dimensions

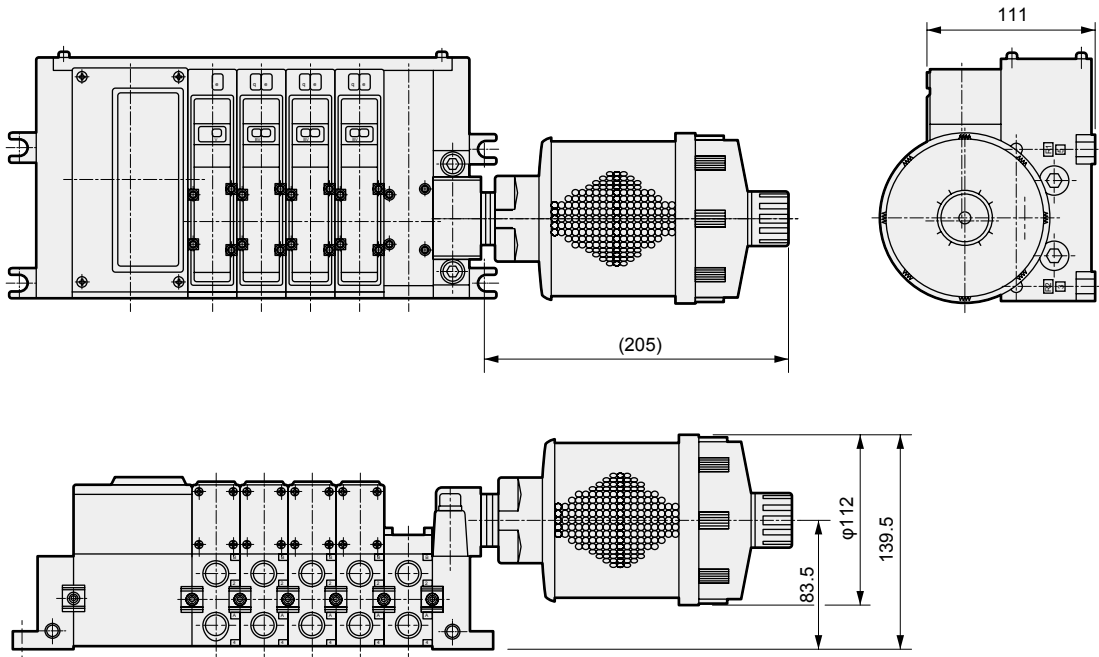
M4TB3*0-**-CL

- Common exhaust block/with exhaust cleaner (option)



M4TB3*0-**-CR

- Common exhaust block/with exhaust cleaner (option)



4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4TB4 Series

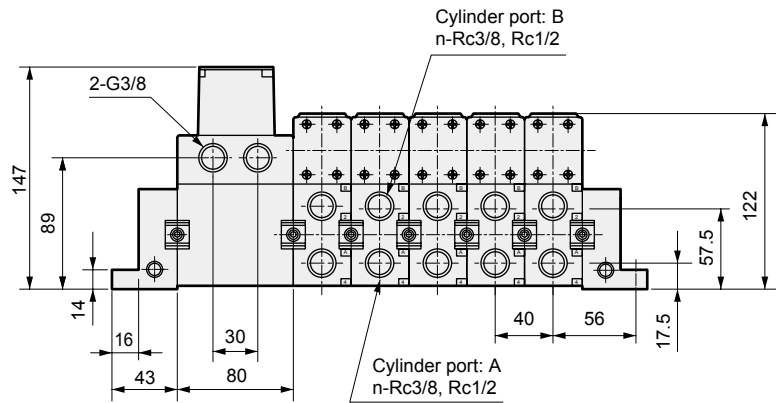
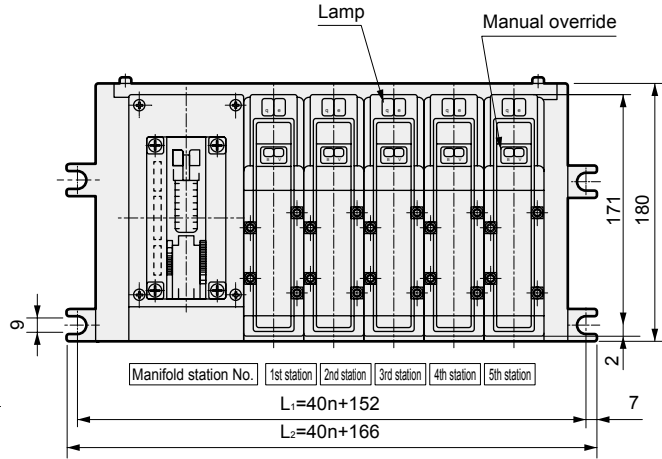
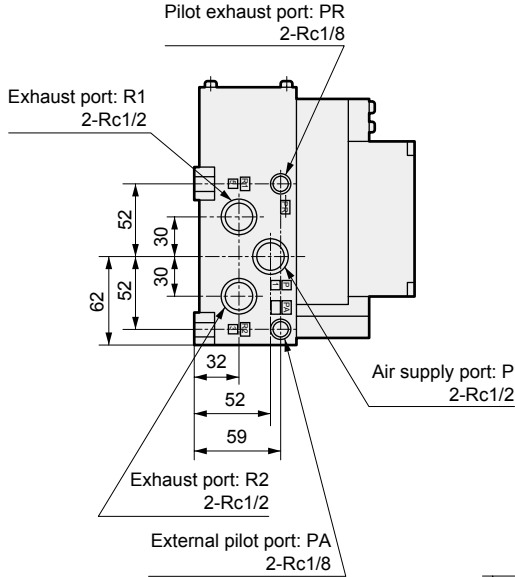
Reduced wiring manifold; direct mounting

Dimensions



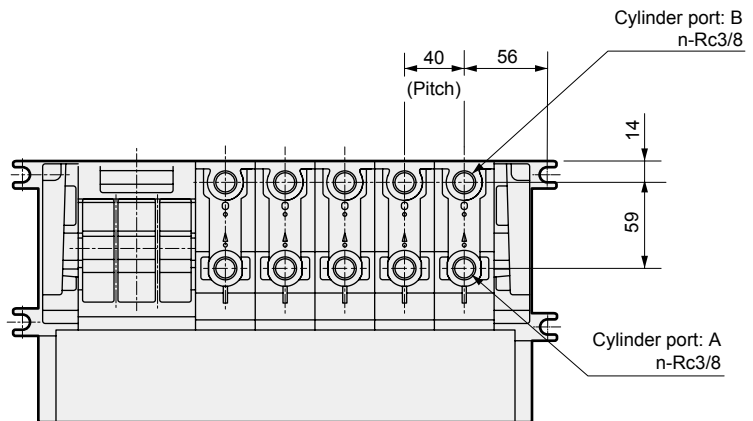
M4TB4*0-*-* (T6A0 to T6J1) -*

● Serial transmission: (T6A0/T6A1/T6C1/T6G1/T6J0/T6J1)



M4TB4*0-10Y-*T6*-*

● Rear piping: (10Y)



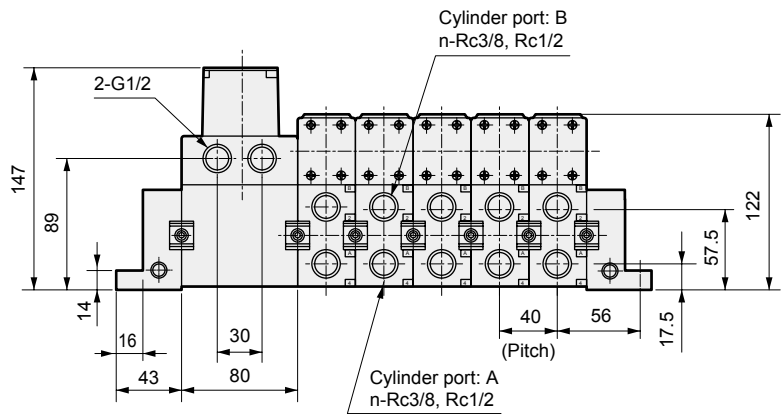
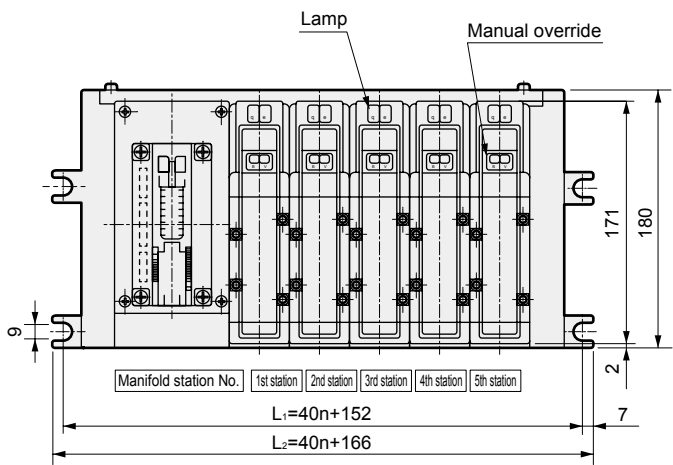
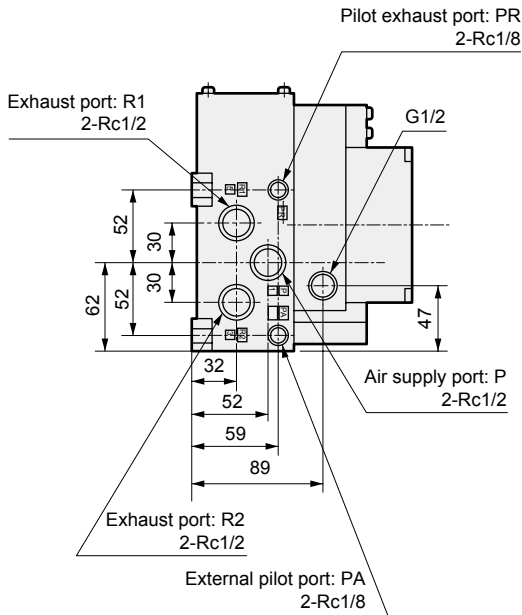
Station No.	2	3	4	5	6	7	8	9	10
L1	232	272	312	352	392	432	472	512	552
L2	246	286	326	366	406	446	486	526	566

Dimensions



M4TB4*0-**-*(T6D1) -*

● Serial transmission: (T6D1)



Station No.	2	3	4	5	6	7	8	9	10
L1	232	272	312	352	392	432	472	512	552
L2	246	286	326	366	406	446	486	526	566

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

M4TB4 Series

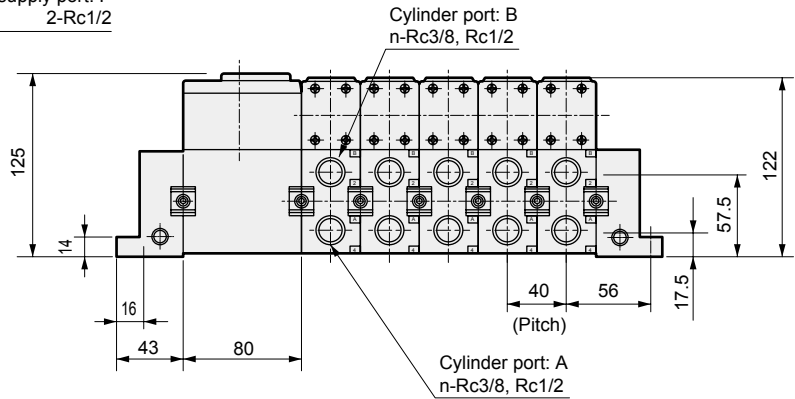
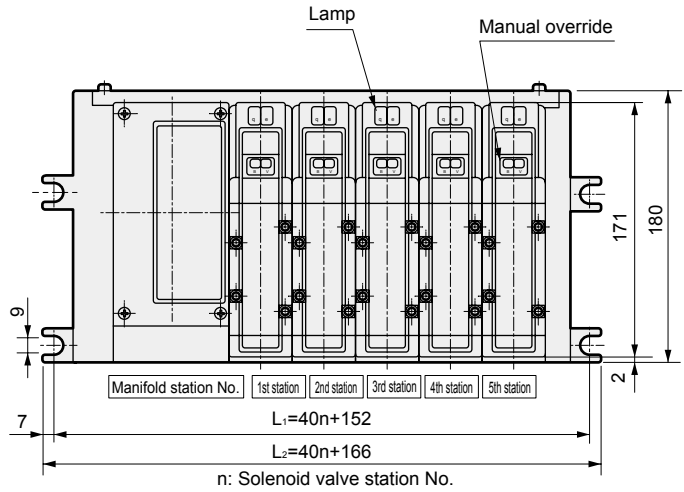
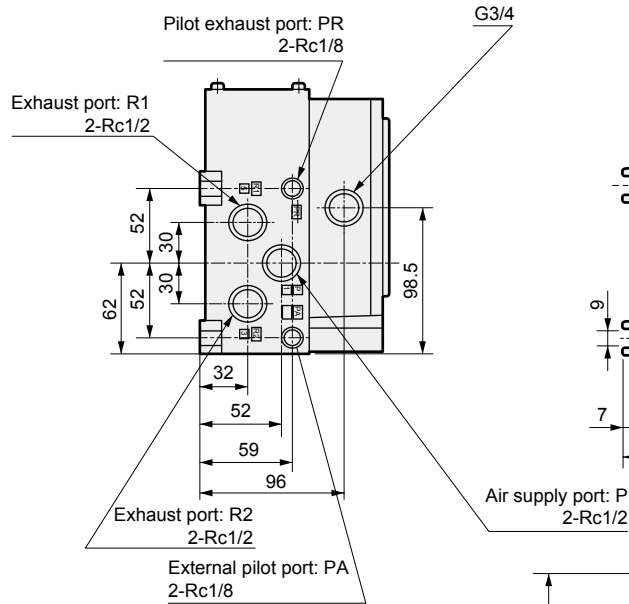
Reduced wiring manifold; direct mounting

Dimensions



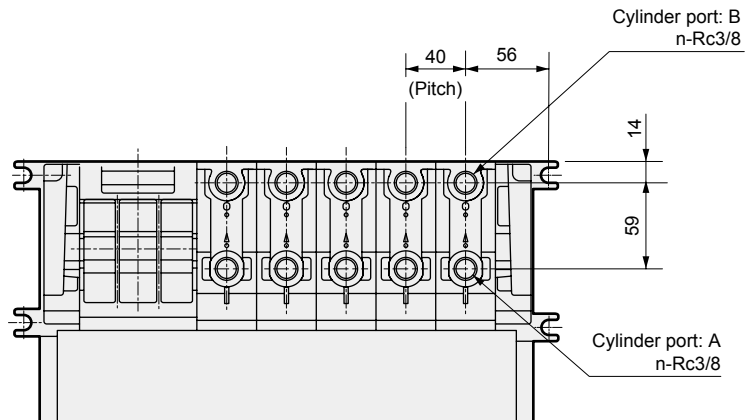
M4TB4*0-*T10-*

● Common terminal block: (T10)



M4TB4*0-10Y-*T10-*

● Rear piping: (10Y)

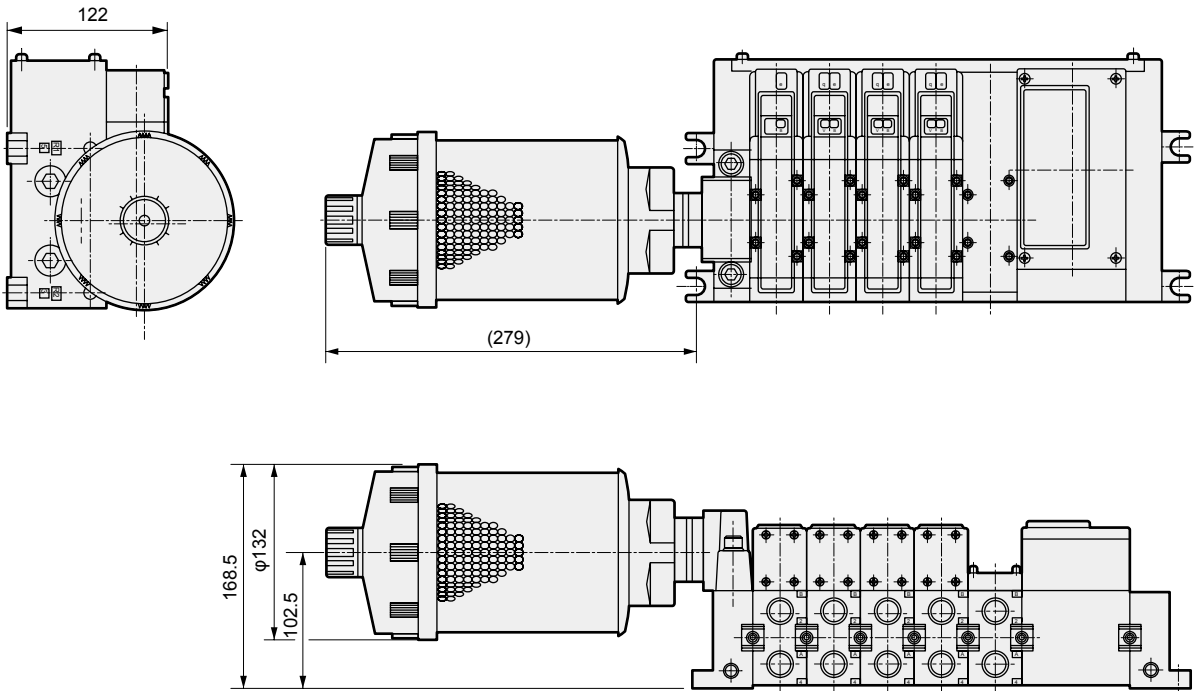


Station No.	2	3	4	5	6	7	8	9	10
L1	232	272	312	352	392	432	472	512	552
L2	246	286	326	366	406	446	486	526	566

Dimensions

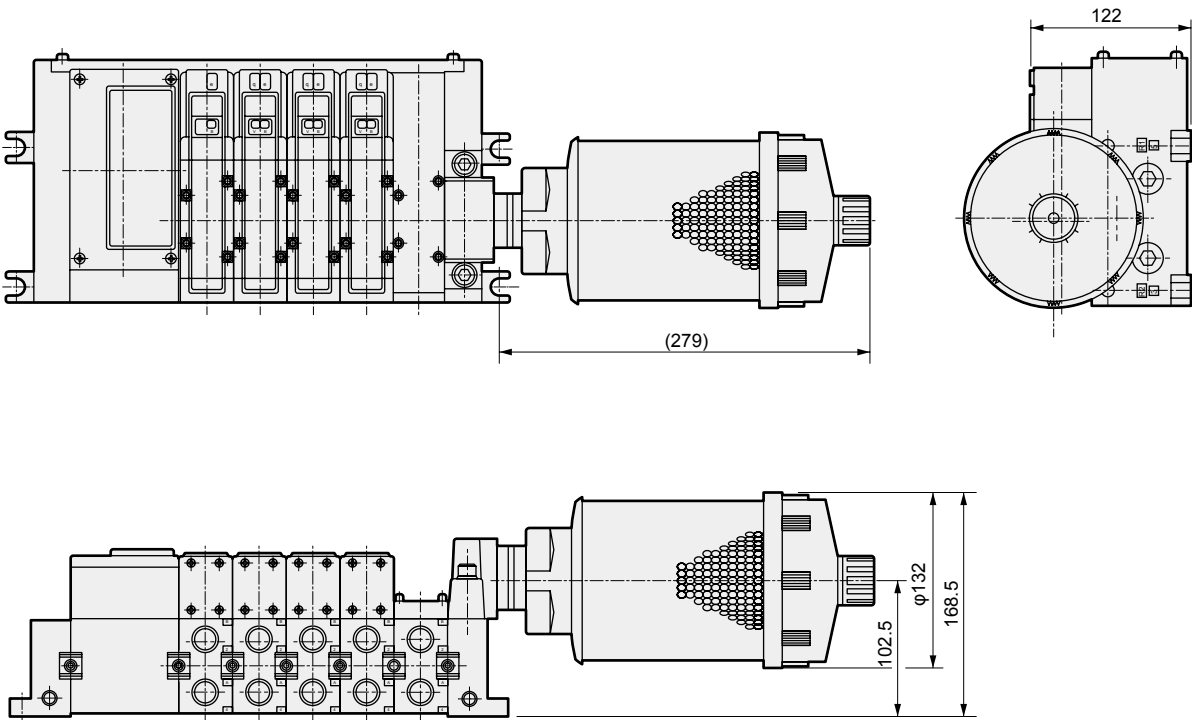
M4TB4*0-*-*-CL

- Common exhaust block/with exhaust cleaner (option)



M4TB4*0-*-*-CR

- Common exhaust block/with exhaust cleaner (option)



4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4TB1/4TB2 Series

Reduced wiring block manifold; block configurations

As units can be freely assembled, it is easy to change the number of stations, perform maintenance, etc.

● Valve block with solenoid valve

The types of solenoid valve required will be arranged on a DIN rail at the number of stations required.
A mixture of 4TB1 and 4TB2 is also available.

● Supply and exhaust/supply/exhaust blocks

Units can be freely arranged at the adjacent parts of each valve block.

However, the supply and exhaust block is basically arranged on the right side of the valve block when the A/B ports are facing forward.

In addition the supply and exhaust/exhaust block H12 alone cannot be arranged between valve blocks. (The silencer SLW-H12 will interfere.)

Supply/exhaust blocks can be added as necessary.

● End block

One each must be arranged on both sides of the aggregating valve block and supply and exhaust block.

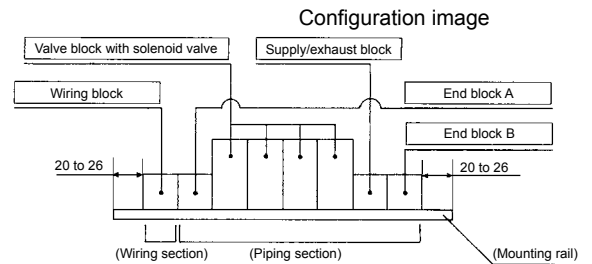
The side adjacent to the wiring block will be referred to as A and the opposite side will be referred to as B.

● Wiring block

A block of the selected wiring method will be arranged on the outer side of end block A, or in other words the left side of end block A when the A/B ports are facing forward. (Right side installation also possible)

● Mounting rail

The mounting rail is 20 to 26 on both sides from the end of the manifold.

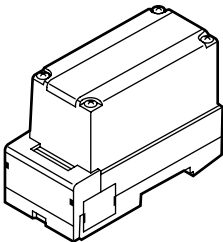


Block manifold configuration	Wiring block	Piping block	Related products
4GA/B	A Serial transmission unit block (T6)	B Common terminal box (T10)	C D sub-connector equipped block (T30) upward facing
M4GA/B	D Flat cable block (T50)	E End block A (adjacent to wiring block)	F Supply and exhaust block
MN4GA/B	D Flat cable block with amplification circuit (T50A)	E End block B	F Supply block
4GA/B (mastr)			F Exhaust block
4GD/E			F Exhaust block dedicated for external pilot
M4GD/E			G Valve block with solenoid valve
MN4GD/E			H With masking plate
4GA4/B4			H Valve block
MN3E			I Masking plate
MN4E			J Partition plug
W4GA/B2			J Blanking plug
W4GB4			J Silencer
4TB			J Cable clamp
4L2-4/LMF0			J Fuse
MN3S0			
MN4S0			
4SA/B0			
4KA/B			
4KA/B (mastr)			
4F			
4F (mastr)			
PV5G GMF			
PV5 GMF			
PV5S-0			
3QR			
3QB			
MV3QR			
3MA/B0			
3PA/B			
P/M/B			
NP/NAP/NVP			
4F*0EX			
4F*0E			
HMV HSV			
2QV			
3QV			
SKH			
PCD			
Silencer			
TotAirSys (Total Air)			
TotAirSys (Gamma)			
Ending			

4TB1/4TB2 Series

Reduced wiring block manifold; wiring block

A Serial transmission unit block (T6*)



Discrete serial transmission slave unit model No.

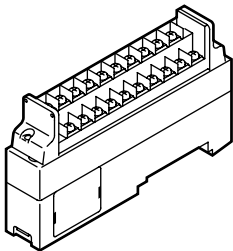
N4T - OPP2 - 0A

A Wiring method

Model No.	Content
N4T-T6A0	UNIWIRED SYSTEM compatible (8 points)
N4T-T6A1	UNIWIRED SYSTEM compatible (16 points)
N4T-T6C1	CompoBus/S compatible (16 points)
N4T-T6D1	DeviceNet compatible (16 points)
N4T-T6G1	CC-Link compatible (16 points)
N4T-T6J0	UNIWIRED H SYSTEM compatible (8 points)
N4T-T6J1	UNIWIRED H SYSTEM compatible (16 points)

Code	Content
A Wiring method	
0A T6A0	UNIWIRED SYSTEM compatible (8 points)
1A T6A0	UNIWIRED SYSTEM compatible (16 points)
1C T6C1	CompoBus/S compatible (16 points)
1D T6D1	DeviceNet compatible (16 points)
1G T6G1	CC-Link compatible (16 points)
0J T6J0	UNIWIRED H SYSTEM compatible (8 points)
1J T6J1	UNIWIRED H SYSTEM compatible (16 points)

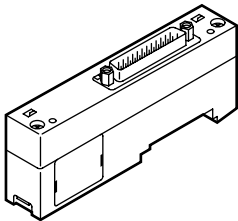
B Common terminal box (T10)



Model No.	Content
N4T-T10-20P	Terminal count 20P (for 5 stations or more)
N4T-T10-10P	Terminal count 11P (for up to 4 stations)

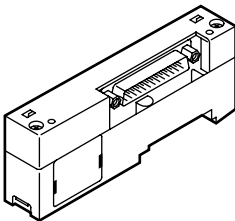
C Block with sub-connector (T30/T31)

Upward facing



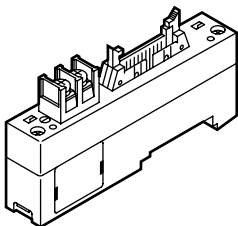
Model No.	Content
N4T-T30	Terminal count 25 P

Sideways facing



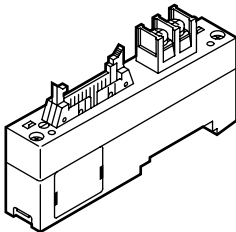
Model No.	Content
N4T-T31	Terminal count 25 P

D Flat cable block (T50)



Model No.	Content
N4T-T50	Terminal count 20 P

Flat cable block with amplification circuit (T50A)



Model No.	Content
N4T-T50A	Term. count 20P with Ampl circuit

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

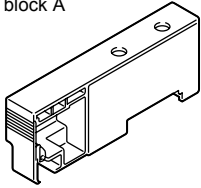
4TB1 Series

Reduced wiring block manifold; piping block

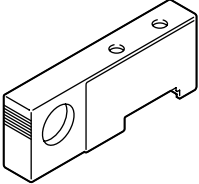
E End block (NE)

Left side mount

End block A



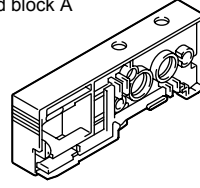
End block B



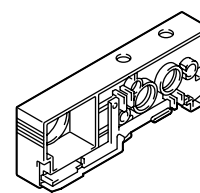
Model No.	Content
N4TB1-1NEA1	For adjacent wiring block of end block on left side with the A/B port of the manifold facing forward
N4TB1-1NEB1	End block on left side with the A/B port of the manifold facing forward

Right side mount

End block A



End block B

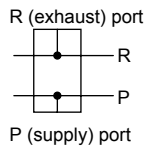
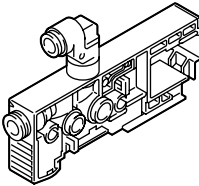


Model No.	Content
N4TB1-1NEA2 N4TB1-1NEA2K Note	For adjacent wiring block of end block on left side with the A/B port of the manifold facing forward
N4TB1-1NEB2 N4TB1-1NEB2K Note	End block on right side with the A/B port of the manifold facing forward

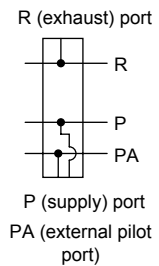
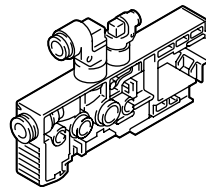
For external pilot

Note: Dedicated for external pilot

F Supply and exhaust block (NQ)

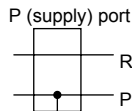
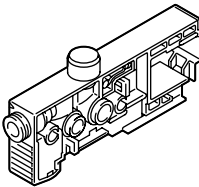


● Dedicated for external pilot

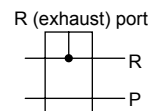
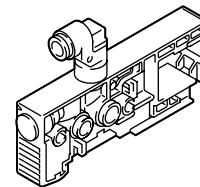


Model No.	P port	R port	Content	Model No.	P port	R port	PA port	Content
N4TB1-1NQSH8	φ8	φ8	Exhaust port sideways facing	N4TB1-1NQSH8K	φ8	φ8	φ6	External pilot, exhaust port sideways facing
N4TB1-1NQSH6	φ6	φ6	Exhaust port sideways facing	N4TB1-1NQSH6K	φ6	φ6	φ6	External pilot, exhaust port sideways facing

Supply block (NP)



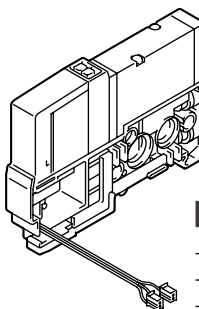
Exhaust block (NR)



Model No.	P port
N4TB1-1NPSH8	φ8
N4TB1-1NPSH6	φ6

Model No.	R port	Content
N4TB1-1NRSH8	φ8	Exhaust port sideways facing
N4TB1-1NRSH6	φ6	Exhaust port sideways facing

G Valve block with solenoid valve (N4TB1)



N4TB1 **1** **0** - **H6** - **M1** **L** - **3** - **RA**

Solenoid valve operation classification

E Other options

F Voltage

G Cable length (included)

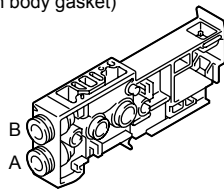
A Solenoid valve switching classification		B Port size		C Manual override		D Display/protection circuit	
Code	Content	Code	Content	Code	Content	Code	Content
1	2-position single	H4	φ4 push-in fitting	Blank	Non-locking manual override	L	With surge suppressor and indicator lamp
2	2-position double	H6	φ6 push-in fitting	M1	Locking manual override	Blank	Without surge suppressor/lamp
3	3-position all ports closed	H8	φ8 push-in fitting				
4	3-position ABR connection						
5	3-position PAB connection						

E Other options		F Voltage		G Cable length (included)		
Code	Content	Code	Content	Code	Max stns	Length (mm)
Blank	None	1	100 VAC 50/60 Hz	Standard Option	RA	≤8 stations
K	External pilot	2	200 VAC 50/60 Hz		RA0	≤16 stations
		3	24 VDC		RA1	≤24 stations
		4	12 VDC		RB	≤8 stations
		5	110 VAC 50/60 Hz		RB0	≤16 stations
		6	220 VAC 50/60 Hz		RB1	≤24 stations
						Length (mm)
						Wiring method
						T 3*
						T 50
						T 6*
						T 10

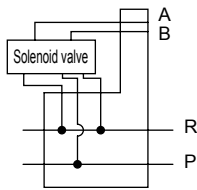
Note: T3* and T50 are dedicated for 12, 24 VDC. T6* is dedicated for 24 VDC.

H Valve block (NS)

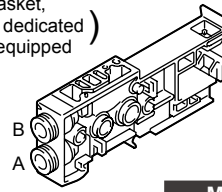
(With body gasket)



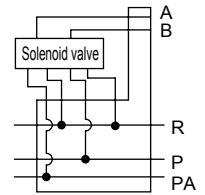
A, B (cylinder) port



- Dedicated for external pilot
Body gasket,
(PA port dedicated)
O-ring equipped

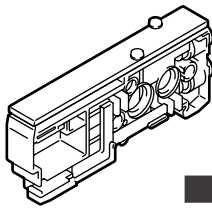


A, B (cylinder) port



Model No.	A/B port
N4TB1-1NSSH8	φ8
N4TB1-1NSSH6	φ6
N4TB1-1NSSH4	φ4

Model No.	A/B port
N4TB1-1NSSH8K	φ8
N4TB1-1NSSH6K	φ6
N4TB1-1NSSH4K	φ4

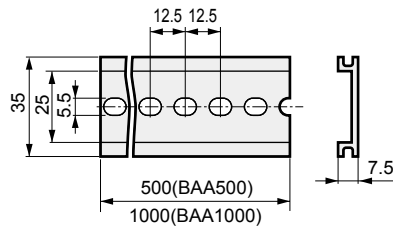
I Masking plate (MP)

Model No.	A/B Port	Content
N4TB1-1MPVH8-*	φ8	With valve block and cable
N4TB1-1MPVH6-*	φ6	For external pilot specifications, specify K after model No. H4, 6, 8.
N4TB1-1MPVH4-*	φ4	
N4TB1-1MP	-	Plate, mounting screw, and gasket only

* Cable length (included)			
Code	Max stns	Length (mm)	Wiring method
RA	8	360	T 3* T
RA0	16	520	50
RA1	24	680	T 6*
RB	8	360	T 10
RB0	16	520	
RB1	24	680	

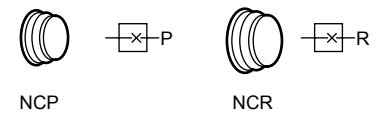
J Related products

- Mounting rail (BAA)



Model No.	L
BAA 500	500
BAA1000	1000

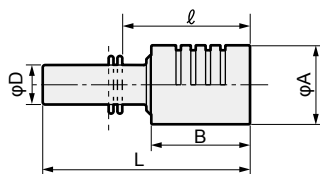
- Partition plug (NC)



Note: Plug for separating the ports between each block. Common to 4TB1 and 4TB2.

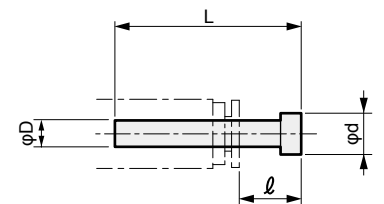
Model No.	Content
N4TB-NCP	Dedicated for air supply port
N4TB-NCR	Dedicated for exhaust port

- Silencer



Model No.	D	L	ℓ	B	A
SLW-H6	φ6	41	23.5	20	16
SLW-H8	φ8	42	23	20	16

- Blanking plug



Model No.	D	L	ℓ	d
GWP4-B	φ4	27	11	6
GWP6-B	φ6	29	11.5	8
GWP8-B	φ8	33	14	10

- New urethane tube

NU- 04

- Soft nylon tube

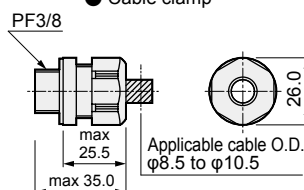
F-15 04

- Urethane tube

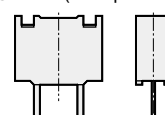
U-95 04

A Compatible tube O.D. size	
04	φ4
06	φ6
08	φ8

- Cable clamp



- Fuse (for replacement)



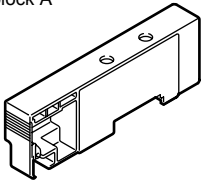
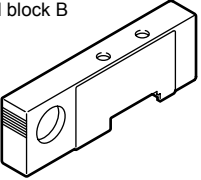
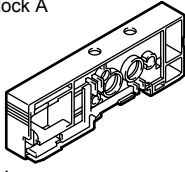
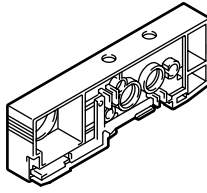
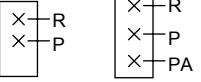
Model No.	Content
4T9-SCL-10B	Serial transmission unit, easily connect cable.

Model No.	Content
4T9-LM16	Flat cable connector (T50, T50A) supported
4T9-LM20	Serial transmission supported

4TB2 Series

Reduced wiring block manifold; piping block

E End block (NE)

Left side mount		Right side mount													
End block A  Open/close End block B 	 <table border="1"> <thead> <tr> <th>Model No.</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td>N4TB2-2NEA1</td> <td>For adjacent wiring block of end block on right side with the A/B port of the manifold facing forward</td> </tr> <tr> <td>N4TB2-2NEB1</td> <td>End block on left side with the A/B port of the manifold facing forward</td> </tr> </tbody> </table>	Model No.	Content	N4TB2-2NEA1	For adjacent wiring block of end block on right side with the A/B port of the manifold facing forward	N4TB2-2NEB1	End block on left side with the A/B port of the manifold facing forward	End block A  Open/close End block B 	 For external pilot <table border="1"> <thead> <tr> <th>Model No.</th> <th>Content</th> </tr> </thead> <tbody> <tr> <td>N4TB2-2NEA2 N4TB2-2NEA2K Note</td> <td>For adjacent wiring block of end block on right side with the A/B port of the manifold facing forward</td> </tr> <tr> <td>N4TB2-2NEB2 N4TB2-2NEB2K Note</td> <td>End block on right side with the A/B port of the manifold facing forward</td> </tr> </tbody> </table> Note: Dedicated for external pilot	Model No.	Content	N4TB2-2NEA2 N4TB2-2NEA2K Note	For adjacent wiring block of end block on right side with the A/B port of the manifold facing forward	N4TB2-2NEB2 N4TB2-2NEB2K Note	End block on right side with the A/B port of the manifold facing forward
Model No.	Content														
N4TB2-2NEA1	For adjacent wiring block of end block on right side with the A/B port of the manifold facing forward														
N4TB2-2NEB1	End block on left side with the A/B port of the manifold facing forward														
Model No.	Content														
N4TB2-2NEA2 N4TB2-2NEA2K Note	For adjacent wiring block of end block on right side with the A/B port of the manifold facing forward														
N4TB2-2NEB2 N4TB2-2NEB2K Note	End block on right side with the A/B port of the manifold facing forward														

F Supply and exhaust block (NQ)

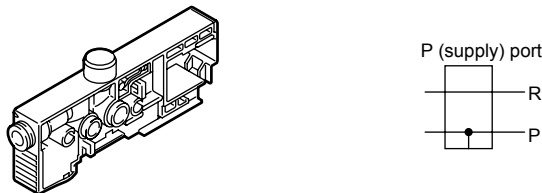
Model No.	P port	R port	Content	Model No.	P port	R port	PA port	Content
N4TB2-2NQSH12	φ12	φ12	Exhaust port sideways facing	N4TB2-2NQSH12K	φ12	φ12	φ6	External pilot, exhaust port sideways facing
N4TB2-2NQSH10	φ10	φ10		N4TB2-2NQSH10K	φ10	φ10	φ6	
N4TB2-2NQSH 8	φ 8	φ 8		N4TB2-2NQSH 8K	φ 8	φ 8	φ6	

● Dedicated for external pilot

R (exhaust) port
P (supply) port

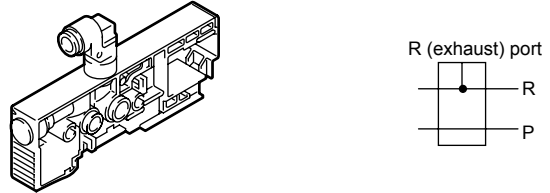
R (exhaust) port
P (supply) port
PA (external pilot port)

Supply block (NP)



Model No.	R port
N4TB2-2NPSH12	φ12
N4TB2-2NPSH10	φ10
N4TB2-2NPSH8	φ 8

Exhaust block (NR)



Model No.	R port	Content
N4TB2-2NRSH12	φ12	Exhaust port sideways facing
N4TB2-2NRSH10	φ10	
N4TB2-2NRSH8	φ 8	

G Valve block with solenoid valve (N4TB2)

N4TB2 1 0 - H8 - M1 L - 3 - RA

Solenoid valve operation classification

E Other options F Voltage G Cable length (included)

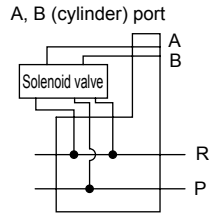
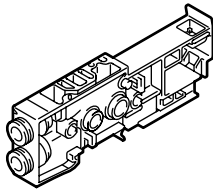
A Solenoid valve switching classification		B Port size		C Manual override		D Display/protection circuit	
Code	Content	Code	Content	Code	Content	Code	Content
1	2-position single	H6	φ6 push-in fitting	Blank	Non-locking manual override	L	With surge suppressor and indicator lamp
2	2-position double	H8	φ8 push-in fitting	M1	Locking manual override	Blank	Without surge suppressor/lamp
3	3-position all ports closed	H10	φ10 push-in fitting				
4	3-position ABR connection						
5	3-position PAB connection						

E Other options		F Voltage		G Cable length (included)		
Code	Content	Code	Content	Code	Max strns	Length (mm)
Blank	None	1	100 VAC 50/60 Hz	RA	≤8 stations	360
K	External pilot	2	200 VAC 50/60 Hz	RA0	≤16 stations	520
		3	24 VDC	RA1	≤24 stations	680
		4	12 VDC	RB	≤8 stations	360
		5	110 VAC 50/60 Hz	RB0	≤16 stations	520
		6	220 VAC 50/60 Hz	RB1	≤24 stations	680

Note: T3* and T50 are dedicated for 12, 24 VDC.
T6* is dedicated for 24 VDC.

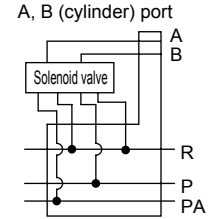
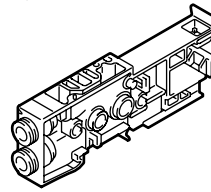
H Valve block (NS)

(With body gasket)



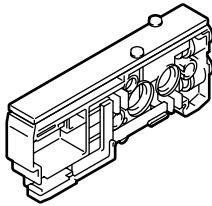
Model No.	A/B port
N4TB2-2NSSH10	φ10
N4TB2-2NSSH8	φ 8
N4TB2-2NSSH6	φ 6

- Dedicated for external pilot
Body gasket,
(PA port dedicated)
O-ring equipped



Model No.	A/B port
N4TB2-2NSSH10K	φ10
N4TB2-2NSSH8K	φ 8
N4TB2-2NSSH6K	φ 6

I Masking plate (MP)

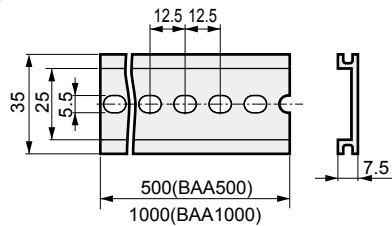


Model No.	A/B Port	Content
N4TB2-2MPVH10-*	φ10	With valve block and cable
N4TB2-2MPVH8-*	φ 8	For external pilot specifications, specify K after model No. H6, 8, 10.
N4TB2-2MPVH6-*	φ 6	
N4TB2-2MP	-	Plate, mounting screw, and gasket only

* Cable length (included)			
Code	Max stns	Length (mm)	Wiring method
RA	8	360	T 3*
RA0	16	520	T 50
RA1	24	680	T 6*
RB	8	360	T 10
RB0	16	520	
RB1	24	680	

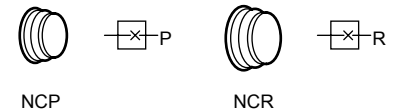
J Related products

- Mounting rail (BAA)



Model No.	L
BAA 500	500
BAA1000	1000

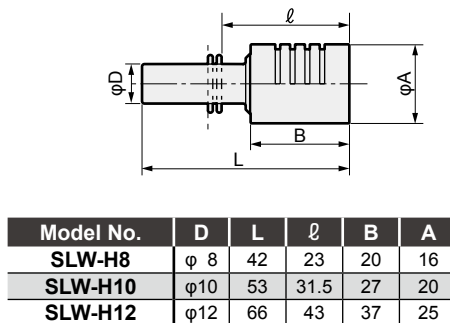
- Partition plug (NC)



* Plug for separating the ports between each block. Common to 4TB1 and 4TB2.

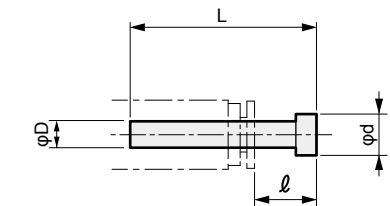
Model No.	Content
N4TB-NCP	Dedicated for air supply port
N4TB-NCR	Dedicated for exhaust port

- Silencer



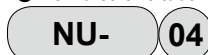
Model No.	D	L	ℓ	B	A
SLW-H8	φ 8	42	23	20	16
SLW-H10	φ10	53	31.5	27	20
SLW-H12	φ12	66	43	37	25

- Blanking plug

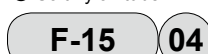


Model No.	D	L	ℓ	d
GWP6-B	φ 6	29	11.5	8
GWP8-B	φ 8	33	14	10
GWP10-B	φ10	40	18.5	12
GWP12-B	φ12	43	20	14

- New urethane tube



- Soft nylon tube

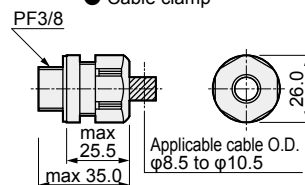


- Urethane tube

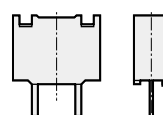


A Compatible tube O.D. size	
06	φ 6
08	φ 8
10	φ10
12	φ12

- Cable clamp



- Fuse (for replacement)



Model No.	Content
4T9-SCL-10B	Convenient for the serial transmission unit connection cable.

Model No.	Content
4T9-LM16	Flat cable connector (T50, T50A) supported
4T9-LM20	Serial transmission supported

4TB3 Series

Reduced wiring manifold; block configurations

As units can be freely assembled, it is easy to change the number of stations, perform maintenance, etc.

Layout of each block

● Valve block with solenoid valve

The types of solenoid valve required can be arranged at the center at the number of stations required.

4TB3 and 4TB4 cannot be mixed.

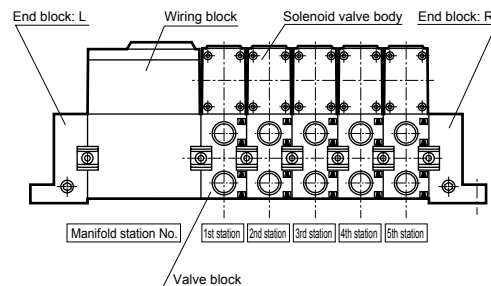
● End block

One each must be arranged on both sides of the aggregating valve block and wiring block.

With the cylinder port facing forward, the left side will be L and the right side will be R.

● Wiring block

A block of the selected wiring method will be arranged between the valve block and the end block.



4TB

4L2-4/
LMF0

MN3S0
MN4S0

4SA/B0

4KA/B

4KA/B
(mastr)

4F

4F
(mastr)

PV5G
GMF

PV5
GMF

PV5S-0

3QR
3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/
NVP

4F*0EX

4F*0E

HMV
HSV

2QV
3QV

SKH

PCD

Silencer

TotAirSys
(Total Air)

TotAirSys
(Gamma)

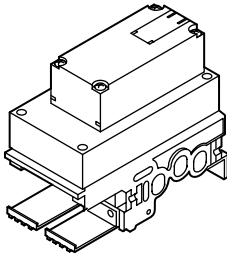
Ending

Block manifold configuration

Block manifold configuration	Wiring	Piping	Related products	Option
			A Serial transmission unit block (T6*) 	A Common terminal box (T10*)
			B End block (EL) 	B End block (ER)
				C Valve block with solenoid valve (M4TB3)
			D Masking plate (MP) 	D Partition plug (NC)
				D Cable clamp
				D Fuse (for replacement)
			D Wiring duct cover 	
			E Independent air supply spacer M4TB3-P 	E Independent exhaust spacer M4TB3-R
				E Spacer regulator M4TB3-SR-P (P port regulator)
				E M4TB3-SR-A (A port regulator)
				E M4TB3-SR-B (B port regulator)

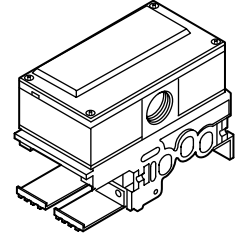
A Wiring block

- Serial transmission unit block (T6*)



Model No.	Content
M4TB3-T6A0	UNIWIRED SYSTEM compatible (8 points)
M4TB3-T6A1	UNIWIRED SYSTEM compatible (16 points)
M4TB3-T6C1	CompoBus/S compatible (16 points)
M4TB3-T6D1	DeviceNet compatible (16 points)
M4TB3-T6G1	CC-Link compatible (16 points)
M4TB3-T6J0	UNIWIRED H SYSTEM compatible (8 points)
M4TB3-T6J1	UNIWIRED H SYSTEM compatible (16 points)

- Common terminal box (T10)



Model No.	Content
M4TB3-T10-20P	Terminal count 20 P
M4TB3-T10-10P	Terminal count 11 P

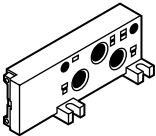
Discrete serial transmission slave unit model No.

N4T - OPP2 - 0A**A** Wiring method

Code	Content
A Wiring method	
0A T6A0	UNIWIRED SYSTEM compatible (8 points)
1A T6A1	UNIWIRED SYSTEM compatible (16 points)
1C T6C1	CompoBus/S compatible (16 points)
1D T6D1	DeviceNet compatible (16 points)
1G T6G1	CC-Link compatible (16 points)
0J T6J0	UNIWIRED H SYSTEM compatible (8 points)
1J T6J1	UNIWIRED H SYSTEM compatible (16 points)

B End block (ER/EL)

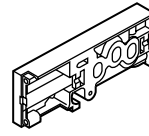
Left side mount



Model No.	Content
M4TB3-EL	End block on left side with the A/B port of the manifold facing forward
Note M4TB3-ELK	

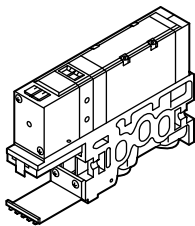
Note: Dedicated for external pilot

Right side mount



Model No.	Content
M4TB3-ER	End block on right side with the A/B port of the manifold facing forward
Note M4TB3-ERK	

Note: Dedicated for external pilot

C Valve block with solenoid valve (M4TB3)**M4TB3****1****0****08****M1****L****3****RC**

Solenoid valve operation classification

D Display/protection circuit**F** Voltage**E** Other options**G** Cable length (included)

A Solenoid valve switching class		B Port size (cylinder port)		C Manual override	
Code	Content	Code	Content	Code	Content
1	2-position single	08	Rc1/4	Blank	Non-locking manual override
2	2-position double	08Y	Rc1/4 (rear piping)	M1	Locking manual override
3	3-position all ports closed	10	Rc3/8		
4	3-position ABR connection	D	Display/protection circuit	E Other options	
5	3-position PAB connection			F Voltage	
		L	With surge suppressor and indicator lamp	Blank	None
		Blank	Without surge suppressor/lamp	K	External pilot
				G Cable length (included)	
				Code	Max stns
				RC	≤8 stations
				RC0	≤12 stations
				RC1	≤16 stations
				RD	≤8 stations
				RD0	≤12 stations
				RD1	≤19 stations
				RE	≤8 stations
				RE0	≤12 stations
				RE1	≤16 stations
				RF	≤8 stations
				RF0	≤12 stations
				RF1	≤19 stations

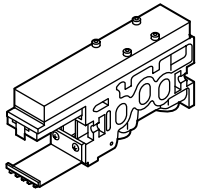
Note: T6* is dedicated to 24 VDC

4TB3 Series

Reduced wiring manifold; piping block

D Related products

● Masking plate (MP)



* Cable length (included)			
Code	Max stns	Length (mm)	Wiring method
RC	Up to 8 stations	510	T6*
RC 0	Up to 12 stations	670	
RC 1	Up to 16 stations	1000	
RD	Up to 8 stations	510	T10
RD 0	Up to 12 stations	670	
RD 1	Up to 19 stations	1000	
RE	Up to 8 stations	510	T6* Degree of protection IP65
RE 0	Up to 12 stations	670	
RE 1	Up to 16 stations	1000	
RF	Up to 8 stations	510	T10 Degree of protection IP65
RF 0	Up to 12 stations	670	
RF 1	Up to 19 stations	1000	

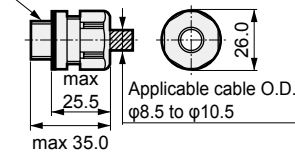
Model No.	A/B port	Content
M4TB3-MPV08-*	Rc1/4	With valve block cable
M4TB3-MPV10-*	Rc3/8	
M4TB3-MPV08Y-*	Rc1/4	
M4TB3-MP	-	Plate, mounting screw, and gasket only

● Partition plug (NC)

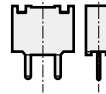


● Cable clamp

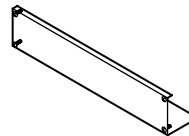
PF3/8



● Fuse (for replacement)



● Wiring duct cover



Model No.	Content
M4TB3-NC	Can be used for either P or R ports.

Model No.	Content
4T9-SCL-10B	Serial transmission unit Convenient for the connection cable.

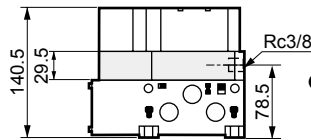
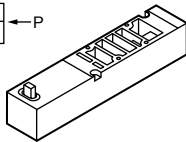
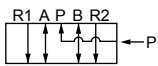
Model No.	Content
4T9-LM20	Serial transmission supported

Model No.	Content
M4TB3-DC Station No. (H)	Wiring duct cover mounting screws

Note: List manifold station No. (2 or more)

E Option

● Independent air supply spacer (M4TB3-P)

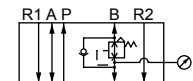
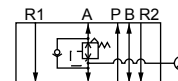
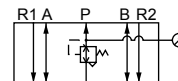


● Spacer regulator

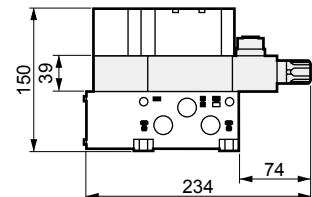
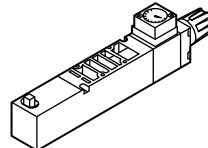
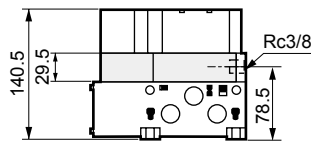
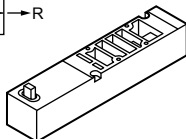
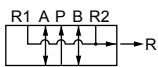
M4TB3-SR-P
(P port regulator)

M4TB3-SR-A
(A port regulator)

M4TB3-SR-B
(B port regulator)



● Independent exhaust spacer (M4TB3-R)



As units can be freely assembled, it is easy to change the number of stations, perform maintenance, etc.

Layout of each block

● **Valve block with solenoid valve**

The types of solenoid valve required can be arranged at the center at the number of stations required.

(Example: 4 stations for 2-position single, 2 stations for 2-position double for a total of 6 stations)

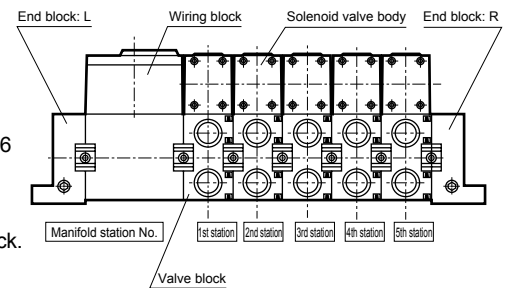
● **End block**

One each must be arranged on both sides of the aggregating valve block and wiring block.

With the cylinder port facing forward, the left side will be L and the right side will be R.

● **Wiring block**

A block of the selected wiring method will be arranged between the aggregating valve block and the end block.



Block manifold configuration	Wiring	Wiring block	A Serial transmission unit block (T6*)		A Common terminal box (T10*)	
	Piping	Piping block	B End block (EL)	B End block (ER)	C Valve block with solenoid valve (M4TB4)	
	Related products	Related products	D Masking plate (MP)	D Partition plug (NC)	D Cable clamp	D Fuse (for replacement)
Option	Option	Option	D Wiring duct cover			
Option	Option	Option	E Independent air supply spacer M4TB4-P	E Independent exhaust spacer M4TB4-R	E Spacer regulator M4TB4-SR-P (P port regulator)	M4TB4-SR-A (A port regulator) M4TB4-SR-B (B port regulator)

4GA/B

M4GA/B

MN4GA/B

4GA/B (mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/

LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (mastr)

4F

4F (mastr)

PV5G

GMF

PV5

GMF

PV5S-0

3QR

3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F*0EX

4F*0E

HNV

HSV

2QV

3QV

SKH

PCD

Silencer

TotAirSys

(Total Air)

TotAirSys

(Gamma)

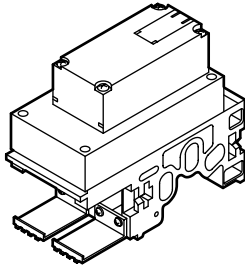
Ending

4TB4Series

Reduced wiring manifold; block configurations

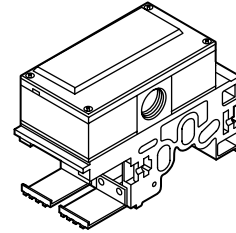
A Wiring block

- Serial transmission unit block (T6*)



Model No.	Content
M4TB4-T6A0	UNIWIRED SYSTEM compatible (8 points)
M4TB4-T6A1	UNIWIRED SYSTEM compatible (16 points)
M4TB3-T6C1	CompoBus/S compatible (16 points)
M4TB4-T6D1	DeviceNet compatible (16 points)
M4TB3-T6G1	CC-Link compatible (16 points)
M4TB3-T6J0	UNIWIRED H SYSTEM compatible (8 points)
M4TB4-T6J1	UNIWIRED H SYSTEM compatible (16 points)

- Common terminal box (T10)



Model No.	Content
M4TB4-T10-20P	Terminal count 20 P
M4TB4-T10-10P	Terminal count 11 P

Discrete serial transmission slave unit model No.

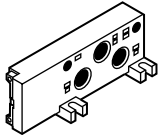
N4T - OPP2 - 0A

● Wiring method

Code	Content
A Wiring method	
0A	T6A0 UNIWIRED SYSTEM compatible (8 points)
1A	T6A1 UNIWIRED SYSTEM compatible (16 points)
1C	T6C1 CompoBus/S compatible (16 points)
1D	T6D1 DeviceNet compatible (16 points)
1G	T6G1 CC-Link compatible (16 points)
0J	T6J0 UNIWIRED H SYSTEM compatible (8 points)
1J	T6J1 UNIWIRED H SYSTEM compatible (16 points)

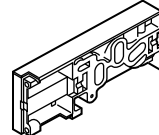
B End block (ER/EL)

Left side mount



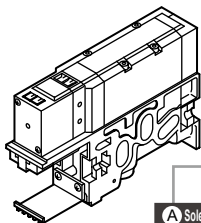
Model No.	Content
M4TB4-EL	End block on left side with the A/B port of the manifold facing forward
Note M4TB4-ELK	
Note: Dedicated for external pilot	

Right side mount



Model No.	Content
M4TB4-ER	End block on right side with the A/B port of the manifold facing forward
Note M4TB4-ERK	
Note: Dedicated for external pilot	

C Valve block with solenoid valve (M4TB4)



M4TB4

1

0

10

M1

L

3

RC

Solenoid valve operation classification

● Display/protection circuit

● Other options

● Voltage

● Cable length (included)

A Solenoid valve switching classification		B Port size (cylinder port)		C Manual override	
Code	Content	Code	Content	Code	Content
1	2-position single	10	Rc3/8	Blank	Non-locking manual override
2	2-position double	10Y	Rc3/8 (rear piping)	M1	Locking manual override
3	3-position all ports closed	15	Rc1/2		
4	3-position ABR connection				
5	3-position PAB connection				

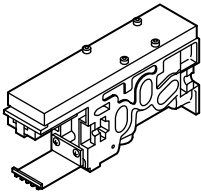
D Display/protection circuit		E Other options	
Code	Content	Code	Content
L	With surge suppressor and indicator lamp	Blank	None
Blank	Without surge suppressor/lamp	K	External pilot

F Voltage		G Cable length (included)		
Code	Content	Code	Max stns	Length (mm)
1	100 VAC 50/60 Hz	RC	≤8 stations	510
2	200 VAC 50/60 Hz	RC0	≤12 stations	670
3	24 VDC	RC1	≤16 stations	1000
4	12 VDC	RD	≤8 stations	510
5	110 VAC 50/60 Hz	RD0	≤12 stations	670
6	220 VAC 50/60 Hz	RD1	≤19 stations	1000
		RE	≤8 stations	510
		RE0	≤12 stations	670
		RE1	≤16 stations	1000
		RF	≤8 stations	510
		RF0	≤12 stations	670
		RF1	≤19 stations	1000

Note: T6* is dedicated to 24 VDC

D Related products

- Masking plate (MP)



Model No.	A/B port	Content
M4TB4-MPV10-*	Rc3/8	With valve block cable
M4TB4-MPV15-*	Rc1/2	
M4TB4-MPV10Y-*	Rc3/8	
M4TB4-MP	-	Plate, mounting screw, and gasket only

* Cable length (included)			
Code	Supported station numbers	Length (mm)	Wiring method
RC	Up to 8 stations	510	T6*
RC 0	Up to 12 stations	670	
RC 1	Up to 16 stations	1000	
RD	Up to 8 stations	510	T10
RD 0	Up to 12 stations	670	
RD 1	Up to 19 stations	1000	
RE	Up to 8 stations	510	T6*
RE 0	Up to 12 stations	670	
RE 1	Up to 16 stations	1000	
RF	Up to 8 stations	510	T10
RF 0	Up to 12 stations	670	
RF 1	Up to 19 stations	1000	

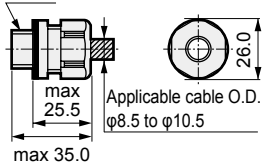
- Partition plug (NC)



Model No.	Content
M4TB4-NC	Can be used for either P or R ports.

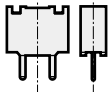
- Cable clamp

PF3/8



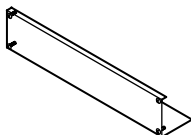
Model No.	Content
4T9-SCL-10B	Convenient for the serial transmission unit connection cable.

- Fuse (for replacement)



Model No.	Content
4T9-LM20	Serial transmission supported

- Wiring duct cover

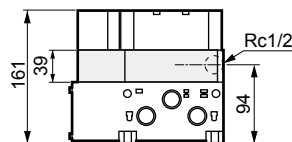
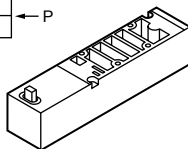
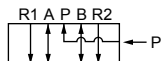


Model No.	Content
M4TB4-DC	Wiring duct cover
Station No. (H)	mounting screws

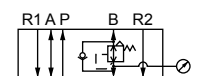
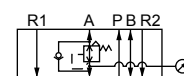
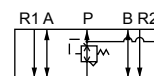
Note: List manifold station No. (2 or more)

E Option

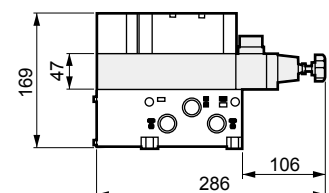
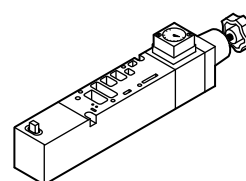
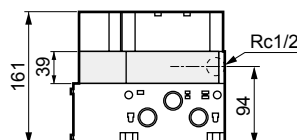
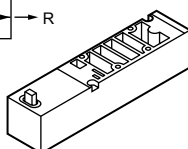
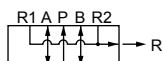
- Independent air supply spacer (M4TB4-P)



- Spacer regulator

M4TB4-SR-P
(P port regulator)M4TB4-SR-A
(A port regulator)M4TB4-SR-B
(B port regulator)

- Independent exhaust spacer (M4TB4-R)



4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4TB Series

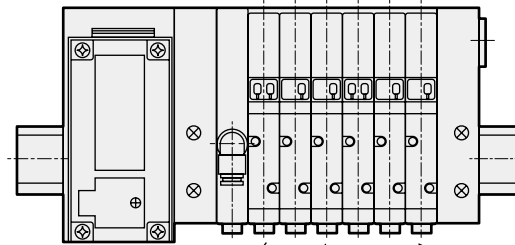
Technical data ① Notes on wiring: Serial transmission

Serial transmission: Wiring method

T6*

T6* Serial transmission

- The slave unit's output No. differs with the manufacturer. The manifold internal connector pin No. and the manifold solenoid correspond as shown below.
- Internal connectors are wired in order, so there may be some blank numbers depending on the number of manifold stations. These blank outputs cannot be used to drive other than the solenoid manifold in use.
- The working power is 24 VDC.
- A slave unit for each communication system is used. For usable PLC models, host unit model numbers and communication system specifications, refer to technical data on page 1130.
- Station manifolds are set in order from the left with the piping port facing forward regardless of the wiring block position.
- For information regarding the PLC, please contact the corresponding PLC manufacturer.



Manifold station No.

1st station

2nd station

3rd station

--- n-th station

Correspondence of connector pin No. and solenoid valve

- For single solenoid valve
(Supports up to manifold max. station number of 16 stations)

Pin No.	1	3	5	7	9	11	13	15
Valve No.	2a	4a	6a	8a	10a	12a	14a	16a
Pin No.	0	2	4	6	8	10	12	14
Valve No.	1a	3a	5a	7a	9a	11a	13a	15a

- For double solenoid valve
(Supports up to manifold max. station number of 8 stations)

Pin No.	1	3	5	7	9	11	13	15
Valve No.	1b	2b	3b	4b	5b	6b	7b	8b
Pin No.	0	2	4	6	8	10	12	14
Valve No.	1a	2a	3a	4a	5a	6a	7a	8a

- For mixed use (single/double mixture)
(Supports max. No. of solenoid valves up to 16 points)

Pin No.	1	3	5	7	9	11	13	15
Valve No.	2a	4a	6a	7b	8b	9b	10b	11b
Pin No.	0	2	4	6	8	10	12	14
Valve No.	1a	3a	5a	7a	8a	9a	10a	11a

*1: The numerals of valve numbers 1a, 1b, 2a, 2b ... indicate the order of stations first station, second station... and the letters "a" and "b" indicate the "a side" solenoid and "b side" solenoid, respectively.

Correspondence of slave unit output No. and connector pin No.

- T6A1, T6C1, T6D1, T6J1

Output No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Connector pin No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

- T6A0, T6J0

	Upper row							
Output No.	0	1	2	3	4	5	6	7
Connector pin No.	0	1	2	3	4	5	6	7

- T6G1

Output No.	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Connector pin No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Common terminal block: Wiring method

T10

T10 Common terminal block

With the common terminal box, the common internal wiring is done beforehand. In addition, the terminal numbers (listed on the terminal block covers) correspond to the manifold solenoids as shown below.

Station manifolds are set in order from the left with the piping port facing forward regardless of the wiring block position.

Cautions for common terminal block

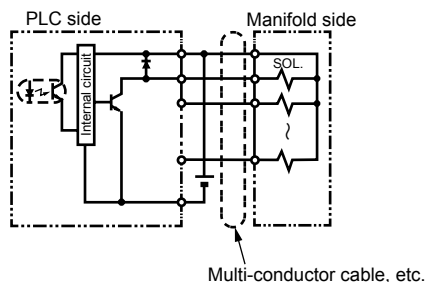
When using the T10 outside of the board, be sure to prepare a cover as necessary.

With the common terminal block, as common wires are processed internally beforehand, in the following cases, the number of steps for the wiring may increase or there may be cases when it is not possible to perform the wiring.

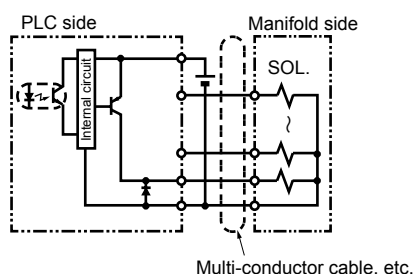
- Unify the manifold power supply.
- When using the independent contact PLC output unit, wire the common wires at the contact section.

Wiring method

- In case of DC output unit (NPN output)

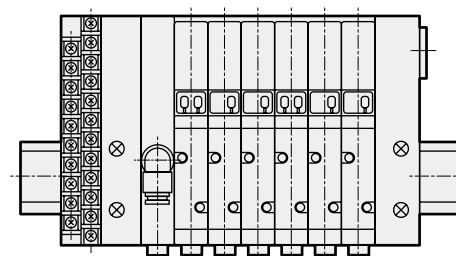
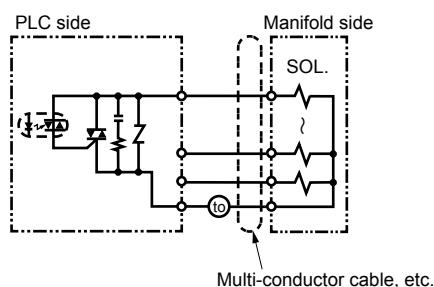


- In case of DC output unit (PNP output)



- In case of AC output unit

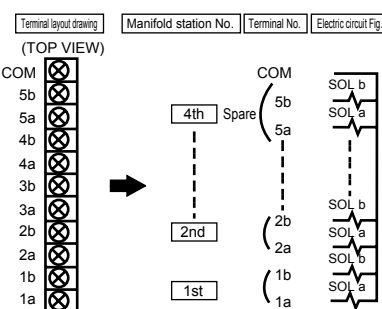
* Be careful of leakage current when the AC output unit is OFF.
This may cause the valve to malfunction.



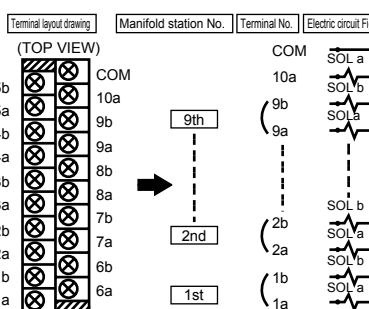
Manifold station No. 1st station 2nd station 3rd station ... n-th station

T10 Manifold internal wiring

- Up to 4 stations



- 5 or more stations



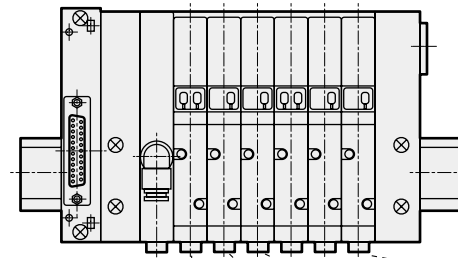
4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4TB Series

Technical data ① Notes on wiring: D sub-connector

D sub-connector: Wiring method**T30/T31 (4TB1/4TB2 only)****T30/T31 Connectors**

The connector used for T30 wiring, called a D sub-connector, is used widely for FA and OA devices. The 25P in particular is also an RS-232-C Standards designated connector, used for personal computer communication. The manifold station numbers are set in order from left with the piping port facing forward.

**Manifold station No.**

1st station

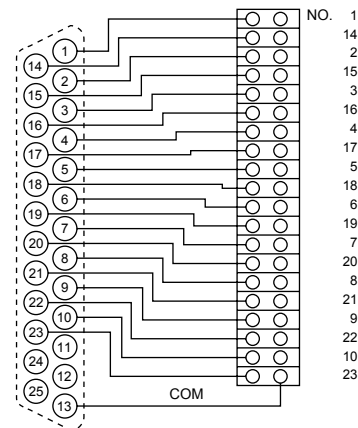
2nd station

3rd station

n-th station

Precautions for connector T30/T31

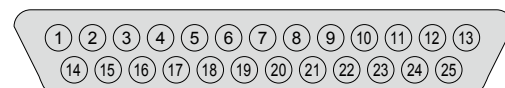
- (1) Signal arrays of the PLC output unit must match signal arrays on the valve side.
- (2) The working power is 12/24 VDC dedicated.
- (3) A voltage drop may occur due to simultaneous energizing or cable length. Confirm that the voltage drop for the solenoid is within 10% of the rated voltage.
- (4) As there is no polarity with the solenoid valve wire connections for the T30/T31, it is possible to install the wiring with either ⊕ common/ ⊖ common in accordance with the output unit.



[Internal circuit]

T30/T31 connector pin array (example)

*1: The numerals of valve numbers 1a, 1b, 2a, 2b ... indicate the order of stations first station, second station... and the letters "a" and "b" indicate the "a side" solenoid and "b side" solenoid, respectively.



- For single solenoid valve
(Supports up to manifold max. station number of 20 stations)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Valve No.	1a	3a	5a	7a	9a	11a	13a	15a	17a	19a			COM
Pin No.	14	15	16	17	18	19	20	21	22	23	24	25	
Valve No.	2a	4a	6a	8a	10a	12a	14a	16a	18a	20a			

- For double solenoid valve
(Supports up to manifold max. station number of 10 stations)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Valve No.	1a	2a	3a	4a	5a	6a	7a	8a	9a	10a			COM
Pin No.	14	15	16	17	18	19	20	21	22	23	24	25	
Valve No.	1b	2b	3b	4b	5b	6b	7b	8b	9b	10b			

- For mix (single/double mixture) (supports max. solenoid No. up to 20 points)
The masking plate spare wiring is equipped with double (2 wires) wiring.

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Valve No.	1a	3a	4a	5a	7a	8a	10a	11b	12b	14a			COM
Pin No.	14	15	16	17	18	19	20	21	22	23	24	25	
Valve No.	2a	3b	4b	6a	7b	9a	11a	12a	13a	15a			

How to order cable with D sub-connector

N4T - **CABLE** - **D** **0** **0** - **1**

* Each pneumatic valve model can be used for D sub-connector T30/T31.

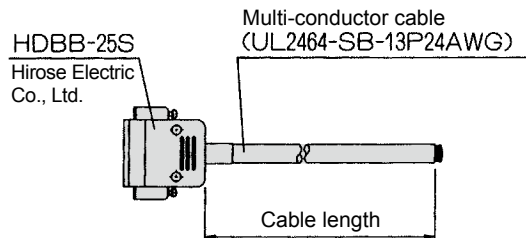
Ⓐ User interface

Ⓑ Cable length

Model	
N4T	
Code	
A User side connection	
0	Cut only
1	With round terminal for M3.5 screw
B Cable length	
1	1 m
3	3 m
5	5 m

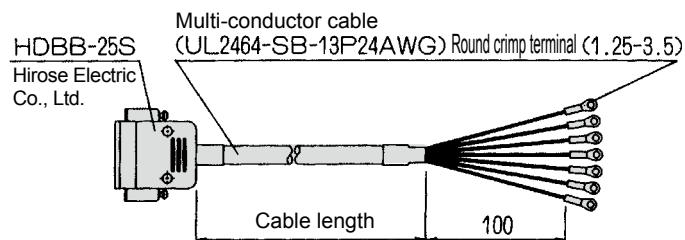
D sub-connector terminal No. and conductor

● N4T-CABLE-D00-Ⓑ



D sub-connector terminal No.		1	2	3	4	5	6	7	8	9	10	11	12	13
Core identification	Insulator color	Orange	Orange	Yellow	Yellow	Green	Green	Gray	Gray	White	White	Orange	Orange	Yellow
	Mark	1 point	1 point	1 point	1 point	1 point	1 point	1 point	1 point	1 point	1 point	2 points	2 points	2 points
	Mark color	Black	Red	Black	Red	Black	Red	Black	Red	Black	Red	Black	Red	Black
D sub-connector terminal No.		14	15	16	17	18	19	20	21	22	23	24	25	
Core identification	Insulator color	Yellow	Green	Green	Gray	Gray	White	White	Orange	Orange	Yellow	Yellow	Green	
	Mark	2 points	2 points	2 points	2 points	2 points	2 points	2 points	3 points	3 points	3 points	3 points	3 points	
	Mark color	Red	Black	Red	Black	Red	Black	Red	Black	Red	Black	Red	Black	

● N4T-CABLE-D01-Ⓑ



D sub-connector terminal No.		1	2	3	4	5	6	7	8	9	10	11	12	13
Core identification	Insulator color	Orange	Orange	Yellow	Yellow	Green	Green	Gray	Gray	White	White	Orange	Orange	Yellow
	Mark	1 point	1 point	1 point	1 point	1 point	1 point	1 point	1 point	1 point	1 point	2 points	2 points	2 points
	Mark color	Black	Red	Black	Red	Black	Red	Black	Red	Black	Red	Black	Red	Black
Mark tube No.		1	2	3	4	5	6	7	8	9	10	11	12	13
D sub-connector terminal No.		14	15	16	17	18	19	20	21	22	23	24	25	
Core identification	Insulator color	Yellow	Green	Green	Gray	Gray	White	White	Orange	Orange	Yellow	Yellow	Green	
	Mark	2 points	2 points	2 points	2 points	2 points	2 points	2 points	3 points	3 points	3 points	3 points	3 points	
	Mark color	Red	Black	Red	Black	Red	Black	Red	Black	Red	Black	Red	Black	
Mark tube No.		14	15	16	17	18	19	20	21	22	23	24	25	

* Up to 24 points can be used. Cut the wires for surplus points before use.

4TB Series

Technical data ① Notes on wiring: Flat cable connector

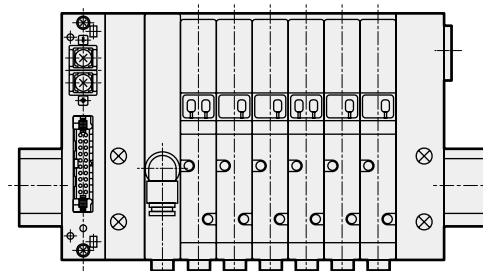
Flat cable connector: Wiring method T50 (4TB1/4TB2 only)

T50 Connectors

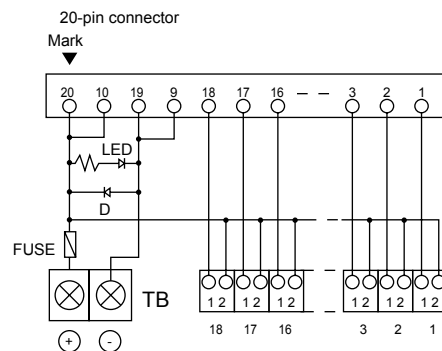
The connector used for T50 wiring method complies with MIL Standards (MIL-C-83503). Wiring work is simplified with the pressure welded flat cable. Pin numbers are assigned differently based on the connector manufacturer, but the function assignment is the same. Layout using connectors and the triangular mark (▼) shown below as a reference. The ▼ mark is the reference for both plug and socket. The manifold station numbers are set in order from left with the piping port facing forward.

Precautions for connector T50

- (1) Signal arrays of the PLC output unit must match signal arrays on the valve side. Direct connections with the PLC are limited. Use the dedicated cable for each PLC manufacturer.
- (2) The working power is 12/24 VDC dedicated.
- (3) When connecting the T50 to a general output unit, use the + terminal (20, 10) of the 20P connector as the + side common, and use the NPN transistor output open collector for the drive circuit. When connecting to PNP transistor output open collector, contact CKD.
- (4) Never connect this manifold to the input unit, as major failures could occur in this device and in peripherals. Be sure to connect the manifold to the output unit.
- (5) A voltage drop may occur due to simultaneous energizing or cable length. Confirm that the voltage drop for the solenoid is within 10% of the rated voltage.



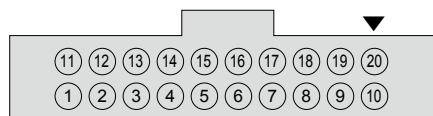
Manifold station No. 1st station 2nd station 3rd station ... n-th station



[Internal circuit]

Wiring method T50 connector pin array (example)

*: The numerals of valve numbers 1a, 1b, 2a, 2b ... indicate the order of stations first station, second station... and the letters "a" and "b" indicate the "a side" solenoid and "b side" solenoid, respectively.



- For single solenoid valve (Supports up to manifold max. station number of 16 stations)

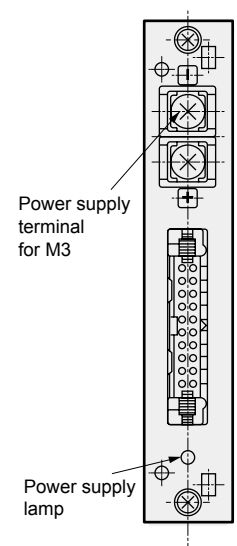
Pin No.	11	12	13	14	15	16	17	18	19	20
Valve No.	9a	10a	11a	12a	13a	14a	15a	16a	- Power supply	+ Power supply
Pin No.	1	2	3	4	5	6	7	8	9	10
Valve No.	1a	2a	3a	4a	5a	6a	7a	8a	- Power supply	+ Power supply

- For double solenoid valve (Supports up to manifold max. station number of 8 stations)

Pin No.	11	12	13	14	15	16	17	18	19	20
Valve No.	5a	5b	6a	6b	7a	7b	8a	8b	- Power supply	+ Power supply
Pin No.	1	2	3	4	5	6	7	8	9	10
Valve No.	1a	1b	2a	2b	3a	3b	4a	4b	- Power supply	+ Power supply

- For mix (single/double mixture) (supports max. solenoid No. up to 16 points)
The masking plate spare wiring is equipped with double (2 wires) wiring.

Pin No.	11	12	13	14	15	16	17	18	19	20
Valve No.	7a	7b	8a	9a	10a	10b	11a	11b	- Power supply	+ Power supply
Pin No.	1	2	3	4	5	6	7	8	9	10
Valve No.	1a	2a	3a	3b	4a	4b	5a	6a	- Power supply	+ Power supply



Amplification circuit equipped flat cable connector: wiring method T50A (4TB1/4TB2 only)

T50A amplification circuit equipped connector

Use this type in the following situations.

- (1) When voltage drop is large and this interferes with proper operation of valves.
 - a) The wiring distance of the flat cables is long
 - b) Voltage drop is large due to the internal circuit for controls
(When a controller with a large output side voltage drop is used)
- (2) For driving from control equipment with a small output current value
(When there are limitations on the current flowing to the controls)

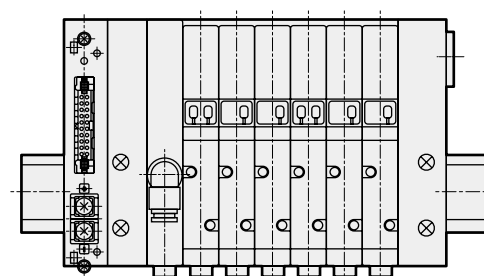
The connector used for T50A wiring method is similar to that of T50. In addition, the connector pins are similar to T50 and the ▼ mark is the reference for both the plug and socket. The correspondence of the connector pin numbers and the manifold solenoid is also similar to T50. Refer to the array of T50 (example).

Amplification circuit equipped connector

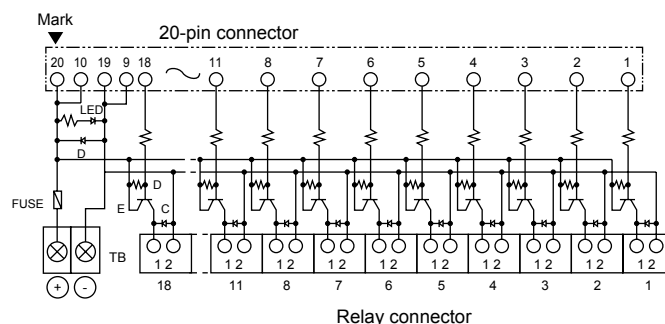
T50A Precautions

- (1) Supply of power supply

In order for the amplification circuit to properly operate, securely supply power to the terminal block of the wiring block. In addition, with the power supply line, use a wire diameter with a small voltage drop, confirm the display of polarity on the wiring cover, and be sure not to make a mistake with the polarity thereof. The power supply display light will light up with proper connections.
- (2) How to connect to PLC
 - For the PLC output unit format, similar to the T50, use one with a contact on the – side of the power supply and between the output or use an NPN transistor output open collector.
 - With T50A, when viewed from the PLC, it is only necessary to drive at max. 10 mA/1 point; minor voltage loss between PLC valves poses no problems. The valve can be driven even in cases when it is necessary to install long wiring with high resistance cables such as flat cables. For the power supply cable, use a wire diameter with a small voltage drop and supply this to the terminal block.
 - When operating a solenoid valve with PLC, make sure that the leakage current of the PLC side output is 1 mA or less. Failure to observe this could lead to malfunctions.



Manifold station No.



[Internal circuit]

Main specifications

Descriptions	Specifications
Power supply voltage (V)	24 VDC±10%, 12 VDC±10% (applicable solenoid valve)
Input current when ON (mA)	3 to 10
Input current when OFF (mA)	0 to 1
Max. output current (mA)	160
Output voltage drop (V)	0.5 or less
Surge suppressor	Diode

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4TB Series

Technical data ① Notes on wiring: PLC compatibility table

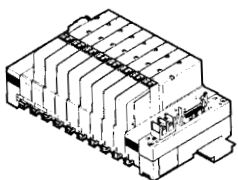
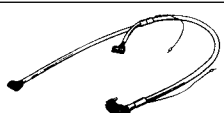
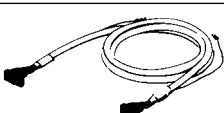
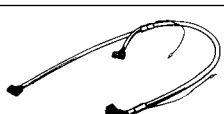
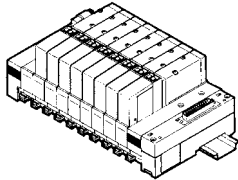
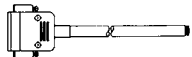
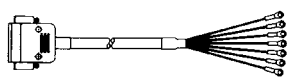
PLC compatibility table for serial transmission: T6*

Model No.	Manufacturer name (recommended organization)	Communication system name	Host unit model No.
T6A*	KURODA Pneumatics Ltd.	UNIWIRE SYSTEM	Connected to sending unit or various UNIWIRE system interfaces
T6C1	OMRON Corporation	CompoBus/S (T6C0/1 does not support long-distance mode)	CJ1W-SRM21 CS1W-SRM21 C200HW-SRM21-V1 CQM1-SRM21-V1
T6D1	ODVA	DeviceNet	Connected to each manufacturer's DeviceNet compatible master
	OMRON Corporation		CJ1W-DRM21 CS1W-RDM21-V1 C200HW-DRM21-V1 CVM1-DRM21-V1
T6G1	CC-Link Partner Association (CLPA)	CC-Link	Connected to each manufacturer's CC-Link compatible master
	Mitsubishi Electric Corporation		QJ61BT11N A1SJ61QBT11 A1SJ61BT11
T6J*	CKD Corporation	UNIWIRE H SYSTEM	Connected to sending unit (UW-SDW-H2) or various UNIWIRE H system interfaces
	KURODA Pneumatics Ltd.		

Note: For details on master units and models not listed above, contact each PLC manufacturer.

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

Example of wiring connection (recommended combination) ● Use with the combination below.

Wiring method	Example of connection cable	PLC and PLC-related products		
		Manufacturer	PLC	Connection cable
Flat cable connector (T50, T50A) 		OMRON Corporation	C200H-OD215 C500-OD415CN	G79-□C
			C500-OD213	79-0□DC-□
		Panasonic Electric Works Co., Ltd.	AFP33484	AY15133 to 7
			AFP53487	AY15223 to 7
D sub-connector upward facing (T30) D sub-connector lateral facing (T31) 				With D sub-connector cable (Refer to page 1127 for cable model No. and details.)
				

Note: Set the power supply voltage for valve activation with attention to voltage drop of the PLC and the flat cable.

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

4TB Series

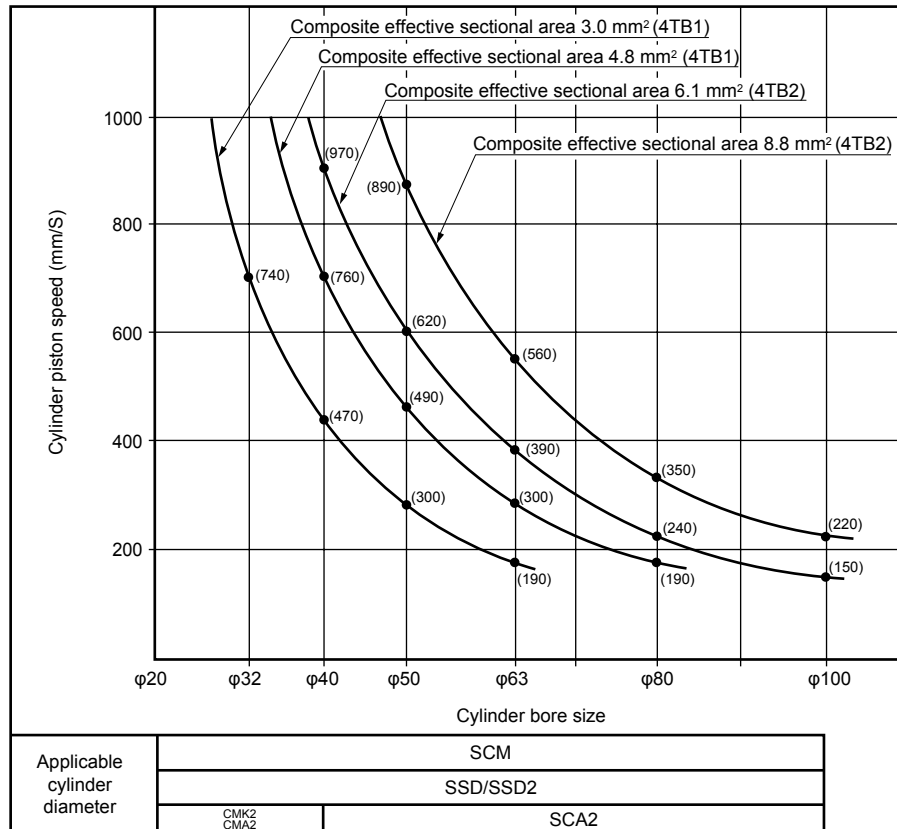
Technical data ② Pneumatic system selection guide

4TB1/2 Series

Pneumatic system selection guide

The cylinder piston speed is obtained from the combination of the 4TB1/4TB2 series and piping system.

It is expressed by the cylinder's piston speed, obtained by dividing the stroke by the time the piston rod moved after starting, when the cylinder piston rod is installed facing upward. When the load factor is 50%, the average speed should be approximately the cylinder's piston speed multiplied by 0.5.



Clean air system components

Part name	Model No.	Port size	Max. flow rate (ℓ/min atmospheric pressure conversion)
F.R.L. combination	C1000-6-W	Rc1/8	450
	C1000-8-W	Rc1/4	630
	C3000-8-W	Rc1/4	1280
	C3000-10-W	Rc3/8	1750
	C4000-8-W	Rc1/4	1430
	C4000-10-W	Rc3/8	2400
F.R. unit	C4000-15-W	Rc1/2	3000
	W1000-6-W	Rc1/8	830
	W1000-8-W	Rc1/4	1150
	W3000-8-W	Rc1/4	2150
	W3000-10-W	Rc3/8	2430
	W4000-8-W	Rc1/4	2500
Air filter (F)	W4000-10-W	Rc3/8	4350
	W4000-15-W	Rc1/2	4750
	F1000-6-W	Rc1/8	460
	F1000-8-W	Rc1/4	610
	F3000-8-W	Rc1/4	1230
	F3000-10-W	Rc3/8	1500
Regulator (R)	F4000-8-W	Rc1/4	1320
	F4000-10-W	Rc3/8	2140
	F4000-15-W	Rc1/2	3000
	R1000-6-W	Rc1/8	770
	R1000-8-W	Rc1/4	1350
	R3000-8-W	Rc1/4	2000
Lubricator (L)	R3000-10-W	Rc3/8	2600
	R4000-8-W	Rc1/4	2500
	R4000-10-W	Rc3/8	4400
	R4000-15-W	Rc1/2	5000
	L1000-6-W	Rc1/8	550
	L1000-8-W	Rc1/4	700
	L3000-8-W	Rc1/4	1100
	L3000-10-W	Rc3/8	2250
	L4000-8-W	Rc1/4	1000
	L4000-10-W	Rc3/8	1700
	L4000-15-W	Rc1/2	2700

Note) Max. flow rate: For F.R.L., F.R. and R, flow rate at 0.7 MPa primary pressure, 0.5 MPa set pressure, 0.1 MPa pressure drop. For air filter, flow rate at 0.7 MPa primary pressure, 0.02 MPa pressure drop. For lubricator, flow rate at 0.5 MPa primary pressure, Flow rate at 0.03 MPa pressure drop.

Piping system

Valve	Speed controller	Silencer	Piping and length between valves and cylinders	Composite effective sectional area by system	Max. flow rate when P=0.5MPa
4TB1 Series	SC3W-6-6	SLW-H6	φ6 x φ4 nylon tube (1 m)	3.0 mm ²	200 ℓ/min
	SC3W-8-8	SLW-H8	φ8 x φ5.7 nylon tube (1 m)	4.8 mm ²	320 ℓ/min
4TB2 Series	SC1-6	SLW-H8	φ8 x φ5.7 nylon tube (1 m)	6.1 mm ²	410 ℓ/min
	SC1-8	SLW-H10	φ10 x φ7.2 nylon tube (1 m)	8.8 mm ²	590 ℓ/min

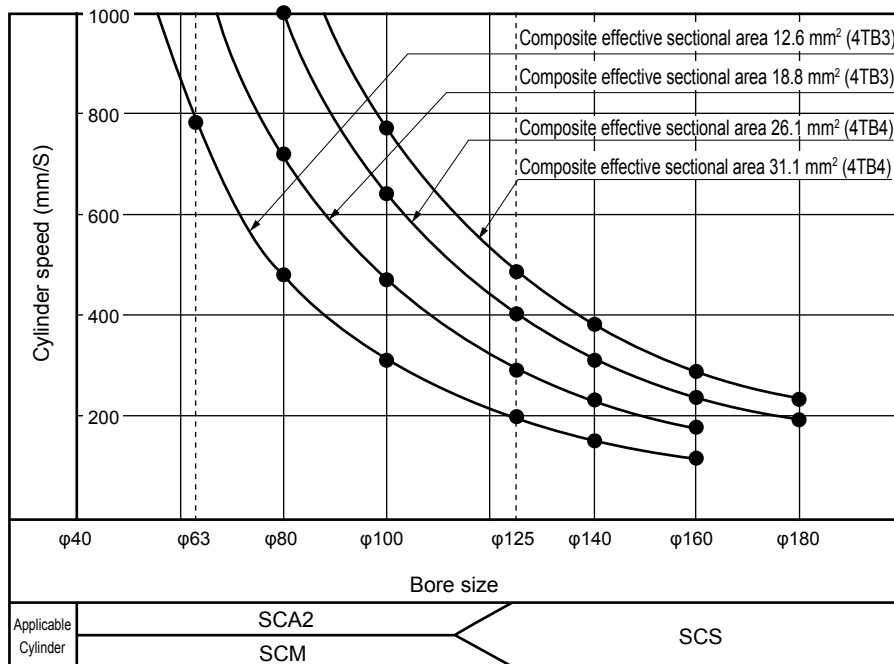
*1: The values described in the Pneumatic system components selection guide are those when one cylinder is operated alone.

4TB3/4 Series

Pneumatic system selection guide

The cylinder piston speed is obtained from the combination of the 4TB3/4TB4 series and piping system.

It is expressed by the cylinder's piston speed, obtained by dividing the stroke by the time the piston rod moved after starting, when the cylinder piston rod is installed facing upward. The table below indicates the cylinder speed when the load factor is 50%.



Piping system

Valve	Speed controller	Silencer	Piping between valve and cylinder and length	Composite effective sectional area by system	Max. flow rate when P = 0.5 MPa
4TB3 Series	SC1-8	SLW-15A	φ15 x φ11.5 nylon tube (5 m)	12.6 mm ²	840 l/min
	SC1-10	SLW-15A	3/8 steel pipe (5 m)	18.8 mm ²	1260 l/min
4TB4 Series	SC1-10	SLW-15A	3/8 steel pipe (5 m)	26.1 mm ²	1750 l/min
	SC1-15	SLW-15A	1/2 steel pipe (5 m)	31.1 mm ²	2090 l/min

Note) The values described in the Pneumatic system device selection guide are those when one cylinder is operated alone.

*: Set the power supply voltage for valve activation with attention to voltage drop of the PLC and the flat cable.

Clean air system device components

Part name	Model No.	Port size	Max. flow rate (l/min atmospheric pressure conversion)
F.R.L. combination	C3000-8-W	Rc1/4	1280
	C3000-10-W	Rc3/8	1750
	C4000-8-W	Rc1/4	1430
	C4000-10-W	Rc3/8	2400
	C4000-15-W	Rc1/2	3000
	C8000-20-W	Rc3/4	7000
	C8000-25-W	Rc1	7500
F.R. unit	W3000-8-W	Rc1/4	2150
	W3000-10-W	Rc3/8	2430
	W4000-8-W	Rc1/4	2500
	W4000-10-W	Rc3/8	4350
	W4000-15-W	Rc1/2	4750
	W8000-20-W	Rc3/4	10000
	W8000-25-W	Rc1	10000
Air filter (F)	F3000-8-W	Rc1/4	1230
	F3000-10-W	Rc3/8	1500
	F4000-8-W	Rc1/4	1320
	F4000-10-W	Rc3/8	2140
	F4000-15-W	Rc1/2	3000
	F8000-20-W	Rc3/4	6400
	F8000-25-W	Rc1	6800
Regulator (R)	R3000-8-W	Rc1/4	2000
	R3000-10-W	Rc3/8	2600
	R4000-8-W	Rc1/4	2500
	R4000-10-W	Rc3/8	4400
	R4000-15-W	Rc1/2	5000
	R8000-20-W	Rc3/4	14000
	R8000-25-W	Rc1	11000
Lubricator (L)	L3000-8-W	Rc1/4	1100
	L3000-10-W	Rc3/8	2250
	L4000-8-W	Rc1/4	1000
	L4000-10-W	Rc3/8	1700
	L4000-15-W	Rc1/2	2700
	L8000-20-W	Rc3/4	6300
	L8000-25-W	Rc1	10000

Note) Max. flow rate: For F.R.L., F.R. and R, flow rate at 0.7 MPa primary pressure, 0.5 MPa set pressure, 0.1 MPa pressure drop.

For air filter, flow rate at 0.7 MPa primary pressure, 0.02 MPa pressure drop. For lubricator, flow rate at 0.5 MPa primary pressure, 0.03 MPa pressure drop.

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/
LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/
NVP
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Ending

4TB1 to 4 Series

Technical data ③ How to disassemble/assemble block manifold

CAUTION: Be sure to turn power OFF and release pressure before increasing or decreasing the manifolds.

4TB1/2 Series

Assembling the block manifold

- (1) Fix the DIN rail.
- (2) Mount the necessary number of stations of end block A, supply and exhaust blocks, and valve blocks in order on the rail and connect between the blocks with the connecting key.
- (3) Fasten the screw on the end block B side (opposite side of wiring block) and fix onto the fastening rail. (Fig. 1)
- (4) Insert the bottom plate section of the wiring block body into the mounting groove (Fig. 2) of end block A and similar to (3), fix the screws of the end block on the fastening rail.

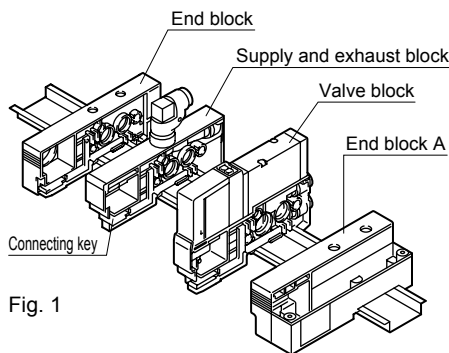


Fig. 1

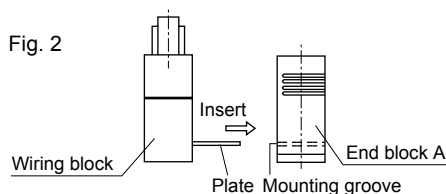


Fig. 2

- (5) Mount the solenoid valve and masking plate on the valve block. (The solenoid valve is mounted when shipped)
- (6) Perform wiring and piping in order to complete the task. (For details on wiring, refer to the separate instruction manual)

Mounting the end block

- (1) Upon confirming that the set screws have been loosened, press from the top and hook the movable claws onto the rail.
- (2) Lift the block to confirm that the claws have been secured.
- (3) After mounting all of the blocks, fasten with the two screws. Appropriate tightening torque is 1.4 N·m.
- (4) Open the wiring duct cover and place the lead wires inside.

Removing the end block

- (1) Open the cover of the end block wiring duct portion.
- (2) Loosen the screws 6 or 7 times to pinch and pull out the connecting key.
- (3) Shift the end block by 4 mm and pull in the direction of the arrow in Fig. 3 to remove.

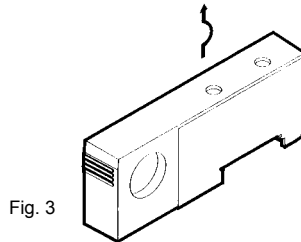


Fig. 3

Mounting the supply and exhaust block, valve block

- (1) Hook the fixing claws on the rail first and press down on the movable claws from the top.
- (2) Slide until there are no gaps between the blocks and push in the connecting key.
- (3) Open the wiring duct cover and place the lead wires inside.

Removing the supply and exhaust block and valve block

- (1) Open the wiring duct cover and arrange so that the lead wires will not get caught.
- (2) Remove the end block.
- (3) Pinch and pull on the connecting key.
- (4) Shift the blocks by 4 mm and then pull up on the side with the movable claws to remove.

Mounting the wiring block, transmission unit

- (1) Insert the body (with plate) on the end block mounting groove to mount the end block and fix together on the DIN rail.
- (2) Push in the key at the bottom of the block which prevents the unit from lifting off of the rail and fix the unit on the rail. (Fig. 4)

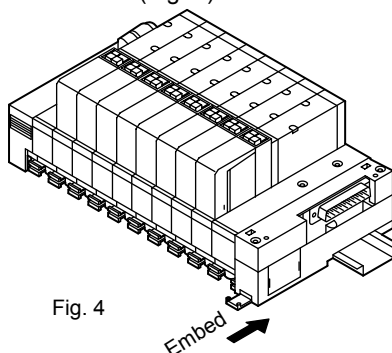


Fig. 4

- (3) Place the wiring cover side in a connected state in advance with the solenoid valve connector and place on top of the wiring block and fasten with screws to prevent the wires from getting caught.

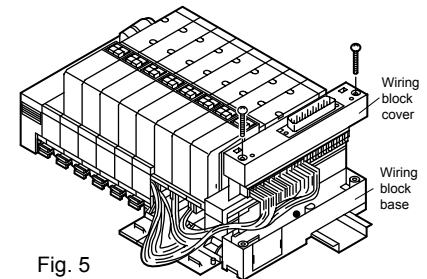


Fig. 5

Mounting the solenoid valve

- (1) Make sure that the specially designed gasket is positioned in the valve block.
- (2) Fasten the solenoid valve with 2 screws. The appropriate tightening torque is 0.5 N·m. for 4TB1 and 0.8 N·m. for 4TB2.
- (3) Open the wiring duct cover, attach the specially designed connector equipped lead wires, and place this inside the duct.
- (4) Connect with the connector within the wiring block and close the duct cover to complete the task. (Refer to Fig. 6)

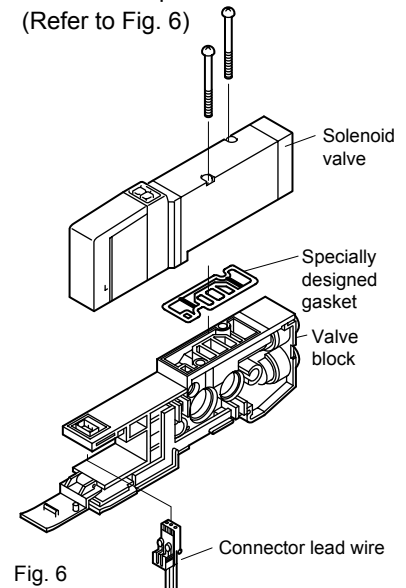
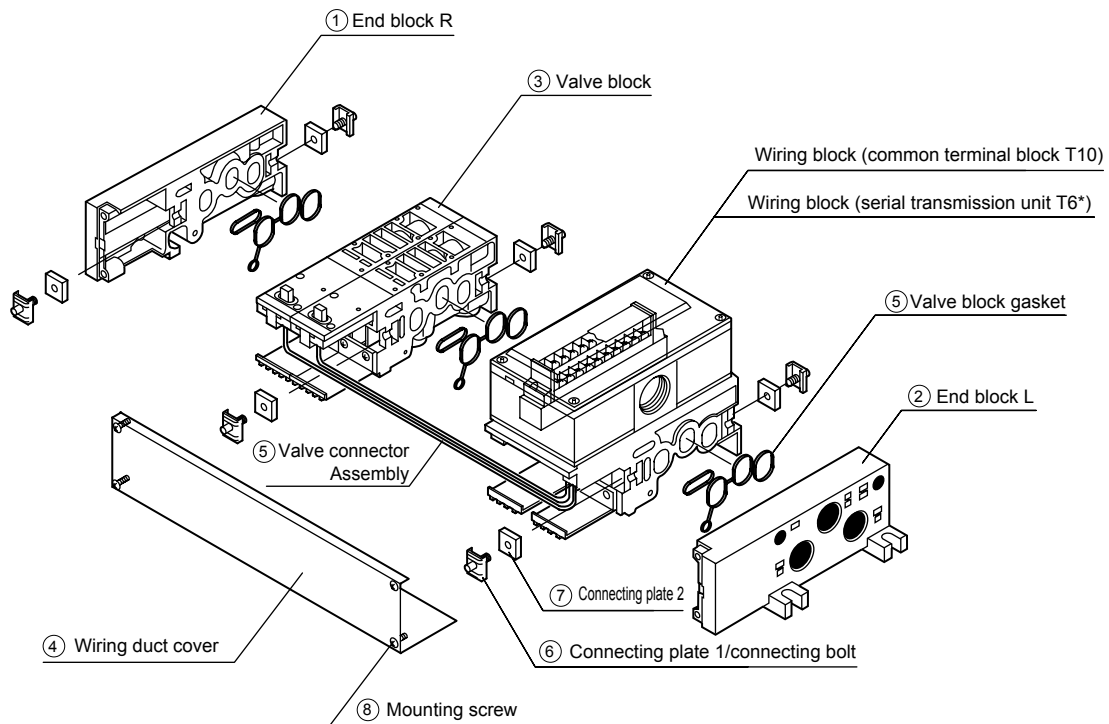


Fig. 6

Removing the wiring block and transmission unit

- (1) Remove the screws of the wiring block cover and separate the connector unit from the wiring block base.
- (2) Loosen the screws on the end block adjacent to the wiring block and transmission unit 6 or 7 times and pull out along the rail.
- (3) Remove the connectors on the valve block side or the wiring cover side and separate the block.

4TB3/4 Series



4TB3 manifold parts list

NO.	Product name	Model No.	Remarks	Accessory
①	End block R	M4TB3-ER	For the external pilot specifications, place a K at the end of the model No.	⑥ Connecting plate 1/connecting bolt ⑦ Connecting plate 2
②	End block L	M4TB3-EL	For the external pilot specifications, place a K at the end of the model No.	⑤ Valve block gasket
③	Valve block	M4TB3-V08 M4TB3-V10 M4TB3-V08Y	Side piping (Rc1/4) Side piping (Rc3/8) Rear piping (Rc1/4)	⑤ Valve block gasket ⑥ Connecting plate 1/connecting bolt ⑦ Connecting plate 2
④	Wiring duct cover	M4TB3-DC (H) Station No.	List manifold station No. (2 or more)	⑧ Mounting screw
⑤	Valve connector assembly	4TB-VALVE-CONNECTOR-ASSY-RC	2 to 8 stations	For T6*
		4TB-VALVE-CONNECTOR-ASSY-RC0	9 to 12 stations	
		4TB-VALVE-CONNECTOR-ASSY-RC1	13 to 16 stations	
		4TB-VALVE-CONNECTOR-ASSY-RD	2 to 8 stations	For T10
		4TB-VALVE-CONNECTOR-ASSY-RD0	9 to 12 stations	
		4TB-VALVE-CONNECTOR-ASSY-RD1	13 to 19 stations	
		4TB-VALVE-CONNECTOR-ASSY-RE	2 to 8 stations	T6* for IP65 degree of protection
		4TB-VALVE-CONNECTOR-ASSY-RE0	9 to 12 stations	
		4TB-VALVE-CONNECTOR-ASSY-RE1	13 to 16 stations	
		4TB-VALVE-CONNECTOR-ASSY-RF	2 to 8 stations	T10 for IP65 degree of protection
		4TB-VALVE-CONNECTOR-ASSY-RF0	9 to 12 stations	
		4TB-VALVE-CONNECTOR-ASSY-RF1	13 to 19 stations	

4TB4 manifold parts list

NO.	Product name	Model No.	Remarks	Accessory
①	End block R	M4TB4-ER	For the external pilot specifications, place a K at the end of the model No.	⑥ Connecting plate 1/connecting bolt ⑦ Connecting plate 2
②	End block L	M4TB4-EL	For the external pilot specifications, place a K at the end of the model No.	⑤ Valve block gasket
③	Valve block	M4TB4-V10 M4TB4-V15 M4TB4-V10Y	Side piping (Rc3/8) Side piping (Rc1/2) Rear piping (Rc3/8)	⑤ Valve block gasket ⑥ Connecting plate 1/connecting bolt ⑦ Connecting plate 2
④	Wiring duct cover	M4TB4-DC (H) Station No.	List manifold station No. (2 or more)	⑧ Mounting screw
⑤	Valve connector assembly	4TB-VALVE-CONNECTOR-ASSY-RC	2 to 8 stations	For T6*
		4TB-VALVE-CONNECTOR-ASSY-RC0	9 to 12 stations	
		4TB-VALVE-CONNECTOR-ASSY-RC1	13 to 16 stations	
		4TB-VALVE-CONNECTOR-ASSY-RD	2 to 8 stations	For T10
		4TB-VALVE-CONNECTOR-ASSY-RD0	9 to 12 stations	
		4TB-VALVE-CONNECTOR-ASSY-RD1	13 to 19 stations	
		4TB-VALVE-CONNECTOR-ASSY-RE	2 to 8 stations	T6* for IP65 degree of protection
		4TB-VALVE-CONNECTOR-ASSY-RE0	9 to 12 stations	
		4TB-VALVE-CONNECTOR-ASSY-RE1	13 to 16 stations	
		4TB-VALVE-CONNECTOR-ASSY-RF	2 to 8 stations	T10 for IP65 degree of protection
		4TB-VALVE-CONNECTOR-ASSY-RF0	9 to 12 stations	
		4TB-VALVE-CONNECTOR-ASSY-RF1	13 to 19 stations	

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E MN4E
W4GA/B2
W4GB4
4TB
4L2-4/ LMF0
MN3S0 MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G GMF
PV5 GMF
PV5S-0
3QR 3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/ NVP
4F*0EX
4F*0E
HMV HSV
2QV 3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending

MN4TB1/2 Series

How to fill out 4TB1/2 Series block manifold specifications sheet

● Refer to pages 1112 to 1117 for model No. details of components of manifold model numbers (example of listing).

MN4TB280-HX-M1LT30K-8-3

Solenoid
position

Port size

Manual override

Wiring method

Manifold station No.

Display protection circuit

Others/options

Voltage

Part name	Model No.	Installation position																									Qty.
		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	
Wiring block	T:30	○																									1
End block	2NE:A:1 (left)	○																									1
	2NE:B:2:K (right)													○													1
With solenoid valve Valve block	N4TB2:1:0-H:6:K		○	○					○	○	○	○															6
	N4TB2:2:0-H:8:K					○	○																				2
Supply and exhaust block	2NQSH:8:K					○							○														2
Partition plug (for air supply)	NCP					○																					1
Partition plug (for exhaust)	NCR					○																					1
Silencer	SLW-H8																										2
Blanking plug (for ø6 push-in)	GWP6-B																										2
Cable with D sub-connector (refer to page 1127)	N4T-CABLE-DO:0:-1																										1
Mounting rail length	L ₂ = 275																										

* A reference circuit diagram for the above manifold is shown on the next page.

Preparing manifold specifications sheet

- Complete from the left end, with the piping port facing forward.
(Write the block model numbers and positions you determined referring to the block configurations (pages 1112 to 1117).)
- Write the total number of blocks specified in the quantity field at the table far right.
- Indicate the mounting rail length. (Fill in only when a length other than the standard length is required.)
- As there are manifold specifications sheet for each of the various series, fill in the form for the corresponding specifications.

· MN4TB1 Page 1138
 · MN4TB2 Page 1139
 · MN4TBX12 Page 1140

L ₁ : Manifold length	L ₂ : Rail length	L ₃ : Mounting pitch
110 or less	150	137.5
Over 110 to 122.5	162.5	150
122.5 to 135	175	162.5
135 to 147.5	187.5	175
147.5 to 160	200	187.5
160 to 172.5	212.5	200
172.5 to 185	225	212.5
185 to 197.5	237.5	225
197.5 to 210	250	237.5
210 to 222.5	262.5	250
222.5 to 235	275	262.5
235 to 247.5	287.5	275
247.5 to 260	300	287.5
260 to 272.5	312.5	300
272.5 to 285	325	312.5
285 to 297.5	337.5	325
297.5 to 310	350	337.5
310 to 322.5	362.5	350
322.5 to 335	375	362.5
335 to 347.5	387.5	375
347.5 to 360	400	387.5
360 to 372.5	412.5	400
372.5 to 385	425	412.5
385 to 397.5	437.5	425
397.5 to 410	450	437.5
410 to 422.5	462.5	450
422.5 to 435	475	462.5
435 to 447.5	487.5	475
447.5 to 460	500	487.5
460 to 472.5	512.5	500
472.5 to 485	525	512.5
485 to 497.5	537.5	525
497.5 to 510	550	537.5

If the length exceeds 510, calculate using a multiple of 12.5.

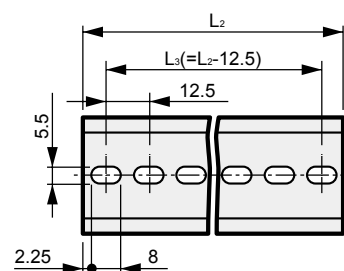
Obtaining the DIN rail length (Not required with standard wiring.)

● How to configure the length of DIN rail

$$\text{Manifold length } L_1 = (A \times \text{Quantity}) + (B \times \text{Quantity}) + 60 \text{ (wiring method T10, T30 and T50)}$$

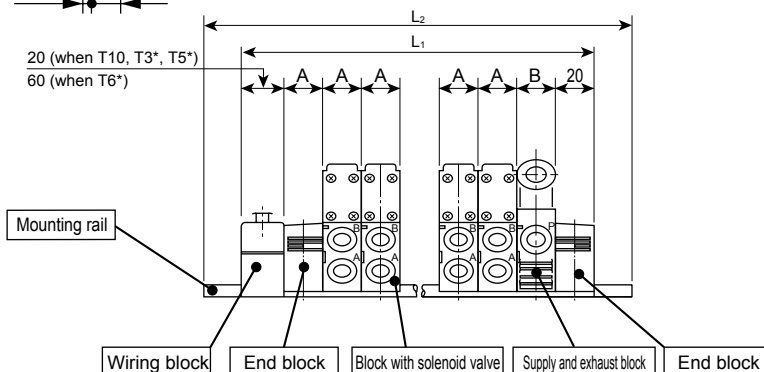
$$= (A \times \text{Quantity}) + (B \times \text{Quantity}) + 100 \text{ (wiring method T6*)}$$

Mounting rail length L₂ = Calculate from table on left.



A, B: Dimensions table
for each block

		MN4TB1	MN4TB2
A	Valve block with solenoid valve	17	20
B	Supply and exhaust block	17	20



Layout position No.

1 2 3 4 Serial number for all blocks.

Valve No.

1 2 Serial number for only valve blocks.

(Numbers are assigned from the left with the port facing forward.)

MN4TB1/2 Series**How to fill out the 4TB1/2 Series wiring specifications sheet**

* Not required with standard wiring.

● Precaution regarding wiring specifications

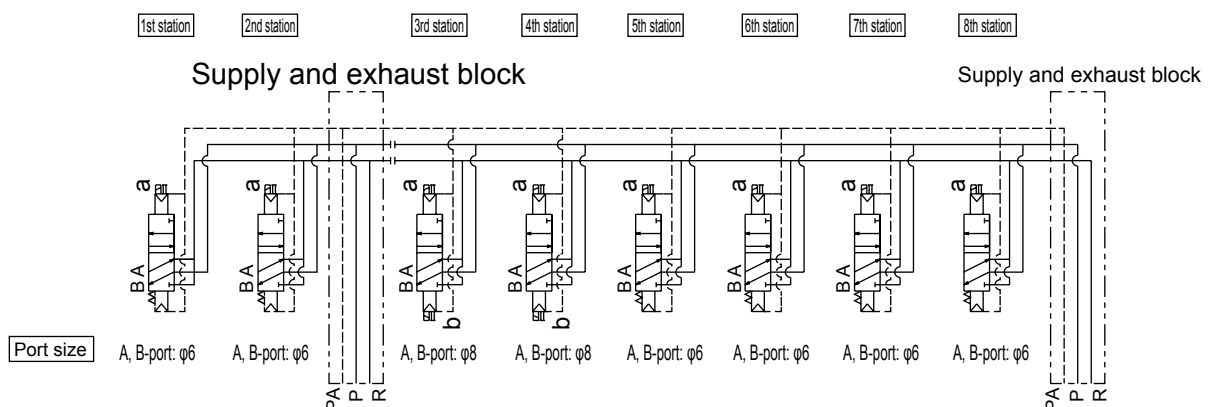
- (1) Fill in and attach the form to the manifold specifications sheet for those other than the standard wiring. (As double wiring is not possible with 10 stations or more on T10, be sure to list specifications as a wiring specification sheet will be necessary with mixed wiring.)
- (2) Wiring blocks and valve blocks are treated inside beforehand with common wiring.
- (3) Depending on each wiring method of T10, T30, T50, the connector pins or terminal numbers are configured in correspondence with solenoid numbers.
List specifications upon reviewing the precautions for each wiring method.

Wiring specifications sheet (example)

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

Connector pin or terminal block No.				Valve No.																			
T10	T30/T31	T50/T50A	T6*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1a	1	1	0	a																			
1b	14	2	1		a																		
2a	2	3	2			a																	
2b	15	4	3			b																	
3a	3	5	4				a																
3b	16	6	5				b																
4a	4	7	6					a															
4b	17	8	7						a														
5a	5	11	8							a													
5b	18	12	9								a												
6a	6	13	10																				
6b	19	14	11																				
7a	7	15	12																				
7b	20	16	13																				
8a	8	17	14																				
8b	21	18	15																				
9a	9																						
9b	22																						
10a	10																						
	23																						

Reference circuit diagram The simplified circuit diagram of the manifold model No. (example) on the previous page is shown below.



- The manifold station numbers are set in order from the left with the piping port facing forward.
- (* The wiring blocks, supply and exhaust blocks, partition block, and end block are not included in the manifold station No.)

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/
LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/
NVP
4F*0EX
4F*0E
HNV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Ending

4TB1 Block manifold specifications sheet

Issued / /

Your company name

Contact

Order No.

● Contact

● Quantity

Set ● Delivery date /

● Manifold model No.

MN4TB1 **0** - - - -

Solenoid position Port size Manual override Display protection circuit Wiring method Others/options Manifold station No. Voltage

· When filling in this field, select the model No. from "Block configurations" (pages 1112 to 1117).

· For external pilot specifications, ➡ specify K after the model No. of the printed part of the following product name.

Part name	Model No.	Installation position																								Quantity
		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
Wiring block (page 1113)	T																									
End block (page 1114)	1NE 1 (left)																									
	➡ 1NE 2 (right)																									
With solenoid valve Valve block (page 1114)	➡ N4TB1 0-H																									
	➡ N4TB1 0-H																									
	➡ N4TB1 0-H																									
	➡ N4TB1 0-H																									
	➡ N4TB1 0-H																									
	➡ N4TB1 0-H																									
Valve block with masking plate (page 1115)	➡ N4TB1-1MPVH																									
Supply and exhaust block (page 1114)	➡ 1NQSH																									
Supply block (page 1114)	1NPSH																									
Exhaust block (page 1114)	1NRS																									
Partition plug (for air supply) (page 1115)	NCP																									
Partition plug (for exhaust) (page 1115)	NCR																									
Silencer (page 1115)	For φ6 push-in																									
	For φ8 push-in																									
Blanking plug (page 1115)	For φ4 push-in																									
	For φ6 push-in																									
	For φ8 push-in																									
Cable clamp (φ8.5 to φ10.5) (page 1115)	4T9-SCL-10B																									
Cable with D sub-connector (page 1127)	N4T-CABLE-DO -																									
Mounting rail length	L ₂ = (How to determine the length: page 1136)																									

List the number of units to be used in the quantity field on the right.

● Wiring specification sheet (Not required for standard wiring)

Connector pin or terminal block No.				Valve No.																					
T10	T30/T31	T50/T50A	T6*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20		
1a	1	1	0																						
1b	14	2	1																						
2a	2	3	2																						
2b	15	4	3																						
3a	3	5	4																						
3b	16	6	5																						
4a	4	7	6																						
4b	17	8	7																						
5a	5	11	8																						
5b	18	12	9																						
6a	6	13	10																						
6b	19	14	11																						
7a	7	15	12																						
7b	20	16	13																						
8a	8	17	14																						
8b	21	18	15																						
9a	9																								
9b	22																								
10a	10																								
23																									

4TB2 Block manifold specifications sheet

Issued / /

Your company name

● Contact ● Quantity Set ● Delivery date /

Slip No.	Order No.
----------	-----------

Contact

Order No.

● Manifold model No.

MN4TB2 **0** - - - -

Solenoid position Port size Manual override Display protection circuit Wiring method Others/ options Manifold station No. Voltage

- When filling in this field, select the model No. from "Block configurations" (pages 1112 to 1117).
- For external pilot specifications, specify K after the model No. of the printed part of the following product name.

Part name	Model No.	Installation position																									Quantity
		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	
Wiring block (page 1113)	T																										
End block (page 1116)	2NE 1 (left)																										
	2NE 2 (right)																										
Valve block with solenoid valve (Page 1116)	N4TB2 0-H																										
	N4TB2 0-H																										
	N4TB2 0-H																										
	N4TB2 0-H																										
	N4TB2 0-H																										
Valve block with masking plate (page 1117)	N4TB2-2MPVH																										
Supply and exhaust block (page 1116)	2NQSH																										
Supply block (page 1116)	2NPSH																										
Exhaust block (page 1116)	2NRSH																										
Partition plug (for air supply) (page 1117)	NCP																										
Partition plug (for exhaust) (page 1117)	NCR																										
Silencer (page 1117)	For φ8 push-in																										
	For φ10 push-in																										
	For φ12 push-in																										
Blanking plug (page 1117)	For φ6 push-in																										
	For φ8 push-in																										
	For φ10 push-in																										
	For φ12 push-in																										
Cable clamp (φ8.5 to φ10.5) (page 1117)	4T9-SCL-10B																										
Cable with D sub-connector (page 1127)	N4T-CABLE-DO																										
Mounting rail length	L ₂ = (How to determine the length: page 1136)																										

List the number of units to be used in the quantity field on the right.

● Wiring specification sheet (Not required for standard wiring)

Connector pin or terminal block No.				Valve No.																							
T10	T30/T31	T50/T50A	T6*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20				
1a	1	1	0																								
1b	14	2	1																								
2a	2	3	2																								
2b	15	4	3																								
3a	3	5	4																								
3b	16	6	5																								
4a	4	7	6																								
4b	17	8	7																								
5a	5	11	8																								
5b	18	12	9																								
6a	6	13	10																								
6b	19	14	11																								
7a	7	15	12																								
7b	20	16	13																								
8a	8	17	14																								
8b	21	18	15																								
9a	9																										
9b	22																										
10a	10																										
	23																										

4GA/B

M4GA/B

MN4GA/B

4GA/B (mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/

LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (mastr)

4F

4F (mastr)

PV5G

GMF

PV5

GMF

PV5S-0

3QR

3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F*0EX

4F*0E

HNV

HSV

2QV

3QV

SKH

PCD

Silencer

TotAirSys

(Total Air)

TotAirSys

(Gamma)

Ending

4TB1/2 (Mix) Block manifold specifications sheet

Issued / /

Your company name

Contact

Order No.

● Contact ● Quantity Set ● Delivery date /

Slip No. Order No.

● Manifold model No.

MN4TBX12 - - - - - - -

Port size Manual override Display protection circuit Wiring method Others/ options Manifold station No. Voltage

· When filling in this field, select the model No. from “Block configurations” (pages 1112 to 1117).
· For external pilot specifications, ➡ specify K after the model No. of the printed part of the following product name.

Part name	Model No.	Installation position																								Quantity
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Wiring block	T																									
End block	➡ 1NE 1 (left)																									
	➡ 1NE 2 (right)																									
Valve block with solenoid valve	➡ N4TB1 0-H																									
	➡ N4TB1 0-H																									
	➡ N4TB1 0-H																									
	➡ N4TB1 0-H																									
	➡ N4TB1 0-H																									
Valve block with masking plate	➡ N4TB1-1MPVH																									
Valve block with solenoid valve	➡ N4TB2 0-H																									
	➡ N4TB2 0-H																									
	➡ N4TB2 0-H																									
	➡ N4TB2 0-H																									
	➡ N4TB2 0-H																									
Valve block with masking plate	➡ N4TB2-2MPVH																									
Supply and exhaust block	➡ 2NQSH																									
Supply block	2NPSH																									
Exhaust block	2NRSH																									
Partition plug (for air supply)	NCP																									
Partition plug (for exhaust)	NCR																									
Silencer	For φ8 push-in	SLW-H8																								
	For φ10 push-in	SLW-H10																								
	For φ12 push-in	SLW-H12																								
Blanking plug	For φ4 push-in	GWP4-B																								
	For φ6 push-in	GWP6-B																								
	For φ8 push-in	GWP8-B																								
	For φ10 push-in	GWP10-B																								
	For φ12 push-in	GWP12-B																								
Cable clamp (φ8.5 to φ10.5)		4T9-SCL-10B																								
Cable with D sub-connector (page 1127)		N4T-CABLE-DO																								
Mounting rail length		L= (How to determine the length: page 1136)																								

● Wiring specification sheet (Not required for standard wiring)

Connector pin or terminal block No.				Valve No.																								
T10	T30/T31	T50/T50A	T6*	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
1a	1	1	0																									
1b	14	2	1																									
2a	2	3	2																									
2b	15	4	3																									
3a	3	5	4																									
3b	16	6	5																									
4a	4	7	6																									
4b	17	8	7																									
5a	5	11	8																									
5b	18	12	9																									
6a	6	13	10																									
6b	19	14	11																									
7a	7	15	12																									
7b	20	16	13																									
8a	8	17	14																									
8b	21	18	15																									
9a	9																											
9b	22																											
10a	10																											
	23																											

M4TB3/4 Series

How to fill out 4TB3/4 Series block manifold specifications sheet

- Refer to pages 1118 to 1123 for model No. details of components of manifold model numbers (example of listing).

M4TB4 80-10-M1 L T10 K - 8 - 3

Solenoid
position

Port size

Manual override

Wiring method

Manifold station No.

Display protection circuit

Others/options

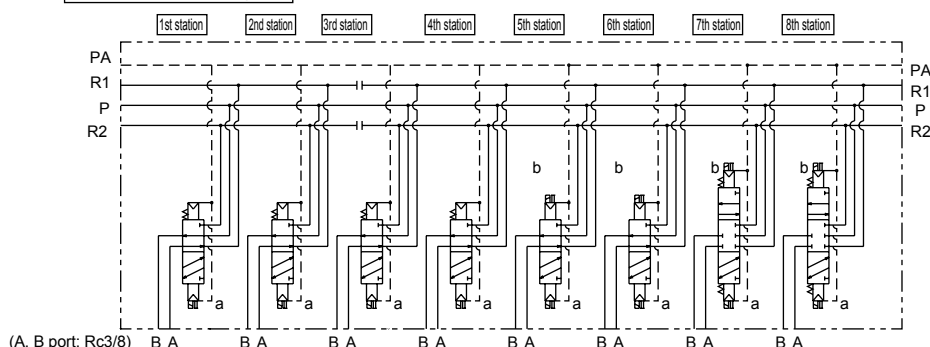
Voltage

Part name			Model No.	Installation position																				Quantity
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
	End block	M4TB4-EL 																					1	
		M4TB4-ER 																					1	
	Wiring block	M4TB4-T10																					1	
	Valve block with solenoid valve	M4TB4 1 0-10 																					4	
		M4TB4 2 0-10 																					2	
		M4TB4 3 0-10 																					2	
		M4TB4 0- 																						
		M4TB4 0- 																						
Valve block with masking plate	M4TB4-MPV 																							
Spacer	Spacer regulator (P regulator)	M4TB4-SR-P																						
	Spacer regulator (A regulator)	M4TB4-SR-A																						
	Spacer regulator (B regulator)	M4TB4-SR-B																						
	Independent air supply spacer	M4TB4-P																						
	Independent exhaust spacer	M4TB4-R																						
Others	Partition plug	M4TB4-NCP																						
		M4TB4-NCR																					2×1	
Attached product	Silencer (resin)	SLW-15A	 Hex socket plugs (one for R1/8, three for R1/2) are attached with the above manifold solenoid valve. If hex socket plugs for bore sizes other than the above are needed, list the quantity to be used in the field on the right.																					
	Silencer (metal)	SL-15A																						
	Hexagon socket head cap plug R3/8	——																						
	Hexagon socket head cap plug R1/2	——																						
	Cable clamp (φ8.5 to φ10.5)	4T9-SCL-10B																						

Preparing manifold specifications sheet

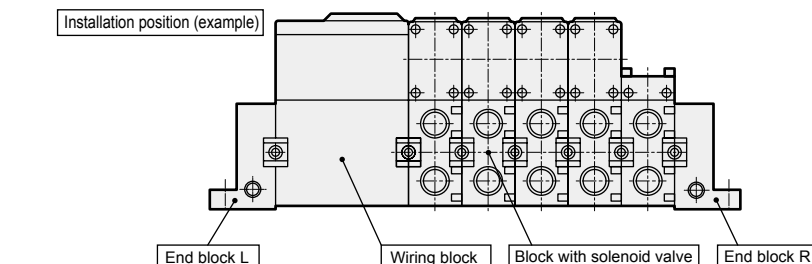
- Complete from the left end, with the piping port facing forward.
- (Write the block model numbers and positions you determined referring to the block configurations (pages 1118 to 1123).)
- Write the total number of blocks specified in the quantity field at the table far right.
- As there are manifold specifications sheets for each of the various series, fill in the form for the corresponding specifications.
 - M4TB3 Page 1143
 - M4TB4 Page 1144

Reference circuit diagram The simplified circuit diagram of the above manifold model No. (example) is shown below.



- The manifold station numbers are set in order from the left with the piping port facing forward.
- The installation positions are set in order from the left with the piping port facing forward. (Refer to the following (example) for details.)

Installation position (example)



Installation position 1 2 3 4 ... Serial number for all blocks.

valve No. 1 2 ... Serial number for valve blocks only.

(Numbers are assigned from the left with the port facing forward.)

4GA/B

M4GA/B

MN4GA/B

4GA/B (mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/

LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (mastr)

4F

4F (mastr)

PV5G

GMF

PV5

GMF

PV5S-0

3QR

3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F*0EX

4F*0E

HMV

HSV

2QV

3QV

SKH

PCD

Silencer

TotAirSys (Total Air)

TotAirSys (Gamma)

Ending

M4TB3/4 Series**How to fill out the 4TB3/4 Series wiring specifications sheet**

* Not required with standard wiring.

● Precaution regarding wiring specifications

- (1) Fill in and attach the form to the manifold specifications sheet for those other than the standard wiring. (With 10 stations or more on T10, be sure to list specifications as a wiring specification sheet will be necessary.)
- (2) Wiring blocks and valve blocks are treated inside beforehand with common wiring.
- (3) Depending on each wiring method of T10, T6*, the connector pins or terminal numbers are configured in correspondence with solenoid numbers. List specifications upon reviewing the precautions for each wiring method.

Wiring specifications sheet

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

Connector pin or terminal block No.		Valve No.																			
T10	T6*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1a	0	a																			
1b	1																				
2a	2		a																		
2b	3																				
3a	4			a																	
3b	5																				
4a	6				a																
4b	7																				
5a	8					a															
5b	9					b															
6a	10						a														
6b	11						b														
7a	12							a													
7b	13							b													
8a	14								a												
8b	15								b												
9a																					
9b																					
10a																					

4TB3 block manifold specifications sheet

Issued / /

Your company name

Contact

Order No.

● Contact

● Quantity

Set ● Delivery date /

Slip No.

Order No.

● Manifold model No.

M4TB3**0**Solenoid
position

Port size

Manual override

Display protection circuit

Others/options

Wiring method

Manifold station No.

Voltage

· When filling in this field, select the model No. from "Block configurations" (pages 1118 to 1123).

· For external pilot specifications, specify K after the model No. of the printed part of the following product name.

Part name		Model No.	Installation position																				Quantity
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
End block (page 1119)	End block (page 1119) ➡	M4TB3-EL ☐																					
	End block (page 1119) ➡	M4TB3-ER ☐																					
	Wiring block (page 1119)	M4TB3-T ☐																					
	Valve block with solenoid valve (Page 1119) ➡	M4TB3 ☐ 0 ☐																					
	Valve block with solenoid valve (Page 1119) ➡	M4TB3 ☐ 0 ☐																					
	Valve block with solenoid valve (Page 1119) ➡	M4TB3 ☐ 0 ☐																					
	Valve block with solenoid valve (Page 1119) ➡	M4TB3 ☐ 0 ☐																					
	Valve block with solenoid valve (Page 1119) ➡	M4TB3 ☐ 0 ☐																					
	Valve block with solenoid valve (Page 1119) ➡	M4TB3 ☐ 0 ☐																					
	Valve block with solenoid valve (Page 1119) ➡	M4TB3 ☐ 0 ☐																					
Spacer (Page 1120)	Valve block with masking plate (page 1120) ➡	M4TB3-MPV ☐																					
	Spacer regulator (P regulator)	M4TB3-SR-P																					
	Spacer regulator (A regulator)	M4TB3-SR-A																					
	Spacer regulator (B regulator)	M4TB3-SR-B																					
	Independent air supply spacer	M4TB3-P																					
Others	Independent exhaust spacer	M4TB3-R																					
	Partition plug (Page 1120)	M4TB3-NCP M4TB3-NCR																					2×
Attached product	Silencer (resin)	SLW-15A	● Hex socket plugs (one for R1/8, three for R1/2) are attached with the above manifold solenoid valve. If hex socket plugs for bore sizes other than the above are needed, list the quantity to be used in the field on the right.																				
	Silencer (metal)	SL-15A																					
	Hexagon socket head cap plug R1/4	—																					
	Hexagon socket head cap plug R3/8	—																					
	Cable clamp (φ8.5 to φ10.5)	4T9-SCL-10B																					

● Wiring specification sheet (Not required for standard wiring)

Connector pin or terminal block No.		Valve No.																			
T10	T6*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1a	0																				
1b	1																				
2a	2																				
2b	3																				
3a	4																				
3b	5																				
4a	6																				
4b	7																				
5a	8																				
5b	9																				
6a	10																				
6b	11																				
7a	12																				
7b	13																				
8a	14																				
8b	15																				
9a																					
9b																					
10a																					

4GA/B

M4GA/B

MN4GA/B

4GA/B (mastr)

4GD/E

M4GD/E

MN4GD/E

4GA4/B4

MN3E

MN4E

W4GA/B2

W4GB4

4TB

4L2-4/

LMF0

MN3S0

MN4S0

4SA/B0

4KA/B

4KA/B (mastr)

4F

4F (mastr)

PV5G

GMF

PV5

GMF

PV5S-0

3QR

3QB

MV3QR

3MA/B0

3PA/B

P/M/B

NP/NAP/

NVP

4F*0EX

4F*0E

HNV

HSV

2QV

3QV

SKH

PCD

Silencer

TotAirSys

(Total Air)

TotAirSys

(Gamma)

Ending

4TB4 block manifold specifications sheet

Issued / /

Your company name

Contact

Order No.

● Contact ● Quantity Set ● Delivery date /

Slip No.

Order No.

● Manifold model No.

M4TB4 **0** - - - -

Solenoid position Port size Manual override Wiring method Manifold station No. Voltage

Display protection circuit Others/options

- When filling in this field, select the model No. from "Block configurations" (pages 1118 to 1123).
- For external pilot specifications, ➡ specify K after the model No. of the printed part of the following product name.

Part name		Model No.	Installation position																				Quantity
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
4TB	End block (page 1122) ➡	M4TB4-EL ☐	○																				
		M4TB4-ER ☐																					
	Wiring block (page 1122)	M4TB4-T ☐	○																				
	Valve block with solenoid valve (Page 1122) ➡	M4TB4 ☐ 0 ☐																					
		M4TB4 ☐ 0 ☐																					
		M4TB4 ☐ 0 ☐																					
		M4TB4 ☐ 0 ☐																					
		M4TB4 ☐ 0 ☐																					
	Valve block with masking plate (page 1123) ➡	M4TB4-MPV ☐																					
Spacer (Page 1123)	Spacer regulator (P regulator)	M4TB4-SR-P																					
	Spacer regulator (A regulator)	M4TB4-SR-A																					
	Spacer regulator (B regulator)	M4TB4-SR-B																					
	Independent air supply spacer	M4TB4-P																					
	Independent exhaust spacer	M4TB4-R																					
Others	Partition plug (Page 1123)	M4TB4-NCP																					
		M4TB4-NCR																					2×
Attached product	Silencer (resin)	SLW-15A	● Hex socket plugs (one for R1/8, three for R1/2) are attached with the above manifold solenoid valve. If hex socket plugs for bore sizes other than the above are needed, list the quantity to be used in the field on the right.																				
	Silencer (metal)	SL-15A																					
	Hexagon socket head cap plug R3/8	—																					
	Hexagon socket head cap plug R1/2	—																					
	Cable clamp (φ8.5 to φ10.5)	4T9-SCL-10B																					

● Wiring specification sheet (Not required for standard wiring)

Connector pin or terminal block No.		Valve No.																			
T10	T6*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1a	0																				
1b	1																				
2a	2																				
2b	3																				
3a	4																				
3b	5																				
4a	6																				
4b	7																				
5a	8																				
5b	9																				
6a	10																				
6b	11																				
7a	12																				
7b	13																				
8a	14																				
8b	15																				
9a																					
9b																					
10a																					



Pneumatic components

Safety Precautions

Be sure to read this section before use.

Refer to Intro Page 59 for general precautions for using valves.

Product-specific cautions: 4TB Series

Design/selection

1. Surge suppressor

CAUTION

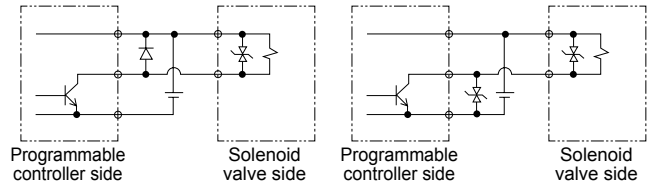
- The surge suppressor attached to the solenoid valve is intended to protect the output contacts for the solenoid valve drive. There is no significant protection for the other peripheral devices, and devices could be damaged or could malfunction due to a surge. As well, surges generated by other devices may be absorbed and cause damage such as burning. Note the following points.

- (1) The surge suppressor functions to limit solenoid valve surge voltage, which can reach several hundred volts, to a low voltage level that the output contact can withstand. Depending on the output circuit used, this may be insufficient and could result in damage or malfunction. Check whether the surge suppressor can be used within the surge voltage limit of the solenoid valve in use, the output device's withstand pressure and circuit structure, and by the degree of return delay time. When necessary, provide other surge countermeasures. The inverse voltage surge generated when OFF can be suppressed to the following levels.

Specification voltage	Inverse voltage when OFF
12 VDC	Approx. 27 V
24 VDC	Approx. 47 V

- (2) If the output unit is an NPN, a surge voltage equaling the voltage shown in the table above plus the power supply voltage may be applied to the output transistor. Make sure to implement a contact protection circuit to avoid the risk.

[Output transistor protection circuit: Installation example 1] [Output transistor protection circuit: Installation example 2]



- (3) If another device or solenoid valve is connected in parallel to the solenoid valve, the inverse voltage surge generated when the valve is OFF would apply to those devices. Even in the case of a solenoid valve with 24 VDC surge suppressor, a surge voltage may reach negative tens of volts for some models. This inverse voltage may cause damage or malfunction to other components connected in parallel. Avoid parallel connection of devices susceptible to inverse polarity voltages, e.g., LED indicator lamps.
When driving several solenoid valves in parallel, the surge from other solenoid valves may enter the surge suppressor of one solenoid valve, and it may burn depending on the current value. When driving several solenoid valves with surge suppressors in parallel, surge current could concentrate at the surge suppressor with the lowest limit voltage and cause similar burning. Due to the variations in surge suppressor limit voltage that exist even among solenoid valves of the same model No., in the worst case the surge suppressor may burn out. Avoid driving several solenoid valves in parallel.
- (4) The surge suppressor incorporated in the solenoid valve will often be short-circuited if it is damaged by overvoltage or overcurrent from other solenoid valves. Where there is a failed surge suppressor, if a large current flows when the output is ON, in the worst case scenario, the output circuit or solenoid valve could be damaged or ignited. Do not continue energizing in a state of failure. Additionally, to prevent large currents from continuing to flow, connect an overcurrent protection circuit to the power supply and drive circuit, or use a power supply with overcurrent protection.

Mounting, installation and adjustment

1. 4TB1/4TB2 Series

CAUTION

- When the manifold station No. will be 15 stations or more, fix the middle area of the mounting rail with a screw as well.
- Also refer to the precautions regarding electrical aspects of the reduced wiring valves (Intro Pages 67 to 68).

2. 4TB3/4TB4 Series

- Do not block the PR port. Pilot pressure will not be discharged and will fail to operate.
- Also refer to the precautions regarding electrical aspects of the reduced wiring valves (Intro Pages 67 to 68).

Use/maintenance

CAUTION

- Continuous energizing for long periods may accelerate degradation of the solenoid valve. Consult with CKD when energizing this device continuously. Furthermore, use caution under the working conditions listed on the right, as with continuous energization.

- When performing continuous energizing for a long period of time or when the energized time in a single day will be longer than the non-energized time
Consider heat dissipation when installing the product.

4GA/B
M4GA/B
MN4GA/B
4GA/B (mastr)
4GD/E
M4GD/E
MN4GD/E
4GA4/B4
MN3E
MN4E
W4GA/B2
W4GB4
4TB
4L2-4/LMF0
MN3S0
MN4S0
4SA/B0
4KA/B
4KA/B (mastr)
4F
4F (mastr)
PV5G
GMF
PV5
GMF
PV5S-0
3QR
3QB
MV3QR
3MA/B0
3PA/B
P/M/B
NP/NAP/NVP
4F*0EX
4F*0E
HMV
HSV
2QV
3QV
SKH
PCD
Silencer
TotAirSys (Total Air)
TotAirSys (Gamma)
Ending