Manifold Blocks - Hydraulic, Pneumatic

High Pressure / Space Saving Type / Double-Row

For details of recommended tapered male thread tightening torque and through pilot hole, see **P.1224**.

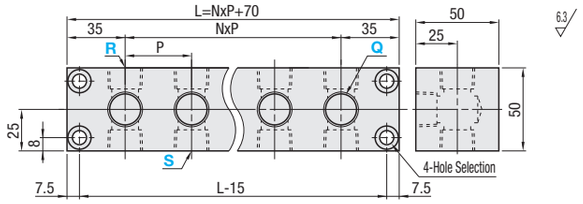
■Hydraulic Manifold Blocks

High Pressure

RoHS10

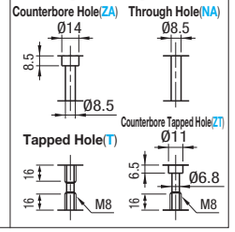
Type	M Material	S Surface Treatment	Max. Operating Pressure
BMAH	EN 1.0038 Equiv.	Trivalent Chromate	34.5MPa ≈350kgf/cm² or less

Thread: JIS B0203 Rc(PT)
JIS B0202 G(PF): ISO 228-1 Compatible



Mounting hole shape can be selected freely.

• Mounting Hole Change



Part Number			Rc (PT) Selection	P	Number of Pitches	Total Number of Q, R and S Threads	Unit Price
Type	Mounting Hole Selection	Number of Circuits	Q, R, S		N		
BMAH	ZA (Counterbore)	1	1 (1/8)	50	0	3	
	NA (Through Hole)	2	2 (1/4)		1	6	
	T (Tapped)	3	3 (3/8)		2	9	
	ZT (Counterbore Tapped)	4	4 (1/2)		3	12	
		5			4	15	
		6			5	18	

Part Number			- Q - R - S
Type	Mounting Hole	Number of Circuits	
BMAH	ZT	4	- Q2 - R2 - S2
G-BMAH	ZT	4	- Q2 - R2 - S2(G Thread)

By inserting "G-" before part number, the thread type can be changed to the G (PF) Thread as part of ordering. (Ex.: G-BMAH) For ordering, see the Ordering Example.
For Q, R and S, specify 1, 2, 3, or 4 indicated before ( ).
Only 6 Circuit Type has an additional mounting hole at the midpoint of the overall length.

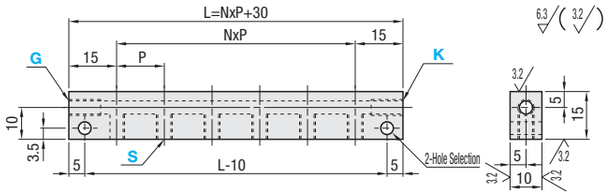
■Manifold Blocks - Pneumatic

Space Saving Type

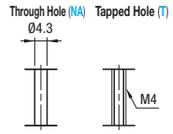
RoHS10

Type	M Material	S Surface Treatment	Max. Operating Pressure
SBMA	EN AW-6063 Equiv.	-	1MPa ≈10kgf/cm² or less
SBMAA		Clear Anodize	

Mounting hole shape can be selected freely.
* Drawing for 6 Circuit Type is selected.



• Mounting Hole Change



Part Number			M (Coarse) Selection	P	Number of Pitches	Total Number of S, G and K Threads	Unit Price	
Type	Mounting Hole Selection	Number of Circuits	S, G, K		N		SBMA	SBMAA
SBMA	NA (Through Hole)	1	3 (M3)	15	0	3		
SBMAA	T (Tapped)	2	5 (M5)		1	4		
		3			2	5		
		4			3	6		
		5			4	7		
		6			5	8		

Part Number			- S - G - K
Type	Mounting Hole	Number of Circuits	
SBMAA	T	4	- S3 - G3 - K3

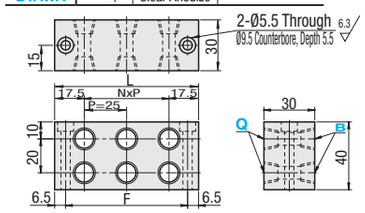
For S, G and K, specify 3 or 5 indicated before ( ).
N indicates number of pitches.

■Manifold Blocks - Pneumatic

Double-Row

RoHS10

Type	M Material	S Surface Treatment	Max. Operating Pressure
BTAW	EN AW-5052 Equiv.	-	1MPa≈10kgf/cm² or less
BTAWA		Clear Anodize	



Thread: JIS B0203 Rc(PT)
* Drawing for 3 Circuit Type is selected.

Part Number			- Q - B
BTAW2	-	Q2	- B2

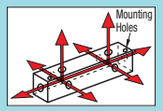
Part Number		Rc (PT), M (Coarse) Selection		L	NxP	F	Number of Ports	Unit Price	
Type	Number of Circuits	Q	B					BTAW	BTAWA
BTAW	1	5 (M5) 1 (1/8) 2 (1/4)	5 (M5) 1 (1/8) 2 (1/4)	35	0	22	4		
BTAWA	2			60	1x25	47	8		
	3			85	2x25	72	12		
	4			110	3x25	97	16		
	5			135	4x25	122	20		
	6			160	5x25	147	24		

■Features:
Two-stage piping arrangement saves space in the horizontal direction.

For Q and B, specify 1, 2 or 5 indicated before ( ).
Only No. 6 has an additional M5 screw hole at the midpoint of the overall length.

Manifold Blocks - Hydraulic, Pneumatic

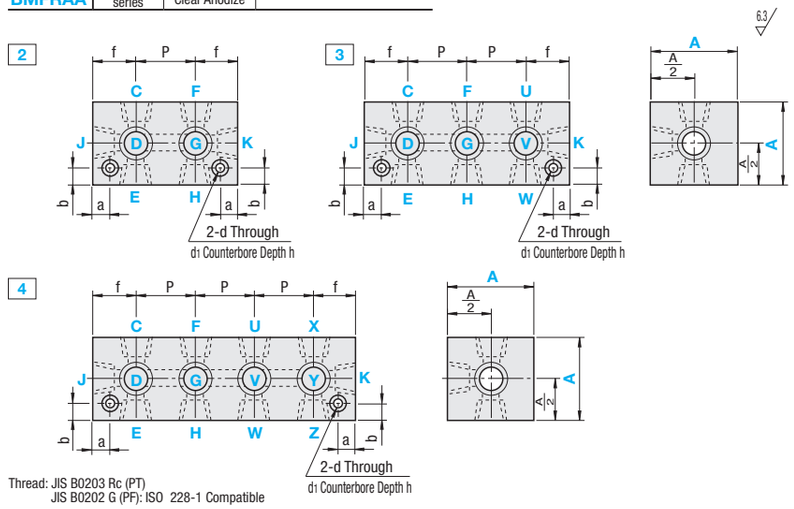
Selectable Thread Size



For details of recommended tapered male thread tightening torque and through pilot hole, see **P.1224**.
For this type of manifold, when the basic thread diameter is selected, all the hole diameters are unified to this selected value. After a certain hole position is individually specified in the range of J ~ Z, the diameter of the mating thread becomes selectable.
By inserting "G-" before part number, "PT Threads (Tapered Female Threads)" can be changed to "PF Threads (Parallel Female Threads)" in compliance with "JIS B 0202" (Unit Price remains the same).

RoHS10

Type	M Material	S Surface Treatment	Max. Operating Pressure
BMFRS	EN 1.0038 Equiv.	Trivalent Chromate	20.6MPa≈210kgf/cm² or less
BMFRA	Aluminum Alloy 5000 series	-	1MPa≈10kgf/cm² or less
BMFRAA		Clear Anodize	



Thread: JIS B0203 Rc (PT)
JIS B0202 G (PF): ISO 228-1 Compatible

Part Number		Block Square A	Basic Thread Diameter Rc (PT), M (Coarse)	Alternative Thread Size Selection Rc (PT), M (Coarse) JK (0 only), CDEFGHUVWXYZ	P	f	a	b	d	d1	h
Type	Number of Circuits										
BMFRS BMFRA BMFRAA	2 3 4	25	5 (M5) 1 (1/8)	0 (No Hole) 5 (M5) 1 (1/8)	20	16	8	5	4.5	8	4.5
		30	1 (1/8) 2 (1/4)	0 (No Hole) 5 (M5) 1 (1/8) 2 (1/4)	25	15	5		4.5	8	4.5
		35	1 (1/8) 2 (1/4)	0 (No Hole) 5 (M5) 1 (1/8) 2 (1/4) 3 (3/8) Combination of 3 and 3 is not available at right angles.	30	20	6		5.5	9.5	5.5
		40	2 (1/4) 3 (3/8)	0 (No Hole) 5 (M5) 1 (1/8) 2 (1/4) 3 (3/8) 4 (1/2) Combination of 4 and 4 is not available at right angles.	40	22	6.5		6.6	11	6.5
		50	2 (1/4) 3 (3/8) 4 (1/2)	0 (No Hole) 5 (M5) 1 (1/8) 2 (1/4) 3 (3/8) 4 (1/2) 6 (3/4) Combination of 6 and 6 is not available at right angles.	50	30	8		8.5	14	8.5
		60	3 (3/8) 4 (1/2) 6 (3/4)	0 (No Hole) 5 (M5) 1 (1/8) 2 (1/4) 3 (3/8) 4 (1/2) 6 (3/4)	60	30	10		8.5	14	8.5

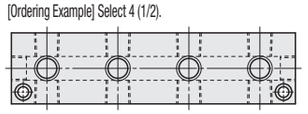
By inserting "G-" before part number, the thread type can be changed to the G (PF) Thread as part of ordering. (Ex.: G-BMFRS) For ordering, see the Ordering Example.
A=25 is applicable to BMFRA and BMFRAA only, and A=60 to BMFRS only.
For thread diameter selection, specify 0, 5, 1, 2, 3, 4 or 6 indicated before ( ).

Ordering Example

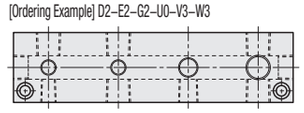
Part Number	- A	- Basic Thread Diameter	- J	- K	- C	- D	- E	- F	- G	- H	- U	- V	- W	- X	- Y	- Z
BMFRS4	- 60	- 4				- D2	- E2		- G2		- U0	- V3	- W3			
G-BMFRA4	- 30	- 2					- E1	- F1		- H1				- X1	- Y1	- Z1 (G Thread)

■How to Select Thread Size

[Step I] Select the most frequently used thread diameter as basic thread diameter.
[Ordering Example] Select 4 (1/2).



[Step II] Select the ports needed to change from the basic thread diameter and the desired thread size.
[Ordering Example] D2–E2–G2–U0–V3–W3



Diameter of J and K is not changeable. Specify J0–K0 when J and K are not necessary. (No through hole for them. Value selection of "0 (zero)" for either J or K is not acceptable.)

(Ex.)
○ BMFRS4-60-4-J0-K0-D2
○ BMFRS4-60-4 -D2
× BMFRS4-60-4-J0 -D2
× BMFRS4-60-4 -K0-D2

Alterations

Part Number	- A	···	- Z	- (PC, PCW, PCT)
BMFRS4	- 60	···		- PC40

Alterations	Code	Spec.
P Dimension Change 2 PC 3 PC PCW 4 PC PCW PCT	PC PCW PCT	Changes the P dimension in 1mm increment. (Ex.) PC38–PCW30 20≤PC, PCW, PCT≤50 For BMFRS, the operating pressure falls below the standard pressure value: 1MPa≈10kgf/cm² when the pitch is made shorter than default value. L dimension changes as much as the changes in P dimension.

Type	Number of Circuits	Block Square A Unit Price 25	30	35	40	50	60
BMFRS	2	-					
	3	-					
	4	-					
BMFRA	2						-
	3						-
	4						-
BMFRAA	2						-
	3						-
	4						-