

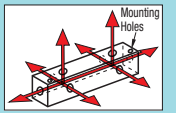
Manifold Blocks - Hydraulic, Pneumatic

High Pressure / Space Saving Type / Double-Row



Manifold Blocks - Hydraulic, Pneumatic

Selectable Thread Size



For details of recommended tapered male thread tightening torque and through pilot hole, see P1224.

Hydraulic Manifold Blocks
High Pressure

Type | **Material** | **Surface Treatment** | **Max. Operating Pressure**

BMAH | SS400 | Trivalent Chromate | 34.5MPa
≈350kgf/cm² or less

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

• **Mounting Hole Change**
Counterbore Hole(ZA) Through Hole(NA)
Tapped Hole(T) Counterbore Tapped Hole(ZT)

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	50	0	3		
	NA (Through Hole)	2		1 (1/8)	1	6	
	T (Tapped)	3		2 (1/4)	2	9	
	ZT (Counterbore Tapped)	4		3 (3/8)	3	12	
		5		4 (1/2)	4	15	
		6			5	18	

Manifold Blocks - Pneumatic
Space Saving Type

Type | **Material** | **Surface Treatment** | **Max. Operating Pressure**

SBMA | A6063 | Clear Anodize | 1MPa
≈10kgf/cm² or less

• **Mounting Hole Change**
Through Hole (NA) Tapped Hole (T)

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 SBMAA	NA (Through Hole)	1	15	0	3		
	T (Tapped)	2		3 (M3)	1	4	
		3		5 (M5)	2	5	
		4			3	6	
		5			4	7	
		6			5	8	

Manifold Blocks - Pneumatic
Double-Row

Type | **Material** | **Surface Treatment** | **Max. Operating Pressure**

BTAW | A5052 | Clear Anodize | 1MPa=10kgf/cm² or less

• **Mounting Hole Change**
2-Ø5.5 Through
Ø9.5 Counterbore, Depth 5.5

Part Number		Rc (PT), M (Coarse) Selection	L	NxP	F	Number of Ports	Unit Price
Type	Number of Circuits	Q	B				BTAW BTAWA
BTAW BTAWA	1	5 (M5) 1 (1/8) 2 (1/4)	5 (M5) 1 (1/8) 2 (1/4)	35	0	22	4
	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

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.

For details of recommended tapered male thread tightening torque and through pilot hole, see P1224.
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).

Hydraulic Manifold Blocks
High Pressure

Type | **Material** | **Surface Treatment** | **Max. Operating Pressure**

BMFRS | SS400 | Trivalent Chromate | 20.6MPa=210kgf/cm² or less

BMFRA | Aluminum Alloy | - | 1MPa=10kgf/cm² or less

BMFRAA | Aluminum Alloy | Clear Anodize | 1MPa=10kgf/cm² or less

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

• **Mounting Hole Change**
2-d Through
d1 Counterbore Depth h

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

For the purposes of improved standardization, the former A dimension 60 has been changed to "60N." The a/b dimension standard of 8 mm was formerly 10 mm. The 10-mm standard will be discontinued in September 2022.
Old: BMFRS□□-60-□ New: BMFRS□□-60N-□

Ordering Example: **BMFRS4-60-4-G-BMFRA4-30-2-D2-E2-G2-U0-V3-W3-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	Code	Spec.	Type	Number of Circuits	Block Square A					Unit Price	
					25	30	35	40	50		60N
P Dimension Change [2] PC	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/cm ² when the pitch is made shorter than default value. L dimension changes as much as the changes in P dimension.	BMFRS	2	-						
[3] PC_PCW			BMFRA	2	-						
[4] PC_PCW_PCT			BMFRAA	2	-						
					3	-					