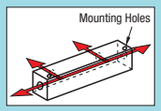
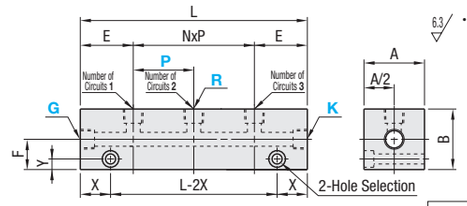
Manifold Blocks - Hydraulic

Lateral Through Hole, Vertical Semi-Through Hole

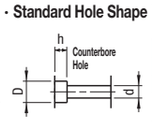


For details of recommended tapered male thread tightening torque and through pilot holes, see **P.1224**.
By inserting "**G-**" before part number, "PT Threads (Tapered Female Threads)" can be changed to "PF Threads (Parallel Female Threads)" in compliance with "JIS B 0202" (Unit Price remains the same).

Type							Material	Surface Treatment	Max. Operating Pressure
Pitch (P) Standard				Pitch (P) Configurable					
30x35 Sq.	40 Sq.	50 Sq.	70 Sq.	30x35 Sq.	40 Sq.	50 Sq.			
BMRS	BMRF	BMRFL	BMRL	-	BMRFP	BMRFLP	SS400	Trivalent Chromate	20.6MPa≈210kgf/cm² or less
-	BMRFM	BMRFLM	BMRLM	-	-	BMRFLMP	SS400 (BMRLM) / Steel for General Structure (BMRFM) (BMRFLM) (BMRFLMP)	Electroless Nickel Plating	
BMRSR	BMRFR	BMRFLR	-	BMRSRP	BMRFRP	BMRFLRP	SUS304	-	
-	BMRFC	-	-	-	-	-	Brass		1MPa≈10kgf/cm² or less



· Standard Hole Shape



Mounting Hole Dimension	d	D	h	D1	d1	h1
M5	5.5	9.5	5.5	8	*4.2	4.5
M6	6.6	11	6.5	9.5	5.1	5.5
M8	8.5	14	8.5	11	6.8	6.5

* Only for SUS304, d1 dimension is 4.3.

Thread
JIS B0203 Rc(PT)
JIS B0202 G(PF): ISO 228-1 Compatible
ANSI/ASME B.I.20.1-1983(NPT)

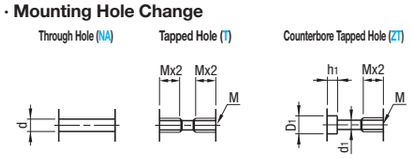
* Drawing for **3 Circuit Type** is selected.
The total number of R, G and K threads is 5.

Mounting hole shape can be selected freely.
Standard hole shape is selected when no **hole shape modification** is specified.

<L Dimension Calculation>
Ex.: For BMRFP3- ~ -P35,
L=NxP+2E= (Number of Circuits 3 - 1) x 35 + 2 x 35 = 140

RoHS 10

· Mounting Hole Change



Part Number											Rc (PT), NPT Selection		Pitch P		Number of Pitches	Total Number of	A	B	E	F	X	Y	Mounting Hole
Type		Mounting Hole Change		Number of Circuits							R	G, K	Standard	Configurable 1mm Increment	N	R, G and K Threads							M
(30x35 Sq.)				1									-	-	0	3							
				2											1	4							
	Pitch			3											2	5							
Pitch Standard	Configurable			4							1 (1/8)	1 (1/8)			3	6							
BMRS				5							2 (1/4)	2 (1/4)	30	20~50	4	7	30	35	20	20	15	6	M5
				6											5	8							
BMRSR	BMRSRP			7											6	9							
				8										20~40	7	10							
(40 Sq.)				1									-	-	0	3							
	Pitch			2											1	4							
Pitch Standard	Configurable			3							1 (1/8)	2 (1/4)			2	5							
BMRF	BMRFP	NA (Through)		4							2 (1/4)	3 (3/8)			3	6							
BMRFM				5							3 (3/8)	4 (1/2)	40	25~50	4	7	40	40	35	20	20	7	M6
BMRFR	BMRFRP	T (Tapped)		6							1N (NPT1/8)	2N (NPT1/4)			5	8							
BMRFC				7							2N (NPT1/4)	3N (NPT3/8)		20~45	6	9							
		ZT (Counterbore Tapped)		8							3N (NPT3/8)	4N (NPT1/2)		20~40	7	10							
(50 Sq.)				1									-	-	0	3							
	Pitch			2											1	4							
Pitch Standard	Configurable			3							2 (1/4)	2 (1/4)			2	5							
BMRFL	BMRFLP			4							3 (3/8)	3 (3/8)			3	6							
BMRFLM	BMRFLMP			5							4 (1/2)	4 (1/2)	60	35~60	4	7	50	50	30	28	20	8	M8
BMRFLR	BMRFLRP			6							6 (3/4)	6 (3/4)			5	8							
(70 Sq.)				1									-		0	3							
Pitch Standard				2							6 (3/4)	8 (1)		-	1	4							
BMRL				3							8 (1)		60		2	5	70	70	40	35	25	9	M8
BMRLM				4											3	6							

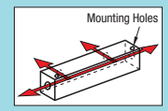
By inserting "**G-**" before part number, the thread type can be changed to the G (PF) Thread as part of ordering. (Ex.: **G-BMRF**) For ordering, see the Ordering Example.
For R, G and K, specify 1, 2, 3, 4, 6, 8, 1N, 2N, 3N or 4N indicated before ( ).
Specify the pitch taking into consideration the necessary dimensions for fitting the couplings.
Single Circuit is not available for Pitch Configurable Type.
Each 6 and 8 Circuit Type has an additional mounting hole at the midpoint of the overall length. 7 Circuit Type has an additional mounting hole at each midpoint of the 2 - 3 port pitch, and 5 - 6 port pitch from the left to the right.
Brass is for up to 6 connections.

Part Number										
Type	Mounting Hole Change	Number of Circuits		R		G		K		P
BMRF		3	-	R3	-	G2	-	K2		
BMRFLP	NA	4	-	R2	-	G3	-	K4	-	P50
G-BMRFLP	NA	4	-	R2	-	G3	-	K4	-	P50 (G Thread)

Number of Circuits	Pitch (P) Standard Unit Price											Pitch (P) Configurable Unit Price					
	30x35 Sq.		40 Sq.				50 Sq.			70 Sq.		30x35 Sq.	40 Sq.		50 Sq.		
	BMRS	BMRSR	BMRF	BMRFM	BMRFR	BMRFC	BMRFL	BMRFLM	BMRFLR	BMRL	BMRLM	BMRSRP	BMRFP	BMRFRP	BMRFLP	BMRFLMP	BMRFLRP
1												-	-	-	-	-	-
2																	
3																	
4																	
5										-	-						
6										-	-						
7						-	-	-	-	-	-				-	-	-
8						-	-	-	-	-	-				-	-	-

Manifold Blocks - Pneumatic

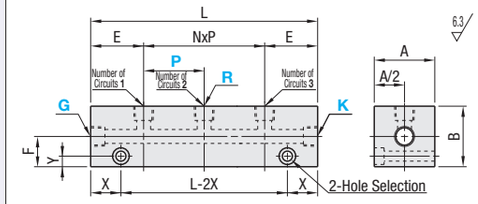
Lateral Through Hole, Vertical Semi-Through Hole



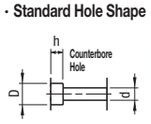
For details of recommended tapered male thread tightening torque and through pilot holes, see **P.1224**.
By inserting "**G-**" before part number, "PT Threads (Tapered Female Threads)" can be changed to "PF Threads (Parallel Female Threads)" in compliance with "JIS B 0202" (Unit Price remains the same).

Type							Material	Surface Treatment	Max. Operating Pressure
Pitch (P) Standard				Pitch (P) Configurable					
15 Sq.	25 Sq.	30x40 Sq.	50 Sq.	25 Sq.	30x40 Sq.	50 Sq.			
-	BMRAC	BMRAF	BMRAL	BMRACP	BMRAFP	BMRALP	Aluminum Alloy	-	1MPa≈10kgf/cm² or less
BMRASA	BMRACA	BMRAFA	BMRALA	BMRACAP	BMRAFAP	BMRALAP		Clear Anodize	

Material of 15 Sq. is A6063.



· Standard Hole Shape



Mounting Hole Dimension	d	D	h	D1	d1	h1
M4	4.3	-	-	-	-	-
M5	5.5	9.5	5.5	8	4.2	4.5
M8	8.5	14	8.5	11	6.8	6.5

Thread
JIS B0203 Rc(PT)
JIS B0202 G(PF): ISO 228-1 Compatible
ANSI/ASME B.I.20.1-1983(NPT)

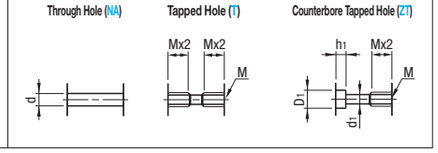
* Drawing for **3 Circuit Type** is selected.
The total number of R, G and K threads is 5.

Mounting hole shape can be selected freely.
Standard hole shape is selected when no **hole shape modification** is specified.
Note that the default of 15 Sq. and 25 Sq. is Through Hole.

<L Dimension Calculation>
Ex.: For BTSP3- ~ -P35,
L=NxP+2E= (Number of Circuits 3 - 1) x 35 + 2 x 20 = 110

RoHS 10

· Mounting Hole Change



Part Number					Rc (PT), NPT, M (Coarse) Selection	Pitch P		Number of Pitches	Total Number of	A	B	E	F	X	Y	Mounting Hole
Type	Mounting Hole Change		Number of Circuits		R, G, K	Standard	Configurable 1mm Increment	N	R, G and K Threads							M
(15 Sq.)			1					0	3							
			2					1	4							
			3					2	5							
Pitch Standard			4		M3 (M3)			3	6							
BMRASA			5		M4 (M4)	15	-	4	7	15	15	15	10	5	3.5	M4
			6		5 (M5)			5	8							
			7					6	9							
			8					7	10							
(25 Sq.)	T (Tapped)		1					0	3							
			2					1	4							
	Pitch		3		1 (1/8)			2	5							
Pitch Standard	Configurable		4		M3 (M3)*		15~50	3	6							
BMRAC	BMRACP		5		M4 (M4)*	15		4	7	25	25	20	12.5	10	4	M5
BMRACA	BMRACAP		6		5 (M5)*			5	8							
			7*				15~40	6	9							
			8*				15~35	7	10							
(30x40 Sq.)			1					0	3							
			2					1	4							
	Pitch		3		1 (1/8)			2	5							
Pitch Standard	Configurable	NA (Through)	4		2 (1/4)			3	6							
BMRAF	BMRAFP		5		5 (M5)*			4	7							
BMRAFA	BMRAFAP		6		1N (NPT1/8)	30	20~50	5	8	30	40	20	20	7.5	7	M5
		T (Tapped)	7*		2N (NPT1/4)			6	9							
			8*				15~40	7	10							
							15~35									
(50 Sq.)			1					0	3							
	Pitch		2					1	4							
Pitch Standard	Configurable	ZT (Counterbore Tapped)	3		2 (1/4)			2	5							
BMRAL	BMRALP		4		3 (3/8)	40	35~60	3	6	50	50	25	25	8.5	8.5	M8
BMRALA	BMRALAP		5		40 (1/2)			4	7							
			6					5	8							

By inserting "**G-**" before part number, the thread type can be changed to the G (PF) Thread as part of ordering. (Ex.: **G-BMRAF**) For ordering, see the Ordering Example.
For R, G and K, specify 1, 2, 3, 4, 5, M3, M4, 1N, or 2N indicated before ( ).
Specify the pitch taking into consideration the necessary dimensions for fitting the couplings.
When * marked 7 or 8 Circuit is selected from 25 Sq. / 30x40 Sq., M3, M4 and 5(M5) are not available for G or K.(M5)
Single Circuit is not available for Pitch Configurable Type.Number of Circuits
Number of CircuitsEach 6 and 8 Circuit Type has an additional mounting hole at the midpoint of the overall length. 7 Circuit Type has an additional mounting hole at each midpoint of the 2 - 3 port pitch, and 5 - 6 port pitch from the left to the right. (Except for 15 Sq.)Number of Circuits
M3, M4 and 5(M5) are not available for 25 Sq., 30x40 Sq. Pitch Configurable Type G and K.

Ordering Example

Part Number										
Type	Mounting Hole Change	Number of Circuits		R		G		K		P
BMRAC	T	2	-	R5	-	G1	-	K1		
BMRAFP	ZT	3	-	R1	-	G2	-	K2	-	P40
G-BMRAFP	ZT	3	-	R1	-	G2	-	K2	-	P40 (G Thread)

Number of Circuits	Pitch (P) Standard Unit Price							Pitch (P) Configurable Unit Price					
	15 Sq.	25 Sq.		30x40 Sq.		50 Sq.		25 Sq.		30x40 Sq.		50 Sq.	
	BMRASA	BMRAC	BMRACA	BMRAF	BMRAFA	BMRAL	BMRALA	BMRACP	BMRACAP	BMRAFP	BMRAFAP	BMRALP	BMRALAP
1								-	-	-	-	-	-
2													
3													
4													
5													
6													
7						-	-					-	-
8						-	-					-	-