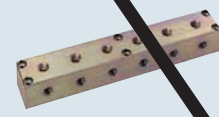


# Manifold Blocks (Hydraulic / Pneumatic)

High Pressure / Compact

**Hydraulic Manifold Block – High Pressure**

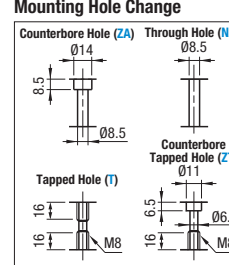


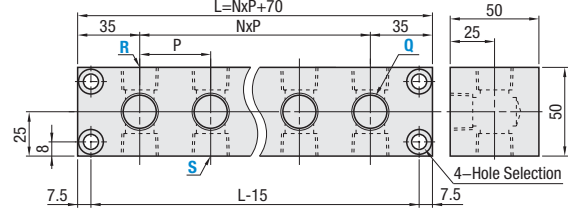
RoHS 10

| Type | Material                 | Surface Treatment  | Max. Operating Pressure                       |
|------|--------------------------|--------------------|---|
| BMAH | General Structural Steel | Trivalent Chromate | 34.5 MPa<br>= 350 kgf/cm <sup>2</sup> or Less |

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

**Mounting Hole Change**





⊙ Mounting hole can be selected.


| Type | Part Number             |          | Rc (PT)                                  | P  | No. of Pitches N | Q, R & S Total No. of Threads |
|------|-------------------------|----------|--|----|------------------|-------------------------------|
|      | Mounting Hole Selection | Circuits |  |    |                  |                               |
| BMAH | ZA (Counterbore)        | 1        | 1 (1/8)<br>2 (1/4)<br>3 (3/8)<br>4 (1/2) | 50 | 0                | 3                             |
|      | NA (Through hole)       | 2        |  |    | 1                | 6                             |
|      | T (Tapped)              | 4        |  |    | 2                | 9                             |
|      | ZT (Counterbore Tapped) | 5        |  |    | 3                | 12                            |
|      |                         | 6        |  |    | 4                | 15                            |
|      |                         |          |  |    | 5                | 18                            |

- ⊙ For G (PF) Thread please place an order specified with G- before part number. (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.

**Part Number Example**

| Type   | Mounting Holes | No. of Circuits | Q    | R    | S               |
|--------|----------------|-----------------|------|------|-----------------|
| BMAH   | ZT             | 4               | - Q2 | - R2 | - S2            |
| G-BMAH | ZT             | 4               | - Q2 | - R2 | - S2 (G Thread) |

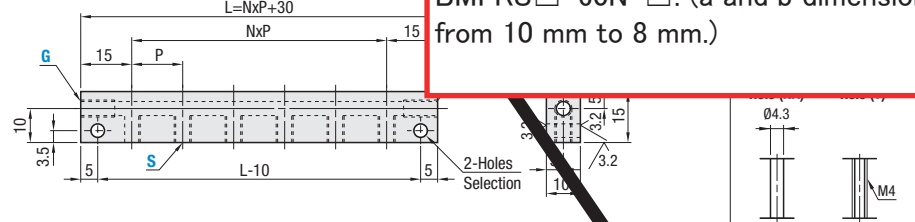
**Pneumatic Manifold Block – Compact**



RoHS 10

| Type  | Material       | Surface Treatment | Normal Pressure       |
|-------|----------------|-------------------|-----------------------|
| SBMA  | 6063           | —                 | 1 MPa                 |
| SBMAA | Aluminum Alloy | Clear Anodize     | 10 kg/cm <sup>2</sup> |

For the purposes of improved standardization, the BMFRS block square A60 type will be discontinued after September 2022. After the standards are revised, the part number will be changed to BMFRS□-60N-□. (a and b dimensions will change from 10 mm to 8 mm.)



| Type          | Part Number                     |                | *M (Coarse)      | P  | No. of Pitches | S, G & K Total No. of Threads |
|---------------|---------------------------------|----------------|------------------|----|----------------|-------------------------------|
|               | Mounting Hole Selection         | No. of Outlets |                  |    |                |                               |
| SBMA<br>SBMAA | NA (Through hole)<br>T (Tapped) | 1              | 3 (M3)<br>5 (M5) | 15 | 0              | 3                             |
|               |                                 | 2              |                  |    | 1              | 4                             |
|               |                                 | 3              |                  |    | 2              | 5                             |
|               |                                 | 4              |                  |    | 3              | 6                             |
|               |                                 | 5              |                  |    | 4              | 7                             |
|               |                                 | 6              |                  |    | 5              | 8                             |

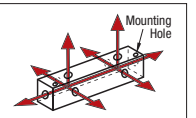
- ⊙ For S, G and K, specify 3 or 5 indicated before ( ). ⊙ N indicates number of pitches.

**Part Number Example**


| Type  | Mounting Holes | No. of Circuits | S    | G    | K    |
|-------|----------------|-----------------|------|------|------|
| SBMAA | T              | 4               | - S3 | - G3 | - K3 |

# Manifold Blocks (Hydraulic / Pneumatic)

Selectable Thread Size

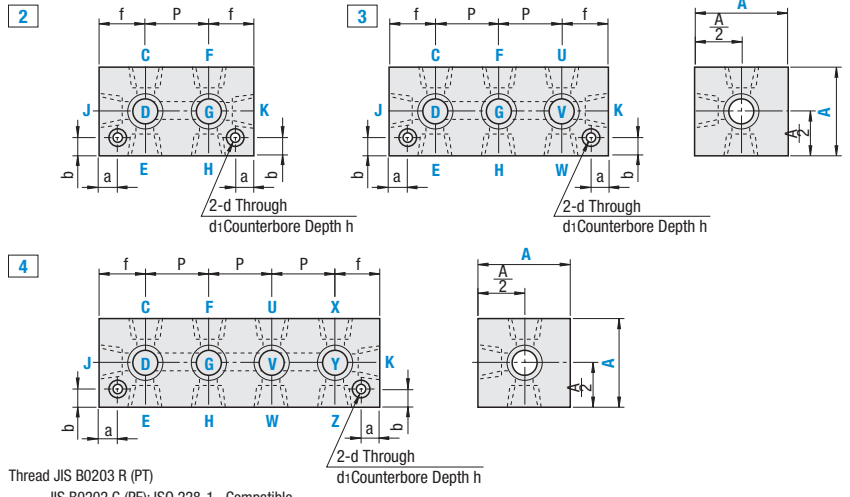


**Manifold Block – Selectable Thread Size**



RoHS 10

| Type   | Material                 | Surface Treatment  | Max. Operating Pressure                    |
|--------|--------------------------|--------------------|--|
| BMFRS  | General Structural Steel | Trivalent Chromate | 20.6 MPa = 210 kgf/cm <sup>2</sup> or Less |
| BMFRA  | 5052                     | —                  | 1 MPa = 10 kgf/cm <sup>2</sup> or Less     |
| BMFRAA | Aluminum Alloy           | Clear Anodize      |  |



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

| Type                     | Circuits    | Block Square A                   | Standard Thread Size Rc (PT), M (Coarse) | Alternative Thread Size Rc (PT), M (Coarse)   |    |    |     |     |     |                |     |  |  |  |  |  |
|--------------------------|-------------|----------------------------------|--|---|----|----|-----|-----|-----|----------------|-----|--|--|--|--|--|
|                          |             |                                  |  | JK (0 only), CDEFGHUVWXYZ   |    |    |     |     |     |                |     |  |  |  |  |  |
| BMFRS<br>BMFRA<br>BMFRAA | 2<br>3<br>4 | 25<br>30<br>35<br>40<br>50<br>60 | 5 (M5) 1 (1/8)                           | 0 (No Hole) 5 (M5) 1 (1/8)  | P  | f  | a   | b   | d   | d <sub>1</sub> | h   |  |  |  |  |  |
|                          |             |                                  | 1 (1/8) 2 (1/4)                          | 0 (No Hole) 5 (M5) 1 (1/8) 2 (1/4)  | 20 | 16 | 8   | 5   | 4.5 | 8              | 4.5 |  |  |  |  |  |
|                          |             |                                  | 1 (1/8) 2 (1/4)                          | 0 (No Hole) 5 (M5) 1 (1/8) 2 (1/4) 3 (3/8) ⊙ 3 and 3 at right angles is not applicable.                 | 30 | 20 | 6   | 5.5 | 9.5 | 5.5            |     |  |  |  |  |  |
|                          |             |                                  | 2 (1/4) 3 (3/8)                          | 0 (No Hole) 5 (M5) 1 (1/8) 2 (1/4) 3 (3/8) 4 (1/2) ⊙ 4 and 4 at right angles is not applicable.         | 40 | 22 | 6.5 | 6.6 | 11  | 6.5            |     |  |  |  |  |  |
|                          |             |                                  | 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) ⊙ 6 and 6 at right angles is not applicable. | 50 | 30 | 8   | 8.5 | 14  | 8.5            |     |  |  |  |  |  |
|                          |             |                                  | 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            |     |  |  |  |  |  |

- ⊙ BMFRS is not available for A25. ⊙ BMFRA and BMFRAA are not available for A60.
- ⊙ For G (PF) Thread please place an order specified with G- before part number. (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 ( ).

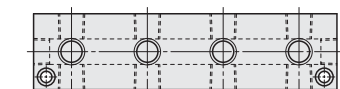
**Part Number Example**

| Part Number | A      | Standard Thread size | J | K | C | D | E | F | G | H | U | V | W | X | Y | Z |
|-------------|--------|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BMFRS4      | - 60 - | 4                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| G-BMFRA4    | - 30 - | 2                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**Selection Method**

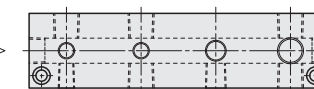
**Step I:** Select the most frequently used thread diameter as basic thread diameter.

**Order Example:** Select 4 (1/2).



**Step II:** Select ports to change from Standard Thread to desired thread size.

**Order Example:** D2-E2-G2-U0-V3-W3



- ⊙ Diameter of J and K is not changeable. Specify J0-K0 when J and K is not necessary (No through hole for them). Empty values for J and K dimensions are not acceptable. Examples below:

- (Ex.)
- Right BMFRS4-60-4-J0-K0-D2
  - Right BMFRS4-60-4 -D2
  - Wrong BMFRS4-60-4-J0 -D2
  - Wrong BMFRS4-60-4 -K0-D2

**Part Number Alterations**

| Alterations        | Code         | Spec.  |
|--------------------|--------------|--|
| P Dimension Change | PC           | Changes the P dimension in 1mm increment.<br>(Ex.) PC38-PCW30  |
|                    | PC, PCW      | ⊙ 20=PC, PCW, PCT≤50   |
|                    | PC, PCW, PCT | ⊙ In the case of BMFRS, normal pressure falls below 1 MPa = 10 kgf/cm <sup>2</sup> when the pitch is shorter than default value. |
|                    |              | ⊙ L dimension changes as much as the changes in P dimension.   |