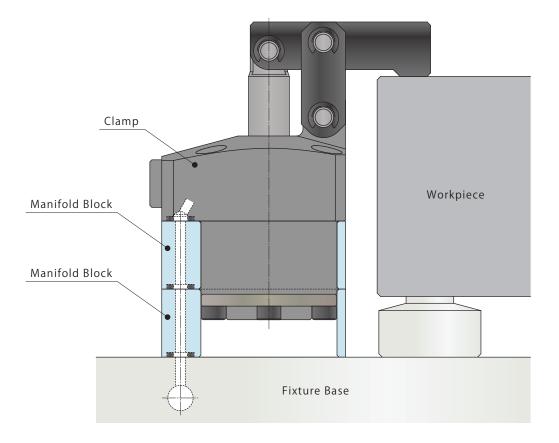
Manifold Block

Model WHZ-MD Model LZY-MD Model LZ-MS Model LZ-MP Model TMZ-1MB Model DZ-MG Model DZ-MS



Manifold Block

The mounting height of clamp is adjustable with the manifold block.

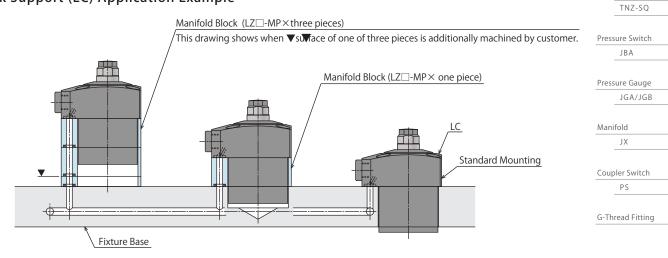




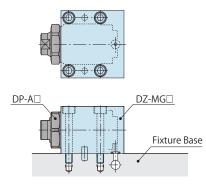
| Manifold Block Model No. | Corresponding Item Model No. | Pneum |
|--------------------------|--|---|
| Model WHZ-MD | Model WCA Model WHA Model WCE Model WHE | Hydrau Valve / Hydrau Manua |
| Model LZY-MD | Model LKA Model LKE Model LHC Model LH Model LKC Model LHA Model LHE Model LL | HS Caution |
| Model LZ-MS | Model LJ Model LG Model LM Model LT | Screw Locator V Manual Locating |
| Model LZ-MP | Model LC Model TC | Manifol |
| Model TMZ-1MB | Model TMA-1 | |
| Model TMZ-2MB | Model TMA-2 | T Manifol |
| Model DZ-MG /MS | Model DP | <u>Nut</u> |

Application Examples -

• Work Support (LC) Application Example



• Push Cylinder (DP) Application Example

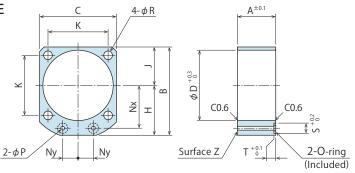


WNZ-SQ

TNZ-S

Manifold Block for WCA/WCE/WHA/WHE



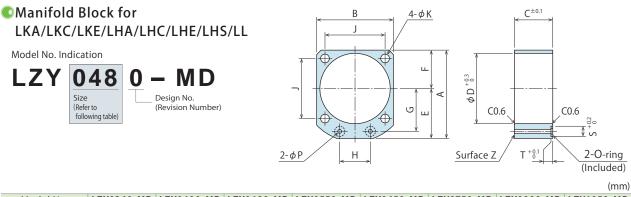


(mm)

| Model No. | WHZ0450-MD | WHZ0600-MD | WHZ0320-MD | WHZ0400-MD | WHZ0500-MD | WHZ0630-MD |
|----------------------------|--------------------|--------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Corresponding Model No. | WCE0452 WHE0450 | WCE0602 WHE0600 | WCA0321 WCE1002 WHA0320 WHE1000 | WCA0401 WCE1602 WHA0400 WHE1600 | WCA0501 WCE2502 WHA0500 WHE2500 | WCA0631 WCE4002 WHA0630 WHE4000 |
| A | 20 | 23 | 25 | 27 | 31 | 35 |
| В | 49 | 54 | 60 | 67 | 77 | 88.5 |
| С | 40 | 45 | 50 | 58 | 68 | 81 |
| D | 36 | 40 | 46 | 54 | 64 | 77 |
| Н | 29 | 31.5 | 35 | 38 43 | | 48 |
| J | 20 | 22.5 | 25 | 29 | 34 | 40.5 |
| K | 31.4 | 34 | 39 | 45 53 | | 65 |
| Nx | 23.5 | 26 | 28 | 31 | 36 | 41 |
| Ny | 8 | 9 | 10 | 13 | 15 | 20 |
| Р | 3 | 3 | 5 | 5 | 5 | 5 |
| R | 4.5 | 5.5 | 5.5 | 5.5 | 6.5 | 6.5 |
| S | 8 | 8 | 10 | 10 | 10 | 10 |
| Т | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| O-ring | 1BP5 | 1BP5 | 1BP7 | 1BP7 | 1BP7 | 1BP7 |
| Weight kg | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 |

Notes: 1. Material: A2017BE-T4 Surface Finishing: Zircon Finishing (Zirconium Chemical Conversion Treatment) 2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension A as a reference.

3. For other block thickness (dim. A), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.



| Model No. | LZY0360-MD | LZY0400-MD | LZY0480-MD | LZY0550-MD | LZY0650-MD | LZY0750-MD | LZY0900-MD | LZY1050-MD |
|----------------------------|-------------------|---|-------------------|-------------------|-------------------|---|---|---|
| Corresponding Model No. | LHA0360 / LHC0360 | LKA0400 / LKC0400 LKE0400 / LHA0400 LHC0400 / LHE0400 LHS0400 / LL0400 | LKE0480 / LHA0480 | LKE0550 / LHA0550 | LHA0650 / LHC0650 | LKA0750 LHA0750 LHS0750 LL0750 | LKA0900 LHA0900 LHS0900 LL0900 | LKA1050 LHA1050 LHS1050 LL1050 |
| А | 49 | 54 | 61 | 69 | 81 | 92 | 107 | 122 |
| В | 40 | 45 | 51 | 60 | 70 | 80 | 95 | 110 |
| С | 20 | 20 | 27 | 30 | 32 | 37 | 45 | 50 |
| D | 36 | 40 | 48 | 55 | 65 | 75 | 90 | 105 |
| E | 29 | 31.5 | 35.5 | 39 | 46 | 52 | 59.5 | 67 |
| F | 20 | 22.5 | 25.5 | 30 | 35 | 40 | 47.5 | 55 |
| G | 23.5 | 26 | 30 | 33.5 | 39.5 | 45 | 52.5 | 60 |
| Н | 16 | 18 | 22 | 24 | 30 | 32 | 37 | 45 |
| J | 31.4 | 34 | 40 | 47 | 55 | 63 | 75 | 88 |
| K | 4.5 | 5.5 | 5.5 | 6.8 | 6.8 | 9 | 11 | 14 |
| Р | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| S | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 |
| Т | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| O-ring | 1BP5 | 1BP5 | 1BP5 | 1BP5 | 1BP7 | 1BP7 | 1BP7 | 1BP7 |
| Weight kg | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.8 | 1.2 | 1.7 |

Notes : 1. Material:S45C

Surface Finishing: Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference. 3. For other block thickness (dim. C), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.



Pneumatic Series

Hydraulic Series

Valve / Coupler

Hydraulic Unit

Accessories Cautions / Others

Screw Locator

Manual Operation

VXF/VXE Manual Expansion Locating Pin VX

> WHZ-MD LZY-MD

LZ-MP TMZ-1ME TMZ-2ME DZ-M Manifold Block / Nut

DZ-R

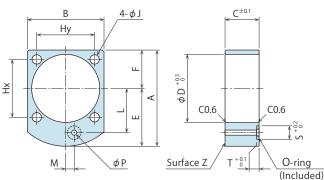
DZ-C

Series

CManifold Block for LJ/LM/LG/LT

Model No. Indication





led)

| | | | | | | | | (mm) |
|------------------------------------|---|---|---|---|--|---|--|--|
| LZ0300-MS | LZ0360-MS | LZ0400-MS | LZ0480-MS | LZ0550-MS | LZ0650-MS | LZ0750-MS | LZ0900-MS | LZ1050-MS |
| LG0301 / LT0301 LJ0302 / LM0300 | | | | LG055 / LT055 LJ0552 / LM0550 | LG065 / LT065 LJ0652 / LM0650 | LG075 / LT075 / LJ0752 / LM0750 | LG090 LJ0902 | LG105 LJ1052 |
| 48 | 51.5 | 56.5 | 62 | 70 | 82 | 93 | 107 | 122 |
| 34 | 40 | 45 | 51 | 60 | 70 | 80 | 95 | 110 |
| 18 | 20 | 20 | 27 | 30 | 32 | 37 | 45 | 50 |
| 30 | 36 | 40 | 48 | 55 | 65 | 75 | 90 | 105 |
| 28.5 | 31.5 | 34 | 36.5 | 40 | 47 | 53 | 59.5 | 67 |
| 19.5 | 20 | 22.5 | 25.5 | 30 | 35 | 40 | 47.5 | 55 |
| 30 | 31.4 | 34 | 40 | 47 | 55 | 63 | 75 | 88 |
| 23 | 31.4 | 34 | 40 | 47 | 55 | 63 | 75 | 88 |
| 4.5 | 4.5 | 5.5 | 5.5 | 6.8 | 6.8 | 9 | 11 | 14 |
| 20.5 | 23.5 | 26 | 30 | 33.5 | 39.5 | 45 | 52.5 | 60 |
| 3 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| 8 | 8 | 8 | 8 | 8 | 10 | 10 | 10 | 10 |
| 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 1BP5 | 1BP5 | 1BP5 | 1BP5 | 1BP5 | 1BP7 | 1BP7 | 1BP7 | 1BP7 |
| 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.8 | 1.2 | 1.7 |
| | LG0301 / LT0301 LJ0302 / LM0300 48 34 18 30 28.5 19.5 30 23 4.5 20.5 3 3 4.5 20.5 3 3 3 8 1.4 1BP5 | LG0301/LT0301 LG036□/LT036□ LJ0302/LM0300 LJ0362/LM0360 48 51.5 34 40 18 20 30 36 28.5 31.5 19.5 20 30 31.4 23 31.4 4.5 4.5 20.5 23.5 3 5 3 3 8 8 1.4 1.4 1BP5 1BP5 | LG0301 / LT0301 LG0362 / LT0362 LG0402 / LT0400 LJ0302 / LM0300 LJ0362 / LM0360 LJ0402 / LM0400 48 51.5 56.5 34 40 45 18 20 20 30 36 40 28.5 31.5 34 19.5 20 22.5 30 31.4 34 23 31.4 34 4.5 4.5 5.5 20.5 23.5 26 3 5 5 3 3 3 4.5 8 8 1.4 1.4 1.4 1BP5 1BP5 1BP5 | LG0301/LT0300 LG0360/LT0360 LG0400/LT0400 LG0480/LT0480 LJ0302/LM0300 LJ0362/LM0360 LJ0402/LM0400 LJ0482/LM0480 48 51.5 56.5 62 34 40 45 51 18 20 20 27 30 36 40 48 28.5 31.5 34 36.5 19.5 20 22.5 25.5 30 31.4 34 40 23 31.4 34 40 23 31.4 34 40 4.5 4.5 5.5 5.5 20.5 23.5 26 30 3 5 5 0 3 5 0 3 3 8 8 8 8 8 1.4 1.4 1.4 1.4 1BP5 1BP5 1BP5 1BP5 | LG0301 / LT0301 LG036 / LT0360 LG040 / LT0400 LG048 / LT0480 LG055 / LT055 / LT0550 LJ0302 / LM0300 LJ0402 / LM0400 LJ0402 / LM0400 LJ0402 / LM0400 LJ0402 / LM0400 48 51.5 56.5 62 70 34 40 45 51 60 18 20 20 27 30 30 36 40 48 55 28.5 31.5 34 36.5 40 19.5 20 22.5 25.5 30 30 31.4 34 40 47 23 31.4 34 40 47 4.5 4.5 5.5 5.5 6.8 20.5 23.5 26 30 33.5 3 5 5 0 0 3 3 3 3 3 3 3 5 5 0 0 0 3 3 3 | LG0301 / LT0301 LG036 / LT0360 LG040 / LT0400 LG048 / LT0480 LG055 / LT0550 LG055 / LT0550 <thlg05 lt0550<="" th=""> LG055 /</thlg05> | LG0301/LT0301 LG0361/LT03C0 LG0401/LT0400 LG0481/LT0480 LG0551/LT0551 LG0651/LT0551 LG0551/LT0551 LG051/LT051 LG0551/LT0 | LG0301/LT0301 L0302/LM0300LG0401/LT0400 L0402/LM0400LG0481/LT0481 L0482/LM0480LG0501/LT0501 L0552/LM0550LG0501/LT0502 L0652/LM0550LG0501/LT0502 L0652/LM0550LG09024851.556.56270829310734404551607080951820202730323745303640485565759028.531.53436.540475359.519.52022.525.530354047.53031.43440475563753031.43440475563752331.43440475563754.54.55.55.56.86.891120.523.5263033.539.54552.5355000003333355588881010101.41.41.41.41.41.41.41.8P518P518P518P518P718P718P7 |

Notes : 1. Material:S45C Surface Finishing:Alkaline Blackening

Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.
 For other block thickness (dim. C), machine the surface Z or design a block referring to the drawing and apply surface treatment if neces

LZ0260-MP LZ0300-MP LZ0360-MP LZ0400-MP LZ0480-MP LZ0550-MP LZ0650-MP LZ0750-MP LZ0900-MP

LC0483 / TC0483

27

62

51

48

36.5

25.5

40

40

30

0

5.5

28

11

3

8

1.4

1BP5

0.3

6.8

31

13

3

8

1.4

1BP5

0.4

Manifold Block for LC/TC

Model No.

Corresponding Model No.

A

B

С

D

Н

J

Кx

Ку

Nx

Ny

R

Υx

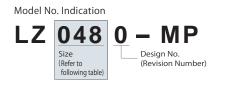
Yy P

S

Т

O-ring Weight

kg



LC0263

18

43

29

26

26.5

16.5

25

21

18.5

3

3.4

18.5

7

3

8

1.4

1BP5

0.1

LC0303

18

48

34

30

28.5

19.5

30

23

20.5

3

4.5

20.5

7

3

8

1.4

1BP5

0.1

LC0363

20

51.5

40

36

31.5

20

31.4

31.4

23.5

5

4.5

23.5

8

3

8

1.4

1BP5

0.2

LC0403 / TC0403

20

56.5

45

40

34

22.5

34

34

26

5

5.5

26

8

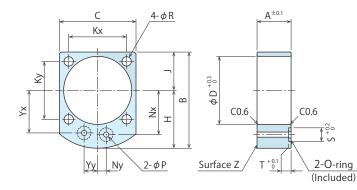
3

8

1.4

1BP5

0.2



| Pressure Switch JBA Pressure Gauge | | | |
|---|---------|-------|------------|
| LZ-S LZ-SQ WNZ-SQ TNZ-SQ TNZ-SQ TNZ-SQ Pressure Switch JBA | | | DZ-P |
| LZ-S LZ-SQ WNZ-SQ TNZ-S TNZ-SQ Pressure Switch JBA | essarv. | | DZ-B |
| WNZ-SQ TNZ-S TNZ-SQ Pressure Switch JBA | , | | LZ-S |
| TNZ-S TNZ-SQ Pressure Switch JBA | | | LZ-SQ |
| TNZ-SQ Pressure Switch JBA | | | WNZ-SQ |
| Pressure Switch JBA | | | TNZ-S |
| JBA | | | TNZ-SQ |
| JBA | | | |
| | | Press | ure Switch |
| Pressure Gauge | | | JBA |
| Pressure Gauge | | | |
| | | Press | ure Gauge |

JGA/JGB

Manifold JX

(mm)

11 50

15

5

10

1.4

1BP7

1.2

| 3 | LC0553 / TC0553 | LC0653 / TC0653 | LC0753 / TC0753 | LC0903 | |
|---|-----------------|-----------------|-----------------|--------|------------------|
| | 30 | 32 | 37 | 45 | Coupler Switch |
| | 70 | 82 | 93 | 107 | PS |
| | 60 | 70 | 80 | 95 | |
| | 55 | 65 | 75 | 90 | G-Thread Fitting |
| | 40 | 47 | 53 | 59.5 | |
| | 30 | 35 | 40 | 47.5 | |
| | 47 | 55 | 63 | 75 | |
| | 47 | 55 | 63 | 75 | |
| | 33.5 | 39.5 | 45 | 52.5 | |
| | 0 | 0 | 0 | 0 | |

9

42.5

15

5

10

1.4

1BP7

0.8

6.8

37

14

5

10

1.4

1BP7

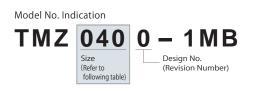
0.5

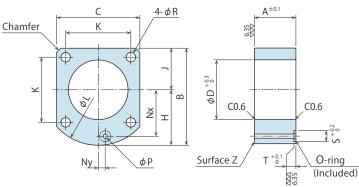
Notes : 1. Material:S45C Surface Finishing:Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension A as a reference.

3. For other block thickness (dim. A), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.

©Manifold Block for TMA-1





(mm)

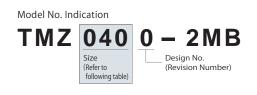
| | | | | | | | (mm) |
|-------------------------|-------------|-------------|----------------|----------------|-----------------|-----------------|-----------------|
| Model No. | TMZ0250-1MB | TMZ0400-1MB | TMZ0600-1MB | TMZ1000-1MB | TMZ1600-1MB | TMZ2500-1MB | TMZ3200-1MB |
| Corresponding Model No. | TMA0250-1 | TMA0400-1 | TMA0600-1 | TMA1000-1 | TMA1600-1 | TMA2500-1 | TMA3200-1 |
| A | 18 | 21 | 24 | 28 | 35 | 42 | 46 |
| В | 56.5 | 62 | 69 | 83 | 95 | 110 | 122 |
| С | 45 | 51 | 60 | 73 | 85 | 100 | 110 |
| D | 33 | 36 | 43 | 48 | 60 | 70 | 85 |
| Н | 34 | 36.5 | 39 | 46.5 | 52.5 | 60 | 67 |
| J | 22.5 | 25.5 | 30 | 36.5 | 42.5 | 50 | 55 |
| К | 34 | 40 | 47 | 57 | 65 | 75 | 88 |
| L | 68 | 73 | 80 | 97 | 112 | 129 | 147 |
| Nx | 26 | 30 | 33.5 | 40 | 45 | 52.5 | 60 |
| Ny | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| R | 5.5 | 5.5 | 6.8 | 9 | 11 | 14 | 14 |
| Р | 3 | 3 | 3 | 3 | 5 | 5 | 5 |
| S | 8 | 8 | 8 | 8 | 10 | 10 | 10 |
| Т | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| Chamfer | 3 | 3 | (<i>φ</i> 80) | (<i>φ</i> 97) | (<i>φ</i> 112) | (<i>ф</i> 129) | (<i>φ</i> 147) |
| O-ring | 1BP5 | 1BP5 | 1BP5 | 1BP5 | 1BP7 | 1BP7 | 1BP7 |
| Weight kg | 0.2 | 0.3 | 0.5 | 0.9 | 1.4 | 2.2 | 2.6 |

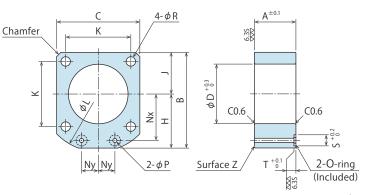
Notes : 1. Material:S45C Surface Finishing:Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension A as a reference.

3. For other block thickness (dim. A), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.

Manifold Block for TMA-2





(mm)

| Model No. | TMZ0250-2MB | TMZ0400-2MB | TMZ0600-2MB | TMZ1000-2MB | TMZ1600-2MB | TMZ2500-2MB | TMZ3200-2MB |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------------|
| Corresponding Model No. | TMA0250-2 | TMA0400-2 | TMA0600-2 | TMA1000-2 | TMA1600-2 | TMA2500-2 | TMA3200-2 |
| А | 15 | 16 | 18 | 20 | 24 | 28 | 32 |
| В | 54 | 61 | 69 | 82.5 | 94.5 | 109.5 | 122 |
| С | 45 | 51 | 60 | 73 | 85 | 100 | 110 |
| D | 33 | 36 | 43 | 48 | 60 | 70 | 85 |
| Н | 31.5 | 35.5 | 39 | 46 | 52 | 59.5 | 67 |
| J | 22.5 | 25.5 | 30 | 36.5 | 42.5 | 50 | 55 |
| K | 34 | 40 | 47 | 57 | 65 | 75 | 88 |
| L | 68 | 75 | 83 | 100 | 113 | 133 | 147 |
| Nx | 26 | 30 | 33.5 | 40 | 45 | 52.5 | 60 |
| Ny | 9 | 10 | 12 | 15 | 16 | 18.5 | 20 |
| R | 5.5 | 5.5 | 6.8 | 9 | 11 | 14 | 14 |
| Р | 3 | 3 | 3 | 3 | 5 | 5 | 5 |
| S | 8 | 8 | 8 | 8 | 10 | 10 | 10 |
| Т | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| Chamfer | 3 | 3 | 3 | 4 | 5 | 8 | (<i>φ</i> 147) |
| O-ring | 1BP5 | 1BP5 | 1BP5 | 1BP5 | 1BP7 | 1BP7 | 1BP7 |
| Weight kg | 0.2 | 0.3 | 0.4 | 0.6 | 0.9 | 1.5 | 1.8 |

Notes : 1. Material:S45C Surface Finishing: Alkaline Blackening

Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension A as a reference.
 For other block thickness (dim. A), machine the surface Z or design a block referring to the drawing and apply surface treatment if necessary.



Pneumatic Series

Hydraulic Series

Valve / Coupler

Hydraulic Unit

Manual Operation

Cautions / Others

VXF/VXF

Manual Expansion Locating Pin VX

Manifold Block

WHZ-MD

LZY-MD

LZ-MS

TMZ-2ME DZ-M Manifold Block /

DZ-R

DZ-C

DZ-P DZ-B

LZ-S

LZ-SQ

TNZ-S

Pressure Switch

/

TNZ-SQ

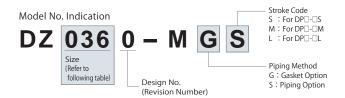
WNZ-SQ

Nut

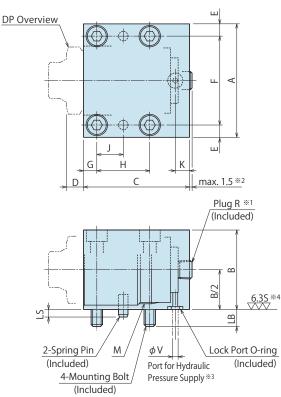
Screw Locator

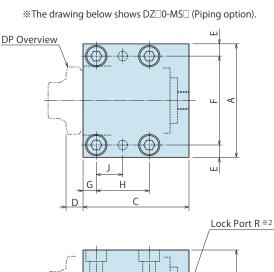
Series

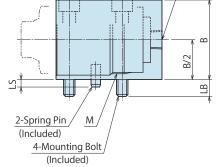
Manifold Block for DP



*The drawing below shows DZ_0-MG_ (Gasket option).







Notes :

%1. G option: the R-thread plug is screwed in at shipment. There is variance in protrusion amount of the plug.

%2. Plug is not included in the S option.

*3. Recommended hole size for a hydraulic pressure supply port drilled by Customer.

Make sure there are no burrs around the connection and no cutting chips or other foreign substances inside.

*4. The surface touching the O-ring should have a roughness of $\frac{6.35}{\sqrt{\sqrt{2}}}$.

| | | | | | | | | • • | • | | | | | | | | | | (mn | n) - |
|---------------|-------------------|------|----------|------|-----------|-----|---------|------|---------|-----|---------|------|---------|-----|---------|-----|----------|-----|--------|------|
| | | DZ01 | 160-MG | DZ0 | 220-MG | DZ0 | 240-MG | DZ0 | 300-MG | DZ0 | 360-MG | DZ04 | 450-MG | DZ0 | 550-MG | DZ0 | 650-MG | DZ0 | 800-MG | |
| Mode | el No. | DZ01 | 160-MS | DZ0 | 220-MS🗆 | DZ0 | 240-MS🗆 | DZ0 | 300-MS | DZ0 | 360-MS🗆 | DZ0 | 450-MS🗆 | DZ0 | 550-MS🗆 | DZ0 | 650-MS🗆 | DZ0 | 800-MS | |
| Stroke | Code | S | M L | S | M L | S | M L | S | M L | S | M L | S | M L | S | M L | S | M L | S | ML | |
| Corresponding | Model No. | DPO | 0160-🗆 | DP | 0221-🗆 | DP | 0241-🗌 | DP | 0301-🗌 | DP | 0361-🗌 | DP | 0451-🗌 | DP | 0551-🗌 | DP | 0651-🗆 | DP | 0801- | |
| Model No. | Stroke Code | S | M L | S | M L | S | M L | S | M L | S | M L | S | M L | S | M L | S | M L | S | ML | |
| ļ | ł | | 32 | | 38 | | 45 | | 50 | | 60 | | 75 | | 90 | | 105 | | 120 | |
| E | 3 | | 22 | | 28 | | 32 | | 38 | | 42 | | 52 | | 62 | | 72 | | 88 | |
| (| - | 34 | 40 49 | 32.5 | 38.5 51.5 | 35 | 42.5 59 | 38.5 | 45.5 65 | 43 | 56 77 | 50 | 63 85.5 | 56 | 69.5 92 | 65 | 79 108.5 | 70 | 88 11 | 9 |
| [|) | | 6 | | 8 | | 8 | | 9 | | 9 | | 13 | | 13 | | 15 | | 15 | - |
| E | E | | 4.5 | | 4.5 | | 6 | | 6 | | 6.5 | | 8.5 | | 10 | | 11 | | 11 | |
| F | = | | 23 | | 29 | | 33 | | 38 | | 47 | | 58 | | 70 | | 83 | | 98 | |
| (| 3 | | 5 | | 5 | | 6 | | 6 | | 7 | | 8 | | 9 | | 11 | | 11 | |
| ŀ | 1 | 12 | 18 | 12 | 18 | 12 | 18 | 16 | 22 | 18 | 28 | 20 | 30 | 24 | 36 | 30 | 42 | 34 | 52 | |
| - | J | 6 | 9 | 6 | 9 | 6 | 9 | 8 | 11 | 9 | 14 | 10 | 15 | 12 | 18 | 15 | 21 | 17 | 26 | |
| ł | < | | 7.5 | | 7.5 | | 7.5 | | 7.5 | | 7.5 | | 11.5 | | 11.5 | | 11.5 | | 11.5 | |
| L | В | | 7 | | 6 | | 8 | | 7 | | 9 | | 11 | | 13 | | 15 | | 15 | |
| L | S | | 3 | | 3 | | 3 | | 4 | | 4 | | 4 | | 4 | | 6 | | 7 | |
| M (Nomin | al $	imes$ Pitch) | M1 | 16×1.5 | M | 22×1.5 | Μ | 24×1.5 | Μ | 30×1.5 | M | 36×1.5 | M | 45×1.5 | N | 155×2 | N | 165×2 | N | 180×2 | |
| F | { | F | Rc1/8 | | Rc1/8 | | Rc1/8 | | Rc1/8 | | Rc1/8 | | Rc1/4 | | Rc1/4 | | Rc1/4 | | Rc1/4 | |
| Mounti | ng Bolt | M4× | <0.7×25 | M4> | ×0.7×30 | M52 | ×0.8×35 | M53 | ×0.8×40 | N | 16×45 | N | 18×55 | M | 10×65 | M | 12×75 | M | 12×90 | |
| 0-r | ing | 1 | 1BP5 | | 1BP5 | | 1BP5 | | 1BP5 | | 1BP5 | | 1BP7 | | 1BP7 | | 1BP7 | | 1BP7 | |
| Sprin | g Pin | ¢ | 63×8 | (| ¢3×8 | (| ¢3×8 | ¢ | 5×12 | ¢ | 5×12 | ¢ | 6×12 | ¢ | 6×12 | ¢ | 68×16 | φ | 10×20 | |
| ١ | / | | 3 | | 3 | | 3 | | 5 | | 5 | | 5 | | 5 | | 5 | | 5 | |
| Wei | ight kg | 0.15 | 0.15 0.2 | 0.2 | 0.2 0.3 | 0.3 | 0.4 0.5 | 0.4 | 0.5 0.6 | 0.6 | 0.7 1 | 1 | 1.2 1.7 | 1.5 | 1.8 2.5 | 2.2 | 2.8 3.8 | 3.2 | 4 5. | 5 |

JBA Pressure Gauge

| JGA/JGB | |
|----------|--|
| | |
| Manifold | |

Coupler Switch PS

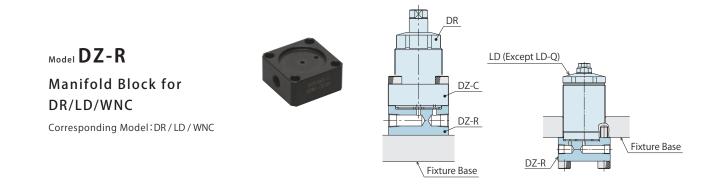
JΧ

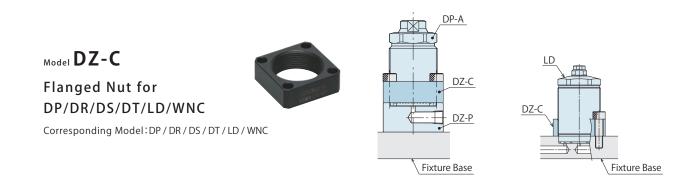
G-Thread Fitting

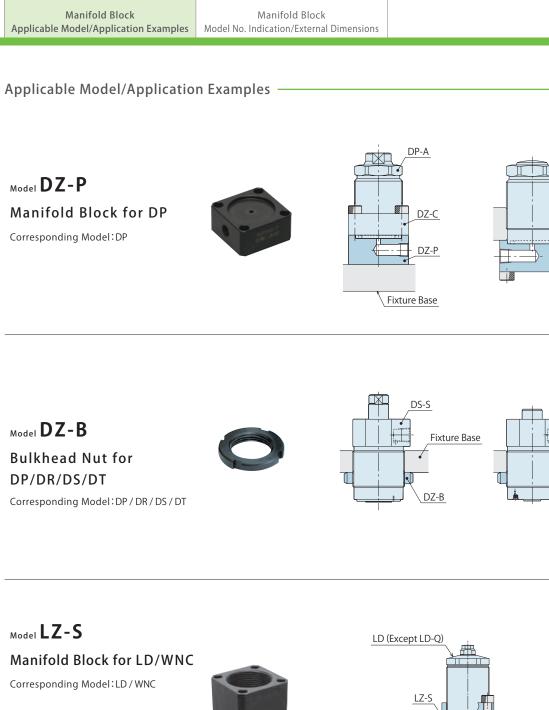
^{1.} Material:S45C Surface Finishing: Alkaline Blackening



Applicable Model/Application Examples





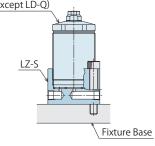


Pressure Switch JBA

Pressure Gauge JGA/JGB

Model TNZ-S

Manifold Block for TNC Corresponding Model:TNC



Manifold JΧ

Coupler Switch ΡS

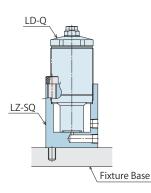
G-Thread Fitting

Model LZ-SQ Manifold Block for LD-Q Corresponding Model:LD-Q

Model WNZ-SQ Manifold Block for WNC-Q Corresponding Model: WNC-Q

Model TNZ-SQ Manifold Block for TNC-Q Corresponding Model: TNC-Q





High-Power Series

DP-R

Fixture Base

DZ-P

DT-S

Fixture Base

DZ-B

Pneumatic Series

Hydraulic Series

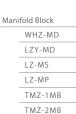
Valve / Coupler Hydraulic Unit

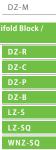
Manual Operation

Cautions / Others

Screw Locator VXF/VXF Manual Expansion

Locating Pin VX

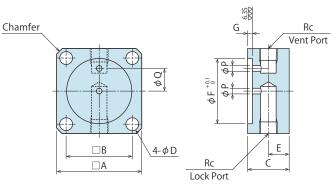




Manifold Block for DR/LD/WNC

Model No. Indication





(mm)

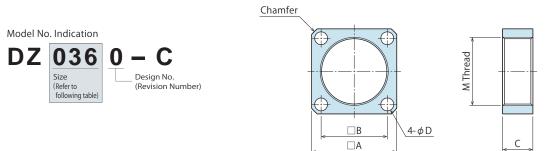
| | | | | | | | | | | (1111) |
|---------------|----------------------|----------|----------------------|----------------------|----------------------|----------------------|----------|----------|----------|----------|
| Model No. | DZ0220-R | DZ0240-R | DZ0260-R | DZ0300-R | DZ0360-R | DZ0450-R | DZ0550-R | DZ0600-R | DZ0650-R | DZ0800-R |
| Corresponding | DR0221 | DR0241 | - | DR0301 | DR0361 | DR0451 | DR0551 | - | DR0651 | DR0801 |
| Model No. | LD0222 ^{*1} | - | LD0262 ^{*1} | LD0302 ^{*1} | LD0362 ^{*1} | LD0452 ^{*1} | - | - | - | - |
| Model No. | WNC0350 | - | WNC0600 | WNC1000 | WNC1600 | WNC3000 | - | WNC6000 | - | - |
| А | 28 | 32 | 35 | 38 | 45 | 55 | 70 | 75 | 80 | 90 |
| В | 21 | 23 | 26 | 29 | 35 | 42 | 54 | 59 | 62 | 72 |
| С | 19 | 19 | 19 | 22 | 22 | 25 | 25 | 25 | 25 | 28 |
| D | 4.5 | 5.5 | 5.5 | 5.5 | 6.8 | 9 | 11 | 11 | 14 | 14 |
| E | 9.5 | 9.5 | 9.5 | 11 | 11 | 12.5 | 12.5 | 12.5 | 12.5 | 14 |
| F | 20.5 | 22.5 | 24.5 | 28.5 | 34.5 | 43.5 | 53 | 58 | 63 | 78 |
| G | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 3.5 | 3.5 | 3.5 | 3.5 | 4 |
| Р | 2 | 3 | 2.5 | 3 | 3 | 5 | 5 | 5 | 5 | 5 |
| Q | 7 | 7.5 | 9.5 | 10 | 12.5 | 15 | 19 | 24 | 24 | 30 |
| Rc | Rc1/8 | Rc1/8 | Rc1/8 | Rc1/8 | Rc1/8 | Rc1/4 | Rc1/4 | Rc1/4 | Rc1/4 | Rc1/4 |
| Chamfer | C2 | C3 | C3 | C3 | C3 | C4 | C5 | C4 | C5.5 | C5.5 |
| Weight kg | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.6 | 0.8 | 0.9 | 1.0 | 1.5 |

Notes : 1. Material:S45C Surface Finishing: Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

%1. It is not applicable for LD-Q: Work Support Hydraulic Advance Long Stroke Option. (Please select from LZ-SQ.)

Flange Nut for DP/DR/DS/DT/LD/WNC



(mm)

| Model No. | DZ0160-C | DZ0220-C | DZ0240-C | DZ0260-C | DZ0300-C | DZ0360-C | DZ0450-C | DZ0550-C | DZ0600-C | DZ0650-C | DZ0800-C |
|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | DP0160 | DP0221 | DP0241 | - | DP0301 | DP0361 | DP0451 | DP0551 | - | DP0651 | DP0801 |
| | - | DR0221 | DR0241 | - | DR0301 | DR0361 | DR0451 | DR0551 | - | DR0651 | DR0801 |
| Corresponding | - | DS0221 | DS0241 | - | DS0301 | DS0361 | DS0451 | DS0551 | - | DS0651 | DS0801 |
| Model No. | - | - | - | - | - | DT0361 | DT0451 | DT0551 | - | DT0651 | DT0801 |
| | - | LD0222 | - | LD0262 | LD0302 | LD0362 | LD0452 | - | - | - | - |
| | - | WNC0350 | - | WNC0600 | WNC1000 | WNC1600 | WNC3000 | - | WNC6000 | - | - |
| А | 25 | 28 | 32 | 35 | 38 | 45 | 55 | 70 | 75 | 80 | 90 |
| В | 18 | 21 | 23 | 26 | 29 | 35 | 42 | 54 | 59 | 62 | 72 |
| С | 12 | 14 | 14 | 14 | 15 | 16 | 18 | 20 | 22 | 25 | 25 |
| D | 4.5 | 4.5 | 5.5 | 5.5 | 5.5 | 6.8 | 9 | 11 | 11 | 14 | 14 |
| M (Nominal×Pitch) | M16×1.5 | M22×1.5 | M24×1.5 | M26×1.5 | M30×1.5 | M36×1.5 | M45×1.5 | M55×2 | M60×2 | M65×2 | M80×2 |
| Chamfer | C2 | C2 | C3 | C3 | C3 | C3 | C4 | C5 | C4 | C5.5 | C5.5 |
| Weight kg | 0.04 | 0.04 | 0.06 | 0.07 | 0.08 | 0.1 | 0.2 | 0.4 | 0.45 | 0.5 | 0.6 |

Notes : 1. Material:S45C Surface Finishing:Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.



Pneumatic Series

Hydraulic Series

Valve / Coupler

Hydraulic Unit

Manual Operation

Cautions / Others

Series

Manifold Block for DP

Model No. Indication

Model No.

Corresponding Model No

А

В

С

D

Е

F

G

Ρ

Rc

Chamfer

Weight kg



DZ0160-P

DP0160

25

18

19

4.5

9.5

14.5

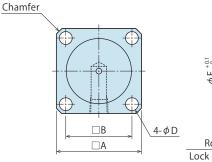
1.5

3

Rc1/8

C2

0.1



DZ0450-P

DP0451

55

42

25

9

12.5

43.5

3.5

5

Rc1/4

C4

0.6

DZ0550-P

DP0551

70

54

25

11

12.5

53

3.5

5

Rc1/4

C5

0.8

DZ0360-P

DP0361

45

35

22

6.8

11

34.5

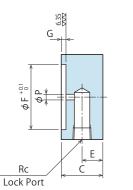
2.5

3

Rc1/8

С3

0.3



DZ0650-P

DP0651

80

62

25

14

12.5

63

3.5

5

Rc1/4

C5.5

1.0

Screw Locator VXF/VXF Manual Expansion Locating Pin VX

(mm)

DZ0800-P

DP0801

90

72

28

14

14

78

4

5

Rc1/4

C5.5

1.5

| Manif | old Block |
|-------|-----------|
| | WHZ-MD |
| | LZY-MD |
| | LZ-MS |
| | LZ-MP |
| | TMZ-1MB |
| | TMZ-2MB |
| | DZ-M |

anifold Block

DZ-P DZ-B LZ-S LZ-SQ

> WNZ-SQ TNZ-S TNZ-SQ

0.1 Notes: 1. Material:S45C Surface Finishing: Alkaline Blackening

DZ0220-P

DP0221

28

21

19

4.5

9.5

20.5

2.5

3

Rc1/8

C2

DZ0240-P

DP0241

32

23

19

5.5

9.5

22.5

2.5

3

Rc1/8

C3

0.2

DZ0300-P

DP0301

38

29

22

5.5

11

28.5

2.5

3

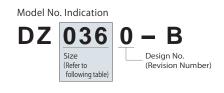
Rc1/8

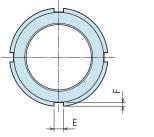
С3

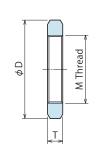
0.2

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

Bulkhead Nut for DP/DR/DS/DT







| Mani | fold | |
|------|------|--|
| | JΧ | |
| - | | |

Pressure Switch

JBA

Pressure Gauge JGA/JGB

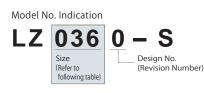
| Coup | ler | Switch | |
|------|-----|--------|--|
| | PS | 5 | |

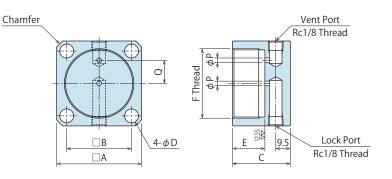
G-Thread Fitting

| | | | | | | | | | (mm) |
|-------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Model No. | DZ0160-B | DZ0220-B | DZ0240-B | DZ0300-B | DZ0360-B | DZ0450-B | DZ0550-B | DZ0650-B | DZ0800-B |
| | DP0160 | DP0221 | DP0241 | DP0301 | DP0361 | DP0451 | DP0551 | DP0651 | DP0801 |
| Corresponding | - | DR0221 | DR0241 | DR0301 | DR0361 | DR0451 | DR0551 | DR0651 | DR0801 |
| Model No. | - | DS0221 | DS0241 | DS0301 | DS0361 | DS0451 | DS0551 | DS0651 | DS0801 |
| | - | - | - | - | DT0361 | DT0451 | DT0551 | DT0651 | DT0801 |
| D | 25 | 32 | 38 | 45 | 52 | 65 | 75 | 85 | 105 |
| E | 4 | 5 | 5 | 5 | 5 | 6 | 7 | 7 | 8 |
| F | 2 | 2 | 2 | 2 | 2 | 2.5 | 3 | 3 | 3.5 |
| M (Nominal×Pitch) | M16×1.5 | M22×1.5 | M24×1.5 | M30×1.5 | M36×1.5 | M45×1.5 | M55×2 | M65×2 | M80×2 |
| Т | 5 | 6 | 7 | 7 | 8 | 10 | 11 | 12 | 15 |
| Weight kg | 0.02 | 0.03 | 0.03 | 0.05 | 0.08 | 0.1 | 0.2 | 0.3 | 0.5 |

Surface Finishing: Alkaline Blackening 1. Material:S45C Note :

Manifold Block for LD/WNC





(mm)

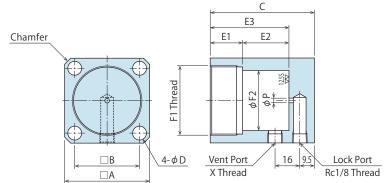
| | | | | | | (1111) |
|---------------------|-----------------------|-----------------------------------|----------------------------------|-----------------------------------|----------------------------------|-----------------------------------|
| Model No. | LZ0220-S | LZ0260-S | LZ0300-S | LZ0360-S | LZ0450-S | LZ0600-S |
| Corresponding | LD0222 (Except -Q)*1 | LD0262 (Except -Q) ^{*1} | LD0302 (Except -Q) ^{*1} | LD0362 (Except -Q) ^{*1} | LD0452 (Except -Q) ^{*1} | - |
| Model No. | WNC0350 (Except -Q)*2 | WNC0600 (Except -Q) ^{%2} | WNC1000 (Except -Q)*2 | WNC1600 (Except -Q) ^{%2} | WNC3000 (Except -Q)*2 | WNC6000 (Except -Q) ^{%2} |
| А | 28 | 35 | 38 | 45 | 55 | 75 |
| В | 21 | 26 | 29 | 35 | 42 | 59 |
| С | 30.5 | 32.5 | 33.5 | 34.5 | 37.5 | 41.5 |
| D | 4.5 | 5.5 | 5.5 | 6.8 | 9 | 11 |
| E | 14 | 16 | 17 | 18 | 21 | 25 |
| F (Nominal × Pitch) | M22×1.5 | M26×1.5 | M30×1.5 | M36×1.5 | M45×1.5 | M60×2 |
| Р | 2 | 2.5 | 3 | 3 | 3 | 3 |
| Q | 7 | 9.5 | 11 | 13 | 15 | 24 |
| Chamfer | C2 | C3 | C3 | C3 | C4 | C4 |
| Weight kg | 0.12 | 0.20 | 0.24 | 0.34 | 0.52 | 1.12 |

Notes : 1. Material:S45C Surface Finishing:Alkaline Blackening

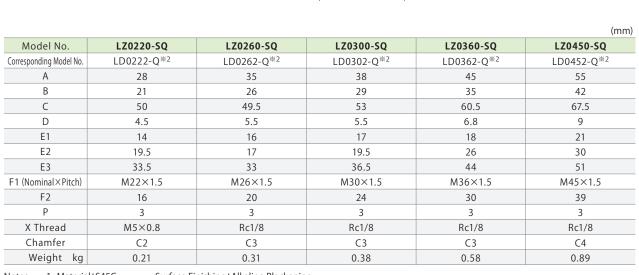
2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

%1. It is not applicable for LD-Q: Work Support Hydraulic Advance Long Stroke Option. (Please select from LZ-SQ.)

%2. It is not applicable for WNC-Q: High-Power Pneumatic Work Support Pneumatic Advance Long Stroke Option. (Please select from WNZ-SQ.)



Model No. Indication LZ 036 Size (Refer to following table) 0 - SQ Design No. (Revision Number)



Notes : 1. Material: S45C Surface Finishing: Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference. #2. It is not applicable for LD-EQ: Work Support Spring Advance Long Stroke Option. (Please select from LZ-S.)



Pneumatic Series

Hydraulic Series

Valve / Coupler

Hydraulic Unit

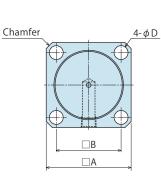
Manual Operation Accessories

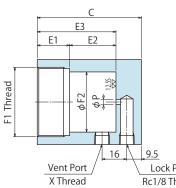
VXF/VXE Manual Expansion

Series

Manifold Block for WNC-Q

Model No. Indication WNZ 035 Size (Refer to following table) MODES CONTRACTOR Design No. (Revision Number)





9.5 Lock Port Rc1/8 Thread

| | | | | | | (mm) |
|-------------------------|------------|------------|------------|------------|------------|------------|
| Model No. | WNZ0350-SQ | WNZ0600-SQ | WNZ1000-SQ | WNZ1600-SQ | WNZ3000-SQ | WNZ6000-SQ |
| Corresponding Model No. | WNC0350-Q | WNC0600-Q | WNC1000-Q | WNC1600-Q | WNC3000-Q | WNC6000-Q |
| А | 28 | 35 | 38 | 45 | 55 | 75 |
| В | 21 | 26 | 29 | 35 | 42 | 59 |
| С | 49 | 51 | 52 | 56 | 59 | 68 |
| D | 4.5 | 5.5 | 5.5 | 6.8 | 9 | 11 |
| E1 | 14 | 16 | 17 | 18 | 21 | 25 |
| E2 | 18.5 | 18.5 | 18.5 | 21.5 | 21.5 | 26.5 |
| E3 | 32.5 | 34.5 | 35.5 | 39.5 | 42.5 | 51.5 |
| F1 (Nominal×Pitch) | M22×1.5 | M26×1.5 | M30×1.5 | M36×1.5 | M45×1.5 | M60×2 |
| F2 | 16 | 20 | 24 | 30 | 39 | 53 |
| Р | 3 | 3 | 3 | 3 | 3 | 3 |
| X Thread | M5×0.8 | Rc1/8 | Rc1/8 | Rc1/8 | Rc1/8 | Rc1/8 |
| Chamfer | C2 | C3 | C3 | C3 | C4 | C4 |
| Weight kg | 0.20 | 0.32 | 0.37 | 0.55 | 0.79 | 1.75 |

Notes: 1. Material:S45C Surface Finishing:Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

| | ting Pin |
|-------------|---------------|
| | VX |
| | |
| Mani | fold Block |
| | WHZ-MD |
| | LZY-MD |
| | LZ-MS |
| | LZ-MP |
| | TMZ-1MB |
| | TMZ-2MB |
| | DZ-M |
| | |
| Mani Nut | ifold Block / |
| | DZ-R |

DZ-C DZ-P DZ-B LZ-S LZ-SQ WNZ-SQ TNZ-SQ

Pressure Switch JBA

Pressure Gauge

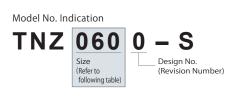
JGA/JGB

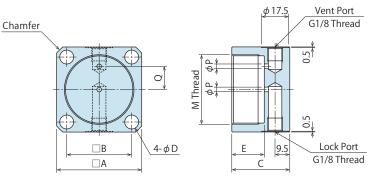
Manifold JX

Coupler Switch PS

G-Thread Fitting

Manifold Block for TNC





(mm)

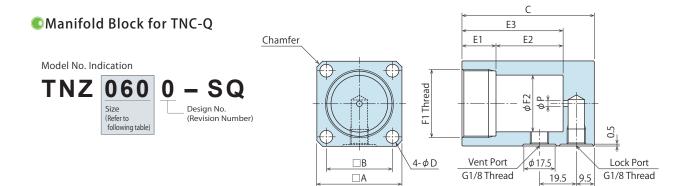
(mm)

| Model No. | TNZ0400-S | TNZ0600-S | TNZ1000-S | TNZ1600-S |
|-------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Corresponding Model No. | TNC0403 (Except -Q) ^{%3} | TNC0603 (Except -Q) ^{%3} | TNC1003 (Except -Q) ^{×3} | TNC1603 (Except -Q) ^{%3} |
| А | 35 | 38 | 45 | 55 |
| В | 26 | 29 | 35 | 42 |
| C | 32.5 | 33.5 | 34.5 | 37.5 |
| D | 5.5 | 5.5 | 6.8 | 9 |
| E | 16 | 17 | 18 | 21 |
| M (Nominal×Pitch) | M26×1.5 | M30×1.5 | M36×1.5 | M45×1.5 |
| Р | 2.5 | 3 | 3 | 3 |
| Q | 9.5 | 11 | 13 | 15 |
| Chamfer | C3 | C3 | C3 | C4 |
| Weight kg | 0.20 | 0.23 | 0.34 | 0.52 |

Notes : 1. Material:S45C Surface Finishing:Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.

%3. It is not applicable for TNC-Q: Work Support Hydraulic Advance Long Stroke Option. (Please select from TNZ-SQ.)



| | | | | (mm) |
|-------------------------|------------|------------|------------|------------|
| Model No. | TNZ0400-SQ | TNZ0600-SQ | TNZ1000-SQ | TNZ1600-SQ |
| Corresponding Model No. | TNC0403-Q | TNC0603-Q | TNC1003-Q | TNC1603-Q |
| А | 35 | 38 | 45 | 55 |
| В | 26 | 29 | 35 | 42 |
| С | 56 | 63.5 | 70 | 86.5 |
| D | 5.5 | 5.5 | 6.8 | 9 |
| E1 | 16 | 17 | 18 | 21 |
| E2 | 23.5 | 30 | 35.5 | 49 |
| E3 | 39.5 | 47 | 53.5 | 70 |
| F1 (Nominal×Pitch) | M26×1.5 | M30×1.5 | M36×1.5 | M45×1.5 |
| F2 | 20 | 24 | 30 | 39 |
| Р | 2.5 | 3 | 3 | 3 |
| Chamfer | C3 | C3 | C3 | C4 |
| Weight kg | 0.36 | 0.46 | 0.68 | 1.16 |

Notes : 1. Material:S45C Surface Finishing: Alkaline Blackening

2. Mounting bolts are not provided. Prepare mounting bolts according to the mounting height using the dimension C as a reference.





High-Power Series

Pneumatic Series

Hydraulic Series

Valve / Coupler Hydraulic Unit

Manual Operation Accessories

Cautions / Others

Screw Locator VXF/VXE

Manual Expansion Locating Pin

______VX

Manifold Block WHZ-MD LZY-MD LZ-MS LZ-MP TMZ-1MB TMZ-2MB DZ-M

Ma Nut

| ni | fold Block / |
|----|--------------|
| | DZ-R |
| | DZ-C |
| | DZ-P |
| | DZ-B |
| | LZ-S |
| | LZ-SQ |
| | WNZ-SQ |
| | TNZ-S |
| | TNZ-SQ |
| | |

Pressure Switch

Pressure Gauge JGA/JGB

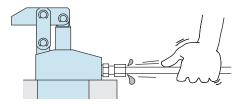
Manifold JX

Coupler Switch PS

G-Thread Fitting

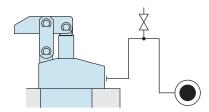
Cautions

- Installation Notes (For Hydraulic Series)
- 1) Check the Usable Fluid
- Please use the appropriate fluid by referring to the Hydraulic Fluid List.
- 2) Procedure before Piping
- The pipeline, piping connector and fixture circuits should be cleaned by thorough flushing.
- The dust and cutting chips in the circuit may lead to fluid leakage and malfunction.
- There is no filter provided with Kosmek's product except for a part of valves which prevents foreign materials and contaminants from getting into the circuit.
- 3) Applying Sealing Tape
- Wrap with tape 1 to 2 times following the screw direction.
- Pieces of the sealing tape can lead to oil leakage and malfunction.
- Please implement piping construction in a clear environment to prevent anything getting in products.
- 4) Air Bleeding of the Hydraulic Circuit
- If the hydraulic circuit has excessive air, the action time may become very long. If air enters the circuit after connecting the hydraulic port or under the condition of no air in the oil tank, please perform the following steps.
- ① Reduce hydraulic pressure to less than 2MPa.
- 2 Loosen the cap nut of pipe fitting closest to the clamp by one full turn.
- ③ Shake the pipeline to loosen the outlet of pipe fitting.Hydraulic fluid mixed with air comes out.



- ④ Tighten the cap nut after bleeding.
- ③ It is more effective to release air at the highest point inside the circuit or at the end of the circuit.

(Set an air bleeding valve at the highest point inside the circuit.)



- 5) Checking Looseness and Retightening
- At the beginning of the machine installation, the bolt and nut may be tightened lightly. Check the looseness and re-tighten as required.

Hydraulic Fluid List

| | 19 | O Viscosity Grade ISO-VG-32 |
|------------------------|---------------------------|-----------------------------|
| Maker | Anti-Wear Hydraulic Oil | Multi-Purpose Hydraulic Oil |
| Showa Shell Sekiyu | Tellus S2 M 32 | Morlina S2 B 32 |
| Idemitsu Kosan | Daphne Hydraulic Fluid 32 | Daphne Super Multi Oil 32 |
| JX Nippon Oil & Energy | Super Hyrando 32 | Super Mulpus DX 32 |
| Cosmo Oil | Cosmo Hydro AW32 | Cosmo New Mighty Super 32 |
| ExxonMobil | Mobil DTE 24 | Mobil DTE 24 Light |
| Matsumura Oil | Hydol AW-32 | |
| Castrol | Hyspin AWS 32 | |

Note : Please contact manufacturers when customers require products in the list above.

High-Power Series

Hydraulic Series

Valve / Coupler Hydraulic Unit

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Cautions Notes on Handling

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① Single acting components should not be used in the same flow control circuit as the double acting components.



Maintenance Inspection Warranty





Installation Notes (For Hydraulic Series)

Hydraulic Fluid List

Notes on Hydraulic Cylinder Speed Control Circuit

Notes on Handling Maintenance/Inspection

Warranty

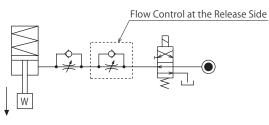
Notes on Hydraulic Cylinder Speed Control Unit

Please pay attention to the cautions below. Design the hydraulic circuit for controlling the action speed of hydraulic cylinder. Improper circuit design may lead to malfunctions and damages. Please review the circuit design in advance.

Flow Control Circuit for Single Acting Cylinder

For spring return single acting cylinders, restricting flow during release can extremely slow down or disrupt release action. The preferred method is to control the flow during the lock action using a valve that has free-flow in the release direction. It is also preferred to provide a flow control valve at each actuator.

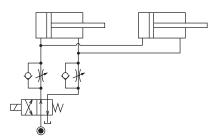
Accelerated clamping speed by excessive hydraulic flow to the cylinder may sustain damage. In this case add flow control to regulate flow. (Please add flow control to release flow if the lever weight is put on at the time of release action when using swing clamps.)



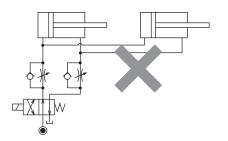
Flow Control Circuit for Double Acting Cylinder Flow control circuit for double acting cylinder should have meter-out circuits for both the lock and release sides. Meter-in control can have adverse effect by presence of air in the system. However, in the case of controlling LKE, TMA, TLA, both lock side and release side should be meter-in circuit. Refer to P.75 for speed adjustment of LKE. For TMA and TLA, if meter-out circuit is used, abnormal high

pressure is created, which causes oil leakage and damage.

[Meter-out Circuit] (Except LKE/TMA/TLA)



[Meter-in Circuit] (LKE/TMA/TLA must be controlled with meter-in.)



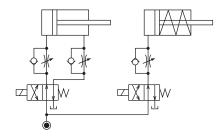
erratic or very slow.

In the case of meter-out circuit, the hydraulic circuit should

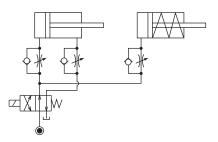
The release action of the single acting cylinders may become

be designed with the following points.

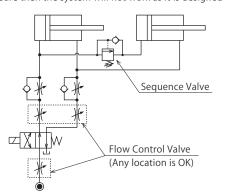
Refer to the following circuit when both the single acting cylinder and double acting cylinder are used together. \bigcirc Separate the control circuit.



○ Reduce the influence of double acting cylinder control unit. However, due to the back pressure in tank line, single action cylinder is activated after double action cylinder works.



② In the case of meter-out circuit, the inner circuit pressure may increase during the cylinder action because of the fluid supply. The increase of the inner circuit pressure can be prevented by reducing the supplied fluid beforehand via the flow control valve. Especially when using sequence valve or pressure switches for clamping detection. If the back pressure is more than the set pressure then the system will not work as it is designed to.



Cautions

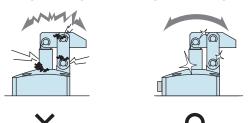
- Notes on Handling
- 1) It should be operated by qualified personnel.
- The hydraulic machine and air compressor should be operated and maintained by qualified personnel.
- 2) Do not operate or remove the product unless the safety protocols are ensured.
- ① The machine and equipment can only be inspected or prepared when it is confirmed that the safety devices are in place.
- ② Before the product is removed, make sure that the above-mentioned safety devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air and hydraulic circuits.
- ③ After stopping the product, do not remove until the temperature drops.
- ④ Make sure there is no abnormality in the bolts and respective parts before restarting the machine or equipment.
- Do not touch a clamp (cylinder) while it is working.
 Otherwise, your hands may be injured due to clinching.



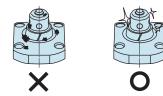
- 4) Do not disassemble or modify.
- If the equipment is taken apart or modified, the warranty will be voided even within the warranty period.

Maintenance and Inspection

- 1) Removal of the Machine and Shut-off of Pressure Source
- Before the machine is removed, make sure that safety devices and preventive devices are in place. Shut off the pressure and power source, and make sure no pressure exists in the air and hydraulic circuits.
- Make sure there is no abnormality in the bolts and respective parts before restarting.
- 2) Regularly clean the area around the piston rod and plunger.
- If it is used when the surface is contaminated with dirt, it may lead to packing seal damage, malfunctioning and fluid leakage.



- Please clean out the reference surfaces on a regular basis (taper reference surface and seating surface) of the locating products. (VS/VT/VFL/VFM/VFJ/VFK/WVS/VWM/VWK/VX/VXE/VXF)
- The locating products, except VX/VXE/VXF model, can remove contaminants with cleaning functions. However, hardened cutting chips, adhesive coolant and others may not be removed. Make sure there are no contaminants before installing a workpiece/pallet.
- Continuous use with contaminant on components will lead to locating accuracy failure, malfunction and fluid leakage.



- If disconnecting by couplers, air bleeding should be carried out on a regular basis to avoid air mixed in the circuit.
- 5) Regularly tighten nut, bolt, pin, cylinder, pipe line and others to ensure proper use.
- 6) Make sure the hydraulic fluid has not deteriorated.
- 7) Make sure there is a smooth action without an irregular noise.
- Especially when it is restarted after left unused for a long period, make sure it can be operated correctly.
- The products should be stored in the cool and dark place without direct sunshine or moisture.
- 9) Please contact us for overhaul and repair.

Warranty



High-Power Series

Pneumatic Series

Pheum

Hydraulic Series

Valve / Coupler Hydraulic Unit

Manual Operation Accessories

Cautions / Others

Cautions

(For Hydraulic Series) Hydraulic Fluid List

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Warranty

- 1) Warranty Period
- The product warranty period is 18 months from shipment from our factory or 12 months from initial use, whichever is earlier.
- 2) Warranty Scope
- If the product is damaged or malfunctions during the warranty period due to faulty design, materials or workmanship, we will replace or repair the defective part at our expense.
 Defects or failures caused by the following are not covered.
- ① If the stipulated maintenance and inspection are not carried out.
- ② If the product is used while it is not suitable for use based on the operator's judgment, resulting in defect.
- ③ If it is used or operated in an inappropriate way by the operator.(Including damage caused by the misconduct of the third party.)
- 4 If the defect is caused by reasons other than our responsibility.
- (5) If repair or modifications are carried out by anyone other than Kosmek, or without our approval and confirmation, it will void warranty.
- ⑥ Other caused by natural disasters or calamities not attributable to our company.
- ⑦ Parts or replacement expenses due to parts consumption and deterioration.

(Such as rubber, plastic, seal material and some electric components.)

Damages excluding from direct result of a product defect shall be excluded from the warranty.



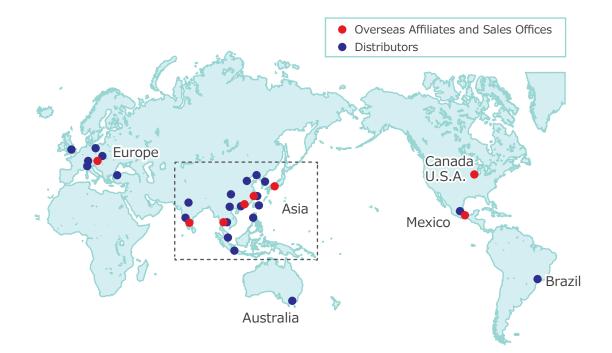
Sales Offices across the World

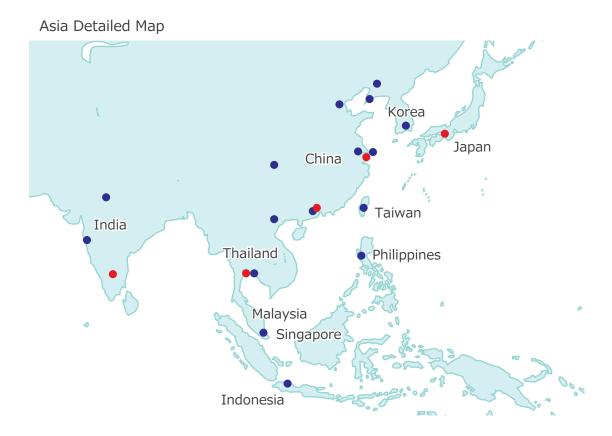
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| Fukuoka Sales Office | TEL.092-433-0424 〒812-0006 福岡県福岡市 | FAX.092-433-0426 市博多区上牟田1丁目8-10-101 |

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