

Linear Bushings (Lubrication Unit MX)

Flanged Single with Pilot / Double with Pilot

Details of Lubrication Unit MX P.369.

Linear Bushings (Lubrication Unit MX) – Flanged Single with Pilot

| Type | | | Outer Cylinder | | | Balls | Pad Case / Retainer | | Ambient Operating Temp. | Accessories |
|--------------|---------------|----------------|---------------------|-------------|-------------------|---------------------|----------------------------------|----------|------------------------------|-------------|
| Round Flange | Square Flange | Compact Flange | Material | Hardness | Surface Treatment | Material | Material | | | |
| LHFHR-MX | LHIFS-MX | LHIFC-MX | 52100 Bearing Steel | 58 HRC min. | — | 52100 Bearing Steel | Plastic (Duracon M90 Equivalent) | -20~80°C | Seal Material Nitrile Rubber | |

Mounting Direction

For Piloted and Flanged Type application examples, see P.385.

No need to fill with grease prior to use because the product is already filled with Lithium soap-based grease in addition to the built-in lubrication unit.

kgf=Nx0.101972

| Part Number | Type | dr | Tol. | D | | L | L ₁ | V | ℓ | H | T | d | t | P.C.D. | W | F | A | Eccentricity | Rows of Balls | *Perpendicularity | Basic Load Rating | | | Mass(g) | | | |
|----------------------------------|------|--------|------|--------|-----|-----|----------------|----|-----|-----|-----|-----|----|--------|----|----|---|--------------|---------------|-------------------|-------------------|---------------|--------------|---------------|----------------|--------------|---------------|
| | | | | Tol. | L | | | | | | | | | | | | | | | | C (Dynamic) N | Co (Static) N | Round Flange | Square Flange | Compact Flange | Round Flange | Square Flange |
| LHFHR-MX LHIFS-MX LHIFC-MX | 10 | 0 | 19 | 0 | 39 | 29 | 5 | 40 | 6 | 4.5 | 7.5 | 4.1 | 29 | 30 | — | 29 | — | 0.012 | 4 | 0.012 | 372 | 549 | 76 | 56 | 68 | | |
| | 12 | -0.009 | 21 | -0.016 | 41 | 30 | 5.5 | 6 | 42 | 6 | 4.5 | 7.5 | 32 | 32 | — | 32 | — | 0.012 | 4 | 0.012 | 412 | 598 | 80 | 61 | 72 | | |
| | 16 | -0.010 | 28 | -0.019 | 49 | 37 | 6 | 8 | 48 | 8 | 5.5 | 9 | 38 | 37 | 22 | 31 | — | 0.015 | 5 | 0.015 | 775 | 1180 | 127 | 111 | 119 | | |
| | 20 | -0.010 | 32 | -0.019 | 56 | 42 | 7 | 8 | 54 | 8 | 6.6 | 11 | 43 | 42 | 24 | 36 | — | 0.020 | 6 | 0.020 | 882 | 1370 | 191 | 156 | 178 | | |
| | 25 | -0.012 | 40 | -0.022 | 77 | 59 | 8 | 10 | 62 | 10 | 7.5 | 12 | 51 | 50 | 32 | 40 | — | 0.020 | 6 | 0.020 | 980 | 1570 | 359 | 319 | 344 | | |
| | 30 | -0.012 | 45 | -0.022 | 84 | 64 | 10 | 10 | 74 | 10 | 6.6 | 11 | 60 | 58 | 35 | 49 | — | 0.020 | 6 | 0.020 | 1570 | 2740 | 494 | 399 | 412 | | |
| | 35 | -0.012 | 52 | -0.022 | 92 | 70 | 11 | 11 | 82 | 11 | 7.5 | 13 | 67 | 64 | 38 | 55 | — | 0.020 | 6 | 0.020 | 1670 | 3140 | 678 | 588 | 603 | | |
| | 40 | -0.012 | 60 | -0.022 | 104 | 80 | 12 | 13 | 96 | 13 | 9 | 14 | 78 | 75 | 45 | 64 | — | 0.020 | 6 | 0.020 | 2160 | 4020 | 1093 | 913 | 946 | | |
| | 50 | -0.012 | 80 | -0.022 | 128 | 100 | 14 | 14 | 116 | 14 | 11 | 16 | 98 | 92 | 56 | 80 | — | 0.020 | 6 | 0.020 | 3820 | 7940 | 2263 | 2063 | 2100 | | |

For Precautions for Use, see P.369. Height-Adjusting Spacers for Flanged Bushings can be chosen from P.384.
*Perpendicularity of D to flange mounting surface

Details of Lubrication Unit MX P.369.

Linear Bushings (Lubrication Unit MX) – Flanged Double with Pilot

| Type | | | Outer Cylinder | | | Balls | Pad Case / Retainer | | Ambient Operating Temp. | Accessories |
|--------------|---------------|----------------|---------------------|-------------|-------------------|---------------------|----------------------------------|----------|------------------------------|-------------|
| Round Flange | Square Flange | Compact Flange | Material | Hardness | Surface Treatment | Material | Material | | | |
| LHIRW-MX | LHISW-MX | LHICW-MX | 52100 Bearing Steel | 58 HRC min. | — | 52100 Bearing Steel | Plastic (Duracon M90 Equivalent) | -20~80°C | Seal Material Nitrile Rubber | |

Mounting Direction

For Piloted and Flanged Type application examples, see P.385.

No need to fill with grease prior to use because the product is already filled with Lithium soap-based grease in addition to the built-in lubrication unit.

kgf=Nx0.101972

| Part Number | Type | dr | Tol. | D | | L | L ₁ | V | ℓ | H | T | d | t | P.C.D. | W | F | A | Eccentricity | Rows of Balls | *Perpendicularity | Basic Load Rating | | | Mass(g) | | | |
|----------------------------------|------|--------|------|--------|-----|-----|----------------|----|-----|-----|-----|-----|----|--------|----|----|---|--------------|---------------|-------------------|-------------------|---------------|---------------------------------|--------------|---------------|----------------|--------------|
| | | | | Tol. | L | | | | | | | | | | | | | | | | C (Dynamic) N | Co (Static) N | Allowable Static Moment (Mo Nm) | Round Flange | Square Flange | Compact Flange | Round Flange |
| LHIRW-MX LHISW-MX LHICW-MX | 10 | 0 | 19 | 0 | 65 | 55 | 5 | 40 | 6 | 4.5 | 7.5 | 4.1 | 29 | 30 | — | 29 | — | 0.015 | 4 | 0.015 | 588 | 1100 | 7.24 | 102 | 82 | 94 | |
| | 12 | -0.010 | 21 | -0.016 | 68 | 57 | 5.5 | 6 | 42 | 6 | 4.5 | 7.5 | 32 | 32 | — | 32 | — | 0.015 | 4 | 0.015 | 657 | 1200 | 10.9 | 114 | 94 | 106 | |
| | 16 | -0.012 | 28 | -0.019 | 82 | 70 | 6 | 8 | 48 | 8 | 5.5 | 9 | 38 | 37 | 22 | 31 | — | 0.020 | 5 | 0.020 | 1230 | 2350 | 19.7 | 197 | 172 | 189 | |
| | 20 | -0.012 | 32 | -0.019 | 94 | 80 | 7 | 8 | 54 | 8 | 6.6 | 11 | 43 | 42 | 24 | 36 | — | 0.020 | 5 | 0.020 | 1400 | 2740 | 26.8 | 271 | 236 | 258 | |
| | 25 | -0.012 | 40 | -0.019 | 130 | 112 | 8 | 10 | 62 | 10 | 7.5 | 13 | 51 | 50 | 32 | 40 | — | 0.025 | 6 | 0.025 | 1560 | 3140 | 43.4 | 559 | 519 | 544 | |
| | 30 | -0.012 | 45 | -0.019 | 143 | 123 | 10 | 10 | 74 | 10 | 6.6 | 11 | 60 | 58 | 35 | 49 | — | 0.025 | 6 | 0.025 | 2490 | 5490 | 82.8 | 704 | 614 | 669 | |
| | 35 | -0.012 | 52 | -0.019 | 157 | 135 | 11 | 11 | 82 | 11 | 7.5 | 13 | 67 | 64 | 38 | 55 | — | 0.025 | 6 | 0.025 | 2650 | 6270 | 110 | 1048 | 958 | 973 | |
| | 40 | -0.012 | 60 | -0.022 | 175 | 151 | 12 | 13 | 96 | 13 | 9 | 14 | 78 | 75 | 45 | 64 | — | 0.025 | 6 | 0.025 | 3430 | 8040 | 147 | 1603 | 1413 | 1456 | |
| | 50 | -0.012 | 80 | -0.022 | 220 | 192 | 14 | 14 | 116 | 14 | 11 | 16 | 98 | 92 | 56 | 80 | — | 0.025 | 6 | 0.025 | 6080 | 15900 | 397 | 3663 | 3463 | 3500 | |

For Precautions for Use, see P.369. Height-Adjusting Spacers for Flanged Bushings can be chosen from P.384.
*Perpendicularity of D to flange mounting surface

Part Number Example
LHIFS-MX25
LHIRW-MX16

Various Grease Application Services are not applicable.

Linear Bushings (Pillow Block with Lubrication Unit MX)

Tall / Wide Block Type

Details of Lubrication Unit MX P.369.

Linear Bushings (Pillow Block with Lubrication Unit MX) – with Tall Blocks

| Type | | Linear Bushings (P.370) | Housing | | Ambient Operating Temp. |
|---------|----------|-------------------------|----------------|-------------------|-------------------------|
| Single | Double | | Material | Surface Treatment | |
| LHSS-MX | LHSSW-MX | LMU-MX | Aluminum Alloy | Clear Anodize | -20~80°C |

Single

Double

6.3/(1.6/)(Housing)

No need to fill with grease prior to use because the product is already filled with Lithium soap-based grease in addition to the built-in lubrication unit.

Tall Block Type

kgf=Nx0.101972

| Part Number | Type | dr | Tolerance | | D (S) | L | | L ₁ | | L ₂ | | h | W | H | ℓ | M ₁ | M ₂ | d ₁ x t | Basic Load Rating | | | | Static Allowable Moment (N-m) | | Mass (g) | | |
|---------------------|------|--------|-----------|--------|-------|--------|--------|----------------|--------|----------------|--------|----|-----|----|----|----------------|----------------|-----------------------|-------------------------|--------|--------|--------|-------------------------------|--------|----------|-----|------|
| | | | Single | Double | | Single | Double | Single | Double | Single | Double | | | | | | | | Single | Double | Single | Double | Single | Double | | | |
| LHSS-MX LHSSW-MX | 10 | 0 | 19 | 0 | 19 | 2.0 | 45 | 74 | 27 | 36 | 15 | 50 | 19 | 26 | 32 | 6 | M5 | 8 x 6 (For M4 Screws) | 372 | 588 | 549 | 1100 | — | 7.24 | 92 | 166 | |
| | 12 | -0.009 | 21 | -0.010 | 21 | 2.0 | 47 | 77 | — | — | — | — | 20 | 28 | 34 | 6 | M6 | 8 x 6 (For M4 Screws) | 412 | 657 | 598 | 1200 | — | 10.9 | 103 | 185 | |
| | 16 | -0.010 | 28 | -0.010 | 28 | 2.3 | 56 | 93 | 32 | 52 | — | — | 27 | 36 | 49 | 7 | M6 | 9 x 7 (For M5 Screws) | 775 | 1230 | 1180 | 2350 | — | 19.7 | 237 | 423 | |
| | 20 | -0.010 | 32 | -0.012 | 32 | 2.8 | 64 | 106 | 36 | 58 | 18 | — | 65 | 27 | 36 | 49 | 7 | M8 | 11 x 8 (For M6 Screws) | 882 | 1400 | 1370 | 2740 | — | 26.8 | 324 | 584 |
| | 25 | -0.010 | 40 | -0.012 | 40 | 2.2 | 85 | 144 | 42 | 80 | — | — | 70 | 31 | 42 | 54 | 8 | M8 | 14 x 10 (For M8 Screws) | 980 | 1560 | 1570 | 3140 | — | 43.4 | 672 | 1239 |
| | 30 | -0.010 | 45 | -0.012 | 45 | 2.2 | 92 | 156 | 44 | 90 | 22 | — | 100 | 37 | 52 | 65 | 9 | M10 | 14 x 10 (For M8 Screws) | 1570 | 2490 | 2740 | 5490 | — | 82.8 | 843 | 1545 |

For linear bushings, hardened shafts with g6 tolerance are recommended. P.202-288 For Precautions for Use, see P.369.

Linear Bushings (Pillow Block with Lubrication Unit MX) – with Wide Blocks

| Type | | Linear Bushingst (P.370) | Housing | | Ambient Operating Temp. |
|---------|----------|--------------------------|----------------|-------------------|-------------------------|
| Single | Double | | Material | Surface Treatment | |
| LHBB-MX | LHBBW-MX | LMU-MX | Aluminum Alloy | Clear Anodize | -20~80°C |

Single

Double

6.3/(1.6/)(Housing)

No need to fill with grease prior to use because the product is already filled with Lithium soap-based grease in addition to the built-in lubrication unit.

Wide Block Type

kgf=Nx0.101972

| Part Number | Type | dr | Tolerance | | L | L ₁ | | h | H | (H ₁) | (H ₂) | W | W ₁ | W ₂ | M | d | ℓ | (A) | (B) | N | Basic Load Rating | | | | Static Allowable Moment (N-m) | | Mass (g) | | | |
|---------------------|------|--------|-----------|--------|-----|----------------|--------|-----|----|-------------------|-------------------|----|----------------|----------------|----|-----|----|------|------|------|-------------------|--------|--------|--------|-------------------------------|--------|----------|------|------|------|
| | | | Single | Double | | Single | Double | | | | | | | | | | | | | | Single | Double | Single | Double | Single | Double | | | | |
| LHBB-MX LHBBW-MX | 10 | 0 | 19 | 0 | 45 | 78 | 21 | 46 | 13 | 26 | 21 | 40 | 28 | 6 | — | — | — | — | — | 15.5 | 0.4 | 7.5 | 372 | 588 | 549 | 1100 | — | 7.24 | 114 | 206 |
| | 12 | -0.009 | 21 | -0.010 | 47 | 81 | 26 | 50 | 15 | 28 | 24 | 42 | 30.5 | 5.75 | M5 | 4.3 | 12 | 17.5 | 0.4 | 7.5 | 412 | 657 | 598 | 1200 | — | 10.9 | 125 | 233 | | |
| | 16 | -0.010 | 28 | -0.010 | 56 | 97 | 34 | 60 | 19 | 38.5 | 32.5 | 9 | 50 | 36 | — | — | — | — | — | 19.8 | 0.85 | 6.5 | 775 | 1230 | 1180 | 2350 | — | 19.7 | 268 | 450 |
| | 20 | -0.010 | 32 | -0.012 | 64 | 110 | 40 | 70 | 21 | 41 | 35 | 11 | 54 | 40 | — | — | — | — | — | 21 | 0.5 | 7.5 | 882 | 1400 | 1370 | 2740 | — | 26.8 | 310 | 647 |
| | 25 | -0.010 | 40 | -0.012 | 85 | 148 | 50 | 100 | 26 | 51.5 | 42 | 12 | 76 | 54 | 11 | — | — | — | — | 36 | 1 | 4.5 | 980 | 1560 | 1570 | 3140 | — | 43.4 | 717 | 1339 |
| | 30 | -0.010 | 45 | -0.012 | 92 | 160 | 58 | 110 | 30 | 59.5 | 49 | 15 | 78 | 58 | 10 | M8 | 7 | 18 | 39.9 | 0.75 | 5.5 | 1570 | 2490 | 2740 | 5490 | — | 82.8 | 891 | 1665 | |
| | 35 | -0.010 | 52 | -0.012 | 102 | 177 | — | — | — | — | — | — | — | — | — | — | — | — | — | 53 | — | 6 | 1670 | 2650 | 3140 | 6270 | — | 110 | 1314 | 2448 |
| | 40 | -0.012 | 60 | -0.015 | 114 | 199 | — | — | — | — | — | — | — | — | — | — | — | — | — | 61 | 1.5 | — | 2160 | 3430 | 4020 | 8040 | — | 147 | 1873 | 3526 |
| | 50 | -0.012 | 80 | -0.015 | 138 | 243 | 80 | 160 | 52 | | | | | | | | | | | | | | | | | | | | | |