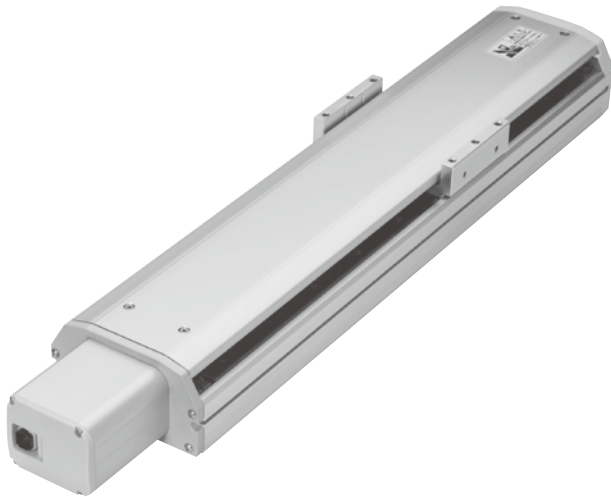


# METSC-13 series

## SLIDER ELECTRIC CYLINDER - BALL SCREW DRIVE (WITH MOTOR)



### Specification

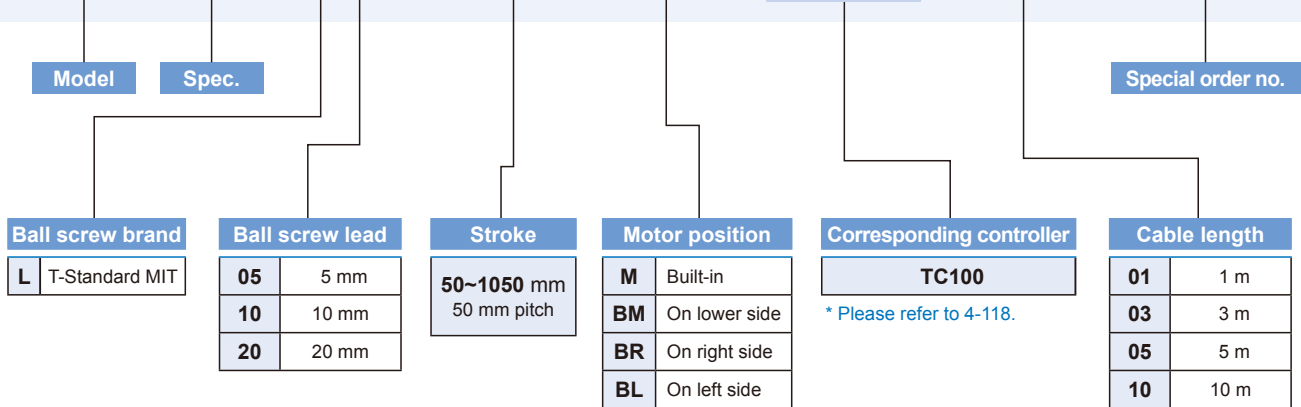
| Model                     | METSC-13           |      |       |
|---------------------------|--------------------|------|-------|
| Repeatability (mm)        | ±0.01              |      |       |
| Ball screw lead (mm)      | 5                  | 10   | 20    |
| Maximum speed (mm/s) (*1) | ≤250               | ≤500 | ≤1000 |
| Maximum payload           | Horizontal (kg)    | ≤70  | ≤47   |
|                           | Vertical (kg)      | ≤12  | ≤8    |
| Rated thrust (N)          | 565                | 283  | 141   |
| Stroke / pitch (mm) (*2)  | 50~1050 / 50 Pitch |      |       |
| Motor dimension (mm)      | □42                |      |       |
| Ball screw spec (mm)      | C7Ø16              |      |       |

\*1.The maximum speed shown here is when software speed setting is 100%. When the stroke is over 750mm, the run-out of the ball screw will occur.

\*2.We recommend to low down the working speed under this circumstances.

### Order example of cylinder

**METSC-13 — L05 — 100 — M — TC100 — 03 — A0001**



\* Standard: 3 m

### Order example of controller

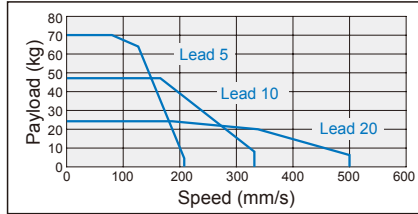
**TC100 — 03**

| Controller | Cable length  |
|------------|---|
| TC100      | Blank No cable<br>01 1 m<br>03 3 m<br>05 5 m<br>10 10 m |

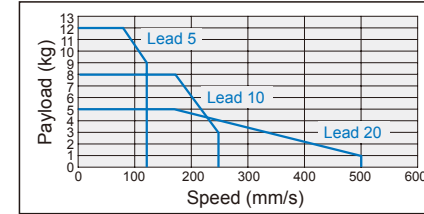
\* Standard: 3 m

### Speed-payload curve diagram

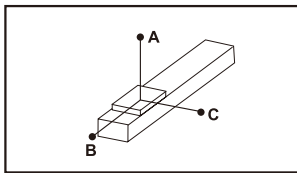
Horizontal



Vertical

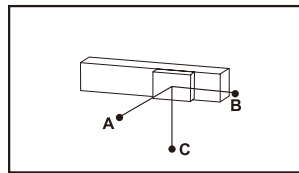


### Allowable overhang



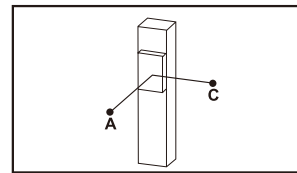
Unit: mm

| Horizontal installation |      | A    | B   | C   |
|-------------------------|------|------|-----|-----|
| Lead 5                  | 40kg | 1200 | 70  | 250 |
|                         | 55kg | 800  | 45  | 165 |
|                         | 70kg | 625  | 35  | 125 |
| Lead 10                 | 25kg | 850  | 100 | 300 |
|                         | 35kg | 620  | 70  | 225 |
|                         | 47kg | 450  | 50  | 150 |
| Lead 20                 | 5kg  | 1200 | 290 | 680 |
|                         | 15kg | 620  | 150 | 350 |
|                         | 24kg | 390  | 90  | 215 |



Unit: mm

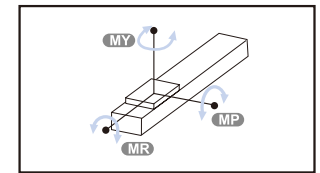
| Wall installation |      | A   | B   | C    |
|-------------------|------|-----|-----|------|
| Lead 5            | 40kg | 220 | 65  | 1050 |
|                   | 55kg | 180 | 50  | 850  |
|                   | 70kg | 130 | 35  | 650  |
| Lead 10           | 25kg | 335 | 105 | 850  |
|                   | 35kg | 220 | 75  | 620  |
|                   | 47kg | 160 | 50  | 450  |
| Lead 20           | 5kg  | 800 | 350 | 1500 |
|                   | 15kg | 350 | 150 | 620  |
|                   | 24kg | 220 | 90  | 375  |



Unit: mm

| Vertical installation |      | A   | C   |
|-----------------------|------|-----|-----|
| Lead 5                | 8kg  | 375 | 375 |
|                       | 10kg | 300 | 300 |
|                       | 12kg | 250 | 250 |
| Lead 10               | 4kg  | 700 | 700 |
|                       | 6kg  | 450 | 450 |
|                       | 8kg  | 350 | 350 |
| Lead 20               | 3kg  | 750 | 750 |
|                       | 4kg  | 550 | 550 |
|                       | 5kg  | 450 | 450 |

### Static loading moment



Unit: N.m

|    |     |
|----|-----|
| MY | 174 |
| MP | 175 |
| MR | 153 |

# METSC-13 Dimensions

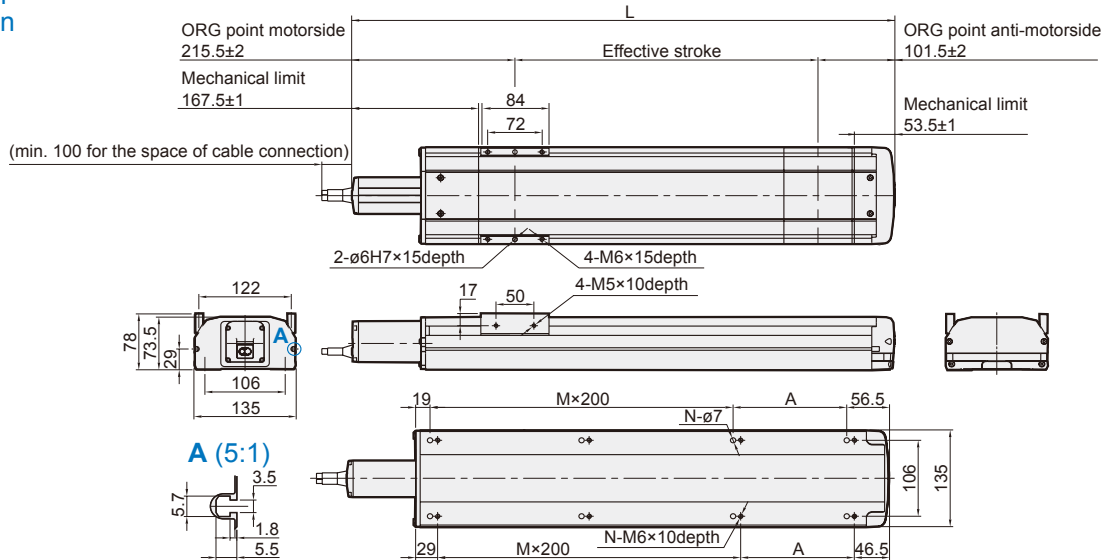


## SLIDER ELECTRIC CYLINDER - BALL SCREW DRIVE (WITH MOTOR)

mindman

**M**

Motor built-in

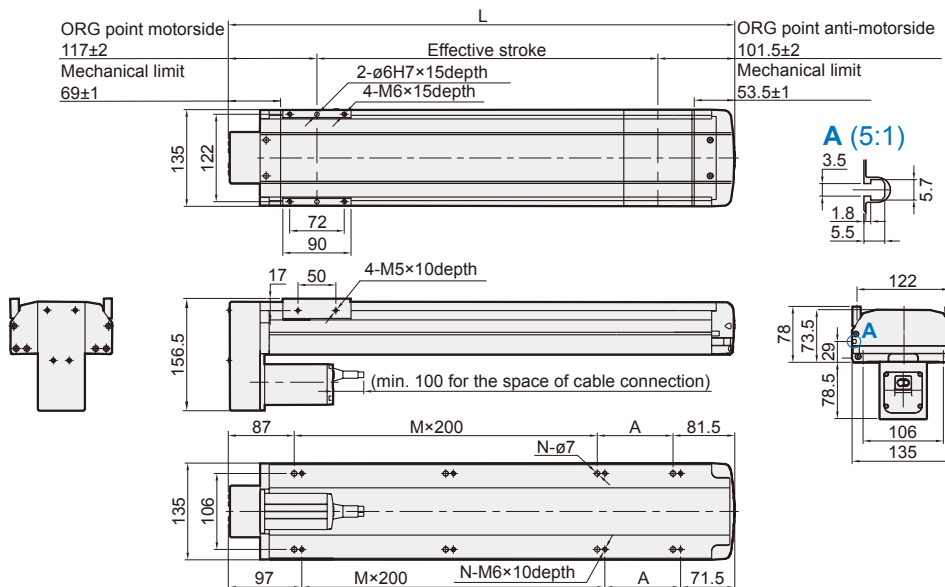


Unit: mm

| Stroke    | 50  | 100  | 150  | 200  | 250   | 300 | 350   | 400   | 450   | 500   | 550  | 600   | 650   | 700   | 750   | 800  | 850   | 900   | 950   | 1000  | 1050 |
|-----------|-----|------|------|------|-------|-----|-------|-------|-------|-------|------|-------|-------|-------|-------|------|-------|-------|-------|-------|------|
| <b>L</b>  | 367 | 417  | 476  | 517  | 567   | 617 | 667   | 717   | 767   | 817   | 867  | 917   | 967   | 1017  | 1067  | 1117 | 1167  | 1217  | 1267  | 1317  | 1367 |
| <b>A</b>  | 200 | 50   | 100  | 150  | 200   | 50  | 100   | 150   | 200   | 50    | 100  | 150   | 200   | 50    | 100   | 150  | 200   | 50    | 100   | 150   | 200  |
| <b>M</b>  | 0   | 1    | 1    | 1    | 1     | 2   | 2     | 2     | 2     | 3     | 3    | 3     | 3     | 4     | 4     | 4    | 4     | 5     | 5     | 5     | 5    |
| <b>N</b>  | 4   | 6    | 6    | 6    | 6     | 8   | 8     | 8     | 8     | 10    | 10   | 10    | 10    | 12    | 12    | 12   | 12    | 14    | 14    | 14    | 14   |
| <b>KG</b> | 8.2 | 8.76 | 9.32 | 9.88 | 10.44 | 11  | 11.56 | 12.12 | 12.68 | 13.24 | 13.8 | 14.36 | 14.92 | 15.48 | 16.04 | 16.6 | 17.16 | 17.72 | 18.28 | 18.84 | 19.4 |

**BM**

Motor on lower side



Unit: mm

| Stroke    | 50    | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 600   | 650   | 700   | 750   | 800    | 850    | 900    | 950    | 1000   | 1050   |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>L</b>  | 268.5 | 318.5 | 368.5 | 418.5 | 468.5 | 518.5 | 568.5 | 618.5 | 668.5 | 718.5 | 768.5 | 818.5 | 868.5 | 918.5 | 968.5 | 1018.5 | 1068.5 | 1118.5 | 1168.5 | 1218.5 | 1268.5 |
| <b>A</b>  | 100   | 150   | 200   | 50    | 100   | 150   | 200   | 50    | 100   | 150   | 200   | 50    | 100   | 150   | 200   | 50     | 100    | 150    | 200    | 50     | 100    |
| <b>M</b>  | 0     | 0     | 0     | 1     | 1     | 1     | 1     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 4      | 4      | 4      | 4      | 5      | 5      |
| <b>N</b>  | 4     | 4     | 4     | 6     | 6     | 6     | 6     | 8     | 8     | 8     | 8     | 10    | 10    | 10    | 10    | 12     | 12     | 12     | 12     | 14     | 14     |
| <b>KG</b> | 8.74  | 9.3   | 9.86  | 10.42 | 10.98 | 11.54 | 12.1  | 12.66 | 13.22 | 13.78 | 14.34 | 14.9  | 15.46 | 16.02 | 16.58 | 17.14  | 17.7   | 18.26  | 18.82  | 19.38  | 19.94  |

# METSC-13 Dimensions

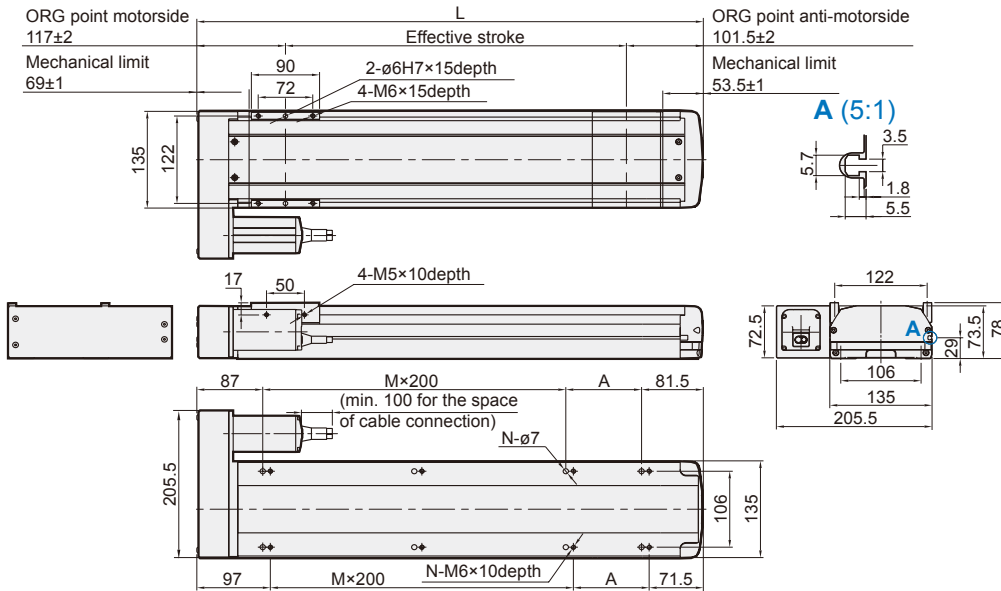


## SLIDER ELECTRIC CYLINDER - BALL SCREW DRIVE (WITH MOTOR)

mindman

**BL**

Motor on left side

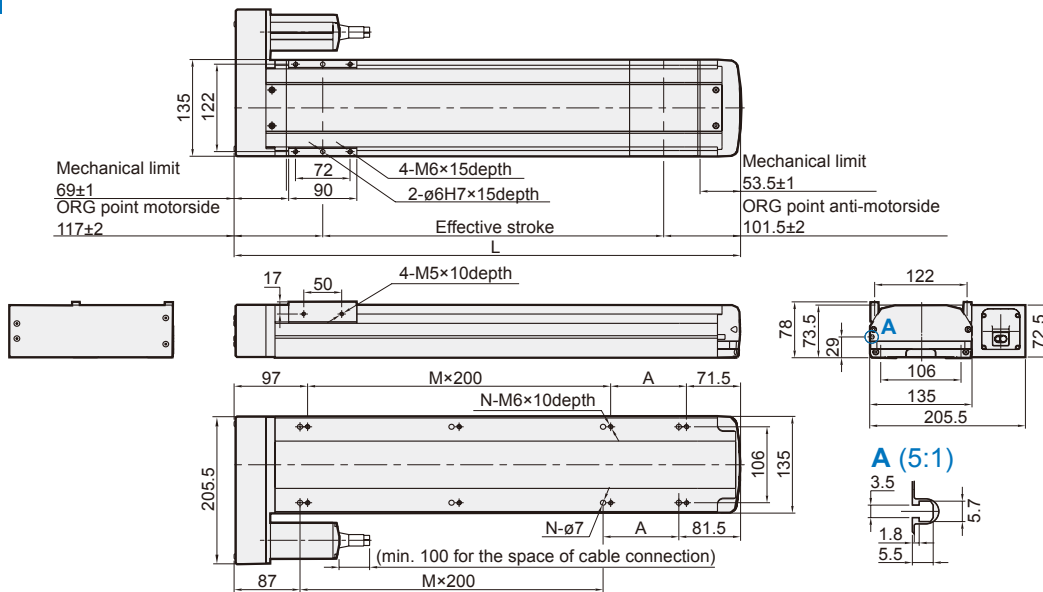


Unit: mm

| Stroke    | 50    | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 600   | 650   | 700   | 750   | 800    | 850    | 900    | 950    | 1000   | 1050   |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>L</b>  | 268.5 | 318.5 | 368.5 | 418.5 | 468.5 | 518.5 | 568.5 | 618.5 | 668.5 | 718.5 | 768.5 | 818.5 | 868.5 | 918.5 | 968.5 | 1018.5 | 1068.5 | 1118.5 | 1168.5 | 1218.5 | 1268.5 |
| <b>A</b>  | 100   | 150   | 200   | 50    | 100   | 150   | 200   | 50    | 100   | 150   | 200   | 50    | 100   | 150   | 200   | 50     | 100    | 150    | 200    | 50     | 100    |
| <b>M</b>  | 0     | 0     | 0     | 1     | 1     | 1     | 1     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 4      | 4      | 4      | 4      | 5      | 5      |
| <b>N</b>  | 4     | 4     | 4     | 6     | 6     | 6     | 6     | 8     | 8     | 8     | 8     | 10    | 10    | 10    | 10    | 12     | 12     | 12     | 12     | 14     | 14     |
| <b>KG</b> | 8.74  | 9.3   | 9.86  | 10.42 | 10.98 | 11.54 | 12.1  | 12.66 | 13.22 | 13.78 | 14.34 | 14.9  | 15.46 | 16.02 | 16.58 | 17.14  | 17.7   | 18.26  | 18.82  | 19.38  | 19.94  |

**BR**

Motor on right side



Unit: mm

| Stroke    | 50    | 100   | 150   | 200   | 250   | 300   | 350   | 400   | 450   | 500   | 550   | 600   | 650   | 700   | 750   | 800    | 850    | 900    | 950    | 1000   | 1050   |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| <b>L</b>  | 268.5 | 318.5 | 368.5 | 418.5 | 468.5 | 518.5 | 568.5 | 618.5 | 668.5 | 718.5 | 768.5 | 818.5 | 868.5 | 918.5 | 968.5 | 1018.5 | 1068.5 | 1118.5 | 1168.5 | 1218.5 | 1268.5 |
| <b>A</b>  | 100   | 150   | 200   | 50    | 100   | 150   | 200   | 50    | 100   | 150   | 200   | 50    | 100   | 150   | 200   | 50     | 100    | 150    | 200    | 50     | 100    |
| <b>M</b>  | 0     | 0     | 0     | 1     | 1     | 1     | 1     | 2     | 2     | 2     | 2     | 3     | 3     | 3     | 3     | 4      | 4      | 4      | 4      | 5      | 5      |
| <b>N</b>  | 4     | 4     | 4     | 6     | 6     | 6     | 6     | 8     | 8     | 8     | 8     | 10    | 10    | 10    | 10    | 12     | 12     | 12     | 12     | 14     | 14     |
| <b>KG</b> | 8.74  | 9.3   | 9.86  | 10.42 | 10.98 | 11.54 | 12.1  | 12.66 | 13.22 | 13.78 | 14.34 | 14.9  | 15.46 | 16.02 | 16.58 | 17.14  | 17.7   | 18.26  | 18.82  | 19.38  | 19.94  |