

## Slide Pack Model FBL

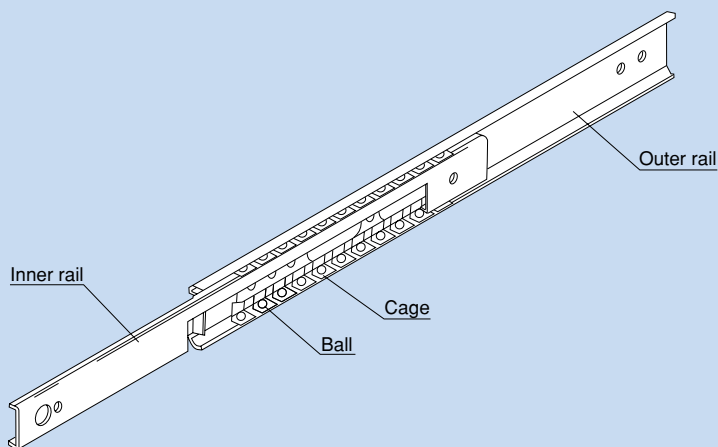


Fig. 1 Structure of Slide Pack Model FBL

### ● Structure and Features

Slide Pack model FBL is a thin, compact and ultra-low price slide unit for finite motion. It has two rows of balls placed between an inner rail made of a steel sheet roll-formed with precision and an outer rail. The balls are evenly spaced by a cage press-molded with precision, thus eliminating friction between balls and achieving a smooth slide mechanism.

### ● Unit Type That Allows Easy Installation

Since the clearance and the motion of the slide unit are optimally adjusted, simply mounting the unit onto the base or the table using screws will achieve a slide mechanism with virtually no running noise.

### ● Thin and Compact

Since the sectional shape is thinly designed, this slide pack only requires a small side space for installation. In addition, a desired number of slide pack units can be installed in parallel according to the load conditions.

### ● Maintenance-free Operation

Since the slide rail is treated with zinc plating, it is highly resistant to corrosion. The slide unit contains grease, eliminating the need for further grease replenishment in normal use.

## Applications

Model FBL can be used in a wide range of applications such as photocopiers, measuring instruments, telecommunication equipment, automatic vending machines and various types of office equipment.

## Types of Features

### Models FBL 27S and 35S



The basic unit type designed to have a stroke length approximately 70% of the overall rail length.

### Models FBL 27D and 35D



A two-stage, double-unit type that allows the stroke length to exceed the overall rail length.

### Models FBL 35E and 55E



A two-stage slide unit type that allows the stroke length to exceed the overall rail length in a limited space.

### Model FBL 56H



A two-stage, high-load slide unit type with an even greater permissible load.

## ● Installation

### ● Mounting Screws of the Slide Rail

The slide rail is to be mounted using M4 screws. Since the mounting space is small as shown in Fig. 2, we recommend using truss head screws or binder screws.

Note: For model FBL 35E, use M3 truss head screws or binder screws.

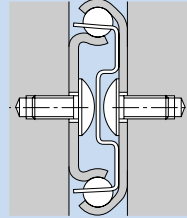


Fig. 2

### ● Attaching the Slide Rail

While keeping the maximum stroke, mount the outer rail at the section where the inner rail and the outer rail overlap, slide the inner rail backward, and then secure the rail using a screw through the access hole.

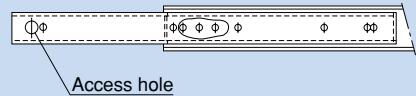



Fig. 3

### ● Mounting Orientation

For use other than with the mounting orientation shown in Fig. 4, contact .

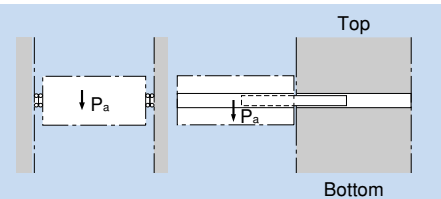


Fig. 4

## Static Permissible Load

The static permissible load of model FBL varies with rail lengths and is indicated in the corresponding dimensional table. This value represents the static permissible load in the direction "P<sub>a</sub>" per pair of slide pack units in the middle of the rail length at the maximum stroke. If a load other than in the direction "P<sub>a</sub>" is applied, contact **THK** .

For the traveling section of a heavy object, **THK** also manufactures a special type stacking basic units as shown in Fig. 6 at your request.

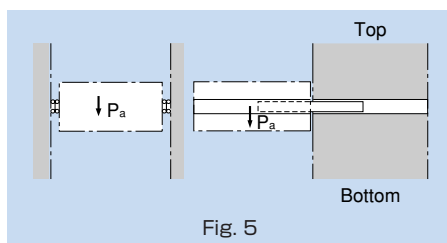


Fig. 5

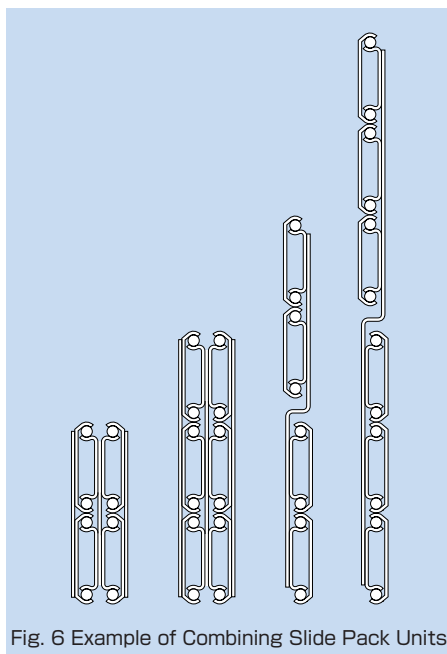
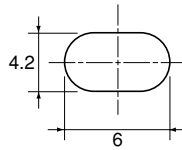
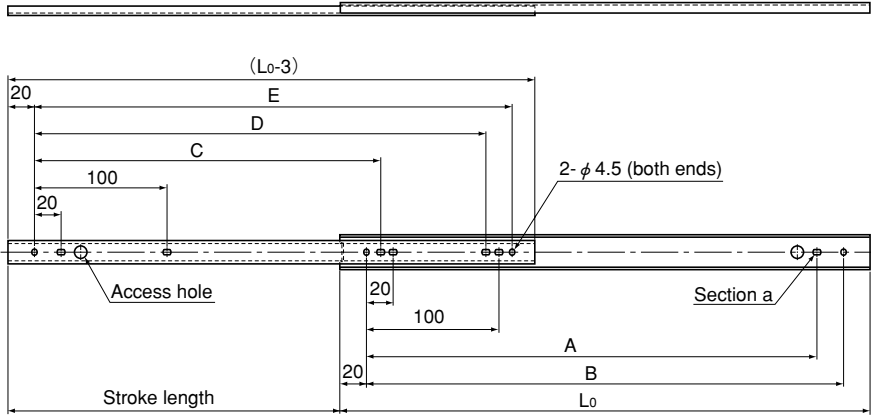
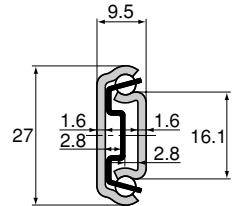


Fig. 6 Example of Combining Slide Pack Units

# Model FBL 27S



Magnified view of section a



Unit: mm

| Rail length<br>$L_0$<br>( $\pm 0.8$ ) | Stroke length<br>( $\pm 3$ ) | Mounting hole dimensions |     |     |     |     | Permissible load<br>N/pair | Mass<br>Kg/pair |
|---------------------------------------|------------------------------|--------------------------|-----|-----|-----|-----|----------------------------|-----------------|
|                                       |                              | A                        | B   | C   | D   | E   |                            |                 |
| 200                                   | 135                          | 140                      | 160 | —   | 140 | 160 | 260                        | 0.32            |
| 250                                   | 185                          | 190                      | 210 | 150 | 190 | 210 | 240                        | 0.4             |
| 300                                   | 222                          | 240                      | 260 | 190 | 240 | 260 | 240                        | 0.48            |
| 350                                   | 260                          | 290                      | 310 | 225 | 290 | 310 | 230                        | 0.56            |
| 400                                   | 297                          | 340                      | 360 | 265 | 340 | 360 | 210                        | 0.64            |
| 450                                   | 334                          | 390                      | 410 | 300 | 390 | 410 | 200                        | 0.72            |
| 500                                   | 371                          | 440                      | 460 | 337 | 440 | 460 | 180                        | 0.8             |

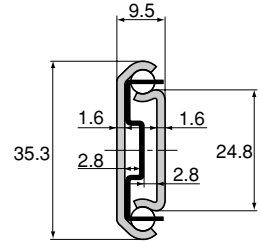
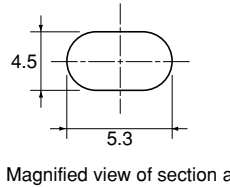
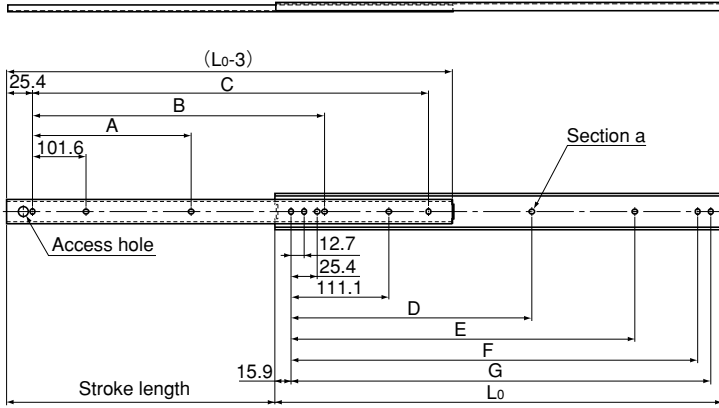
Model number coding

**FBL27S +300L**

1

2

1 Model number 2 Overall rail length (in mm)



Unit: mm

| Rail length<br>$L_0$<br>( $\pm 0.8$ ) | Stroke length<br>( $\pm 3$ ) | Mounting hole dimensions |       |       |       |       |       |       | Permissible load<br>N/pair | Mass<br>Kg/pair |
|---------------------------------------|------------------------------|--------------------------|-------|-------|-------|-------|-------|-------|----------------------------|-----------------|
|                                       |                              | A                        | B     | C     | D     | E     | F     | G     |                            |                 |
| 305                                   | 229                          | —                        | 152.4 | 254   | —     | 149.2 | 260.3 | 273   | 490                        | 0.6             |
| 356                                   | 279                          | —                        | 203.2 | 304.8 | —     | 200   | 311.1 | 323.8 | 400                        | 0.72            |
| 406                                   | 305                          | —                        | 254   | 355.6 | —     | 250.8 | 361.9 | 374.6 | 390                        | 0.84            |
| 457                                   | 330                          | 203.2                    | 304.8 | 406.4 | 212.7 | 301.6 | 412.7 | 425.4 | 380                        | 0.96            |
| 508                                   | 381                          | 228.6                    | 355.6 | 457.2 | 238.1 | 352.4 | 463.5 | 476.2 | 330                        | 1.04            |
| 559                                   | 406                          | 254                      | 406.4 | 508   | 263.5 | 403.2 | 514.3 | 527   | 320                        | 1.16            |
| 610                                   | 432                          | 279.4                    | 457.2 | 558.8 | 288.9 | 454   | 565.1 | 577.8 | 310                        | 1.24            |
| 660                                   | 483                          | 304.8                    | 508   | 609.6 | 314.3 | 504.8 | 615.9 | 628.6 | 280                        | 1.36            |
| 711                                   | 508                          | 330.2                    | 558.8 | 660.4 | 339.7 | 555.6 | 666.7 | 679.4 | 270                        | 1.48            |

Model number coding

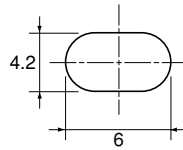
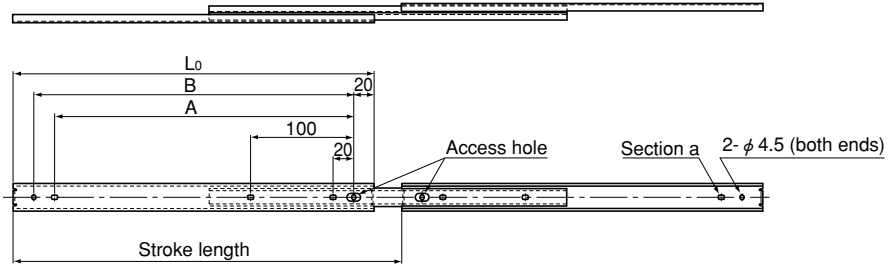
**FBL35S +457L**

1

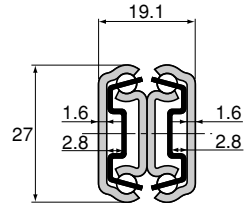
2

1 Model number 2 Overall rail length (in mm)

# Model FBL 27D



Magnified view of section a



Unit: mm

| Rail length<br>$L_0$<br>( $\pm 0.8$ ) | Stroke length<br>( $\pm 3$ ) | Mounting hole dimensions |     | Permissible load<br>N/pair | Mass<br>Kg/pair |
|---------------------------------------|------------------------------|--------------------------|-----|----------------------------|-----------------|
|                                       |                              | A                        | B   |                            |                 |
| 200                                   | 229                          | 140                      | 160 | 370                        | 0.64            |
| 250                                   | 276                          | 190                      | 210 | 360                        | 0.8             |
| 300                                   | 327                          | 240                      | 260 | 350                        | 0.96            |
| 350                                   | 376                          | 290                      | 310 | 330                        | 1.12            |
| 400                                   | 426                          | 340                      | 360 | 310                        | 1.28            |
| 450                                   | 475                          | 390                      | 410 | 290                        | 1.46            |
| 500                                   | 524                          | 440                      | 460 | 280                        | 1.6             |

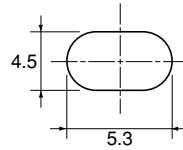
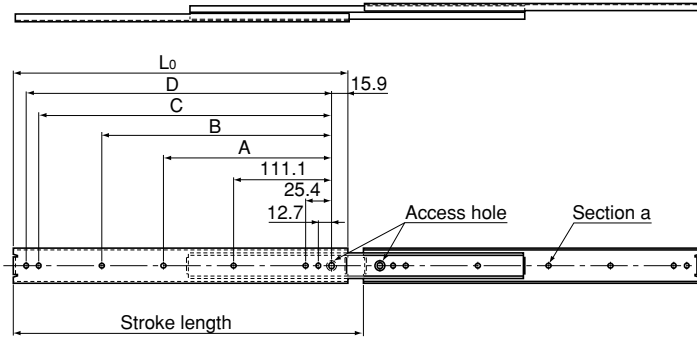
Model number coding

**FBL27D +200L**

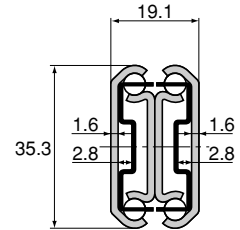
1

2

1 Model number 2 Overall rail length (in mm)



Magnified view of section a



Unit: mm

| Rail length<br>$L_0$<br>( $\pm 0.8$ ) | Stroke length<br>( $\pm 3$ ) | Mounting hole dimensions |       |       |       | Permissible load<br>N/pair | Mass<br>Kg/pair |
|---------------------------------------|------------------------------|--------------------------|-------|-------|-------|----------------------------|-----------------|
|                                       |                              | A                        | B     | C     | D     |                            |                 |
| 305                                   | 327                          | —                        | 149.2 | 260.3 | 273   | 588                        | 1.28            |
| 356                                   | 378                          | —                        | 200   | 311.1 | 323.8 | 578                        | 1.48            |
| 406                                   | 429                          | —                        | 250.8 | 361.9 | 374.6 | 559                        | 1.72            |
| 457                                   | 480                          | 212.7                    | 301.6 | 412.7 | 425.4 | 549                        | 1.96            |
| 508                                   | 530                          | 238.1                    | 352.4 | 463.6 | 476.2 | 529                        | 2.12            |
| 559                                   | 581                          | 263.5                    | 403.2 | 514.3 | 527   | 500                        | 2.4             |
| 610                                   | 632                          | 288.9                    | 454   | 565.1 | 577.8 | 480                        | 2.56            |
| 660                                   | 683                          | 314.3                    | 504.8 | 615.9 | 628.6 | 461                        | 2.8             |
| 711                                   | 734                          | 339.7                    | 555.6 | 666.7 | 679.4 | 441                        | 3               |

### Model number coding

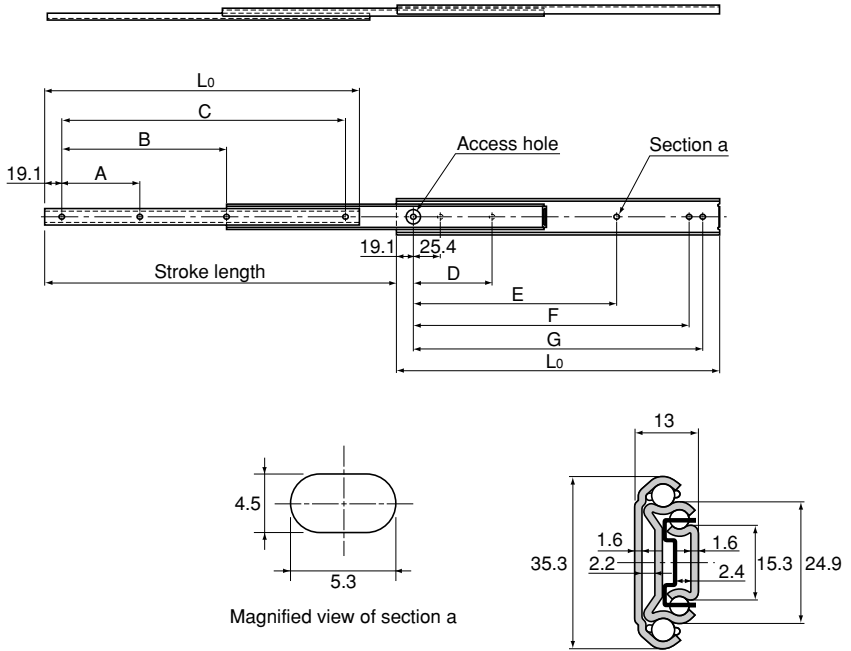
**FBL35D +356L**

1

2

1 Model number    2 Overall rail length (in mm)

# Model FBL 35E



Unit: mm

| Rail length<br>$L_0$<br>( $\pm 0.8$ ) | Stroke length<br>( $\pm 3$ ) | Mounting hole dimensions |       |       |       |       |       |       | Permissible load<br>N/pair | Mass<br>Kg/pair |
|---------------------------------------|------------------------------|--------------------------|-------|-------|-------|-------|-------|-------|----------------------------|-----------------|
|                                       |                              | A                        | B     | C     | D     | E     | F     | G     |                            |                 |
| 305                                   | 330                          | 76.2                     | —     | 154.9 | 76.2  | 190.5 | 241.3 | 266.7 | 290                        | 0.6             |
| 356                                   | 381                          | 127                      | —     | 266.7 | 88.9  | 215.9 | 292.1 | 317.5 | 280                        | 0.7             |
| 406                                   | 432                          | 152.4                    | —     | 317.5 | 127   | 241.3 | 342.9 | 368.3 | 270                        | 0.9             |
| 457                                   | 483                          | 177.8                    | —     | 368.3 | 127   | 292.1 | 393.7 | 419.1 | 250                        | 1.1             |
| 508                                   | 533                          | 152.4                    | 342.9 | 419.1 | 152.4 | 317.5 | 444.5 | 469.9 | 240                        | 1.3             |

**Note** When mounting model FBL 35E, use M3 truss head screws or binder screws.

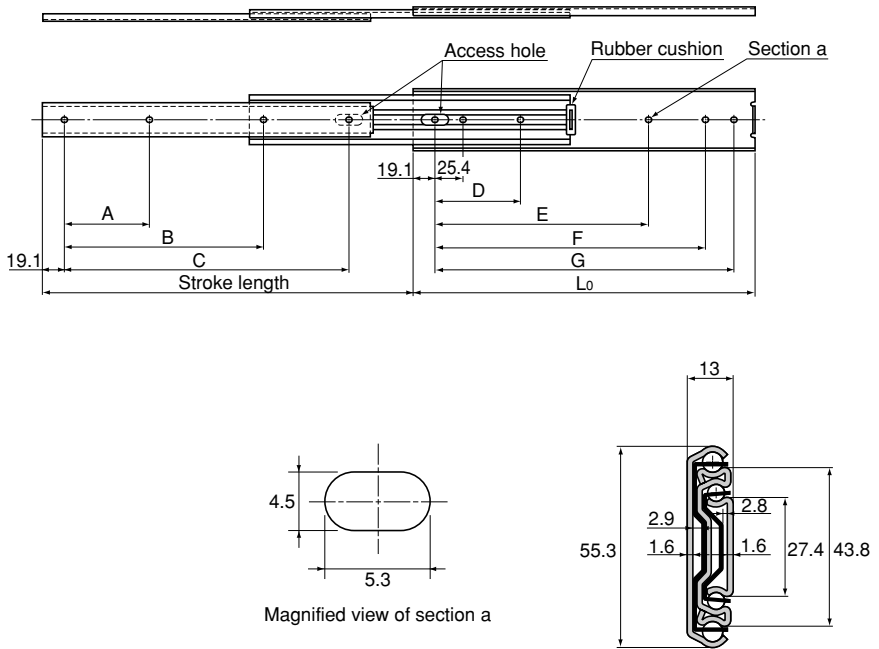
Model number coding

**FBL35E +406L**

1

2

1 Model number 2 Overall rail length (in mm)



Magnified view of section a

Unit: mm

| Rail length<br>$L_0$<br>( $\pm 0.8$ ) | Stroke length<br>( $\pm 3$ ) | Mounting hole dimensions |       |       |       |       |       |       | Permissible load<br>N/pair | Mass<br>Kg/pair |
|---------------------------------------|------------------------------|--------------------------|-------|-------|-------|-------|-------|-------|----------------------------|-----------------|
|                                       |                              | A                        | B     | C     | D     | E     | F     | G     |                            |                 |
| 305                                   | 330                          | 76.2                     | 177.8 | 254   | 76.2  | 190.5 | 241.3 | 266.7 | 620                        | 1.44            |
| 356                                   | 381                          | 101.6                    | 203.2 | 304.8 | 88.9  | 215.9 | 292.1 | 317.5 | 620                        | 1.68            |
| 406                                   | 432                          | 127                      | 228.6 | 355.6 | 127   | 241.3 | 342.9 | 368.3 | 610                        | 1.96            |
| 457                                   | 483                          | 127                      | 279.4 | 406.4 | 127   | 292.1 | 393.7 | 419.1 | 610                        | 2.24            |
| 508                                   | 533                          | 152.4                    | 304.8 | 457.2 | 152.4 | 317.5 | 444.5 | 469.9 | 600                        | 2.44            |
| 559                                   | 584                          | 177.8                    | 330.2 | 508   | 177.8 | 342.9 | 495.3 | 520.7 | 580                        | 2.72            |
| 610                                   | 635                          | 177.8                    | 381   | 558.8 | 177.8 | 393.7 | 546.1 | 571.5 | 570                        | 3               |
| 660                                   | 686                          | 203.2                    | 406.4 | 609.6 | 203.2 | 419.1 | 596.9 | 622.3 | 550                        | 3.24            |
| 711                                   | 737                          | 228.6                    | 431.8 | 660.4 | 228.6 | 444.5 | 647.7 | 673.1 | 530                        | 3.48            |
| 762                                   | 787                          | 228.6                    | 457.2 | 711.2 | 228.6 | 469.9 | 698.5 | 723.9 | 500                        | 3.72            |

Model number coding

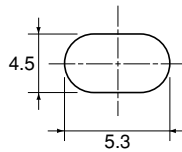
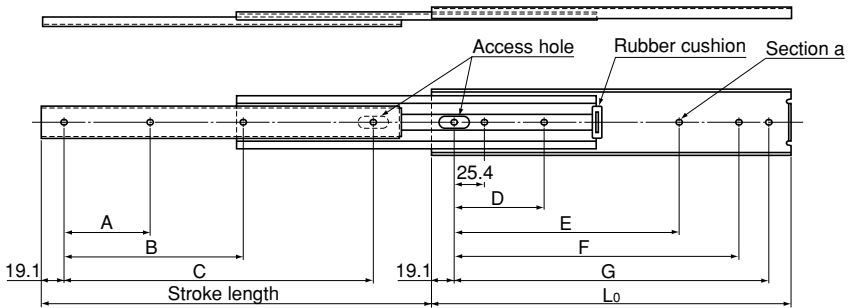
**FBL55E +711L**

1

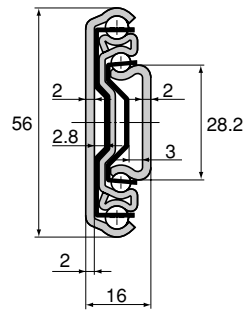
2

1 Model number 2 Overall rail length (in mm)

# Model FBL 56H



Magnified view of section a



Unit: mm

| Rail length<br>$L_0$<br>( $\pm 0.8$ ) | Stroke length<br>( $\pm 3$ ) | Mounting hole dimensions |       |       |       |       |       |       | Permissible load<br>N/pair | Mass<br>Kg/pair |
|---------------------------------------|------------------------------|--------------------------|-------|-------|-------|-------|-------|-------|----------------------------|-----------------|
|                                       |                              | A                        | B     | C     | D     | E     | F     | G     |                            |                 |
| 305                                   | 330                          | 76.2                     | 177.8 | 254   | 76.2  | 190.5 | 241.3 | 266.7 | 960                        | 1.76            |
| 356                                   | 381                          | 101.6                    | 203.2 | 304.8 | 88.9  | 215.9 | 292.1 | 317.5 | 950                        | 2.04            |
| 406                                   | 432                          | 127                      | 228.6 | 355.6 | 127   | 241.3 | 342.9 | 368.3 | 940                        | 2.36            |
| 457                                   | 483                          | 127                      | 279.4 | 406.4 | 127   | 292.1 | 393.7 | 419.1 | 920                        | 2.64            |
| 508                                   | 533                          | 152.4                    | 304.8 | 457.2 | 152.4 | 317.5 | 444.5 | 469.9 | 900                        | 2.96            |
| 559                                   | 584                          | 177.8                    | 330.2 | 508   | 177.8 | 342.9 | 495.3 | 520.7 | 880                        | 3.24            |
| 610                                   | 635                          | 177.8                    | 381   | 558.8 | 177.8 | 393.7 | 546.1 | 571.5 | 860                        | 3.6             |
| 660                                   | 686                          | 203.2                    | 406.4 | 609.6 | 203.2 | 419.1 | 596.9 | 622.3 | 840                        | 3.84            |
| 711                                   | 737                          | 228.6                    | 431.8 | 660.4 | 228.6 | 444.5 | 647.7 | 673.1 | 820                        | 4.06            |
| 762                                   | 787                          | 228.6                    | 457.2 | 711.2 | 228.6 | 469.9 | 698.5 | 723.9 | 784                        | 4.44            |

Model number coding

**FBL56H +610L**

1

2

1 Model number 2 Overall rail length (in mm)