

## Rubber-Metal Buffers MGI

**Material:** Elastomer: Natural rubber, hardness 55° Shore A.  
Metal parts: Steel, zinc-plated or stainless steel 1.4301 (AISI 304).



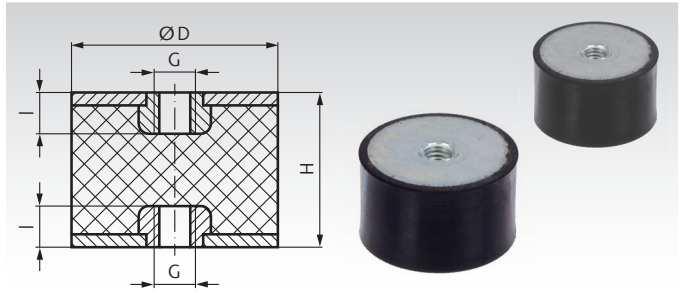
Both sides with internal thread.

Standard components for elastic mounting.

The grade of rubber used has perfect physical properties.

Temperature range: -40°C up to +80°C.

Other sizes, Shore hardnesses or elastomer types on request.



Ordering Details: e.g.: Product No. 685 410 00, Rubber-Metal Buffer 10 mm

| Product No.<br>Zinc-plated | Product No.<br>Stainless | D<br>mm | H<br>mm | G<br>mm | l<br>mm | Pressure Load                    |                                     | Shearing Load                    |                                     | Weight<br>g |
|----------------------------|--------------------------|---------|---------|---------|---------|----------------------------------|-------------------------------------|----------------------------------|-------------------------------------|-------------|
|                            |                          |         |         |         |         | Spring Load CD<br>medium<br>N/mm | Permiss. Load<br>$F_{perm.}^*$<br>N | Spring Load CS<br>medium<br>N/mm | Permiss. Load<br>$F_{perm.}^*$<br>N |             |
| 685 410 00                 | 689 410 00               | 10      | 10      | M4      | 4       | 39                               | 43                                  | 9                                | 15                                  | 2           |
| 685 410 15                 | 689 410 15               | 10      | 15      | M4      | 4       | 28                               | 43                                  | 4                                | 15                                  | 2           |
| 685 415 00                 | 689 415 00               | 15      | 15      | M4      | 4       | 62                               | 95                                  | 12                               | 35                                  | 5           |
| 685 420 00                 | 689 420 00               | 20      | 25      | M6      | 6       | 103                              | 170                                 | 15                               | 60                                  | 17          |
| 685 425 00                 | 689 425 00               | 25      | 20      | M6      | 6       | 83                               | 170                                 | 16                               | 60                                  | 24          |
| 685 425 30                 | 689 425 30               | 25      | 30      | M6      | 6       | 67                               | 280                                 | 16                               | 95                                  | 30          |
| 685 430 00                 | 689 430 00               | 30      | 20      | M8      | 8       | 207                              | 400                                 | 37                               | 140                                 | 35          |
| 685 430 30                 | 689 430 30               | 30      | 30      | M8      | 8       | 117                              | 400                                 | 24                               | 140                                 | 44          |
| 685 430 40                 | 689 430 40               | 30      | 40      | M8      | 8       | 67                               | 400                                 | 13                               | 140                                 | 50          |
| 685 440 00                 | 689 440 00               | 40      | 30      | M8      | 8       | 209                              | 650                                 | 41                               | 250                                 | 78          |
| 685 440 40                 | 689 440 40               | 40      | 40      | M8      | 8       | 114                              | 650                                 | 20                               | 250                                 | 93          |
| 685 450 00                 | 689 450 00               | 50      | 30      | M10     | 10      | 352                              | 1000                                | 68                               | 400                                 | 126         |
| 685 450 40                 | 689 450 40               | 50      | 40      | M10     | 10      | 247                              | 1000                                | 51                               | 400                                 | 145         |
| 685 450 50                 | 689 450 50               | 50      | 50      | M10     | 10      | 118                              | 1000                                | 37                               | 400                                 | 169         |
| 685 475 00                 | 689 475 00               | 75      | 40      | M12     | 12      | 720                              | 2300                                | 110                              | 850                                 | 366         |
| 685 475 50                 | 689 475 50               | 75      | 50      | M12     | 12      | 498                              | 2300                                | 89                               | 850                                 | 425         |
| 685 500 00                 | 689 500 00               | 100     | 40      | M16     | 16      | 1830                             | 4200                                | 249                              | 1600                                | 733         |
| 685 500 60                 | 689 500 60               | 100     | 60      | M16     | 16      | 770                              | 4200                                | 129                              | 1600                                | 863         |

\*  $F_{perm.}$ : Note page 782 bottom.

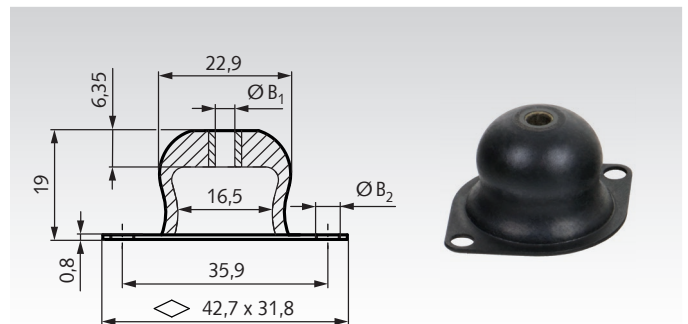
## Metal-Rubber Vibration Dampers MBM „Bubble Mount“

**Material:** Elastomer: Neoprene (Chloroprene-rubber).  
Metal parts: Steel, zinc-plated.

The MBM low-frequency vibration dampers are used to isolate small devices, electronic components and control units. These dampers are mainly used in vertical compressive stresses under load. They efficiently protect against damaging vibrations and shocks.

- Good vibration and shock absorption.
- Low natural frequency 8 - 16 Hz.
- Small, light design.

Temperature range -30°C to +80°C.



Ordering Details: e.g.: Product No. 685 506 40, Metal-Rubber Vibration Damper  
MBM,  $B_1 = 4.3\text{mm}$ , Colour Code Yellow

| Product No. | Bores       |             | Minimum Load <sup>1)</sup> |                  |                      | Maximum Load <sup>1)</sup> |                  |                      | Colour Code <sup>2)</sup> | Weight<br>g |
|-------------|-------------|-------------|----------------------------|------------------|----------------------|----------------------------|------------------|----------------------|---------------------------|-------------|
|             | $B_1$<br>mm | $B_2$<br>mm | Load min.<br>N             | Deflection<br>mm | Nat. Frequency<br>Hz | Load max.<br>N             | Deflection<br>mm | Nat. Frequency<br>Hz |                           |             |
| 685 506 40  | 4,3         | 4           | 6,8                        | 1,35             | 16                   | 17,6                       | 2,7              | 8                    | yellow                    | 5,0         |
| 685 506 41  | 4,3         | 4           | 11,7                       | 1,35             | 16                   | 28,4                       | 2,7              | 8                    | red                       | 5,5         |
| 685 506 42  | 4,3         | 4           | 21,5                       | 1,35             | 16                   | 49,0                       | 2,7              | 8                    | green                     | 6,0         |
| 685 506 43  | 4,3         | 4           | 26,4                       | 1,35             | 16                   | 66,7                       | 2,7              | 8                    | blue                      | 6,5         |
| 685 506 44  | 4,3         | 4           | 32,3                       | 1,35             | 16                   | 80,4                       | 2,7              | 8                    | white                     | 7,0         |
| 685 506 80  | 6,5         | 4           | 6,8                        | 1,35             | 16                   | 17,6                       | 2,7              | 8                    | yellow                    | 5,0         |
| 685 506 81  | 6,5         | 4           | 11,7                       | 1,35             | 16                   | 28,4                       | 2,7              | 8                    | red                       | 5,5         |
| 685 506 82  | 6,5         | 4           | 21,5                       | 1,35             | 16                   | 49,0                       | 2,7              | 8                    | green                     | 6,0         |
| 685 506 83  | 6,5         | 4           | 26,4                       | 1,35             | 16                   | 66,7                       | 2,7              | 8                    | blue                      | 6,5         |
| 685 506 84  | 6,5         | 4           | 32,3                       | 1,35             | 16                   | 80,4                       | 2,7              | 8                    | white                     | 7,0         |

<sup>1)</sup> Static load by the weight of the object. The resulting deflection ensures a large enough negative suspension travel.  
A compliant load enables a high efficient damping of vibrations and shocks at long service life.

<sup>2)</sup> The colour code (a small spot of colour) is for the identification of the load range. The rubber body is always black.