

# Radial retaining rings DIN 6799

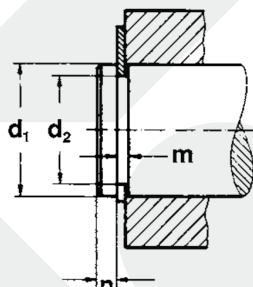
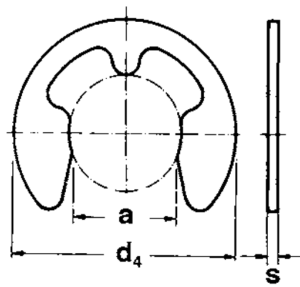
Select a technical variant and compare the configuration dimensions.

Reference: DIN 6799 · Application: Shafts



Representative image of this ring type.

## Technical drawing



|    |                                         |
|----|-----------------------------------------|
| d1 | Shaft diameter: application range       |
| d2 | Groove diameter; nominal ring size      |
| d4 | Outside diameter of the unstressed ring |
| a  | Opening of the unstressed ring          |
| s  | Ring thickness                          |
| m  | Groove width                            |
| n  | Distance from groove edge to shaft end  |

Three-point ring for radial assembly. The nominal ring size is d2, not shaft diameter d1. Drawing not to scale; see tables for dimensions and tolerances.

## Variants and dimensional data

| Size / reference mm | Thickness / wire mm |
|---------------------|---------------------|
| 1.4 / 2.0           | 0.3                 |
| 2.0 / 2.5           | 0.4                 |
| 2.5 / 3.0           | 0.5                 |
| 3.0 / 4.0           | 0.6                 |
| 4.0 / 5.0           | 0.6                 |
| 5.0 / 7.0           | 0.7                 |
| 6.0 / 8.0           | 0.7                 |
| 7.0 / 9.0           | 0.7                 |
| 8.0 / 11.0          | 0.9                 |
| 9.0 / 12.0          | 1.0                 |
| 10.0 / 14.0         | 1.1                 |
| 11.0 / 15.0         | 1.2                 |
| 13.0 / 18.0         | 1.3                 |
| 16.0 / 24.0         | 1.5                 |
| 20.0 / 31.0         | 1.75                |
| 25.0 / 38.0         | 2.0                 |

Reference nominal dimensions. “-” means undocumented, not zero. Inch dimensions are shown separately.

| Reference mm | s     | d4    |
|--------------|-------|-------|
| 1.4 / 2.0    | 0,300 | 2,90  |
| 10.0 / 14.0  | 1,100 | 18,20 |
| 11.0 / 15.0  | 1,200 | 19,70 |
| 13.0 / 18.0  | 1,300 | 22,70 |
| 16.0 / 24.0  | 1,500 | 28,70 |
| 2.0 / 2.5    | 0,400 | 3,90  |
| 2.5 / 3.0    | 0,500 | 4,40  |
| 20.0 / 31.0  | 1,750 | 36,50 |
| 25.0 / 38.0  | 2,000 | 43,50 |
| 3.0 / 4.0    | 0,600 | 5,90  |

| Reference mm | s     | d4    |
|--------------|-------|-------|
| 4.0 / 5.0    | 0,600 | 6,90  |
| 5.0 / 7.0    | 0,700 | 8,85  |
| 6.0 / 8.0    | 0,700 | 10,85 |
| 7.0 / 9.0    | 0,700 | 11,80 |
| 8.0 / 11.0   | 0,900 | 13,80 |
| 9.0 / 12.0   | 1,000 | 15,75 |

| Reference   | d2   | Tolerance + / - | m    | m tol.   | n min |
|-------------|------|-----------------|------|----------|-------|
| 1.4 / 2.0   | 1,2  | 0 / -0,06       | 0,34 | 0,04 / 0 | 0,6   |
| 2.0 / 2.5   | 1,5  | 0 / -0,06       | 0,44 | 0,04 / 0 | 0,8   |
| 2.5 / 3.0   | 1,9  | 0 / -0,06       | 0,54 | 0,05 / 0 | 1,0   |
| 3.0 / 4.0   | 2,3  | 0 / -0,06       | 0,64 | 0,05 / 0 | 1,0   |
| 4.0 / 5.0   | 3,2  | 0 / -0,075      | 0,64 | 0,05 / 0 | 1,0   |
| 5.0 / 7.0   | 4,0  | 0 / -0,075      | 0,74 | 0,05 / 0 | 1,2   |
| 6.0 / 8.0   | 5,0  | 0 / -0,075      | 0,74 | 0,05 / 0 | 1,2   |
| 7.0 / 9.0   | 6,0  | 0 / -0,09       | 0,74 | 0,05 / 0 | 1,2   |
| 8.0 / 11.0  | 7,0  | 0 / -0,09       | 0,94 | 0,05 / 0 | 1,5   |
| 9.0 / 12.0  | 8,0  | 0 / -0,09       | 1,05 | 0,08 / 0 | 1,8   |
| 10.0 / 14.0 | 9,0  | 0 / -0,09       | 1,15 | 0,08 / 0 | 2,0   |
| 11.0 / 15.0 | 10,0 | 0 / -0,09       | 1,25 | 0,08 / 0 | 2,0   |
| 13.0 / 18.0 | 12,0 | 0 / -0,11       | 1,35 | 0,08 / 0 | 2,5   |
| 16.0 / 24.0 | 15,0 | 0 / -0,11       | 1,55 | 0,08 / 0 | 3,0   |
| 20.0 / 31.0 | 19,0 | 0 / -0,13       | 1,80 | 0,08 / 0 | 3,5   |
| 25.0 / 38.0 | 24,0 | 0 / -0,13       | 2,05 | 0,08 / 0 | 4,0   |

## Materials and finishes

### Selection and application

Installed laterally relative to the shaft axis. For DIN 6799, the ring designation refers to the groove diameter; the compatible shaft diameter is a separate range. Check both before selecting a variant.

Other materials and finishes are available on request. Configuration and supply are confirmed against the specific enquiry.

| Size / reference mm | Thickness / wire mm | Material | Finish                         |
|---------------------|---------------------|----------|--------------------------------|
| 1.4 / 2.0           | 0.3                 | Steel    | Phosphated or blackened, oiled |
| 2.0 / 2.5           | 0.4                 | Steel    | Phosphated or blackened, oiled |
| 2.5 / 3.0           | 0.5                 | Steel    | Phosphated or blackened, oiled |
| 3.0 / 4.0           | 0.6                 | Steel    | Phosphated or blackened, oiled |
| 4.0 / 5.0           | 0.6                 | Steel    | Phosphated or blackened, oiled |
| 5.0 / 7.0           | 0.7                 | Steel    | Phosphated or blackened, oiled |
| 6.0 / 8.0           | 0.7                 | Steel    | Phosphated or blackened, oiled |
| 7.0 / 9.0           | 0.7                 | Steel    | Phosphated or blackened, oiled |
| 8.0 / 11.0          | 0.9                 | Steel    | Phosphated or blackened, oiled |
| 9.0 / 12.0          | 1.0                 | Steel    | Phosphated or blackened, oiled |
| 10.0 / 14.0         | 1.1                 | Steel    | Phosphated or blackened, oiled |
| 11.0 / 15.0         | 1.2                 | Steel    | Phosphated or blackened, oiled |
| 13.0 / 18.0         | 1.3                 | Steel    | Phosphated or blackened, oiled |
| 16.0 / 24.0         | 1.5                 | Steel    | Phosphated or blackened, oiled |
| 20.0 / 31.0         | 1.75                | Steel    | Phosphated or blackened, oiled |
| 25.0 / 38.0         | 2.0                 | Steel    | Phosphated or blackened, oiled |
| 2.0 / 2.5           | 0.4                 | Bronze   | Specify in enquiry             |
| 2.5 / 3.0           | 0.5                 | Bronze   | Specify in enquiry             |
| 3.0 / 4.0           | 0.6                 | Bronze   | Specify in enquiry             |
| 4.0 / 5.0           | 0.6                 | Bronze   | Specify in enquiry             |
| 5.0 / 7.0           | 0.7                 | Bronze   | Specify in enquiry             |
| 6.0 / 8.0           | 0.7                 | Bronze   | Specify in enquiry             |
| 7.0 / 9.0           | 0.7                 | Bronze   | Specify in enquiry             |
| 8.0 / 11.0          | 0.9                 | Bronze   | Specify in enquiry             |

| Size / reference mm | Thickness / wire mm | Material        | Finish             |
|---------------------|---------------------|-----------------|--------------------|
| 9.0 / 12.0          | 1.0                 | Bronze          | Specify in enquiry |
| 10.0 / 14.0         | 1.1                 | Bronze          | Specify in enquiry |
| 11.0 / 15.0         | 1.2                 | Bronze          | Specify in enquiry |
| 13.0 / 18.0         | 1.3                 | Bronze          | Specify in enquiry |
| 16.0 / 24.0         | 1.5                 | Bronze          | Specify in enquiry |
| 2.0 / 2.5           | 0.4                 | Stainless steel | Specify in enquiry |
| 2.5 / 3.0           | 0.5                 | Stainless steel | Specify in enquiry |
| 3.0 / 4.0           | 0.6                 | Stainless steel | Specify in enquiry |
| 4.0 / 5.0           | 0.6                 | Stainless steel | Specify in enquiry |
| 5.0 / 7.0           | 0.7                 | Stainless steel | Specify in enquiry |
| 6.0 / 8.0           | 0.7                 | Stainless steel | Specify in enquiry |
| 7.0 / 9.0           | 0.7                 | Stainless steel | Specify in enquiry |
| 8.0 / 11.0          | 0.9                 | Stainless steel | Specify in enquiry |
| 9.0 / 12.0          | 1.0                 | Stainless steel | Specify in enquiry |
| 10.0 / 14.0         | 1.1                 | Stainless steel | Specify in enquiry |
| 11.0 / 15.0         | 1.2                 | Stainless steel | Specify in enquiry |
| 13.0 / 18.0         | 1.3                 | Stainless steel | Specify in enquiry |
| 16.0 / 24.0         | 1.5                 | Stainless steel | Specify in enquiry |
| 20.0 / 31.0         | 1.75                | Stainless steel | Specify in enquiry |
| 2.0 / 2.5           | 0.4                 | Steel           | Zinc plated        |
| 2.5 / 3.0           | 0.5                 | Steel           | Zinc plated        |
| 3.0 / 4.0           | 0.6                 | Steel           | Zinc plated        |
| 4.0 / 5.0           | 0.6                 | Steel           | Zinc plated        |
| 5.0 / 7.0           | 0.7                 | Steel           | Zinc plated        |
| 6.0 / 8.0           | 0.7                 | Steel           | Zinc plated        |
| 7.0 / 9.0           | 0.7                 | Steel           | Zinc plated        |
| 8.0 / 11.0          | 0.9                 | Steel           | Zinc plated        |
| 9.0 / 12.0          | 1.0                 | Steel           | Zinc plated        |
| 10.0 / 14.0         | 1.1                 | Steel           | Zinc plated        |
| 11.0 / 15.0         | 1.2                 | Steel           | Zinc plated        |
| 13.0 / 18.0         | 1.3                 | Steel           | Zinc plated        |

| Size / reference mm | Thickness / wire mm | Material | Finish      |
|---------------------|---------------------|----------|-------------|
| 16.0 / 24.0         | 1.5                 | Steel    | Zinc plated |
| 20.0 / 31.0         | 1.75                | Steel    | Zinc plated |
| 25.0 / 38.0         | 2.0                 | Steel    | Zinc plated |

