3.1 Indexing plungers
Locking pins
Spring plungers
3.1 Indexing plungers, Locking pins, Spring plungers

**GN 617**
Indexing plungers
Steel / Plastic knob
⇒ Page 416

**GN 618**
Indexing plungers without thread
Steel / Plastic knob
⇒ Page 419

**GN 817**
Indexing plungers
Stainless Steel / Plastic knob
⇒ Page 422

**GN 717**
Indexing plungers
Steel
⇒ Page 421

**GN 613**
Indexing plungers without collar
Steel / Plastic knob
⇒ Page 418

**GN 617**
Indexing plungers
Stainless Steel
⇒ Page 416

**GN 617.1**
Indexing plungers w. rest position
Stainless Steel / Plastic knob
⇒ Page 420

**GN 817.2**
Indexing plungers
Steel / long plastic knob
⇒ Page 423

**GN 617.1**
Indexing plungers w. rest position
Stainless Steel
⇒ Page 420

**GN 617.1**
Indexing plungers w. rest position
Stainless Steel / Plastic knob
⇒ Page 420

**GN 817.3**
Indexing plungers
for precision locating
Steel / Plastic knob
⇒ Page 424

**GN 617**
Indexing plungers
Stainless Steel
⇒ Page 416

**GN 817.4**
Indexing plungers
with T-handle
Steel / Plastic knob
⇒ Page 425

**GN 607**
Indexing plungers
Steel / Plastic knob
⇒ Page 426

**GN 613.1**
Screw drivers
for GN 613
⇒ Page 418

**GN 617**
Indexing plungers
Stainless Steel / Plastic knob
⇒ Page 420

**GN 817**
Indexing plungers
Steel / Plastic knob
⇒ Page 422
3.1 Indexing plungers, Locking pins, Spring plungers

- **GN 607**
  - Indexing plungers
  - Stainless Steel / Plastic knob
  - Page 426

- **GN 607.5**
  - Indexing plungers for welding with rest position
  - Page 431

- **GN 822.6**
  - Mini indexing plungers
  - Steel / Plastic knob
  - Page 435

- **GN 607.1**
  - Indexing plungers with rest position
  - Steel / Plastic knob
  - Page 427

- **GN 608**
  - Indexing plungers
  - Plunger Steel
  - Page 432

- **GN 822.7**
  - Mini indexing plungers
  - Stainless Steel / Plastic knob
  - Page 435

- **GN 607.9**
  - Double ring spanner
  - Page 428

- **GN 608.5**
  - Indexing plungers
  - Plunger Stainless Steel
  - Page 432

- **GN 822.8**
  - Mini indexing plungers
  - Zinc die casting / Plastic knob
  - Page 436

- **GN 607.2**
  - Indexing plungers for installation in thin walled equipment
  - Page 428

- **GN 608.6**
  - Indexing plungers with rest position
  - Plunger Stainless Steel
  - Page 433

- **GN 822.1**
  - Mini indexing plungers
  - Open indexing mechanism
  - Steel / Plastic knob
  - Page 437

- **GN 607.3**
  - Indexing plungers with rest position, for installation in thin walled equipment
  - Page 429

- **GN 608.1**
  - Indexing plungers with rest position
  - Plunger Steel
  - Page 433

- **GN 822.1**
  - Mini indexing plungers
  - Open mechanism
  - Stainless Steel / Plastic knob
  - Page 437

- **GN 607.4**
  - Indexing plungers for welding
  - Page 430

- **GN 822**
  - Mini indexing plungers
  - Steel / Plastic knob
  - Page 434

- **GN 417**
  - Indexing plungers without rest position
  - Page 438

- **GN 822.7**
  - Mini indexing plungers
  - Stainless Steel / Plastic knob
  - Page 435

- **GN 822.9**
  - Mini indexing plungers
  - Steel / Plastic knob
  - Page 434

- **GN 417**
  - Indexing plungers with rest position
  - Page 439
3.1 Indexing plungers, Locking pins, Spring plungers
### 3.1 Indexing plungers, Locking pins, Spring plungers

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Material</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 612</td>
<td>Cam action indexing plungers</td>
<td>Steel</td>
<td>456</td>
</tr>
<tr>
<td>GN 722.2</td>
<td>Spring latches with flange for surface mounting</td>
<td>Stainless Steel AISI 303</td>
<td>462</td>
</tr>
<tr>
<td>GN 113.5</td>
<td>Ball lock pins</td>
<td>Stainless Steel AISI 303</td>
<td>471</td>
</tr>
<tr>
<td>GN 612</td>
<td>Cam action indexing plungers with flange for surface mounting</td>
<td>Stainless Steel</td>
<td>456</td>
</tr>
<tr>
<td>GN 722.3</td>
<td>Spring latches with flange for surface mounting</td>
<td>Stainless Steel AISI 303</td>
<td>463</td>
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<tr>
<td>GN 113.6</td>
<td>Ball lock pins</td>
<td>Stainless Steel AISI 630</td>
<td>471</td>
</tr>
<tr>
<td>GN 612</td>
<td>Cam action indexing plungers for welding</td>
<td>Stainless Steel</td>
<td>458</td>
</tr>
<tr>
<td>GN 712</td>
<td>Cam action indexing plungers Plunger protruded</td>
<td>Stainless Steel AISI 303</td>
<td>464</td>
</tr>
<tr>
<td>GN 113.7</td>
<td>Ball lock pins</td>
<td>Stainless Steel AISI 303</td>
<td>472</td>
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<tr>
<td>GN 612</td>
<td>Cam action indexing plungers with flange for surface mounting</td>
<td>Stainless Steel Zinc die casting</td>
<td>457</td>
</tr>
<tr>
<td>GN 712.1</td>
<td>Cam action indexing plungers Plunger retracted</td>
<td>Stainless Steel AISI 303</td>
<td>465</td>
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<tr>
<td>GN 113.8</td>
<td>Ball lock pins</td>
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<td>472</td>
</tr>
<tr>
<td>GN 612</td>
<td>Cam action indexing plungers</td>
<td>Stainless Steel AISI 630</td>
<td>457</td>
</tr>
<tr>
<td>GN 712</td>
<td>Cam action indexing plungers Plunger protruded</td>
<td>Stainless Steel AISI 630</td>
<td>464</td>
</tr>
<tr>
<td>GN 113.9</td>
<td>Ball lock pins</td>
<td>Stainless Steel AISI 303</td>
<td>470</td>
</tr>
<tr>
<td>GN 214.2</td>
<td>Locking pins with axial lock</td>
<td>Stainless Steel AISI 303</td>
<td>473</td>
</tr>
<tr>
<td>GN 722.1</td>
<td>Spring latches for welding</td>
<td>Stainless Steel AISI 630</td>
<td>461</td>
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<td>GN 113.1</td>
<td>Ball lock pins with axial lock</td>
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<td>470</td>
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<tr>
<td>GN 214.3</td>
<td>Locking pins with axial lock</td>
<td>Stainless Steel AISI 303</td>
<td>473</td>
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<tr>
<td>GN 113.2</td>
<td>Ball lock pins with T-handle</td>
<td>Stainless Steel AISI 303</td>
<td>469</td>
</tr>
<tr>
<td>GN 214.4</td>
<td>Locking pins with T-handle</td>
<td>Stainless Steel AISI 303</td>
<td>473</td>
</tr>
</tbody>
</table>
### 3.1 Indexing plungers, Locking pins, Spring plungers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Material</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 114.3</td>
<td>Locking pins with axial lock</td>
<td>Stainless Steel AISI 303</td>
<td>475</td>
</tr>
<tr>
<td>GN 111.4</td>
<td>Spring plungers</td>
<td>Plastic</td>
<td>479</td>
</tr>
<tr>
<td>GN 615.4</td>
<td>Spring plungers with bolt, with internal hexagon</td>
<td>Steel</td>
<td>483</td>
</tr>
<tr>
<td>GN 114.6</td>
<td>Locking pins with axial lock</td>
<td>Stainless Steel AISI 303</td>
<td>475</td>
</tr>
<tr>
<td>GN 615</td>
<td>Spring plungers</td>
<td>Stainless Steel</td>
<td>479</td>
</tr>
<tr>
<td>GN 615.4</td>
<td>Spring plungers with bolt, with internal hexagon</td>
<td>Stainless Steel</td>
<td>483</td>
</tr>
<tr>
<td>GN 124</td>
<td>Locking pins with axial lock</td>
<td>Stainless Steel AISI 303</td>
<td>476</td>
</tr>
<tr>
<td>GN 615.2</td>
<td>Spring plungers</td>
<td>Plastic</td>
<td>484</td>
</tr>
<tr>
<td>GN 111</td>
<td>Ball chains</td>
<td></td>
<td>477</td>
</tr>
<tr>
<td>GN 615.3</td>
<td>Spring plungers with internal hexagon</td>
<td>Stainless Steel</td>
<td>481</td>
</tr>
<tr>
<td>GN 815</td>
<td>Spring plungers with collar</td>
<td>Steel</td>
<td>485</td>
</tr>
<tr>
<td>GN 111.5</td>
<td>Ball chains</td>
<td>Stainless Steel</td>
<td>477</td>
</tr>
<tr>
<td>GN 815</td>
<td>Spring plungers with collar</td>
<td>Stainless Steel</td>
<td>485</td>
</tr>
<tr>
<td>GN 111.3</td>
<td>Key rings</td>
<td>Stainless Steel</td>
<td>477</td>
</tr>
<tr>
<td>GN 815</td>
<td>Spring plungers with bolt</td>
<td>Stainless Steel</td>
<td>485</td>
</tr>
<tr>
<td>GN 111.2</td>
<td>Retaining cables</td>
<td>Stainless Steel</td>
<td>478</td>
</tr>
<tr>
<td>GN 615.1</td>
<td>Spring plungers with bolt, with slot</td>
<td>Stainless Steel</td>
<td>482</td>
</tr>
<tr>
<td>GN 615.5</td>
<td>Screw drivers for GN 616</td>
<td></td>
<td>486</td>
</tr>
</tbody>
</table>

Stainless Steel / Ergostyle / Softline / Cleanline / Sanline / ATEX / ESD / Inch
### 3.1 Indexing plungers, Locking pins, Spring plungers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Component Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 611</td>
<td>Spring plungers, long version</td>
<td>488</td>
</tr>
<tr>
<td>GN 614.3</td>
<td>Spring plungers, plain type, Stainless Steel</td>
<td>493</td>
</tr>
<tr>
<td>GN 716</td>
<td>Side thrust pins</td>
<td>499</td>
</tr>
<tr>
<td>GN 611.5</td>
<td>Screwdrivers for GN 611</td>
<td>488</td>
</tr>
<tr>
<td>GN 614.4</td>
<td>Spring plungers, Press on type, Stainless Steel</td>
<td>493</td>
</tr>
<tr>
<td>GN 715</td>
<td>Side thrust pins, Press on type</td>
<td>500</td>
</tr>
<tr>
<td>GN 615.7</td>
<td>Spring plungers, with limit switch</td>
<td>489</td>
</tr>
<tr>
<td>GN 610</td>
<td>Spring loaded shells, Press on type, Steel</td>
<td>495</td>
</tr>
<tr>
<td>GN 715.1</td>
<td>Mounting tools, for GN 715 / GN 714</td>
<td>500</td>
</tr>
<tr>
<td>GN 614</td>
<td>Spring plungers, Press on type, Plastic</td>
<td>500</td>
</tr>
<tr>
<td>GN 610</td>
<td>Spring loaded shells, Press on type, Stainless Steel</td>
<td>495</td>
</tr>
<tr>
<td>GN 714</td>
<td>Side thrust pins, without pressure pin, Press on type</td>
<td>501</td>
</tr>
<tr>
<td>GN 614.1</td>
<td>Side thrust pins, Holder for spring plungers GN 614</td>
<td>491</td>
</tr>
<tr>
<td>GN 249</td>
<td>Ball buttons, for spring plungers</td>
<td>496</td>
</tr>
<tr>
<td>GN 713</td>
<td>Side thrust pins, with thread</td>
<td>502</td>
</tr>
<tr>
<td>GN 614.2</td>
<td>Spring plungers, double ended, Press on type</td>
<td>492</td>
</tr>
<tr>
<td>GN 250</td>
<td>Indent blocks, for spring plungers</td>
<td>497</td>
</tr>
<tr>
<td>GN 713.1</td>
<td>Mounting tools, for GN 713</td>
<td>502</td>
</tr>
<tr>
<td>GN 513</td>
<td>Spring elements</td>
<td>498</td>
</tr>
<tr>
<td>GN 715.2</td>
<td>Eccentric bushes, for side thrust pins</td>
<td>505</td>
</tr>
</tbody>
</table>
### Indexing plungers

**Range**

<table>
<thead>
<tr>
<th>GN 617</th>
<th>Ø Plunger / Stroke</th>
<th></th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 617 ... NI</td>
<td>Ø 5 / 5 ... Ø 10 / 10</td>
<td>Dimensions / Assembly: M 10 x 1 ... M 20 x 1,5</td>
<td>Plunger tolerance: -0,02 / -0,04</td>
</tr>
<tr>
<td>Indexing plungers without rest position</td>
<td><strong>Material / Finish</strong></td>
<td>Bore tolerance GN 617: H7 / GN 617 ... NI: H8</td>
<td>The plastic or Stainless Steel knob is not removable.</td>
</tr>
</tbody>
</table>

The Plunger is very stable, it features the identical diameter over the whole length. So it counters the risk of breakage at the knob.

The type with threaded rod is for applications where a special knob is required or the operation of the indexing plunger is not carried out manually.

With the use of distance bushes GN 609 / GN 609.5 the length of the protruding plunger can be adjusted to the thread length required.

*Flat hexagonal nuts GN 909 / GN 909.5 → Page 451*

<table>
<thead>
<tr>
<th>GN 613</th>
<th>Ø Plunger / Stroke</th>
<th></th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 613 ... NI</td>
<td>Ø 5 / 5 ... Ø 10 / 10</td>
<td>Dimensions / Assembly: M 10 x 1 ... M 20 x 1,5</td>
<td>Plunger tolerance: -0,02 / -0,04</td>
</tr>
<tr>
<td>Indexing plungers without rest position</td>
<td><strong>Material / Finish</strong></td>
<td>Bore tolerance GN 613: H7 / GN 613 ... NI: H8</td>
<td>The plastic or Stainless Steel knob is not removable.</td>
</tr>
</tbody>
</table>

The Plunger is very stable, it features the identical diameter over the whole length. So it counters the risk of breakage at the knob.

This version corresponds to GN 617, but without the hexagon collar.

The type with threaded rod is for applications where a special knob is required or the operation of the indexing plunger is not carried out manually.

*Flat hexagonal nuts GN 909 / GN 909.5 → Page 451*

<table>
<thead>
<tr>
<th>GN 618</th>
<th>Ø Plunger / Stroke</th>
<th></th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indexing plungers without rest position</td>
<td>Ø 5 / 5 ... Ø 8 / 8</td>
<td>Dimensions / Assembly: Ø 12 h9 ... Ø 18 h9</td>
<td>Plunger tolerance: -0,02 / -0,04</td>
</tr>
<tr>
<td></td>
<td><strong>Material / Finish</strong></td>
<td>Bore tolerance: G7</td>
<td>The plastic knob is not removable.</td>
</tr>
</tbody>
</table>

This version corresponds to GN 613 (with thread). They are required where the installation is done by welding, glueing or clamping.

The type with threaded rod is for applications where a special knob is required or the operation of the indexing plunger is not carried out manually.
### Indexing plungers

#### Range

<table>
<thead>
<tr>
<th>Model</th>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 617.1</td>
<td>Ø 5 / 5 ... Ø 10 / 10</td>
<td>M10 x 1 ... M 20 x 1,5</td>
<td>• Steel version: Body blackened, Plunger hardened</td>
<td>Plunger tolerance: -0,02 / -0,04</td>
</tr>
<tr>
<td>GN 617.1 ... NI</td>
<td></td>
<td></td>
<td>• Version NI: Stainless Steel AISI 303 Plunger chemically nickel plated</td>
<td>Bore tolerance GN 617.1: H7 / GN 617.1 ... NI: H8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The Plastic or Stainless Steel knob is not removable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The Plunger is very stable, it features the identical diameter over the whole length. So it counters the risk of breakage at the knob.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>With the use of distance bushes GN 609 / GN 609.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>➔ Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Flat hexagonal nuts GN 909 / GN 909.5 ➔ Page 451</td>
</tr>
</tbody>
</table>

#### GN 717 ... ST

<table>
<thead>
<tr>
<th>Model</th>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 717 ... ST</td>
<td>Ø 3 / 3,5 ... Ø 8 / 8</td>
<td>M 6 x ... M 12</td>
<td>• Steel version ST: Body zinc plated, Plunger Stainless Steel AISI 303</td>
<td>Plunger tolerance: 0 / -0,05</td>
</tr>
<tr>
<td>GN 717 ... NI</td>
<td></td>
<td>M 6 x 0,75 ... M 16 x 1,5</td>
<td>• Version NI: Body and Plunger Stainless Steel AISI 303</td>
<td>Bore tolerance: +0,03 / +0,08</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Indexing plungers GN 717 are known for its small dimensions and reasonably priced. They are available with standard or fine thread.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>With the use of distance bushes GN 609 / GN 609.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>➔ Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Flat hexagonal nuts GN 909 / GN 909.5 ➔ Page 451</td>
</tr>
</tbody>
</table>

#### GN 817

<table>
<thead>
<tr>
<th>Model</th>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 817</td>
<td>Ø 4 / 4 ... Ø 12 / 15</td>
<td>M 8 x 1 ... M 20 x 1,5</td>
<td>• Steel version: Body blackened, Plunger hardened</td>
<td>Plunger tolerance: -0,02 / -0,04</td>
</tr>
<tr>
<td>GN 817 ... NI</td>
<td></td>
<td></td>
<td>• Version NI: Stainless Steel AISI 303 Plunger chemically nickel plated</td>
<td>Bore tolerance GN 817: H7 / GN 817 ... NI: H8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Indexing plungers GN 817 are a further development based on GN 617 and GN 617.1: • two strokes / plunger-Ø</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• considerably reduced dimensions for the types with rest position and for plunger-Ø 10 • Locking mechanism integrated in the knob (DBP).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°.The type with threaded rod is for applications where a special knob is required or the operation of the indexing plunger is not carried out manually.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Flat hexagonal nuts GN 909 / GN 909.5 ➔ Page 451</td>
</tr>
</tbody>
</table>
### GN 817.2
Indexing plungers with and without rest position

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 4 / 4 ... Ø 12 / 15</td>
<td>M 8 x 1 ... M 20 x 1.5</td>
<td>Steel version: Body blackened, Plunger hardened</td>
</tr>
</tbody>
</table>

**Other features**
- Plunger tolerance: -0.02 / -0.04
- Bore tolerance GN 817.2: H7 / GN 817.2 ... NI: H8

Indexing plungers GN 817.2 correspond to GN 817, but they have a longer knob.

### GN 817.3
Indexing plungers with and without rest position

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 8 / 10 and Ø 10 / 12</td>
<td>Socket head cap screw M 5</td>
<td>Steel Body blackened Plunger hardened</td>
</tr>
</tbody>
</table>

**Other features**
- Plunger tolerance: h7
- Bore tolerance of Positioning bushings: F7

The Plastic knob is not removable.

Indexing plungers GN 817.3 have been designed to achieve precision indexing with the help of positioning bushings DIN 179. The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°. Indexing plungers GN 817.3 with rest position have the thrust spring and locking mechanism integrated in the knob. For this reason a perfect operation is always guaranteed.

### GN 817.4
Indexing plungers with and without rest position

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 4 / 4 ... Ø 12 / 15</td>
<td>M 8 x 1 ... M 20 x 1.5</td>
<td>Steel version: Body blackened, Plunger hardened</td>
</tr>
</tbody>
</table>

**Other features**
- Plunger tolerance: -0.02 / -0.04
- Bore tolerance GN 817.4: H7 / GN 817.4 ... NI: H8

Indexing plungers GN 817.4 correspond to GN 817. Instead of the round knob they have a T-handle (plastic).

*Flat hexagonal nuts GN 909 / GN 909.5*
## Indexing plungers

### Range

<table>
<thead>
<tr>
<th>Indexing plungers with rest position</th>
<th>Page 427</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GN 607 ... ST</strong></td>
<td><strong>GN 607 ... NI</strong></td>
</tr>
<tr>
<td><strong>Indexing plungers without rest position</strong></td>
<td><strong>Page 426</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 6 and Ø 8 / 8</td>
<td>Plunger tolerance: -0,02 / -0,04</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: H7</td>
</tr>
<tr>
<td>M 12 x 1,5 and M 16 x 1,5</td>
<td>The Plastic knob is not removable.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>The thrust spring of the indexing plunger GN 607 is integrated with the knob which has led to a reduced overall height.</td>
</tr>
<tr>
<td>• Steel version ST: Body blackened, Plunger hardened</td>
<td>With the use of distance bushes GN 609 / GN 609.5 <strong>Page 450</strong> the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
<tr>
<td>• Version NI: Stainless Steel AISI 303, Plunger chemically nickel plated</td>
<td>A reasonably priced alternative to indexing plungers GN 607 are mini indexing plungers GN 822.6 / GN 822.7 <strong>Page 435</strong>.</td>
</tr>
</tbody>
</table>

### Indexing plungers without rest position

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 6 and Ø 8 / 7,5</td>
<td>Plunger tolerance: -0,02 / -0,04</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: G7</td>
</tr>
<tr>
<td>Ø 10 and Ø 12</td>
<td>The Plastic knob is not removable.</td>
</tr>
<tr>
<td>These are the bore-Ø to fit the indexing plungers, they are locked with the hexagon nut.</td>
<td>Indexing plungers GN 607.2 have been designed for use in thin walled sheet metal parts.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>Due to their design, the accuracy of positioning them is lower than with GN 607.</td>
</tr>
<tr>
<td>• Steel</td>
<td>The thrust spring of GN 607.2 is integrated with the knob which has led to a reduced overall height.</td>
</tr>
<tr>
<td>Body zinc plated, Plunger Stainless Steel AISI 303 chemically nickel plated</td>
<td>Flat hexagonal nuts GN 909 <strong>Page 451</strong></td>
</tr>
</tbody>
</table>

### Other features

- Plunger tolerance: -0,02 / -0,04
- Bore tolerance: H7
- The Plastic knob is not removable.
- The thrust spring of the indexing plunger GN 607 is integrated with the knob which has led to a reduced overall height.
- With the use of distance bushes GN 609 / GN 609.5 **Page 450** the length of the protruding plunger can be adjusted to the thread length required.
- A reasonably priced alternative to indexing plungers GN 607 are mini indexing plungers GN 822.6 / GN 822.7 **Page 435**.
- Flat hexagonal nuts GN 909 / GN 909.5 **Page 451**
Indexing plungers

**GN 607.3**

Indexing plungers with rest position

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 6 and Ø 8 / 7,5</td>
<td>Ø 10 and Ø 12</td>
</tr>
</tbody>
</table>

These are the bore-Ø to fit the indexing plungers, they are locked with the hexagon nut.

**Material / Finish**

- Steel
- Body zinc plated,
- Plunger
- Stainless Steel AISI 303
- chemically nickel plated

**Other features**

- Plunger tolerance: -0,02 / -0,04
- Bore tolerance: G7

The plastic knob is not removable.

Indexing plungers GN 607.3 have been designed for use in thin walled sheet metal parts. Due to their design, the accuracy of positioning them is lower than with GN 607.1.

The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°. The thrust spring and locking mechanism of the indexing plunger GN 607.3 are integrated with the knob. For this reason a perfect operation is always guaranteed. This also leads to a reduced overall height.

Flat hexagonal nuts GN 909

**GN 607.4**

Indexing plungers for welding without rest position

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 6 and Ø 8 / 8</td>
<td>Ø 10 and Ø 12</td>
</tr>
</tbody>
</table>

These are the bore-Ø to fit the indexing plungers, they are locked with the hexagon nut.

**Material / Finish**

- Steel
- Body zinc plated,
- Plunger
- Stainless Steel AISI 303
- chemically nickel plated

**Other features**

- Plunger tolerance: -0,02 / -0,04
- Bore tolerance: +0,05 / +0,15

The plastic knob is not removable.

Indexing plungers GN 607.3 have been designed for use in thin walled sheet metal parts. Due to their design, the accuracy of positioning them is lower than with GN 607.1.

The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°. The thrust spring and locking mechanism of the indexing plunger GN 607.3 are integrated with the knob. For this reason a perfect operation is always guaranteed. This also leads to a reduced overall height.

**GN 607.5**

Indexing plungers for welding with rest position

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 6 and Ø 8 / 8</td>
<td>Ø 10 and Ø 12</td>
</tr>
</tbody>
</table>

These are the bore-Ø to fit the indexing plungers, they are locked with the hexagon nut.

**Material / Finish**

- Steel
- Body zinc plated,
- Plunger
- Stainless Steel AISI 303
- chemically nickel plated

**Other features**

- Plunger tolerance: -0,02 / -0,04
- Bore tolerance: +0,05 / +0,15

The plastic knob is not removable.

Indexing plungers GN 607.3 have been designed for use in thin walled sheet metal parts. Due to their design, the accuracy of positioning them is lower than with GN 607.1.

The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°. The thrust spring and locking mechanism of the indexing plunger GN 607.3 are integrated with the knob. For this reason a perfect operation is always guaranteed. This also leads to a reduced overall height.
Indexing plungers

**Range**

**GN 608**
**GN 608.5**
Indexing plungers without rest position

- **Ø Plunger / Stroke**
  - Ø 6 / 6 and Ø 8 / 8

- **Dimensions / Assembly**
  - Countersunk screws
  - M 4 and M 5

- **Material / Finish**
  - Body Zinc die casting zinc plated
  - GN 608:
    - Plunger Steel hardened
  - GN 608.5:
    - Plunger
    - Stainless Steel AISI 303

- **Other features**
  - Plunger tolerance: -0.02 / -0.04
  - Bore tolerance: H7

  The plastic knob is not removable.

  Worth mentioning about these indexing plungers GN 608 is the mounting with two countersunk screws.

  The thrust spring of the indexing plunger GN 608 is integrated with the knob which has led to a reduced overall height.

  A reasonably priced alternative to indexing plungers GN 608 / GN 608.5 are mini indexing plungers GN 822.6 / GN 822.7

**GN 608.1**
**GN 608.6**
Indexing plungers with rest position

- **Ø Plunger / Stroke**
  - Ø 6 / 6 and Ø 8 / 8

- **Dimensions / Assembly**
  - Countersunk screws
  - M 4 and M 5

- **Material / Finish**
  - Body Zinc die casting zinc plated
  - GN 608.1:
    - Plunger Steel hardened
  - GN 608.6:
    - Plunger
    - Stainless Steel AISI 303

- **Other features**
  - Plunger tolerance: -0.02 / -0.04
  - Bore tolerance: H7

  The plastic knob is not removable.

  Worth mentioning about these indexing plungers GN 608.1 is the mounting with two countersunk screws.

  The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°. The thrust spring and locking mechanism of the indexing plunger GN 608.1 are integrated with the knob. For this reason a perfect operation is always guaranteed. This also leads to a reduced overall height.

  A reasonably priced alternative to GN 608.1 / GN 608.6 are mini indexing plungers GN 822.6 / GN 822.7

**GN 822 ... ST**
**GN 822 ... NI**
Mini indexing plungers with and without rest position

- **Covered indexing mechanism**

- **Ø Plunger / Stroke**
  - Ø 4 / 5 ... Ø 7 / 7

- **Dimensions / Assembly**
  - M 8 x 0.75 ... M 10 x 1

- **Material / Finish**
  - Steel version ST:
    - Body zinc plated, Plunger
    - Stainless Steel AISI 303
  - Version NI:
    - Body and Plunger
    - Stainless Steel AISI 303

- **Other features**
  - Plunger tolerance: -0.06
  - Bore tolerance: +0.05 / +0.1

  The plastic knob is not removable.

  Mini indexing plungers GN 822 are known for its small dimensions.

  The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 30°.

  The overall height of the version with rest position is identical to the height of the version without rest position.

  *Distance bushes GN 609 / GN 609.5 ➔ Page 450*

  *Flat hexagonal nuts GN 909 / GN 909.5 ➔ Page 451*
Indexing plungers

**Range**

**GN 822.6**
**GN 822.7**

Mini indexing plungers with and without rest position
Covered indexing mechanism  
→ Page 435

**Ø Plunger / Stroke**
Ø 4 / 5 und Ø 10 / 10

**Dimensions / Assembly**
M 8 x ... M 16  
M 8 x 1 ... M 16 x 1,5

**Werkstoff / Oberfläche**
- GN 822.6:  
  Body steel zinc plated,  
  Plunger  
  Stainless Steel AISI 303
- GN 822.7:  
  Body and Plunger  
  Stainless Steel  
  German Material AISI 303

**Other features**
- Plunger tolerance: h9
- Bore tolerance: +0,03 / +0,08

The plastic knob is not removable.

Mini indexing plungers GN 822.6 / GN 822.7 are known for its small dimensions.

The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 30°.

The overall height of the version with rest position is identical to the height of the version without rest position.

**Distance bushes GN 609 / GN 609.5**  
→ Page 450

**Flat hexagonal nuts GN 909 / GN 909.5**  
→ Page 451

---

**GN 822.8**

Mini indexing plungers with and without rest position
Covered indexing mechanism  
→ Page 436

**Ø Plunger / Stroke**
Ø 4 / 5 ... Ø 10 / 10

**Dimensions / Assembly**
Socket head cap screws  
M 4 and M 5

**Material / Finish**
- Body  
  Zinc die casting,  
  corrosion-resistant via nano®-coating
- Plunger  
  Stainless Steel AISI 303

**Other features**
- Plunger tolerance: h9
- Bore tolerance: +0,03 / +0,08

The plastic knob is not removable.

Mini indexing plungers GN 822.8 are known for its small dimensions.

The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 30°.

The overall height of the version with rest position is identical to the height of the version without rest position.

**Distance bushes GN 609 / GN 609.5**  
→ Page 450

**Flat hexagonal nuts GN 909 / GN 909.5**  
→ Page 451

---

**GN 822.1 ... ST**
**GN 822.1 ... NI**

Mini indexing plungers with and without rest position, open indexing mechanism  
→ Page 437

**Ø Plunger / Stroke**
Ø 4 / 5 ... Ø 7 / 7

**Dimensions / Assembly**
M 8 x 0,75 ... M 10 x 1

**Material / Finish**
- Steel version ST:  
  Body zinc plated,  
  Plunger  
  Stainless Steel AISI 303
- Stainless Steel version NI:  
  Body and Plunger  
  Stainless Steel  
  German Material AISI 303

**Other features**
- Plunger tolerance: -0,02 / -0,04
- Bore tolerance: +0,05 / +0,1

The plastic knob is not removable.

Mini indexing plungers GN 822.1 are known for its small dimensions.

The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 30°.

The overall height of the version with rest position is identical to the height of the version without rest position.

**Distance bushes GN 609 / GN 609.5**  
→ Page 450

**Flat hexagonal nuts GN 909 / GN 909.5**  
→ Page 451
## Indexing plungers

GN 417  
**Indexing plungers with and without rest position** → Page 438  

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 4 / 4 ... Ø 8 / 8</td>
<td>Plunger tolerance: h9</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: +0,03 / +0,08</td>
</tr>
<tr>
<td>Socket head cap screws</td>
<td></td>
</tr>
<tr>
<td>M 3, M 4, M 5</td>
<td>The plastic knob is not removable.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>The screwing range is chosen in such a way that washers ISO 7092 can be used.</td>
</tr>
<tr>
<td>• Body</td>
<td></td>
</tr>
<tr>
<td>Zinc die casting, plastic coated black</td>
<td></td>
</tr>
<tr>
<td>• Plunger</td>
<td>The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°.</td>
</tr>
<tr>
<td>Stainless Steel AISI 303</td>
<td></td>
</tr>
<tr>
<td><strong>Other features</strong></td>
<td><strong>Flat hexagonal nuts GN 909</strong> → Page 451</td>
</tr>
<tr>
<td>Plunger tolerance: 0 / -0,05</td>
<td></td>
</tr>
<tr>
<td>Bore tolerance: -0,03 / +0,05</td>
<td></td>
</tr>
</tbody>
</table>

GN 816  
**Locking plungers Plunger in standard position protruded** → Page 440  

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 8 and Ø 8 / 10</td>
<td>Plunger tolerance: 0 / -0,05</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: -0,03 / +0,05</td>
</tr>
<tr>
<td>M 12 x 1,5 and M 16 x 1,5</td>
<td>The plastic knob is not removable.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>Locking plungers GN 816 feature the following safety functions:</td>
</tr>
<tr>
<td>• Body</td>
<td>• In indexing position they are secured against accidental operation (rotating).</td>
</tr>
<tr>
<td>Steel zinc plated,</td>
<td>• In the version with key a special key is required to move the plunger.</td>
</tr>
<tr>
<td>• Plunger</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel AISI 303</td>
<td>With the use of distance bushes GN 609 / GN 609.5 → Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
<tr>
<td><strong>Other features</strong></td>
<td><strong>Flat hexagonal nuts GN 909</strong> → Page 451</td>
</tr>
<tr>
<td>Plunger tolerance: 0 / -0,05</td>
<td></td>
</tr>
<tr>
<td>Bore tolerance: -0,03 / +0,05</td>
<td></td>
</tr>
</tbody>
</table>

GN 816.1  
**Locking plungers Plunger in standard position retracted** → Page 442  

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 8 and Ø 8 / 10</td>
<td>Plunger tolerance: 0 / -0,05</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: -0,03 / +0,05</td>
</tr>
<tr>
<td>M 12 x 1,5 and M 16 x 1,5</td>
<td>The plastic knob is not removable.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>Locking plungers GN 816.1 feature the following safety functions:</td>
</tr>
<tr>
<td>• Body</td>
<td>• In indexing position they are secured against accidental operation (rotating).</td>
</tr>
<tr>
<td>Steel zinc plated,</td>
<td>• In the version with key a special key is required to move the plunger.</td>
</tr>
<tr>
<td>• Plunger</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel AISI 303</td>
<td>With the use of distance bushes GN 609 / GN 609.5 → Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
<tr>
<td><strong>Other features</strong></td>
<td><strong>Flat hexagonal nuts GN 909</strong> → Page 451</td>
</tr>
<tr>
<td>Plunger tolerance: 0 / -0,05</td>
<td></td>
</tr>
<tr>
<td>Bore tolerance: -0,03 / +0,05</td>
<td></td>
</tr>
</tbody>
</table>

## Indexing plungers Range

GN 417  
**Indexing plungers with and without rest position** → Page 438  

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 4 / 4 ... Ø 8 / 8</td>
<td>Plunger tolerance: h9</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: +0,03 / +0,08</td>
</tr>
<tr>
<td>Socket head cap screws</td>
<td>The plastic knob is not removable.</td>
</tr>
<tr>
<td>M 3, M 4, M 5</td>
<td>The screwing range is chosen in such a way that washers ISO 7092 can be used.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°.</td>
</tr>
<tr>
<td>• Body</td>
<td></td>
</tr>
<tr>
<td>Zinc die casting, plastic coated black</td>
<td></td>
</tr>
<tr>
<td>• Plunger</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel AISI 303</td>
<td></td>
</tr>
<tr>
<td><strong>Other features</strong></td>
<td><strong>Flat hexagonal nuts GN 909</strong> → Page 451</td>
</tr>
<tr>
<td>Plunger tolerance: 0 / -0,05</td>
<td></td>
</tr>
<tr>
<td>Bore tolerance: -0,03 / +0,05</td>
<td></td>
</tr>
</tbody>
</table>

GN 816  
**Locking plungers Plunger in standard position protruded** → Page 440  

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 8 and Ø 8 / 10</td>
<td>Plunger tolerance: 0 / -0,05</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: -0,03 / +0,05</td>
</tr>
<tr>
<td>M 12 x 1,5 and M 16 x 1,5</td>
<td>The plastic knob is not removable.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>Locking plungers GN 816 feature the following safety functions:</td>
</tr>
<tr>
<td>• Body</td>
<td>• In indexing position they are secured against accidental operation (rotating).</td>
</tr>
<tr>
<td>Steel zinc plated,</td>
<td>• In the version with key a special key is required to move the plunger.</td>
</tr>
<tr>
<td>• Plunger</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel AISI 303</td>
<td>With the use of distance bushes GN 609 / GN 609.5 → Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
<tr>
<td><strong>Other features</strong></td>
<td><strong>Flat hexagonal nuts GN 909</strong> → Page 451</td>
</tr>
<tr>
<td>Plunger tolerance: 0 / -0,05</td>
<td></td>
</tr>
<tr>
<td>Bore tolerance: -0,03 / +0,05</td>
<td></td>
</tr>
</tbody>
</table>

GN 816.1  
**Locking plungers Plunger in standard position retracted** → Page 442  

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 8 and Ø 8 / 10</td>
<td>Plunger tolerance: 0 / -0,05</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: -0,03 / +0,05</td>
</tr>
<tr>
<td>M 12 x 1,5 and M 16 x 1,5</td>
<td>The plastic knob is not removable.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>Locking plungers GN 816.1 feature the following safety functions:</td>
</tr>
<tr>
<td>• Body</td>
<td>• In indexing position they are secured against accidental operation (rotating).</td>
</tr>
<tr>
<td>Steel zinc plated,</td>
<td>• In the version with key a special key is required to move the plunger.</td>
</tr>
<tr>
<td>• Plunger</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel AISI 303</td>
<td>With the use of distance bushes GN 609 / GN 609.5 → Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
<tr>
<td><strong>Other features</strong></td>
<td><strong>Flat hexagonal nuts GN 909</strong> → Page 451</td>
</tr>
<tr>
<td>Plunger tolerance: 0 / -0,05</td>
<td></td>
</tr>
<tr>
<td>Bore tolerance: -0,03 / +0,05</td>
<td></td>
</tr>
</tbody>
</table>

## Indexing plungers

GN 417  
**Indexing plungers with and without rest position** → Page 438  

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 4 / 4 ... Ø 8 / 8</td>
<td>Plunger tolerance: h9</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: +0,03 / +0,08</td>
</tr>
<tr>
<td>Socket head cap screws</td>
<td>The plastic knob is not removable.</td>
</tr>
<tr>
<td>M 3, M 4, M 5</td>
<td>The screwing range is chosen in such a way that washers ISO 7092 can be used.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>The type with rest position is used when the plunger has to stay in its retracted position. To activate this, the knob is retracted and rotated by 90°.</td>
</tr>
<tr>
<td>• Body</td>
<td></td>
</tr>
<tr>
<td>Zinc die casting, plastic coated black</td>
<td></td>
</tr>
<tr>
<td>• Plunger</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel AISI 303</td>
<td></td>
</tr>
<tr>
<td><strong>Other features</strong></td>
<td><strong>Flat hexagonal nuts GN 909</strong> → Page 451</td>
</tr>
<tr>
<td>Plunger tolerance: 0 / -0,05</td>
<td></td>
</tr>
<tr>
<td>Bore tolerance: -0,03 / +0,05</td>
<td></td>
</tr>
</tbody>
</table>

GN 816  
**Locking plungers Plunger in standard position protruded** → Page 440  

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 8 and Ø 8 / 10</td>
<td>Plunger tolerance: 0 / -0,05</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: -0,03 / +0,05</td>
</tr>
<tr>
<td>M 12 x 1,5 and M 16 x 1,5</td>
<td>The plastic knob is not removable.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>Locking plungers GN 816 feature the following safety functions:</td>
</tr>
<tr>
<td>• Body</td>
<td>• In indexing position they are secured against accidental operation (rotating).</td>
</tr>
<tr>
<td>Steel zinc plated,</td>
<td>• In the version with key a special key is required to move the plunger.</td>
</tr>
<tr>
<td>• Plunger</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel AISI 303</td>
<td>With the use of distance bushes GN 609 / GN 609.5 → Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
<tr>
<td><strong>Other features</strong></td>
<td><strong>Flat hexagonal nuts GN 909</strong> → Page 451</td>
</tr>
<tr>
<td>Plunger tolerance: 0 / -0,05</td>
<td></td>
</tr>
<tr>
<td>Bore tolerance: -0,03 / +0,05</td>
<td></td>
</tr>
</tbody>
</table>

GN 816.1  
**Locking plungers Plunger in standard position retracted** → Page 442  

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 8 and Ø 8 / 10</td>
<td>Plunger tolerance: 0 / -0,05</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: -0,03 / +0,05</td>
</tr>
<tr>
<td>M 12 x 1,5 and M 16 x 1,5</td>
<td>The plastic knob is not removable.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>Locking plungers GN 816.1 feature the following safety functions:</td>
</tr>
<tr>
<td>• Body</td>
<td>• In indexing position they are secured against accidental operation (rotating).</td>
</tr>
<tr>
<td>Steel zinc plated,</td>
<td>• In the version with key a special key is required to move the plunger.</td>
</tr>
<tr>
<td>• Plunger</td>
<td></td>
</tr>
<tr>
<td>Stainless Steel AISI 303</td>
<td>With the use of distance bushes GN 609 / GN 609.5 → Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
<tr>
<td><strong>Other features</strong></td>
<td><strong>Flat hexagonal nuts GN 909</strong> → Page 451</td>
</tr>
<tr>
<td>Plunger tolerance: 0 / -0,05</td>
<td></td>
</tr>
<tr>
<td>Bore tolerance: -0,03 / +0,05</td>
<td></td>
</tr>
</tbody>
</table>
## Indexing plungers

### GN 414

*Safety indexing plungers*

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 6 ... Ø 10 / 12</td>
<td>Plunger tolerance: -0.02 / -0.04</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: H7</td>
</tr>
<tr>
<td>M 12 x 1,5 and M 16 x 1,5</td>
<td>Safety indexing plungers GN 414 are secured against accidental operation of the plunger. It is locked in one or both end positions and can be unlocked only with the red safety push button.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>With the use of distance bushes GN 609 → Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
</tbody>
</table>
| • Steel, Body blackened, Plunger hardened | *Flat hexagonal nuts GN 909 → Page 451*

### GN 514

*Locking plungers with PUSH - PUSH locking mechanism*

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 6 and Ø 8 / 8</td>
<td>Plunger tolerance: -0.02 / -0.04</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: H7</td>
</tr>
<tr>
<td>M 12 x 1,5 and M 16 x 1,5</td>
<td>The indexing pin in the locking plungers GN 514 is moved via a so-called cardioid mechanism. This mechanism means that the indexing pin is both extended and retracted alone by pressing the operating button</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>With the use of distance bushes GN 609 → Page 450 the length of the protruding plunger can be adjusted to the thread length required.</td>
</tr>
</tbody>
</table>
| • Steel nitrided, blackened | *Flat hexagonal nuts GN 909 → Page 451*

### GN 7336.7

*Clamping knobs with indexing plunger*

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 5 / 5 ... Ø 8 / 8</td>
<td>Plunger tolerance: -0.02 / -0.04</td>
</tr>
<tr>
<td><strong>Dimensions / Assembly</strong></td>
<td>Bore tolerance: G7</td>
</tr>
<tr>
<td>M 10 x 1 ... M 16 x 1,5</td>
<td>Knurled knob Plastic.</td>
</tr>
<tr>
<td><strong>Material / Finish</strong></td>
<td>Clamping knobs with indexing plunger GN 7336.7 are used for positioning, securing and clamping adjusting elements at the same time.</td>
</tr>
<tr>
<td>• Body Steel, zinc plated</td>
<td><em>Flat hexagonal nuts GN 909 → Page 451</em></td>
</tr>
<tr>
<td>• Plunger Stainless Steel AISI 303</td>
<td></td>
</tr>
</tbody>
</table>
**Indexing plungers**

**Range**

**GN 7336.8**
Clamping indexing plungers

→ Page 447

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 9 and Ø 8 / 9</td>
<td>M 16 x 1.5</td>
<td>Steel, zinc plated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stainless Steel AISI 303</td>
</tr>
</tbody>
</table>

**Other features**

- Plunger tolerance: -0.02 / -0.04
- Bore tolerance: G7
- Knurled knob Plastic.

Clamping indexing GN 7336.8 plungers are an advanced development of the GN 7336.7 clamping knobs with indexing plunger. They are used for positioning, securing and clamping adjusting elements at the same time.

This configuration ensures that the indexing pin cannot be pulled from the indexing bore by turning the knurled knob, but only be deliberately pulling the handle (safety function).

With the use of distance bushes GN 609 → Page 450 the length of the protruding plunger can be adjusted to the thread length required.

*Flat hexagonal nuts GN 909 → Page 451*
### GN 612

**Cam action indexing plungers**

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 4 / 6 ... Ø 12 / 12</td>
<td>M 10 ... M 20</td>
<td>Steel version:&lt;br&gt;- Body blackened, Plunger nitrided</td>
</tr>
</tbody>
</table>

**Other features**
- Plunger tolerance: -0,02 / -0,04
- Bore tolerance: H7

Cam action indexing plungers GN 612 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch is provided in either position to prevent the lock from rotating.

### GN 612.2

**Cam action indexing plungers with flange for surface mounting**

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 10 ... Ø 12 / 12</td>
<td>Socket head cap screws DIN 912-M 5</td>
<td>Steel weldable&lt;br&gt;- Body blackened, Plunger nitrided</td>
</tr>
</tbody>
</table>

**Other features**
- Plunger tolerance: -0,02 / -0,04
- Bore tolerance: H7

Cam action indexing plungers GN 612.2 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch is provided in either position to prevent the lock from rotating.

### GN 612.3

**Cam action indexing plungers for welding**

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 10 ... Ø 12 / 12</td>
<td>Socket head cap screws DIN 912-M 5</td>
<td>Steel weldable&lt;br&gt;- Body blackened, Plunger nitrided</td>
</tr>
</tbody>
</table>

**Other features**
- Plunger tolerance: -0,02 / -0,04
- Bore tolerance: +0,1 / + 0,14

Cam action indexing plungers GN 612.3 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch is provided in either position to prevent the lock from rotating.
**Cam action indexing plungers**

**GN 612.8**
Cam action indexing plungers  
Ø Plunger / Stroke  
Ø 6 / 10 ... Ø 12 / 12  
Dimensions / Assembly  
M 16 x 1,5 / M 20 x 1,5  
Material / Finish  
- Body zinc die casting  
- Zinc die casting, corrosion-resistant via nano®-coating  
- Plunger  
- Steel, zinc plated  
- Latch plastic  

**Other features**  
- Plunger tolerance: -0.05  
- Bore tolerance: +0.1 / +0.05  

Cam action indexing plungers GN 612.8 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch is provided in either position to prevent the lock from rotating.

*Distance bushes GN 609 → Page 450*

*Flat hexagonal nuts GN 909 / GN 909.5 → Page 451*

**GN 612.9**
Cam action indexing plungers with flange for surface mounting  
Ø Plunger / Stroke  
Ø 6 / 10 ... Ø 12 / 12  
Dimensions / Assembly  
Socket head cap screws DIN 912-M 5  
Material / Finish  
- Body zinc die casting  
- Plastic coated black  
- Plunger  
- Steel, zinc plated  
- Latch plastic  

**Other features**  
- Plunger tolerance: -0.05  
- Bore tolerance: +0.1 / +0.05  

Cam action indexing plungers GN 612.9 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch is provided in either position to prevent the lock from rotating.

**GN 722.1**
Spring latches for welding  
Ø Plunger / Stroke  
Ø 8 / 14 ... Ø 14 / 14  
Dimensions / Assembly  
for welding  
Material / Finish  
- Body / Latch: Precision cast  
- Body blackened,  
- Latch / Plunger zinc plated  

**Other features**  
- Plunger tolerance: -0.05 / -0.25  
- Bore tolerance: +0.1 / +0.3  

Spring latches GN 722.1 are used when the indexing pin is temporarily not allowed to protrude. The indexing pin retracts by turning the latch by 180°. A lock notch will hold the latch in both positions.

They are designed for use in steel construction or in locksmith shops where less precise positioning / locking is normally required. Therefore functional safety is guaranteed even under dirt exposure.

*Flat hexagonal nuts GN 909 / GN 909.5 → Page 451*
### Cam action indexing plungers

**Range**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
<th>Other features</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 722.2</td>
<td>Spring latches with flange for surface mounting</td>
<td>Ø 8 / 14 ... Ø 14 / 14</td>
<td>for surface mounting</td>
<td>Body / Latch: Precision cast, Body zinc plated and black plastic coated, Latch / Plunger zinc plated</td>
<td>Plunger tolerance: -0.05 / -0.25, Bore tolerance: +0.1 / +0.3</td>
</tr>
<tr>
<td>GN 722.3</td>
<td>Spring latches with flange for surface mounting</td>
<td>Ø 8 / 14 ... Ø 14 / 14</td>
<td>for surface mounting</td>
<td>Body / Latch: Precision cast, Body zinc plated and black plastic coated, Latch / Plunger zinc plated</td>
<td>Plunger tolerance: -0.05 / -0.25, Bore tolerance: +0.1 / +0.3</td>
</tr>
<tr>
<td>GN 712</td>
<td>Cam action indexing plungers, plunger in normal position protruded</td>
<td>Ø 6 / 8 ... Ø 10 / 8</td>
<td>M 16 x 1.5</td>
<td>Steel, Body zinc plated, Plunger nitried, Latch plastic</td>
<td>Plunger tolerance: h9, Bore tolerance: +0.03 / +0.08</td>
</tr>
</tbody>
</table>

Cam action indexing plungers GN 712 are used in such applications where the plunger must not protrude continually. When turning the cam by 90 resp. 120 degrees in anti-clockwise direction, the plunger is moved through a curved opening in the body.

There are three different types available:

- the plunger moved back by a spring in its original position
- the plunger held in retracted position
- the plunger resp. is secured against accidental operation

---

*Flat hexagonal nuts GN 909 → Page 451*
Cam action indexing plungers

**GN 712.1**
Cam action indexing plungers, plunger in normal position retracted → Page 465

<table>
<thead>
<tr>
<th>Ø Plunger / Stroke</th>
<th>Dimensions / Assembly</th>
<th>Material / Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø 6 / 8 ... Ø 8 / 8</td>
<td>M 16 x 1,5</td>
<td>Steel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Body zinc plated, Plunger nitrided</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Latch plastic</td>
</tr>
</tbody>
</table>

**Other features**
- Plunger tolerance: h9
- Bore tolerance: +0.03 / +0.08

Cam action indexing plungers GN 712.1 are used in such applications where the plunger has to protrude only occasionally. When turning the cam by 90 resp. 120 degrees in clockwise direction, the plunger is moved through a curved opening in the body.

There are three different types available:
- the plunger moved back by a spring in its original position
- the plunger held in protruded position
- the plunger resp. is secured against accidental operation

*Flat hexagonal nuts GN 909 → Page 451*
GN 617
Steel / Stainless Steel
without rest position

Indexing plungers

Type
A with Plastic-Knob, without lock nut
AK with Plastic-Knob, with lock nut
AN with Stainless Steel-Knob, without lock nut
AKN with Stainless Steel-Knob, with lock nut
G with threaded rod, without lock nut
GK with threaded rod, with lock nut

Information

Type G or GK of the GN 617 indexing plungers have been designed for applications where the indexing plunger is not operated with the standard knob.

The indexing plungers are designed such that the plunger set in the end position (spring is „on block“) can also absorb axial forces. For applications in which these forces are substantially above the tensile force applied by the operator (Type G), GN 817 indexing plungers are to be preferred.

see also...
- Range of indexing plungers → Page 402
- Mounting blocks GN 412.1 → Page 452
- Positioning bushings GN 412.2 → Page 454

Specification

- Steel
  - blackened
  - Plunger hardened
- Stainless Steel AISI 303
  - Plunger chemically nickel plated
- Knob Type A / AK
  - Plastic (Polyamide PA)
  - black, matt
  - not removable
- Knob Type AN / AKN
  - Stainless Steel AISI 303
  - not removable
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- Plastic characteristics → Page 1141
- RoHS compliant

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>e</th>
<th>l₁ = l₂ min.</th>
<th>l₃</th>
<th>l₄</th>
<th>l₅</th>
<th>l₆</th>
<th>A/F</th>
<th>Spring load in N ≈</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plunger</td>
<td>Bore H7</td>
<td></td>
<td></td>
<td>(mm)</td>
<td>(mm)</td>
<td>(mm)</td>
<td>(mm)</td>
<td>(mm)</td>
<td>(mm)</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>5</td>
<td>M 10 x 1</td>
<td>21</td>
<td>M 5</td>
<td>13,8</td>
<td>45</td>
<td>5</td>
<td>17</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>M 12 x 1,5</td>
<td>25</td>
<td>M 6</td>
<td>16,2</td>
<td>54,5</td>
<td>6</td>
<td>20</td>
<td>6</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>8</td>
<td>M 16 x 1,5</td>
<td>31</td>
<td>M 8</td>
<td>21,9</td>
<td>69</td>
<td>8</td>
<td>26</td>
<td>8</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>10</td>
<td>M 20 x 1,5</td>
<td>31</td>
<td>M 8</td>
<td>25,4</td>
<td>80</td>
<td>10</td>
<td>33</td>
<td>10</td>
<td>12</td>
<td>30</td>
</tr>
</tbody>
</table>

See also...
- Range of indexing plungers → Page 402
- Mounting blocks GN 412.1 → Page 452
- Positioning bushings GN 412.2 → Page 454

Indexing plungers

<table>
<thead>
<tr>
<th>d₁</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Stainless Steel-Indexing plungers

<table>
<thead>
<tr>
<th>d₁</th>
<th>Type</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

GN 617-6-A

GN 617-8-AKN-NI
Indexing plungers GN 617 → Page 416
Indexing plungers with rest position GN 617.1 → Page 420
Safety indexing plungers GN 414 → Page 444
Locking plungers GN 514 → Page 445
Indexing plungers GN 717 → Page 421
Indexing plungers GN 817 → Page 422
### Indexing plungers

**GN 613**

**Steel / Stainless Steel**

**without rest position**

#### Specification

- **Steel**
  - blackened
  - Plunger hardened
- **Stainless Steel AISI 303**
  - Plunger chemically nickel plated
- **Knob Type A / AK**
  - Plastic (Polyamide PA)
  - black, matt
  - not removable
- **Knob Type AN / AKN**
  - Stainless Steel AISI 303
  - not removable
- **ISO-Fundamental Tolerances** → Page 1132
- **Stainless Steel characteristics** → Page 1144
- **Plastic characteristics** → Page 1141
- **RoHS compliant**

#### Information

Type G or GK of the GN 613 indexing plungers have been designed for applications where the indexing plunger is not operated with the standard knob. The indexing plungers are designed such that the plunger set in the end position (spring is „on block”) can also absorb axial forces. For applications in which these forces are substantially above the tensile force applied by the operator (Type G), GN 817 indexing plungers are to be preferred.

A special screw driver GN 613.1 is available. Two slots are provided in the upper end of the body which are accessible with the knob in its retracted position.

**see also...**

- **Range of indexing plungers** → Page 402

#### Table

<table>
<thead>
<tr>
<th>d1</th>
<th>d2</th>
<th>d3</th>
<th>d4</th>
<th>l1 ≈ l2 min.</th>
<th>l3</th>
<th>l4</th>
<th>Spring load in N ≈</th>
<th>Code No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plunger</td>
<td>Bore</td>
<td>H7</td>
<td>-0.02</td>
<td>-0.04</td>
<td>Steel initial</td>
<td>Stainless Steel end</td>
<td>Screw driver</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>M 10 x 1</td>
<td>21</td>
<td>M 5</td>
<td>45</td>
<td>5</td>
<td>22</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>6</td>
<td>M 12 x 1,5</td>
<td>25</td>
<td>M 6</td>
<td>54,5</td>
<td>6</td>
<td>26</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>8</td>
<td>M 16 x 1,5</td>
<td>31</td>
<td>M 8</td>
<td>69</td>
<td>8</td>
<td>34</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>M 20 x 1,5</td>
<td>31</td>
<td>M 8</td>
<td>80</td>
<td>10</td>
<td>43</td>
<td>12</td>
<td>19</td>
</tr>
</tbody>
</table>

#### Indexing plungers

<table>
<thead>
<tr>
<th>1</th>
<th>d1</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN613-8-G</td>
<td></td>
</tr>
</tbody>
</table>

#### Stainless Steel-Indexing plungers

<table>
<thead>
<tr>
<th>1</th>
<th>d1</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN613-5-AKN-NI</td>
<td></td>
</tr>
</tbody>
</table>

---

**Type**

- **A** with Plastic-Knob, without lock nut
- **AK** with Plastic-Knob, with lock nut
- **AN** with Stainless Steel-Knob, without lock nut
- **AKN** with Stainless Steel-Knob, with lock nut
- **G** with threaded rod, without lock nut
- **GK** with threaded rod, with lock nut
Indexing plungers GN 618 without thread are for applications where welding, resin bonding (Loctite) or clamping is favoured.

Type G has been designed for applications where the indexing plunger is not operated with the standard knob.

The indexing plungers are designed such that the plunger set in the end position (spring is “on block”) can also absorb axial forces. For applications in which these forces are substantially above the tensile force applied by the operator (Type G), additional information can be submitted on request.

**Specification**

- Steel
  - weldable
  - blackened
  - Plunger hardened
- Knob Plastic (Polyamide PA)
  - black, matt
  - not removable
- ISO-Fundamental Tolerances ➔ Page 1132
- Plastic characteristics ➔ Page 1141
- RoHS compliant

**Information**

Indexing plungers GN 618 without thread are for applications where welding, resin bonding (Loctite) or clamping is favoured.

Type G has been designed for applications where the indexing plunger is not operated with the standard knob.

The indexing plungers are designed such that the plunger set in the end position (spring is “on block”) can also absorb axial forces. For applications in which these forces are substantially above the tensile force applied by the operator (Type G), additional information can be submitted on request.

**How to order**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 618-8-A</td>
<td>Indexing plungers, Locking pins, Spring plungers</td>
</tr>
</tbody>
</table>

**Type**

- A with knob
- G with threaded rod

**Dimensions**

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>l₁</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄</th>
<th>Spring load in N</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>12</td>
<td>21</td>
<td>M 5</td>
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<td>M 8</td>
<td>69</td>
<td>8</td>
<td>34</td>
<td>12</td>
<td>11</td>
</tr>
</tbody>
</table>

**Note**

Spring load in N ≈...
Indexing plungers GN 617.1 with rest position are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

see also...
- Range of indexing plungers ➔ Page 402
- Mounting blocks GN 412.1 ➔ Page 452
- Positioning bushings GN 412.2 ➔ Page 454
- Distance bushings GN 609 / GN 609.5 (to limit the thread length) ➔ Page 450
- Flat hexagonal nuts GN 909 / GN 909.5 ➔ Page 451

Information

Indexing plungers GN 617.1 with rest position are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

see also...
- Range of indexing plungers ➔ Page 402
- Mounting blocks GN 412.1 ➔ Page 452
- Positioning bushings GN 412.2 ➔ Page 454
- Distance bushings GN 609 / GN 609.5 (to limit the thread length) ➔ Page 450
- Flat hexagonal nuts GN 909 / GN 909.5 ➔ Page 451
Indexing plungers, Locking pins, Spring plungers

**GN 717**
Steel / Stainless Steel

**Indexing plungers**
with and without rest position

**Type A**
- without rest position (lifting ring)
- without lock nut

**Type AK**
- without rest position (lifting ring)
- with lock nut

**Type B**
- without rest position (Knob),
- without lock nut

**Type BK**
- without rest position (Knob),
- with lock nut

**Type C**
- with rest position (Knob),
- without lock nut

**Type CK**
- with rest position (Knob),
- with lock nut

**Specification**
- **Threaded body**
  - Steel zinc plated, blue passivated  **ST**
  - Stainless Steel AISI 303  **NI**
- **Plunger**
  - Stainless Steel AISI 303
- **Spring**
  - Stainless Steel AISI 301
- **Lifting ring**
  - Stainless Steel AISI 301
- **Knob Plastic (Polyamide PA)**
  - black, matt
  - not removable

**Information**
Indexing plungers GN 717 are a reasonably priced indexing plunger variant which are distinguished for their small dimensions. Their use should be limited to such applications where high precision indexing is not required.

Due to the comparably small dimensions of indexing plungers GN 717, it is advisable to follow the values listed above regarding maximum tightening torque during assembly.

- **Range of indexing plungers** → Page 402
- **Distance bushings GN 609 / GN 609.5**
  (to limit the thread length) → Page 450

**How to order**

<table>
<thead>
<tr>
<th>1</th>
<th>d₁</th>
<th>2</th>
<th>d₂</th>
<th>3</th>
<th>Type</th>
<th>4</th>
<th>Material</th>
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</thead>
<tbody>
<tr>
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</tbody>
</table>
### GN 817
Indexing plungers
Steel / Stainless Steel
with and without rest position

Indexing plungers GN 817 with rest position (Type C / CK) are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

#### Specification
- Steel
  - blackened
  - Plunger hardened
- Stainless Steel AISI 303
  - NI
  - Plunger chemically nickel plated
- Knob Plastic (Polyamide PA)
  - black, matt
  - red RT RAL 3000
  - add RT on order code
  - not removable
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- Plastic characteristics → Page 1141
- RoHS compliant

#### Information
Indexing plungers GN 817 with rest position (Type C / CK) are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

see also...
- Range of indexing plungers → Page 402

### Table

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
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<tbody>
<tr>
<td>B</td>
<td>without rest position, without lock nut</td>
</tr>
<tr>
<td>BK</td>
<td>without rest position, with lock nut</td>
</tr>
<tr>
<td>C</td>
<td>with rest position, without lock nut</td>
</tr>
<tr>
<td>CK</td>
<td>with rest position, with lock nut</td>
</tr>
<tr>
<td>G</td>
<td>with threaded rod, without lock nut</td>
</tr>
<tr>
<td>GK</td>
<td>with threaded rod, with lock nut</td>
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</table>

<table>
<thead>
<tr>
<th>Plunger</th>
<th>Bore H7</th>
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<tr>
<td>d1</td>
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<td>d3</td>
<td>l3</td>
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<tr>
<td>d4</td>
<td>l4</td>
</tr>
<tr>
<td>d5</td>
<td>l5</td>
</tr>
<tr>
<td>k</td>
<td>l6</td>
</tr>
<tr>
<td>i/F</td>
<td>A/F</td>
</tr>
<tr>
<td>Spring load in N ≈</td>
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</table>

<p>| | | | | | | | | | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
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</thead>
<tbody>
<tr>
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<td>M 8 x 1</td>
<td>16</td>
<td>M 3</td>
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<tr>
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<tr>
<td>5</td>
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<td>M 10 x 1</td>
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<td>M 5</td>
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<td>M 16 x 1.5</td>
<td>28</td>
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<td>M 6</td>
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<td>4</td>
<td>17</td>
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<td>12</td>
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<td>M 20 x 1.5</td>
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<td>8,5</td>
<td>4</td>
<td>22</td>
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</tbody>
</table>

### Diagram

- Type B
- Type BK
- Type C
- Type CK
- Type G
- Type GK

### Code

**Indexing plungers**

- GN817-4-6-C

**Stainless Steel-Indexing plungers**

- GN817-6-9-B-NI
### Indexing plungers GN 817.2

#### Steel / Stainless Steel

*with long knob, with and without rest position*

---

#### Specification

- **Steel**
  - blackened
  - Plunger hardened
- **Stainless Steel AISI 303**
  - Plunger chemically nickel plated
- **Knob Plastic (Polyamide PA)**
  - black, matt
  - not removable
- **ISO-Fundamental Tolerances**
- **Stainless Steel characteristics**
- **Plastic characteristics**
- **RoHS compliant**

---

#### Information

Indexing plungers GN 817.2 correspond to GN 817, they only differ by a longer knob.

Type C / CK are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

**see also...**

- Range of indexing plungers → Page 402

---

#### Table 1: Specification

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<tr>
<th>d₁ (Plunger Bore H7)</th>
<th>l₁ (min.)</th>
<th>d₂</th>
<th>d₃</th>
<th>k</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄</th>
<th>A/F</th>
<th>Spring load in N initial</th>
<th>Spring load in N end</th>
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</thead>
<tbody>
<tr>
<td>4</td>
<td>4</td>
<td>M 8 x 1</td>
<td>16</td>
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<tr>
<td>4</td>
<td>6</td>
<td>M 8 x 1</td>
<td>16</td>
<td>21</td>
<td>42</td>
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<td>10</td>
<td>4,5</td>
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<tr>
<td>5</td>
<td>5</td>
<td>M 10 x 1</td>
<td>19</td>
<td>24</td>
<td>48</td>
<td>18</td>
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<td>12</td>
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<tr>
<td>6</td>
<td>6</td>
<td>M 12 x 1,5</td>
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<td>14</td>
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<td>19</td>
</tr>
<tr>
<td>6</td>
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<td>14</td>
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<tr>
<td>8</td>
<td>8</td>
<td>M 16 x 1,5</td>
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<td>36</td>
<td>70</td>
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<td>17</td>
<td>8,5</td>
<td>26</td>
</tr>
<tr>
<td>8</td>
<td>12</td>
<td>M 16 x 1,5</td>
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<td>28</td>
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<tr>
<td>10</td>
<td>12</td>
<td>M 16 x 1,5</td>
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<td>12</td>
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</tbody>
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### Steel-Indexing plungers

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<thead>
<tr>
<th>Steel-Indexing plungers</th>
<th>d₁</th>
<th>l₁</th>
<th>Type</th>
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</thead>
<tbody>
<tr>
<td>GN817.2-4-6-C</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tbody>
</table>

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### Stainless Steel-Indexing plungers

<table>
<thead>
<tr>
<th>Stainless Steel-Indexing plungers</th>
<th>d₁</th>
<th>l₁</th>
<th>Type</th>
<th>Material</th>
</tr>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
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</tbody>
</table>
Indexing plungers, Locking pins, Spring plungers

GN 817.3

for precision locating

Indexing plungers GN 817.3 realize a reasonable priced precision locating when guide bushes DIN 179 are used. For this purpose a guide bush DIN 179 is used as guide, whereby the dimension \( l_3 \) of the plunger determines the length of the bush. The precise location is, therefore, not dependent on the guide pin in the plunger, but on the accuracy of the guide bush (bore tolerance F7) and the plunger (tolerance h7). Both components are hardened and ground. It goes without saying that the bush length also influences the accuracy of the positioning.

Type C is used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

see also...
- Range of indexing plungers → Page 402

**Specification**

- Steel
  - blackened
  - Plunger hardened and ground
- Knob Plastic (Polyamide PA)
  - black, matt
  - not removable
- ISO-Fundamental Tolerances → Page 1132
- Plastic characteristics → Page 1141
- RoHS compliant

**Accessory**

- Guide bushes DIN 179 → Page 575

**Information**

Indexing plungers GN 817.3 realize a reasonable priced precision locating when guide bushes DIN 179 are used.

For this purpose a guide bush DIN 179 is used as guide, whereby the dimension \( l_3 \) of the plunger determines the length of the bush.

The precise location is, therefore, not dependent on the guide pin in the plunger, but on the accuracy of the guide bush (bore tolerance F7) and the plunger (tolerance h7). Both components are hardened and ground. It goes without saying that the bush length also influences the accuracy of the positioning.

Type C is used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

see also...
- Range of indexing plungers → Page 402
Indexing plungers GN 817.4 are similar to GN 817, but with a T-handle instead of a round head.

This shape allows better visual orientation of the indexing position of Type C and is advantageous when greater unlocking forces occur.

Type C with rest position is used in such applications where the plunger must not protrude continually. In that case the knob is retracted and afterwards turned by 90°. A notch keeps the plunger in this position.

see also...
- Guide bushes DIN 172 / DIN 179 ➔ Page 575

Table:

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>without rest position, without lock nut</td>
</tr>
<tr>
<td>BK</td>
<td>without rest position, with lock nut</td>
</tr>
<tr>
<td>C</td>
<td>with rest position, without lock nut</td>
</tr>
<tr>
<td>CK</td>
<td>with rest position, with lock nut</td>
</tr>
</tbody>
</table>

**Specification**

- Steel
  - blackened
  - Plunger hardened
- Stainless Steel
  - AISI 303
  - Plunger chemically nickel plated
- T-Handle
  - Plastic (Polyamide PA)
  - not removable
  - black, matt
- ISO-Fundamental tolerances ➔ Page 1132
- Stainless Steel characteristics ➔ Page 1144
- Plastic characteristics ➔ Page 1141
- RoHS compliant

**Information**

Indexing plungers GN 817.4 are similar to GN 817, but with a T-handle instead of a round head.

This shape allows better visual orientation of the indexing position of Type C and is advantageous when greater unlocking forces occur.

Type C with rest position is used in such applications where the plunger must not protrude continually. In that case the knob is retracted and afterwards turned by 90°. A notch keeps the plunger in this position.

see also...
- Guide bushes DIN 172 / DIN 179 ➔ Page 575
Indexing plungers GN 607 are distinguished for their small dimension. The extremely low lock nuts GN 909 / GN 909.5 enlarge the mounting options.

see also...
- Range of indexing plungers → Page 402
- Distance bushings GN 609 (to limit the thread length) → Page 450
- Stainless Steel-Distance bushings GN 609.5 (to limit the thread length) → Page 450
- Positioning bushings GN 412.2 → Page 454
- Flat hexagonal nuts GN 909 → Page 451
- Flat Stainless Steel-Hexagonal nuts GN 909.5 → Page 451

**Specification**

- Steel
  - blackened
  - Plunger hardened
- Stainless Steel AISI 303
  Plunger chemically nickel plated
- Knob
  Plastic (Polyamide PA)
  - black, matt
  - not removable
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- Plastic characteristics → Page 1141
- RoHS compliant

**Information**

Indexing plungers GN 607 are distinguished for their small dimension. The extremely low lock nuts GN 909 / GN 909.5 enlarge the mounting options.

**Table:**

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>e ≈</th>
<th>l₁</th>
<th>l₂ ±0,5</th>
<th>l₃ –0,15</th>
<th>l₄</th>
<th>A/F</th>
<th>Spring load in N</th>
<th>Axial load in N</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>M 12 x 1,5</td>
<td>25</td>
<td>19,6</td>
<td>45</td>
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<td>8,5</td>
</tr>
<tr>
<td>8</td>
<td>M 16 x 1,5</td>
<td>31</td>
<td>21,9</td>
<td>54</td>
<td>8</td>
<td>12</td>
<td>6</td>
<td>19</td>
<td>14</td>
<td>15,5</td>
</tr>
</tbody>
</table>
Indexing plungers GN 607.1 with rest position are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

Indexing plungers GN 607.1 are distinguished for their small dimensions. The extremely low lock nuts GN 909 / GN 909.5 enlarge the mounting options. The locking tab is an integral part of the knob thus giving reliable operation at all times.

### Specification

- **Steel**
  - blackened
  - Plunger hardened
- **Stainless Steel AISI 303**
  - Plunger chemically nickel plated
- **Knob**
  - Plastic (Polyamide PA)
  - black, matt
  - not removable
- **ISO-Fundamental Tolerances** → Page 1132
- **Stainless Steel characteristics** → Page 1144
- **Plastic characteristics** → Page 1141
- **RoHS compliant**

### Information

Indexing plungers GN 607.1 with rest position are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

Indexing plungers GN 607.1 are distinguished for their small dimensions. The extremely low lock nuts GN 909 / GN 909.5 enlarge the mounting options. The locking tab is an integral part of the knob thus giving reliable operation at all times.

*see also...*
- Range of indexing plungers → Page 402
- Distance bushings GN 609 (to limit the thread length) → Page 450
- Stainless Steel-Distance bushings GN 609.5 (to limit the thread length) → Page 450
- Positioning bushings GN 412.2 → Page 454
- Flat hexagonal nuts GN 909 → Page 451
- Flat Stainless Steel-Hexagonal nuts GN 909.5 → Page 451

### Table

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>e ≈</th>
<th>l₁</th>
<th>l₂ ±0,5</th>
<th>l₃ −0,15</th>
<th>l₄</th>
<th>A/F</th>
<th>Spring load in N ≈</th>
<th>Axial load in N</th>
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</thead>
<tbody>
<tr>
<td>6</td>
<td>M 12 x 1,5</td>
<td>25</td>
<td>19,6</td>
<td>45</td>
<td>6</td>
<td>10</td>
<td>5</td>
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<td>7</td>
<td>18</td>
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<td>8</td>
<td>M 16 x 1,5</td>
<td>31</td>
<td>21,9</td>
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<td>12</td>
<td>6</td>
<td>19</td>
<td>14</td>
<td>24</td>
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</tbody>
</table>

### Diagram

- Plunger in rest position
- Lock nut GN 909 / GN 909.5
- Distance bushing GN 609 / GN 609.5

### Indexing plungers

- **GN 607.1-6-A-ST**
  - d₁
  - Type
  - Material

### Stainless Steel-Indexing plungers

- **GN 607.1-8-A-NI**
  - d₁
  - Type
  - Material
Indexing plungers GN 607.2 have been developed for installation in thin walled equipment.

It has to be taken into consideration that, depending on the mounting plate thickness \( s \), the protruding plunger length \( l_1 \) and the position of the hexagon nut on its centre bush, the plunger nose might not always be fully retractable.

For design reasons the positional accuracy of this indexing plunger is not as precise as plunger GN 607.

see also...

- Range of indexing plungers ➔ Page 402
- Positioning bushings GN 412.2 ➔ Page 454
Indexing plungers GN 607.3 have been developed for installation in thin walled equipment.

It has to be taken into consideration that, depending on the mounting plate thickness 's', the protruding plunger length 'l1' and the position of the hexagon nut on its centre bush, the plunger nose might not always be fully retractable.

For design reasons the positional accuracy of this indexing plunger is not as precise as plunger GN 607.

Indexing plungers with rest position are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

see also...
- Range of indexing plungers → Page 402
- Positioning bushings GN 412.2 → Page 454

<table>
<thead>
<tr>
<th>Specification</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Guide Steel zinc plated, blue passivated</td>
<td></td>
</tr>
<tr>
<td>• Plunger Stainless Steel AISI 303 chemically nickel plated</td>
<td></td>
</tr>
<tr>
<td>• Knob Plastic (Polyamide PA)</td>
<td></td>
</tr>
<tr>
<td>- black, matt</td>
<td></td>
</tr>
<tr>
<td>- not removable</td>
<td></td>
</tr>
<tr>
<td>• ISO-Fundamental Tolerances → Page 1132</td>
<td></td>
</tr>
<tr>
<td>• Stainless Steel characteristics → Page 1144</td>
<td></td>
</tr>
<tr>
<td>• Plastic characteristics → Page 1141</td>
<td></td>
</tr>
<tr>
<td>• RoHS compliant</td>
<td></td>
</tr>
</tbody>
</table>

**Accessories**
- Double ring spanner GN 607.9-SW14-SW16 (assembling aid)

**Table**

<table>
<thead>
<tr>
<th>d1</th>
<th>l1</th>
<th>d2</th>
<th>d3</th>
<th>e</th>
<th>l2</th>
<th>l3</th>
<th>l4 Stroke</th>
<th>s</th>
<th>A/F1</th>
<th>A/F2</th>
<th>Spring load in N</th>
<th>Axial load in N</th>
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</thead>
<tbody>
<tr>
<td>6</td>
<td>8,5</td>
<td>10,5</td>
<td>25</td>
<td>10</td>
<td>19,5</td>
<td>34</td>
<td>10</td>
<td>6</td>
<td>1 bis 5</td>
<td>17</td>
<td>14</td>
<td>7</td>
</tr>
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<td>8</td>
<td>10</td>
<td>12</td>
<td>31</td>
<td>12</td>
<td>22</td>
<td>40</td>
<td>12</td>
<td>7,5</td>
<td>1 bis 5</td>
<td>19</td>
<td>16</td>
<td>14</td>
</tr>
</tbody>
</table>

**Indexing plungers**

**GN 607.3-8-10-ST**
Indexing plungers GN 607.4 are designed for welded fixing, in particular for use in steel square tubings.

The lug d₂ is intended for positioning.

The plastic knob with the in-moulded indexing pin is driven on after the welding process.

see also...
- Range of indexing plungers → Page 402
- Positioning bushings GN 412.2 → Page 454

How to order

GN607.4-6-14-ST

<table>
<thead>
<tr>
<th>Specification</th>
<th>Information</th>
</tr>
</thead>
</table>
| Steel
  - blackened
  - Plunger hardened
| Indexing plungers GN 607.4 are designed for welded fixing, in particular for use in steel square tubings. The lug d₂ is intended for positioning. The plastic knob with the in-moulded indexing pin is driven on after the welding process. |
| Knob Plastic (Polyamide PA)
  - black, matt
  - not removable
| see also...
  - Range of indexing plungers → Page 402
  - Positioning bushings GN 412.2 → Page 454 |

Plastic characteristics → Page 1141
RoHS compliant

### GN 607.4 Indexing plungers
for welding, without rest position

<table>
<thead>
<tr>
<th>d₁ Plunger</th>
<th>b Bore</th>
<th>d₂ -d₃</th>
<th>d₄</th>
<th>l₁</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄</th>
<th>l₅ Stroke</th>
<th>Spring load in N ≈</th>
<th>Axial load in N ≈</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
<td>18</td>
<td>10</td>
<td>25</td>
<td>22</td>
<td>37</td>
<td>1,5</td>
<td>5,5</td>
<td>6</td>
<td>8,5</td>
</tr>
<tr>
<td>6</td>
<td>14</td>
<td>18</td>
<td>10</td>
<td>25</td>
<td>22</td>
<td>45</td>
<td>1,5</td>
<td>5,5</td>
<td>6</td>
<td>8,5</td>
</tr>
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<td>20</td>
<td>12</td>
<td>31</td>
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<td>8</td>
<td>15,5</td>
</tr>
<tr>
<td>8</td>
<td>18</td>
<td>20</td>
<td>12</td>
<td>31</td>
<td>25</td>
<td>54</td>
<td>2</td>
<td>6,5</td>
<td>8</td>
<td>15,5</td>
</tr>
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</table>
Indexing plungers GN 607.5 with rest position are used in cases where the indexing pin is temporarily not allowed to protrude. After pulling out, the knob is turned by 90°. A notch keeps the plunger in this position.

The GN 607.5 indexing plungers are intended for welded fixing, in particular for use in steel square tubings.

How to order
GN607.5-6-6-ST

### Specification
- Steel
  - blackened
  - Plunger hardened
- Knob Plastic (Polyamide PA)
  - black, matt
  - not removable
- Plastic characteristics ➔ Page 1141
- RoHS compliant

<table>
<thead>
<tr>
<th>d₁</th>
<th>b</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄</th>
<th>Stroke</th>
<th>Spring load in N ≈</th>
<th>Axial load in N ≈</th>
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</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
<td>18</td>
<td>10</td>
<td>25</td>
<td>22</td>
<td>37</td>
<td>1,5</td>
<td>5,5</td>
<td>6</td>
<td>400</td>
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<tr>
<td>6</td>
<td>14</td>
<td>18</td>
<td>10</td>
<td>25</td>
<td>22</td>
<td>45</td>
<td>1,5</td>
<td>5,5</td>
<td>6</td>
<td>400</td>
</tr>
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<td>8</td>
<td>8</td>
<td>20</td>
<td>12</td>
<td>31</td>
<td>25</td>
<td>44</td>
<td>2</td>
<td>6,5</td>
<td>8</td>
<td>500</td>
</tr>
<tr>
<td>8</td>
<td>18</td>
<td>20</td>
<td>12</td>
<td>31</td>
<td>25</td>
<td>54</td>
<td>2</td>
<td>6,5</td>
<td>8</td>
<td>500</td>
</tr>
</tbody>
</table>

### Information
Indexing plungers GN 607.5 with rest position are used in cases where the indexing pin is temporarily not allowed to protrude. After pulling out, the knob is turned by 90°. A notch keeps the plunger in this position.

The GN 607.5 indexing plungers are intended for welded fixing, in particular for use in steel square tubings.

The lug d₂ is intended for positioning.

The plastic knob with the in-moulded indexing pin is driven on after the welding process.

see also...
- Range of indexing plungers ➔ Page 402
- Mounting blocks GN 412.1 ➔ Page 452
### GN 608
Plunger Steel

### GN 608.5
Plunger Stainless Steel

#### Indexing plungers without rest position

---

**Specification**

- Guide
  - Zinc die casting
  - Zinc plated, blue passivated

- Knob
  - Plastic (Polyamide PA)
  - Black, matt
  - Not removable

- **GN 608**
  - Plunger Steel, hardened
  - Single components Steel / Brass

- **GN 608.5**
  - Plunger Stainless Steel AISI 303
  - Chemically nickel plated
  - Single components Stainless Steel

- **ISO-Fundamental Tolerances** → Page 1132
- **Stainless Steel characteristics** → Page 1144
- **Plastic characteristics** → Page 1141
- **RoHS compliant**

---

**Information**

Indexing plungers GN 608 / GN 608.5 are distinguished for their small dimensions.

**see also...**

- Range of indexing plungers → Page 402
- Positioning bushings GN 412.2 → Page 454

---

### Table: GN 608-8-18

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<thead>
<tr>
<th>d₁</th>
<th>b₁</th>
<th>b₂</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>d₅</th>
<th>k</th>
<th>l₁</th>
<th>l₂</th>
<th>l₃ -0.15</th>
<th>l₄</th>
<th>l₅ Stroke</th>
<th>Spring load in N ≈</th>
<th>Axial load in N</th>
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</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
<td>40</td>
<td>18</td>
<td>10</td>
<td>25</td>
<td>4.3</td>
<td>8.3</td>
<td>30</td>
<td>37</td>
<td>2.5</td>
<td>4.5</td>
<td>6</td>
<td>8.5</td>
<td>22</td>
</tr>
<tr>
<td>6</td>
<td>14</td>
<td>40</td>
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<td>10</td>
<td>25</td>
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<td>8.3</td>
<td>30</td>
<td>45</td>
<td>2.5</td>
<td>4.5</td>
<td>6</td>
<td>8.5</td>
<td>22</td>
</tr>
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<td>20</td>
<td>12</td>
<td>31</td>
<td>5.3</td>
<td>10.4</td>
<td>34</td>
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<td>5.5</td>
<td>8</td>
<td>15.5</td>
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<tr>
<td>8</td>
<td>18</td>
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<td>12</td>
<td>31</td>
<td>5.3</td>
<td>10.4</td>
<td>34</td>
<td>54</td>
<td>2.5</td>
<td>5.5</td>
<td>8</td>
<td>15.5</td>
<td>28</td>
</tr>
</tbody>
</table>

---

**Guide**

- Zinc die casting
- Zinc plated, blue passivated

**Knob**

- Plastic (Polyamide PA)
- Black, matt
- Not removable

**GN 608**

- Plunger Steel, hardened
- Single components Steel / Brass

**GN 608.5**

- Plunger Stainless Steel AISI 303
- Chemically nickel plated
- Single components Stainless Steel

**ISO-Fundamental Tolerances** → Page 1132

**Stainless Steel characteristics** → Page 1144

**Plastic characteristics** → Page 1141

**RoHS compliant**

---

**Plunger Steel**

<table>
<thead>
<tr>
<th>GN 608-8-18</th>
<th>1</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>l₁</td>
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</table>

**Plunger Stainless Steel**

<table>
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<th>1</th>
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</table>
Indexing plungers GN 608.1 / GN 608.6 with rest position are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

Indexing plungers GN 608.1 / GN 608.6 are distinguished for their small dimensions. The locking tab is integrated into the knob thus giving reliable operation at all times.

Specifying:
- Guide
  - Zinc die casting
  - Zinc plated, blue passivated

- Knob
  - Plastic (Polyamide PA)
  - Black, matt
  - Not removable

- GN 608.1
  - Plunger Steel, hardened
  - Single components Steel / Brass

- GN 608.6
  - Plunger Stainless Steel AISI 303
  - Chemically nickel plated
  - Single components Stainless Steel

- ISO-Fundamental Tolerances ➔ Page 1132
- Stainless Steel characteristics ➔ Page 1144
- Plastic characteristics ➔ Page 1141

- RoHS compliant

Information
Indexing plungers GN 608.1 / GN 608.6 with rest position are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

Indexing plungers GN 608.1 / GN 608.6 are distinguished for their small dimensions. The locking tab is integrated into the knob thus giving reliable operation at all times.

see also...
- Range of indexing plungers ➔ Page 402
- Positioning bushings GN 412.2 ➔ Page 454

<table>
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<tr>
<th>d₁</th>
<th>l₁</th>
<th>b₁</th>
<th>b₂</th>
<th>d₂  /-0.002</th>
<th>d₃</th>
<th>d₄</th>
<th>d₅</th>
<th>k</th>
<th>l₂</th>
<th>l₃ -0.15</th>
<th>l₄</th>
<th>I₅ Stroke</th>
<th>Spring load in N =</th>
<th>Axial load in N</th>
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<tr>
<td>6</td>
<td>6</td>
<td>40</td>
<td>18</td>
<td>10</td>
<td>25</td>
<td>4.3</td>
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<td>8</td>
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Plunger Steel

<table>
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<tbody>
<tr>
<td>1 d₁</td>
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<tr>
<td>2 l₁</td>
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</table>

Plunger Stainless Steel

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>1 d₁</td>
</tr>
<tr>
<td>2 l₁</td>
</tr>
</tbody>
</table>
**Mini indexing plungers**

**Steel / Stainless Steel**

Covered indexing mechanism, with and without rest position

---

### Specification

- **Steel**
  - zinc plated, blue passivated
- **Stainless Steel AISI 303**
- **Plunger**
  - Stainless Steel AISI 303
- **Spring**
  - Stainless Steel AISI 301
- **Knob Plastic (Polyamide PA)**
  - black, matt
  - not removable
- **Stainless Steel characteristics** → Page 1144
- **Plastic characteristics** → Page 1141
- **RoHS compliant**

### Information

Mini indexing plungers GN 822 are distinguished for their small dimensions. They have been designed for installation in thin walled sheet metal constructions.

They are inserted into position by holding them by the serrated knob. The spanner flats on the lock nut are revealed when retracting the pin, so that the mini indexing plunger can be easily tightened by means of a fork spanner.

With Type C the knob can be turned by 30° and a notch keeps the knob in this position.

**see also...**

- **Range of indexing plungers** → Page 402
- **Distance bushings GN 609 / GN 609.5** → Page 450
- **Flat hexagonal nuts GN 909 / GN 909.5** → Page 451

### Accessory

- **Distance bushings GN 609 / GN 609.5** are to be ordered separately.

---

### Table: Mini indexing plungers

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>l₁</th>
<th>l₂ min.</th>
<th>l₃</th>
<th>l₄ min.</th>
<th>A/F</th>
<th>Spring load in N ≈</th>
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<tbody>
<tr>
<td>4</td>
<td>M 8 x 0,75</td>
<td>21</td>
<td>15</td>
<td>26,5</td>
<td>5</td>
<td>5</td>
<td>3,5</td>
<td>10</td>
<td>4,5</td>
</tr>
<tr>
<td>5</td>
<td>M 8 x 0,75</td>
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<td>15</td>
<td>26,5</td>
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<td>5</td>
<td>3,5</td>
<td>10</td>
<td>4,5</td>
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<tr>
<td>6</td>
<td>M 10 x 1</td>
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<td>7</td>
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<td>4,5</td>
<td>12</td>
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<tr>
<td>7</td>
<td>M 10 x 1</td>
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<td>18</td>
<td>34</td>
<td>7</td>
<td>7</td>
<td>4,5</td>
<td>12</td>
<td>5</td>
</tr>
</tbody>
</table>

---

### Steel-Mini indexing plungers

**GN822-6-C-ST**

1. d₁
2. Type
3. Material

### Stainless Steel-Mini indexing plungers

**GN822-4-B-NI**

1. d₁
2. Type
3. Material
Mini indexing plungers
covered indexing mechanism, with and without rest position

3.1

Steel-Mini indexing plungers
GN 822.6 / GN 822.7
GN 822.6
GN 822.7
Steel
Stainless Steel

Information

Mini indexing plungers GN 822.6 / GN 822.7 are distinguished for their small dimensions.

Based on the principle of the GN 822 mini indexing plungers, this model combines their clever type of construction with a complete series of all current sizes of bolts and threads. They provide a reasonably priced alternative to the GN 607 / GN 607.1 indexing plungers of the appropriate sizes. To mount, first turn the mini indexing plunger in with the knurled button. Pulling the indexing pin will release the hexagon nut which can then be tightened with an open-end spanner.

They are inserted into position by holding them by the serrated knob. The spanner flats on the lock nut are revealed when retracting the pin, so that the mini indexing plunger can be easily tightened by means of a fork spanner.

In type C, the button can be turned by 30° after retracting the indexing pin, holding it in the “retraced” position using the indexing lock.

see also...

Range of indexing plungers ➔ Page 402

Specification

- GN 822.6
  Socket Steel
  zinc plated, blue passivated

- GN 822.7
  Socket
  Stainless Steel AISI 303

This information applies to both standards:
- Plunger
  Stainless Steel AISI 303
- Spring
  Stainless Steel AISI 301
- Knob Plastic (Polyamide PA)
  - black, matt
  - not removable
- Stainless Steel characteristics ➔ Page 1144
- Plastic characteristics ➔ Page 1141
- ISO-Fundamental tolerances ➔ Page 1132
- RoHS compliant

Accessory

- Distance bushings GN 609 / GN 609.5 or flat hexagonal nuts GN 909 / GN 909.5 are to be ordered separately.

Information

<table>
<thead>
<tr>
<th>Type</th>
<th>without rest position</th>
<th>with rest position</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>C</td>
<td>6</td>
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</table>

<table>
<thead>
<tr>
<th>d1</th>
<th>d2</th>
<th>d3</th>
<th>l1</th>
<th>l2</th>
<th>l3</th>
<th>k</th>
<th>A/F</th>
<th>Spring load in N = initial</th>
<th>Spring load in N = end</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>M</td>
<td>8</td>
<td>21</td>
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<tr>
<td>5</td>
<td>M</td>
<td>10</td>
<td>25</td>
<td>18</td>
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<td>6</td>
<td>M</td>
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<td>25</td>
<td>18</td>
<td>34</td>
<td>6</td>
<td>8</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>M</td>
<td>12</td>
<td>28</td>
<td>20</td>
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<td>23,5</td>
<td>14</td>
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<tr>
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<td>10</td>
<td>23,5</td>
<td>14</td>
</tr>
<tr>
<td>8</td>
<td>M</td>
<td>16</td>
<td>33</td>
<td>23</td>
<td>47,5</td>
<td>10</td>
<td>12</td>
<td>25,5</td>
<td>17</td>
</tr>
<tr>
<td>10</td>
<td>M</td>
<td>16</td>
<td>33</td>
<td>23</td>
<td>47,5</td>
<td>10</td>
<td>12</td>
<td>25,5</td>
<td>17</td>
</tr>
</tbody>
</table>

Note: All dimensions in mm.
Mini indexing plungers

GN 822.8

with and without rest position

**Specification**

- **Socket**
  - Zinc die casting
  - corrosion-resistant
    - ZNDG Pass nano®-coating
  - anthracite coloured

- **Plunger**
  - Stainless Steel AISI 303

- **Spring**
  - Stainless Steel AISI 301

- **Knob**
  - Plastic (Polyamide PA)
    - black, matt
    - not removable

- **ISO-Fundamental tolerances** → Page 1132
- **Stainless Steel characteristics** → Page 1144
- **Plastic characteristics** → Page 1141
- **RoHS compliant**

**Information**

Mini indexing plungers GN 822.8 are distinguished for their small dimensions. They are mounted by countersunk screws.

**How to order**

GN 822.8-6-12-B

1. \(d_1\)
2. \(l_1\)
3. Type

**Table**

| \(d_1\) | \(l_1\) | \(b_1\) | \(b_2\) | \(d_2 - 0.15\) | \(d_3\) | \(d_4\) | \(k\) | \(l_2\) | \(l_3\) | \(l_4\) | \(I_9\) Stroke | Spring load in N = initial end |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 5 | 10 | 35 | 15 | 8 | 21 | 4.3 | 25 | 20.5 | 2 | 4 | 5 | 4 | 12 |
| 5 | 6 | 12 | 40 | 18 | 10 | 25 | 4.3 | 30 | 25.5 | 2.5 | 4 | 6 | 6 | 16 |
| 6 | 6 | 12 | 40 | 18 | 10 | 25 | 4.3 | 30 | 25.5 | 2.5 | 4 | 6 | 6 | 16 |
| 8 | 10 | 20 | 50 | 23 | 14 | 33 | 5.3 | 38 | 35 | 2.5 | 5 | 10 | 11 | 35 |
| 10 | 10 | 20 | 50 | 23 | 14 | 33 | 5.3 | 38 | 35 | 2.5 | 5 | 10 | 11 | 35 |
Mini indexing plungers GN 822.1 are distinguished for their small dimensions. They have been designed for installation in thin walled sheet metal constructions.

Type C with rest position is used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

see also...
- Range of indexing plungers → Page 402
- Distance bushings GN 609 / GN 609.5 → Page 450

Information

Mini indexing plungers GN 822.1 are distinguished for their small dimensions. They have been designed for installation in thin walled sheet metal constructions.

Type C with rest position is used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

see also...
- Range of indexing plungers → Page 402
- Distance bushings GN 609 / GN 609.5 → Page 450

**Specification**

- Steel
  - zinc plated, blue passivated
- Stainless Steel AISI 303
- Plunger
  - Stainless Steel AISI 303
- Spring
  - Stainless Steel AISI 301
- Knob Plastic (Polyamide PA)
  - black, matt
  - not removable
- Stainless Steel characteristics → Page 1144
- Plastic characteristics → Page 1141
- RoHS compliant

**Accessory**

- Distance bushings GN 609 / GN 609.5 are to be ordered separately.

**Steel-Mini indexing plungers**

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>l₁</th>
<th>l₂ min.</th>
<th>l₃</th>
<th>l₄ min.</th>
<th>A/F</th>
<th>Spring load in N ≈</th>
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<tr>
<td>4</td>
<td>M</td>
<td>8 x 0,75</td>
<td>21</td>
<td>26,5</td>
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<td>5</td>
<td>3,5</td>
<td>10 4,5 12</td>
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<tr>
<td>5</td>
<td>M</td>
<td>8 x 0,75</td>
<td>21</td>
<td>26,5</td>
<td>5</td>
<td>5</td>
<td>3,5</td>
<td>10 4,5 12</td>
</tr>
<tr>
<td>6</td>
<td>M</td>
<td>10 x 1</td>
<td>25</td>
<td>34</td>
<td>7</td>
<td>7</td>
<td>4,5</td>
<td>12 5 18</td>
</tr>
<tr>
<td>7</td>
<td>M</td>
<td>10 x 1</td>
<td>25</td>
<td>34</td>
<td>7</td>
<td>7</td>
<td>4,5</td>
<td>12 5 18</td>
</tr>
</tbody>
</table>

**Stainless Steel-Mini indexing plungers**

<table>
<thead>
<tr>
<th>d₁</th>
<th>Type</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
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<td>ST</td>
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<tr>
<td>5</td>
<td>C</td>
<td>ST</td>
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**Steel-Mini indexing plungers**

<table>
<thead>
<tr>
<th>d₁</th>
<th>Type</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>B</td>
<td>ST</td>
</tr>
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<td>ST</td>
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**Stainless Steel-Mini indexing plungers**

<table>
<thead>
<tr>
<th>d₁</th>
<th>Type</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
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<td>B</td>
<td>NI</td>
</tr>
<tr>
<td>5</td>
<td>C</td>
<td>NI</td>
</tr>
</tbody>
</table>
3.1 Indexing plungers, Locking pins, Spring plungers

**Indexing plungers**

without rest position

The screwing range of indexing plungers GN 417 is chosen in such a way that washers ISO 7092 can be used.

**Specification**

- Guide
  Zinc die casting
  plastic coated
  black, textured finish
- Plunger
  Stainless Steel AISI 303
- Spring
  Stainless Steel AISI 301
- Lifting ring
  Stainless Steel AISI 301
- Knob
  Plastic (Polyamide PA)
  black, matt
  not removable
- **ISO-Fundamental Tolerances → Page 1132**
- **Stainless Steel characteristics → Page 1144**
- **Plastic characteristics → Page 1141**
- **RoHS compliant**

**Information**

The screwing range of indexing plungers GN 417 is chosen in such a way that washers ISO 7092 can be used.

**see also...**

- **Range of indexing plungers → Page 402**
- **Positioning bushings GN 412.2 → Page 454**

**How to order**

1. \( d_1 \)
2. Type

**Type**

A without rest position (lifting ring)
B without rest position (Knob)

**Table**

<table>
<thead>
<tr>
<th>( d_1 ) Plunger h11 Bore</th>
<th>( d_2 )</th>
<th>( d_3 )</th>
<th>( b_1 )</th>
<th>( b_2 )</th>
<th>( b_3 )</th>
<th>( b_4 )</th>
<th>( h_1 )</th>
<th>( h_2 )</th>
<th>( h_3 )</th>
<th>( k_1 )</th>
<th>( k_2 )</th>
<th>( k_3 )</th>
<th>( k_4 )</th>
<th>( l_1 )</th>
<th>( l_2 )</th>
<th>Spring load in N ≈</th>
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<tr>
<td>4</td>
<td>12</td>
<td>14</td>
<td>16,5</td>
<td>22</td>
<td>6</td>
<td>3</td>
<td>3,3</td>
<td>4</td>
<td>7</td>
<td>14</td>
<td>4</td>
<td>8</td>
<td>4,5</td>
<td>30,5</td>
<td>4</td>
<td>3</td>
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<tr>
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<td>22</td>
<td>28</td>
<td>8</td>
<td>4,3</td>
<td>4,5</td>
<td>4,5</td>
<td>9,5</td>
<td>18</td>
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<td>10</td>
<td>7</td>
<td>40</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
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<td>24</td>
<td>27,5</td>
<td>32</td>
<td>10</td>
<td>5,4</td>
<td>5</td>
<td>5</td>
<td>10,5</td>
<td>21</td>
<td>5,5</td>
<td>12</td>
<td>10</td>
<td>49</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>21</td>
<td>30</td>
<td>33</td>
<td>34</td>
<td>12</td>
<td>5,4</td>
<td>6</td>
<td>12,5</td>
<td>23</td>
<td>5,5</td>
<td>12</td>
<td>15,5</td>
<td>59</td>
<td>8</td>
<td>6</td>
<td>22</td>
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</tbody>
</table>

**Diagram**

- Plunger retracted
Indexing plungers GN 417 type C with rest position are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

The screwing range is chosen in such a way that washers ISO 7092 can be used.

**Specification**

- **Guide**
  Zinc die casting
  plastic coated
  black, textured finish

- **Plunger**
  Stainless Steel AISI 303

- **Spring**
  Stainless Steel AISI 301

- **Knob**
  Plastic Technopolymer (Polyamide PA)
  - black, matt
  - not removable

- **ISO-Fundamental Tolerances** → Page 1132
- **Stainless Steel characteristics** → Page 1144
- **Plastic characteristics** → Page 1141
- **RoHS compliant**

**Information**

Indexing plungers GN 417 type C with rest position are used for such applications where the plunger has to stay in its retracted position. To achieve this, the knob is rotated by 90° degrees after being retracted. A notch keeps the plunger in this position.

The screwing range is chosen in such a way that washers ISO 7092 can be used.

**How to order**

1. **d₁**
2. **Type**

**Specification**

<table>
<thead>
<tr>
<th>d₁ Plunger h₁₁ Bore</th>
<th>d₂</th>
<th>b₁</th>
<th>b₂</th>
<th>b₃</th>
<th>b₄ ⩾0,2</th>
<th>h₁</th>
<th>h₂</th>
<th>k₁ ⩾0,05</th>
<th>k₂</th>
<th>k₃</th>
<th>k₄</th>
<th>l₁</th>
<th>l₂ min.</th>
<th>Spring load in N ≈ initial</th>
<th>end</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>12</td>
<td>19</td>
<td>22</td>
<td>6</td>
<td>3,3</td>
<td>4</td>
<td>7</td>
<td>14</td>
<td>4</td>
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<td>12</td>
</tr>
<tr>
<td>5</td>
<td>16</td>
<td>25,5</td>
<td>28</td>
<td>8</td>
<td>4,3</td>
<td>4,5</td>
<td>9,5</td>
<td>18</td>
<td>5</td>
<td>10</td>
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<td>5</td>
<td>24</td>
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<td>18</td>
<td>30,5</td>
<td>32</td>
<td>10</td>
<td>5,4</td>
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<td>10,5</td>
<td>21</td>
<td>5,5</td>
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<td>6</td>
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<td>21</td>
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<td>37,5</td>
<td>34</td>
<td>12</td>
<td>5,4</td>
<td>6</td>
<td>12,5</td>
<td>23</td>
<td>5,5</td>
<td>12</td>
<td>20</td>
<td>63,5</td>
<td>8</td>
<td>6</td>
<td>22</td>
</tr>
</tbody>
</table>
Plungers in standard position protruded. To retract, move against the spring force and hold in the end position by turning by 90°. The shape of the cam curve secures the plunger against accidental operation.

For the execution with operation with key (Type B / BK) a key is required to move the plunger. In this execution, a cover sleeve provides additional security and safety from unauthorized removal of the locking plunger. The cover sleeve also provides additional protection against malfunction caused by dirt.

**Specification**
- Threaded body
  Steel zinc plated, blue passivated
- Plunger
  Stainless Steel AISI 303
- Spring
  Stainless Steel AISI 301
- Knob
  Plastic (Polyamide PA)
  - black, matt
  - not removable
- Sleeve
  Plastic (Polyamide PA)
  - black, matt
  - not removable
- Stainless Steel characteristics → Page 1144
- Plastic characteristics → Page 1141
- RoHS compliant

**Information**
If not operated, the plunger of the locking plungers GN 816 protrudes. To retract, move against the spring force and hold in the end position by turning by 90°.

The shape of the cam curve secures the plunger against accidental operation.

For the execution with operation with key (Type B / BK) a key is required to move the plunger. In this execution, a cover sleeve provides additional security and safety from unauthorized removal of the locking plunger. The cover sleeve also provides additional protection against malfunction caused by dirt.

**see also...**
- Range of indexing plungers → Page 402
- Distance bushings GN 609 (to limit the thread length) → Page 450
- Mounting blocks GN 412.1 → Page 452
- Positioning bushings GN 412.2 → Page 454
- Flat hexagonal nuts GN 909 / GN 909.5 → Page 451

**Accessory**
- Keys GN 816-10
  (Locking plungers Ø 6 and Ø 8 have the same keys)

---

**Specification**

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>d₅</th>
<th>l₁ =</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄ =</th>
<th>l₅</th>
<th>A/F</th>
<th>Spring load in N ≈</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>M 12 x 1,5</td>
<td>16</td>
<td>28</td>
<td>17</td>
<td>-</td>
<td>50</td>
<td>8</td>
<td>20</td>
<td>6</td>
<td>43</td>
<td>14 13 28</td>
</tr>
<tr>
<td>8</td>
<td>M 16 x 1,5</td>
<td>18</td>
<td>28</td>
<td>17</td>
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<td>52</td>
<td>10</td>
<td>22</td>
<td>6</td>
<td>48</td>
<td>16 14 38</td>
</tr>
</tbody>
</table>

---

**Keys**
- GN816-8-M16x1,5-A
GN 816 | Locking plungers
Keys GN 816-10 / Assembly instruction

Version with key (Type B / Type BK)

Assembly instruction

Key GN 816-10

Distance bushing GN 609

Screw in threaded socket

Clip in cover sleeve

Cover sleeve

ø10
3.1 Indexing plungers, Locking pins, Spring plungers

**GN 816.1**

**Locking plungers**

Plunger in standard position retracted

---

** Specification **

- **Threaded body**
  Steel zinc plated, blue passivated

- **Plunger**
  Stainless Steel AISI 303

- **Spring**
  Stainless Steel AISI 301

- **Knob**
  Plastic (Polyamide PA)
  - black, matt
  - not removable

- **Sleeve**
  Plastic (Polyamide PA)
  - black, matt
  - not removable

- **Stainless Steel characteristics**  Page 1144
- **Plastic characteristics**  Page 1141
- **RoHS compliant**

---

**Information**

If not operated, the plunger of the locking plungers GN 816 is retracted. To move out, move against the spring force and hold in the end position by turning by 90°.

The shape of the cam curve secures the plunger against accidental operation.

For the execution with operation with key (Type B / BK) a key is required to move the plunger. In this execution, a cover sleeve provides additional security and safety from unauthorized removal of the locking plunger. The cover sleeve also provides additional protection against malfunction caused by dirt.

**see also...**

- **Range of indexing plungers**  Page 402
- **Distance bushings GN 609 (to limit the thread length)**  Page 450
- **Mounting blocks GN 412.1**  Page 452
- **Positioning bushings GN 412.2**  Page 454
- **Flat hexagonal nuts GN 909 / GN 909.5**  Page 451

---

**Accessory**

- **Keys GN 816.1-10**
  (Locking plungers Ø 6 and Ø 8 have the same keys)

---

**Specifications Table**

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>d₅</th>
<th>l₁</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄</th>
<th>A/F</th>
<th>Spring load in N</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>M 12 x 1,5</td>
<td>16</td>
<td>28</td>
<td>17</td>
<td>-</td>
<td>51,5</td>
<td>8</td>
<td>20</td>
<td>6</td>
<td>43</td>
</tr>
<tr>
<td>8</td>
<td>M 16 x 1,5</td>
<td>18</td>
<td>28</td>
<td>17</td>
<td>20</td>
<td>54,5</td>
<td>10</td>
<td>22</td>
<td>6</td>
<td>48</td>
</tr>
</tbody>
</table>

---

**Diagram**

- **Type**
  - A with knob, without lock nut
  - AK with knob, with lock nut
  - B with key, without lock nut
  - BK with key, with lock nut
Version with key (Type B / Type BK)

Assembly instruction

Key GN 816.1-10

Distance bushing GN 609

Screw in threaded socket

Cover sleeve

Clip in cover sleeve
### Specification

- **Steel**
  - blackened
  - Plunger hardened

- **Knob**
  Plastic (Polyamide PA)
  - black-grey, RAL 7021, matt
  - temperature resistant up to 80 °C
  - not removable

- **Safety push-button**
  Plastic (Polyamide PA)
  red, RAL 3000, matt

- **ISO-Fundamental Tolerances** → Page 1132
- **Plastic characteristics** → Page 1141
- **RoHS compliant**

### Information

Safety indexing plungers GN 414 in type A and C are used when the inadvertent retract of the plunger pin is to be prevented. The plunger pin is locked in one or both end positions and can be unlocked only with the red safety push button.

Types B and C also feature an index lock if the plunger is not to protrude temporarily, i.e. if it is to be held in the retracted position.

In every case, the safety lock engages in the front end position, i.e. automatically if the indexing pin protrudes, with the locking mechanism housed fully in the operating button and protected from malfunctions. The specified axial load bearing capacity refers to the locking force of the bolt against inadvertent operation which must not be exceeded.

### See also...

- **Range of indexing plungers** → Page 402
- **Distance bushings GN 609 (to limit the thread length)** → Page 450

### How to order

<table>
<thead>
<tr>
<th>1</th>
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<th>d₃</th>
<th>e</th>
<th>l₂ ≈</th>
<th>l₃</th>
<th>l₄</th>
<th>A/F</th>
<th>Spring load in N</th>
<th>Axial load in N</th>
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<td>M 16 x 1,5</td>
<td>28</td>
<td>21,9</td>
<td>62</td>
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<td>19</td>
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<tr>
<td>d₂</td>
<td>d₃</td>
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<tr>
<td>l₂ ≈</td>
<td>l₃</td>
<td>l₄</td>
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<tbody>
<tr>
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<td>Spring load in N</td>
<td>Axial load in N</td>
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<tr>
<td>Spring load in N</td>
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<td>end</td>
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<tr>
<td>Axial load in N</td>
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<tr>
<td>9,5</td>
<td>30</td>
<td>120</td>
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</table>
The indexing pin in the locking plungers GN 514 is moved via a so-called cardioid mechanism.

This mechanism means that the indexing pin is both extended and retracted alone by pressing the operating button (PUSH-PUSH locking mechanism).

Please note that the indexing pin cannot absorb any axial forces and that it retracts virtually by spring action; the indexing pin must therefore remain free and easy to move.

see also...
• Range of indexing plungers → Page 402
• Distance bushings GN 609 (to limit the thread length) → Page 450
• Mounting blocks GN 412.1 → Page 452
• Positioning bushings GN 412.2 → Page 454
• Flat hexagonal nuts GN 909 → Page 451

Information

Specification

- Steel
  - nitrided
  - blackened

- Knob
  Plastic (Polyamide PA)
  black, matt

- ISO-Fundamental Tolerances → Page 1132
- Plastic characteristics → Page 1141
- RoHS compliant

| d₁ | d₂ | e | l₁ | l₂ | l₃ | l₄ | l₅ | A/F | w₁ | w₂ | Spring load in N = |
|----|----|---|----|----|----|----|----|----|----|----| initial | end |
| 6  | M 12 x 1,5 | 19 | 15 | 6  | 38 | 20 | 44,5| 9  | 13 | 3  | 9      | 8,5 | 25 |
| 8  | M 16 x 1,5 | 25 | 19 | 8  | 46 | 26 | 54,5| 11 | 17 | 3  | 11     | 18  | 44 |

How to order

1 d₁
2 Type
GN 514-8-A
Clamping knobs with indexing plungers

**Assembly example**

- Setting rail positioned through indexing plunger, clamped with in position clamping handle
- Clamping action released, indexing plunger still engaged
- Clamping action released, indexing plunger disengaged, setting rail can be moved

**Specification**

- Knurled knob 7336
  - Plastic (Polyamide PA)
  - black, matt
- Cover cap
  - Plastic (Polyamide PA)
  - light grey, matt
- Fixing thread Steel
  - zinc plated, blue passivated
- Plunger
  - Stainless Steel AISI 303
- ISO-Fundamental Tolerances → Page 1132
- Stainless Steel characteristics → Page 1144
- Plastic characteristics → Page 1141
- RoHS compliant

**Information**

Clamping knobs with indexing plunger GN 7336.7 are used for positioning, securing and clamping adjusting elements at the same time.

The axial movement of the handle (pulling) pulls the indexing pin from the engaged position against the spring force, with the star knob at the same time remaining connected with form-lock to the clamping screw via a hexagonal element, allowing both clamping and releasing.

**How to order**

GN 7336.7-42-M12x1,5-6
GN 7336.8
Clamping indexing plungers
with safety function

Clamping position

Locking position

Plunger retracted

Assembly example

Setting rail with index bore

Distance ring GN 609

Setting rail positioned through indexing plunger, clamped with the clamping surface of the indexing plunger via the knurled knob and the clamping screw M8

Clamping action released and clamping screw M8 fully turned out. Indexing plunger remains engaged (safety function)

Clamping screw no longer engaged, the indexing plunger can now pulled out of indexing bore

Specification

- Knurled knob
  Plastic (Polyamide PA) black, matt
- Cover cap
  Plastic (Polyamide PA) light grey, matt
- Fixing thread
  Steel zinc plated, blue passivated
- Plunger
  Steel nitrided and blackened
- ISO-Fundamental Tolerances → Page 1132
- Plastic characteristics → Page 1141
- RoHS compliant

Information

Clamping indexing GN 7336.8 plungers are an advanced development of the GN 7336.7 clamping knobs with indexing plunger.

Like the latter, they are used for positioning, securing and clamping adjusting elements at the same time. This configuration ensures that the indexing pin cannot be pulled from the indexing bore by turning the knurled knob, but only be deliberately pulling the handle (safety function).

see also...
- Range of indexing plungers → Page 402
- Distance bushings GN 609 (to limit the thread length) → Page 450
- Flat hexagonal nuts GN 909 / GN 909.5 → Page 451

How to order

GN7336.8-42-M16×1,5-6

<table>
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<tr>
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<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>l₁</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄ min.</th>
<th>l₅</th>
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<td>M16</td>
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<td>53</td>
<td>M16</td>
<td>1,5</td>
<td>6</td>
<td>8</td>
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<td>66</td>
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</table>
Knurled knobs GN 7336 → Page 314
Clamping knobs with indexing plungers GN 7336.7 → Page 446
Clamping indexing plungers GN 7336.8 → Page 447
GN 313
Spring bolts
Steel / Stainless Steel

3.1 Indexing plungers, Locking pins, Spring plungers

How to order

GN313-8-AK-1-ST

How to order

1 d1
2 Type
3 Identification no.
4 Material

Type
A with knob, without lock nut
AK with knob, with lock nut
D without knob, without lock nut
DK without knob, with lock nut

Identification no.
1 Plunger without internal thread
2 Plunger with internal thread

Specification

- Threaded socket Steel blackened
- Threaded socket Stainless Steel AISI 303
- Knob Plastic (Polyamide PA) - black, matt - not removable
- ISO-Fundamental Tolerances  Page 1132
- Stainless Steel characteristics  Page 1144
- Plastic characteristics  Page 1141
- RoHS compliant

Information

The plunger in the GN 313 spring bolts does not protrude in the inoperative position.

It can be operated manually or in Type D and DK mechanically (pneumatic cylinder, cam plate, etc.) when it will protrude only as long as it is operated.

Using the internal thread at identification 2 on the pressure side, special pressure bolts or a rod arrangement can be operated, for instance.

see also...

- Spring elements GN 513  Page 498

Table: Spring load in N

<table>
<thead>
<tr>
<th>d1</th>
<th>d2</th>
<th>d3</th>
<th>d4</th>
<th>l1</th>
<th>l2</th>
<th>l3</th>
<th>l4</th>
<th>t min.</th>
<th>Steel</th>
<th>Stainless Steel</th>
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<tr>
<td>6</td>
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</table>

Type
A
AK
D
DK

Identification no.
1 Plunger without internal thread
2 Plunger with internal thread
Distance bushings
for indexing plungers assembly

**Application examples**

- **Indexing plunger GN 607 / GN 607.1**
- **Indexing plunger GN 822**
- **Indexing plunger GN 617 / GN 617.1 / GN 817 / GN 817.2**
- **Indexing plunger GN 717**

**Specification**

- **GN 609**
  Steel
  blackened
- **GN 609.5**
  Stainless Steel AISI 303
- **ISO-Fundamental Tolerances** ➔ **Page 1132**
- **Stainless Steel characteristics** ➔ **Page 1144**
- **RoHS compliant**

**Information**

Distance bushings GN 609 / GN 609.5 compensate for the body thread lengths on the indexing plungers to allow mounting through walls of varying thickness.

**Steel-Distance bushing**

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<td>2</td>
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<tr>
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<td>22</td>
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* Only GN 609

**Stainless Steel-Distance bushing**

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<tr>
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</table>
Flat hexagon nuts
for indexing plungers / cam action indexing plungers

GN 909
Steel

GN 909.5
Stainless Steel

With their smaller dimensions, flat hexagon nuts GN 909 / GN 909.5 expand the mounting options of indexing plungers and cam action indexing plungers.

**Specification**
- Steel blackened
- Stainless Steel AISI 303
- **Stainless Steel characteristics** ➔ Page 1144
- RoHS compliant

<table>
<thead>
<tr>
<th>d</th>
<th>b</th>
<th>e</th>
<th>s</th>
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<td>17</td>
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<tr>
<td>M 16 x 1,5</td>
<td>4,5</td>
<td>24,5</td>
<td>22</td>
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<tr>
<td>M 20 x 1,5</td>
<td>4,5</td>
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<td>27</td>
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</table>

**Information**

With their smaller dimensions, flat hexagon nuts GN 909 / GN 909.5 expand the mounting options of indexing plungers and cam action indexing plungers.

**Flat hexagonal nuts, Steel**
- **GN909-M10x1-BT**
  - 1 d
  - 2 Finish

**Flat hexagonal nuts, Stainless Steel**
- **GN909.5-M12x1,5**
  - 1 d
Mounting blocks GN 412.1 are a reasonably priced fitting aid for indexing plungers, cam action indexing plungers and for setting bolts and buffers.

To position the indexing pin of an indexing plunger or cam action indexing plunger, they can also hold GN 412.2 positioning bushings.

see also...
- Positioning bushings GN 412.2 → Page 454

---

### Specification
- Zinc die casting
- Plastic coated black, textured finish
- RoHS compliant

### Information
Mounting blocks GN 412.1 are a reasonably priced fitting aid for indexing plungers, cam action indexing plungers and for setting bolts and buffers.

To position the indexing pin of an indexing plunger or cam action indexing plunger, they can also hold GN 412.2 positioning bushings.

see also...
- Positioning bushings GN 412.2 → Page 454

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### How to order

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<td>M 16</td>
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Mounting blocks GN 612.1 broaden the mounting possibilities and are an added feature for the cam action indexing plungers GN 612 and cam action indexing plungers GN 712 / GN 712.1.

To position the indexing pin of an indexing plunger or cam action indexing plunger, they can also hold GN 412.2 positioning bushings.

### Specification

- **Steel**
  - blackened
  - Grub screw GN 913.3 with brass pad

- **Stainless Steel AISI 303**

- **Grub screw GN 913.5 with brass pad**

- **Stainless Steel characteristics** → Page 1144

- **RoHS compliant**

### Information

Mounting blocks GN 612.1 broaden the mounting possibilities and are an added feature for the cam action indexing plungers GN 612 and cam action indexing plungers GN 712 / GN 712.1.

To position the indexing pin of an indexing plunger or cam action indexing plunger, they can also hold GN 412.2 positioning bushings.

see also...

- **Positioning bushings GN 412.2** → Page 454
- **Grub screws GN 913.3 / GN 913.5** → Page 520
Positioning bushings
for indexing plungers, cam action indexing plungers

![Image of bushing and assembly examples]

Positioning bushings GN 412.2 are used in connection with bolts of indexing plungers and cam action indexing plungers. The threads are adapted to the mounting blocks GN 412.1 and GN 612.1.

see also...
- Mounting blocks GN 412.1 → Page 452
- Mounting blocks GN 612.1 → Page 453
- Flat hexagonal nuts GN 909 → Page 451

### Specification
- Steel
  - hardened
  - blackened
- RoHS compliant

### Information

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂ +0,1 Bore</th>
<th>d₃ −0,05</th>
<th>l₁ −0,2</th>
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<td>M 16 x 1,5</td>
<td>B 8,2</td>
<td>16</td>
<td>12</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>M 16 x 1,5</td>
<td>B 10,2</td>
<td>16</td>
<td>12</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>M 16 x 1,5</td>
<td>B 12,2</td>
<td>16</td>
<td>12</td>
<td>15</td>
<td>17</td>
</tr>
</tbody>
</table>

### How to order

<table>
<thead>
<tr>
<th>1</th>
<th>d₁</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 412.2-M12x1,5-B5,2</td>
<td>2</td>
</tr>
</tbody>
</table>
Positioning bushings with ramping cone

for indexing plungers

GN 412.3

Assembly examples

Positioning bushings with ramping cone GN 412.3

How to order

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>d₁</td>
<td>d₂ +0,1</td>
</tr>
<tr>
<td>M 12 x 1,5</td>
<td>B 5,2</td>
</tr>
<tr>
<td>M 12 x 1,5</td>
<td>B 6,2</td>
</tr>
<tr>
<td>M 16 x 1,5</td>
<td>B 8,2</td>
</tr>
<tr>
<td>M 16 x 1,5</td>
<td>B 10,2</td>
</tr>
</tbody>
</table>

Information

Positioning bushings with ramping cone GN 412.3 are used in connection with bolts of indexing plungers.

The threads are adapted to the mounting blocks GN 412.1 and GN 612.1.

see also...

- Mounting blocks GN 412.1 → Page 452
- Mounting blocks GN 612.1 → Page 453
- Flat hexagonal nuts GN 909 → Page 451

Specification

- Steel
  - hardened
  - blackened
- RoHS compliant

How to order

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>d₁</td>
<td>d₂</td>
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<tr>
<td>GN412.3-M16x1,5-B8,2</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>d₂</td>
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</table>
### GN 612

**Cam action indexing plungers**

Steel / Stainless Steel

---

![Diagram of Cam action indexing plungers](image)

<table>
<thead>
<tr>
<th>1.</th>
<th>2.</th>
<th>3.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>d₃</strong></td>
<td><strong>d₂</strong></td>
<td><strong>l₁</strong></td>
</tr>
<tr>
<td><strong>Steel</strong></td>
<td><strong>Edelsta</strong></td>
<td><strong>initial</strong></td>
</tr>
<tr>
<td>4*</td>
<td>M 10</td>
<td>M 10 x 1</td>
</tr>
<tr>
<td>5*</td>
<td>M 10</td>
<td>M 10 x 1</td>
</tr>
<tr>
<td>5</td>
<td>M 12</td>
<td>M 12 x 1,5</td>
</tr>
<tr>
<td>6*</td>
<td>M 10</td>
<td>M 10 x 1</td>
</tr>
<tr>
<td>6</td>
<td>M 12</td>
<td>M 12 x 1,5</td>
</tr>
<tr>
<td>6</td>
<td>M 16</td>
<td>M 16 x 1,5</td>
</tr>
<tr>
<td>8</td>
<td>M 12</td>
<td>M 12 x 1,5</td>
</tr>
<tr>
<td>8</td>
<td>M 16</td>
<td>M 16 x 1,5</td>
</tr>
<tr>
<td>8</td>
<td>M 20</td>
<td>M 20 x 1,5</td>
</tr>
<tr>
<td>10</td>
<td>M 16</td>
<td>M 16 x 1,5</td>
</tr>
<tr>
<td>10</td>
<td>M 20</td>
<td>M 20 x 1,5</td>
</tr>
<tr>
<td>12</td>
<td>M 20</td>
<td>M 20 x 1,5</td>
</tr>
</tbody>
</table>

* These sizes are only available in Type A and Type AK.

### Specification

- **Steel**
  - blackened
  - Plunger nitrided
- **Stainless Steel**
  - AISI 303 / AISI 316L
  - Plunger chemically nickel plated
- **Spring**
  - Stainless Steel AISI 301
- **Plastic cover (Polyamide PA)**
  - black, matt

**ISO-Fundamental Tolerances** → Page 1132

**Stainless Steel characteristics** → Page 1144

**RoHS compliant**

### Information

Cam action indexing plungers GN 612 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch is provided in either position to prevent the lock from rotating.

**see also...**

- **Range of cam action indexing plungers** → Page 412

---

**Cam action indexing plungers**

- **1. d₁**
- **2. d₂**
- **3. Type**

**Stainless Steel-Cam action indexing plungers**

- **1. d₁**
- **2. d₂**
- **3. Type**
- **4. Material**
Cam action indexing plungers GN 612.2 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch keeps the plunger in this position.

### Specification
- Steel
  - blackened
  - Plunger nitrided
- Plastic cover (Polyamide PA)
  - black, matt
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

### Information
Cam action indexing plungers GN 612.2 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch keeps the plunger in this position.

**see also...**
- Range of cam action indexing plungers → Page 412
- Positioning bushings GN 412.2 → Page 454

### How to order
GN 612.2-8-16-B

<table>
<thead>
<tr>
<th>d₁ Plunger Bore H7</th>
<th>d₂</th>
<th>d₃</th>
<th>h</th>
<th>k</th>
<th>l₁</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄</th>
<th>s</th>
<th>Spring load in N</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>16</td>
<td>35</td>
<td>16</td>
<td>20</td>
<td>56</td>
<td>10</td>
<td>32</td>
<td>42</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>8</td>
<td>16</td>
<td>35</td>
<td>16</td>
<td>20</td>
<td>56</td>
<td>10</td>
<td>32</td>
<td>42</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>22</td>
<td>69</td>
<td>12</td>
<td>37</td>
<td>52</td>
<td>15</td>
<td>21</td>
</tr>
<tr>
<td>10</td>
<td>16</td>
<td>35</td>
<td>16</td>
<td>20</td>
<td>56</td>
<td>10</td>
<td>32</td>
<td>42</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>22</td>
<td>69</td>
<td>12</td>
<td>37</td>
<td>52</td>
<td>15</td>
<td>21</td>
</tr>
<tr>
<td>12</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>22</td>
<td>69</td>
<td>12</td>
<td>37</td>
<td>52</td>
<td>15</td>
<td>21</td>
</tr>
</tbody>
</table>
Cam action indexing plungers GN 612.3 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch keeps the plunger in this position.

The square body can therefore be welded in any required position. In order to prevent a change in the spring load by the transferred heat we recommend spot welding the plunger body.

### Specification
- Steel
  - blackened
  - weldable
  - Plunger nitrided
- Plastic cover (Polyamide PA)
  - black, matt
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

### Information
Cam action indexing plungers GN 612.3 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. A notch keeps the plunger in this position.

The square body can therefore be welded in any required position. In order to prevent a change in the spring load by the transferred heat we recommend spot welding the plunger body.

### How to order
GN612.3-10-16-A

<table>
<thead>
<tr>
<th>d (Plunger Bore)</th>
<th>s</th>
<th>l₁</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄</th>
<th>l₅</th>
<th>Spring load in N ≈</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>16</td>
<td>56</td>
<td>10</td>
<td>30</td>
<td>32</td>
<td>42</td>
<td>12/32</td>
</tr>
<tr>
<td>8</td>
<td>16</td>
<td>56</td>
<td>10</td>
<td>30</td>
<td>32</td>
<td>42</td>
<td>12/32</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
<td>69</td>
<td>12</td>
<td>38</td>
<td>37</td>
<td>52</td>
<td>21/58</td>
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<tr>
<td>10</td>
<td>16</td>
<td>56</td>
<td>10</td>
<td>30</td>
<td>32</td>
<td>42</td>
<td>12/32</td>
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<tr>
<td>10</td>
<td>20</td>
<td>69</td>
<td>12</td>
<td>38</td>
<td>37</td>
<td>52</td>
<td>21/58</td>
</tr>
<tr>
<td>12</td>
<td>20</td>
<td>69</td>
<td>12</td>
<td>38</td>
<td>37</td>
<td>52</td>
<td>21/58</td>
</tr>
</tbody>
</table>
Cam action indexing plungers
Threaded body in zinc die casting

Cam action indexing plungers GN 612.8 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. The notch allows safe positioning.

These cam action indexing plungers made of zinc die casting are very reasonably priced design versions.

see also...
- Range of cam action indexing plungers → Page 412
- Mounting blocks GN 612.1 → Page 453
- Mounting blocks GN 412.1 → Page 452
- Distance bushings GN 609 → Page 450
- Hexagonal nuts GN 909 → Page 451

"Threaded body
Zinc die casting
- corrosion-resistant
  ZNDG Pass nano®-coating
- anthracite
"Plunger
Steel
zinc plated, blue passivated
"Lever
Plastic (Polyamide PA)
- black, matt
- not removable

"Plastic characteristics → Page 1141
"RoHS compliant

Information
Cam action indexing plungers GN 612.8 are used in cases where the locking pin must not protrude all the time. By rotating the lock through 180° the locking pin withdraws itself. The notch allows safe positioning.

These cam action indexing plungers made of zinc die casting are very reasonably priced design versions.

see also...
- Range of cam action indexing plungers → Page 412
- Mounting blocks GN 612.1 → Page 453
- Mounting blocks GN 412.1 → Page 452
- Distance bushings GN 609 → Page 450
- Hexagonal nuts GN 909 → Page 451

Specification
- Threaded body
- Zinc die casting
  - corrosion-resistant
    ZNDG Pass nano®-coating
  - anthracite
- Plunger
- Steel
  - zinc plated, blue passivated
- Lever
- Plastic (Polyamide PA)
  - black, matt
  - not removable
- Plastic characteristics → Page 1141
- RoHS compliant

How to order
1 d1
2 d2
3 Type

<table>
<thead>
<tr>
<th>d1</th>
<th>d2</th>
<th>l1</th>
<th>l2</th>
<th>l3</th>
<th>l4</th>
<th>A/F</th>
<th>Spring load in N</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>M 12 x 1,5</td>
<td>48</td>
<td>8</td>
<td>25</td>
<td>25</td>
<td>13</td>
<td>8</td>
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<tr>
<td>5</td>
<td>M 12 x 1,5</td>
<td>48</td>
<td>8</td>
<td>25</td>
<td>25</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>M 12 x 1,5</td>
<td>48</td>
<td>8</td>
<td>25</td>
<td>25</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>M 16 x 1,5</td>
<td>56,5</td>
<td>10</td>
<td>28</td>
<td>30</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td>8</td>
<td>M 16 x 1,5</td>
<td>56,5</td>
<td>10</td>
<td>28</td>
<td>30</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td>8</td>
<td>M 20 x 1,5</td>
<td>69,5</td>
<td>12</td>
<td>36</td>
<td>37</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>M 16 x 1,5</td>
<td>56,5</td>
<td>10</td>
<td>28</td>
<td>30</td>
<td>18</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>M 20 x 1,5</td>
<td>69,5</td>
<td>12</td>
<td>36</td>
<td>37</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>M 20 x 1,5</td>
<td>69,5</td>
<td>12</td>
<td>36</td>
<td>37</td>
<td>22</td>
<td>20</td>
</tr>
</tbody>
</table>
Cam action indexing plungers
with flange for surface mounting

Cam action indexing plungers GN 612.9 are used in cases where the plunger must not protrude all the time. By rotating the lever through 180° the plunger withdraws itself. The notch allows safe positioning.

see also...
- Range of cam action indexing plungers ➔ Page 412
- Positioning bushings GN 412.2 ➔ Page 454

Specifications

- Guide
  Zinc die casting
  plastic coated
  black, RAL 9005, textured finish ➔ SW

- Plunger
  Steel
  zinc plated, blue passivated

- Lever
  Plastic (Polyamide PA)
  - black, matt
  - not removable

- Plastic characteristics ➔ Page 1141
- RoHS compliant

How to order

BN 612.9-10-16-SW

1 d1
2 d2
3 Finish
Spring latches GN 722.1 are used when the indexing pin is temporarily not allowed to protrude. The indexing pin retracts by turning the latch by 180°. A lock notch will hold the latch in both positions. The square bar allows the latch to be welded in any desired position. To prevent excessive heating up and the resulting change in the spring properties, fixing with welding spots is recommended.

Spring latches GN 722.1 are designed for use in steel construction or in locksmith shops where less precise positioning / locking is normally required. The dimensional tolerances are therefore chosen to ensure that functional safety is guaranteed under dirt exposure and that cost-effective production methods are used.

see also...
- Range of cam action indexing plungers → Page 412
- Spring latches GN 722.2 / GN 722.3 (for surface mounting) → Page 462

<table>
<thead>
<tr>
<th>d</th>
<th>s</th>
<th>l₁</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄</th>
<th>Spring load in N = initial</th>
<th>end</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plunger Bore</td>
<td>44</td>
<td>82</td>
<td>80</td>
<td>81</td>
<td>43</td>
<td>53</td>
<td>71</td>
</tr>
</tbody>
</table>

**Specification**

- **Guide**
  - Steel precision cast
  - weldable
  - blackened
- **Latch**
  - Steel precision cast
  - zinc plated, blue passivated
- **Plunger**
  - Steel
  - zinc plated, blue passivated
- **RoHS compliant**
Spring latches GN 722.2 are used when the indexing pin is temporarily not allowed to protrude. The indexing pin retracts by turning the latch by 180°. A lock notch will hold the latch in both positions.

Spring latches GN 722.2 are designed for use in steel construction or in locksmith shops where less precise positioning / locking is normally required. The dimensional tolerances are therefore chosen to ensure that functional safety is guaranteed under dirt exposure and that cost-effective production methods are used.

Spring latches GN 722.2 are used when the indexing pin is temporarily not allowed to protrude. The indexing pin retracts by turning the latch by 180°. A lock notch will hold the latch in both positions.

Spring latches GN 722.2 are designed for use in steel construction or in locksmith shops where less precise positioning / locking is normally required. The dimensional tolerances are therefore chosen to ensure that functional safety is guaranteed under dirt exposure and that cost-effective production methods are used.

see also...
- Range of cam action indexing plungers → Page 412
- Spring latches GN 722.1 (for welding) → Page 461
- Positioning bushings GN 412.2 → Page 454

<table>
<thead>
<tr>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Guide</strong></td>
</tr>
<tr>
<td>- zinc plated, blue passivated</td>
</tr>
<tr>
<td>- zinc plated and plastic coated black, textured finish</td>
</tr>
<tr>
<td><strong>Latch</strong></td>
</tr>
<tr>
<td>- zinc plated, blue passivated</td>
</tr>
<tr>
<td><strong>Plunger</strong></td>
</tr>
<tr>
<td>- zinc plated, blue passivated</td>
</tr>
<tr>
<td><strong>RoHS compliant</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring latches GN 722.2 are used when the indexing pin is temporarily not allowed to protrude. The indexing pin retracts by turning the latch by 180°. A lock notch will hold the latch in both positions.</td>
</tr>
<tr>
<td>Spring latches GN 722.2 are designed for use in steel construction or in locksmith shops where less precise positioning / locking is normally required. The dimensional tolerances are therefore chosen to ensure that functional safety is guaranteed under dirt exposure and that cost-effective production methods are used.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>How to order</th>
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<tbody>
<tr>
<td>GN 722.2-12-20-A-SW</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1</th>
<th>d₁</th>
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</thead>
<tbody>
<tr>
<td>2</td>
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</tr>
<tr>
<td>3</td>
<td>Type</td>
</tr>
<tr>
<td>4</td>
<td>Colour</td>
</tr>
</tbody>
</table>
GN 722.3
Spring latches
with flange for surface mounting

3.1
Indexing plungers, Locking pins, Spring plungers

---

Spring latches GN 722.3 are used when the indexing pin is temporarily not allowed to protrude. The indexing pin retracts by turning the latch by 180°.

A lock notch will hold the latch in both positions.

Spring latches GN 722.3 are designed for use in steel construction or in locksmith shops where less precise positioning / locking is normally required. The dimensional tolerances are therefore chosen to ensure that functional safety is guaranteed under dirt exposure and that cost-effective production methods are used.

see also...
- Range of cam action indexing plungers → Page 412
- Spring latches GN 722.1 (for welding) → Page 461
- Positioning bushings GN 412.2 → Page 454

---

**Specification**
- **Guide**
  - Steel precision cast
  - zinc plated, blue passivated
  - zinc plated and plastic coated black, textured finish

- **Latch**
  - Steel precision cast
  - zinc plated, blue passivated

- **Plunger**
  - Steel
  - zinc plated, blue passivated

- **RoHS compliant**

---

**Information**

**How to order**

GN 722.3-14-20-L-SW

---

<table>
<thead>
<tr>
<th>d₁</th>
<th>s</th>
<th>b</th>
<th>d₂</th>
<th>h₁</th>
<th>h₂</th>
<th>k₁</th>
<th>k₂</th>
<th>k₃</th>
<th>l₁f</th>
<th>l₂</th>
<th>l₃</th>
<th>l₄</th>
<th>l₅</th>
<th>m</th>
<th>A/F</th>
<th>t</th>
<th>Spring load in N</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>20</td>
<td>6,1</td>
<td>6,1</td>
<td>7,5</td>
<td>10</td>
<td>7,5</td>
<td>18</td>
<td>12</td>
<td>68</td>
<td>14</td>
<td>35</td>
<td>37</td>
<td>48</td>
<td>34</td>
<td>10</td>
<td>6,1</td>
<td>16</td>
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<tr>
<td>10</td>
<td>20</td>
<td>6,1</td>
<td>6,1</td>
<td>7,5</td>
<td>10</td>
<td>7,5</td>
<td>18</td>
<td>12</td>
<td>68</td>
<td>14</td>
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<td>10</td>
<td>6,1</td>
<td>16</td>
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<tr>
<td>12</td>
<td>20</td>
<td>6,1</td>
<td>6,1</td>
<td>7,5</td>
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<td>7,5</td>
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<td>20</td>
<td>6,1</td>
<td>6,1</td>
<td>7,5</td>
<td>10</td>
<td>7,5</td>
<td>18</td>
<td>12</td>
<td>68</td>
<td>14</td>
<td>35</td>
<td>37</td>
<td>48</td>
<td>34</td>
<td>10</td>
<td>6,1</td>
<td>16</td>
</tr>
</tbody>
</table>
Cam action indexing plungers

Plunger in standard position protruded

Cam action indexing plungers GN 712 are used in such applications where the plunger must not protrude continually. When turning the cam by 90° resp. 120° degrees in anti-clockwise direction, the plunger is moved through a curved opening in the body. After that, the plunger is retracted. Depending on the type, the plunger is moved back by a spring in its original position (Type A), is held in retracted position (Type R), resp. is secured against accidental operation (Type S).

In order to move the plunger, safety version Type S requires an additional lifting of the latch.


### Specification

- Steel  
  zinc plated, blue passivated
- Plunger  
  Stainless Steel AISI 303
- Latch  
  Plastic (Polyamide PA)  
  - black, matt  
  - not removable
- ISO-Fundamental Tolerances ➔ Page 1132
- Stainless Steel characteristics ➔ Page 1144
- Plastic characteristics ➔ Page 1141
- RoHS compliant

### Information

Cam action indexing plungers GN 712 are used in such applications where the plunger must not protrude continually. When turning the cam by 90° resp. 120° degrees in anti-clockwise direction, the plunger is moved through a curved opening in the body. After that, the plunger is retracted. Depending on the type, the plunger is moved back by a spring in its original position (Type A), is held in retracted position (Type R), resp. is secured against accidental operation (Type S).

In order to move the plunger, safety version Type S requires an additional lifting of the latch.

see also...

- Range of cam action indexing plungers ➔ Page 412

### How to order

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>d₁</td>
<td>d₂</td>
<td>d₃</td>
</tr>
<tr>
<td>6</td>
<td>M 16 x 1,5</td>
<td>16</td>
</tr>
<tr>
<td>8</td>
<td>M 16 x 1,5</td>
<td>16</td>
</tr>
<tr>
<td>10</td>
<td>M 16 x 1,5</td>
<td>16</td>
</tr>
</tbody>
</table>

- GN 712-8-M16x1,5-R

- 1 d₁
- 2 d₂
- 3 Type

---

3.1 Indexing plungers, Locking pins, Spring plungers
Cam action indexing plungers

GN 712.1 are used in such applications where the plunger has to protrude only occasionally. When turning the cam by 90° resp. 120° degrees in clockwise direction, the plunger is moved through a curved opening in the body. After that, the plunger is protruded.

Depending on the type, the plunger is moved back by a spring in its original position (Type A), is held in protruded position (Type R), resp. is secured against accidental operation (Type S). In order to move the plunger, safety version Type S requires an additional lifting of the latch.

Cam action indexing plungers GN 712.1 are used in such applications where the plunger has to protrude only occasionally. When turning the cam by 90° resp. 120° degrees in clockwise direction, the plunger is moved through a curved opening in the body. After that, the plunger is protruded.

Depending on the type, the plunger is moved back by a spring in its original position (Type A), is held in protruded position (Type R), resp. is secured against accidental operation (Type S). In order to move the plunger, safety version Type S requires an additional lifting of the latch.

see also...

• Range of cam action indexing plungers → Page 412

How to order

GN 712.1-6-M16x1,5-S
### 3.1 Indexing plungers, Locking pins, Spring plungers

#### Range

- **GN 113.1**
  - **Ball lock pins with clamping length compensation**
  - Page 469
  - **Ø Pin**
    - Ø 6 ... Ø 12
  - **for clamping length l₁**
    - 0 ... 5 / 5 ... 10
  - **Material / Finish**
    - Stainless Steel AISI 303
    - Knob
    - Plastic

#### Other features
- Locking pin tolerance: -0,04 / -0,08
- Ball lock pins GN 113.1 are used for rapid fixing and, at the same time, play-free clamping of thin component.
- By depressing the spring-loaded push button the pin advances by max. 5 mm and at the same time frees the two balls.

#### GN 113.3
- **Ball lock pins**
  - Page 470
  - **Ø Pin**
    - Ø 5 ... Ø 20
  - **for safeguard length l₁**
    - 10 ... 80
  - **Material / Finish**
    - GN 113.3:
      - Stainless Steel AISI 303
    - GN 113.4:
      - Stainless Steel AISI 630
      - Precipitation-hardened
      - Hard coated

#### Other features
- Locking pin tolerance: -0,04 / -0,08
- Ball lock pins GN 113.3 / GN 113.4 offer an axial lock. By pressing the spring-loaded push button both balls are unlocked and by releasing it the balls are locked again.
- These ball lock pins are reasonably priced and renowned for their compactness.
- Ball lock pins GN 113.4 are hardened and have an extreme load capacity.

#### GN 113.5
- **Ball lock pins**
  - Page 471
  - **Ø Pin**
    - Ø 5 ... Ø 16
  - **for safeguard length l₁**
    - 10 ... 80
  - **Material / Finish**
    - GN 113.5:
      - Stainless Steel AISI 303
    - GN 113.6:
      - Stainless Steel AISI 630
      - Precipitation-hardened
      - Hard coated
    - Knob
    - Plastic

#### Other features
- Locking pin tolerance: -0,04 / -0,08
- The operation of ball lock pins GN 113.5 / GN 113.6 is identical to GN 113.3 / GN 113.4, they only differ by a plastic knob instead of the turned hollow for grip.
### Ball lock pins - Locking pins with axial locks

**Range**

**GN 113.7**  
**GN 113.8**  
**Stainless Steel-Ball lock pins**  
→ Page 472

<table>
<thead>
<tr>
<th>Ø Pin</th>
<th>for safeguard length l₁</th>
<th>Material / Finish</th>
<th>Other features</th>
</tr>
</thead>
</table>
| Ø 5 ... Ø 16 | 10 ... 80 | Stainless Steel AISI 303  
- GN 113.7:  
- GN 113.8: Stainless Steel AISI 630 precipitation-hardened hard coated  
- T-handle Plastic | Stainless Steel-Ball lock pins GN 113.7 / GN 113.8 are identical with Stainless Steel-Ball lock pins GN 113.3 / GN 113.4. But they have a T-handle made of plastic instead of the twisted grip.  
The operation of ball lock pins GN 113.7 / GN 113.8 is identical to GN 113.3 / GN 113.4, they only differ by a plastic T-handle instead of the turned hollow for grip. |

**GN 214.2**  
**GN 214.3**  
**Locking pins with axial lock**  
→ Page 473

<table>
<thead>
<tr>
<th>Ø Pin</th>
<th>for safeguard length l₁</th>
<th>Material / Finish</th>
<th>Other features</th>
</tr>
</thead>
</table>
| Ø 6 ... Ø 16 | 10 ... 80 | Pin Steel, zinc plated  
- GN 214.2:  
- GN 214.3: Stainless Steel AISI 303  
- Knob / Push-button Plastic  
- Pawls Stainless Steel AISI 304 | Locking pin tolerance: -0,01  
As with ball lock pins the locking pins GN 214.2 / GN 214.3 also offer an axial lock, which can also be released by depressing the push button in the knob and re-engaged by releasing the button.  
The locking mechanism consists of rectangular locking pawls in Stainless Steel. These pawls are withdrawn from their lock position by depressing the push button.  
Locking pins GN 214.2 / GN 214.3 are very reasonably priced. |

**GN 114.2**  
**Locking pins with axial lock**  
→ Page 474

<table>
<thead>
<tr>
<th>Ø Pin</th>
<th>for safeguard length l₁</th>
<th>Material / Finish</th>
<th>Other features</th>
</tr>
</thead>
</table>
| Ø 6 ... Ø 20 | 16 ... 80 | Pin Steel, zinc plated  
- Pawls Stainless Steel AISI 304  
- Push button (slide) / Knob Plastic | Locking pin tolerance: 0 / -0,04  
As with ball lock pins the locking pins GN 114.2 also offer an axial lock, which can also be released by depressing the push button in the knob and re-engaged by releasing the button.  
The locking mechanism consists of rectangular locking pawls in Stainless Steel. These pawls are withdrawn from their lock position by depressing the push button.  
Locking pins GN 114.2 are very reasonably priced. |
### GN 114.3
**GN 114.6**

*Locking pins with axial lock*  
→ Page 475

<table>
<thead>
<tr>
<th>ø Pin</th>
<th>for safeguard length l₁</th>
<th>Material / Finish</th>
</tr>
</thead>
</table>
| Ø 6 ... Ø 20 | 10 ... 80 | • Pin  
Stainless Steel AISI 303  
• Pawls  
Stainless Steel AISI 304  
• GN 114.3:  
Knob / Push-button  
Plastic  
• GN 114.6:  
Knob / Push-button  
Stainless Steel AISI 304 |

**Other features**
Locking pin tolerance: -0.04 / -0.08

As with ball lock pins the locking pins GN 114.3 / GN 114.6 also offer an axial lock, which can also be released by depressing the push button in the knob and re-engaged by releasing the push button.

The locking mechanism consists of rectangular locking pawls in Stainless Steel. These pawls are withdrawn from their lock position by depressing the push button.

Locking pins GN 114.3 / GN 114.6 are very reasonably priced.

### GN 124

*Locking pins with axial lock with ball retainer*  
→ Page 476

<table>
<thead>
<tr>
<th>ø Pin</th>
<th>for safeguard length l₁</th>
<th>Material / Finish</th>
</tr>
</thead>
</table>
| Ø 6 ... Ø 12 | 10 ... 50 | • Pin  
Stainless Steel AISI 303  
• Knob  
Plastic |

**Other features**
Locking pin tolerance: 0 / -0.04

As with ball lock pins the locking pins GN 113.3 and GN 113.4 also offer an axial lock, which can also be released by depressing the push button in the knob and re-engaged by releasing the push button.

Contrary to ball lock pins GN 113.3 and GN 113.4 the balls are only kept in their lock position by the force of a thrust spring and not rigidly locked. The axial holding force is therefore reduced.
Stainless Steel-Ball lock pins
self-locking, with clamping length compensation

![Diagram](image)

**Example of application**

Push button pressed
Balls free

Push button
Balls in locking position

Push button in rest position
Balls free

**Specification**

- Pin
  Stainless Steel AISI 303

- Handle
  Plastic (Polyamide PA)
  - black-grey / red
  - temperature resistant up to 80 °C

- Balls
  Stainless Steel AISI 420C

- Spring
  Stainless Steel AISI 631

- Stainless Steel characteristics ➔ Page 1144
- Plastic characteristics ➔ Page 1141
- RoHS compliant

**Information**

Stainless Steel-Ball lock pins GN 113.1 are used for rapid clamping and, at the same time, play-free clamping of thin components in particular where frequent clamping and releasing is required. A typical application is the alignment and clamping of sheet metal during a welding process.

By depressing the spring-loaded push button the pin advances by the length \( l_2 \) and at the same time frees the two balls.

**How to order**

<table>
<thead>
<tr>
<th>( d_1 )</th>
<th>( l_1 ) (5mm stroke)</th>
<th>( d_2 )</th>
<th>( d_3 )</th>
<th>( d_4 )</th>
<th>( l_2 )</th>
<th>( l_3 )</th>
<th>Locating bore</th>
<th>Clamping force</th>
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<tr>
<td>6</td>
<td>5</td>
<td>7</td>
<td>38</td>
<td>17,5</td>
<td>5</td>
<td>30</td>
<td>6 H11</td>
<td>16 N</td>
</tr>
<tr>
<td>6</td>
<td>10</td>
<td>7</td>
<td>38</td>
<td>17,5</td>
<td>5</td>
<td>30</td>
<td>6 H11</td>
<td>18 N</td>
</tr>
<tr>
<td>8</td>
<td>5</td>
<td>9,5</td>
<td>38</td>
<td>17,5</td>
<td>6,5</td>
<td>30</td>
<td>8 H11</td>
<td>16 N</td>
</tr>
<tr>
<td>8</td>
<td>10</td>
<td>9,5</td>
<td>38</td>
<td>17,5</td>
<td>6,5</td>
<td>30</td>
<td>8 H11</td>
<td>18 N</td>
</tr>
<tr>
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<td>5</td>
<td>12</td>
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<td>23</td>
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<td>23 N</td>
</tr>
<tr>
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<td>5</td>
<td>14</td>
<td>47</td>
<td>23</td>
<td>9,4</td>
<td>36</td>
<td>12 H11</td>
<td>21 N</td>
</tr>
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<td>47</td>
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<td>9,4</td>
<td>36</td>
<td>12 H11</td>
<td>23 N</td>
</tr>
</tbody>
</table>

**see also...**

- Range of locking pins ➔ Page 466

---

**Stainless Steel-Ball lock pins GN 113.1-6-5**

1. \( d_1 \)
2. \( l_1 \) min.
GN 113.3
AISI 303

GN 113.4
AISI 630

Stainless Steel-Ball lock pins
with hollow for grip

Stainless Steel-Ball lock pins GN 113.3 / GN 113.4 are used for quick fixing, connecting and locking of various parts and workpieces. A typical application is locating pins which have often to be removed and installed again.

By pressing the spring loaded push button both balls are unlocked and by releasing it the balls are locked again.

Ball lock pins GN 113.3 / GN 113.4 are renowned for their compactness. The eye ring is enclosed unmounted.

Ball lock pins GN 113.4 have an extreme load capacity, the pin is made of heavy duty, hardened and highly abrasion-resistant stainless steel.

The load values given in the above table at shear stress are theoretically obtained and indicative only. They are non-binding recommended values and rule out any liability. They constitute no general warranty of quality and condition. The user must determine from case to case whether a product is suitable for the intended use.

see also...
• Range of locking pins → Page 466

Information

Ball lock pin, AISI 303

GN 113.3-6-20

<table>
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<th>l₁</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
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<tr>
<td>6</td>
<td>10</td>
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<td>25</td>
</tr>
<tr>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>20</td>
<td>60</td>
</tr>
</tbody>
</table>

Ball lock pin, AISI 630

GN 113.4-8-35

<table>
<thead>
<tr>
<th>d₁</th>
<th>l₁</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>20</td>
<td>25</td>
</tr>
</tbody>
</table>

Specification

• GN 113.3
Stainless Steel AISI 303

• GN 113.4
Stainless Steel AISI 630
- precipitation-hardened
- hard coated

• Balls
Stainless Steel AISI 420C

• Spring
Stainless Steel AISI 631

• temperature resistant up to 250 °C
• Stainless Steel characteristics → Page 1144
• RoHS compliant

Accessory

• Ball chains GN 111 / GN 111.5 → Page 477
• Retaining cables GN 111.2 → Page 478
• Spiral retaining cables GN 111.4 → Page 479
**Stainless Steel-Ball lock pins**

**GN 113.5**  
Material AISI 303

**GN 113.6**  
Material AISI 630

with knob

---

### Specification

- **GN 113.5**  
  Pin Stainless Steel AISI 303

- **GN 113.6**  
  Pin Stainless Steel AISI 630  
  - precipitation-hardened  
  - hard coated

- **Knob**  
  Plastic (Polyamide PA)  
  - black-grey / red  
  - temperature resistant up to 80 °C

- **Balls**  
  Stainless Steel AISI 420C

- **Spring**  
  Stainless Steel  
  German Material No. 1.4565

- **Stainless Steel characteristics → Page 1144**

- **RoHS compliant**

### Accessory

- **Ball chains GN 111 / GN 111.5 → Page 477**
- **Retaining cables GN 111.2 → Page 478**
- **Spiral retaining cables GN 111.4 → Page 479**

### Information

Stainless Steel-Ball lock pins GN 113.5 / GN 113.6 are used for quick fixing, connecting and locking of various parts and workpieces. A typical application is locating pins which have often to be removed and installed again. By pressing the spring loaded push button both balls are unlocked and by releasing it, the balls are locked again.

Ball lock pins GN 113.6 have an extreme load capacity, the pin is made of heavy duty, hardened and highly abrasion-resistant stainless steel.

The load values given in the above table at shear stress are theoretically obtained and indicative only. They are non-binding recommended values and rule out any liability. They constitute no general warranty of quality and condition. The user must determine from case to case whether a product is suitable for the intended use.

see also...  
**Range of locking pins → Page 466**

---

<table>
<thead>
<tr>
<th>d₁</th>
<th>l₁</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>l₂ ±0,2</th>
<th>l₃ −0,2</th>
<th>Locating bore H11</th>
<th>Load in kN ≈ (Double sided shear force) according DIN 50141</th>
<th>AISI 303</th>
<th>AISI 630</th>
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</thead>
<tbody>
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<td>30</td>
<td>35</td>
<td>40 45 50</td>
<td>-</td>
<td>9,5</td>
<td>35</td>
<td>19</td>
<td>8,2</td>
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<td>50 60</td>
<td>70 80</td>
<td>-</td>
<td>19</td>
<td>42</td>
<td>25</td>
</tr>
</tbody>
</table>
**GN 113.7**
AISI 303

**GN 113.8**
AISI 630

Stainless Steel-Ball lock pins with T-Handle

---

**Specification**

- **GN 113.7**
  Plunger Stainless Steel AISI 303
- **GN 113.8**
  Plunger Stainless Steel AISI 630
  - precipitation-hardened
  - hard coated

This information applies to both standards:

- **T-Handle**
  Plastic (Polyamide PA)
  - black
  - temperature resistant up to 80° C
- **Balls**
  Stainless Steel AISI 420C
- **Spring**
  Stainless Steel
  German Material No. 1.4565
- **Stainless Steel characteristics → Page 1144**
- **RoHS compliant**

**Accessory**

- Ball chains GN 111 / GN 111.5 → Page 477
- Retaining cables GN 111.2 → Page 478
- Spiral retaining cables GN 111.4 → Page 479

---

**Information**

Stainless Steel-Ball lock pins GN 113.7 / GN 113.8 are used for quick fixing, connecting and locking of various parts and workpieces. A typical application is locating pins which have often to be removed and installed again.

By pressing the spring loaded push button both balls are unlocked and by releasing it, the balls are locked again.

Ball lock pins GN 113.8 have an extreme load capacity, the pin is made of heavy duty, hardened and highly abrasion-resistant stainless steel.

The load values given in the above table at shear stress are theoretically obtained and indicative only. They are non-binding recommended values and rule out any liability. They constitute no general warranty of quality and condition. The user must determine from case to case whether a product is suitable for the intended use.

see also...

- **Range of locking pins → Page 466**

---

### Table: Specifications

<table>
<thead>
<tr>
<th>d₁</th>
<th>l₁</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>l₂ ±0.2</th>
<th>l₃</th>
<th>m</th>
<th>Location</th>
<th>Load in kN (Double sided shear force) according DIN 50141</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
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<td>25</td>
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<td>-</td>
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<td>5,5 40 13,5 6 25 15,5 5 14 24</td>
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<td>20</td>
<td>25</td>
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<td>35</td>
<td>40 45 50 - - 9,5 48 18 8,2 31 20,5 8 38 63</td>
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**Ball lock pin, AISI 303**

<table>
<thead>
<tr>
<th>1</th>
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</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>l₁</td>
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**Ball lock pin, AISI 630**

<table>
<thead>
<tr>
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<th>d₁</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>l₁</td>
</tr>
</tbody>
</table>
Locking pins with axial lock (Pawl)

- GN 214.2
  - Plunger Steel
    - zinc plated, blue passivated
- GN 214.3
  - Plunger Stainless Steel AISI 303
  - Pawl
    - Stainless Steel sheet metal AISI 304
  - Lifting ring
    - Stainless Steel AISI 301
  - Push button
    - Plastic
      - red
      - temperature resistant up to 80 °C
  - Spring
    - Stainless Steel AISI 301
- Stainless Steel characteristics → Page 1144
- RoHS compliant

Information

Locking pins with axial lock GN 214.2 / GN 214.3 are used for quick fixing, connecting and locking of various jig and fixture systems. A typical application is location pins which have to be often removed and re-placed again.

The two locking pawls can be retracted by pressing the button and on releasing it the pawls will be locked again.

The rectangular shape of the locking pawls in stainless steel creates a linear contact area with axial lock of the pin.

The version with swivelling lifting ring is ideal for the use in confined spaces.

The load values given in the above table at shear stress are theoretically obtained and indicative only. They are non-binding recommended values and rule out any liability. They constitute no general warranty of quality and condition. The user must determine from case to case whether a product is suitable for the intended use.

see also...
- Range of locking pins → Page 466

Specification

| d₁ | a | b | d₂ | d₃ | d₄ | d₅ | l₁ | l₂ | l₃ | Load in kN =
|---|---|---|---|---|---|---|---|---|---|(Double sided shear force)
|   |   |   |   |   |   |   |   |   |   | see information
| 6  | 10 | 12 | 16 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | GN 214.2 | GN 214.3
| 8  | 16 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | -  | -  | 2,3 | 0,5 | 7,5 | 5,9 | 12 | 23 | 7 | 38 | 14 | 17 |
| 10 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 60 | -  | -  | 2,8 | 1  | 10,4| 7,9 | 12 | 23 | 8,4| 38 | 28 | 35 |
| 12 | 25 | 30 | 35 | 40 | 45 | 50 | 60 | 70 | 80 | -  | 3,3 | 1  | 12,8| 9,9 | 16 | 28 | 9,8| 42 | 38 | 47 |
| 16 | 30 | 35 | 40 | 45 | 50 | 60 | 70 | 80 | 90 | -  | 4,8 | 1,2| 19,9| 15,9| 20 | 32 | 14,2| 46,5| 113| 138|

Example of application

<table>
<thead>
<tr>
<th>Steel-Pin</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN214.2-10-60</td>
<td>d₁</td>
<td>l₁</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stainless Steel-Pin</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN214.3-16-70</td>
<td>d₁</td>
<td>l₁</td>
</tr>
</tbody>
</table>
3.1 Indexing plungers, Locking pins, Spring plungers

**Locking pins**

with axial lock (Pawl)

---

**Specification**

- **Pin**
  - Steel
  - zinc plated, blue passivated
- **Pawl**
  - Stainless Steel AISI 304 (sheet metal)
- **Knob**
  - Plastic (Polyamide PA)
  - black-grey
  - temperature resistant up to 80 °C
- **Push button / Slide**
  - Plastic
  - Push button: red
  - temperature resistant up to 80 °C
- **Spring**
  - Stainless Steel AISI 301
- **Stainless Steel characteristics** → Page 1144
- **RoHS compliant**

---

**Information**

Locking pins with axial lock GN 114.2 are used for quick fixing, connecting and locking of various jig and fixture systems. A typical application is location pins which have to be often removed and re-placed again.

The two locking pawls can be retracted by pressing the button and on releasing it the pawls will be locked again.

The rectangular shape of the locking pawls in stainless steel creates a linear contact area which gives an increased axial shear strength.

The load values given in the above table at shear stress are theoretically obtained and indicative only. They are non-binding recommended values and rule out any liability. They constitute no general warranty of quality and condition. The user must determine from case to case whether a product is suitable for the intended use.

see also...

- **Range of locking pins** → Page 466

---

**How to order**

1. **d₁**
2. **l₁**

**GN 114.2-10-60**

---

**Table:**

<table>
<thead>
<tr>
<th>d₁</th>
<th>I₁</th>
<th>a</th>
<th>b</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>d₅</th>
<th>l₂</th>
<th>l₃</th>
<th>Load in kN = (Double sided shear force) See information</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>10</td>
<td>12</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>50</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
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<td>60</td>
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</tr>
<tr>
<td>12</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
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</tr>
<tr>
<td>16</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>80</td>
<td>-</td>
</tr>
<tr>
<td>20</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>80</td>
<td>-</td>
</tr>
</tbody>
</table>

---

**Example of application**

---

**Diagram:**

- Bore for ring (ball chain)
- Pawl
- Slide
- Push button
**Stainless Steel-Locking pins**

with axial lock (Pawl)

**Information**

Locking pins with axial lock GN 114.3 / GN 114.6 are used for quick fixing, connecting and locking of various jig and fixture systems. A typical application is location pins which have to be often removed and re-placed again.

The two locking pawls can be retracted by pressing the button and on releasing it the pawls will be locked again.

The rectangular shape of the locking pawls in stainless steel creates a linear contact area which gives an increased axial shear strength.

The load values given in the above table at shear stress are theoretically obtained and indicative only. They are non-binding recommended values and rule out any liability. They constitute no general warranty of quality and condition. The user must determine from case to case whether a product is suitable for the intended use.

see also...

- **Range of locking pins** → Page 466

**Specification**

- **GN 114.3**
  
  Knob / Push button / Slide
  
  - Plastic
  
  - Temperature resistant up to 80 °C
  
  - Knob: black-grey
  
  - Push button: red

- **GN 114.6**
  
  Knob / Push button / Slide
  
  Stainless Steel AISI 303

This information applies to both standards:

- **Pin**
  
  Stainless Steel AISI 303

- **Pawl**
  
  Stainless Steel AISI 304 (sheet metal)

- **Spring**
  
  Stainless Steel AISI 301

- **Stainless Steel characteristics** → Page 1144

- **RoHS compliant**

**Accessory**

- **Ball chains GN 111 / GN 111.5** → Page 477

- **Retaining cables GN 111.2** → Page 478

- **Spiral retaining cables GN 111.4** → Page 479

---

**Table:**

<table>
<thead>
<tr>
<th>d₁ (−0.01)</th>
<th>l₁ +0.4</th>
<th>Minimum size</th>
<th>a</th>
<th>b</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>d₅</th>
<th>l₂</th>
<th>l₃</th>
<th>Load in kN = (Double sided shear force)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>10*</td>
<td>12*</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>2.3</td>
</tr>
<tr>
<td>8</td>
<td>16</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>50</td>
<td>60</td>
<td>2.8</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>60</td>
<td>60</td>
<td>70</td>
<td>3.3</td>
</tr>
<tr>
<td>12</td>
<td>25</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>80</td>
<td>3.8</td>
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<tr>
<td>16</td>
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<td>40</td>
<td>45</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>-</td>
<td>-</td>
<td>4.8</td>
</tr>
<tr>
<td>20</td>
<td>30</td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>80</td>
<td>-</td>
<td>-</td>
<td>4.8</td>
</tr>
</tbody>
</table>

* only GN 114.3

---

**Stainless Steel-Pin with plastic knob**

GN 114.3-10-60

**Stainless Steel-Pin with Stainless Steel-Knob**

GN 114.6-16-70
Stainless Steel-Locking pins
with axial lock (Ball retainer)

Stainless Steel-Pins GN 124 are used for quick fixing, connecting and locking of various jig and fixture systems.

Contrary to the ball lock pins GN 113.3 ... GN 113.8 the balls are spring loaded and not rigidly locked. Hence the relatively low axial holding strength.

The load values given in the above table at shear stress are theoretically obtained and indicative only. They are non-binding recommended values and rule out any liability. They constitute no general warranty of quality and condition. The user must determine from case to case whether a product is suitable for the intended use.

see also...
- Range of locking pins  → Page 466

### Specification

- **Pin**
  Stainless Steel AISI 303
- **Knob**
  Plastic (Polyamide PA)
  - black, matt
  - temperature resistant up to 80 °C
- **Balls**
  Stainless Steel AISI 420C
- **Spring**
  Stainless Steel AISI 631
- **Stainless Steel characteristics  → Page 1144**
- **Plastic characteristics  → Page 1141**
- **RoHS compliant**

### Information

Stainless Steel-Pins GN 124 are used for quick fixing, connecting and locking of various jig and fixture systems.

Contrary to the ball lock pins GN 113.3 ... GN 113.8 the balls are spring loaded and not rigidly locked. Hence the relatively low axial holding strength.

The load values given in the above table at shear stress are theoretically obtained and indicative only. They are non-binding recommended values and rule out any liability. They constitute no general warranty of quality and condition. The user must determine from case to case whether a product is suitable for the intended use.

### How to order

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>d₁</td>
<td>l₁</td>
</tr>
</tbody>
</table>

**GN 124-10-20**

---

### Table

<table>
<thead>
<tr>
<th>d₁</th>
<th>l₁</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>l₂</th>
<th>l₃</th>
<th>Locating bore</th>
<th>Axial holding force in N =</th>
<th>Load in kN = (Double sided shear force) according DIN 50141</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>50</td>
<td>6,5</td>
<td>14,5</td>
<td>25</td>
</tr>
<tr>
<td>8</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>50</td>
<td>-</td>
<td>8,7</td>
<td>14,5</td>
<td>25</td>
</tr>
<tr>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
<td>30</td>
<td>50</td>
<td>-</td>
<td>12</td>
<td>18,5</td>
<td>31</td>
</tr>
<tr>
<td>12</td>
<td>20</td>
<td>30</td>
<td>40</td>
<td>50</td>
<td>-</td>
<td>-</td>
<td>14,5</td>
<td>18,5</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>32</td>
<td>90</td>
</tr>
</tbody>
</table>
### Specification
- **GN 111**
  Ball chain
  Brass, nickel plated
- **GN 111.5**
  Ball chain
  Stainless Steel AISI 301
- Key ring
  Stainless Steel
- **Stainless Steel characteristics** → Page 1144
- RoHS compliant

### Information
Ball chains GN 111 / GN 111.5 are mainly used in connection with ball lock pins and pins with axial lock.

The key rings are supplied unmounted. Both rings have the same Ø $d_1$.

The load values given in the above table at shear stress are theoretically obtained and indicative only.

They are non-binding recommended values and rule out any liability.

### Table

<table>
<thead>
<tr>
<th>Length $l$</th>
<th>$d_1$</th>
<th>$d_2$</th>
<th>Static load in N with key ring</th>
<th>Static load in N without key ring</th>
<th>Suitable for locking pins</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>14 *</td>
<td>1</td>
<td>50</td>
<td>180</td>
<td>* GN 113.1, GN 124 Ø 6, Ø 8 and GN 113.3, GN 113.4, GN 113.5, GN 113.6, GN 113.7, GN 113.8, GN 114.2, GN 114.3, GN 114.6 all Ø</td>
</tr>
<tr>
<td>200</td>
<td>18 **</td>
<td>1,3</td>
<td>90</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>200</td>
<td>24</td>
<td>1,5</td>
<td>100</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>320</td>
<td>14 *</td>
<td>1</td>
<td>50</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>320</td>
<td>18 **</td>
<td>1,3</td>
<td>90</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>320</td>
<td>24</td>
<td>1,5</td>
<td>100</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>320</td>
<td>30</td>
<td>1,8</td>
<td>120</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>14 *</td>
<td>1</td>
<td>50</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>18 **</td>
<td>1,3</td>
<td>90</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>24</td>
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<td>180</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>30</td>
<td>1,8</td>
<td>120</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>14 *</td>
<td>1</td>
<td>50</td>
<td>180</td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>18 **</td>
<td>1,3</td>
<td>90</td>
<td>180</td>
<td></td>
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<tr>
<td>1000</td>
<td>24</td>
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<tr>
<td>1000</td>
<td>30</td>
<td>1,8</td>
<td>120</td>
<td>180</td>
<td></td>
</tr>
</tbody>
</table>

### Accessory
- Single key rings are supplied with code no. GN 111.3-$d_1$.

### Example of application

Pins GN 114.2 / 114.3
Ball lock pins GN 113.5 / 113.6
**GN 111.2 Retaining cables**

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Specification</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>with 2 key rings</td>
<td>Retaining cable Stainless Steel coated with clear plastic</td>
<td>Retaining cables GN 111.2 are mainly used in connection with ball lock pins and pins with axial lock. The key rings are supplied unmounted. Both rings have the same $\varnothing d_1$.</td>
</tr>
<tr>
<td>B</td>
<td>with fixing loop and key ring</td>
<td>Fixing loop Stainless Steel</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>with 2 fixing loops</td>
<td>Key rings Stainless Steel</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RoHS compliant</td>
<td></td>
</tr>
</tbody>
</table>

### Table

<table>
<thead>
<tr>
<th>Length l</th>
<th>$d_1$</th>
<th>$d_2$</th>
<th>Static load in N =</th>
<th>Type A and Type B are suitable for locking pins</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>with key ring</td>
<td>without key ring</td>
</tr>
<tr>
<td>150</td>
<td>14 *</td>
<td>1</td>
<td>50</td>
<td>1800</td>
</tr>
<tr>
<td>150</td>
<td>18 **</td>
<td>1,3</td>
<td>90</td>
<td>1800</td>
</tr>
<tr>
<td>150</td>
<td>24</td>
<td>1,5</td>
<td>100</td>
<td>1800</td>
</tr>
<tr>
<td>150</td>
<td>30</td>
<td>1,8</td>
<td>120</td>
<td>1800</td>
</tr>
<tr>
<td>200</td>
<td>14 *</td>
<td>1</td>
<td>50</td>
<td>1800</td>
</tr>
<tr>
<td>200</td>
<td>18 **</td>
<td>1,3</td>
<td>90</td>
<td>1800</td>
</tr>
<tr>
<td>200</td>
<td>24</td>
<td>1,5</td>
<td>100</td>
<td>1800</td>
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<tr>
<td>200</td>
<td>30</td>
<td>1,8</td>
<td>120</td>
<td>1800</td>
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<tr>
<td>320</td>
<td>14 *</td>
<td>1</td>
<td>50</td>
<td>1800</td>
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<td>320</td>
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<td>1,3</td>
<td>90</td>
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<td>320</td>
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<td>1,5</td>
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<td>1800</td>
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<td>1,8</td>
<td>120</td>
<td>1800</td>
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<tr>
<td>500</td>
<td>14 *</td>
<td>1</td>
<td>50</td>
<td>1800</td>
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<td>500</td>
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<td>500</td>
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</tr>
<tr>
<td>500</td>
<td>30</td>
<td>1,8</td>
<td>120</td>
<td>1800</td>
</tr>
</tbody>
</table>

---

**Retaining cable with 2 fixing loops**

**Retaining cable**

**Retaining cable with 2 fixing loops**

**Retaining cable**
**GN 111.4**

**Spiral retaining cables**

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>l₁</td>
<td>±3</td>
<td></td>
</tr>
<tr>
<td>d₁</td>
<td></td>
<td></td>
</tr>
<tr>
<td>l₂ max.</td>
<td>=</td>
<td></td>
</tr>
<tr>
<td>d₂</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value</th>
<th>Static load in N =</th>
<th>Suitable for ball lock pins and pins with axial lock</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>with key ring</td>
<td>without key ring</td>
</tr>
<tr>
<td>50</td>
<td>14*</td>
<td>50</td>
</tr>
<tr>
<td>50</td>
<td>18**</td>
<td>60</td>
</tr>
<tr>
<td>50</td>
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<tr>
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<tr>
<td>100</td>
<td>18**</td>
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<td>100</td>
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<tr>
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<tr>
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<td>60</td>
</tr>
<tr>
<td>200</td>
<td>24</td>
<td>60</td>
</tr>
</tbody>
</table>

**Specification**

- Spiral retaining cable
  Plastic (Polyuretan PUR) black
- Fixing loop
  Copper, tin-plated
- Key rings
  Stainless Steel
- RoHS compliant

**Accessory**

- Single key rings are supplied with code no.: GN 111.3-d₁

**Information**

Spiral retaining cables GN 111.4 are used in connection with low weight elements e. g. ball lock pins and pins with axial lock.

They are distinguished for a large „usable length“.

The key rings are supplied unmounted. Both rings have the same Ø d₁.

**How to order**

GN 111.4-200-18

<table>
<thead>
<tr>
<th>1</th>
<th>l₁</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>d₁</td>
</tr>
</tbody>
</table>
GN 615
Steel / Stainless Steel

Spring plungers
with slot

Spring plungers GN 615 are used as detents as well as for push-on and push-off applications and ejectors.

Specification

• Type K / KS
  - Housing Steel, blackened
  - Ball Steel, 1.3505, hardened

• Type KN / KSN
  - Housing
    Stainless Steel AISI 303
  - Ball Stainless
    Steel AISI 420C, hardened

• Spring
  Stainless Steel AISI 631

• Marking of Type KS / KSN:
  Housing with 2 longitudinal markings

• Stainless Steel characteristics → Page 1144

• RoHS compliant

Information

Steel-Spring plunger

GN615-M6-K

1 $d_1$
2 Type

Stainless Steel-Spring plunger

GN615-M8-KSN

1 $d_1$
2 Type
GN 615.3
Steel / Stainless Steel
Spring plungers
with internal hexagon

3.1 Indexing plungers, Locking pins, Spring plungers

Spring plungers

**Thread locking PFB**
Polyamide patch for type K and KN

**Thread locking PFB**
Polyamide patch for type KS and KSN

**Thread locking MVK**
Micro encapsulation precote (for all types)

### Specification

- **Type K / KS**
  - Steel, blackened
  - Ball hardened
- **Type KN / KSN**
  - Stainless Steel AISI 303 / 420C
  - Ball hardened
- **Marking of Type KS / KSN**: Housing with 2 longitudinal markings
- **Thread lockings (optional)**
  - Polyamide patch
  - Micro encapsulation
- **RoHS compliant**

### Information

The PFB patch is a *jamming* thread locking (Polyamide patch). The coating for type K or KN (standard spring load) is indicated blue, for type KS or KSN (high spring load) green. For this type of thread locking a relatively high torque is required. Therefore this version with internal hexagon is more preferable than the version with slot (GN 615).

**MVK** (Micro encapsulation) is a *gluing* thread locking (indicated red).

**See also...**
- More information to thread lockings → Page 1128

### Table

<table>
<thead>
<tr>
<th>(d_1)</th>
<th>(d_2)</th>
<th>(l)</th>
<th>(w)</th>
<th>(A/F)</th>
<th>Spring load in N = standard (type K / KN) initial</th>
<th>Spring load in N = high (Type KS / KSN) initial</th>
</tr>
</thead>
<tbody>
<tr>
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<td>0.4</td>
<td>1.5</td>
<td>3</td>
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<tr>
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<td>12</td>
<td>0.8</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>M 5</td>
<td>M 5</td>
<td>3</td>
<td>14</td>
<td>0.9</td>
<td>2.5</td>
<td>8</td>
</tr>
<tr>
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<td>M 6</td>
<td>3,5</td>
<td>15</td>
<td>1</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>M 8</td>
<td>M 8</td>
<td>4.5</td>
<td>18</td>
<td>1.5</td>
<td>4</td>
<td>18</td>
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<tr>
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<td>M 16</td>
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<td>M 20</td>
<td>M 20</td>
<td>12</td>
<td>43</td>
<td>4.5</td>
<td>10</td>
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<td>M 24</td>
<td>15</td>
<td>48</td>
<td>5.5</td>
<td>12</td>
<td>81</td>
</tr>
</tbody>
</table>

* not available from stock, requires a minimum order quantity

---

**Spring plunger**

**GN615.3-M8-K**

**Spring plunger with thread locking**

**GN615.3-M6-KN-PFB**

Page 481
GN 615.1
Spring plungers
Steel / Stainless Steel
with bolt / with slot

Spring plungers GN 615.1 are used as detents as well as for push-on and push-off applications and ejectors.

### Specification
- **Type B / BS**
  - Steel, blackened
  - Bolt hardened
- **Type BN / BSN**
  - Housing
    - Stainless Steel AISI 303
  - Bolt
    - Stainless Steel AISI 420C hardened
- **Spring**
  - Stainless Steel AISI 631
- **Marking of type BS / BSN:**
  - Housing with 2 longitudinal markings
- **Stainless Steel characteristics → Page 1144**
- **RoHS compliant**

### Information

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂ -0,1</th>
<th>l ±0,1</th>
<th>w Compression</th>
<th>Spring load in N ≈ standard (Type B / BN) initial</th>
<th>Spring load in N ≈ high (Type BS / BSN) initial</th>
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</thead>
<tbody>
<tr>
<td>M 4</td>
<td>1,8</td>
<td>9</td>
<td>1,5 ±0,3</td>
<td>4,5</td>
<td>12,5</td>
</tr>
<tr>
<td>M 5</td>
<td>2,4</td>
<td>12</td>
<td>2</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>M 6</td>
<td>2,7</td>
<td>14</td>
<td>2</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>M 8</td>
<td>3,8</td>
<td>16</td>
<td>2</td>
<td>16</td>
<td>33</td>
</tr>
<tr>
<td>M 10</td>
<td>4,5</td>
<td>19</td>
<td>2,5</td>
<td>19</td>
<td>42</td>
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<td>M 12</td>
<td>6</td>
<td>22</td>
<td>3,5</td>
<td>22</td>
<td>57</td>
</tr>
<tr>
<td>M 16</td>
<td>8,5</td>
<td>24</td>
<td>4,5 ±0,3</td>
<td>38</td>
<td>78</td>
</tr>
<tr>
<td>M 20</td>
<td>10</td>
<td>30</td>
<td>6,5</td>
<td>39</td>
<td>81</td>
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<tr>
<td>M 24</td>
<td>13</td>
<td>34</td>
<td>8</td>
<td>72</td>
<td>155</td>
</tr>
</tbody>
</table>

### How to order
1. d₁
2. Type
Spring plungers

GN 615.4
with bolt, with internal hexagon

How to order

<table>
<thead>
<tr>
<th>GN 615.4-M10-BN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 d₁</td>
</tr>
<tr>
<td>2 Type</td>
</tr>
</tbody>
</table>

Specification

- Type B / BS
  - Steel, blackened
  - Bolt hardened

- Type BN / BSN
  - Housing
    Stainless Steel AISI 303
  - Bolt
    Stainless Steel AISI 420C hardened

- Spring
  Stainless Steel AISI 631

- Stainless Steel characteristics ➔ Page 1144

- RoHS compliant

Information

Spring plungers GN 615.4 are used as detents as well as for push-on and push-off applications and ejectors.

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂ ≈ 0,1</th>
<th>l ≈ 0,1</th>
<th>w Compression</th>
<th>A/F</th>
<th>Spring load in N ≈ standard (Type B / BN)</th>
<th>Spring load in N ≈ high (Type BS / BSN)</th>
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<tr>
<td>Type B</td>
<td>Type BS</td>
<td>Type BSN</td>
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<td>12</td>
<td>1,5 ±0,5</td>
<td>2</td>
<td>4,5</td>
</tr>
<tr>
<td>M 5</td>
<td>-</td>
<td>2,4</td>
<td>14</td>
<td>2</td>
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<td>5</td>
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<td>M 6</td>
<td>M 6</td>
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<td>15</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
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<td>M 8</td>
<td>3,8</td>
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<td>4</td>
<td>16</td>
</tr>
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<td>M 10</td>
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<td>4,5</td>
<td>23</td>
<td>2,5</td>
<td>5</td>
<td>19</td>
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<td>M 12</td>
<td>M 12</td>
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<td>26</td>
<td>3,5</td>
<td>6</td>
<td>22</td>
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<tr>
<td>M 16</td>
<td>M 16</td>
<td>8,5</td>
<td>33</td>
<td>4,5 ±0,3</td>
<td>8</td>
<td>38</td>
</tr>
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<td>M 20</td>
<td>M 20</td>
<td>10</td>
<td>43</td>
<td>6,5</td>
<td>10</td>
<td>39</td>
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<tr>
<td>M 24</td>
<td>M 24</td>
<td>13</td>
<td>48</td>
<td>8</td>
<td>12</td>
<td>72</td>
</tr>
</tbody>
</table>
Plastic-Spring plungers GN 615.2 are used as detents as well as for push-on and push-off applications and ejectors. These spring plungers are all stainless versions.

### Specification

- **Housing**
  Plastic (Polyacetal POM) temperature resistant up to 50 °C
- **Ball**
  - Stainless Steel AISI 420C hardened
  - Plastic (Polyacetal POM)
- **Spring**
  Stainless Steel AISI 631 (all versions)
- **Stainless Steel characteristics → Page 1144**
- **Plastic characteristics → Page 1141**
- **RoHS compliant**

### Table

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>Length l</th>
<th>w compression</th>
<th>Spring load in N = initial</th>
<th>end</th>
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</thead>
<tbody>
<tr>
<td>M 6</td>
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<td>14</td>
<td>0,9</td>
<td>12</td>
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<td>16</td>
<td>1,5</td>
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<td>M 10</td>
<td>6</td>
<td>19</td>
<td>1,9</td>
<td>25</td>
<td>45</td>
</tr>
</tbody>
</table>

### Information

Plastic-Spring plungers GN 615.2 are used as detents as well as for push-on and push-off applications and ejectors. These spring plungers are all stainless versions.

### How to order

<table>
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<tr>
<th>1</th>
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<tbody>
<tr>
<td>GN615.2-M6-NI</td>
<td></td>
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</tbody>
</table>

| 2 | Ball material |
Spring plungers GN 815 are used as stops as well as thrust elements or ejectors. The collar gives a defined installation position.

### Specification

- **Steel**
  - Housing blackened
  - Ball hardened
- **Stainless Steel**
  - Housing AISI 303
  - Ball AISI 420C hardened
- **Stainless Steel characteristics** → Page 1144
- **RoHS compliant**

### Information

Spring plungers GN 815 are used as stops as well as thrust elements or ejectors. The collar gives a defined installation position.

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>l₁</th>
<th>l₂</th>
<th>l₃</th>
<th>w Compression</th>
<th>Spring load in N ≈</th>
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<td>6,5</td>
<td>3</td>
<td>5</td>
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<td>8 14</td>
</tr>
<tr>
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<td>3</td>
<td>8</td>
<td>8,5</td>
<td>4</td>
<td>6,7</td>
<td>0,9</td>
<td>8 14</td>
</tr>
<tr>
<td>M 6</td>
<td>3,5</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td>-</td>
<td>1</td>
<td>11 18</td>
</tr>
<tr>
<td>M 8</td>
<td>4,5</td>
<td>13</td>
<td>11</td>
<td>5,5</td>
<td>-</td>
<td>1,5</td>
<td>18 31</td>
</tr>
<tr>
<td>M 10</td>
<td>6</td>
<td>16</td>
<td>14</td>
<td>6</td>
<td>-</td>
<td>2</td>
<td>24 45</td>
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<td>18</td>
<td>15</td>
<td>7</td>
<td>-</td>
<td>2,5</td>
<td>26 49</td>
</tr>
</tbody>
</table>

**Steel-Spring plunger**

```
Steel-Spring plunger 1
GN815-M8-ST
1 d₁
2 Material
```

**Stainless Steel-Spring plunger**

```
Stainless Steel-Spring plunger 1
GN815-M12-NI
1 d₁
2 Material
```
Spring plungers GN 616 are used as detents as well as for push-on and push-off applications and ejectors. The slot on the plunger side is provided for blind hole applications. A special screw driver GN 616.5 is available (see table).

**Specification**

- Housing
  - Steel, blackened
- Type S / SS
  - Bolt Steel, hardened
- Type K
  - Bolt Plastic (Polyacetal POM)
    - temperature resistant up to 50 °C
- Spring
  - Stainless Steel AISI 631
- Marking of Type SS:
  - Housing with 2 longitudinal markings
- RoHS compliant

**Information**

**Accessory**

- Screw drivers GN 616.5
  (Code no. see table)

**On request**

- with thread locking
  PFB / MVK → Page 1128

---

**How to order**

1. **d₁**
2. **Type**

GN616-M8-K

---

<table>
<thead>
<tr>
<th>d₁</th>
<th>Type S</th>
<th>d₂</th>
<th>I +0,2</th>
<th>A/F</th>
<th>w</th>
<th>Spring load in N ≈</th>
<th>Spring load in N ≈</th>
<th>Code no. for screw driver</th>
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</thead>
<tbody>
<tr>
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<td>2</td>
<td>4</td>
<td>GN 616.5-M 3</td>
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<tr>
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<td>M 4</td>
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<td>15</td>
<td>1.3</td>
<td>1.5</td>
<td>4.5</td>
<td>16</td>
<td>GN 616.5-M 4</td>
</tr>
<tr>
<td>M 5</td>
<td>M 5</td>
<td>2.4</td>
<td>18</td>
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<td>6</td>
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<td>GN 616.5-M 5</td>
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<tr>
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<td>M 6</td>
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<td>19</td>
<td>GN 616.5-M 6</td>
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<td>M 8</td>
<td>3.5</td>
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<td>2.5</td>
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<td>10</td>
<td>39</td>
<td>GN 616.5-M 8</td>
</tr>
<tr>
<td>M 10</td>
<td>M 10</td>
<td>4</td>
<td>22</td>
<td>3</td>
<td>3</td>
<td>10</td>
<td>39</td>
<td>GN 616.5-M 10</td>
</tr>
<tr>
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<td>M 12</td>
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<td>28</td>
<td>4</td>
<td>4</td>
<td>12</td>
<td>53</td>
<td>GN 616.5-M 12</td>
</tr>
<tr>
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<td>M 16</td>
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<td>32</td>
<td>5</td>
<td>5</td>
<td>45</td>
<td>100</td>
<td>GN 616.5-M 16</td>
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<tr>
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<td>6</td>
<td>7</td>
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<td>125</td>
<td>GN 616.5-M 20</td>
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<tr>
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<td>52</td>
<td>8</td>
<td>10</td>
<td>70</td>
<td>170</td>
<td>GN 616.5-M 24</td>
</tr>
</tbody>
</table>
Stainless Steel-Spring plungers

with bolt

Stainless Steel-Spring plungers GN 616 are used as detents as well as for push-on and push-off applications and ejectors. The slot on the plunger side is provided for blind hole applications. A special screw driver GN 616.5 is available (see table).

### Specification

- **Housing**
  Stainless Steel AISI 303

- **Type SN**
  Bolt
  Stainless Steel AISI 303

- **Type KN**
  Bolt Plastic (Polyacetal POM)
  temperature resistant up to 50 °C

- **Spring**
  Stainless Steel AISI 631

- **Stainless Steel characteristics** → Page 1144

- **RoHS compliant**

### Information

Stainless Steel-Spring plungers GN 616 are used as detents as well as for push-on and push-off applications and ejectors. The slot on the plunger side is provided for blind hole applications. A special screw driver GN 616.5 is available (see table).

### How to order

- **GN616-M12-KN**
- 1. $d_1$
- 2. Type

### Table

<table>
<thead>
<tr>
<th>$d_1$</th>
<th>Type SN</th>
<th>Type KN</th>
<th>$d_2$</th>
<th>$l+0.2$</th>
<th>$A/F$ Internal hexagon</th>
<th>$w_{\text{Compression}}$</th>
<th>Spring load in N ≈ standard (Type SN / KN) initial</th>
<th>Code no. for screw driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 4</td>
<td>M 4</td>
<td>1.5</td>
<td>15</td>
<td>1.3</td>
<td>1.5</td>
<td>4.5</td>
<td>16</td>
<td>GN 616.5-M4</td>
</tr>
<tr>
<td>M 5</td>
<td>M 5</td>
<td>2.4</td>
<td>18</td>
<td>1.5</td>
<td>2.3</td>
<td>6</td>
<td>19</td>
<td>GN 616.5-M5</td>
</tr>
<tr>
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<td>M 6</td>
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<td>20</td>
<td>2</td>
<td>2.5</td>
<td>6</td>
<td>19</td>
<td>GN 616.5-M6</td>
</tr>
<tr>
<td>M 8</td>
<td>M 8</td>
<td>3.5</td>
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<td>3</td>
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<td>39</td>
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<td>M 12</td>
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<td>28</td>
<td>4</td>
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<td>53</td>
<td>GN 616.5-M12</td>
</tr>
<tr>
<td>M 16</td>
<td>M 16</td>
<td>7.5</td>
<td>32</td>
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<td>5</td>
<td>45</td>
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<tr>
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<td>7</td>
<td>52</td>
<td>125</td>
<td>GN 616.5-M20</td>
</tr>
</tbody>
</table>

### Accessory

- **Screw drivers GN 616.5**
  (Code no. see table)

### On request

- with thread locking
  PFB / MVK → Page 1128
**Indexing plungers, Locking pins, Spring plungers**

Spring plungers GN 611 are used as ejectors, push-on and push-off operations in the sheet metal industry, as well as cushioners. The slot on the plunger side is provided for blind hole application. A special screwdriver GN 611.5 is available (see table).

**Specification**
- Steel blackened
- Bolt case hardened
- Marking of Type LS: Housing with 2 longitudinal markings
- RoHS compliant

**Information**
Spring plungers GN 611 are used as ejectors, push-on and push-off operations in the sheet metal industry, as well as cushioners. The slot on the plunger side is provided for blind hole application. A special screwdriver GN 611.5 is available (see table).

**Accessory**
- Screw drivers GN 611.5 (Code no. see table)

**How to order**

<table>
<thead>
<tr>
<th>Code no. for screw driver</th>
<th>Code no. for screw driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>GN 611.5-M10</td>
<td>GN 611.5-M10</td>
</tr>
<tr>
<td>GN 611.5-M12</td>
<td>GN 611.5-M12</td>
</tr>
<tr>
<td>GN 611.5-M16</td>
<td>GN 611.5-M16</td>
</tr>
</tbody>
</table>

**Table:**

<table>
<thead>
<tr>
<th>d1</th>
<th>w</th>
<th>d2</th>
<th>d3</th>
<th>l1</th>
<th>l2</th>
<th>A/F</th>
<th>Spring load in N ≈ standard (Type L) initial</th>
<th>Spring load in N ≈ high (Type LS) initial</th>
<th>Code no. for screw driver</th>
</tr>
</thead>
<tbody>
<tr>
<td>M 10</td>
<td>8</td>
<td>4</td>
<td>7,8</td>
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<td>25</td>
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<td>6</td>
<td>16</td>
<td>7</td>
</tr>
<tr>
<td>M 12</td>
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<td>5,5</td>
<td>9,5</td>
<td>43</td>
<td>35</td>
<td>4</td>
<td>4</td>
<td>18</td>
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<td>M 16</td>
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<td>35</td>
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<td>M 16</td>
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<td>6</td>
<td>13</td>
<td>63</td>
<td>21</td>
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<tr>
<td>M 16</td>
<td>50</td>
<td>8</td>
<td>13,4</td>
<td>148</td>
<td>35</td>
<td>6</td>
<td>7</td>
<td>43</td>
<td>13</td>
</tr>
</tbody>
</table>
Spring plungers GN 615.7 are used for end stops as well as contacts. Simultaneously an electrical control signal can be released from the built-in limit switch.

**Specification**

- **Screw**
  - Steel, nickel plated
- **Ball**
  - Steel, hardened
- **Hexagonal nuts**
  - Steel, nickel plated
- **Limit switch**
  - Voltage: 12 ... 24 V DC
  - Switching load recom.: 5-10 mA
  - Switching load max.: 20 mA DC
  - Life expectancy: 3 million operations
  - Temperature range: -10 °C ... +80 °C
- **Supply cable PVC:**
  - Ø 3; 2 phase, ≈ 2 meters long
  - max. tensile load 20 N
  - grey for Type S (normally open)
  - black for Type O (normally closed)
- **Protection class IP 40**
- **RoHS compliant**

**Information**

Spring plungers GN 615.7 are used for end stops as well as contacts. Simultaneously an electrical control signal can be released from the built-in limit switch.

**How to order**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>d₁</td>
<td>Type</td>
</tr>
</tbody>
</table>

**How to order**

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>d₁</td>
<td>Type</td>
</tr>
</tbody>
</table>
### Spring plungers GN 614

**Press on type**

Spring plungers GN 614 are used as detents as well as for push-on and push-off applications and ejectors.

Due to different production methods, the dimensions $l_2$ and $l_3$ are different.

See also...

- **Spring plungers GN 614.2 (double ended)** → Page 492

---

### Specification

<table>
<thead>
<tr>
<th>$d_1$ +0,1</th>
<th>$d_2$</th>
<th>$d_3$</th>
<th>$l_1$ =</th>
<th>$l_2$ =</th>
<th>$l_3$ +0,1</th>
<th>$w$</th>
<th>Spring load in N =</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Type</td>
<td>Type</td>
<td>Type</td>
<td>Type</td>
<td>Type</td>
<td>Type</td>
<td>Type</td>
</tr>
<tr>
<td>NI</td>
<td>KU</td>
<td>NI</td>
<td>KU</td>
<td>MS</td>
<td>NI</td>
<td>KU</td>
<td>MS</td>
</tr>
<tr>
<td>3</td>
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<td>3,5</td>
<td>4</td>
<td>0,75</td>
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<tr>
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<td>4</td>
<td>3</td>
<td>2,5</td>
<td>4,6</td>
<td>5</td>
<td>0,9</td>
</tr>
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<td>4</td>
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<td>5,6</td>
<td>6</td>
<td>0,9</td>
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<td>6</td>
<td>5</td>
<td>4,5</td>
<td>6,5</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>8</td>
<td>6,5</td>
<td>6</td>
<td>8,5</td>
<td>9</td>
<td>1,1</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>-</td>
<td>8,5</td>
<td>-</td>
<td>11</td>
<td>13</td>
<td>1,7</td>
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<tr>
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<td>-</td>
<td>10</td>
<td>-</td>
<td>13</td>
<td>16</td>
<td>2,3</td>
</tr>
</tbody>
</table>

### Information

Spring plungers GN 614 are used as detents as well as for push-on and push-off applications and ejectors.

A tolerance of H7 for the location hole of $d_1$ is recommended.

Due to different production methods, the dimensions $l_2$ and $l_3$ are different.

See also...

- Spring plungers GN 614.2 (double ended) → Page 492

---

### How to order

- **GN614-6-NI**
- **Material**
Side thrust pins GN 614.1 are used for arresting and as press-on or press-off elements. The easy attachment using one or two countersunk screws also allows its use where a location borehole with the tolerance field H7 for the spring plunger would not be possible from its size and manufacturability.

Side thrust pins GN 614.1 consist of a holder for spring plungers and a Stainless Steel-Spring plunger GN 614 of type KU.

For types R, L and B, only a „empty“ holder for spring plungers (without spring plungers) are supplied which can then be used together with all other design variants of GN 614-6 and GN 614-8 of the types KD, MS and NI.

### Specification
- Zinc die casting nickel plated
- Spring plunger GN 614-KU → Page 490
  - Housing
    - Plastic (Polyacetal POM)
    - temperature resistant up to 50 °C
  - Ball
    - Stainless Steel AISI 420C, hardened
- RoHS compliant

### Information

<table>
<thead>
<tr>
<th>d₁</th>
<th>0,05</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>b</th>
<th>h₁</th>
<th>h₂</th>
<th>l₁</th>
<th>l₂</th>
<th>w</th>
<th>Compression</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>5</td>
<td>3.2</td>
<td>3</td>
<td>4</td>
<td>8.5</td>
<td>4.25</td>
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<td>7.5</td>
<td>3</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>6.5</td>
<td>4.3</td>
<td>4</td>
<td>10.5</td>
<td>5.25</td>
<td>4.2</td>
<td>9.5</td>
<td>4</td>
<td>1.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**How to order**

GN614.1-6-R

1. d₁
2. Type

 GN 614.1 | Side thrust pins
---|---
Holder for spring plungers GN 614
Spring plungers GN 614.2 are a result of a further development of spring plungers type GN 614 for special applications. A tolerance H8 is recommended for the locating bore of \( d_1 \).

### Specification
- **Housing**  
  Brass
- **Ball**  
  Stainless Steel AISI 420C hardened
- **Spring**  
  Stainless Steel AISI 631
- **Stainless Steel characteristics** → Page 1144
- **RoHS compliant**

### Information
Spring plungers GN 614.2 are a result of a further development of spring plungers type GN 614 for special applications.

A tolerance H8 is recommended for the locating bore of \( d_1 \).

**see also...**
- **Spring plungers GN 614** → Page 490

### How to order

<table>
<thead>
<tr>
<th>( d_1 ) (mm)</th>
<th>( d_2 ) (mm)</th>
<th>( d_3 ) +0,05 (Knurl-Ø)</th>
<th>( l ) (mm)</th>
<th>( w ) (mm)</th>
<th>Spring load in N = initial</th>
<th>Spring load in N = end</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,5</td>
<td>2</td>
<td>2,52</td>
<td>5,3</td>
<td>0,65</td>
<td>1,3</td>
<td>2,5</td>
</tr>
<tr>
<td>3</td>
<td>2,5</td>
<td>3,02</td>
<td>7,3</td>
<td>0,8</td>
<td>2</td>
<td>4,5</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>4,03</td>
<td>9</td>
<td>0,9</td>
<td>2,5</td>
<td>7,5</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>5,03</td>
<td>10,8</td>
<td>1,2</td>
<td>3,5</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>5</td>
<td>6,03</td>
<td>12,6</td>
<td>1,6</td>
<td>3,5</td>
<td>10,5</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>7,03</td>
<td>14</td>
<td>2,0</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>8</td>
<td>6,5</td>
<td>8,03</td>
<td>18</td>
<td>2,1</td>
<td>6</td>
<td>15</td>
</tr>
</tbody>
</table>

Spring load in N ≈...
Spring plungers GN 614.3 are installed axially through the depth of the bore whereby the dimension “z” of the chamfer has to be taken into consideration.

Due to the thin wall of the shell press fitting is not recommended.

see also...

• *Spring plungers GN 614 (Press on type) → Page 490*

**Specification**

- Housing
  Stainless Steel AISI 303

- Ball
  Stainless Steel AISI 420C hardened

- Spring
  Stainless Steel AISI 631

- *Stainless Steel characteristics → Page 1144*

- RoHS compliant

**Information**

Spring plungers GN 614.3 are installed axially through the depth of the bore whereby the dimension “z” of the chamfer has to be taken into consideration.

Due to the thin wall of the shell press fitting is not recommended.

**How to order**

GN614.3-5,5-NI

1 d₁

2 Material
GN 614.4
Spring plungers
press on type

<table>
<thead>
<tr>
<th>d₁ +0,1</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄ ±0,05</th>
<th>l₁</th>
<th>l₂ =</th>
<th>l₃ =</th>
<th>l₄ =</th>
<th>w Compression</th>
<th>Spring load in N =</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>2,8</td>
<td>4,6</td>
<td>4</td>
<td>10,7</td>
<td>0,9</td>
<td>1,8</td>
<td>5,6</td>
<td>2,7</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>3,8</td>
<td>5,6</td>
<td>5</td>
<td>12</td>
<td>0,9</td>
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<td>3,3</td>
</tr>
<tr>
<td>6</td>
<td>4,8</td>
<td>6,5</td>
<td>6</td>
<td>15</td>
<td>1</td>
<td>2,3</td>
<td>8,2</td>
<td>5,5</td>
<td>6,1</td>
</tr>
<tr>
<td>8</td>
<td>6,2</td>
<td>8,5</td>
<td>8</td>
<td>18</td>
<td>1,1</td>
<td>2,9</td>
<td>9,5</td>
<td>6,5</td>
<td>10,7</td>
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<td>8</td>
<td>11</td>
<td>10</td>
<td>26</td>
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<td>3,5</td>
<td>15</td>
<td>8</td>
<td>16,2</td>
</tr>
</tbody>
</table>

Information
Spring plungers GN 614.4 are used for locking, as pressing and back-off pins, but also as impact dampers.

A tolerance of H7 for the location hole of d₁ is recommended.

see also...
• Spring plungers GN 614 (with ball) → Page 490

Specification
• Housing
  Stainless Steel AISI 305
• Bolt
  - Stainless Steel AISI 303
  - Plastic
    Polyacetal POM
    white
    temperature resistant up to +50 °C
• Spring
  Stainless Steel AISI 631
• Stainless Steel characteristics → Page 1144
• Plastic characteristics → Page 1141
• RoHS compliant

How to order
1 d₁
2 Material (Bolt)
Spring loaded shells GN 610 have been designed for applications where in a confined space relatively long strokes are required. In such cases the depth of the mounting hole is determined by the preload required.

### Type H
- **Semi-spherical, Steel**
- **Housing**
  - Type H / K
    - Steel, nickel plated
  - Type HN
    - Stainless Steel AISI 305
- **Spring**
  - Stainless Steel AISI 301
- **Stainless Steel characteristics → Page 1144**
- **RoHS compliant**

<table>
<thead>
<tr>
<th>d ±0.05</th>
<th>l₁</th>
<th>l₂</th>
<th>l₁</th>
<th>l₂</th>
<th>l₁</th>
<th>l₂</th>
<th>F₁ Spring load in N =</th>
<th>F₂ Spring load in N =</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2</td>
<td>16</td>
<td>7,8</td>
<td>12</td>
<td>2,2</td>
<td>10,5</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,6</td>
<td>8</td>
<td>3,8</td>
<td>6,5</td>
<td>1,1</td>
<td>5,2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>6</td>
<td>9</td>
<td>6,2</td>
<td>8,7</td>
<td>6,8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>8,5</td>
<td>13</td>
<td>4,8</td>
<td>10,7</td>
<td>8,4</td>
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<td>3,4</td>
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<td>9</td>
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<td>7,8</td>
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<tr>
<td>3,4</td>
<td>15</td>
<td>7,3</td>
<td>12</td>
<td>5,9</td>
<td>8,2</td>
<td>13,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
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<td>8</td>
<td>12</td>
<td>5</td>
<td>9</td>
<td>12,3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>16</td>
<td>8</td>
<td>13</td>
<td>8</td>
<td>10,4</td>
<td>15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Type HN
- **Semi-spherical, Stainless Steel**
- **Housing**
  - Type HN
    - Stainless Steel AISI 305
- **Spring**
  - Stainless Steel AISI 301

<table>
<thead>
<tr>
<th>d ±0.05</th>
<th>l₁</th>
<th>l₂</th>
<th>l₁</th>
<th>l₂</th>
<th>F₁ Spring load in N =</th>
<th>F₂ Spring load in N =</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>16</td>
<td>8</td>
<td>13</td>
<td>4,8</td>
<td>10,6</td>
<td>8,6</td>
</tr>
<tr>
<td>3,6</td>
<td>18</td>
<td>9</td>
<td>15</td>
<td>6,7</td>
<td>11,5</td>
<td>14,5</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>7,5</td>
<td>13</td>
<td>8</td>
<td>11,4</td>
<td>12,3</td>
</tr>
</tbody>
</table>

### Type K
- **Pointed nose**

<table>
<thead>
<tr>
<th>d ±0.05</th>
<th>l₁</th>
<th>l₂</th>
<th>l₁</th>
<th>l₂</th>
<th>F₁ Spring load in N =</th>
<th>F₂ Spring load in N =</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,2</td>
<td>16</td>
<td>7,8</td>
<td>12</td>
<td>2,2</td>
<td>12,5</td>
<td>3</td>
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<tr>
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<td>11</td>
<td>5</td>
<td>9</td>
<td>1,6</td>
<td>6,7</td>
<td>3,4</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>8,5</td>
<td>13</td>
<td>4,8</td>
<td>10,7</td>
<td>8,4</td>
</tr>
</tbody>
</table>

### Information
- Spring loaded shells GN 610 have been designed for applications where in a confined space relatively long strokes are required. In such cases the depth of the mounting hole is determined by the preload required.

### How to order
- GN610-3,4-15-H
- d
- l₁
- Type

---

3.1 Indexing plungers, Locking pins, Spring plungers | Page 495
3.1 Instrument plungers, Locking pins, Spring plungers

**GN 249**

Ball buttons for spring plungers

---

**Specification**

- Steel hardened and ground
- ISO-Fundamental Tolerances → Page 1132
- RoHS compliant

**Information**

Ball buttons GN 249 are mainly used with spring plungers when a non-wearing and exact positioning is needed.

These ball buttons are especially recommended for use with spring plungers with high spring loads.

see also...

- Spring plungers GN 614 → Page 490
- Spring plungers GN 615 → Page 480
- Spring plungers GN 615.1 → Page 482
- Plastic-Spring plungers GN 615.2 → Page 484
- Spring plungers GN 615.3 → Page 481
- Spring plungers GN 616 → Page 486

---

**How to order**

 GN 249-8

- d₁
Indent blocks GN 250 are used together with spring plungers for detent or positioning of sliders, flaps and similar applications.

**Specification**
- Sintered Steel  
  - case hardened  
  - blank  
- RoHS compliant

**Information**

<table>
<thead>
<tr>
<th>h</th>
<th>b ±0,1</th>
<th>for GN 614</th>
<th>for GN 615 / GN 615.2 / GN 615.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Size</td>
<td>d</td>
</tr>
<tr>
<td>8.5</td>
<td>3.4</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>10.5</td>
<td>4.5</td>
<td>8</td>
<td>6.5</td>
</tr>
</tbody>
</table>

**How to order**

GN250-8,5  

1 h
Spring elements GN 513 are universal pressure elements used as detents, positioners or for clamping with spring pressure. The spring loaded nose can be used for a push-on or push-off operation. In addition the spring loaded nose cannot rotate.

At the pulling end the female thread will accept a pulling rod or an operating knob.

Type I with a female thread at the pushing end can be fitted with a special plunger nose.

The spring element can be screwed into a thread at the hexagon on the pulling end or the spanner flats at the pushing end of the plunger.

### Specification
- **Steel**
  - Threaded sleeve: zinc plated, blue passivated
  - Spring bolt: case hardened, blackened
- **Identification**
  - standard spring load:
    - Crescent shaped ring: phosphated (anthracite)
  - high spring load:
    - Crescent shaped ring: zinc plated, blue passivated
- **RoHS compliant**

### Information

Spring elements GN 513 are universal pressure elements used as detents, positioners or for clamping with spring pressure. The spring loaded nose can be used for a push-on or push-off operation. In addition the spring loaded nose cannot rotate.

At the pulling end the female thread will accept a pulling rod or an operating knob.

Type I with a female thread at the pushing end can be fitted with a special plunger nose.

The spring element can be screwed into a thread at the hexagon on the pulling end or the spanner flats at the pushing end of the plunger.

### How to order

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GN 513-M12x1,5-H-2</strong></td>
<td>d₁</td>
<td>Type</td>
<td>Identification</td>
</tr>
</tbody>
</table>
Side thrust pins
Press on type

Type ENI one-sided, ball Steel
Type EKU one-sided, ball Plastic

| $d_1$ | $d_2$ | $b$ | $l_1$ | $l_2$ | $l_3$ | $s$ | Spring load in N =
| initial | end | Locating bore |
|---------|------|-------|------|------|------|-----|------------------|
| 8       | 3    | 3,2   | 25   | 3,6  | 6    | 0,9 | 2,5, 6,5 | 8 H8 |
| 10      | 4    | 4     | 30   | 4,2  | 7    | 1   | 4,5, 9  | 10 H8 |
| 12      | 5    | 5     | 35   | 4,8  | 9    | 1,5 | 6,5, 13 | 12 H8 |
| 14      | 6,5  | 5,4   | 40   | 5,8  | 10   | 1,8 | 8, 18    | 14 H8 |

Type EST one-sided, ball Steel

| $d_1$ | $d_2$ | $b$ | $l_1$ | $l_2$ | $l_3$ | $s$ | Spring load in N =
| initial | end | Locating bore |
|---------|------|-------|------|------|------|-----|------------------|
| 10      | 5,5  | 4,5   | 30   | 7    | 8    | 1   | 50, 160 | 10 H8 |
| 12      | 6,5  | 5,5   | 35   | 8    | 9    | 1,5 | 60, 270 | 12 H8 |
| 14      | 8    | 6,5   | 40   | 9    | 10   | 2   | 100, 380 | 14 H8 |

Type BST both-sided, ball Steel

| $d_1$ | $d_2$ | $b$ | $l_1$ | $l_2$ | $l_3$ | $s$ | Spring load in N =
| initial | end | Locating bore |
|---------|------|-------|------|------|------|-----|------------------|
| 16      | 5,5  | 15    | 35   | 7    | 11   | 1,5 | 36, 190 | 16 H8 |
| 18      | 6,5  | 17    | 40   | 8    | 12   | 1,8 | 38, 270 | 18 H8 |
| 22      | 8    | 21    | 45   | 9    | 15   | 2,5 | 40, 410 | 22 H8 |

Specification

- Housing: Steel, blackened
- Sleeve (for Ball)
  - Type ENI / EKU: Plastic
  - Type EST / BST: Steel, blackened
- Ball
  - Type ENI: Stainless Steel
  - Type EKU: Plastic
  - Type EST / BST: Steel
- Spring
  - Type ENI / EKU: Stainless Steel
  - Type EST / BST: elastic plastic
- temperature resistant up to 80 °C
- RoHS compliant

Information

Side thrust pins GN 716 are designed for holding, positioning and locating a workpiece.

They have to be pressed into the housing by at least the dimension $l_3$, so as to ensure a positive hold.

How to order

GN 716-12-ENI

1. $d_1$
2. Type
Indexing plungers, Locking pins, Spring plungers

GN 715

Side thrust pins

Press on type

How to order

1  2  3

1  d1
2  Side thrust F0
3  Type

See also...

- Technical and assembly instructions ➔ Page 504
- Side thrust pins GN 713 (with thread) ➔ Page 502
- Eccentric bushes GN 715.2 ➔ Page 505

Spring loaded side thrust pins GN 715 are versatile and practical elements for holding, positioning and clamping of workpieces.

They eliminate costly alternatives, are space saving and easy to install. The knurled body requires only a hole tolerance of H8.

For easy mounting a suitable tool GN 715.1 is available (see table).

<table>
<thead>
<tr>
<th>d1</th>
<th>l1 –1</th>
<th>l2</th>
<th>l3 –1</th>
<th>l4</th>
<th>w</th>
<th>x1</th>
<th>x2</th>
<th>Code no. for mounting tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>7</td>
<td>4</td>
<td>7</td>
<td>4</td>
<td>0,9</td>
<td>1</td>
<td>0,75</td>
<td>GN 715.1-3</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>6,7</td>
<td>11,5</td>
<td>6</td>
<td>1,6</td>
<td>1,7</td>
<td>1,3</td>
<td>GN 715.1-5.6</td>
</tr>
<tr>
<td>6</td>
<td>11</td>
<td>10,7</td>
<td>11,5</td>
<td>10</td>
<td>1,8</td>
<td>1,9</td>
<td>1,4</td>
<td>GN 715.1-5.6</td>
</tr>
<tr>
<td>8</td>
<td>13</td>
<td>13,9</td>
<td>14</td>
<td>13</td>
<td>2,6</td>
<td>2,7</td>
<td>2,1</td>
<td>GN 715.1-8</td>
</tr>
<tr>
<td>10</td>
<td>17</td>
<td>16,7</td>
<td>18</td>
<td>16</td>
<td>3,2</td>
<td>3,4</td>
<td>2,7</td>
<td>GN 715.1-10</td>
</tr>
</tbody>
</table>

How to order

GN 715-5-50-SA

1 d1
2 Side thrust F0
3 Type

Table:

<table>
<thead>
<tr>
<th>GN 715-5-50-SA</th>
<th>d1</th>
<th>F0 in N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>100</td>
</tr>
</tbody>
</table>

Specification

- Housing Aluminium blank
- Type SA / SB thrust pin Steel, hardened zinc plated, blue passivated
- Type KA / KB thrust pin Plastic Polyacetal (POM)
- Thrust spring coding
  Force: low thrust: grey, medium thrust: black, high thrust: silver
- Seal rubber NBR (Perbunan)
- ISO-Fundamental Tolerances ➔ Page 1132
- Plastic characteristics ➔ Page 1141
- RoHS compliant

Information

Spring loaded side thrust pins GN 715 are versatile and practical elements for holding, positioning and clamping of workpieces.

They eliminate costly alternatives, are space saving and easy to install. The knurled body requires only a hole tolerance of H8.

For easy mounting a suitable tool GN 715.1 is available (see table).
3.1 Indexing plungers, Locking pins, Spring plungers

**GN 714**

**Side thrust pins**

*without pressure pin, press on type*

---

**Specification**

- Housing Aluminium blank
- Thrust plate with female thread hardened, blackened
- Thrust spring coding
  - Force: low thrust: grey, medium thrust: black, high thrust: silver
- Seal rubber NBR (Perbunan)
- ISO-Fundamental Tolerances → Page 1132
- Elastomer characteristics → Page 1140
- RoHS compliant

**Information**

Side thrust pins GN 714 are the result of further development of GN 715. It is left to the customer to design his own pressure pin which can be screwed into the thrust plate.

This design extends the field of applications for side thrust pins offering identical advantages i.e. they eliminate costly alternatives, are space saving and are simple to install. The knurled body requires bore to H8 tolerance only.

For easy mounting a suitable tool GN 715.1 is available (see table).

see also...
- Technical and assembly instructions → Page 504
- Eccentric bushes GN 715.2 → Page 505

**Accessory**

- Mounting tools GN 715.1
  (Code no. see table)

**How to order**

- **GN714-16-200**
  1. d₁
  2. Side thrust F₀

---

**Table: Side thrust F₀ in N**

<table>
<thead>
<tr>
<th>d₁</th>
<th>Side thrust F₀ in N ≈ at l₂</th>
<th>d₂</th>
<th>d₂ H8 see page 504</th>
<th>h min. see page 504</th>
<th>l₁ – l</th>
<th>l₂</th>
<th>w adjustable distance at l₂</th>
<th>Code no. for mounting tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>20</td>
<td>50</td>
<td>100</td>
<td>M4</td>
<td>10</td>
<td>12</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>M6</td>
<td>16</td>
<td>18</td>
<td>18</td>
<td>11,5</td>
</tr>
</tbody>
</table>

---

**Diagram:**

- Thrust plate
- Seal
- Side thrust F₀

---

**Diagram:**

- Thrust plate
- Seal
- Side thrust F₀
GN 713 Side thrust pins with thread

Spring loaded side thrust pins GN 713 are versatile and practical elements for holding, positioning and clamping workpieces.

They eliminate costly alternatives, are space saving and simple to install. The protruding height of the thrust pin can be adjusted with the threaded body.

For easy mounting a suitable tool GN 713.1 is available (see table).

see also...
- Technical and assembly instructions → Page 504
- Side thrust pins GN 715 (Press on type) → Page 500

### Specification
- Housing Steel zinc plated, blue passivated
- Thrust pin Steel, hardened zinc plated, blue passivated
- Thrust spring coding
  - Force: low thrust: grey
  - medium thrust: black
  - high thrust: silver
- Seal rubber NBR (Perbunan)
- Elastomer characteristics → Page 1140
- RoHS compliant

### Information

**How to order**

1. d₁
2. Side thrust F₀
3. l₁
4. Type

**Code**

- SB thrust pin Steel, with seal
- SA* thrust pin Steel, without seal

### Table

<table>
<thead>
<tr>
<th>d₁</th>
<th>Side thrust F₀ in N ≈ at l₂</th>
<th>l₁−1.5</th>
<th>d₂</th>
<th>a₁</th>
<th>a₂</th>
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<tr>
<td>5</td>
<td>20</td>
<td>50</td>
<td>100</td>
<td>11.5</td>
<td>19</td>
</tr>
<tr>
<td>6</td>
<td>40</td>
<td>75</td>
<td>150</td>
<td>11.5</td>
<td>19</td>
</tr>
<tr>
<td>10</td>
<td>100</td>
<td>200</td>
<td>300</td>
<td>18</td>
<td>31.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>d₁</th>
<th>k see page 504</th>
<th>l₂</th>
<th>l₃</th>
<th>s</th>
<th>w</th>
<th>x₁ see page 504</th>
<th>x₂ see page 504</th>
<th>Code no. for mounting tool</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1.5 x 45°</td>
<td>6.7</td>
<td>6</td>
<td>10</td>
<td>1.6</td>
<td>1.7</td>
<td>1.3</td>
<td>GN 713.1-5.6</td>
</tr>
<tr>
<td>6</td>
<td>1.5 x 45°</td>
<td>10.7</td>
<td>10</td>
<td>10</td>
<td>1.8</td>
<td>1.9</td>
<td>1.4</td>
<td>GN 713.1-5.6</td>
</tr>
<tr>
<td>10</td>
<td>2 x 45°</td>
<td>16.7</td>
<td>16</td>
<td>16</td>
<td>3.2</td>
<td>3.4</td>
<td>2.7</td>
<td>GN 713.1-10</td>
</tr>
</tbody>
</table>

*not available from stock, requires a minimum order quantity
2.1 Indexing plungers, Locking pins, Spring plungers

Side thrust pins GN 713 → Page 502
Side thrust pins GN 714 → Page 501
Side thrust pins GN 715 → Page 500
Eccentric bushes GN 715.2 → Page 505
Technical and assembly instructions

\[
\begin{align*}
&w = \text{movement of pin} \\
&F = \text{Side thrust in N} \\
&\text{initial thrust} = F_0 \\
&\text{end thrust} = 1.1 \times F_0 \\
&a_0-a_1 = \text{clamping range for workpiece} \\
&x = \text{distance centre line – thrust point} \\
&\text{at } \frac{w}{2} \\
&x_1 \text{ for highest thrust point (} a_1 \text{)} \\
&x_2 \text{ for lowest thrust point (} a_2 \text{)} \\
&l_0 = \text{Distance end stop – bore of thrust bush} \\
&l_0 = l_m + x \\
&l_m = \text{average length of workpiece } \frac{l_{\text{max}} + l_{\text{min}}}{2} \\

\text{For contact points (workpiece height) between } a_1 \text{ and } a_2 \text{ a value for } x \text{ has to be used lying between } x_1 \text{ and } x_2 \text{ (interpolation).}
\end{align*}
\]

By observing the above values the full movement of the side thrust pin will be available to cover the tolerance of the workpiece.

For inserting the side thrust pins the use of a mounting tool GN 715.1 or spanner GN 713.1 is recommended.

Eccentric bushes GN 715.2 are a tooling accessory for GN 714 / GN 715. They enable a precise optimum setting of side thrust pins. This allows an adjustment to \( l_0 \) to accommodate for instance a larger tolerance range on a workpiece.
### Specification

- Steel blackened
- **ISO-Fundamental Tolerances** → Page 1132
- RoHS compliant

### Information

Eccentric bushes GN 715.2 allow side thrust pins GN 715 / GN 714 to be adjusted. These bushes allow the side thrust pin to be precisely adjusted to suit the requirements for clamping of a component.

**see also...**
- Side thrust pins GN 715 → Page 500
- Side thrust pins GN 714 → Page 501

### How to order

<table>
<thead>
<tr>
<th>GN715.2-6</th>
<th>1</th>
<th>d₁</th>
</tr>
</thead>
</table>

### Table

<table>
<thead>
<tr>
<th>d₁</th>
<th>d₂</th>
<th>d₃</th>
<th>d₄</th>
<th>d₅  +0,1</th>
<th>e</th>
<th>h min.</th>
<th>l −0,2</th>
<th>t</th>
<th>for side thrust pin-Ø</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>12</td>
<td>12</td>
<td>M 4</td>
<td>6,2</td>
<td>2</td>
<td>10</td>
<td>9,9</td>
<td>4,4</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>16</td>
<td>16</td>
<td>M 4</td>
<td>10,2</td>
<td>2</td>
<td>12</td>
<td>11,9</td>
<td>5,4</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>18</td>
<td>18</td>
<td>M 4</td>
<td>12,2</td>
<td>2</td>
<td>14</td>
<td>13,9</td>
<td>6,6</td>
<td>8</td>
</tr>
<tr>
<td>16</td>
<td>25</td>
<td>25</td>
<td>M 6</td>
<td>16,2</td>
<td>3</td>
<td>18</td>
<td>17,9</td>
<td>7,9</td>
<td>10</td>
</tr>
</tbody>
</table>