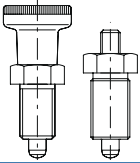
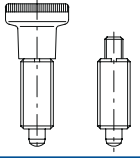
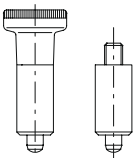
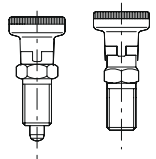
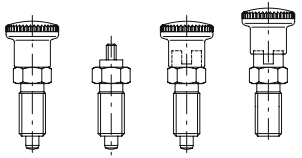
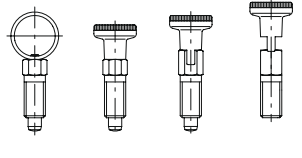
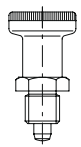
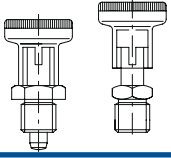
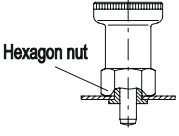
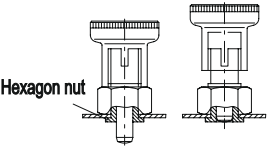
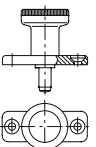
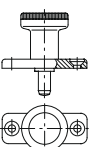
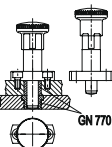
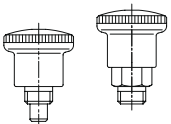
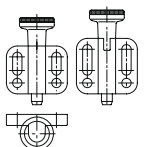
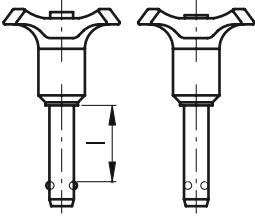
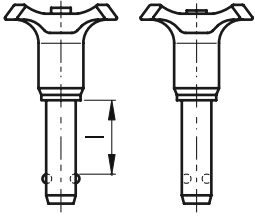
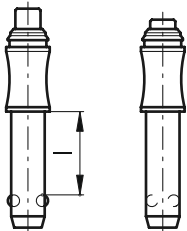


Indexing plungers

Name / Code No.	Ø Plunger / Stroke	Dimensions / Assembly	Material / Finish
Indexing plunger without rest position GN 617 <i>page 508/509</i>	Ø 5 / 5 ... Ø 10 / 10	M10 x 1 ... M20 x 1,5	Steel-version: Body black-oxide, Plunger hardened St. Steel-version NI: AISI 303, Plunger chemically nickel plated
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: H7 The plastic knob is not removable. 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, the length of the protruding plunger can be adjusted to the thread length required.		
Indexing plunger without rest position GN 613 <i>page 512/513</i>	Ø 5 / 5 ... Ø 10 / 10	M10 x 1 ... M20 x 1,5	Steel-version: Body black-oxide, Plunger hardened St. Steel-version NI: AISI 303, Plunger chemically nickel plated
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: H7 The plastic knob is not removable. This version corresponds to GN 617, however 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.		
Indexing plunger without rest position GN 618 <i>page 518</i>	Ø 5 / 5 ... Ø 8 / 8	Ø 12 h9 ... Ø 18 h9	Steel weldable, Body black-oxide, Plunger hardened
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: G7 The plastic knob is not removable. This indexing plungers 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 plunger with rest position GN 617.1 <i>page 510/511</i>	Ø 5 / 5 ... Ø 10 / 10	M10 x 1 ... M20 x 1,5	Steel-version: Body black-oxide, Plunger hardened St. Steel-version NI: AISI 303, Plunger chemically nickel plated
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: H7 The plastic knob is not removable. 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°. With the use of distance bushes GN 609, the length of the protruding plunger can be adjusted to the thread length required.		
Indexing plunger with and without rest position GN 817 <i>page 514-516</i>	Ø 4 / 4 ... Ø 12 / 15	M8 x 1 ... M20 x 1,5	Steel-version: Body black-oxide, Plunger hardened St. Steel-version NI: AISI 303, Plunger chemically nickel plated
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: H8 The plastic knob is not removable. Indexing plungers GN 817 are a further development based on GN 617 and GN 617.1: • additional plunger-Ø 4 and 12 • Plunger Ø 4, 5, 6 and 8 with two rest positions • considerably reduced dimensions for the types with rest positions and for plunger-Ø 10 • Locking mechanism integrated in the head (DBP) • defined thread length by the undercut at the end of the thread 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.		
Indexing plunger with and without rest position GN 717 <i>page 524-523</i>	Ø 4 / 4 ... Ø 8 / 8	M6 ... M12	Steel-version: Body black-oxide, Plunger hardened St. Steel-version NI: AISI 303
	Other features: Plunger-tolerance: h9, bore-tolerance: + 0,03 / + 0,08 The plastic knob is not removable. Indexing plunger GN 717 is known for its small dimensions and a standard thread (instead of a fine thread). 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 plunger without rest position GN 607 <i>page 524-525</i>	Ø 6 / 6 ... Ø 8 / 8	M12 x 1,5 ... M16 x 1,5	Steel-version ST: Body black-oxide, Plunger hardened St. Steel-version NI: AISI 303, Plunger chemically nickel plated
	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 plunger head which has led to a reduced overall height. With the use of distance bushes GN 609 the length of the protruding plunger can be adjusted to the thread length required.		

Name / Code No.	Ø Plunger / Stroke	Dimensions / Assembly	Material / Finish
Indexing plunger with rest position GN 607.1 page 526-527	Ø 6 / 6 ... Ø 8 / 8	M12 x 1,5 ... M16 x 1,5	Steel-version ST: Body black-oxide, Plunger hardened St. Steel-version NI: AISI 303, Plunger chemically nickel plated
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: H7 The plastic knob is not removable. 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°. On the Indexing plunger GN 607.1 the thrust spring and locking mechanism are integral with the knob (DBP). For this reason a perfect operation is always guaranteed. The reduced overall height remains identical to GN 607. With the use of distance bushes GN 609 the length of the protruding plunger can be adjusted to the thread length required.		
Indexing plunger without rest position GN 607.2 page 528	Ø 6 / 6 ... Ø 8 / 7,5	Ø 10 ... Ø 12 These are the bore Ø to fit the indexing plungers, they are locked with the hexagon nut.	Steel Body zinc plated Plunger St. Steel AISI 303 chemically nickel plated
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: G7 The plastic knob is not removable. These indexing plungers 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. As with indexing plungers GN 607 the thrust spring is integrated with the knob.		
Indexing plunger with rest position GN 607.3 page 529	Ø 6 / 6 ... Ø 8 / 7,5	Ø 10 ... Ø 12 These are the bore Ø to fit the indexing plungers, they are locked with the hexagon nut.	Steel Body zinc plated Plunger St. Steel AISI 303 chemically nickel plated
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: G7 The plastic knob is not removable. These indexing plungers 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. As with indexing plungers GN 607 the thrust spring is integrated with the knob. 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°. As on indexing plunger GN 607.1 the thrust spring and the locking mechanism are integrated with the knob (DBP). As a result a perfect operation is always guaranteed.		
Indexing plunger without rest position GN 608 page 530	Ø 6 / 6 ... Ø 8 / 8	Countersunk screws M4 and M5	Body zinc die casting zinc plated Plunger Steel hardened
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: H7 The plastic knob is not removable. Worth mentioning about these indexing plungers is the mounting with two countersunk screws. Otherwise the thrust spring is integral with the knob as on GN 607. This has led to a reduced overall height.		
Indexing plunger with rest position GN 608.1 page 531	Ø 6 / 6 ... Ø 8 / 8	Countersunk screws M4 and M5	Body Zinc die casting zinc plated Plunger Steel hardened
	Other features: Plunger-tolerance: -0,02 / -0,04, bore-tolerance: H7 The plastic knob is not removable. Worth mentioning about these indexing plungers is the mounting with two countersunk screws. These indexing plungers are fitted with a rest position. To achieve this the knob is retracted and then rotated by 90°. 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°. As with indexing plunger GN 607.1 the thrust spring and the locking mechanism are integrated with knob (DBP). As a result a perfect operation is always guaranteed. The reduced overall height is identical to GN 608.		
Indexing plunger with and without rest position GN 817.3 page 532	Ø 8 / 10 ... Ø 10 / 12	Socket head cap screw M5	Steel Body black-oxide Plunger hardened ground and blackened
	Other features: Plunger-tolerance: h7, bore-tolerance of the guide bushes: G6 The plastic knob is not removable. These indexing plungers have been designed to achieve precision indexing with the help of guide bushes GN 770. 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 lock mechanism are integral with the knob (DBP). This will ensure a perfect operation at all times		
Mini-Indexing plunger with and without rest position GN 822 page 519	Ø 4 / 5 ... Ø 7 / 7	M8 x 0,75 ... M10 x 1	Steel Body zinc plated Plunger St. Steel AISI 303
	Other features: Plunger-tolerance: -0,06, bore-tolerance: + 0,05 / + 0,1 The plastic knob is not removable. Mini-Indexing plungers are known for their diminutive dimensions. They have been designed for use in thin walled sheet metal parts and as a rule they are used with distance bushes GN 609. 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 type without rest position.		
Indexing plunger with and without rest position GN 417 page 533/534	Ø 4 / 4 ... Ø 8 / 8	Socket head cap screws M3, M4, M5	Body Zinc die casting zinc plated black, textured finish Plunger St. Steel AISI 303
	Other features: Plunger-tolerance: h9, bore-tolerance: + 0,03 / + 0,08 The plastic knob is not removable. Due to their small overall height, these indexing plungers can be mounted by means of socket head cap screws. The two elongated holes allow an adjustment of the indexing position. 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°.		

Ball lock pins

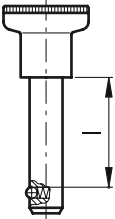
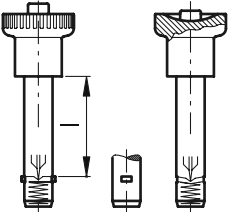
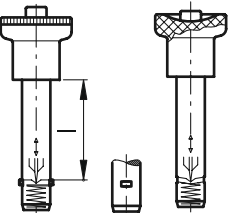
Name / Code No.	Ø Lock pins	for safeguard length l ₁	Material / Finish
Ball lock pins GN 113 page 572	5 ÷ 16	10 ÷ 80	Stainless steel 1.4542 precipitation hardened Handle plastic
	<p>Other features:</p> <p>Lock pin tolerance: -0,04 / -0,08</p> <p>Ball lock pins offer an axial lock which can be released by depressing the push button and when releasing the button the balls spring back into their lock position.</p> <p>The locking mechanism consists of two balls which retract to their rest position inside the plunger.</p> <p>Ball lock pins GN 113 can withstand relatively high loads. The plunger consists of high-strength, hardened stainless steel.</p>		
Ball lock pins GN 113.2 page 574	6 ÷ 12	10 ÷ 80	Stainless steel 1.4305 (AISI 303) Handle plastic
	<p>Other features:</p> <p>Lock pin tolerance: -0,04</p> <p>The operation of these ball lock pins is identical to GN 113.</p> <p>They are used when there is a demand for light duty work. The plungers are not hardened and therefore not suitable for heavy duty work, compared to GN 113.</p>		
Ball lock pins GN 113.3 page 575	6 ÷ 12	10 ÷ 80	Stainless steel 1.4305 (AISI 303)
	<p>Other features:</p> <p>Lock pin tolerance: -0,04</p> <p>The ball lock pins function in the identical way and with the same properties as GN 113.2</p> <p>They are chosen for such applications where there is insufficient space to accommodate a handle.</p>		

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Indexing elements

Ball lock pins

Name / Code No.	Ø Lock pins	for safeguard length l ₁	Material / Finish
Pins with axial lock with ball retainer GN 124 page 577	6 ÷ 12	10 ÷ 50	Plunger: stainless steel 1.4305 (AISI 303) Knob: plastic (Polyamide PA)
	Other features: Lock pin tolerance: h9 Lock pins GN 124 are used for rapid fixing. Contrary to ball lock pins GN 113, GN 113.2 und GN 113.3, 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.		
Pins with axial lock GN 114.1 page 580	8 ÷ 16	16 ÷ 80	Plunger: steel, zinc-plated Pawl: stainless steel 1.4301 (AISI 304) Knob: aluminium, black anodized
	Other features: Lock pin tolerance: -0,04 As with ball lock pins the lock pins, GN 114.1 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, however, consists of rectangular locking pawls in stainless steel. These pawls are withdrawn from their lock position by depressing the push button (DBP).		
Pins with axial lock GN 114 page 578	6 ÷ 12	10 ÷ 80	Plunger: steel, zinc-plated Pawl: plastic (Polyacetal POM) Push button/Knob: plastic (Polyamide PA)
	Other features: Lock pin tolerance: -0,04 The lock pins GN 114 work on the same principle as GN 114.1. The pawls and the push button with the push rod are, however, made of plastic. For this reason this type is a very competitively priced version.		