

## Item description/product images



## Description

**Product description:**

Positioning bushes form a locating point for pin type operating and indexing elements and enable these to be securely and precisely engaged herein.

The positioning bushes for status sensor have a locknut for installing a  $\varnothing 3$  mm sensor into the bush.

The sensor enables electronic feedback as to whether a pin is located in the positioning bush or not.

When using several bushes, it can be determined in which one an operating or indexing element is located.

**Material:**

Positioning bush steel or stainless steel 1.4034.

Locknut brass.

**Version:**

Positioning bush:

Hardened and black oxidised steel.

Hardened, bright stainless steel.

Locknut nickel-plated.

**Note:**

Matched to mounting bracket 03099.

The locknut is supplied loose.

Max. tightening torque for the locknut: 1.2 Nm.

**Application:**

Positioning bushes in conjunction with a status sensor enable actuation-dependent process control. In addition, it can be determined whether the operating or indexing element is in the desired position.

For example, by the format adjustment on packaging machines.

**Assembly:**

The sensor is fastened into the bush using the locknut and then adjusted axially. The locknut is tightened to fixate the sensor in the final position.

The detailed procedure is described in the installation instructions.

**Drawing reference:**

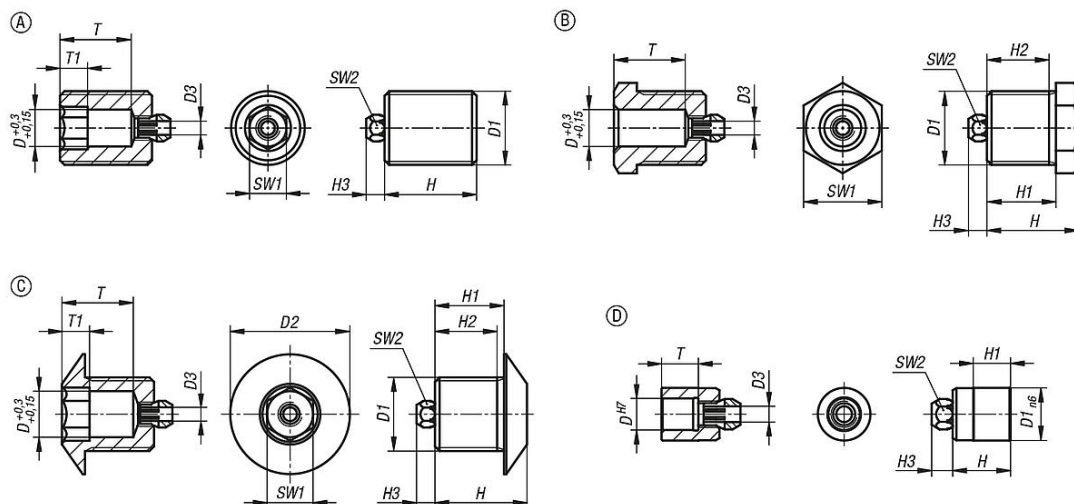
Form A: full thread

Form B: with thread and collar

Form C: with thread and approach taper

Form D: smooth

Drawings



Overview of items

Order No.	Form	Form definition	Main material	D	D1	D2	D3	H	H1	H2	H3	T	T1	SW1	SW2
03099-61-103101	A	Full thread	steel	3	M10x1	-	3	12	-	-	4	7	4	3	5
03099-61-104101	A	Full thread	steel	4	M10x1	-	3	12	-	-	4	7	4	4	5
03099-61-105121	A	Full thread	steel	5	M12x1,5	-	3	15	-	-	4	11	4	5	5
03099-61-106121	A	Full thread	steel	6	M12x1,5	-	3	15	-	-	4	11	4	6	5
03099-61-108161	A	Full thread	steel	8	M16x1,5	-	3	20	-	-	4	15,5	6	8	5
03099-61-110161	A	Full thread	steel	10	M16x1,5	-	3	20	-	-	4	15,5	6	10	5
03099-61-112201	A	Full thread	steel	12	M20x1,5	-	3	25	-	-	4	19	6	12	5
03099-61-116241	A	Full thread	steel	16	M24x2	-	3	32	-	-	4	25	8	16	5
03099-61-1103101	A	Full thread	stainless steel	3	M10x1	-	3	12	-	-	4	7	4	3	5
03099-61-1104101	A	Full thread	stainless steel	4	M10x1	-	3	12	-	-	4	7	4	4	5
03099-61-1105121	A	Full thread	stainless steel	5	M12x1,5	-	3	15	-	-	4	11	4	5	5
03099-61-1106121	A	Full thread	stainless steel	6	M12x1,5	-	3	15	-	-	4	11	4	6	5
03099-61-1108161	A	Full thread	stainless steel	8	M16x1,5	-	3	20	-	-	4	15,5	6	8	5
03099-61-1110161	A	Full thread	stainless steel	10	M16x1,5	-	3	20	-	-	4	15,5	6	10	5
03099-61-1112201	A	Full thread	stainless steel	12	M20x1,5	-	3	25	-	-	4	19	6	12	5
03099-61-1116241	A	Full thread	stainless steel	16	M24x2	-	3	32	-	-	4	25	8	16	5
03099-61-203101	B	with thread and collar	steel	3	M10x1	-	3	15	12	10,5	4	7	-	11	5
03099-61-204101	B	with thread and collar	steel	4	M10x1	-	3	15	12	10,5	4	7	-	11	5
03099-61-205121	B	with thread and collar	steel	5	M12x1,5	-	3	15	12	10,5	4	11	-	13	5
03099-61-206121	B	with thread and collar	steel	6	M12x1,5	-	3	15	12	10,5	4	11	-	13	5
03099-61-208161	B	with thread and collar	steel	8	M16x1,5	-	3	20	15	13,5	4	15,5	-	17	5
03099-61-210161	B	with thread and collar	steel	10	M16x1,5	-	3	20	15	13,5	4	15,5	-	17	5
03099-61-212201	B	with thread and collar	steel	12	M20x1,5	-	3	25	20	18,5	4	19	-	22	5
03099-61-216241	B	with thread and collar	steel	16	M24x2	-	3	32	27	25,5	4	25	-	27	5
03099-61-1203101	B	with thread and collar	stainless steel	3	M10x1	-	3	15	12	10,5	4	7	-	11	5
03099-61-1204101	B	with thread and collar	stainless steel	4	M10x1	-	3	15	12	10,5	4	7	-	11	5
03099-61-1205121	B	with thread and collar	stainless steel	5	M12x1,5	-	3	15	12	10,5	4	11	-	13	5
03099-61-1206121	B	with thread and collar	stainless steel	6	M12x1,5	-	3	15	12	10,5	4	11	-	13	5
03099-61-1208161	B	with thread and collar	stainless steel	8	M16x1,5	-	3	20	15	13,5	4	15,5	-	17	5
03099-61-1210161	B	with thread and collar	stainless steel	10	M16x1,5	-	3	20	15	13,5	4	15,5	-	17	5
03099-61-1212201	B	with thread and collar	stainless steel	12	M20x1,5	-	3	25	20	18,5	4	19	-	22	5
03099-61-1216241	B	with thread and collar	stainless steel	16	M24x2	-	3	32	27	25,5	4	25	-	27	5
03099-61-304121	C	with thread and approach taper	steel	4	M12x1,5	19	3	16	12	10,5	4	11	4	4	5
03099-61-305121	C	with thread and approach taper	steel	5	M12x1,5	19	3	16	12	10,5	4	11	4	5	5
03099-61-306121	C	with thread and approach taper	steel	6	M12x1,5	19	3	16	12	10,5	4	11	4	6	5
03099-61-308161	C	with thread and approach taper	steel	8	M16x1,5	26	3	20	15	13,5	4	15,5	6	8	5
03099-61-310161	C	with thread and approach taper	steel	10	M16x1,5	26	3	20	15	13,5	4	15,5	6	10	5
03099-61-1304121	C	with thread and approach taper	stainless steel	4	M12x1,5	19	3	16	12	10,5	4	11	4	4	5
03099-61-1305121	C	with thread and approach taper	stainless steel	5	M12x1,5	19	3	16	12	10,5	4	11	4	5	5
03099-61-1306121	C	with thread and approach taper	stainless steel	6	M12x1,5	19	3	16	12	10,5	4	11	4	6	5
03099-61-1308161	C	with thread and approach taper	stainless steel	8	M16x1,5	26	3	20	15	13,5	4	15,5	6	8	5
03099-61-1310161	C	with thread and approach taper	stainless steel	10	M16x1,5	26	3	20	15	13,5	4	15,5	6	10	5

## Overview of items

Order No.	Form	Form definition	Main material	D	D1	D2	D3	H	H1	H2	H3	T	T1	SW1	SW2
03099-61-403089	D	smooth	steel	3	8	-	3	10	6	-	4	5	-	-	5
03099-61-404089	D	smooth	steel	4	8	-	3	10	6	-	4	5	-	-	5
03099-61-405089	D	smooth	steel	5	8	-	3	10	6	-	4	6	-	-	5
03099-61-406109	D	smooth	steel	6	10	-	3	11	7	-	4	7	-	-	5
03099-61-408139	D	smooth	steel	8	13,5	-	3	14	9,5	-	4	9,5	-	-	5
03099-61-410179	D	smooth	steel	10	17	-	3	16	11,5	-	4	11,5	-	-	5
03099-61-1403089	D	smooth	stainless steel	3	8	-	3	10	6	-	4	5	-	-	5
03099-61-1404089	D	smooth	stainless steel	4	8	-	3	10	6	-	4	5	-	-	5
03099-61-1405089	D	smooth	stainless steel	5	8	-	3	10	6	-	4	6	-	-	5
03099-61-1406109	D	smooth	stainless steel	6	10	-	3	11	7	-	4	7	-	-	5
03099-61-1408139	D	smooth	stainless steel	8	13,5	-	3	14	9,5	-	4	9,5	-	-	5
03099-61-1410179	D	smooth	stainless steel	10	17	-	3	16	11,5	-	4	11,5	-	-	5