

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 with status sensor have a variably adjustable sensor integrated in the bush. These enable 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.

Sensor stainless steel.

Locknut brass.

Version:

Positioning bush:

Hardened and black oxidised steel.

Hardened, bright stainless steel.

Sensor bright.

Locknut nickel-plated.

Note:

Matched to mounting bracket 03099.

Status sensor and locknut are supplied loose.

Max. tightening torque for the locknut: 1.2 Nm.

Technical data:

Inductive sensor:

Output circuit: PNP NO

Operating voltage: 10 - 30 V DC

Operating current: <100 mA

Contact gap: 1 mm

Switch frequency: <3500 Hz

Short-circuit proof: yes

Reverse polarity protection: yes

Rating: IP 67

Connection type: 2 m PVC cable

Temperature range: -25 °C - +70 °C

Approvals: CE, c UL us, EAC

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.

Item description/product images



for electrics

Safety:

Positioning bushes with status sensor are not suitable for personnel safety functions.

Drawing reference:

Form A: full thread

Form B: with thread and collar

Form C: with thread and approach taper

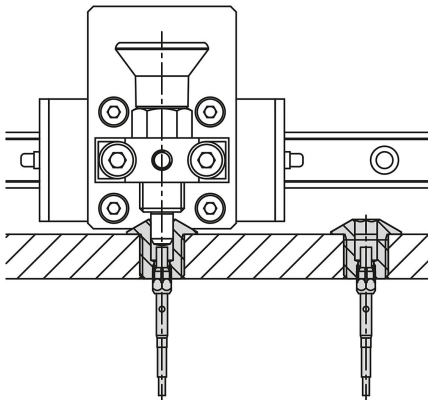
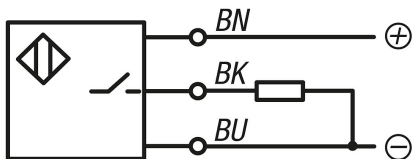
Form D: smooth

1) LED

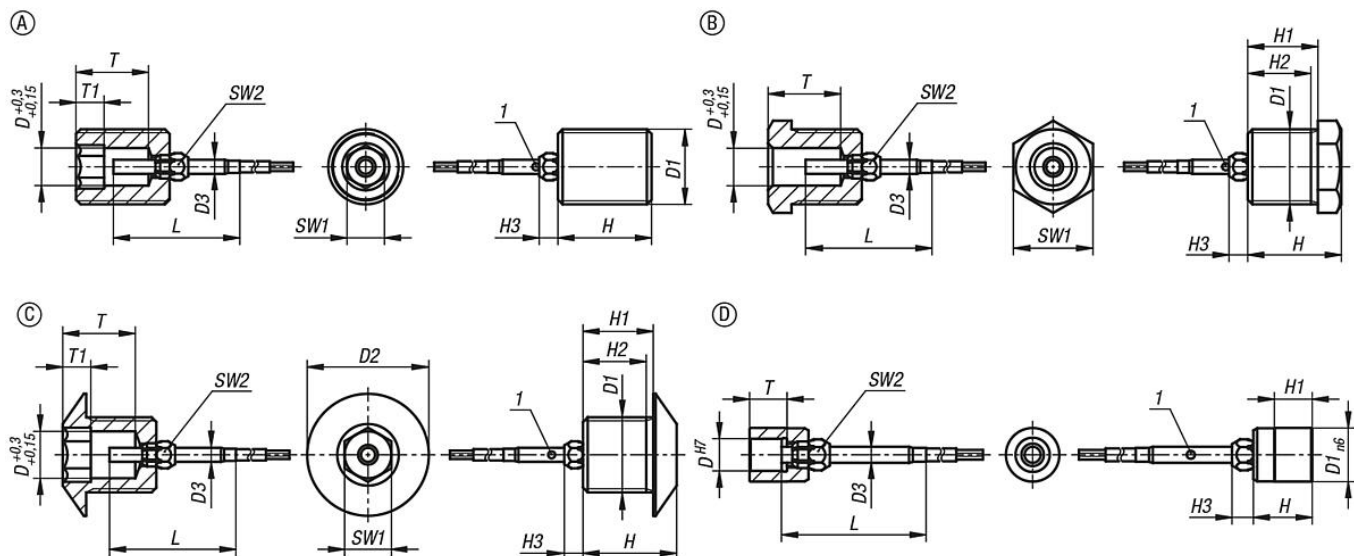
BN = brown

BK = black

BU = blue



Drawings



Overview of items

Order No.	Form	Form definition	Main material	D	D1	D2	D3	H	H1	H2	H3	L	T	T1	SW1	SW2
03099-60-1031011	A	Full thread	steel	3	M10x1	-	3	12	-	-	4	27	7	4	3	5
03099-60-1041011	A	Full thread	steel	4	M10x1	-	3	12	-	-	4	27	7	4	4	5
03099-60-1051211	A	Full thread	steel	5	M12x1,5	-	3	15	-	-	4	27	11	4	5	5
03099-60-1061211	A	Full thread	steel	6	M12x1,5	-	3	15	-	-	4	27	11	4	6	5
03099-60-1081611	A	Full thread	steel	8	M16x1,5	-	3	20	-	-	4	27	15,5	6	8	5
03099-60-1101611	A	Full thread	steel	10	M16x1,5	-	3	20	-	-	4	27	15,5	6	10	5
03099-60-1122011	A	Full thread	steel	12	M20x1,5	-	3	25	-	-	4	27	19	6	12	5
03099-60-1162411	A	Full thread	steel	16	M24x2	-	3	32	-	-	4	27	25	8	16	5
03099-60-11031011	A	Full thread	stainless steel	3	M10x1	-	3	12	-	-	4	27	7	4	3	5
03099-60-11041011	A	Full thread	stainless steel	4	M10x1	-	3	12	-	-	4	27	7	4	4	5
03099-60-11051211	A	Full thread	stainless steel	5	M12x1,5	-	3	15	-	-	4	27	11	4	5	5
03099-60-11061211	A	Full thread	stainless steel	6	M12x1,5	-	3	15	-	-	4	27	11	4	6	5
03099-60-11081611	A	Full thread	stainless steel	8	M16x1,5	-	3	20	-	-	4	27	15,5	6	8	5
03099-60-11101611	A	Full thread	stainless steel	10	M16x1,5	-	3	20	-	-	4	27	15,5	6	10	5
03099-60-11122011	A	Full thread	stainless steel	12	M20x1,5	-	3	25	-	-	4	27	19	6	12	5
03099-60-11162411	A	Full thread	stainless steel	16	M24x2	-	3	32	-	-	4	27	25	8	16	5
03099-60-2031011	B	with thread and collar	steel	3	M10x1	-	3	15	12	10,5	4	27	7	-	11	5
03099-60-2041011	B	with thread and collar	steel	4	M10x1	-	3	15	12	10,5	4	27	7	-	11	5
03099-60-2051211	B	with thread and collar	steel	5	M12x1,5	-	3	15	12	10,5	4	27	11	-	13	5
03099-60-2061211	B	with thread and collar	steel	6	M12x1,5	-	3	15	12	10,5	4	27	11	-	13	5
03099-60-2081611	B	with thread and collar	steel	8	M16x1,5	-	3	20	15	13,5	4	27	15,5	-	17	5
03099-60-2101611	B	with thread and collar	steel	10	M16x1,5	-	3	20	15	13,5	4	27	15,5	-	17	5
03099-60-2122011	B	with thread and collar	steel	12	M20x1,5	-	3	25	20	18,5	4	27	19	-	22	5
03099-60-2162411	B	with thread and collar	steel	16	M24x2	-	3	32	27	25,5	4	27	25	-	27	5
03099-60-12031011	B	with thread and collar	stainless steel	3	M10x1	-	3	15	12	10,5	4	27	7	-	11	5
03099-60-12041011	B	with thread and collar	stainless steel	4	M10x1	-	3	15	12	10,5	4	27	7	-	11	5
03099-60-12051211	B	with thread and collar	stainless steel	5	M12x1,5	-	3	15	12	10,5	4	27	11	-	13	5
03099-60-12061211	B	with thread and collar	stainless steel	6	M12x1,5	-	3	15	12	10,5	4	27	11	-	13	5
03099-60-12081611	B	with thread and collar	stainless steel	8	M16x1,5	-	3	20	15	13,5	4	27	15,5	-	17	5
03099-60-12101611	B	with thread and collar	stainless steel	10	M16x1,5	-	3	20	15	13,5	4	27	15,5	-	17	5
03099-60-12122011	B	with thread and collar	stainless steel	12	M20x1,5	-	3	25	20	18,5	4	27	19	-	22	5
03099-60-12162411	B	with thread and collar	stainless steel	16	M24x2	-	3	32	27	25,5	4	27	25	-	27	5
03099-60-3041211	C	with thread and approach taper	steel	4	M12x1,5	19	3	16	12	10,5	4	27	11	4	4	5
03099-60-3051211	C	with thread and approach taper	steel	5	M12x1,5	19	3	16	12	10,5	4	27	11	4	5	5
03099-60-3061211	C	with thread and approach taper	steel	6	M12x1,5	19	3	16	12	10,5	4	27	11	4	6	5
03099-60-3081611	C	with thread and approach taper	steel	8	M16x1,5	26	3	20	15	13,5	4	27	15,5	6	8	5
03099-60-3101611	C	with thread and approach taper	steel	10	M16x1,5	26	3	20	15	13,5	4	27	15,5	6	10	5
03099-60-13041211	C	with thread and approach taper	stainless steel	4	M12x1,5	19	3	16	12	10,5	4	27	11	4	4	5
03099-60-13051211	C	with thread and approach taper	stainless steel	5	M12x1,5	19	3	16	12	10,5	4	27	11	4	5	5
03099-60-13061211	C	with thread and approach taper	stainless steel	6	M12x1,5	19	3	16	12	10,5	4	27	11	4	6	5
03099-60-13081611	C	with thread and approach taper	stainless steel	8	M16x1,5	26	3	20	15	13,5	4	27	15,5	6	8	5

Overview of items

Order No.	Form	Form definition	Main material	D	D1	D2	D3	H	H1	H2	H3	L	T	T1	SW1	SW2
03099-60-13101611	C	with thread and approach taper	stainless steel	10	M16x1,5	26	3	20	15	13,5	4	27	15,5	6	10	5
03099-60-4030891	D	smooth	steel	3	8	-	3	10	6	-	4	27	5	-	-	5
03099-60-4040891	D	smooth	steel	4	8	-	3	10	6	-	4	27	5	-	-	5
03099-60-4050891	D	smooth	steel	5	8	-	3	10	6	-	4	27	6	-	-	5
03099-60-4061091	D	smooth	steel	6	10	-	3	11	7	-	4	27	7	-	-	5
03099-60-4081391	D	smooth	steel	8	13,5	-	3	14	9,5	-	4	27	9,5	-	-	5
03099-60-4101791	D	smooth	steel	10	17	-	3	16	11,5	-	4	27	11,5	-	-	5
03099-60-14030891	D	smooth	stainless steel	3	8	-	3	10	6	-	4	27	5	-	-	5
03099-60-14040891	D	smooth	stainless steel	4	8	-	3	10	6	-	4	27	5	-	-	5
03099-60-14050891	D	smooth	stainless steel	5	8	-	3	10	6	-	4	27	6	-	-	5
03099-60-14061091	D	smooth	stainless steel	6	10	-	3	11	7	-	4	27	7	-	-	5
03099-60-14081391	D	smooth	stainless steel	8	13,5	-	3	14	9,5	-	4	27	9,5	-	-	5
03099-60-14101791	D	smooth	stainless steel	10	17	-	3	16	11,5	-	4	27	11,5	-	-	5