GN 200

Indexing Mechanisms

Steel / Stainless Steel

SPECIFICATION

Version in Steel

Types

- Type **A**: Knob, blackened, without scale
- Type **AS**: Knob, matte chrome plated, with scale 0...50, 60 graduations
- Type **B**: With 1 tension lever
- Type **C**: With 2 tension levers

Steel
Blackened

Type AS:
Control knob matte chrome plated

Scale engraved with laser precision, black
Reference line on location ring

Fixed cylindrical handles I.280 (see page 568)
Plastic, Technopolymer
Black, shiny finish

Version in Stainless Steel

Types

- Type **A**: Without scale
- Type **AS**: With scale 0...50, 60 graduations

Stainless steel AISI 303 **NI**

Type AS:
Scale engraved with laser precision, black
Reference line on locating ring

Keyway P9 DIN 6885
Page 1 for bore K 10
Page 2 for bores > K 10

INFORMATION

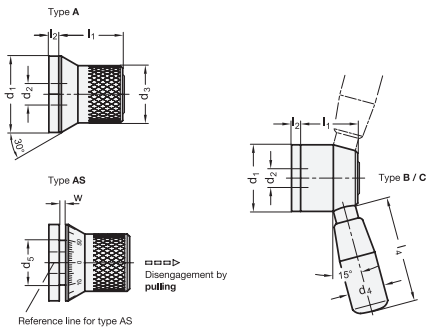
Indexing mechanisms GN 200 replace and simplify complicated indexing and safety mechanisms, such as indenting levers, latching mechanisms, indexing pins and other securing elements.
Besides the standard scale (Type AS) the control knob version may be supplied with any scale. In such cases, it is recommended to use the matte chrome plated version since the color contrast is better. (Version in Steel ST)
Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale rings on the order sheet "How to Order Graduations" (see page 594).

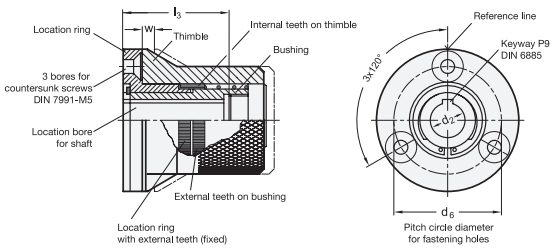
ON REQUEST

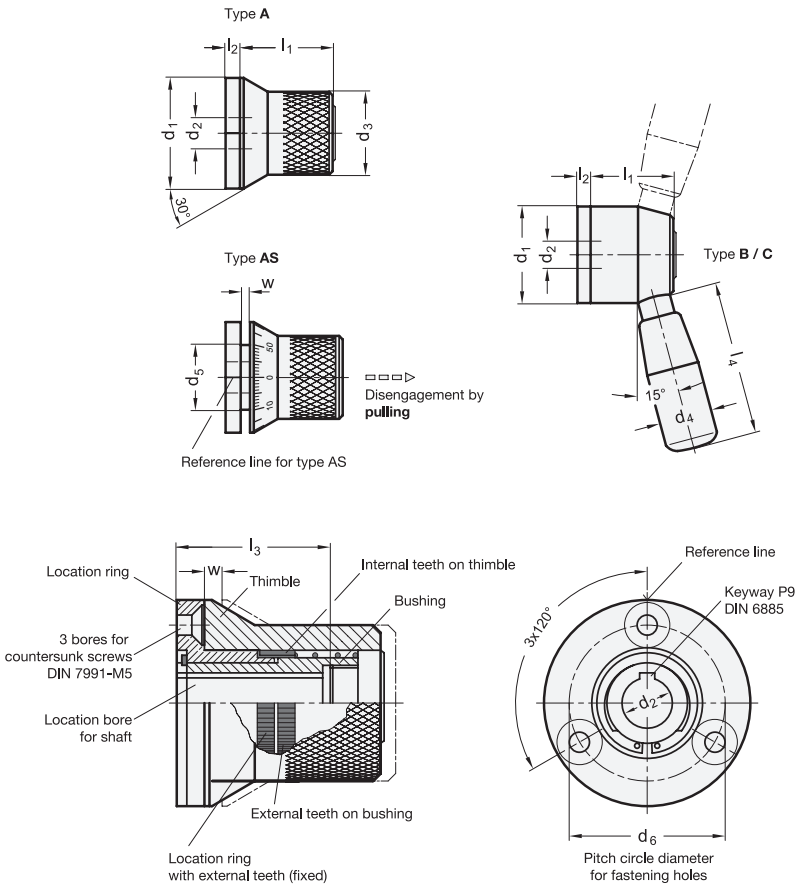
- Special graduations see "How to Order Graduations" (see page 594)

TECHNICAL INFORMATION

- ISO-Fundamental Tolerances (see page A16)
- Keyway P9 DIN 6885 (see page)
- Stainless Steel Characteristics (see page A26)







[k] Complete with

A	AS	B	C
Knob, blackened, without scale	Knob, matte chrome plated, with scale 0...50, 60 graduations	With 1 tension lever	With 2 tension levers

GN 200

Description	d_1	d_2 H7 Bore with keyway	d_3	d_4	d_5	d_6 P.C.D. Ø for fixing screws	l_1	l_2	l_3 Bore length	l_4	w Stroke	⚖
GN 200-44-K10-*	44	K 10	33	23	23	33	37	6	31	75	4	309
GN 200-44-K12-*	44	K 12	33	23	23	33	37	6	31	75	4	310
GN 200-52-K12-*	52	K 12	42	26	31.5	41.8	37.5	6	31.5	90	4	478
GN 200-52-K14-*	52	K 14	42	26	31.5	41.8	37.5	6	31.5	90	4	467
GN 200-52-K16-*	52	K 16	42	26	31.5	41.8	37.5	6	31.5	90	4	455

[k] Complete with

A	AS
Knob, blackened, without scale	Knob, matte chrome plated, with scale 0...50, 60 graduations

GN 200-NI

STAINLESS STEEL

Description	d_1	d_2 H7 Bore with keyway	d_3	d_5	d_6 P.C.D. Ø for fixing screws	l_1	l_2	l_3 Bore length	w Stroke	⚖
GN 200-44-K10-*-NI	44	K 10	33	23	33	37	6	31	4	309
GN 200-44-K12-*-NI	44	K 12	33	23	33	37	6	31	4	310
GN 200-52-K12-*-NI	52	K 12	42	31.5	41.8	37.5	6	31.5	4	478
GN 200-52-K14-*-NI	52	K 14	42	31.5	41.8	37.5	6	31.5	4	467
GN 200-52-K16-*-NI	52	K 16	42	31.5	41.8	37.5	6	31.5	4	455

Weight type A

Applications

Indexing mechanisms can be used to adjust shafts or spindles by an angle of rotation of 6° (or a multiple thereof) and subsequently secure them against rotation by engaging in a serration.

Description

The indexing mechanism is a selfcontained unit with all adjustment and securing elements accommodated in the smallest possible space. It consists of three main parts:

- The **bushing** is connected to the shaft with a parallel key/keyway or crossdowel.
- The **location ring** is fixed; it is mounted on the bushing and connected to the machine by 3 contersunk screws (e.g. DIN 7991-M5).
- The **knurled hub** connects the fixed location ring and the shaft which can be adjusted

When locked, the internal toothing of the knurled hub (60 teeth) simultaneously engages with the external toothing of both the fixed location ring and the bushing connected to the shaft. To adjust the shaft, the knurled hub is pulled against spring pressure, disengaging from the location ring. The knurled hub however remains positively connected with the shaft via the external toothing of the bushing. By turning the knurled hub the shaft can now be adjusted.

More information

With 60 teeth, the following divisions can be achieved: 2, 3, 4, 5, 6, 10, 20, 30.
A simple method provides indexing of the shaft to limited number of positions only, i.e. every 120°. For this purpose, the location ring is provided with a dowel pin that allows engagement in the serration only if it meets a counterbore in the knurled hub. This counterbore can be manufactured oversize as the dowel is for rough positioning only. Accurate positioning is maintained via the teeth.
For adjustment with a threaded spindle, it is recommended to assign the the 1.5 mm thread pitch to the standard scale with 60 graduation marks (type AS) : 1 graduation = 0.025 mm.
The serration ensures more accurate and wear-free indexing than individual dowel pins.
If a very high torque has to be overcome during adjustment, unlocking and locking is more difficult due to the low backlash respectively the friction in the tooth flanks. In this case, it is recommended to use indexing levers GN 215.