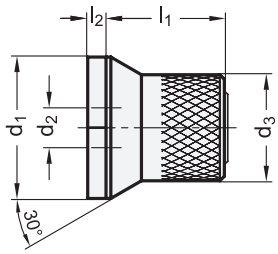
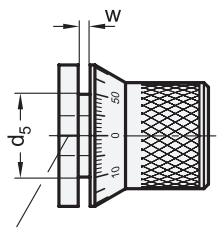
Type **A**

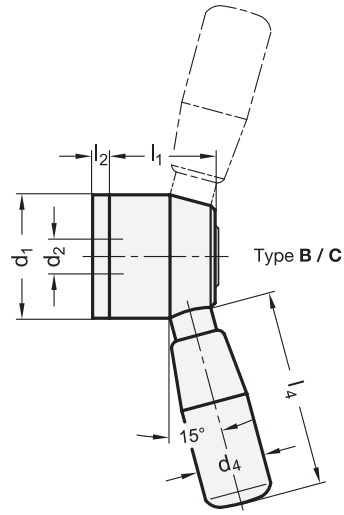


Type **AS**



Disengagement by **pulling**

Reference line for type AS



Type **B / C**

Metric

3 Type

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

Metric table

Dimensions in: millimeters / inches

1 d_1	2 d_2 H7 Bore with keyway			d_3	d_4	d_5	d_6 P.C.D.	l_1	l_2	l_3	l_4	w Stroke
44 1.73	K 10	K 12	-	33 1.30	23 0.91	23 0.91	33 1.30	37 1.46	6 0.24	31 1.22	75 2.95	4 0.16
52 2.05	K 12	K 14	K 16	42 1.65	26 1.02	31.5 1.24	41.8 1.65	37.5 1.48	6 0.24	31.5 1.24	90 3.54	4 0.16

Specification

Control knob
Steel
- Blackened finish for type A / B / C
- Matte chrome plated finish for type AS
  - Scale black, laser engraved
  - Reference line on location ring
- Keyway
  - Tolerance slot width P9
  - Bore K 10: DIN 6885-1
  - Bore K 12 ... K 16: DIN 6885-2

Fixed cylindrical handles EN 539 for type B / C
Plastic, phenolic resin (PF)
Black, shiny finish

RoHS

On request

- Special graduations
  (see “How to Order Graduations“)

Indexing mechanisms GN 200 replace and simplify complicated indexing and safety mechanisms.
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.
Regarding design, numbering position and numbering sequence of the scale please see the layout for scale rings on the order sheet “How to Order Graduations“.

see also...	Page
GN 200 Indexing Mechanisms (Stainless Steel)	QVX
GN 215 Indexing Levers	QVX
GN 700 Indexing Knobs (with Stepless Positioning)	QVX

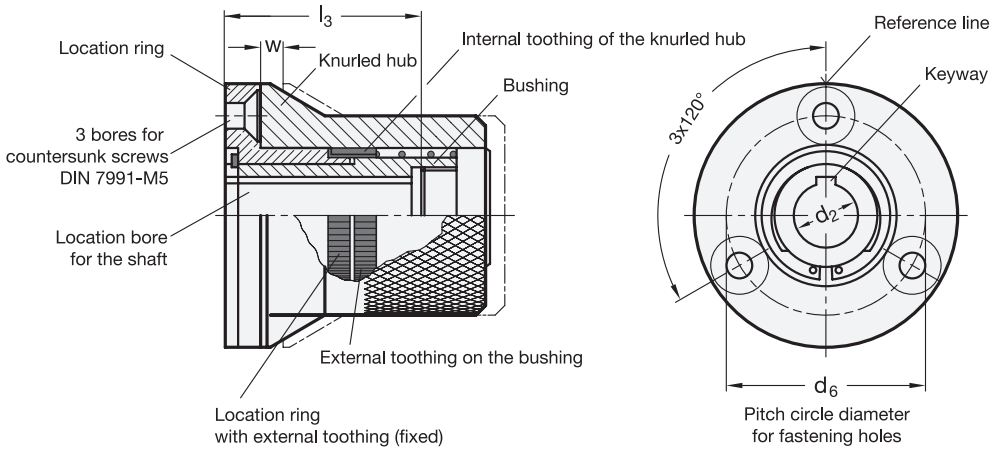
Technical Information	
Technical Instructions	QVX
How to Order Graduations	QVX
Keyways WN 6885 / DIN 6885-1	QVX
Keyways P9 DIN 6885-2	QVX
ISO Fundamental Tolerances	QVX

How to order

GN 200-44-K12-A

1	**Outside diameter d_1**
2	**Bore with keyway d_2**
3	**Type**

⚠ **WARNING**: Cancer and Reproductive Harm — www.P65Warnings.ca.gov



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 a 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 and load capacity is maintained via the engaged 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.

⚠ WARNING: Cancer and Reproductive Harm — www.P65Warnings.ca.gov