

Scale rings

SPECIFICATION

Types

Type **MCR**: matt chrome plated
 Type **MCRS**: matt chrome plated, standard scale 0...90,
 100 graduations, acc. scale scheme di/100 A RA 0-10-20...90/10

Bore codes

- Version **B**: without friction ring
- Version **R**: with friction ring

Steel

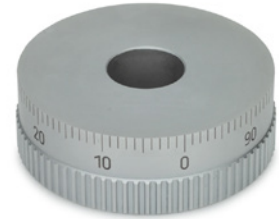
- Knurl milled
- Scale lug di fine turned
- blank (standard version)
- matt chrome plated **MCR**
- matt chrome plated with standard scale **MCRS**

Scale

engraved with laser precision, black

Clamp ring Rubber

Friction ring Polyamide



INFORMATION

The non-wearing friction ring ensures perfect engagement of the scale ring when re-aligning the spindle. In addition it allows the setting of the scale ring on a static shaft.

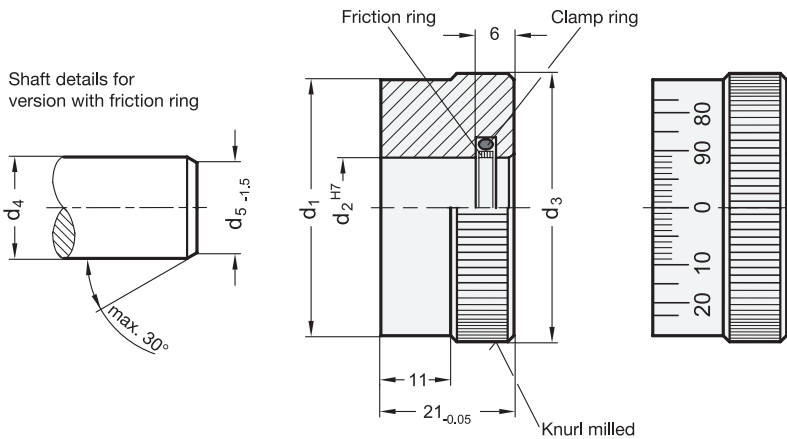
Also this scale rings can be supplied with any type of graduation. Regarding design, numbering run, numbering position and numbering sequence of the scale please see the layout for scale rings on the order sheet "How to order graduations" (see page 594).

ON REQUEST

- special graduations see "How to order graduations" (see page 594)

TECHNICAL INFORMATION

- ISO-Fundamental Tolerances (see page A21)



GN 164

Description	d1 ±0.02	d2 H7	d3	d4 -0.02/-0.05	d5	$\frac{d}{D}$
GN 164-30-B12	30	12	31.7	12	10.5	98
GN 164-30-B14	30	14	31.7	14	10.5	90
GN 164-40-B14	40	14	41.3	14	12.5	180
GN 164-40-B16	40	16	41.3	16	12.5	172
GN 164-50-B16	50	16	51.8	16	14.5	292
GN 164-50-B18	50	18	51.8	18	14.5	282
GN 164-60-B18	60	18	61.4	18	16.5	420
GN 164-60-B20	60	20	61.4	20	16.5	413
GN 164-30-R12	30	12	31.7	12	10.5	100
GN 164-30-R14	30	14	31.7	12	10.5	92
GN 164-40-R14	40	14	41.3	14	12.5	182
GN 164-40-R16	40	16	41.3	16	12.5	174
GN 164-50-R16	50	16	51.8	16	14.5	293
GN 164-50-R18	50	18	51.8	18	14.5	283
GN 164-60-R18	60	18	61.4	18	16.5	424
GN 164-60-R20	60	20	61.4	20	16.5	413

GN 164-MCR/MCRS

Description	d1 ±0.02	d2 H7	d3	d4 -0.02/-0.05	d5	$\frac{d}{D}$
GN 164-30-B12-MCR	30	12	31.7	12	10.5	98
GN 164-30-B14-MCR	30	14	31.7	14	10.5	90
GN 164-40-B14-MCR	40	14	41.3	14	12.5	180
GN 164-40-B16-MCR	40	16	41.3	16	12.5	172
GN 164-50-B16-MCR	50	16	51.8	16	14.5	292
GN 164-50-B18-MCR	50	18	51.8	18	14.5	281
GN 164-60-B18-MCR	60	18	61.4	18	16.5	422
GN 164-60-B20-MCR	60	20	61.4	20	16.5	413
GN 164-30-B12-MCRS	30	12	31.7	12	10.5	98
GN 164-30-B14-MCRS	30	14	31.7	14	10.5	90
GN 164-40-B14-MCRS	40	14	41.3	14	12.5	180
GN 164-40-B16-MCRS	40	16	41.3	16	12.5	172
GN 164-50-B16-MCRS	50	16	51.8	16	14.5	292
GN 164-50-B18-MCRS	50	18	51.8	18	14.5	281
GN 164-60-B18-MCRS	60	18	61.4	18	16.5	422
GN 164-60-B20-MCRS	60	20	61.4	20	16.5	413
GN 164-30-R12-MCR	30	12	31.7	12	10.5	100
GN 164-30-R14-MCR	30	14	31.7	14	10.5	92
GN 164-40-R14-MCR	40	14	41.3	14	12.5	184
GN 164-40-R16-MCR	40	16	41.3	16	12.5	174
GN 164-50-R16-MCR	50	16	51.8	16	14.5	293
GN 164-50-R18-MCR	50	18	51.8	18	14.5	285
GN 164-60-R18-MCR	60	18	61.4	18	16.5	424
GN 164-60-R20-MCR	60	20	61.4	20	16.5	413
GN 164-30-R12-MCRS	30	12	31.7	12	10.5	100
GN 164-30-R14-MCRS	30	14	31.7	14	10.5	92
GN 164-40-R14-MCRS	40	14	41.3	14	12.5	162
GN 164-40-R16-MCRS	40	16	41.3	16	12.5	174
GN 164-50-R16-MCRS	50	16	51.8	16	14.5	293
GN 164-50-R18-MCRS	50	18	51.8	18	14.5	283
GN 164-60-R18-MCRS	60	18	61.4	18	16.5	424
GN 164-60-R20-MCRS	60	20	61.4	20	16.5	413



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Control elements