

# Measuring wheel systems

| System components | Measuring wheels | Different coatings, different circumferences |
|-------------------|------------------|--|
|-------------------|------------------|--|



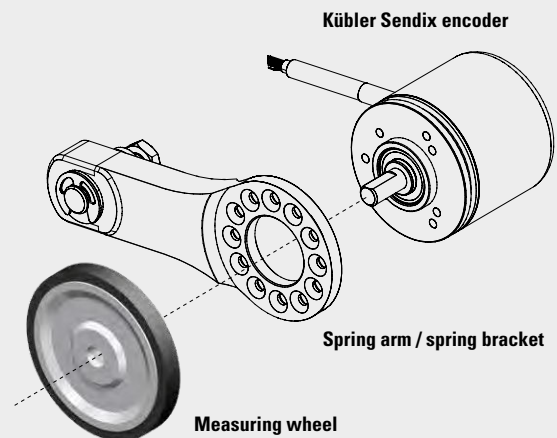
Measuring wheels for measuring the length of products in movement, e.g. in the paper, metal, textile, wood or plastic industry.

Different wheel surfaces to meet the requirements of the various surfaces of the product to be measured – different circumferences, designed for use with Kübler encoders, available for metric and imperial systems.

The measuring wheels can be easily combined with Kübler Sendix encoders and suitable encoder brackets.

The brackets are equipped with spring elements to ensure optimum contact pressure of the measuring wheel on the measuring surface and as compensation for unevenness and assembly tolerances in the application.

In addition, the measuring wheels can only be used for in-house purposes which are not subject to the stipulations of the German calibration code.



## Measuring wheel coatings



**Diamond knurl**  
(aluminum)

**Plastic smooth**  
(polyurethane)

**Tufted rubber**  
(polyurethane)

**O-ring**  
(NBR70)

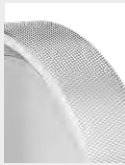





**Double O-ring**  
(NBR70)

**Plastic corrugated**  
(polyurethane)

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|                          |                         |   |  |  |  |  |
|--------------------------|-------------------------|---|--|--|--|--|
| <b>System components</b> | <b>Measuring wheels</b> | <b>Different coatings, different circumferences</b> |  |  |  |  |
|--------------------------|-------------------------|---|--|--|--|--|

## Measuring wheel coatings

| Selection of the measuring wheel coatings according to the surface of the measured material |                         |  |  |  |  |  |  |
|---|-------------------------|---|---|---|---|---|---|
|   |                         | diamond knurl<br>(aluminum)   | rubber / plastic, smooth<br>(polyurethane)  | tufted rubber<br>(polyurethane)   | O-ring<br>(NBR70)   | Double O-ring<br>(NBR70)  | plastic, corrugated<br>(polyurethane)   |
| Surface of the measured material  | Profile measuring wheel | 1   | 2 / 4   | 6   | 7   | 8   | 9   |
| Cardboard   |                         | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| Wood  |                         | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| Textile   |                         | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| Plastic (e.g. PVC, PE, ...)   |                         | -   | ✓   | ✓   | ✓   | ✓   | ✓   |
| Paper   |                         | -   | ✓   | ✓   | ✓   | ✓   | ✓   |
| Wire, greased metals, steel profiles, leather   |                         | -   | ✓   | -   | -   | -   | -   |
| Carpet, cables, nonwoven  |                         | -   | -   | ✓   | -   | -   | -   |
| Greased metals, glass, floor coverings  |                         | -   | -   | -   | -   | -   | ✓   |
| Painted surfaces  |                         | -   | ✓   | -   | ✓   | ✓   | ✓   |
| Rubber, soft plastic  |                         | ✓   | -   | -   | -   | -   | -   |
| Surface available for measuring wheel circumference:  |                         |   |   |   |   |   |   |
| 100 mm  |                         | ✓   | ✓   | -   | -   | -   | -   |
| 200 mm (tread 5.5 mm)   |                         | ✓   | ✓   | -   | ✓   | -   | -   |
| 200 mm (tread 12 mm)  |                         | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| 300 mm  |                         | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |
| 500 mm  |                         | ✓   | ✓   | ✓   | -   | -   | ✓   |
| 6" (tread 5.5 mm)   |                         | ✓   | ✓   | -   | ✓   | -   | -   |
| 6" (tread 12 mm)  |                         | ✓   | -   | -   | -   | -   | -   |
| 12"   |                         | ✓   | ✓   | ✓   | ✓   | ✓   | ✓   |

Technical specifications of the measuring wheels:

Max. lateral run-out: 0.2 mm  
 Max. radial run-out: 0.2 mm  
 Material: Aluminum  
 Temperature range: -30 °C ... +80 °C [-22 °F ... +176 °F]

# Measuring wheel systems

| System components             |  | Measuring wheels |       |          |       | Different coatings, different circumferences |                         |                                   |                          |                    |         |   |
|-------------------------------|--|------------------|-------|----------|-------|--|-------------------------|-----------------------------------|--------------------------|--------------------|---------|---|
| Order code                    |  | 8.0000           | . 3   | XXX      | . 00  | XX   |                         |                                   |                          |                    |         |   |
| Measuring wheel               |  |                  |       | <b>a</b> |       |  | <b>b</b>                |                                   |                          |                    |         |   |
| Measuring wheel circumference | suitable for measuring wheel /measuring wheel system |                  |       |          |       | Tread width                                  | Profil measuring wheels | Coating                           | Coating hardness Shore A | Wheel no. <b>a</b> | Weight  | Standard bore <b>b</b> <sup>1)</sup>                  |
|                               | MWE11  | MWE2x            | MWE3x | MWE4x    | MWE6x |  |                         |                                   |                          |                    |         |   |
| 100 mm                        | ✓  | -                | -     | -        | -     | 9.5 mm                                       | 1                       | diamond knurl (aluminum)          | -                        | <b>113</b>         | 15.0 g  | <b>06</b> = 6 mm [0.24"]                              |
|                               |  |                  |       |          |       |  | 2                       | natural rubber                    | 60                       | <b>123</b>         | 16.0 g  |   |
| 200 mm                        | -  | ✓                | ✓     | -        | -     | 5.5 mm                                       | 1                       | diamond knurl (aluminum)          | -                        | <b>215</b>         | 38.5 g  | <b>06</b> = 6 mm [0.24"]                              |
|                               |  |                  |       |          |       |  | 4                       | plastic smooth (polyurethane)     | 70                       | <b>245</b>         | 41.5 g  |   |
|                               |  |                  |       |          |       |  | 7                       | O-ring (NBR70)                    | 70                       | <b>275</b>         | 36.0 g  |   |
|                               |  |                  |       |          |       | 12 mm  | 1                       | diamond knurl (aluminum)          | -                        | <b>217</b>         | 60.0 g  | <b>06</b> = 6 mm [0.24"]<br><b>10</b> = 10 mm [0.39"] |
|                               |  |                  |       | ✓        | ✓     |  | 4                       | plastic smooth (polyurethane)     | 90                       | <b>247</b>         | 60.0 g  |   |
|                               |  |                  |       |          |       |  | 6                       | tufted rubber (polyurethane)      | 60                       | <b>267</b>         | 60.0 g  |   |
|                               |  |                  |       |          |       |  | 7                       | O-ring (NBR70)                    | 70                       | <b>277</b>         | 60.0 g  |   |
|                               |  |                  |       |          |       |  | 8                       | double O-ring (NBR70)             | 70                       | <b>287</b>         | 60.0 g  |   |
|                               |  |                  |       |          | 9     | plastic corrugated (polyurethane)            | 90                      | <b>297</b>                        | 60.0 g                   |                    |         |   |
| 300 mm                        | -  | -                | -     | ✓        | ✓     | 12 mm  | 1                       | diamond knurl (aluminum)          | -                        | <b>317</b>         | 115.0 g | <b>10</b> = 10 mm [0.39"]                             |
|                               |  |                  |       |          |       |  | 4                       | plastic smooth (polyurethane)     | 90                       | <b>347</b>         | 115.0 g |   |
|                               |  |                  |       |          |       |  | 6                       | tufted rubber (polyurethane)      | 60                       | <b>367</b>         | 115.0 g |   |
|                               |  |                  |       |          |       |  | 7                       | O-ring (NBR70)                    | 70                       | <b>377</b>         | 115.0 g |   |
|                               |  |                  |       |          |       |  | 8                       | double O-ring (NBR70)             | 70                       | <b>387</b>         | 117.0 g |   |
|                               |  |                  |       |          |       |  | 9                       | plastic corrugated (polyurethane) | 90                       | <b>397</b>         | 115.0 g |   |
| 500 mm                        | -  | -                | -     | ✓        | ✓     | 25 mm  | 1                       | diamond knurl (aluminum)          | -                        | <b>517</b>         | 505.0 g | <b>10</b> = 10 mm [0.39"]                             |
|                               |  |                  |       |          |       |  | 4                       | plastic smooth (polyurethane)     | 90                       | <b>547</b>         | 501.0 g |   |
|                               |  |                  |       |          |       |  | 6                       | tufted rubber (polyurethane)      | 60                       | <b>567</b>         | 483.0 g |   |
|                               |  |                  |       |          |       |  | 9                       | plastic corrugated (polyurethane) | 90                       | <b>597</b>         | 501.0 g |   |
| 6"                            | -  | ✓                | -     | -        | -     | 5.5 mm                                       | 1                       | diamond knurl (aluminum)          | -                        | <b>615</b>         | 25.0 g  | <b>06</b> = 6 mm [0.24"]                              |
|                               |  |                  |       |          |       |  | 4                       | plastic smooth (polyurethane)     | 70                       | <b>645</b>         | 23.5 g  |   |
|                               |  |                  |       |          |       | 7  | O-ring (NBR70)          | 70                                | <b>675</b>               | 21.5 g             |         |   |
|                               | -  | -                | -     | -        | -     | 12 mm  | 1                       | diamond knurl (aluminum)          | -                        | <b>617</b>         | 60.0 g  |   |
| 12"                           | -  | -                | -     | ✓        | ✓     | 12 mm  | 1                       | diamond knurl (aluminum)          | -                        | <b>717</b>         | 115.0 g | <b>10</b> = 10 mm [0.39"]                             |
|                               |  |                  |       |          |       |  | 4                       | plastic smooth (polyurethane)     | 90                       | <b>747</b>         | 115.0 g |   |
|                               |  |                  |       |          |       |  | 6                       | tufted rubber (polyurethane)      | 60                       | <b>767</b>         | 115.0 g |   |
|                               |  |                  |       |          |       |  | 7                       | O-ring (NBR70)                    | 70                       | <b>777</b>         | 115.0 g |   |
|                               |  |                  |       |          |       |  | 8                       | double O-ring (NBR70)             | 70                       | <b>787</b>         | 117.0 g |   |
|                               |  |                  |       |          |       |  | 9                       | plastic corrugated (polyurethane) | 90                       | <b>797</b>         | 115.0 g |   |

1) Other bore diameters on request

# Measuring wheel systems

|                          |                         |   |
|--------------------------|-------------------------|---|
| <b>System components</b> | <b>Measuring wheels</b> | <b>Different coatings, different circumferences</b> |
|--------------------------|-------------------------|---|

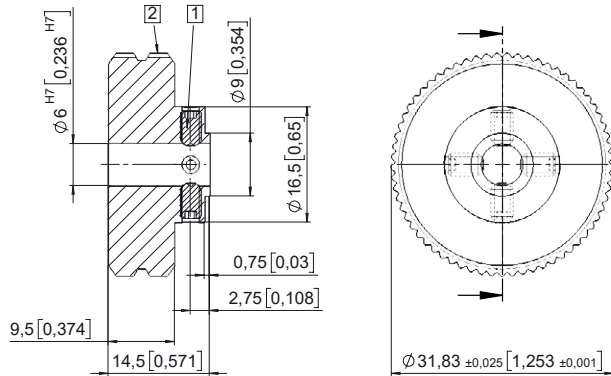
## Dimensions

Dimensions in mm [inch]

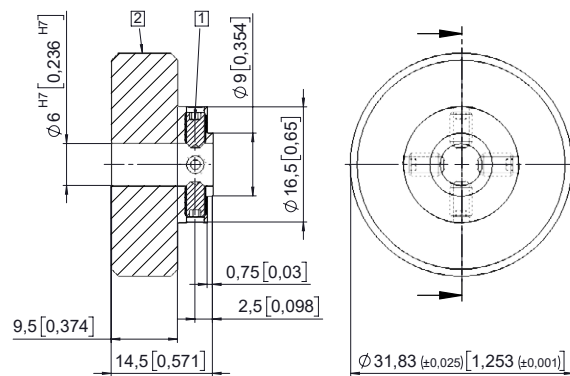
**Measuring wheel circumference 100 mm ±0,1 mm**

**Tread width 9,5 mm**

**No. 113**  
diamond knurl  
(aluminum)



**No. 123**  
natural rubber



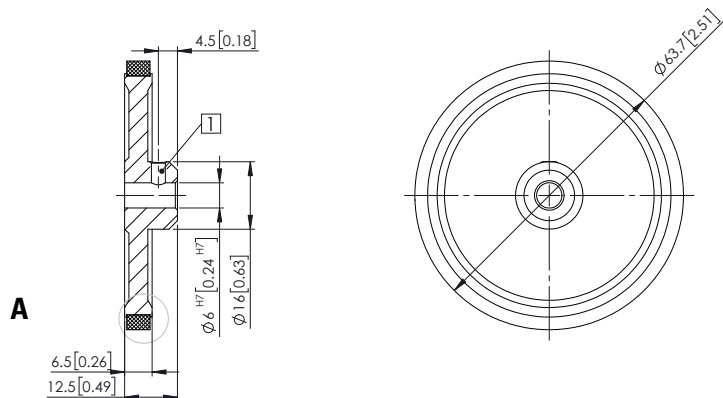
- 1 screw M3x5 ISO4029 (4x)
- 2 diamond knurl

- 1 screw M4x6 ISO4029
- 2 natural rubber, Shore 60

**Measuring wheel circumference 200 mm ±0,2 mm**

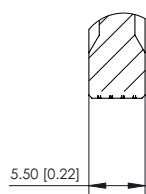
**Tread width 5,5 mm**

- 1 screw M4x6 ISO4029

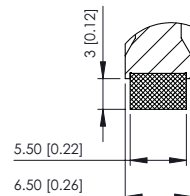


**A** for measuring wheel no. (with coating):

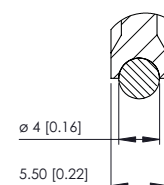
**No. 215**  
diamond knurl  
(aluminum)



**No. 245**  
plastic smooth  
(polyurethane)



**No. 275**  
O-ring  
(NBR)



# Measuring wheel systems

| System components | Measuring wheels | Different coatings, different circumferences |
|-------------------|------------------|--|
|-------------------|------------------|--|

## Dimensions

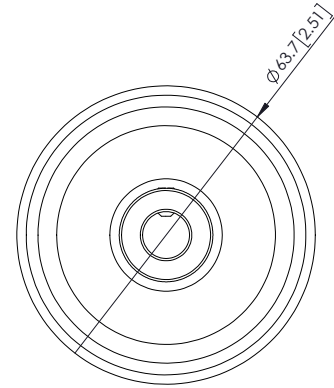
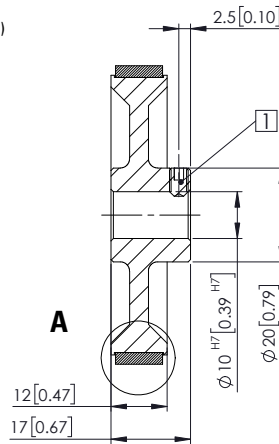
Dimensions in mm [inch]

**Measuring wheel circumference 200 mm** ±0,2 mm (with O-ring ±0,5 mm)

**Tread width 12 mm**

Bore for shaft 10 mm (also with bore 6 mm)

1 screw M4x6 ISO4029



**A** for measuring wheel no. (with coating):

**No. 217**  
diamond knurl  
(aluminum)

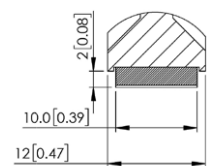
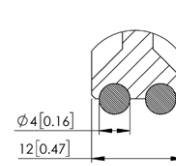
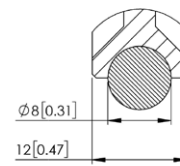
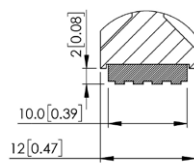
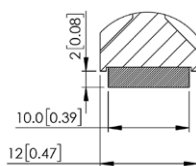
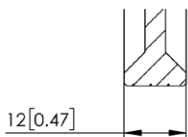
**No. 247**  
plastic smooth  
(polyurethane)

**No. 267**  
tufted rubber  
(polyurethane)

**No. 277**  
O-ring  
(NBR)

**No. 287**  
double O-ring  
(NBR)

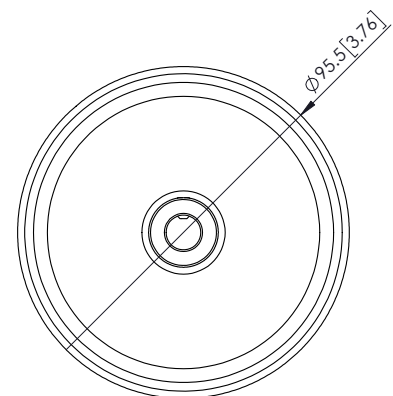
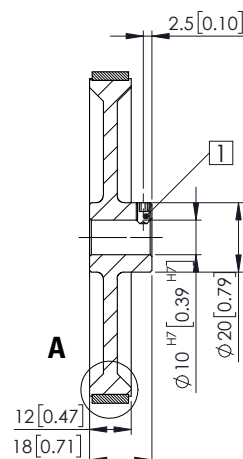
**No. 297**  
plastic corrugated  
(polyurethane)



**Measuring wheel circumference 300 mm** ±0,2 mm (with O-ring ±0,5 mm)

**Tread width 12 mm**

1 screw M4x6 ISO4029



**A** for measuring wheel no. (with coating):

**No. 317**  
diamond knurl  
(aluminum)

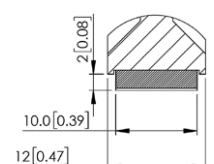
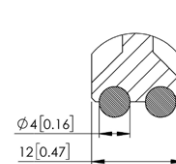
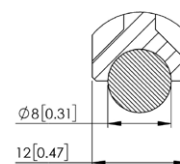
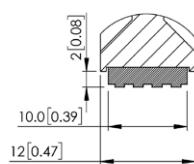
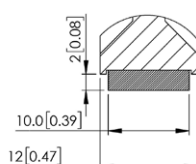
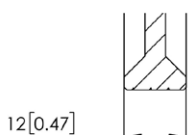
**No. 347**  
plastic smooth  
(polyurethane)

**No. 367**  
tufted rubber  
(polyurethane)

**No. 377**  
O-ring  
(NBR)

**No. 387**  
double O-ring  
(NBR)

**No. 397**  
plastic corrugated  
(polyurethane)



# Measuring wheel systems

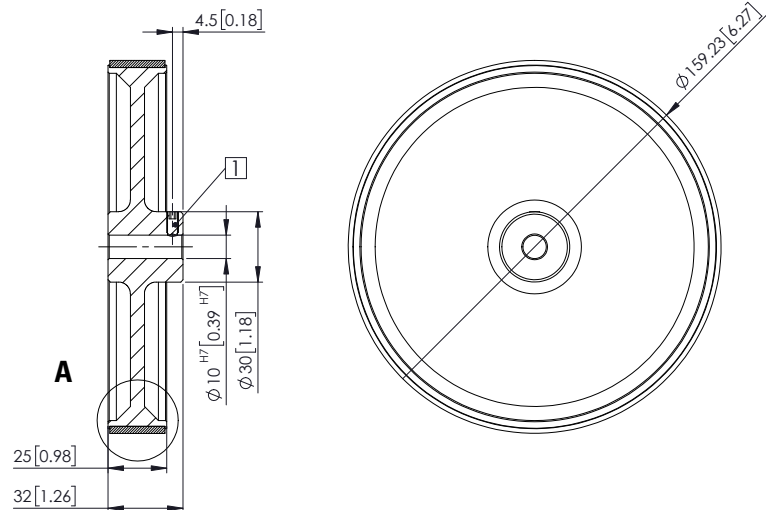
| System components | Measuring wheels | Different coatings, different circumferences |
|-------------------|------------------|--|
|-------------------|------------------|--|

## Dimensions

Dimensions in mm [inch]

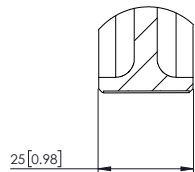
**Measuring wheel circumference 500 mm ±1,0 mm**  
**Tread width 25 mm**

1 screw M5x10 ISO4029

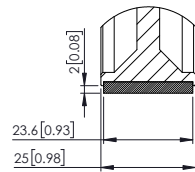


**A** for measuring wheel no. (with coating):

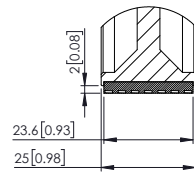
**No. 517**  
diamond knurl  
(aluminum)



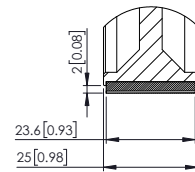
**No. 547**  
plastic smooth  
(polyurethane)



**No. 567**  
tufted rubber  
(polyurethane)

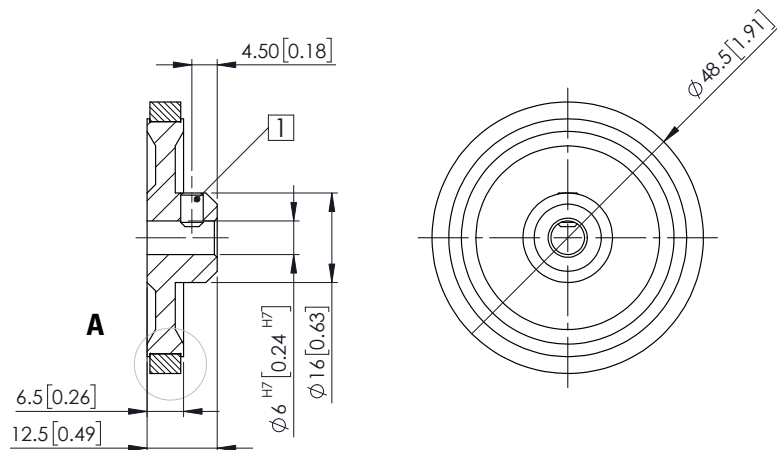


**No. 597**  
plastic corrugated  
(polyurethane)



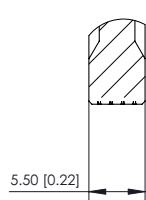
**Measuring wheel circumference 6" ±0,2 mm**  
**Tread width 5,5 mm**

1 screw M4x6 ISO4029

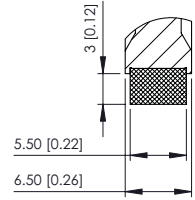


**A** for measuring wheel no. (with coating):

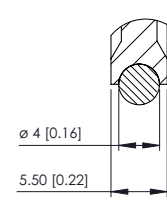
**No. 615**  
diamond knurl  
(aluminum)



**No. 645**  
plastic smooth  
(polyurethane)



**No. 675**  
O-ring  
(NBR)



# Measuring wheel systems

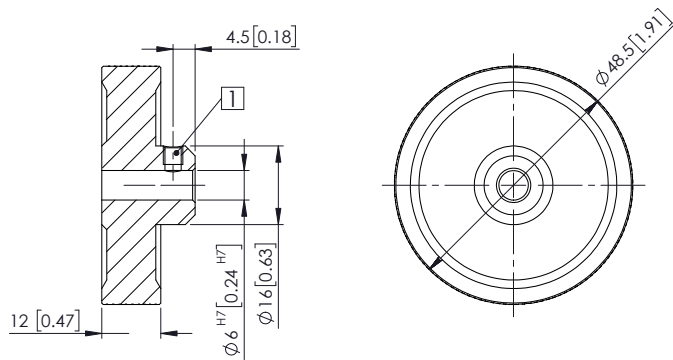
| System components | Measuring wheels | Different coatings, different circumferences |
|-------------------|------------------|--|
|-------------------|------------------|--|

## Dimensions

Dimensions in mm [inch]

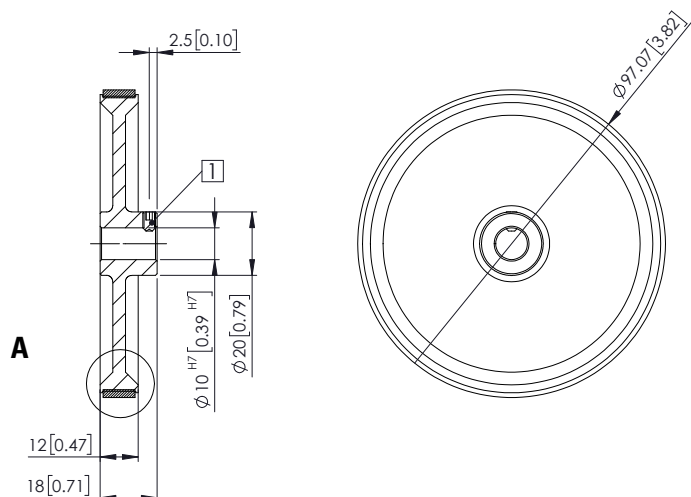
**Measuring wheel circumference 6" ±0,2 mm**  
**Tread width 12 mm**

1 screw M4x6 ISO4029



**Measuring wheel circumference 12" ±0,2 mm (with O-ring ±0,5 mm)**  
**Tread width 12 mm**

1 screw M4x6 ISO4029



**A** for measuring wheel no. (with coating):

**No. 717**  
 diamond knurl  
 (aluminum)

**No. 747**  
 plastic smooth  
 (polyurethane)

**No. 767**  
 tufted rubber  
 (polyurethane)

**No. 777**  
 O-ring  
 (NBR)

**No. 787**  
 double O-ring  
 (NBR)

**No. 797**  
 plastic corrugated  
 (polyurethane)

