**System components Compact-Line** | **Spring arm MWE20** | **Contact force max. 25 N**

**For incremental or absolute encoders with clamping flange ø 36 mm or ø 40 mm.**

The MWE20 spring arm in combination with an encoder and a measuring wheel as measuring wheel system MWE21 is the ideal solution for reliable speed measurement, position detection and length measurement in applications with linear movements.

This compact measuring wheel system with adjustable preload can be integrated very flexibly even in the tightest installation spaces.

To the measuring wheel system MWE21 >

## Features

- **Contact force up to max. 25 N**
  With adjustable preload and mechanical spring deflection limitation for a long service life. The integrated spring ensures a working range of the measuring wheel of up to 50 mm vertical to the measuring surface to compensate for tolerances.
- **Suitable measuring wheels**
  Circumferences 200 mm or 6“ - measuring wheel coating available with O-ring, smooth plastic or diamond knurl surface.
- **Compact design**
  Also suitable for the smallest installation space.
- **Flexible use**
  Multiple mounting options - horizontal, vertical or overhead - for quick and easy installation. Encoders can be mounted on both sides of the spring arm in 30° steps.

## Order code

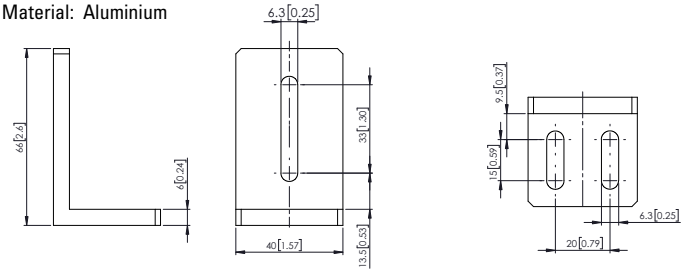
| 8.MWE20 | . | X | X | 1 | . | 00 | . | 0000 | . | 0000 |
|---|---|---|---|---|---|---|---|---|---|---|
| Type | | ❶ | ❷ | | | | | | | |

❶ *Clamping flange of the encoder*
3 = for clamping flange ø 40 mm – Kübler Sendix encoder incremental KIS40, 3610
4 = for clamping flange ø 36 mm – Kübler Sendix encoder absolute F36xx, M36xx

❷ *Mounting bracket*
1 = without mounting bracket
2 = with mounting bracket

*Scope of delivery*
- Spring arm
- 3 screws for encoder mounting

## Accessories

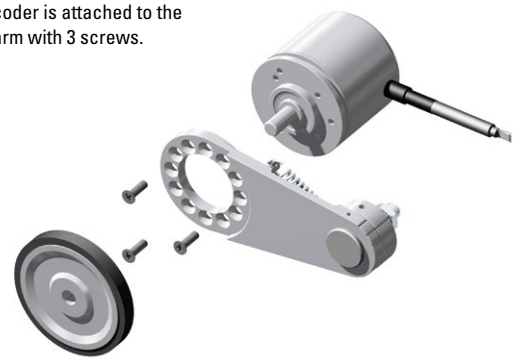
| | | Order no. |
|---|---|---|
| **Mounting bracket**  | Material: Aluminium   | **8.0000.7000.0065** |
| **Flange adapter**  | For the use of encoders of size 50 or 58 mm with the spring arm 8.MWE20.4x1.00.0000.0000 | **8.0000.7000.0079** |

**System components Compact-Line** | **Spring arm MWE20** | **Contact force max. 25 N**

## Technology in detail (operating principle of the MWE20 spring arm in the MWE21 measuring wheel system)

### Mounting options encoder on spring arm

The encoder is attached to the spring arm with 3 screws.



The fastening points are designed in such a way that mounting on both sides of the spring arm is possible.

Mounting left (delivery state)

Mounting right

For a flexible outlet direction of the cable or connector, the encoder can additionally be mounted in 30° steps.

**0°** (delivery state)

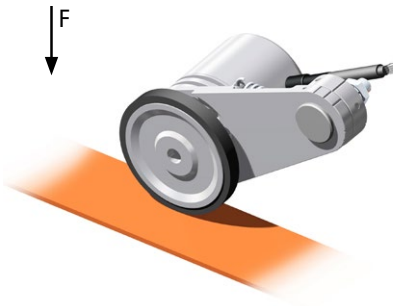
**30°**

**60°**

**90°**

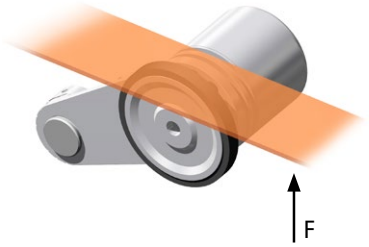
### Various mounting options

horizontal from above




vertically

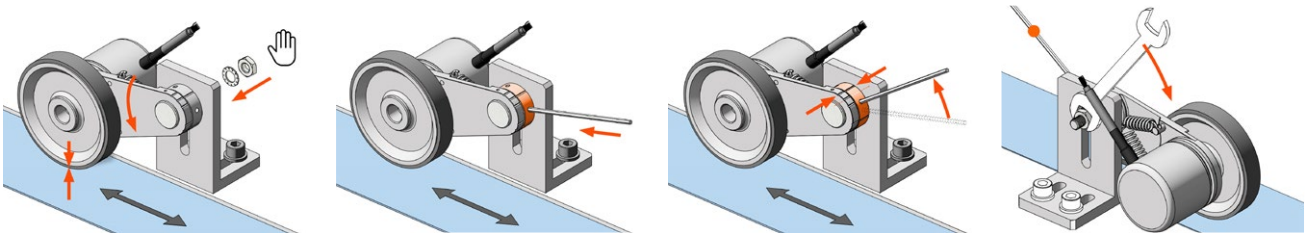

horizontally from below (overhead)



**System components Compact-Line** | **Spring arm MWE20** | **Contact force max. 25 N**

## Setting the preload

1. Mount the measuring wheel system on the application by hand. Position the spring arm so that the measuring wheel rests lightly on the material to be measured.
2. Turn the adjustment ring with a thin Allen key or screwdriver to the desired preload.
3. The preload of 15 N recommended by Kübler is achieved when the markings on the adjusting ring and spring arm match.
4. After adjusting the preload, hold the Allen key in position and tighten the hexagon nut.

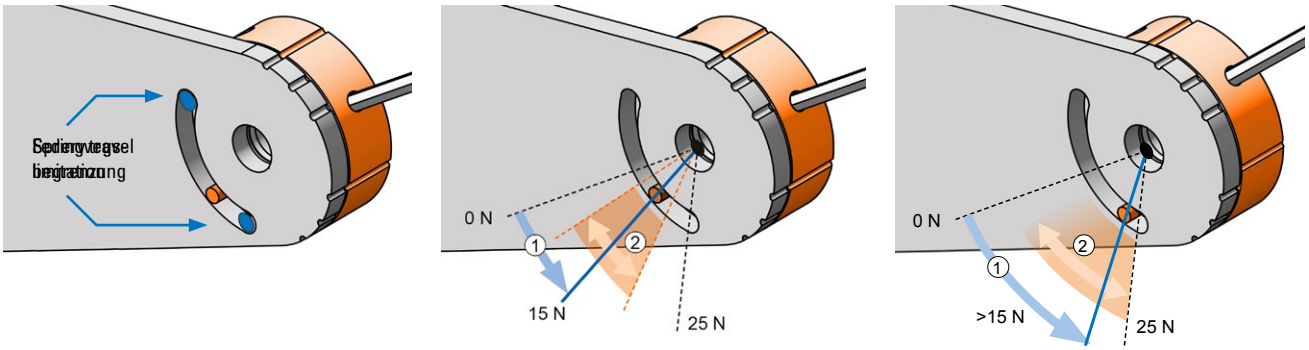


## Spring travel limitation / preload deviating from the recommendation

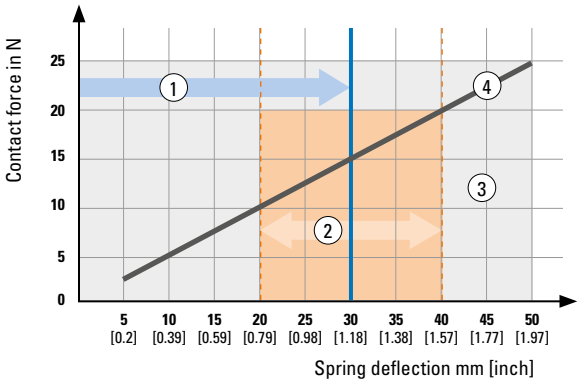
The spring arm has a spring travel limiter that prevents the spring from being overstressed.

Based on the recommended preload ① of 15 N, we recommend a working range ② of ±10 mm (corresponds to ±5 N). All technical specifications are based on these settings

If the preload is set lower or higher than the recommended 15 N ①, please note that the working range ② in one direction may be severely restricted.




## Contact force of the measuring wheel on the material to be measured




① Preload, empfohlen: 15 N (approx. 30 mm defection)

② Operating travel, recommended: ± 10 mm (from the preload set)

③ Spring deflection, max.: 50 mm
Contact force, max.: 25 N

④ Contact pressure in relation to spring travel (Functional principle based on 2 integrated springs)

**System components Compact-Line** | **Spring arm MWE20** | **Contact force max. 25 N**

## Technical data

### Mechanical characteristics

| | | |
|---|---|---|
| **Materials** | spring<br>spring arm | spring steel<br>aluminum |
| **Weight** | | 53 g |
| **Contact force, max.** | | 25 N |
| **Spring deflection, max.** | | 50 mm |
| **Preload, recommended** | | 15 N (approx. 30 mm spring deflection) |
| **Operating travel, recommended** (continuous) | | ±4 mm [1]<br>(von der empfohlenen Vorspannung) |
| **Spring operating life** | | 2.0 Mio. cycles [2] |

### Approvals

| | |
|---|---|
| **UL compliant** acc. to | File no. E224618 |
| **CE compliant** acc. to | RoHS guideline 2011/65/EU |

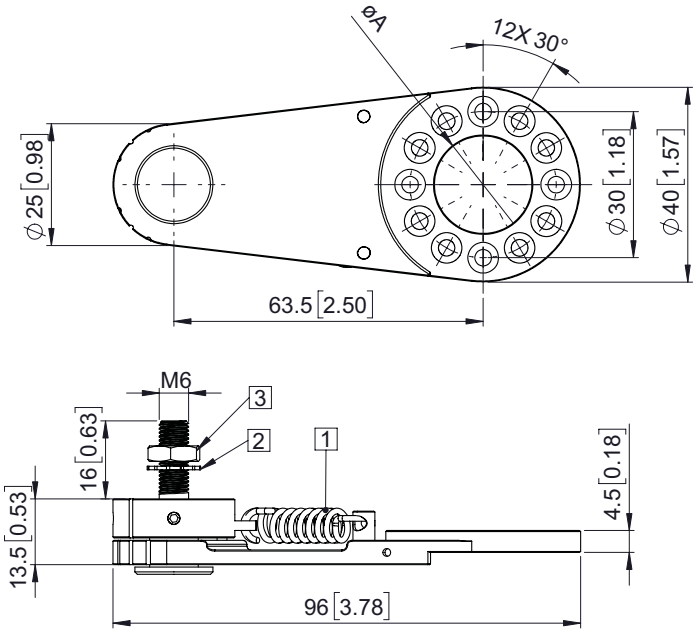
## Dimensions

Dimensions in mm [inch]

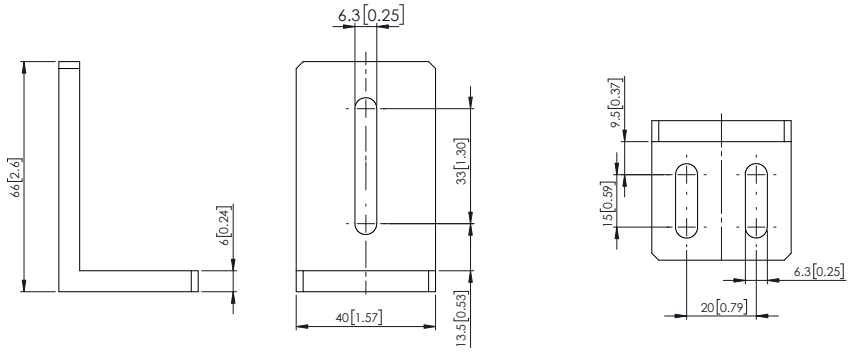
### Spring arm

1 External clamping ring type E
2 Hexagon nut M6
3 Toothed washer

| Order code ❶ | for encoder | A mm [inch] |
|---|---|---|
| 1 | incremental KIS40, 3610 | 20 [0.79] |
| 2 | absolute F36xx, M36xx | 24 [0.94] |




### Mountig bracket




1) Operating deflection is measured after preload applied and with/for continuous operations.
2) Life of spring is measured with operating deflection at 1 Hz.