

# KUS-C Ring Force Transducer

## Applications

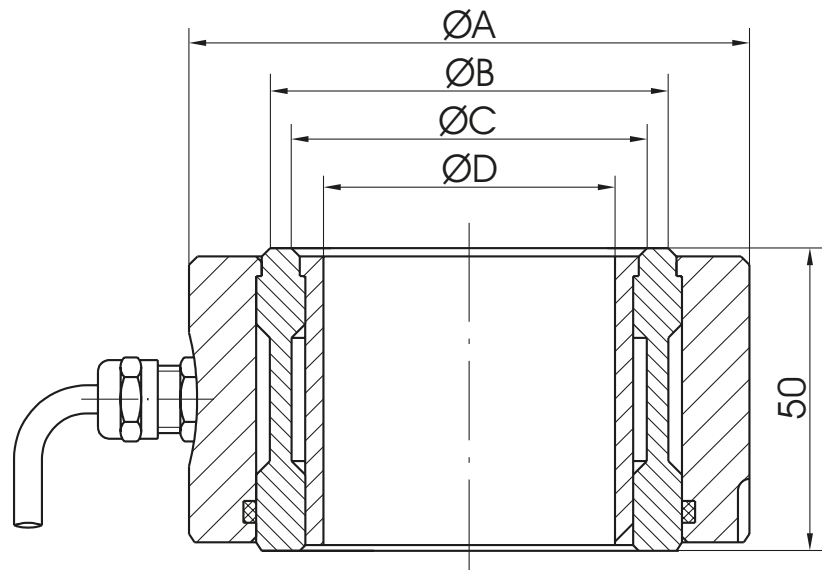
- Force monitoring and control at rope ends
- Sensing shim
- Container cranes
- Lifts

## Features

- Wide range of loads
- Monitoring forces
- Stainless steel
- Customizable dimensions



## Dimensions

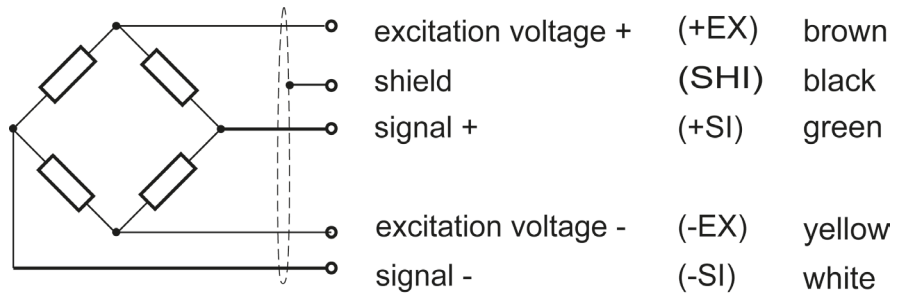


With guide bush

| Dimension | Rated Force (kN)    | A (mm) | B (mm) | C (mm) | D (mm)                  |
|-----------|---------------------|--------|--------|--------|-------------------------|
| 0         | 20                  | 44     | 29     | 19.5   | 12 / 16                 |
| 1         | 20 / 40 / 60        | 55     | 39     | 29.5   | 16.5 / 20.5             |
| 2         | 20 / 40 / 60 / 100  | 64     | 49     | 39.5   | 0.5 / 24.5 / 30.5       |
| 3         | 40 / 60 / 100 / 160 | 75     | 60     | 50     | 30.5 / 35.5 / 39 / 40.5 |
| 4         | 40 / 60 / 100 / 160 | 86     | 69     | 61     | 45.5                    |
| 5         | 60 / 100 / 160      | 95     | 79     | 71     | 52.5 / 55.5 / 56.5      |
| 6         | 60 / 100 / 160      | 104    | 89     | 81     | 60.5                    |

## Wiring code

cable length 3.0 m



## Specifications

| Accuracy Class   | % F <sub>nom</sub> | 1                     |
|--|--------------------|-----------------------|
| Rated (nominal) force (F <sub>nom</sub> )                | kN                 | 20 ... 160            |
| Maximum operating force (F <sub>G</sub> )                | % F <sub>nom</sub> | 150                   |
| Breaking force (F <sub>B</sub> )                         | % F <sub>nom</sub> | > 300                 |
| Lateral force limit (F <sub>Q</sub> )                    | % F <sub>nom</sub> | 10                    |
| Rated characteristic value (C <sub>nom</sub> )           | mV/V               | 2.000 ± 0.015         |
| Zero signal tolerance                                    | %                  | ≤ 3                   |
| Reference excitation voltage                             | VDC                | 5                     |
| Operating range of excitation voltage (B <sub>UG</sub> ) | VDC                | 0.5 ... 12            |
| Input resistance (R <sub>e</sub> )                       | Ω                  | 380 ± 30              |
| Output resistance (R <sub>a</sub> )                      | Ω                  | 352 ± 1.5             |
| Insulation resistance (R <sub>is</sub> )                 | Ω                  | > 5 x 10 <sup>9</sup> |
| Relative linearity error (d <sub>lin</sub> )             | %                  | ≤ 1.0                 |
| Relative reversibility error (v)                         | %                  | ≤ 1.0                 |
| Temperature effect on zero signal (TK <sub>0</sub> )     | % / 10K            | ≤ 0.5                 |
| Temp. effect on characteristic value (TK <sub>c</sub> )  | % / 10K            | ≤ 0.5                 |
| Relative Creep over 30 minutes (d <sub>cr, F+E</sub> )   | %                  | ≤ 1.0                 |
| Reference temperature (T <sub>ref</sub> )                | °C                 | +23                   |
| Rated temperature range (B <sub>T, nom</sub> )           | °C                 | -20 ... +60           |
| Operating temperature range (B <sub>T, G</sub> )         | °C                 | -30 ... +70           |
| Storage temperature range (B <sub>T, s</sub> )           | °C                 | -40 ... +70           |
| Environmental protection (EN 60529)                      |                    | IP 65                 |

Alle Daten nach VDI/VDE/DKD 2638

## Type Code / Order example

| Type Code             | Description                       |
|-----------------------|-----------------------------------|
| KUS-C/Gr.2/40kN/D30,5 | Forcetransducer 25kN and D=30,5mm |
|                       | — Diameter in mm                  |
|                       | — Rated (nominal) load            |
|                       | — Size                            |
|                       | — Sensor Type                     |