

DATA SHEET

C2 Force transducer

SPECIAL FEATURES

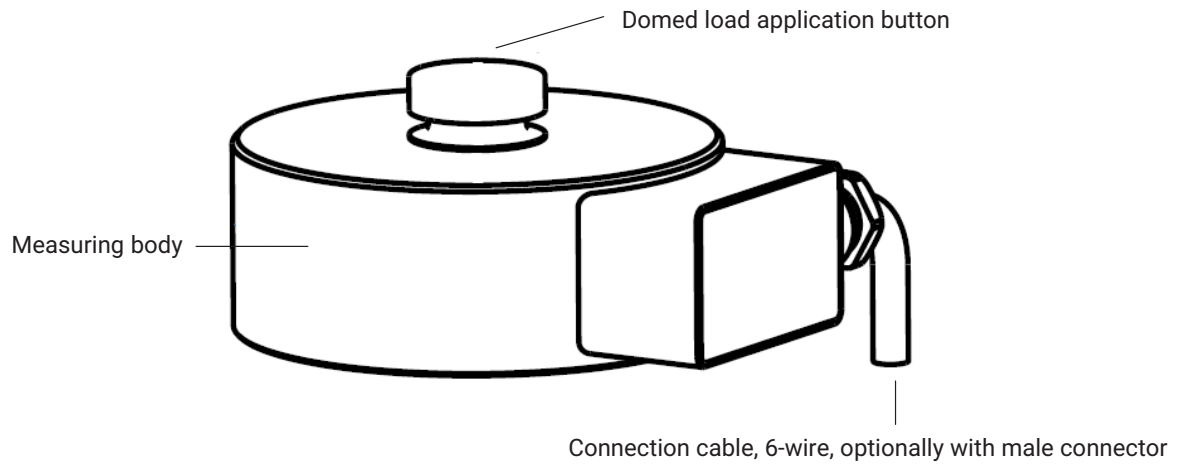
- Compressive force transducer
- Lateral force compensation
- Nominal (rated) forces 500 N... 200 kN
- Accuracy class 0.1
- Made of stainless materials, equipment protection level IP67
- Can be configured with different cable lengths, connector attachment, integrated amplifier (0 ... 10 V, 4 ... 20 mA, and IO-Link) and TEDS on request
- Low height of construction



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SCHEMATIC DIAGRAM

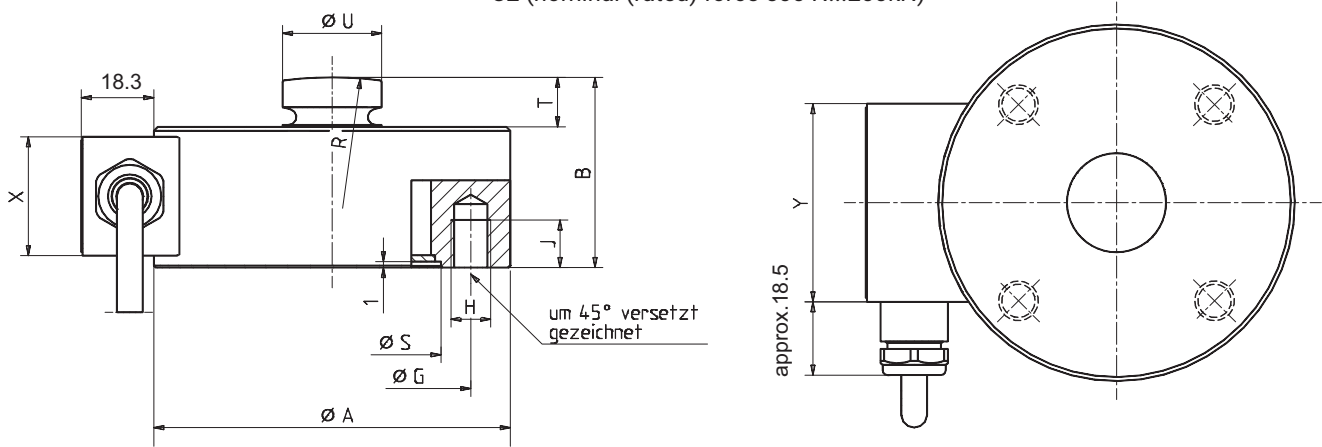


DIMENSIONS

C2 force transducer

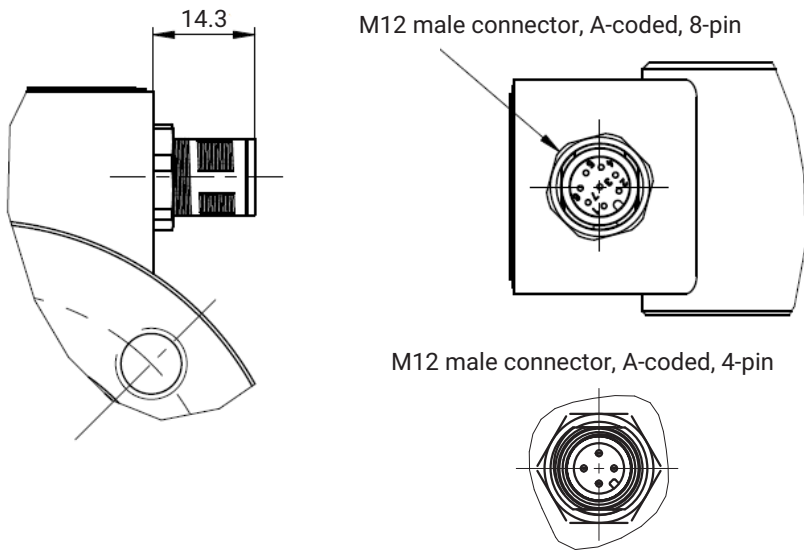
Dimensions in mm

C2 (nominal (rated) force 500 N...200kN)

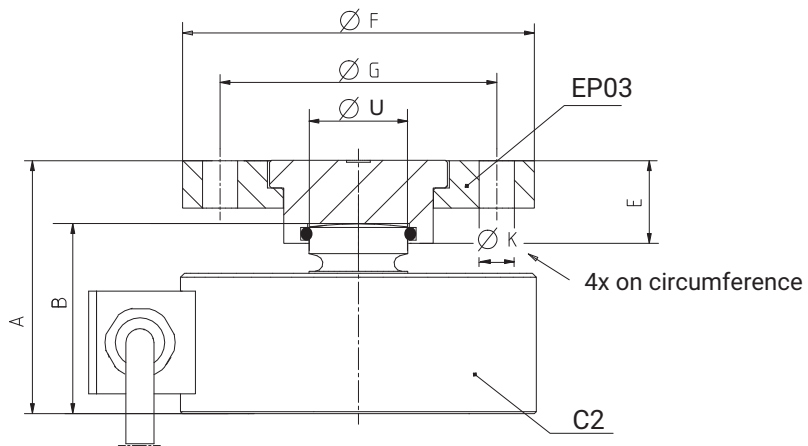


| Nominal (rated) force | ØA _{0.2} | B | ØG | H | J | R | ØS ^{H8} | T | ØU | X | Y |
|-----------------------|-------------------|----|----|-------|----|-----|------------------|------|----|----|----|
| 500 N...10 kN | 50 | 30 | 42 | 4xM5 | 7 | 60 | 34 | 7 | 13 | 20 | 35 |
| 20 kN, 50 kN | 90 | 48 | 70 | 4xM10 | 12 | 100 | 55 | 12.5 | 25 | 30 | 50 |
| 100 kN, 200 kN | 115 | 60 | 90 | 4xM12 | 16 | 160 | 68 | 12.5 | 32 | 30 | 50 |

Optionally passive or active with M12 A-coded connector



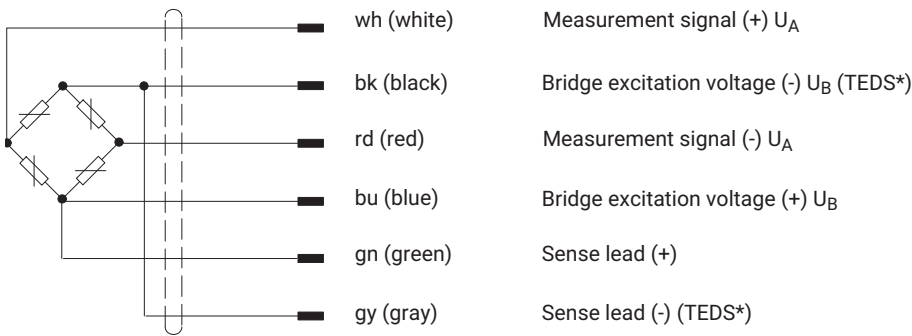
C2 force transducer with EP03/EP03R thrust piece



| Nominal (rated) force | Thrust piece ¹⁾ | A | B | E | ØF | ØG | ØU | ØK |
|-----------------------|----------------------------|----|----|------|-----|----|----|----|
| 500 N...10 kN | 1-EP03/200KG | 46 | 30 | 21 | 89 | 70 | 13 | 9 |
| 20 kN, 50 kN | 1-EP03R/5T | 64 | 48 | 21 | 89 | 70 | 25 | 9 |
| 100 kN, 200 kN | 1-EP03R/20T | 80 | 60 | 27.5 | 110 | 90 | 32 | 13 |

ELECTRICAL CONNECTION

Electrical connection with a fixed cable (without amplifier)



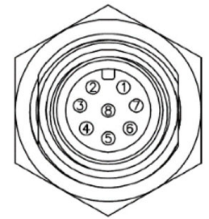
Cable shield, connected to housing

* only when option T is selected (transducer identification)

Electrical connection with an M12 8-pin connector (with/without amplifier)

| Pin | Wire color | Version VA 1 (voltage output) | Version VA 2 (current output) | Connection cable wire assignments without integrated amplifier |
|-----|------------|-------------------------------|-------------------------------|--|
| 1 | White | Supply voltage 0 V (GND) | | Measurement signal (+) |
| 2 | Brown | Not in use | | Bridge excitation voltage (-) (TEDS ¹⁾) |
| 3 | Green | Zeroing control input | | Bridge excitation voltage (+) |
| 4 | Yellow | Not in use | | Measurement signal (-) |
| 5 | Gray | Output signal 0 ... 10 V | Output signal 4 ... 20 mA | Not in use |
| 6 | Pink | Output signal 0 V | Not in use | Sense lead (+) |
| 7 | Blue | Not in use | | Sense lead (-) (TEDS ¹⁾) |
| 8 | Red | Voltage supply +19 ... +30 V | | Not in use |

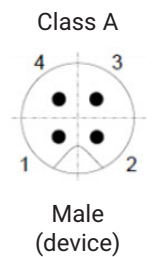
Cable shield, connected to housing



¹⁾ TEDS only if ordered

Electrical connection with integrated VAIO amplifier (IO-Link)

| Pin | C2 assignment |
|-----|--|
| 1 | Supply voltage + |
| 2 | Digital output (DI/DO pin function) |
| 3 | Supply voltage -, reference potential |
| 4 | IO-Link data (C/Q), switchover to the digital output (SIO mode) possible |



SPECIFICATIONS FOR C2 AS PER DIN/VDE 2638

Specifications without integrated amplifier

| Type | | | C2 without integrated amplifier | | | | | | | | | |
|--|---------------------|-----------------------|---------------------------------|-------|-------|-------|------|-------|-------|------|------|--|
| Nominal (rated) force | F _{nom} | N | 500 | | | | | | | | | |
| | | kN | | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 200 | |
| Accuracy | | | | | | | | | | | | |
| Accuracy class | | | 0.2 | 0.1 | | | | | | | | |
| Relative reproducibility and repeatability errors in unchanged mounting position | b _{rg} | % | 0.1 | | | | | | | | | |
| Relative reversibility error (hysteresis) at 0.5 * F _{nom} | V _{0,5} | | 0.2 | 0.15 | | | | | | | | |
| Non-linearity | d _{lin} | | 0.2 | 0.1 | | | | | | | | |
| Relative zero point return | v _{w0} | % | 0.05 | | | | | | | | | |
| Relative creep (30 min) | d _{cr,F+E} | % | 0.06 | | | | | | | | | |
| Effect of eccentricity at 10% F _{nom} * 10 mm ¹⁾ | d _E | %/mm | 0.3 | 0.2 | | 0.1 | | | | | | |
| Temperature coefficient of sensitivity | TC _S | %/10K | 0.1 | | | | | | | | | |
| Temperature coefficient of zero signal | TC ₀ | | 0.1 | 0.05 | | | | | | | | |
| Rated electrical output | | | | | | | | | | | | |
| Rated output (nominal) | C _{nom} | mV/V | 2 | | | | | | | | | |
| Relative zero signal deviation | d _{s,0} | % | 1 | | | | | | | | | |
| Sensitivity error | d _c | | 0.2 | | | | | | | | | |
| Input resistance | R _e | Ω | > 340 | | | | | | | | | |
| Output resistance | R _a | | 200 ... 400 | | | | | | | | | |
| Insulation resistance | R _{iso} | GΩ | > 2 | | | | | | | | | |
| Operating range of the excitation voltage | B _{U,G} | V | 0.5 ... 12 | | | | | | | | | |
| Reference excitation voltage | U _{ref} | | 5 | | | | | | | | | |
| Connection | | | 6-wire circuit | | | | | | | | | |
| Temperature | | | | | | | | | | | | |
| Reference temperature | T _{ref} | °C [°F] | +23 [73.4] | | | | | | | | | |
| Nominal (rated) temperature range | B _{T,nom} | | -10 ... +70 [14 ... +158] | | | | | | | | | |
| Operating temperature range | B _{T,G} | | -30 ... +85 [-22 ... +185] | | | | | | | | | |
| Storage temperature range | B _{T,S} | | -50 ... +85 [-58 ... +185] | | | | | | | | | |
| Mechanical quantities | | | | | | | | | | | | |
| Maximum operating force | F _G | % of F _{nom} | 130 | | | 150 | | | | | | |
| Force limit | F _L | | 130 | | | 150 | | | | | | |
| Breaking force | F _B | | 300 | | | | | | | | | |
| Static lateral force limit ²⁾ | F _Q | | 100 | | 70 | 40 | 55 | 12 | 15 | 9 | | |
| Permissible eccentricity | e _G | mm | 5.4 | 5.3 | 5.2 | 4.8 | 4.2 | 8.0 | 2.0 | 1.5 | 1.5 | |
| Nominal (rated) displacement | s _{nom} | | 0.049 | 0.053 | 0.047 | 0.048 | 0.04 | 0.069 | 0.074 | 0.08 | 0.10 | |
| Natural frequency | f _G | kHz | 4.4 | 8.7 | 9.7 | 18.5 | 19.3 | 13 | 14 | 13 | 14 | |
| Permissible oscillation stress | f _{rb} | % of F _{nom} | 100 | | | | | | | | | |

| Type | | | C2 without integrated amplifier | | | | | | | | |
|---|------------------|----------------------|---|------|------|------|------|------|-----|------|-------|
| Nominal (rated) force | F _{nom} | N | 500 | | | | | | | | |
| | | kN | | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 200 |
| Stiffness | C _{ax} | 10 ⁵ N/mm | 0.086 | 0.18 | 0.42 | 1.06 | 2.13 | 3.08 | 6.1 | 11.1 | 16.67 |
| General information | | | | | | | | | | | |
| Degree of protection in accordance with EN 60529 | | | IP67 ³⁾ | | | | | | | | |
| Spring element material | | | Non-rusting stainless steel | | | | | | | | |
| Measuring point protection | | | Hermetically-welded measuring body | | | | | | | | |
| Cable (only with "fixed cable" option) | | | 6-wire, polyethylene insulated | | | | | | | | |
| Cable length (standard version) | | m | 3 | | | 6 | | | 12 | | |
| Cable length (to customer requirements) | | | See page 6 "C2 versions and ordering numbers" | | | | | | | | |
| Weight | m | kg | 0.4 | | | 1.8 | | | 3 | | |
| | m | lbs | 0.9 | | | 4 | | | 6.6 | | |
| Mechanical shock resistance as per IEC 60068-2-6 | | | | | | | | | | | |
| Number | | n | 1000 | | | | | | | | |
| Duration | | min | 3 | | | | | | | | |
| Acceleration | | m/s ² | 1000 | | | | | | | | |
| Vibrational stress as per IEC 60068-2-27 | | | | | | | | | | | |
| Frequency range | | Hz | 5 ... 65 | | | | | | | | |
| Duration | | min | 30 | | | | | | | | |
| Acceleration | | m/s ² | 150 | | | | | | | | |

1) Application point for lateral force effect

2) Permissible FQ application point

3) Test condition: 1 m water column, 0.5 h; connected with cable if version with M12 male connector selected

Specifications with integrated amplifier VA1 (0...10 V) and VA2 (4...20 mA)

| Type | | | C2 with integrated VA1 and VA2 amplifier | | | | | | | | |
|--|------------------|---------------------|--|------|-----|---|----|----|----|-----|-----|
| Nominal (rated) force | F _{nom} | N | 500 | | | | | | | | |
| | | kN | | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 200 |
| Accuracy | | | | | | | | | | | |
| Accuracy class | | | 0.2 | 0.1 | | | | | | | |
| Relative reproducibility and repeatability errors in unchanged mounting position | | b _{rg} | 0.1 | | | | | | | | |
| Relative reversibility error (hysteresis) at 0.5 * F _{nom} | | V _{0,5} | 0.2 | 0.15 | | | | | | | |
| Non-linearity | | d _{lin} | 0.2 | 0.1 | | | | | | | |
| Relative zero point return | | v _{w0} | 0.05 | | | | | | | | |
| Relative creep (30 min) | | d _{cr,F+E} | 0.06 | | | | | | | | |
| Effect of eccentricity at 10% F _{nom} * 10 mm ⁴) | | d _E | 0.3 | 0.2 | 0.1 | | | | | | |
| Temperature coefficient of sensitivity | | TC _S | 0.1 | | | | | | | | |
| Temperature coefficient of zero signal | | TC ₀ | 0.1 | 0.05 | | | | | | | |
| Rated electrical output VA1 (voltage output) | | | | | | | | | | | |
| Output signal | | V | 0 ... 10 | | | | | | | | |
| Rated output (nominal) | | | 10 | | | | | | | | |
| Sensitivity tolerance | | | ±0.1 | | | | | | | | |
| Zero signal | | | 0 | | | | | | | | |
| Output signal range | | | -3 ... 11 | | | | | | | | |
| Cut-off frequency (-3 db) | | f _G | kHz | | | | | | | | |
| Nominal (rated) supply voltage | | U _{ref} | V | | | | | | | | |
| Operating range of the supply voltage | | B _{u,gt} | V | | | | | | | | |
| Max. current consumption | | mA | | 15 | | | | | | | |
| Electrical connection | | | M12 male connector, 8-pin, A-coded | | | | | | | | |
| Electrical characteristic values VA2 (voltage output) | | | | | | | | | | | |
| Output signal | | mA | 4 ... 20 | | | | | | | | |
| Rated output (nominal) | | | 16 | | | | | | | | |
| Sensitivity tolerance | | | ±0.16 | | | | | | | | |
| Zero signal | | | 4 | | | | | | | | |
| Output signal range | | | 3 ... 21 | | | | | | | | |
| Cut-off frequency (-3 db) | | f _G | kHz | | | | | | | | |
| Nominal (rated) supply voltage | | U _{ref} | V | | | | | | | | |
| Operating range of the supply voltage | | B _{u,gt} | V | | | | | | | | |
| Max. current consumption | | mA | | 30 | | | | | | | |
| Electrical connection | | | M12 male connector, 8-pin, A-coded | | | | | | | | |
| Temperature | | | | | | | | | | | |
| Reference temperature | | T _{ref} | +23 [73.4] | | | | | | | | |
| Nominal (rated) temperature range | | B _{T, nom} | -10 ... +50 [14 ... +122] | | | | | | | | |
| Operating temperature range | | B _{T, G} | -20 ... +60 [-4 ... +140] | | | | | | | | |
| Storage temperature range | | B _{T, S} | -25 ... +85 [-77 ... +185] | | | | | | | | |

| Type | | | C2 with integrated VA1 and VA2 amplifier | | | | | | | | |
|---|------------------|--------------------------|--|-------|-------|-------|------|-------|-------|------|-------|
| Nominal (rated) force | F _{nom} | N | 500 | | | | | | | | |
| | | kN | | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 200 |
| Mechanical quantities | | | | | | | | | | | |
| Maximum operating force | F _G | % of F _{nom} | 130 | 150 | | | | | | | |
| Force limit | F _L | | 130 | 150 | | | | | | | |
| Breaking force | F _B | | 300 | | | | | | | | |
| Static lateral force limit ⁵⁾ | F _Q | | 100 | | 70 | 40 | 55 | 12 | 15 | 9 | |
| Permissible eccentricity | e _G | mm | 5.4 | 5.3 | 5.2 | 4.8 | 4.2 | 8 | 2 | 1.5 | 1.5 |
| Nominal (rated) displacement | s _{nom} | | 0.049 | 0.053 | 0.047 | 0.048 | 0.04 | 0.069 | 0.074 | 0.08 | 0.1 |
| Natural frequency | f _G | kHz | 4.4 | 8.7 | 9.7 | 18.5 | 19.3 | 13 | 14 | 13 | 14 |
| Permissible oscillation stress | f _{rb} | % of F _{nom} | 100 | | | | | | | | |
| Stiffness | c _{ax} | 10 ⁵ N/mm | 0.086 | 0.18 | 0.42 | 1.06 | 2.13 | 3.08 | 6.1 | 11.1 | 16.67 |
| General information | | | | | | | | | | | |
| Degree of protection in accordance with EN 60529 | | | IP67 ⁶⁾ | | | | | | | | |
| Spring element material | | | Stainless steel | | | | | | | | |
| Material of permanently installed amplifier housing | | | Stainless steel | | | | | | | | |
| Measuring point protection | | | Hermetically-welded measuring body | | | | | | | | |
| Weight | m | kg | 0.4 | | | | 1.8 | | 3 | | |
| | m | lbs | 0.9 | | | | 4 | | 6.6 | | |
| Mechanical shock resistance as per IEC 60068-2-6 | | | | | | | | | | | |
| Number | | n | 1000 | | | | | | | | |
| Duration | | min | 3 | | | | | | | | |
| Acceleration | | m/s ² | 1000 | | | | | | | | |
| Vibrational stress as per IEC 60068-2-27 | | | | | | | | | | | |
| Frequency range | | Hz | 5 ... 65 | | | | | | | | |
| Duration | | min | 30 | | | | | | | | |
| Acceleration | | m/s ² | 150 | | | | | | | | |

4) Application point for lateral force effect

5) Permissible FQ application point

6) Test condition: 1 m water column, 0.5 h; connected with cable if version with M12 male connector selected

Specifications with integrated VAIO amplifier

| Type | | | C2 with integrated VAIO amplifier | | | | | | | | | |
|--|--------------|----------------------|---|--|-----------|-----|----|----|----|-----|-----|--|
| Nominal (rated) force | F_{nom} | N | 500 | | | | | | | | | |
| | | kN | | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 200 | |
| Accuracy | | | | | | | | | | | | |
| Accuracy class | | | 0.2 | 0.1 | | | | | | | | |
| Relative reproducibility and repeatability errors in unchanged mounting position | b_{rg} | % | 0.1 | | | | | | | | | |
| Relative reversibility error (hysteresis) at $0.5 * F_{nom}$ | $V_{0.5}$ | | 0.2 | 0.15 | | | | | | | | |
| Non-linearity | d_{lin} | | 0.03 | | | | | | | | | |
| Relative zero point return | v_{w0} | | 0.05 | | | | | | | | | |
| Relative creep (30 min) | $d_{cr,F+E}$ | | 0.06 | | | | | | | | | |
| Effect of eccentricity at $10% F_{nom} * 10 \text{ mm}^7$ | d_E | | %/mm | 0.3 | 0.2 | 0.1 | | | | | | |
| Temperature coefficient of sensitivity | TC_S | %/10K | 0.1 | | | | | | | | | |
| Temperature coefficient of zero signal | TC_0 | | 0.03 | | | | | | | | | |
| VAIO electrical characteristics | | | | | | | | | | | | |
| Output signal | | | COM3, to IO-Link standard, class A | | | | | | | | | |
| Min. cycle time | | ms | 0.9 | | | | | | | | | |
| Sample rate (internal) | | S/s | 40000 | | | | | | | | | |
| Cut-off frequency (-3 dB) | | f_G | kHz | | 4 | | | | | | | |
| Nominal (rated) supply voltage | | U_{ref} | V | | 24 | | | | | | | |
| Operating range of the supply voltage | | $B_{u,gt}$ | V | | 19 ... 30 | | | | | | | |
| Max. power consumption | | mW | | 3200 | | | | | | | | |
| Noise | | ppm of nominal force | | With Bessel filter 1Hz: 25 With Bessel filter 10 Hz: 63 With Bessel filter 100 Hz: 195 With Bessel filter 200 Hz: 275 Without filter: 3020 | | | | | | | | |
| Low-pass filter | | | Freely adjustable cut-off frequency, Bessel or Butterworth characteristic, 6th order | | | | | | | | | |
| Device functions | | | | | | | | | | | | |
| Limit value switches | | | 2 limit value switches. Invertible, freely adjustable hysteresis. Output via process data or digital output | | | | | | | | | |
| Digital IO | | | According to IO-Link Smart Sensor Profile, 1 permanently available digital output; 1 output can be set to data output. Measurement is then not possible | | | | | | | | | |
| Slave pointer function | | | Yes | | | | | | | | | |
| Peak value memory | | | Yes | | | | | | | | | |
| Peak-to-peak memory | | | Yes | | | | | | | | | |
| Warning functions | | | Warning on exceeding nominal (rated) force/maximum operating force; Nominal (rated) temperature/maximum operating force | | | | | | | | | |

| Type | | | C2 with integrated VAIO amplifier | | | | | | | | |
|---|-------------|------------------|------------------------------------|-------|-------|-------|------|-------|-------|------|-------|
| Nominal (rated) force | F_{nom} | N | 500 | | | | | | | | |
| | | kN | | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 200 |
| Temperature | | | | | | | | | | | |
| Reference temperature | T_{ref} | °C [°F] | +23 [73.4] | | | | | | | | |
| Nominal (rated) temperature range | $B_{T,nom}$ | | -10 ... +50 [14 ... +122] | | | | | | | | |
| Operating temperature range | $B_{T,G}$ | | -10 ... +60 [14 ... +140] | | | | | | | | |
| Storage temperature range | $B_{T,S}$ | | -25 ... +85 [-77 ... +185] | | | | | | | | |
| Mechanical quantities | | | | | | | | | | | |
| Maximum operating force | F_G | % of F_{nom} | 130 | 150 | | | | | | | |
| Force limit | F_L | | 130 | 150 | | | | | | | |
| Breaking force | F_B | | 300 | | | | | | | | |
| Static lateral force limit ⁸⁾ | F_Q | | 100 | | | 70 | 40 | 55 | 12 | 15 | 9 |
| Permissible eccentricity | e_G | mm | 5.4 | 5.3 | 5.2 | 4.8 | 4.2 | 8 | 2 | 1.5 | 1.5 |
| Nominal (rated) displacement | s_{nom} | | 0.049 | 0.053 | 0.047 | 0.048 | 0.04 | 0.069 | 0.074 | 0.08 | 0.1 |
| Natural frequency | f_G | kHz | 4.4 | 8.7 | 9.7 | 18.5 | 19.3 | 13 | 14 | 13 | 14 |
| Permissible oscillation stress | F_{rb} | % of F_{nom} | 100 | | | | | | | | |
| Stiffness | c_{ax} | 10^5 N/mm | 0.086 | 0.18 | 0.42 | 1.06 | 2.13 | 3.08 | 6.1 | 11.1 | 16.67 |
| General information | | | | | | | | | | | |
| Degree of protection in accordance with EN 60529 | | | IP67 ⁹⁾ | | | | | | | | |
| Spring element material | | | Stainless steel | | | | | | | | |
| Material of permanently installed amplifier housing | | | Stainless steel | | | | | | | | |
| Measuring point protection | | | Hermetically-welded measuring body | | | | | | | | |
| Weight | m | kg | 0.4 | | | | 1.8 | | 3 | | |
| | m | lbs | 0.9 | | | | 4 | | 6.6 | | |
| Mechanical shock resistance as per IEC 60068-2-6 | | | | | | | | | | | |
| Number | | n | 1000 | | | | | | | | |
| Duration | | min | 3 | | | | | | | | |
| Acceleration | | m/s ² | 1000 | | | | | | | | |
| Vibrational stress as per IEC 60068-2-27 | | | | | | | | | | | |
| Frequency range | | Hz | 5 ... 65 | | | | | | | | |
| Duration | | min | 30 | | | | | | | | |
| Acceleration | | m/s ² | 150 | | | | | | | | |

⁷⁾ Application point for lateral force effect

⁸⁾ Permissible FQ application point

⁹⁾ Test condition: 1 m water column, 0.5 h; connected with cable if version with M12 male connector selected

C2 VERSIONS AND ORDERING NUMBERS

| Measuring range | Ordering number | |
|-----------------|-----------------|---|
| 500 N | 1-C2/500N | <p>The ordering numbers with a gray background are preferred types. These can be delivered at short notice. All preferred types with a cable length of 3/6/12 m (depending on the nominal (rated) force) with free ends, without TEDS, without integrated amplifier and, consequently, without firmware.</p> <p>The ordering number of the preferred type is 1-C2....</p> <p>The ordering number of the customized version is K-C2-...</p> <p>The ordering number example K-C2--020K-00A4-S-X-VAIO-IO04 shown below is a: C2, nominal (rated) force 20 kN, no fixed cable on the sensor, no TEDS and with integrated amplifier (IO-Link output).</p> |
| 1 kN | 1-C2/1KN | |
| 2 kN | 1-C2/2KN | |
| 5 kN | 1-C2/5KN | |
| 10 kN | 1-C2/10KN | |
| 20 kN | 1-C2/20KN | |
| 50 kN | 1-C2/50KN | |
| 100 kN | 1-C2/100KN | |
| 200 kN | 1-C2/200KN | |

| Nominal (rated) force | Electrical connection ¹⁾ | Transducer identification | Connector version for the fixed cable option | Integrated amplifier | Firmware |
|-----------------------|---|-------------------------------------|--|---|---|
| 500 N 500N | M12 4-pin connector, A-coded 00A4 | With TEDS ²⁾ T | Free ends Y | No amplifier N | No firmware N |
| 1 kN 001K | M12 8-pin connector, A-coded 00A8 | Without TEDS S | D-SUB-HD15,15-pin F | Amplifier 0... 10 V VA1 | Version 2.0.10 ³⁾ IO04 |
| 2 kN 002K | Fixed cable (1 m) 01M0 | | D-SUB-HD connector, 15-pin Q | Amplifier 4 ... 20 mA VA2 | |
| 5 kN 005K | Fixed cable (3 m) 03M0 | | MS3106PEMV connector N | Digital amplifier: IO-Link VAIO | |
| 10 kN 010K | Fixed cable (6 m) 06M0 | | CONP1016 connector P | | |
| 20 kN 020K | Fixed cable (12 m) 12M0 | | M12 connector, 8-pin M | | |
| 50 kN 050K | Fixed cable (20 m) 20M0 | | No cable available X | | |
| 100 kN 100K | | | | | |
| 200 kN 200K | | | | | |

| | | | | | | |
|---------------|--------------|--------------|-----------|-----------|--------------|-------------|
| K-C2-- | 020K- | 00A4- | S- | X- | VAIO- | IO04 |
|---------------|--------------|--------------|-----------|-----------|--------------|-------------|

¹⁾ M12 8-pin male connectors or fixed cables can be ordered for passive sensors. M12 4-pin male connectors (IO-Link output) and M12 8-pin male connectors (current and voltage output) are available for active sensors.

²⁾ TEDS only for sensors without amplifier module

³⁾ Only for versions with IO-Link interface

ACCESSORIES

| Accessories (not included in the scope of supply) | Ordering number |
|---|-----------------|
| Ground cable, 400 mm | 1-EEK4 |
| Ground cable, 600 mm | 1-EEK6 |
| Ground cable, 800 mm | 1-EEK8 |
| Thrust piece for nominal (rated) forces 500 N...10 kN | 1-EPO3/200kg |
| Thrust piece for nominal (rated) forces 20 kN...50 kN | 1-EPO3R/5t |
| Thrust piece for nominal (rated) forces 100 kN...200 kN | 1-EPO3R/20t |
| Cable to connect to M12 male connector, 20 m long; not suitable for the IO-Link interface | 1-KAB168-20 |
| Cable to connect to M12 male connector, 5 m long; not suitable for the IO-Link interface | 1-KAB168-5 |

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