

Schleifringdrehmomentsensor, rotierend
Slipring Torque Sensor, rotating

DR-2

- Nenndrehmoment von 1 N·m ... 500 N·m
 - Hohe Messgenauigkeit ab 0,1% v. Endwert
 - Beide Wellenenden mit Passfedern
 - Sehr kurze axiale Baulänge
 - Hohe Drehsteifigkeit
 - Zuverlässig und robust
 - Einfache Handhabung und Montage
 - Sonderausführungen auf Anfrage
- *Nominal torque from 1 N·m ... 500 N·m*
 - *High accuracy 0.1% f. scale*
 - *Both shaft ends with keys*
 - *Very short axial length*
 - *High torsional stiffness*
 - *Reliable and durable*
 - *Simple handling and assembly*
 - *Special versions on request*



Technische Daten - Specifications

| Artikel-Nr. Article-No. | Nennmoment Nominal Torque [N·m] | Grenzdrehzahl Limit Speed [min ⁻¹] | Federkonstante Springrate [N·m/rad] | Massen- trägheits- moment Mass moment of inertia [kg·m ²] | | Grenzlängskraft Limit Thrust Load [N] ¹ | Grenzquerkraft Limit Shear Force [N] ² |
|----------------------------|---------------------------------------|--|---|---|------------------------|--|---|
| | | | | Antriebsseite Drive side | Messseite Test side | | |
| 100414 | 1 | 2000 | 2,1E+02 | 1,3E-06 | 3,1E-07 | 200 | 4 |
| 100413 | 2 | 2000 | 2,1E+02 | 1,3E-06 | 3,1E-07 | 200 | 4 |
| 100412 | 5 | 2000 | 5,5E+02 | 1,4E-06 | 3,3E-07 | 210 | 10 |
| 103852 | 10 | 2000 | 6,4E+02 | 1,4E-06 | 3,3E-07 | 400 | 12 |
| 101065 | 20 | 1500 | 4,1E+03 | 1,2E-05 | 6,7E-06 | 900 | 35 |
| 101006 | 50 | 1500 | 1,1E+04 | 1,2E-05 | 7,0E-06 | 1700 | 90 |
| 101066 | 100 | 1500 | 1,9E+04 | 1,4E-05 | 8,6E-06 | 2600 | 170 |
| 100880 | 200 | 1000 | 5,4E+04 | 9,6E-05 | 6,7E-05 | 4300 | 250 |
| 100407 | 500 | 1000 | 9,0E+04 | 1,0E-04 | 7,3E-05 | 7500 | 600 |

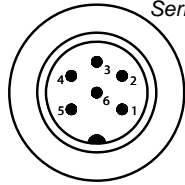
| DR-2 | | |
|---|---------------------|---|
| Genauigkeitsklasse - Accuracy class | % v. E - f. s. | 0,1 |
| Reproduzierbarkeit - Repeatability (DIN 1319) | % | ±0,05 |
| Speisespannung DMS - Excitation voltage SG | VDC | 2 ... 12 |
| Brückenwiderstand - Bridge resistance | Ω | 350 |
| Nennkennwert - Sensitivity | mV/V | 1 [1 N·m; 0,5] ±0,1% |
| Referenztemperatur - Reference temperature | °C | 23 |
| Nenntemperaturbereich - Nominal temperature range | °C | 5 ... 50 |
| Gebrauchstemperaturbereich - Service temperature range | °C | -10 ... 60 |
| Temp. koef. des Nullsignals - Temp. coeff. of zero signal | % v. E./K - f. s./K | ±0,04 |
| Temp. koef. des Kennwerts - Temp. coeff. of sensitivity | % v. E./K - f. s./K | ±0,02 |
| Gebrauchsdrehmoment (statisch) - Service torque (static) | % v. E - f. s. | 150 |
| Grenzdrehmoment (statisch) - Limit torque (static) | % v. E - f. s. | 200 |
| Bruchdrehmoment (statisch) - Ultimate torque (static) | % v. E - f. s. | >300 |
| Standzeit der Bürsten ca. - Durability of brushes | Umdr. - rev. | 5x10 ⁷ |
| Schwingbreite - Bandwidth (DIN 50100) | % v. E - f. s. | 70 (Spitze - Spitze) - (peak - peak) |
| Schutzart - Level of protection (DIN EN 60529) | | IP50 |
| Elektrischer Anschluss - Electrical connection | | 6-polig Serie 723 - 6-pin series 723 ³ |

¹ Ungelagerte Welle - Unsupported shaft

² Ungelagerte Welle - Unsupported shaft

³ Kabeldose bei Erstauslieferung im Lieferumfang enthalten - Female cable connector in scope of delivery at first delivery

Anschlussbelegung - Pin connection

| | | | |
|------------------------|---|--|---|
| 6-polig - 6-pin | DR-2 | |  <p style="text-align: right;">Serie - Series 723</p> <p style="text-align: center;">Draufsicht - Top view</p> |
| Pin 1 | Speisung (-) - Excitation (-) | | |
| Pin 2 | Speisung (+) - Excitation (+) | | |
| Pin 3 | Schirm - Shield | | |
| Pin 4 | Signal (+) - Signal (+) | | |
| Pin 5 | Signal (-) - Signal (-) | | |
| Pin 6 | Kontrollsignal (Option) - Control signal (option) | | |

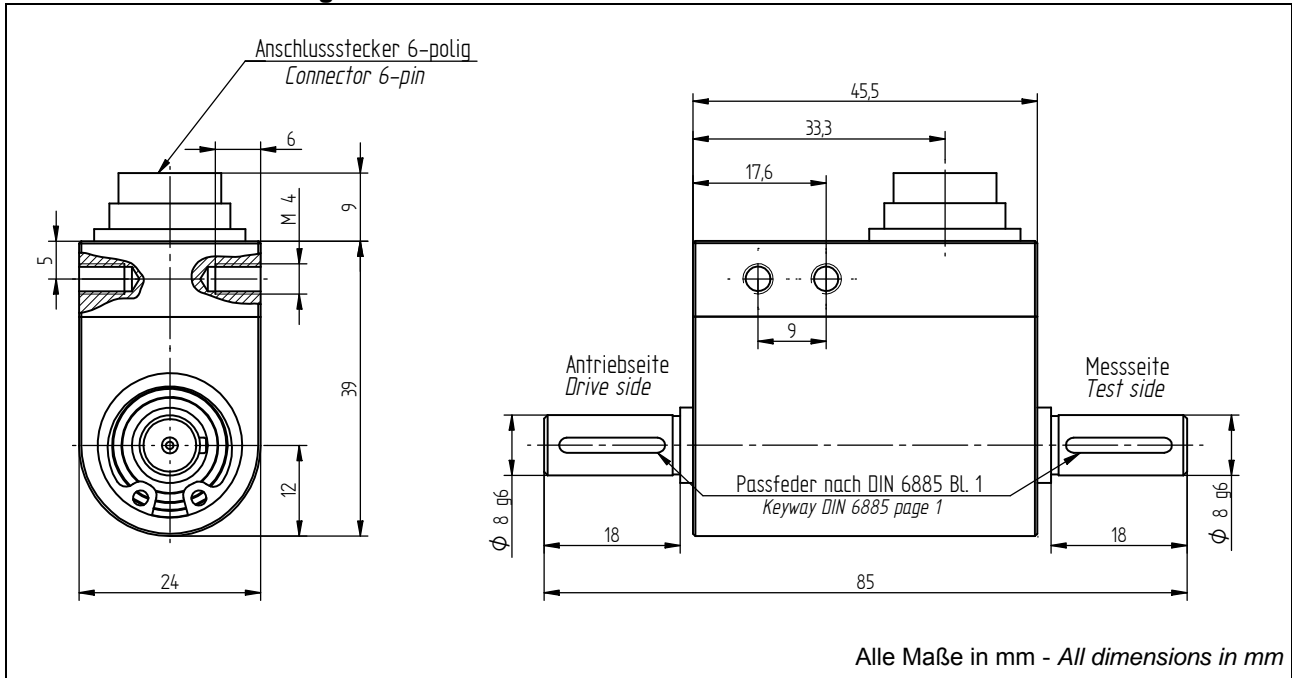
Optionen/ Zubehör - Options/ Accessories

| Artikel-Nr. - Article-no. | Bezeichnung - Description | | |
|---------------------------|--|----------------|-----|
| 100218 | Kontrollsignal - Control signal | % v. E - f. s. | 100 |
| 10301 | Kabeldose 6-polig Serie 723 - Female cable connector 6-pin series 723 | | |
| 10315 | Winkeldose 6-polig Serie 723 - Female angled connector 6-pin series 723 | | |
| 10266 | Anschlusskabel, 3 m, 6-polig Serie 723, freien Lötenden - Connection cable, 3 m, 6-pin series 723 free soldered ends | | |
| 10387 | Anschlusskabel winklig, 3 m, 6-polig Serie 723, freien Lötenden - Connection cable angled, 3 m, 6-pin series 723, free soldered ends | | |

Option Kalibrierungen - Option Calibrations

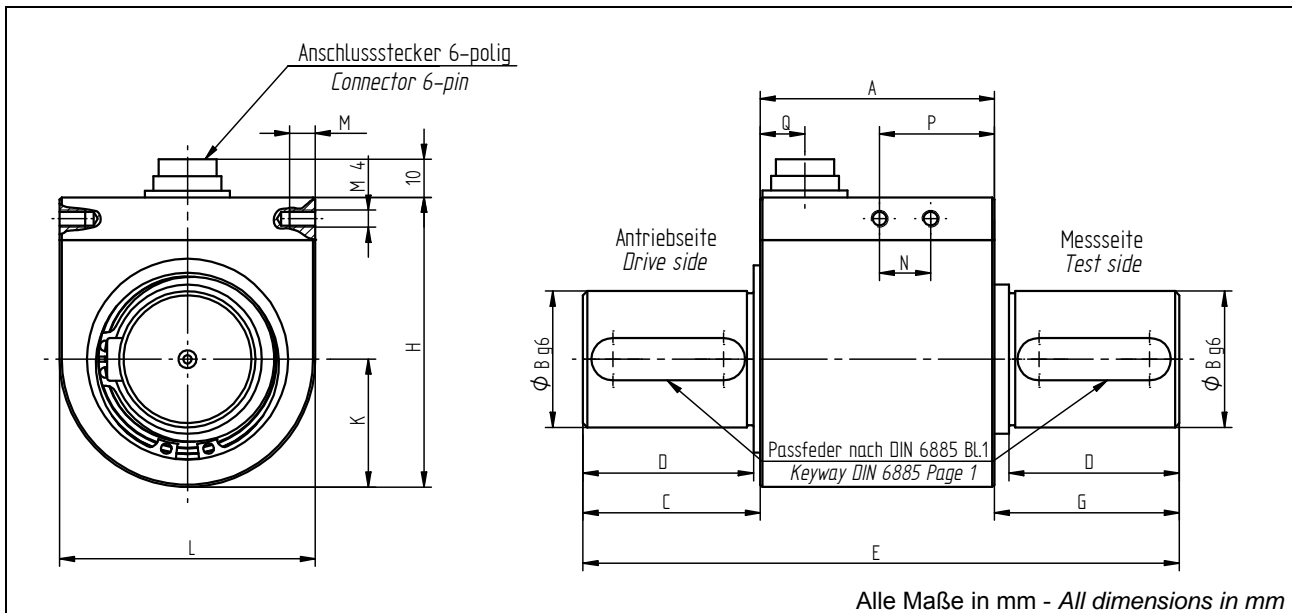
| Artikel-Nr. - Article-no | Bezeichnung - Description | Stufen - Steps | Norm - Norm |
|--------------------------|---|----------------|------------------------------|
| 400676 | Linearitätsdiagramm - Linearity diagram | 25% | Werksnorm - Factory standard |
| 400664 | Linearitätsdiagramm - Linearity diagram | 10% | |
| 400961 | Werkskalibrierung - Proprietary calibration | 3 | VDI/VDE 2646 |
| 400700 | Werkskalibrierung - Proprietary calibration | 5 | |
| 400688 | Werkskalibrierung - Proprietary calibration | 8 | |
| | DAkKS-Kalibrierung - DAkKS-Calibration | | auf Anfrage - on request |

Mechanische Abmessungen - Dimensions



Alle Maße in mm - All dimensions in mm

| | |
|--|----------------|
| Messbereich - Measuring range [N·m] | 1 / 2 / 5 / 10 |
|--|----------------|



Alle Maße in mm - All dimensions in mm

| Messbereich - Measuring range [N·m] | Abmessungen - Dimensions [mm] | | | | | | | | | | | | |
|---|----------------------------------|----|------|----|-----|------|----|----|----|---|-----|----|------|
| | A | B | C | D | E | G | H | K | L | M | N | P | Q |
| 20 / 50 | 47,4 | 15 | 21,1 | 20 | 90 | 21,5 | 54 | 21 | 42 | 6 | 9,5 | 11 | 10,5 |
| 100 | 47,4 | 18 | 24 | 22 | 95 | 23,6 | 54 | 21 | 42 | 6 | 9,5 | 11 | 10,5 |
| 200 / 500 | 55 | 32 | 41,6 | 40 | 140 | 43,4 | 68 | 30 | 60 | 6 | 27 | 12 | 10,5 |