

Typ DR-2500

Drehmomentsensor mit Analogausgang
Torque sensor with analog output

- Aktiver Ausgang ±5V - active output signal ±5V
- Messrate 10 kSample - sample rate 10 kSample

Typ DR-2600

Drehmomentsensor mit RS485-Schnittstelle
Torque sensor with RS485-interface

- RS485-Schnittstelle - RS485 interface
- Auto-Identifikation u.a. von: Messbereich, Serien-Nr, Kalibrierdatum - auto identification of: measuring range, serial number, date of calibration
- Messrate 4 kSample - sample rate 4 kSample



Der Sensor hat eine berührungslose und digitale Signalübertragung von Rotor zu Stator, also ohne Signalverfälschung und wartungsfrei.

This type has a contactless and digital signal transmission from shaft to case, that means no failure of transmission and maintenance free.

| Artikel Nr. (DR-2500) | Artikel Nr. (DR-2600) | Messbereich nominal torque [Nm] | Drehzahl max. speed [min ⁻¹] | Federkonstante springrate [Nm/rad] | Massen- trägheits- moment moment of inertia J in [kg m ²] | | zul. Axiallast max. thrust load [N] |
|--------------------------|--------------------------|---------------------------------------|--|--|---|------------------------|---|
| | | | | | Antriebseite drive side | Messseite test side | |
| 107606 | 107951 | 0,005 | 20000 | 2,4·10 ⁻¹ | 7,5·10 ⁻⁷ | 1,1·10 ⁻⁸ | 3 |
| 107607 | 108095 | 0,01 | 20000 | 4,7·10 ⁻¹ | 7,5·10 ⁻⁷ | 1,1·10 ⁻⁸ | 3 |
| 107428 | 108096 | 0,02 | 30000 | 5,4·10 ⁻¹ | 7,6·10 ⁻⁷ | 1,3·10 ⁻⁸ | 10 |
| 107429 | 108097 | 0,05 | 30000 | 5,4·10 ⁻¹ | 7,6·10 ⁻⁷ | 1,3·10 ⁻⁸ | 10 |
| 107430 | 108098 | 0,1 | 30000 | 5,4·10 ⁻¹ | 7,6·10 ⁻⁷ | 1,3·10 ⁻⁸ | 15 |
| 107431 | 108124 | 0,2 | 30000 | 5,4·10 ⁻¹ | 7,6·10 ⁻⁷ | 1,3·10 ⁻⁸ | 20 |
| 107432 | 108278 | 0,5 | 30000 | 2,9 | 7,6·10 ⁻⁷ | 1,3·10 ⁻⁸ | 30 |
| 107433 | 108530 | 1 | 30000 | 2,9 | 7,6·10 ⁻⁷ | 1,3·10 ⁻⁸ | 40 |
| 107434 | 108093 | 2 | 30000 | 5,0·10 ⁻² | 9,1·10 ⁻⁷ | 8,3·10 ⁻⁸ | 50 |
| 107435 | 108358 | 5 | 30000 | 5,0·10 ⁻² | 9,1·10 ⁻⁷ | 8,3·10 ⁻⁸ | 50 |
| 107436 | 108359 | 10 | 30000 | 5,8·10 ⁻² | 9,7·10 ⁻⁷ | 1,5·10 ⁻⁷ | 50 |
| 107598 | 108279 | 20 | 30000 | 4,9·10 ³ | 1,2·10 ⁻⁵ | 3,6·10 ⁻⁶ | 100 |
| 107599 | 108280 | 50 | 20000 | 9,3·10 ³ | 1,2·10 ⁻⁵ | 3,9·10 ⁻⁶ | 200 |
| 107600 | 108094 | 100 | 20000 | 9,3·10 ³ | 1,2·10 ⁻⁵ | 3,9·10 ⁻⁶ | 200 |
| 109190 | 109253 | 150 | 20000 | 1,1·10 ⁴ | 1,2·10 ⁻⁵ | 4,2·10 ⁻⁶ | 200 |

TECHNISCHE DATEN - specifications

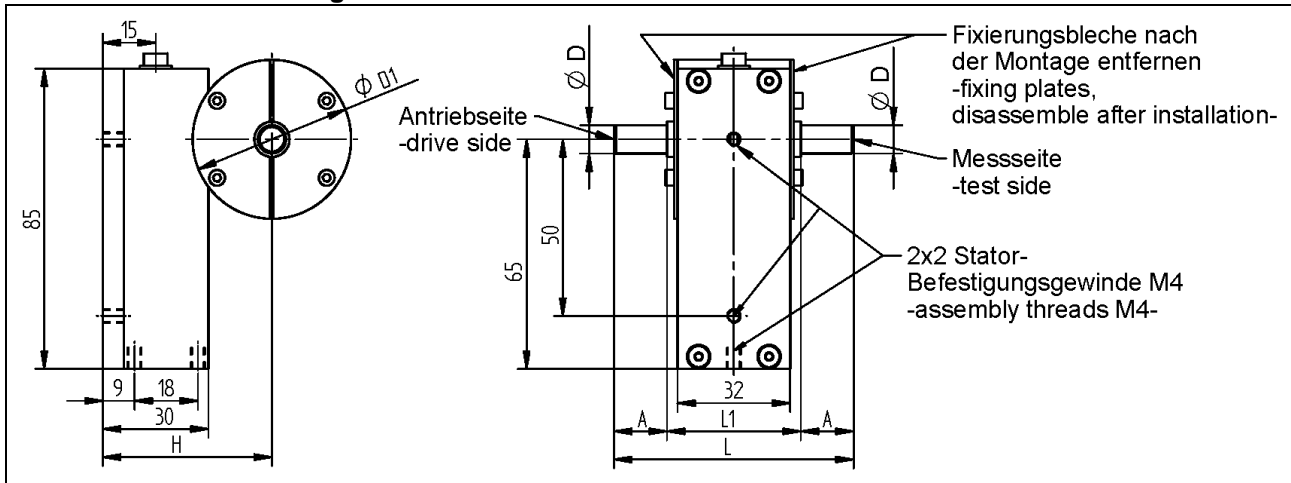
Analogausgang RS485-Interface

| Typ - type | | DR-2500 | DR-2600 |
|--|----------|---|--------------|
| | | Genauigkeitsklasse - accuracy class | % v.E |
| Reproduzierbarkeit n. DIN 1319 - nonrepeatability | % | ±0,02 | |
| Versorgung - supply voltage | VDC | 12 ... 28 | |
| Stromaufnahme - supply current | mA | <60 | |
| Ausgangssignal - output signal | V | ±0 ... 5 | ±15 Bit |
| Belastbarkeit - output current max. | mA | 5 kurzschlussfest short circuit resist. L <2,0; H>3,5 | |
| Eingang Kontrollaufschaltung - calibration control | V | | per Software |
| Messrate - sample rate | kSample | 10 | |
| Messrate Mode 1 - sample rate mode 1 (115KBd) | kSample | | 4 |
| Messrate Mode 2 - sample rate mode 2 (115KBd) | kSample | | 2 |
| Messrate Mode 3 - sample rate mode 3 (115KBd) | kSample | | 1 |
| Messrate Mode 4 - sample rate mode 4 (115KBd) | kSample | | 0,5 |
| Nenntemp.bereich - nominal temp. range | °C | +5 ... +45 | |
| Gebrauchstemp.bereich - service temp. range | °C | 0 ... +60 | |
| Temp. koef. des Kennwertes - temp. coeff. of sensitivity | % v.E./K | ±0,01 | |
| Temp. koef. des Nullsignals - temp. coeff. of zero | % v.E./K | ±0,02 | |
| Gebrauchsmoment (statisch) - service torque | % v.E. | 150 | |
| Grenzmoment (statisch) - limit torque | % v.E. | 200 | |
| Bruchmoment (statisch) - ultimate torque | % v.E. | >300 | |
| Schwingbreite - bandwidth (DIN 50100) | % | 70 (Spitze - Spitze) - (top - top) | |
| Schutzart - level of protection (DIN EN 60529) | | IP 50 | |
| Anschlussstecker - connector | | 8-polig- 8-pin | |

Artikel Nr. Option - options

| | | | |
|--------|---------------------------------|--------|------------|
| 107437 | Drehzahlmessung - speed control | Imp./n | 6 |
| 103562 | Ausgangssignal - output signal | V | ± 0 ... 10 |

Mechanische Abmessungen - dimensions



| Messbereich nominal torque [Nm] | Abmessungen dimensions [mm] | | | | | |
|---------------------------------------|-----------------------------------|-----------|----|-----|----|----|
| | ϕD | $\phi D1$ | A | L | L1 | H |
| 0,005; 0,01 | 4 g6 | 45 | 5 | 48 | 38 | 48 |
| 0,02; 0,05; 0,1; 0,2; 0,5; 1 | 6 g6 | 45 | 7 | 52 | 38 | 48 |
| 2; 5 | 8 g6 | 45 | 15 | 68 | 38 | 48 |
| 10 | 10 g6 | 45 | 15 | 68 | 38 | 48 |
| 20; 50; 100; 150 | 18 g6 | 59,5 | 36 | 122 | 50 | 53 |

Anschlussbelegung – connection

| 8-polig– 8-pin | | DR-2500 |
|-----------------------|--------------------------------------|--------------------|
| Pin 1 | Vers (+) - <i>excitation (+)</i> | 12 ... 28 V |
| Pin 2 | Vers.(GND) - <i>excitation (GND)</i> | 0 V |
| Pin 3 | Sign.(+) - <i>signal (+)</i> | ± 5 V |
| Pin 4 | Sign (GND) - <i>signal (GND)</i> | 0 |
| Pin 5 | Kontrolle - <i>cal. control</i> | L < 2,0V; H > 3,5V |
| Pin 6 | Drehzahl – <i>speed</i> | TTL |
| Pin 7 | NC | - |
| Pin 8 | NC | - |

| 8-polig– 8-pin | | DR-2600 |
|-----------------------|--------------------------------------|--------------------|
| Pin 1 | Vers (+) - <i>excitation (+)</i> | 12 ... 28 V |
| Pin 2 | Vers.(GND) - <i>excitation (GND)</i> | 0 V |
| Pin 3 | RS 485 | RS 485 (A) |
| Pin 4 | RS 485 | RS 485 (B) |
| Pin 5 | Kontrolle - <i>cal. control</i> | L < 2,0V; H > 3,5V |
| Pin 6 | Drehzahl – <i>speed</i> | TTL |
| Pin 7 | NC | - |
| Pin 8 | NC | - |