

**2-Bereich - Drehmomentsensor, Analogausgang**  
**2-range-torque sensor, analog output**

**Type DR-2531**

- Active output signal  $\pm 5V$
- Sample rate 10 kSample




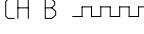
*This type has a contactless and digital signal transmission from shaft to case, that means no failure of transmission and maintenance free.*

Artikel Nr. (DR-2531)	nominal torque [Nm]	max. speed [min <sup>-1</sup> ]		springrate [Nm/rad]	moment of inertia J in [kg cm <sup>2</sup> ]		Axial max. thrust load [N]
		Standard standard	Sonder special		Antriebseite drive side	Messeite test side	
107587	5 / 0,5	8000	12000	585	0,07191	0,05735	50
107776	10 / 1	8000	12000	1467	0,07278	0,05821	50
107779	20 / 2	8000	12000	3701	0,09109	0,07016	300
107780	30 / 3	8000	12000	6279	0,09138	0,07044	1000
107781	50 / 5	6000	12000	0,012 x 10 <sup>6</sup>	0,10283	0,09004	1600
107777	50 / 10	6000	12000	0,012 x 10 <sup>6</sup>	0,10283	0,09004	1600
107782	100 / 10	6000	12000	0,031 x 10 <sup>6</sup>	0,10496	0,09217	2600
107783	200 / 20	4000	7000	3,344 x 10 <sup>4</sup>	10,91	6,43	3200
107784	300 / 30	4000	7000	5,02 x 10 <sup>4</sup>	10,91	6,44	7500
107785	500 / 50	4000	7000	7,741 x 10 <sup>4</sup>	10,93	6,45	7500
107786	1000 / 100	4000	7000	1,85 x 10 <sup>5</sup>	13,72	11,3	10000
107787	2000 / 200	3500	5500	1,718 x 10 <sup>6</sup>	45,054	34,568	18000
107789	3000 / 300	3500	5500	1,718 x 10 <sup>6</sup>	45,054	34,568	18000
107790	5000 / 500	3500	5500	6,276 x 10 <sup>6</sup>	45,631	35,144	32000

**Specification**

TYPE		DR-2531
accuracy class	% v.E	0,1
DIN 1319 - nonrepeatability	%	±0,02
supply voltage	VDC	12 ... 28
supply current	mA	<60
output signal	V	±0 ... 5
output current max	mA	5 kurzschlussfest - <i>short circuit resistant</i>
calibration control	V	L <2,0; H >3,5
sample rate	kSample	10
nominal temp. range	°C	+5 ... +45
service temp. range	°C	0 ... +60
temp. coeff. of sensitivity	% v.E./K	+0,01
temp. coeff. of zero	% v.E./K	±0,02
(statisch) - service torque	% v.E.	150
(statisch) - limit torque	% v.E.	200
(statisch) - ultimate torque	% v.E.	>300
bandwidth (DIN 50100)	%	70 ( <i>peak-peak</i> )
level of protection (DIN EN 60529)	IP 50	
connector	12-polig- 12-pin	

**article-no. options**

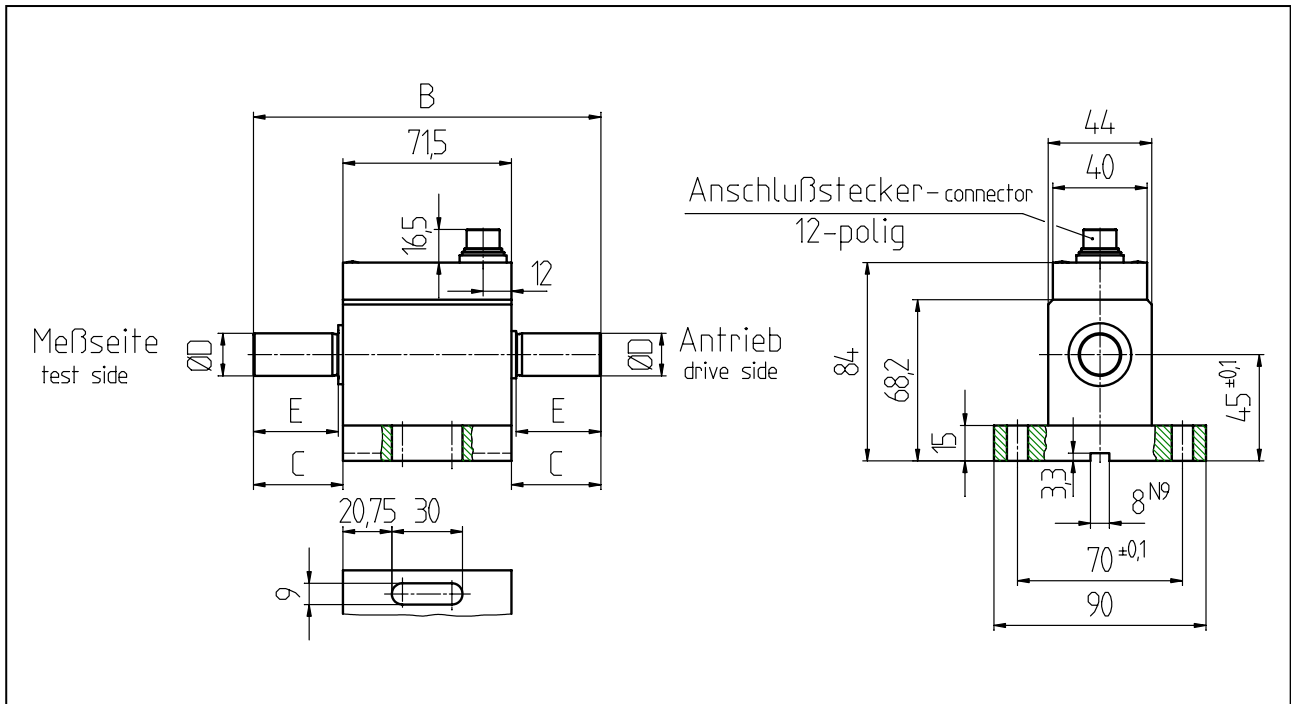
101560	angle - speed control 360 Impulse 2xTTL 90° versetzt - 360 imp., 2 tracks, 90°-shifted 2000, 5000 Nm 60 Impulse 1xTTL – 60 imp, 1 track	Rechtsdrehung - CW – turn CH A  CH B 
100938	supply voltage	VDC 24 ± 10%
103562	output signal	V ± 0 ... 10

**connection**

12-pol - 12-pin		
Pin A	NC	-
Pin B	Option angle B	TTL
Pin C	signal 1 (+)	±5 V
Pin D	signal (GND)	0 V
Pin E	excitation (GND)	0 V
Pin F	excitation (+)	12 ... 28 V
Pin G	angle A	TTL
Pin H	signal 2 (+)	±5 V
Pin J	NC	-
Pin K	cal. control	L < 2,0V; H > 3,5V
Pin L	NC	-
Pin M	shield	

**dimensions**

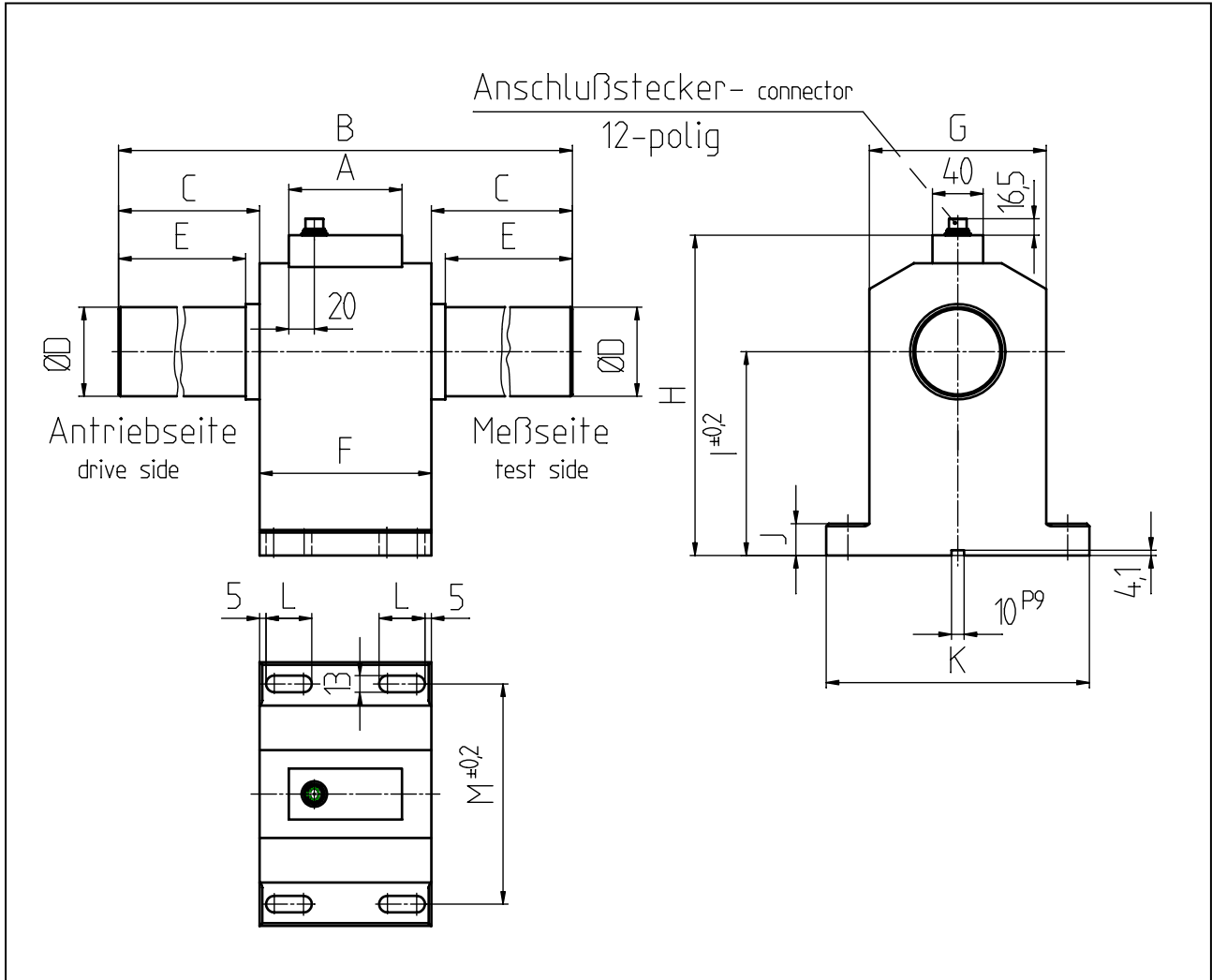
**DR-2531**



nominal torque [Nm]	dimensions [mm]			
	B	C	D	E
5 / 0,5	107,5	18	8 g6	17
10 / 1	107,5	18	10 g6	17
20 / 2 30 / 3	111,5	20	18 h6	18
50 / 5 50 / 10 100 / 10	147,5	38	18 h6	36

**dimensions**

**DR-2531**



nominal torque [Nm]	dimensions [mm]												
	A	B	C	D	E	F	G	H	I	J	K	L	M
200 / 20 300 / 30 500 / 50	89	217	43,5	32 h6	38	130	115	190,4	112	20	175	30	145
1000 / 100	89	262	66	50 h7	58	130	115	190,4	112	20	175	30	145
2000 / 200 5000 / 500	89	377	121	70 h7	110	135	139	251,5	160	25	207	36	173