Contactless Torque Measuring Flange, rotating

Series 86-2800

This sensor has a contactless and digital signal transmission from rotor to stator, which means no signal falsification and maintenance-free

86-2800

86-2800-xxxx

Nominal torque from 50 Nm ... 5000 Nm
High accuracy 0,1% f. scale
Active output ±5 V (opt. ±10 V)
Speed up to 15.000 min^{-1}
Integrated speed measurement optional
Maintenance-free, since no bearings
Very short axial length
High torsional stiffness
Flange-flange solution

Rotor-sided through hole
Reliable and durable
Simple handling assembly
Special version on request

burster Italia S.r.l. tel.: 035/618120 fax: 035/618250
Via Cesare Battisti, 16/18 – 24035 Curno BG
www.burster.it – info@burster.it

Technical Data
Model 86-2800

Order code	Article No. 86-2800	Nominal Torque [Nm]	Limit Speed [min -1]	Springrate [N·m/rad]	Mass moment of inertia [kg·m²][1]		Limit Thrust Load [N]	Limit Shear Force [N]
					Drive side	Test side		
86-2800-5050	113605	50	15000	8,30E+04	5,80E-03	1,10E-03	650	190
86-2800-5100	113607	100	15000	1,40E+05	5,80E-03	1,10E-03	1000	330
86-2800-5200	113608	200	15000	3,20E+05	9,20E-03	1,80E-03	1600	550
86-2800-5500	113609	500	12000	1,10E+06	1,30E-02	4,00E-03	2000	1200
86-2800-6001	113610	1000	12000	3,50E+06	1,30E-02	4,10E-03	4000	2700
86-2800-6002	114349	2000	10000	6,70E+06	3,10E-02	1,30E-03	5400	3300
86-2800-6005	114350	5000	8000	14,3E+07	7,80E-02	3,00E-02	5700	5200

	86-2800	
Accuracy class	0,1	% f. s.
Repeatability (DIN 1319)	±0,02	%
Excitation voltage	12 ... 28	VDC
Current consumption	≤50	mA
Output signal	±5	V
Reference temperature	23	°C
Nominal temperature range	5 ... 45	°C
Service temperature range	0 ... 60	°C
Storage temperature range	-10 ... 70	°C
Temp. coeff. of sensitivity	±0,01	% f. s.
Temp. coeff. of zero signal	±0,02	% f. s.
Service torque (static)	130	% f. s.
Limit torque (static)	200	% f.s.
Ultimate torque (static)	>300	% f. s.
Bandwidth (DIN 50100)	70*(peak - peak)*	%
Balancing grade (DIN ISO 1940)	6,3	
Level of protection (DIN EN 60529)	IP54	
Electrical connection	12-pin series 581[2]	

Pin Connection

12pin		
Pin A	NC	-
Pin B	NC	-
Pin C	Signal (+)	±5V [±10V]
Pin D	Signal (GND)	0V
Pin E	Supply GND)	0V
Pin F	Supply (+)	12 ... 28 VDC
Pin G	Option signal speed	5 V TTL
Pin H	NC	-
Pin J	NC	-
Pin K	NC	-
Pin L	NC	-
Pin M	Shield	-

Option/Accessories

Article No.	Description
103562	Output signal ± 10V
113627	Speed measurement, 1x30 impulses, 5V TTL
41382	Female cable connector 12-pin series 581
45598	Female angled connector 12-pin series 682
10270	Connection cable, 3 m, 12-pin series 581, free soldered ends
10345	Connection cable angled, 3 m,12-pin series 682, free soldered ends

Option Calibrations

Article No.	Description	Steps	Norm
400676	Linearity diagram	25%	Factory standard
400664	Linearity diagram	10%	
400961	Proprietary calibration	3	
400700	Proprietary calibration	5	VDI/VDE 2646
400688	Proprietary calibration	8	
	DAkkS-Calibration		on request

[1]Without option speed measurement

[2]female cable connector in scope of delivery at first delivery

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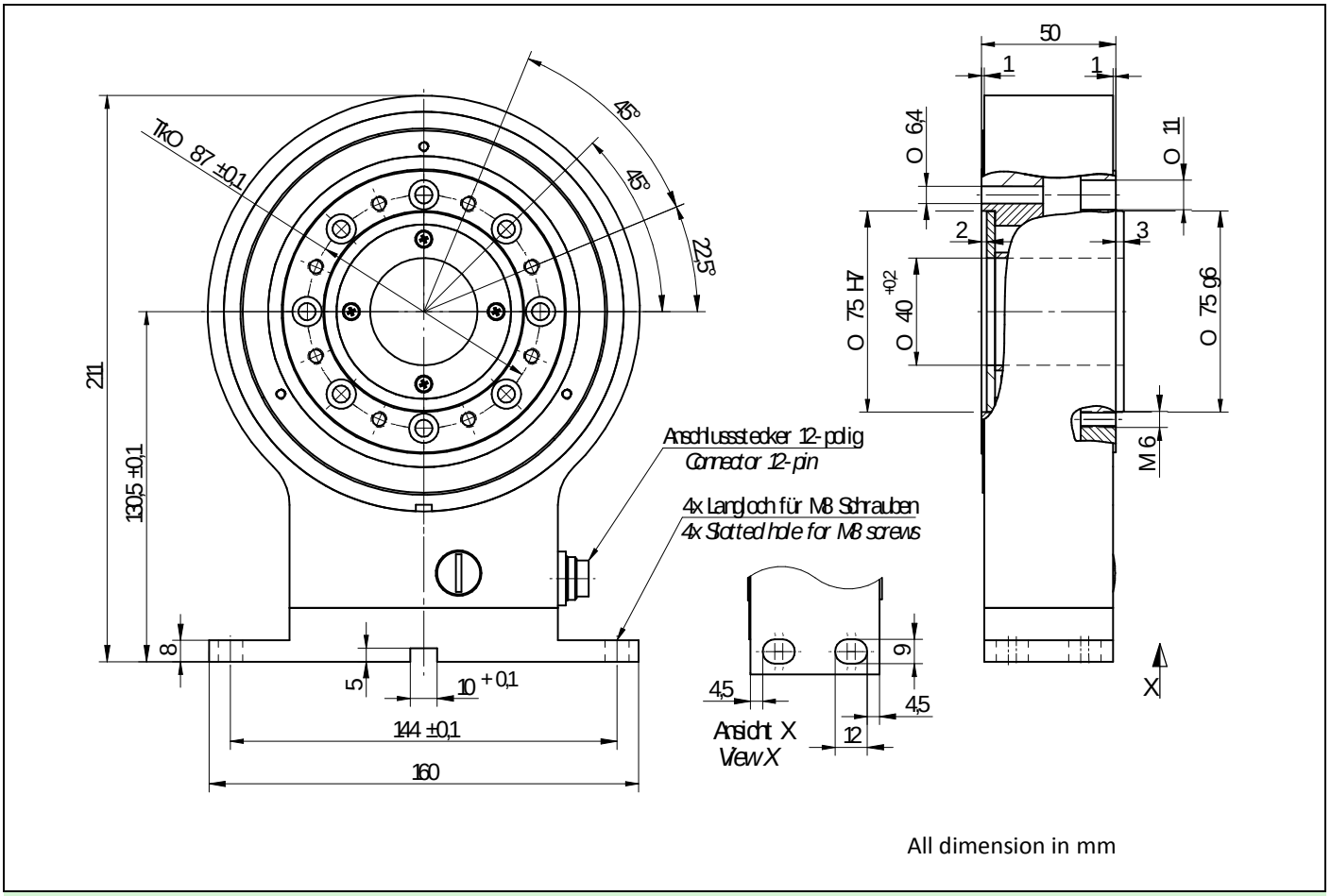
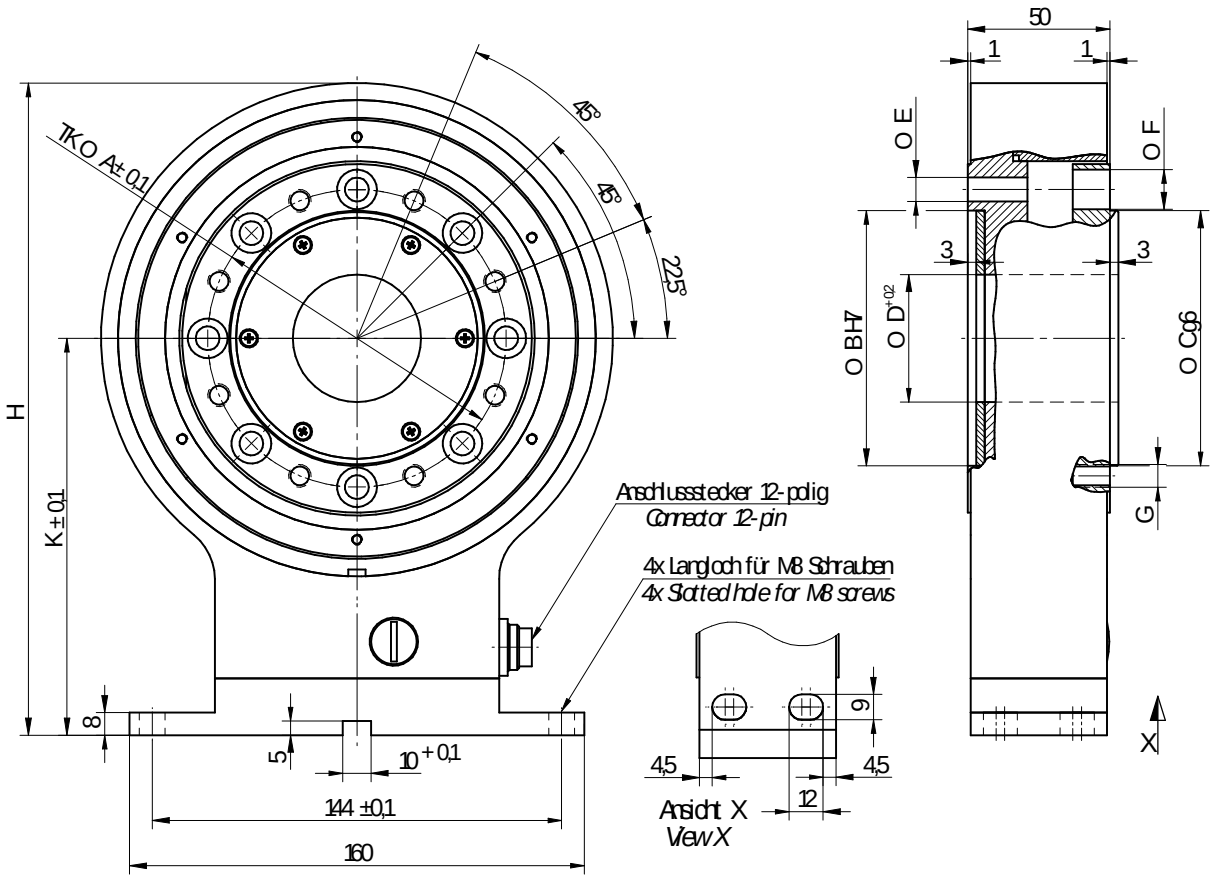
Mechanical Dimensions



Messbereich - *Measuring range* [N·m]	50 / 100

86-2800

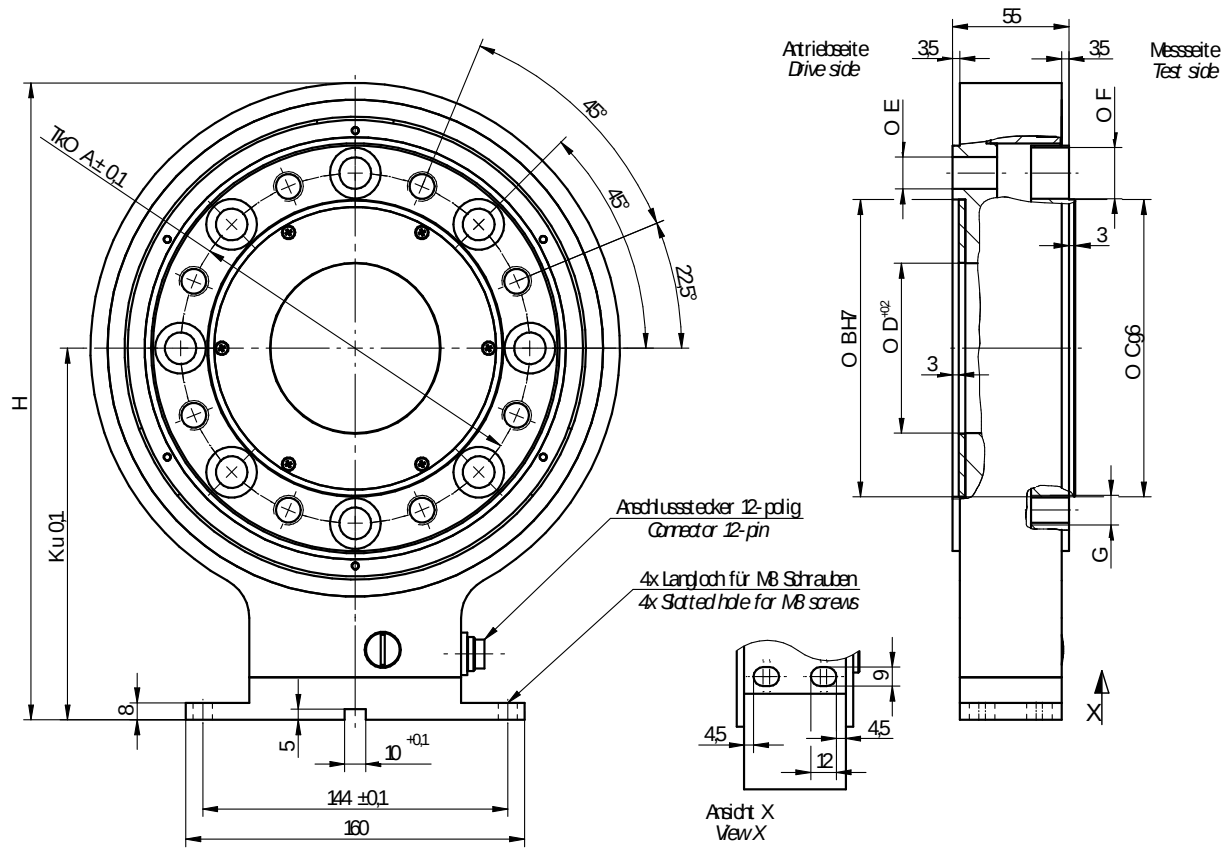
Mechanical Dimensions



All dimension in mm

Measuring range [N·m]	*Dimensions* [mm]								
	Tk Ø A±0,1	Ø B H7	Ø C g6	Ø D+0,2	Ø E	Ø F	G	H	K±0,1
200	105	90	90	45	8,4	14	M8	230	140
500	133	110	110	70	13	20	M12	250	150
1000	133	110	110	70	13	20	M12	250	150

Mechanical Dimensions



All dimension in mm

Measuring range [N·m]	Dimensions [mm]								
	Tk Ø A±0,1	*Ø B H7*	*Ø C g6*	*Ø D+0,2*	*Ø E*	*Ø F*	*G*	*H*	*K±0,1*
2000	165	140	140	80	15	24	M14	300	175
5000	206	174	174	100	19	30	M18	360	205

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