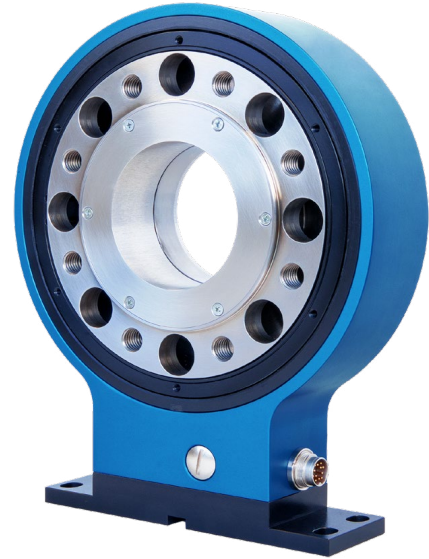


Rotating Torque Measuring Flange (contactless)

Model LVDT

Performance Features

- Bearingless torque sensor for e.g. test bench applications
- High accuracy
- Active output $\pm 5V$ (optional $\pm 10V$; $10kHz \pm 5kHz$; $60kHz \pm 30kHz$)
- Integrated speed measurement optional
- Speed up to 15000 min^{-1}
- Very short axial length
- High torsional stiffness
- Flange-flange-solution
- Simple handling and assembly
- Special versions on request



Specifications

Torque Measuring Flange		
Rated torque M_{nom}	N·m	50 ... 10000
Accuracy class	% M_{nom}	0.1
Relative repeatability error in unchanged mounting position b'	% M_{nom}	± 0.02
Rated range of supply voltage	VDC	12 ... 28
Current consumption	mA	≤ 50
Output signal	V	± 5
Electrical connection		12-pin series 581 ¹
Reference temperature T_{ref}	°C	23
Rated temperature range	°C	5 ... 45
Operating temperature range	°C	0 ... 60
Storage temperature range	°C	-10 ... 70
Temperature effect on zero signal TK_0	% $M_{nom}/10 \text{ K}$	± 0.2
Temperature effect on characteristic value TK_C	% $M_{nom}/10 \text{ K}$	± 0.1
Maximum operating torque M_G (static)	% M_{nom}	130
Torque limit M_{max} (static)	% M_{nom}	200
Breaking torque M_B (static)	% M_{nom}	>300
Permissible oscillation stress when subjected to torque M_{df}	% M_{nom}	70 (peak-to-peak)
Balancing grade (DIN ISO 1940)	Q	6.3
Level of protection		IP54

Rated Torque [N·m]	Limit Speed [min^{-1}]	Springrate [N·m/rad]	Mass Moment of Inertia [$\text{kg} \cdot \text{m}^2$] ²		Axial Force Limit [N]	Lateral Force Limit [N]
			Drive Side	Test Side		
50	15000	8.3E+04	5.8E-03	1.1E-03	650	190
100	15000	1.4E+05	5.8E-03	1.1E-03	1100	330
200	15000	3.2E+05	9.2E-03	1.8E-03	1600	550
500	12000	1.1E+06	1.3E-02	4.0E-03	2000	1200
1000	12000	3.5E+06	1.3E-02	4.1E-03	4000	2700
2000	10000	6.7E+06	3.1E-02	1.3E-02	5400	3300
5000	8000	14.3E+06	7.8E-02	3.0E-02	5700	5200
10000	8000	14.3E+06	7.8E-02	3.0E-02	5700	5200

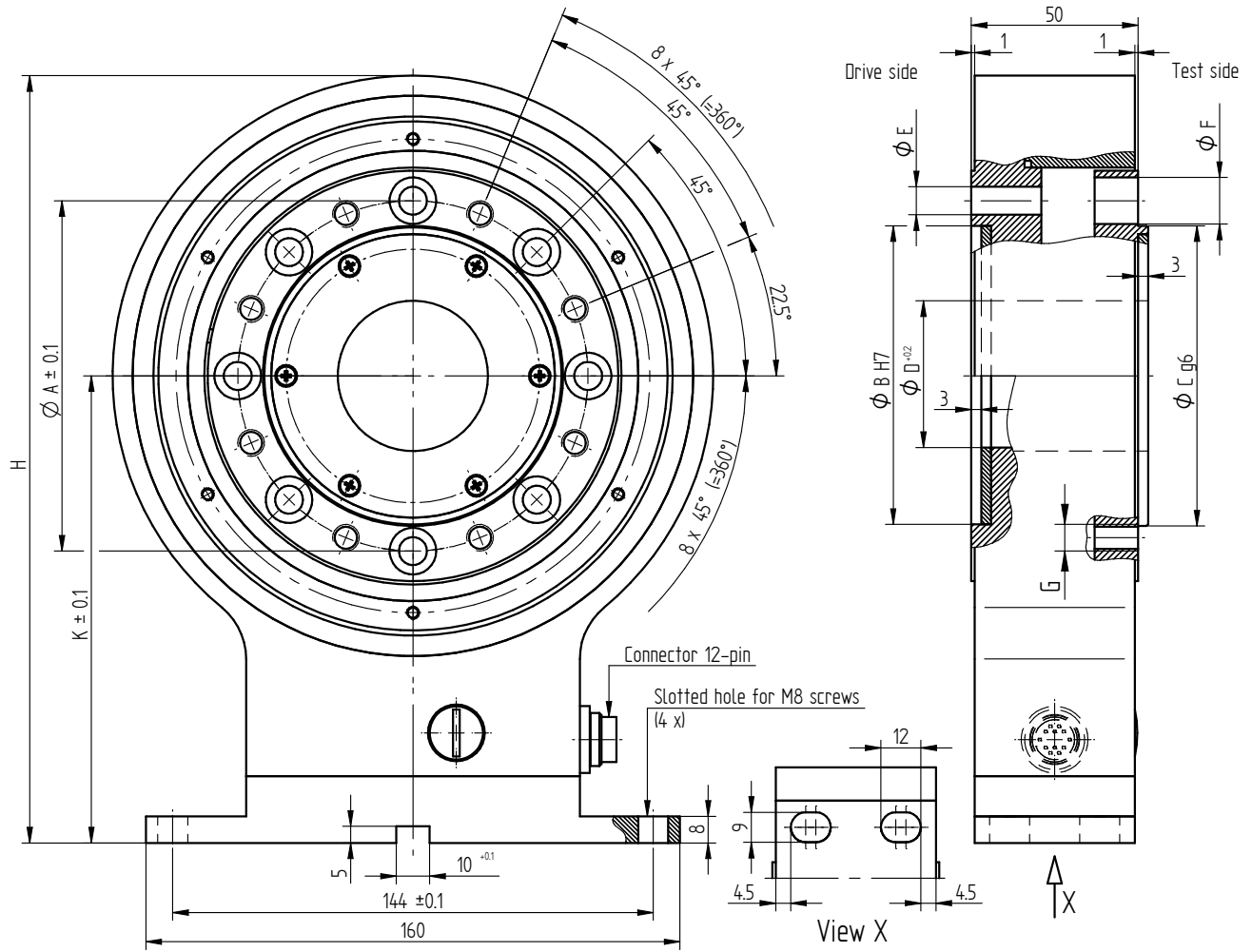
¹ Female cable connector in scope of delivery at first delivery

² Without option speed measurement

[illegible]

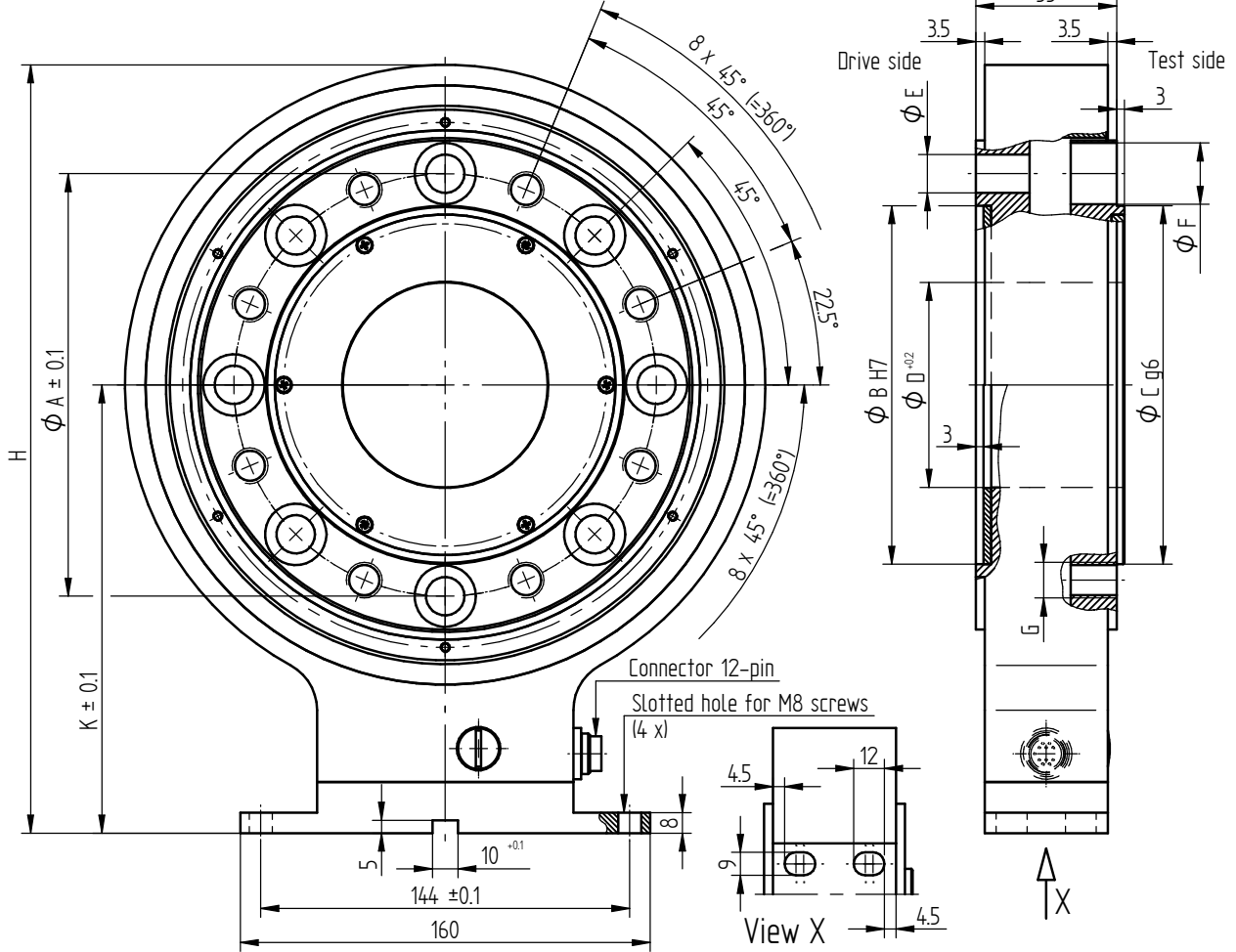
LANRIN Lanrin Measurement Instrument
Website: <http://www.lanrin.com> Tel: 800-881101 Fax: 800-881102 Email: Sale@lanrin.com

Dimensions in mm



Rated Torque [N·m]	Dimensions [mm]									Screws		Weight [kg]
	$\varnothing A$	$\varnothing B$	$\varnothing C$	$\varnothing D$	$\varnothing E$	$\varnothing F$	G	H	K	Tightening Torque [N·m]	Property Class	
200	105	90	90	45	8.4	14	M8	230	140	35	10.9	4.8
500/1000	133	110	110	70	13	20	M12	250	150	120	10.9	5.4

Dimensions in mm



Rated Torque [N·m]	Dimensions [mm]									Screws		Weight [kg]
	ØA	ØB	ØC	ØD	ØE	ØF	G	H	K	Tightening Torque [N·m]	Property Class	
2000	165	140	140	80	15	24	M14	300	175	190	10.9	8.9
5000/10000	206	174	174	100	19	30	M18	360	205	490	10.9	13.3

Connection Assignment

12-pin	LVDT		Series 581
Pin A	NC	-	
Pin B	NC	-	
Pin C	Signal (+)	$\pm 5V (\pm 10V)$	
Pin D	Signal (GND)	0V	
Pin E	Supply (GND)	0V	
Pin F	Supply (+)	12 ... 28VDC	
Pin G	Signal speed (option)	5V TTL	
Pin H	NC	-	
Pin J	RS422 (option)	RS422 (B)	
Pin K	NC	-	
Pin L	RS422 (option)	RS422 (A)	
Pin M	Shield		

Options

Article-No.	Description	
A	Output signal	$\pm 10V$
B	Output signal	10kHz $\pm$ 5kHz (RS422)
C	Output signal	60kHz $\pm$ 30kHz (RS422)
D	Speed measurement, 1 x 30 impulses	5V TTL