

REACTIVE TORQUE MEASURING FLANGE

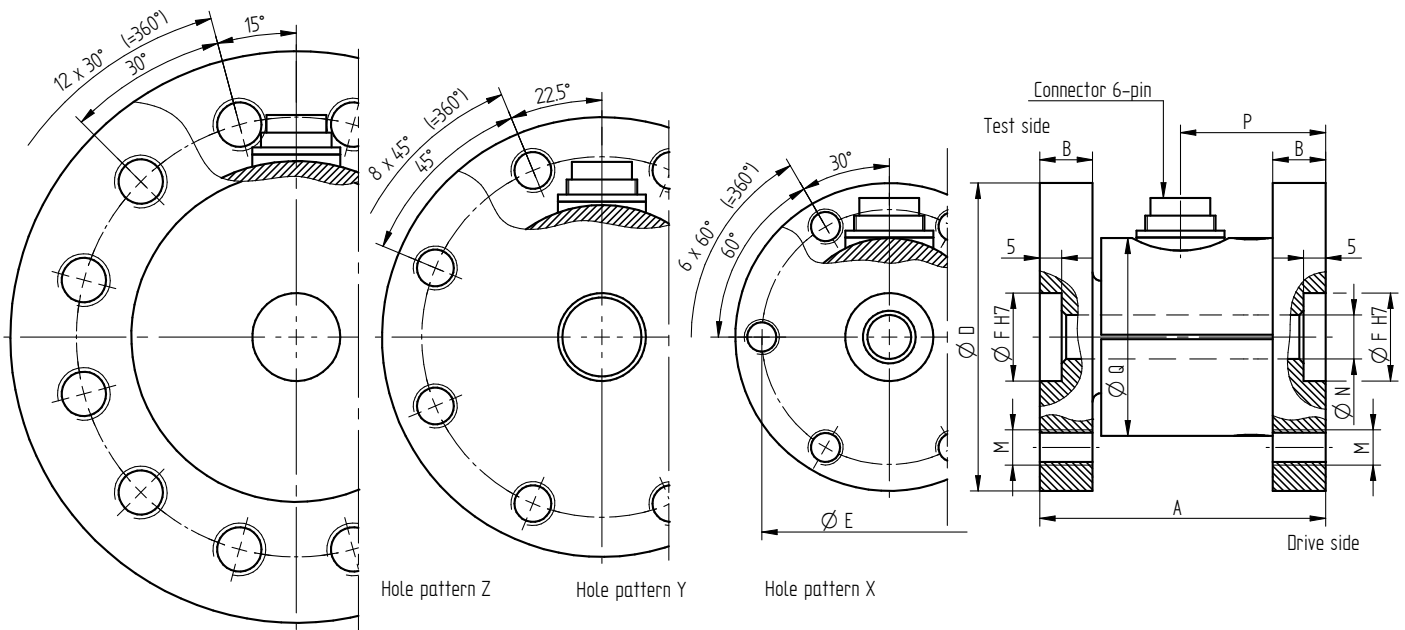
Model LVS

Performance Features

- Torque measuring flange for measurement of e. g. torque reaction or torsion measurement
- Flange-flange-solution
- Through hole
- Very short axial length
- High torsional stiffness
- Simple handling and assembly
- Special versions on request

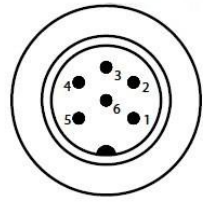


Dimensions in mm



Rated Torque [Nm]	Dimensions [mm]									Hole Pattern	Screws		Weight [kg]
	A	B	ØD	ØE	ØF	M	ØN	P	ØQ		Tightening Torque [N·m]	Property Class	
10/20/50/100/200	65	12	70	58	20	M8	10	33	45	X	35	10.9	0.9
500/1000	80	15	100	82	20	M10	18	39.5	60	Y	71	10.9	2.3
2000	100	20	130	100	75	M12	20	55	80	Z	120	10.9	4.8
5000	100	20	130	100	75	M12	20	55	80	Z	144	12.9	4.8
10000/20000	124	32	260	210	105	M24	105	67.5	145	Y	1190	12.9	23.2

Connection Assignment

6-pin	LVS	Series
Pin 1	Excitation (-)	
Pin 2	Excitation (+)	
Pin 3	Shield	
Pin 4	Signal (+)	
Pin 5	Signal (-)	
Pin 6	Control signal (option)	

Specifications

Reactive Torque Measuring Flange LVS with Through Hole		
Rated torque M_{nom}	N·m	10 ... 20000
Accuracy class	% M_{nom}	0.1 (optional 0.05)
Relative repeatability error in unchanged mounting position b'	% M_{nom}	±0.02
Rated characteristic value C_{nom}	mV/V	1 [10 N·m; 0.5] ±0.1%
Bridge resistance R_{Br}	Ω	350 [≥10000 N·m; 700]
Rated range of excitation voltage	VDC	2 ... 12
Electrical connection		6-pin series
Reference temperature T_{ref}	°C	23
Rated temperature range	°C	-5 ... 45
Operating temperature range	°C	-15 ... 55
Storage temperature range	°C	-30 ... 95
Temperature effect on zero signal TK_0	% $M_{nom}/10$ K	±0.2
Temperature effect on characteristic value TK_C	% $M_{nom}/10$ K	±0.1
Maximum operating torque M_G (static)	% M_{nom}	150
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)
Level of protection		IP50

Rated Torque [Nm]	Springrate [Nm/rad]	Mass Moment of Inertia [kg·m²]		Axial Force Limit [N]	Lateral Force Limit [N]
		Drive Side	Test Side		
10	4.7E+03	2.3E-04	2.0E-04	920	85
20	4.9E+03	2.3E-04	2.0E-04	970	90
50	1.2E+04	2.3E-04	2.0E-04	2100	200
100	2.7E+04	2.3E-04	2.0E-04	4300	450
200	4.7E+04	2.3E-04	2.0E-04	6700	730
500	1.6E+05	1.2E-03	1.0E-03	12500	1600
1000	3.1E+05	1.2E-03	1.0E-03	21000	3000
2000	7.8E+05	4.4E-03	4.0E-03	42000	5000
5000	1.1E+06	4.4E-03	4.1E-03	60000	8500
10000	9.9E+06	1.3E-01	5.3E-02	70000	15000
20000	1.5E+07	1.3E-01	5.4E-02	96000	30000

Options

Article-No.	Description	
A	Accuracy class	0.05 % M_{nom}
B	Control signal	100 % M_{nom}
C	Extended temperature range	-30 °C...100 °C
D	Extended temperature range	-30 °C...120 °C