

## Contactless Torque Sensor, Rotating

### FEATURES

- Nominal torque from 0.1N.m .... 20000 N.m
- Accuracy class optional 0.05%
- Active output  $\pm 5$  V
- Contactless data transmission
- Very short axial length
- Feather key groove on option.

### TECHNICAL SPECIFICATION

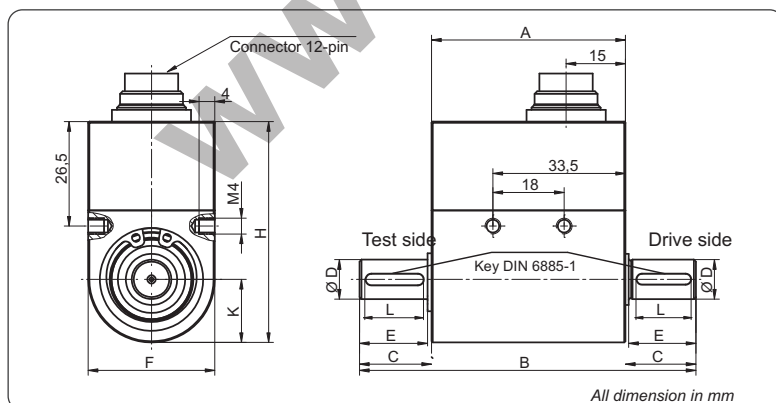
Model	RTDS1
Accuracy Class	0.1% F.S
Repeatability	$\pm 0.02\%$
Excitation voltage	12...28V DC
Current consumption	max. 60 mA
Output signal	$\pm 5$ V
Output current max.	5 mA short circuit resist
Control signal excitation	L<2,0; H>3,5V
Sample rate	10 kSample
Reference temperature	23°C
Nominal temperature range	5...45°C
Service temperature range	0...60°C
Storage temperature range	-10...70°C
Temp. coeff. of sensitivity	$\pm 0.01\%$ F.S.
Temp. coeff. of zero signal	$\pm 0.02\%$ F.S.
Service torque (static)	150% F.S.
Limit torque (static)	200% F.S.
Ultimate torque (static)	>300% F.S.
band width	70 (peak - peak)
Level of protection	IP50
Electrical connection	12 Pin series 581



### ELECTRICAL CONNECTION

12-PIN	RTDS1
Pin A	NC
Pin B	Opt. angle B
Pin C	Signal (+)
Pin D	Signal (GND)
Pin E	Supply (GND)
Pin F	Supply (+)
Pin G	Opt. angle A
Pin H	NC
Pin J	NC
Pin K	Control signal
Pin L	NC
Pin M	Shield

### DIMENSION DETAILS



### DIMENSION TABLE

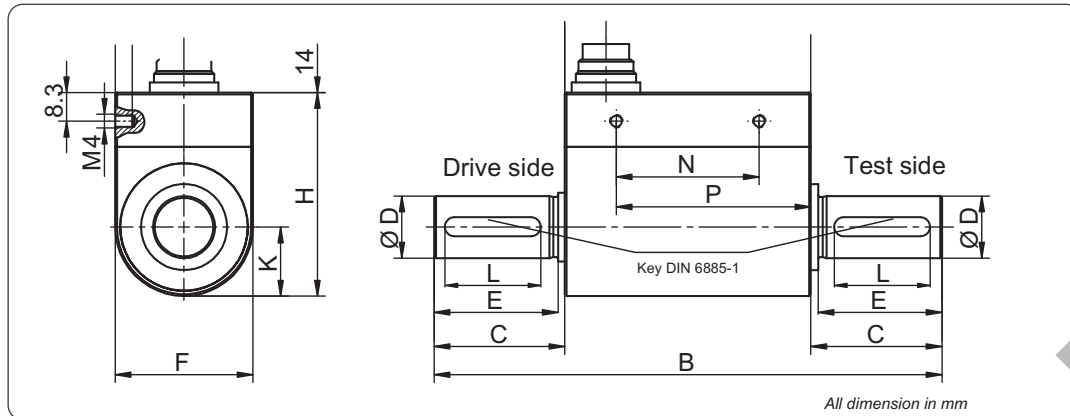
Unit : mm

Measuring Range N.m	A	B	C	ØD	E	F	H	K	L	Key way
0.1, 0.2, 0.5, 1, 2, 5	49	85	18	8 g6	17	32	56	16	14	2 x 2 x 14
10	49	85	18	10 g6	17	32	56	16	14	3 x 3 x 14

Specifications are subject to change without Prior notice

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## DIMENSION DETAILS

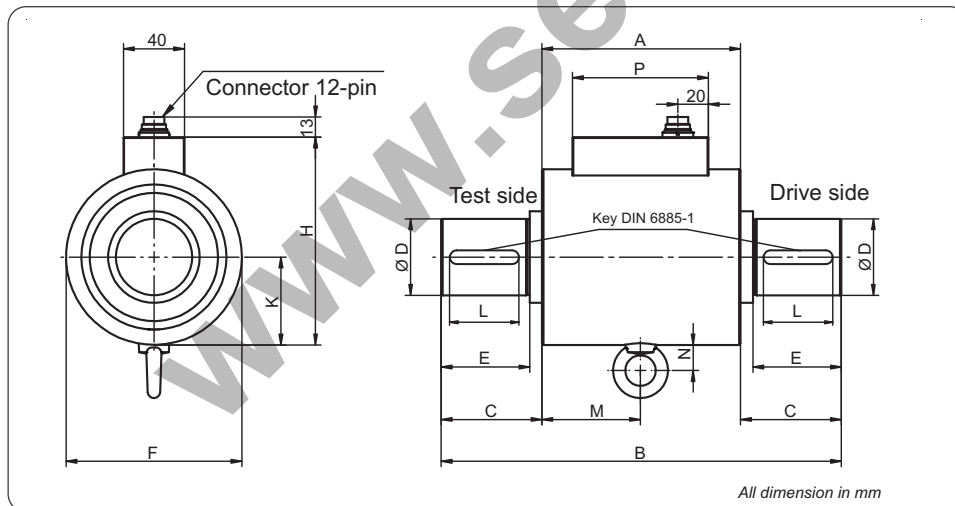


## DIMENSION TABLE

Unit : mm

Measuring Range N.m	A	B	C	ØD	E	F	H	K	M	N	P	Q	L	Key way
20, 30	71.5	111.5	20	18 g6	18	40	59	20	5	41.5	56.5	12	14	6 x 6 x 14
50, 100	71.5	147.5	38	18 g6	36	40	59	20	5	41.5	56.5	12	30	6 x 6 x 30
200, 500	72.5	159.5	43.5	32 g6	38	58	76	29	6	29.5	51.5	15	36	10 x 8 x 36

## DIMENSION DETAILS



## DIMENSION TABLE

Unit : mm

Measuring Range N.m	A	B	C	ØD	E	F	H	K	M	N	P	L	Key way
1000	130	262	66	50 g6	58	115	136	57.5	65.5	18	89	50	14 x 9 x 60
2000, 5000	135	377	121	70 g6	110	139	161	69.5	67.5	18	89	100	20 x 12 x 100
10000, 20000	190	470	140	110 g6	120	210	233	109	95	18	89	160	28 x 16 x 160

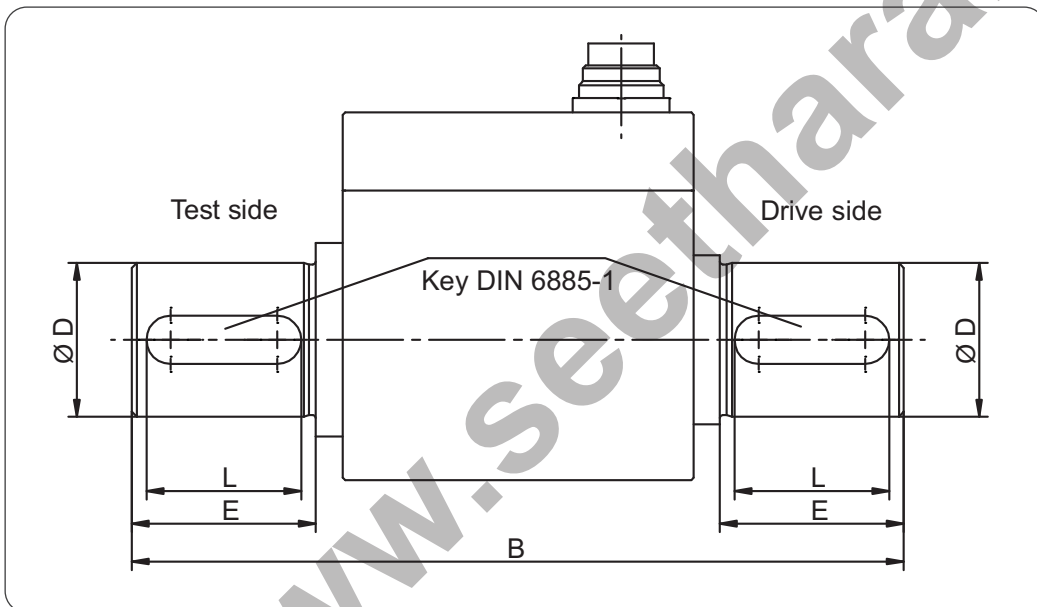
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## OPTION CALIBRATIONS

Description	Steps	Norm
Linearity diagram	25%	Factory standard
Linearity diagram	10%	
Proprietary calibration	3	VDI/VDE 2646
Proprietary calibration	5	
Proprietary calibration	8	
DKD - Calibration		on request

## OPTION / ACCESSORIES

Description
Accuracy class 0.05% F.S.
Output signal $\pm 10$ V
Speed/angle measurement, 2 x 360 impulses, 90° displaced, 5 V TTL
Speed measurement, 1 x 60 impulses, 5 V TTL
Female cable connector 12-pin series 581
Female angled connector 12-pin series 682
Connection cable, 3 m, 12-pin series 581, free soldered ends
Connection cable angled, 3 m, 12-pin series 682, free soldered ends
Feather key groove according DIN 6885 - on request



## DIMENSION TABLE

Measuring Range N.m	B	ØD	E	L	Key Way
0.1, 0.2, 0.5, 1, 2, 5	85	8 g6	17	14	2 x 2 x 14
10	85	10 g6	17	14	3 x 3 x 14
20, 30	111.5	18 g6	18	14	6 x 6 x 14
50, 100	147.5	18 g6	36	30	6 x 6 x 30
200, 500	159.5	32 g6	38	36	10 x 8 x 36
1000	262	50 g6	58	50	14 x 9 x 50
2000, 5000	377	70 g6	110	100	20 x 12 x 100
10000, 20000	570	110 g6	170	160	28 x 16 x 160