

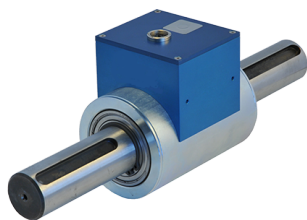
63000-64000

## NON-CONTACT ROTARY TORQUE SENSORS

General purpose, high-accuracy non-contact rotary torque sensors.



Model 63000 - 250 N·m



### Features

- o Bidirectional
- o Measurement range up to 2000 N·m
- o Combined error (non-linearity + hysteresis):
  - 63000:  $\pm 0.2\%$  F.S.\*
  - 64000:  $\pm 0.1\%$  F.S.\*
- o Rotational signal uniformity:
  - 63000:  $\pm 0.2\%$  F.S.\*
  - 64000:  $\pm 0.1\%$  F.S.\*
- o Integrated signal conditioning
  - o Analogue output signal (see Wiring table)
  - o Cable length: 5 m (other lengths available on request)

### Most popular options



20...100 kHz  
Frequency output



**Application(s)** SENSY's torque sensors 63000 and 64000 are perfectly designed for the following applications:

- Torque measurement on test benches, production lines and rotating machines.

### Capacities

63000: 50 - 100 - 250 - 500 - 1000 - 2000 N·m

64000: 50 - 100 - 250 - 1000 N·m

Specifications	63 / 64000-A	63 / 64000-B	63 / 64000-C	
Capacities	50 - 100 N·m	250 - 500 N·m	1000 - 2000 N·m***	-
Repeatability error	< $\pm 0.05$	< $\pm 0.05$	< $\pm 0.05$	% F.S.*
Compensated temperature range	+15...+35	+15...+35	+15...+35	°C
Service temperature range	-40...+85	-40...+85	-40...+85	°C
Storage temperature range	-40...+85	-40...+85	-40...+85	°C
Temperature coefficient of the sensitivity	< 0.5	< 0.5	< 0.5	% F.S./10°C
Temperature coefficient of zero signal	< 0.2	< 0.2	< 0.2	% F.S./10°C
Nominal sensitivity	$\pm 4^{**}$	$\pm 4^{**}$	$\pm 4^{**}$	V
Zero signal	5	5	5	V
Power supply	11...28 VDC	11...28 VDC	11...28 VDC	-
Consumption (max.)	150	150	150	mA
Start-up current	< 200	< 200	< 200	mA
Maximum rotational speed	10000	8000	5000	rpm
Safe load limit	130	130	130	% F.S.*
Breaking load	300	300	300	% F.S.*
IP rating	IP50	IP50	IP50	-

\*F.S. : Full Scale.

\*\* : See individual calibration sheet.

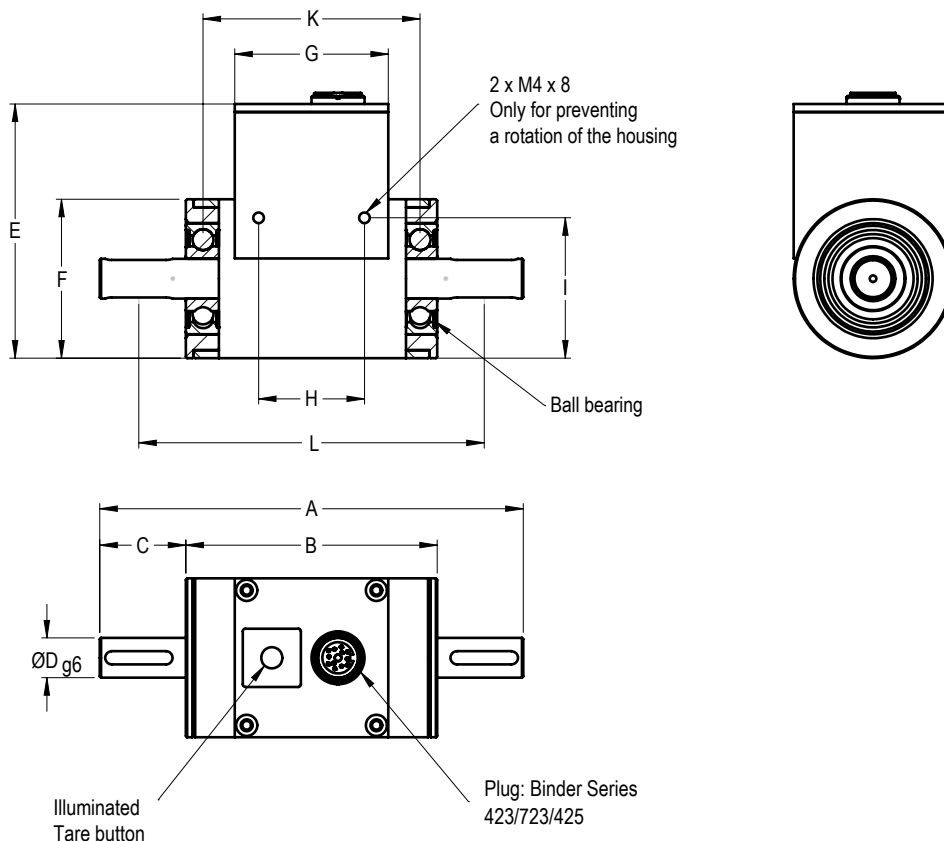
\*\*\* : 2000 N·m only for model 63000.

Specification subject to change without notice



ISO 9001 certified

63000-64000 > **STANDARD DIMENSIONS**



Ref. Item	Capacities	Dimensions (mm):								
		A	B	C	Ø D	E	F	G	H	I
63 / 64000-A	50 - 100 N·m	160	93	33.5	15	96	60	61	40	57
63 / 64000-B	250 - 500 N·m	220	101	59.5	25	106	70	61	40	67
63 / 64000-C	1 kN·m - 2 kN·m	350	130	110	40	126	90	80	60	87

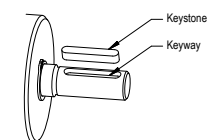
\* 2 kN·m only for model 63000

Ball bearing						
Shaft ending	Distance K	Outer diameter	Inner diameter	Max. rotation of bearing (rpm)	Loading rating (kN)	
					Dyn. C	Stat. C <sub>0</sub>
Ø 15 mm	82.0	35	15	25.000	7.8	3.8
Ø 25 mm	84.8	52	25	16.000	13.8	7.65
Ø 40 mm	114.6	68	40	11.000	17.8	11.6

→ Other capacities and dimensions available on request

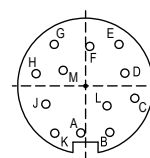
Dimensions in mm

Accessories



Dimensions of keystone groove (mm)				Keystone DIN 6885			Keystone position
Shaft ending (mm)	Width	Depth	Length	Height	Length	Quantity	Distance L
Ø 15	5N9	3	25.5	5	25	1	130.5
Ø 25	8N9	4	50.5	7	50	2	165.5
Ø 40	12N9	5	90.5	8	90	2	252.0

Wiring



Pin	Colour	Description	Value
A	White	Supply Voltage V <sub>cc</sub>	11 V...28 V
B	Brown	Ground GND	
C	Green	Analogue out	0 V...10 V
D	Yellow	Analogue GND	
E	Grey	Analogue out	4-20 mA
F	Pink	Optional - Angle Channel A	0 V...5 V
G	Blue	Optional - Angle Channel I	0 V...5 V
H	Red	Optional - Angle Channel B	0 V...5 V
I	Black		
K	Violet	For internal use only	RX (TTL Pegel)
L	Grey-Pink	For internal use only	RX (TTL Pegel)
M	Red-Blue	Digital GND	

Load direction

