WTS

Wireless Torque Sensor
To use with GenWM master

Ref: WTS-####

SN: U######## | Software version: v#.##

Paired master: SN U########

Texys products are designed for data recording. If the user wants to include this sensor in a close loop system or active control, he must assume all responsibility.

Offset accuracy	±1.5% FS from 25°C to 85°C	
Sensitivity accuracy	±1% FS from 25°C to 85°C	
Resolution	0.1 or 1	N.m
Max Hysteresis	±0.1	%FS
Internal temperature accuracy	1	°C
Internal temperature resolution	0.5	°C
Shaft temperature accuracy	2	°C
Shaft temperature resolution	0.1	°C
Sampling frequency	10 to 200	Hz
RF Frequency	868 MHz/902MHz/920MHz	
Receiver Sensitivity	-112	dBm
RF Emission Power	0 to 14 dBm (1 to 20mW) (Default setting 14dBm)	
Battery Rating Voltage	3.6	V
Battery capacity @25°C	1600	mAh
Average current consumption @25°C	Sleep mode: 0.01 Idle mode: 0.1 Run mode 10Hz: 10 Run mode 50Hz: 15 Run mode 100Hz: 20 Run mode 200Hz: 32	mA
Dimensions	See §Mechanical design	
Material	PR751	
Weight (with battery)	170	g
Protection	IP64	
Max rotation speed	7000rpm	
Vibration test	20Gpp 5'	
Shock	500	G
Operating Temp	-20 to +85	°C
Storage Temp	-20 to +85	°C

Readings	
@ 0 N.m (after applying negative torque)	
@ 0 N.m (after applying positive torque)	
@ 182.8N.m	

Calibration setup parameters		
Resolution		N.m

Software setup parameters		
RF channel jump sequence	0	-
System ID	0	-
Slave ID	1	-
Accelerometer idle threshold	1498	mG
Accelerometer wake-up threshold	1999	mG

Ordering ref:

WTS – *Torque range in N.m*

ex: WTS-3000

Changing parameters

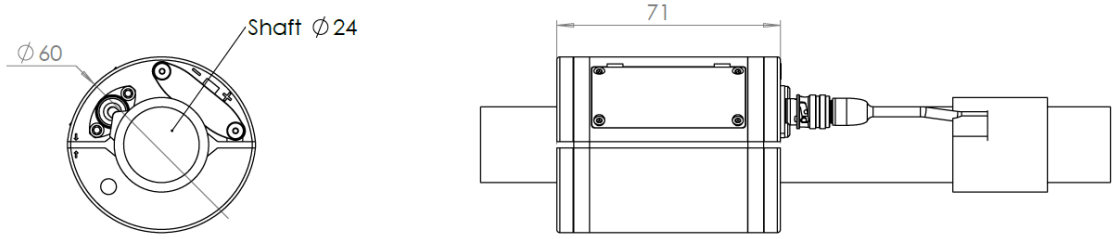
Must be setup according to Texense's CAN protocol, or by using the Texense Android Smart Tool (tAST®) with your android device. Contact us at info@texense.com

Sensor parameters:

N°	Parameter	Raw values	Comments	Default value
0x80	RF channel jump sequence	0x00	Sequence 0	Default
		0x01	Sequence 1	
		0x02	Sequence 2	
		0x11	Fixed to channel 1	
		0x12	Fixed to channel 2	
		0x13	Fixed to channel 3	
		0x14	Fixed to channel 4	
		0x15	Fixed to channel 5	
0x81	System ID	0 to 15		Default: 0
0x82	Slave ID	1 to 22		Default: 1
0x84	Accelerometer idle threshold	0x00 to 0xFF	7.843mG/bit	Default: 0xBF (1498mG)
0x85	Accelerometer wake-up threshold	0x00 to 0xFF	7.843mG/bit	Default: 0xFF (1999mG)

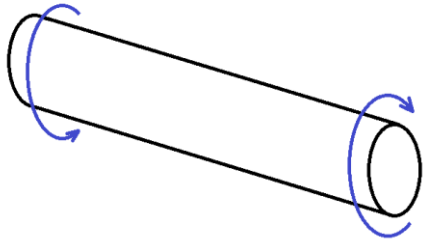
Mechanical design

The overall dimension depends on the diameter of the shaft. The minimum shaft diameter is 24mm and maximum is 50mm:



Torque sign convention

Positive torque:



Negative torque: