

# SX-4428

## Compact Magnetorque non-contacting steering torque sensor

Magnetorque is ideally suited for demanding Electric Power Steering systems.



### ELECTRICAL<sup>1</sup>

Supply Voltage	4.5 to 5.5 VDC
Linearity	±3%
Hysteresis	±1.3%
Microgradient	±30% of theoretical slope over 0.4° interval
Sensed Angle	±5°
Supply Current	10 to 20 mA
Clamp Low	8 to 12%
Clamp High	88 to 92%
Sensitivity	0.388 to 0.412 V/°

### MECHANICAL

Mechanical Travel, Input Rotor	Continuous
Mechanical Travel, Output Rotor	Continuous
Turning Torque (rotor to rotor)	0 NM (non-contacting)
Turning Torque (input rotor to housing)	0 NM (non-contacting)
Turning Torque (output rotor to housing)	0.05 NM maximum
Weight	105 grams maximum

### ENVIRONMENTAL

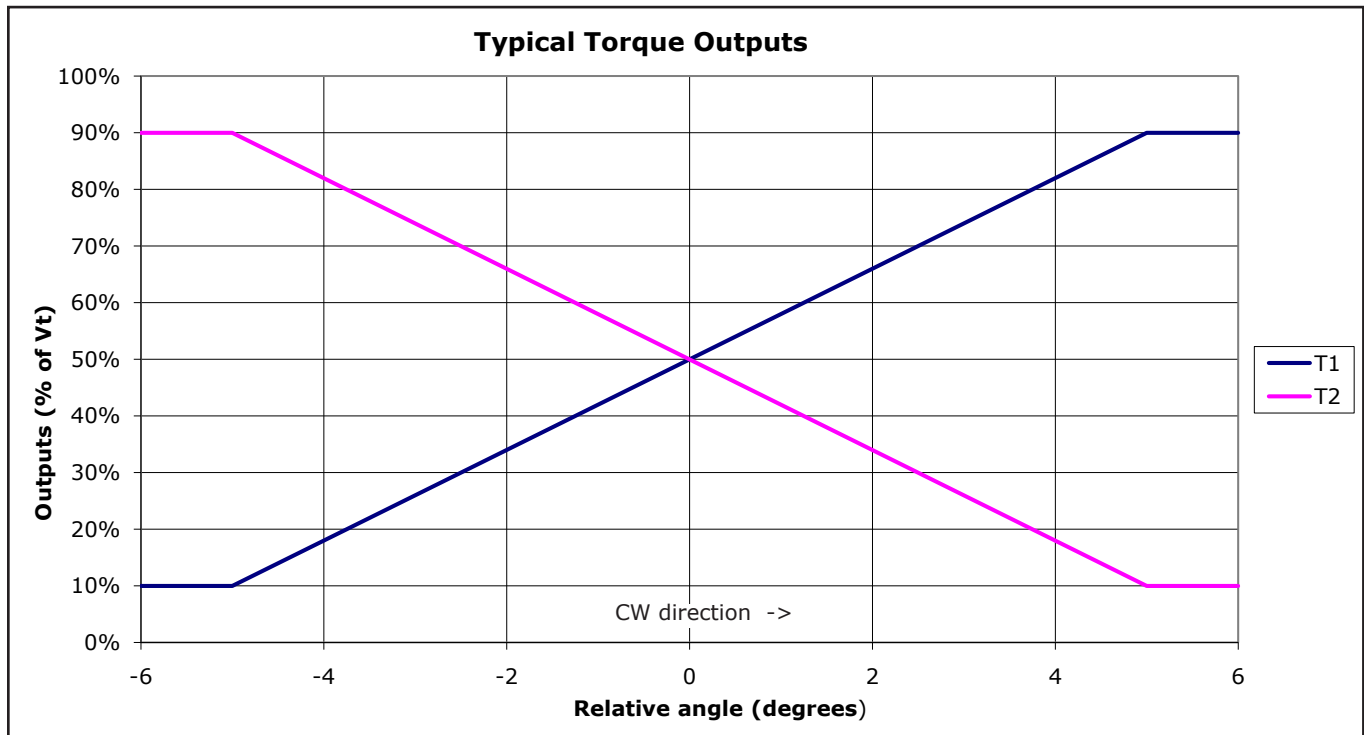
Operating Temperature Range	-40°C to +85°C
Vibration	10 to 55 Hz with 1 mm P-P constant displacement, 120 hours each of 3 planes
Input Rotor Rotational Life	Infinite (floating)
Output Rotor Rotational Life	10 million cycles
Storage Temperature Range	-55°C to +125°C

<sup>1</sup> Design can be programmed to meet other angles and amplitudes. Specifications per 122-4400-44A and subject to change without notice.



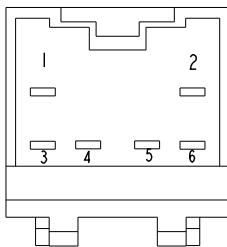
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## OUTPUT CHART

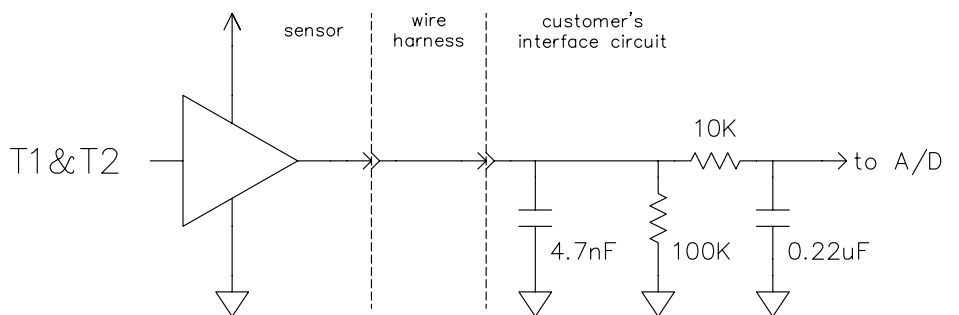


## PINOUTS & RECOMMENDED INTERFACE

PIN No.	SIGNAL	WIRE COLOR
1	VCC	RED
2	GND	BLACK
3	N/A	N/A
4	T1	BLUE
5	T2	PURPLE
6	N/A	N/A



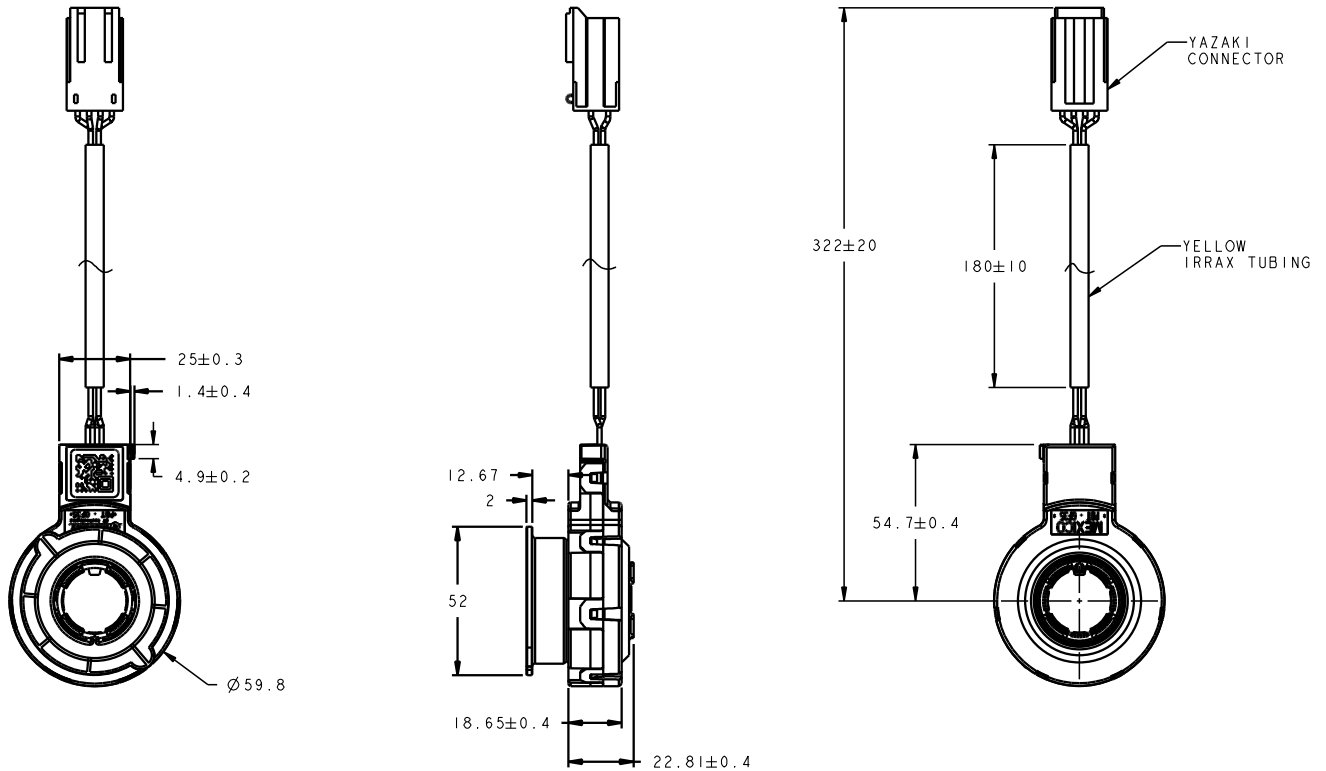
YASAKI MATING CONNECTOR #7123-8365  
CONNECTOR FRONT VIEW



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## OUTLINE DRAWING

Tolerances  $\pm 1$  mm unless otherwise specified.



## BARCODE LABEL



**Micro QR M4  
symbology**

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4428 A YY DDD T SSSS**

