

SX-4417

Non-Contacting Steering Sensor



Features:

- Dual torque and multi-turn position outputs in one compact package
- Redundant outputs for full diagnostics
- Lead-free
- RoHS 2 compliant

Applications:

- Electric power steering systems

Electrical

Torque operating input voltage range	4.5 to 5.5 VDC
Torque input voltage absolute limits	-14.5 to +30 VDC
Torque supply current	10 to 20 mA
Torque sensed angle	±5°
Torque signal linearity	±3%
Torque hysteresis	±1.3%
Torque signal microgradient (over travel increment of 0.4°)	3.2% V_{in} ±1.0% V_{in}
Torque wobble	40 mV
Position operating input voltage range	4.5 to 5.5 VDC
Position input voltage absolute limits	-0.3 to +6.5 VDC
Position supply current	25 to 50 mA
Position signal linearity	±1%
Position hysteresis	±0.25%
Position signal microgradient (over travel increment of 2°)	1.11% V_{in} ±0.34% V_{in}

Mechanical

Torque mechanical travel	Continuous
Position mechanical travel	Continuous
Turning torque (position rotor to housing)	0.02 NM maximum
Weight	101 gram maximum

General Note

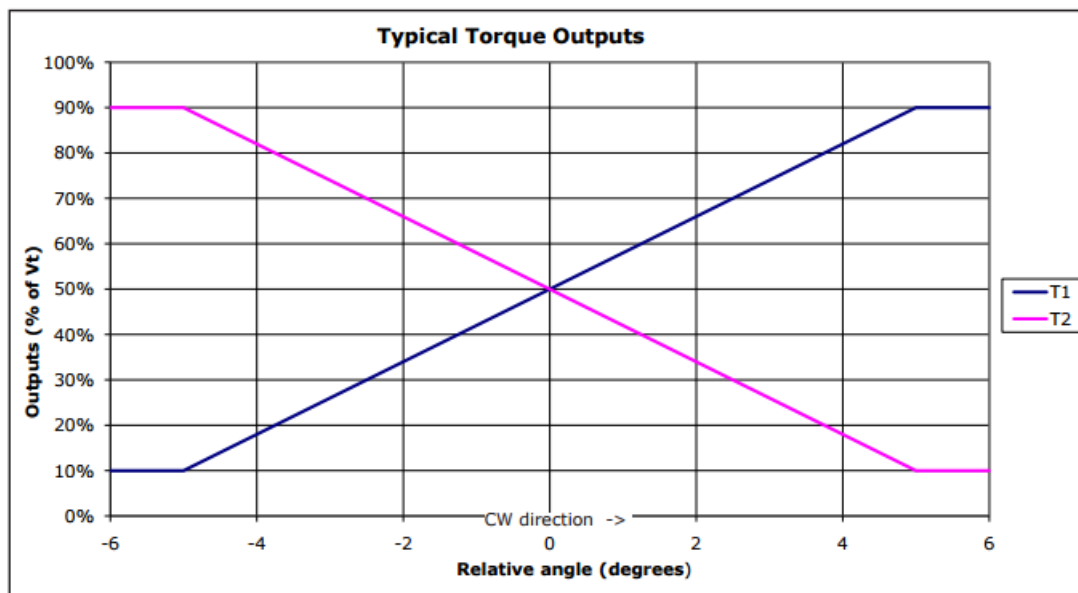
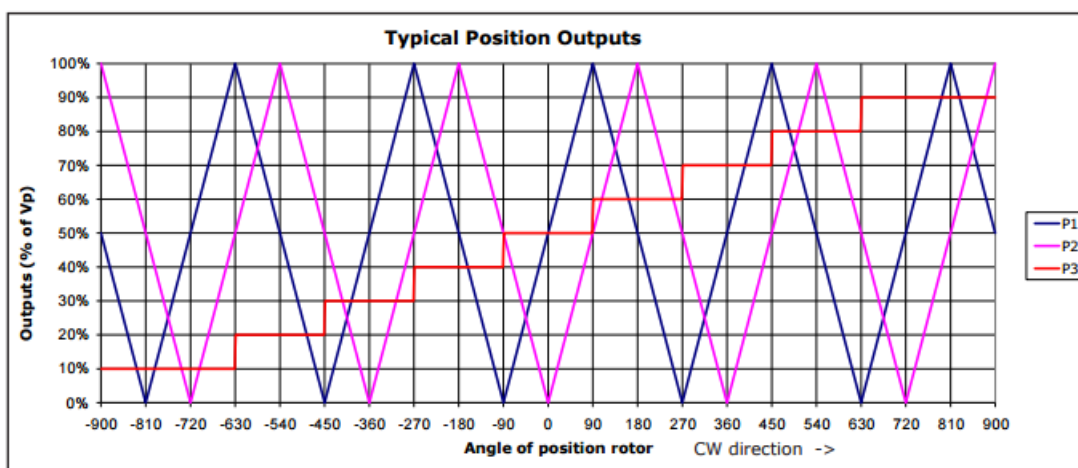
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BI Technologies
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www.bitechnologies.com | www.ttelectronics.com

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
Torque rotational life	Infinite (non-contacting)
Position rotational life	1 million revolutions
Storage temperature range	-55°C to +105°C

Output Charts



Different output signals can be easily configured by BI. Contact factory for details.

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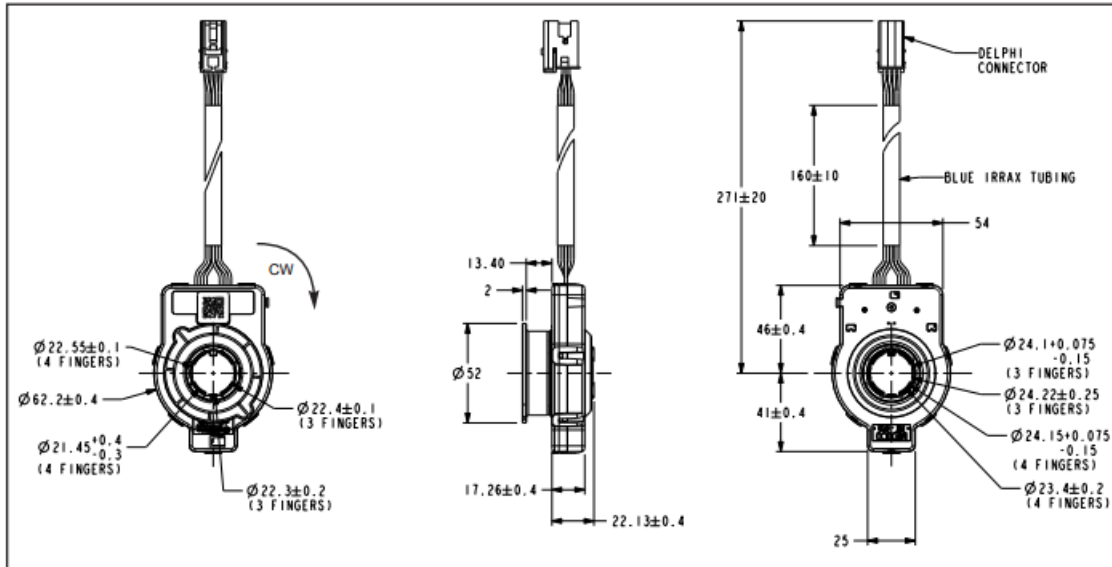
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Outline Drawing



Dimensions in mm
Detailed outline drawing available on request

Pinouts

PIN No.	SIGNAL	WIRE COLOR
1	P3	YELLOW
2	P1	BROWN
3	VT	RED
4	T2	PURPLE
5	VP	ORANGE
6	P2	WHITE
7	GND	BLACK
8	T1	BLUE

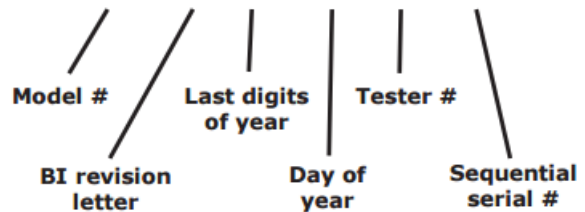
DELPHI CONNECTOR 15406142
WIRE INSERTION END VIEW

Barcode Label



**Micro QR M4
symbology**

**Content not human readable:
4417 E YY DDD T SSSS**



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