SX-4300

Features:

- Torque and position multi-turn output
- Ideally suited for demanding electric power steering systems







Electrical

Torque Signal Linearity	±3%
Torque Hysteresis	0.5% maximum
Torque Signal Microgradient	±30% of theoretical slope over 0.4° interval
Torque Sensed Angle	±8°
Position Signal Linearity (P1, P2)	±1.5%
Position Signal Microgradient (P1, P2)	±30% of theoretical slope over 2° interval
Multi-turn Position Accuracy (P3)	±3%
Multi-turn Position Sensed Angle	±900°
Total Resistance	420 Ω ±30%

Mechanical

Torque Mechanical Travel	±11.4°
Position Mechanical Travel	Continuous
Turning Torque (rotor to rotor)	0.03 NM maximum
Turning Torque (position rotor to housing)	0.06 NM maximum
Weight	95 grams maximum

Environmental

Operating Temperature Range	-40°C to +85°C
Shock	14 ms half-sine at 300 m/s ²
Vibration	10 to 55 Hz with 1 mm P-P constant displacement, 120 hours each of 3 planes
Torque Rotational Life	1 million cycles
Position Rotational Life	1 million cycles
Storage Temperature Range	-40°C to +105°C

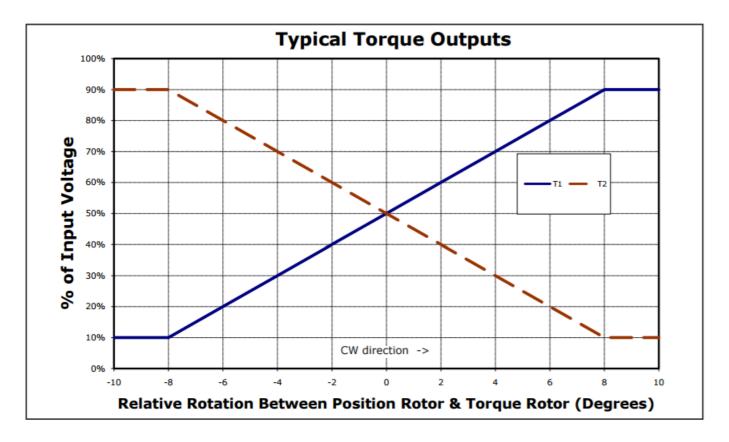
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Typical Position Outputs 100% 90% 80% 70% Outputs (% of Vp) 60% -P1 50% P2 40% P3 30% 20% 10% 0% -900 -810 -720 -630 -540 -450 -360 -270 -180 -90 0 90 180 270 360 450 540 630 720 810 900 Angle of position rotor CW direction ->

Output Charts

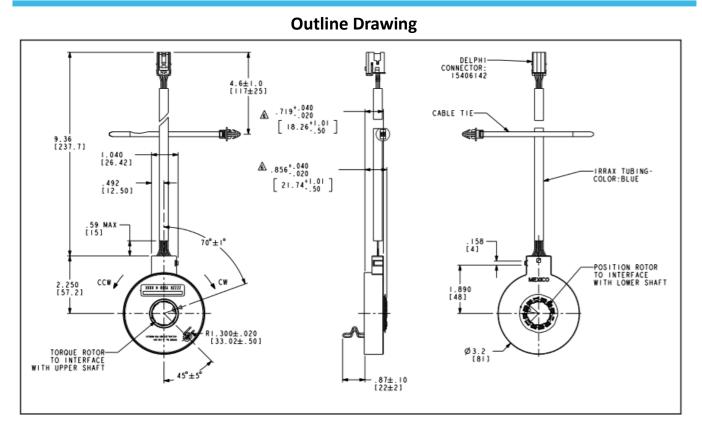


General Note

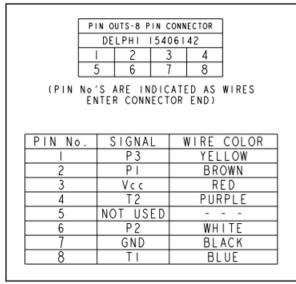
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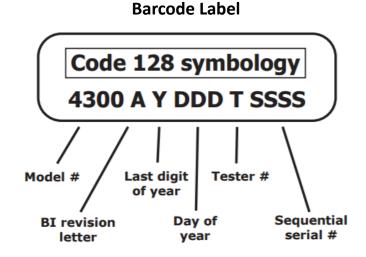




Tolerances ±0.25 mm unless otherwise specified. See drawing # 122-4300-80 for details.



Pinouts

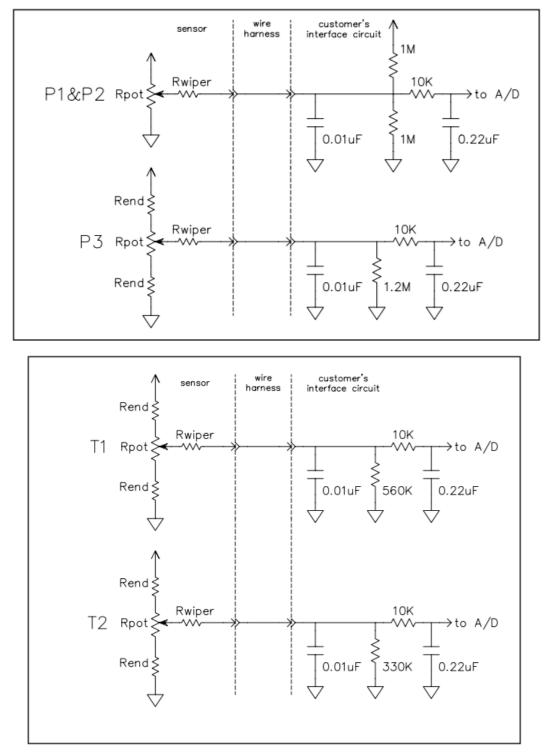


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Recommended Interface

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