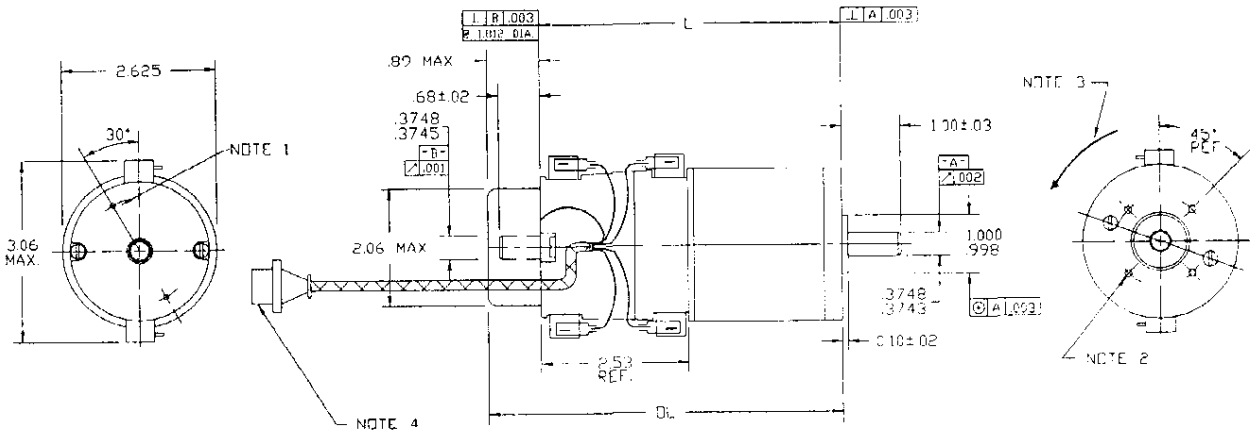
MOTOR OUTLINE DRAWING



NOTES

1. 2 holes equally spaced on a 1.812 diameter tapped for 4-40 screws; .33 maximum screw penetration
2. 4 holes equally spaced on a 1.531 diameter tapped for 6-32 screws; .40 maximum screw penetration
3. For counterclockwise rotation when facing the motor shaft, the armature lead (Pin 6) will be positive with respect to Pin 14 and the tach lead will be positive with respect to Pin 2.
4. 12" standard cable length from base of rear shaft to end of connector (16 pin standard CPC receptacle)

MTE CONNECTOR PINOUT

PIN	CONNECTOR	PIN	CONNECTION
6	Armature Red	3	+5VDC
14	Armature Black	4	DC COM
10	Case Ground	7	ENCA
1	Tach Red	8	ENCA'
2	Tach Black	11	ENCB
5	Shield	12	ENCB'
		15	ENCR
		16	ENCR'

TABULATION

Model No.	"L" Dim.	"OL" Dim.
MTE-261	5.2 ±.03	6.1 ±.05
MTE-262	6.2 ±.03	7.1 ±.05
MTE-263	7.2 ±.03	8.1 ±.05

MTE-260 SERIES ORDERING GUIDE

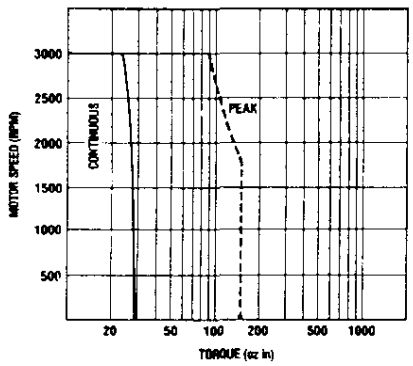
MTE-261/xxxx - Motor-Tach-Encoder
Maximum Speed: 4,000 RPM
Continuous Stall Torque: 1.8 lb-in
MTA-261 - Motor-Tach only

MTE-262/xxxx - Motor-Tach-Encoder
Maximum Speed: 4,000 RPM
Continuous Stall Torque: 3.3 lb-in
MTA-262 - Motor-Tach only

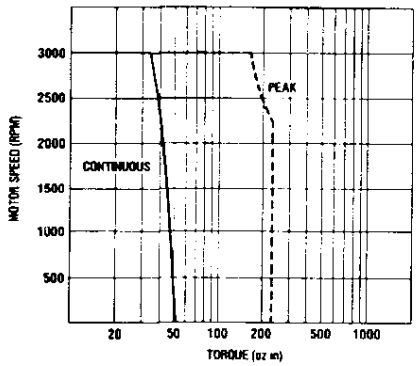
MTE-263/xxxx - Motor-Tach-Encoder
Maximum Speed: 4,000 RPM
Continuous Stall Torque: 4.4 lb-in
MTA-263 - Motor-Tach only

In the part number, "xxxx" specifies the encoder linecount. ORMEC maintains a stock of 500 and 1,000 linecount units. For other resolutions from 50 to 1,200, call ORMEC. Example: to specify an MTE-260 with a 500 linecount encoder, the part # is MTE-260/0500.

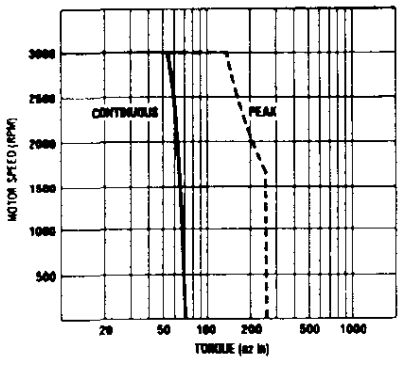
OPERATING ENVELOPES



MTE-261



MTE-262



MTE-263

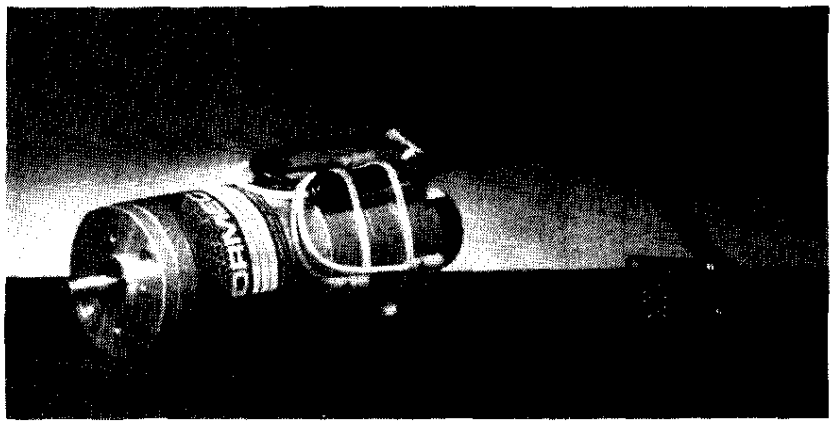
MOTOR-TACH-ENCODER
MTE-260 Series

19 Linden Park Rochester, NY 14625 (716) 385-3520

MTE-260 series DC Servomotors are compact, low inertia motors designed for applications which demand fast, accurate response, outstanding reliability and reasonable cost.

These motors feature aluminum die-cast housings and oversized brushes for ruggedness and long brush life, typically over 10,000 hours.

Optical incremental encoders with a zero-reference channel and linedrivers are included. All terminations are made at a single standard connector, and custom cables are available.



MTE-260 series servomotors feature a continuous torque ratings from 1.8 to 3.3 lb-in. Optical incremental encoders are available with resolutions from 50 to 1200 linecount.

Performance Specifications	Units	MTE-261	MTE-262	MTE-263
Maximum Speed	RPM	4000	4000	4000
Torque, Continuous Stall (4)	lb-in	1.8	3.3	4.4
Torque, Continuous at 1750 RPM (4)	lb-in	1.6	2.7	3.9
Torque, Peak	lb-in	9	19	22
Torque/Inertia (Continuous)	rad/sec^2	7073	7761	7527
Torque Ripple	% of ave.	n/a	n/a	n/a
Ripple Frequency	cycles/rev	21	21	21
Motor-Tach Torsional Resonance	hertz	2000	2000	2000
Mechanical Specifications				
Moment of Inertia (Motor/Tach)	lb-in-sec^2	0.000256	0.000418	0.000581
Friction Torque, Static	lb-in	0.28	0.28	0.28
Friction Torque, Viscous	lb-in/kRPM	0.013	0.025	0.031
Weight (Motor/Tach)	lbs	3.2	4.2	5.3
Electrical Specifications				
Torque Sensitivity (2)	lb-in/amp	0.79	0.72	0.85
Back EMF Voltage Constant (2)	volts/kRPM	9.4	8.5	10.1
Armature Resistance	ohms	2.3	0.86	0.74
Armature Inductance	millihenrys	4.4	1.8	1.6
Maximum Terminal Voltage	volts	80	80	80
Armature Current, Continuous (2)	amps	2.3	4.5	5.1
Armature Current at Peak Torque (2)	amps	11.8	26.1	25.7
Thermal Specifications				
Thermal Resistance, Mounted (4)	deg C/watt	5	4	3.5
Thermal Time Constant (4)	minutes	15	20	20
Maximum Armature Temperature	deg C	155	155	155
Normally Closed Thermal Protector	deg C	n/a	n/a	n/a
Tachometer Specifications				
Tachometer Sensitivity (2)	volts/kRPM	7	7	7
Tachometer Resistance (3)	ohms	100	100	100
Tachometer Ripple Volts	% of ave.	1	1	1
Tachometer Ripple Frequency	cycles/rev	21	21	21
Encoder Specifications				
Encoder Resolution	linecount	50-1200	50-1200	50-1200
Operating Temperature	deg C	0-50	0-50	0-50

(1) All values at 25 degrees C unless otherwise noted.
(2) ±10% variability
(3) ±15% variability

(4) Mounted to 10"x10"x1/4" aluminum plate
(5) Brush life: 8000 hours @ 1000 RPM minimum
(6) Motor Style: Totally Enclosed Non-Ventilated (TENV)