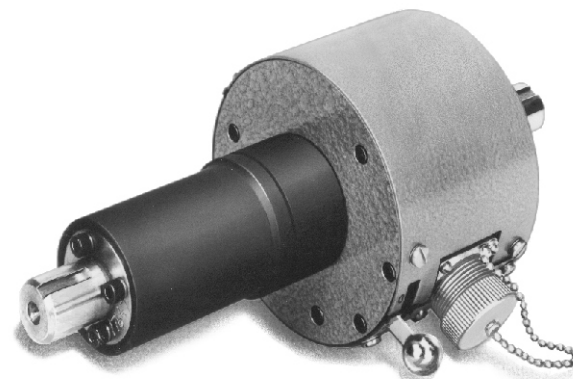


# ROTATING TORQUE SENSORS

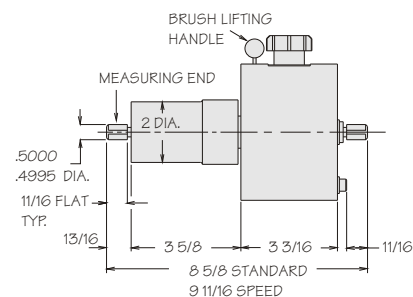
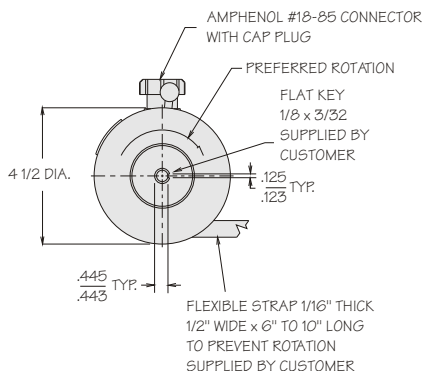
## RST SERIES

The RST- Series is our low range rotating torque sensors that are available in eleven full scale ranges of 10 through 30K inch pounds. The sensing element incorporates bonded foil strain gages of the highest quality along with coined silver slip ring and silver brushes for data transmission. The WR2, Flexural Natural Frequency, and Torsional Stiffness values as stated in the Dynamic Characteristics box below, are approximate and the tabulated data pertains to the torque pickup only, and does not include the effects of couplings or other rotating masses that would be part of a dynamic system.



### RST-A

CAPACITY RANGES:  
10, 20, 50 INCH LBS.



MODEL	CAPACITY IN. LBS	MAX. SPEED RPM	WR <sup>2</sup> LBS. IN. <sup>2</sup>	FLEXURAL NATURAL FREQUENCY RPM	TORSIONAL STIFFNESS IN. LBS./RADIAN	WT. LBS.
RST-A10	10	3,600	.634	15,500	300	3
RST-A20	20	3,600	.636	17,500	900	3
RST-A50	50	3,600	.643	23,000	2,300	3

## SPECIFICATIONS

### PERFORMANCE

Output at Full Scale:	1.5 mv/V
Calibration Accuracy:	0.25% FS, CW or CCW
Nonlinearity:	0.25% of FS
Repeatability:	0.25% of FS
Hysteresis:	0.25% of FS
<b>TEMPERATURE</b>	
Safe Temp. Range:	-50 to 140°F
Compensated Temp. Range:	72°F to 150°F ±3°F
Temp. Effect on Zero:	0.0025% FS per °F

### ELECTRICAL

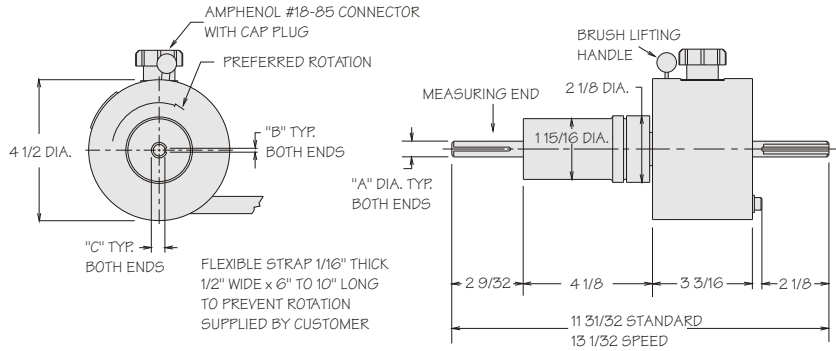
Excitation:	10 VDC
Zero Balance @ 72 ± 3°F:	2.5% F.S.
Terminal Resistance:	350 ohms nominal

### INSULATION RESISTANCE

Bridge to Ground:	2,000 megohms
Shield to Ground:	1,000 megohms

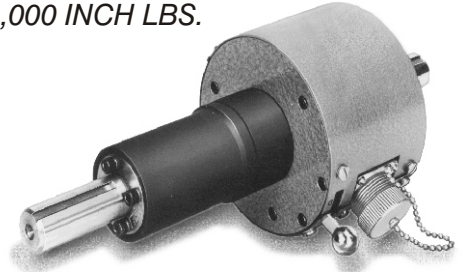
### OVERLOAD RATINGS

Safe:	120%
Electrical Failure:	300%

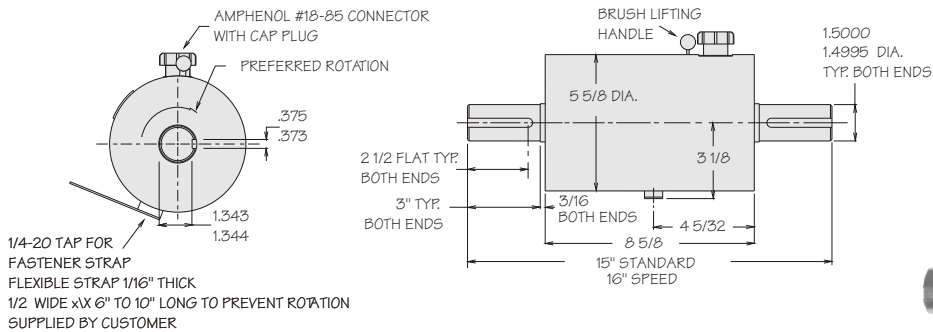


## RST-B

CAPACITY RANGES:  
100, 200, 500,  
1,000 INCH LBS.



MODEL	CAPACITY IN. LBS.	MAX. SPEED (RPM)	WR <sup>2</sup> LBS. IN. <sup>2</sup>	FLEXURAL NATURAL FREQUENCY RPM	TORSIONAL STIFFNESS IN. LBS./RADIAN	WT. LBS.	DIMENSIONS (INCHES)			
							A	B	C	D
RST-B100	100	7,000	1.26	46,600	14,800	5.5	.5000	.125	.445	$\frac{1}{8} \times \frac{3}{32}$
RST-B200	200	7,000	1.26	46,600	14,800	5.5	.4995	.123	.443	
RST-B500	500	7,000	1.32	81,800	79,700	6	.8753	.1875	.802	$\frac{3}{16} \times \frac{1}{8}$
RST-B1K	1,000	7,000	1.56	86,600	72,600	6	.8749	.1855	.800	

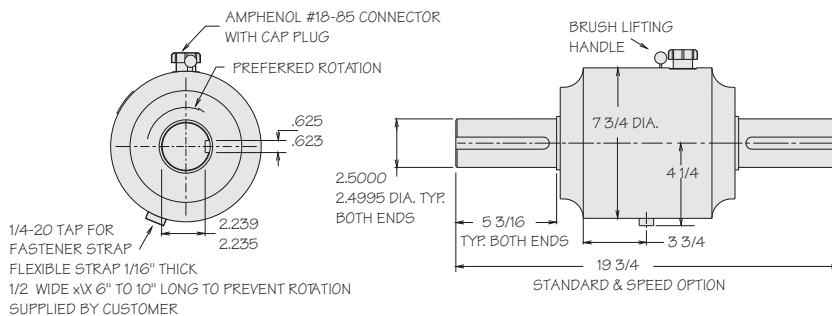


## RST-C

CAPACITY RANGES:  
2,000, 5,000 INCH LBS.



MODEL	CAPACITY IN. LBS.	MAX. SPEED RPM	WR <sup>2</sup> LBS. IN. <sup>2</sup>	FLEXURAL NATURAL FREQUENCY RPM	TORSIONAL STIFFNESS IN. LBS./RADIAN	WT. LBS.
RST-C2K	2,000	5,000	2.69	29,200	99,300	17
RST-C5K	5,000	5,000	2.78	31,800	238,000	17.5



## RST-D

CAPACITY RANGES:  
12,000, 30,000 INCH LBS.



MODEL	CAPACITY IN. LBS.	MAX. SPEED RPM	WR <sup>2</sup> LBS. IN. <sup>2</sup>	FLEXURAL NATURAL FREQUENCY RPM	TORSIONAL STIFFNESS IN. LBS./RADIAN	WT. LBS.
RST-D12K	12,000	5,000	22.6	27,400	905,000	39
RST-D30K	30,000	5,000	23.5	41,600	1,680,000	42