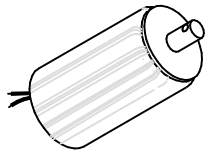


# MAGNETIC SENSOR SYSTEMS

## *Tubular Low Profile Clapper Solenoid*



**Series S-08-54**  
0.54" DIA X 0.83"

TOTAL WEIGHT: 0.54 OUNCES  
PLUNGER WEIGHT: 0.07 OUNCES  
CAPTIVE PLUNGER

duty cycle	1	1/2	1/4	1/10
maximum "ON" time, (Sec.)	∞	100	20	4
watts	3.3	6.5	13.0	32.5
approximate ampere turns	375	530	750	1180

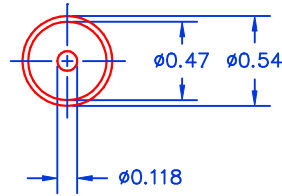
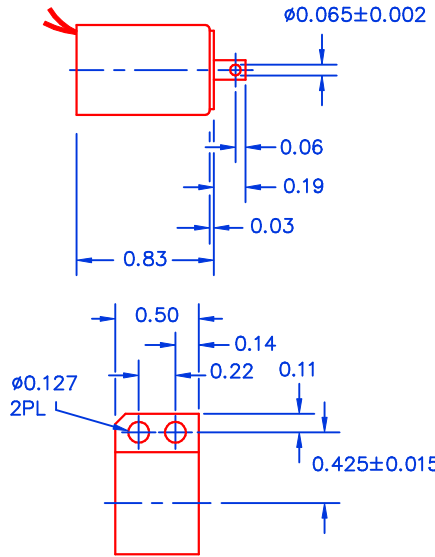
AWG number	resistance	volts DC	volts DC	volts DC	volts DC
25	0.4	1.2	1.6	2.3	3.6
26	0.6	1.4	2.0	2.9	4.6
27	1.2	1.9	2.7	3.9	6.1
28	1.7	2.4	3.5	4.9	7.7
29	3.2	3.2	4.6	6.5	10.2
30	5.5	4.1	5.8	8.2	13.0
31	7.1	4.7	6.7	9.4	14.9
32	11.6	6.2	8.8	12.4	19.6
33	19.5	7.9	11.1	15.7	24.8
34	32.2	10.0	14.2	20.1	31.7
35	51.1	12.8	18.2	25.7	40.6
36	82.0	16.6	23.4	33.2	52.4
37	115	19.1	27.0	38.2	60.4
38	176	24.4	34.5	48.8	77.0
39	290	31.1	44.0	62.2	98.2
40	464	39.6	56.1	79.3	125
41	739	48.1	68.0	96.2	152
42	1116	60.9	86.2	121	193

HEAT SINK: For proper heat dissipation, body of solenoid should be mounted on an equivalent of 2.0" x 2.0" x 1/8" aluminum plate in an unrestricted flow of air.

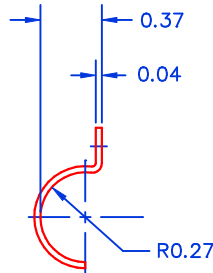
# MAGNETIC SENSOR SYSTEMS

S-08-54

## MECHANICAL DIMENSIONS



CAPTIVE PLUNGER  
TYPICAL STROKE: 0.060



OPTIONAL BRACKET

TOLERANCES: (UNLESS NOTED)

.XXX:  $\pm 0.005$

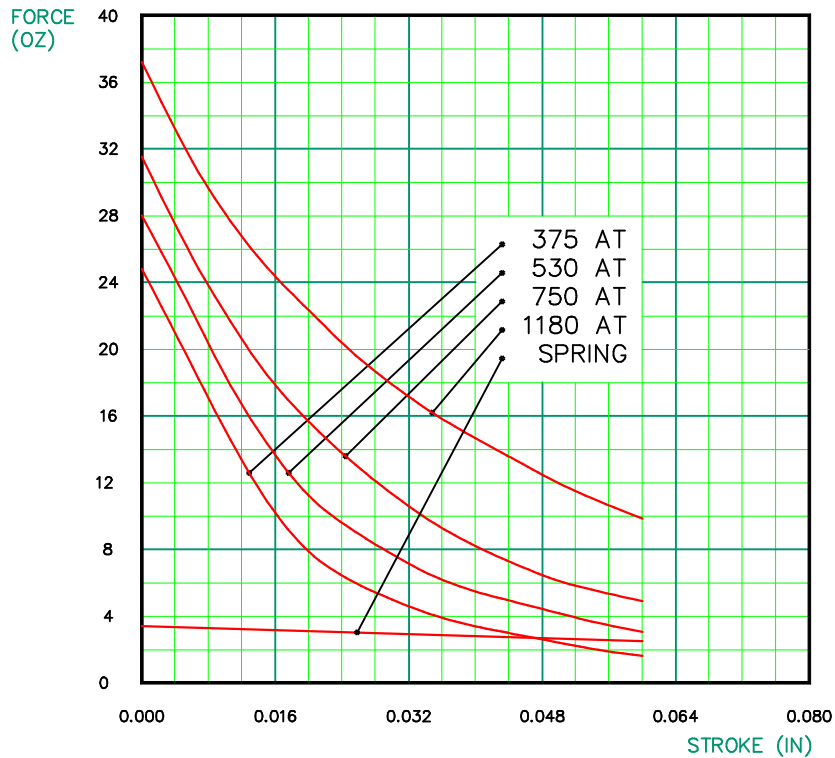
.XX :  $\pm 0.010$

X/X:  $\pm 1/64$

COIL RESISTANCE:  $\pm 10\%$

SOLENOID SHOWN ENERGIZED

## TYPICAL PULL FORCE VERSUS STROKE

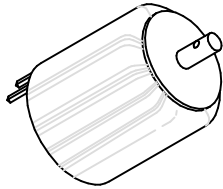


These force curves do not account for return spring.

The typical return spring force is 2.5 / 3.5 OZ as shown.

# MAGNETIC SENSOR SYSTEMS

## *Tubular Low Profile Clapper Solenoid*



**Series S-08-82**  
0.82" DIA X 0.80"

TOTAL WEIGHT: 1.27 OUNCES  
PLUNGER WEIGHT: 0.10 OUNCES  
CAPTIVE PLUNGER

duty cycle	1	1/2	1/4	1/10
maximum "ON" time, (Sec.)	∞	180	50	10
watts	3.5	7	14	35
approximate ampere turns	455	640	910	1440

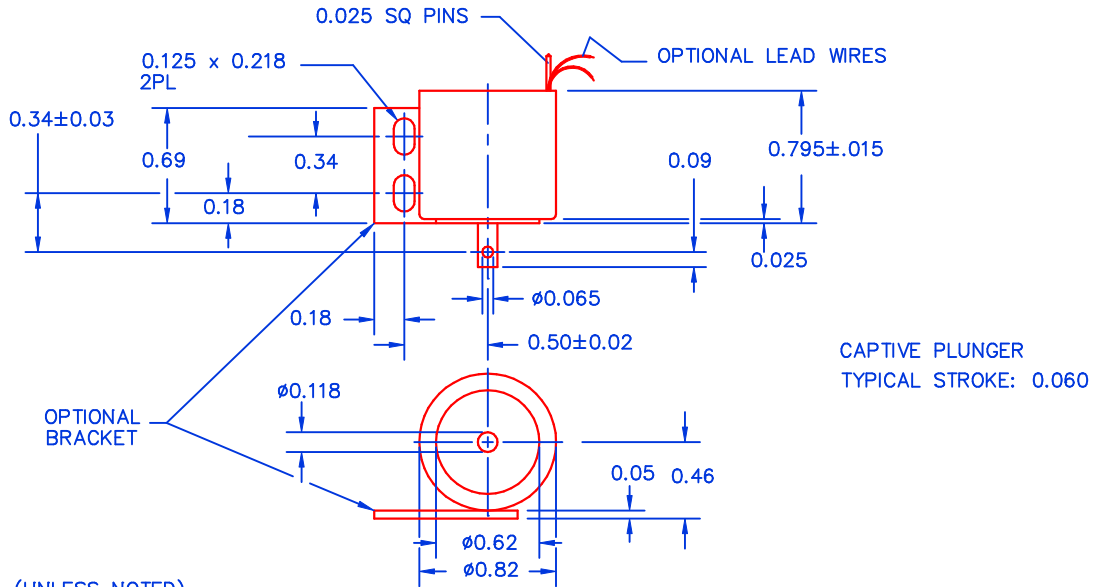
AWG number	resistance	volts DC	volts DC	volts DC	volts DC
25	1.4	2.2	3.1	4.4	7.0
26	2.0	2.7	3.9	5.5	8.7
27	3.3	3.4	4.8	6.8	10.8
28	5.3	4.4	6.2	8.8	13.9
29	8.5	5.4	7.7	10.9	17.2
30	15.9	7.2	10.2	14.5	22.9
31	24.2	9.0	12.7	18.0	28.5
32	36.3	11.0	15.5	22.0	34.7
33	60.8	14.2	20.0	28.3	44.8
34	96.8	18.3	25.9	36.6	57.9
35	153	23.1	32.7	46.2	73.0
36	239	29.3	41.4	58.6	92.6
37	400	36.3	51.4	72.7	115
38	543	44.0	62.2	88.0	139
39	950	58.3	82.4	117	184
40	1525	73.7	104	147	233
41	2139	89.1	126	178	282
42	3620	113	160	227	359

HEAT SINK: For proper heat dissipation, body of solenoid should be mounted on an equivalent of 2.0" x 2.0" x 1/8" aluminum plate in an unrestricted flow of air.

# MAGNETIC SENSOR SYSTEMS

S-08-82

## MECHANICAL DIMENSIONS



TOLERANCES: (UNLESS NOTED)

.XXX: ±.005

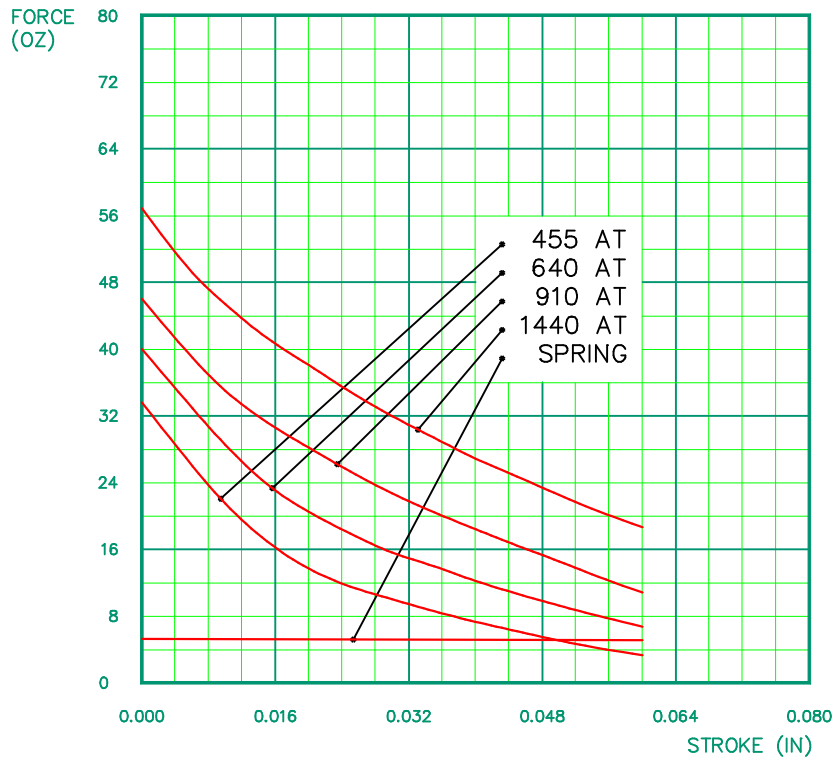
.XX : ±.010

X/X: ± 1/64

COIL RESISTANCE: ±10%

SOLENOID SHOWN ENERGIZED

## TYPICAL PULL FORCE VERSUS STROKE

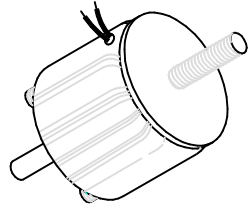


These force curves do not account for return spring.

The typical return spring force is 5.1/ 5.2 OZ as shown.

# MAGNETIC SENSOR SYSTEMS

## *Tubular Low Profile Clapper Solenoid*



**Series S-66-100**  
**1.00" DIA X 0.66"**  
**[25.4 mm X 16.8 mm]**

TOTAL WEIGHT: 1.95 OUNCES [55 GR]

PLUNGER WEIGHT: 0.32 OUNCES [9 GR]

duty cycle	1 (100%)	1/2 (50%)	1/4 (25%)	1/10 (10%)
maximum "ON" time, (Sec.)	$\infty$	50	20	5
watts	4	8	16	40
approximate ampere turns	365	515	730	1155

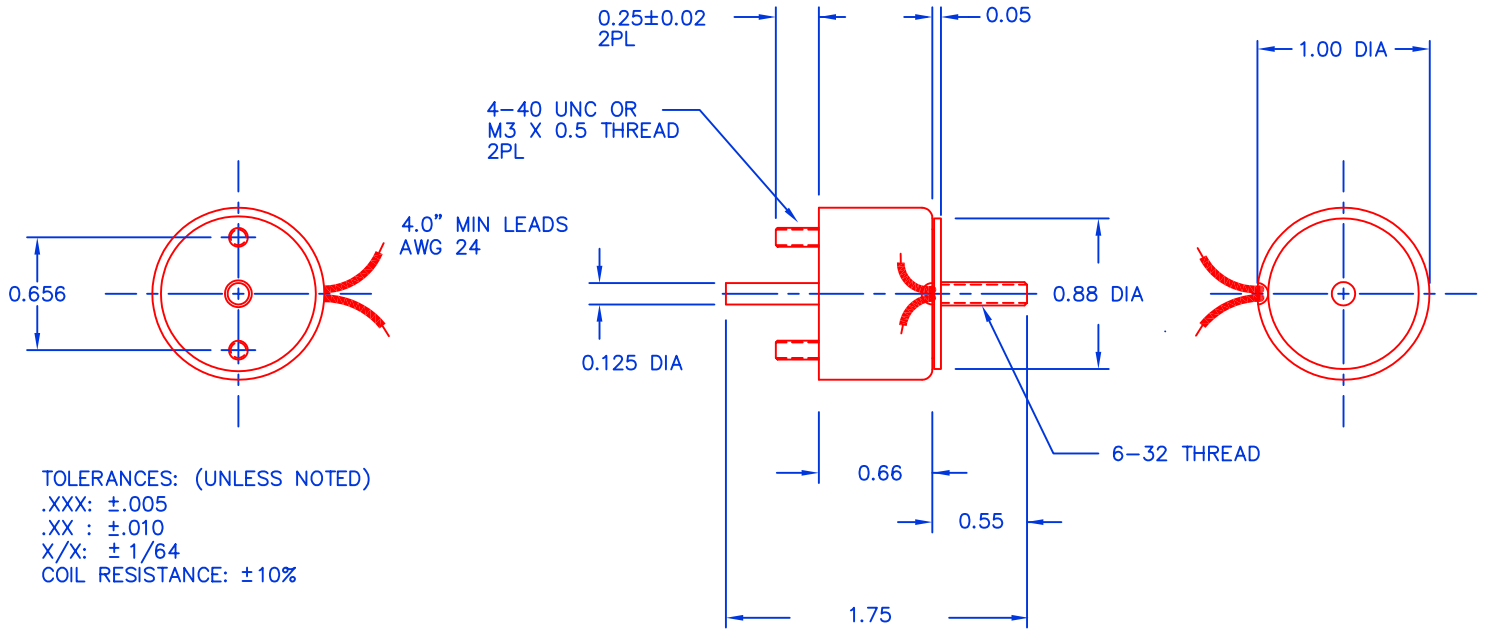
AWG number	resistance ( $\Omega$ )	volts DC	volts DC	volts DC	volts DC
24	0.7	1.7	2.3	3.3	5.2
25	1.2	2.2	3.1	4.4	7.0
26	2.0	2.8	3.9	5.5	8.7
27	3.0	3.4	4.8	6.7	10.6
28	5.0	4.5	6.3	9.0	14.2
29	7.3	5.3	7.5	10.6	16.8
30	12.2	6.9	9.7	13.7	21.7
31	18.8	8.5	12.0	16.9	26.8
32	29.0	10.7	15.1	21.4	33.8
33	47.1	13.6	19.3	27.3	43.1
34	75.5	17.6	24.8	35.1	55.5
35	121	22.1	31.2	44.2	69.8
36	184	27.4	38.8	54.8	86.7
37	295	34.0	48.1	68.0	108
38	450	42.7	60.3	85.3	135
39	790	56.7	80.1	113	179
40	1240	70.7	100	141	224
41	1855	86.0	122	172	272

HEAT SINK: For proper heat dissipation, body of solenoid should be mounted on an equivalent of 4.0" x 4.0" x 1/8" aluminum plate in an unrestricted flow of air.

# MAGNETIC SENSOR SYSTEMS

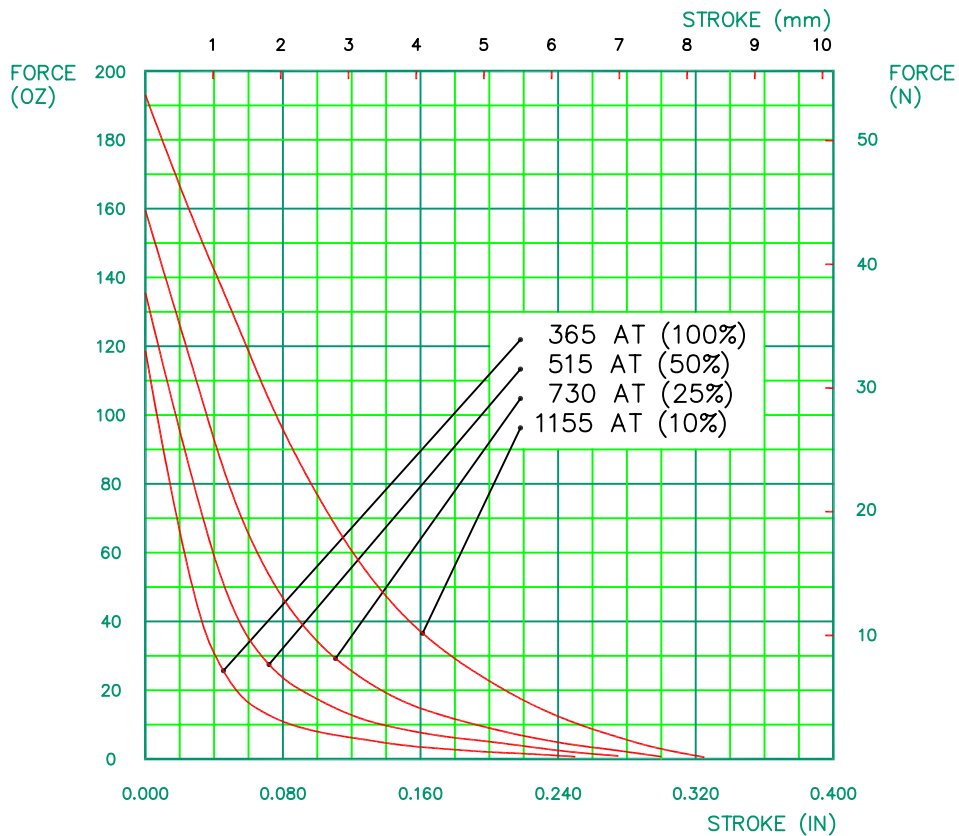
S-66-100

## MECHANICAL DIMENSIONS



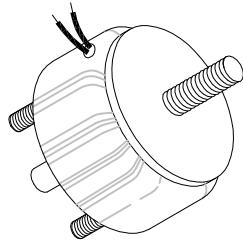
SOLENOID SHOWN ENERGIZED

## TYPICAL PULL FORCE VERSUS STROKE



# MAGNETIC SENSOR SYSTEMS

## *Tubular Low Profile Clapper Solenoid*



Series S-05-125  
1.25" DIA X 0.50"

TOTAL WEIGHT: 2.34 OUNCES

PLUNGER WEIGHT: 0.48 OUNCES

duty cycle	1	1/2	1/4	1/10
maximum "ON" time, (Sec.)	$\infty$	100	30	10
watts	4.5	9	18	45
approximate ampere turns	325	460	645	1025

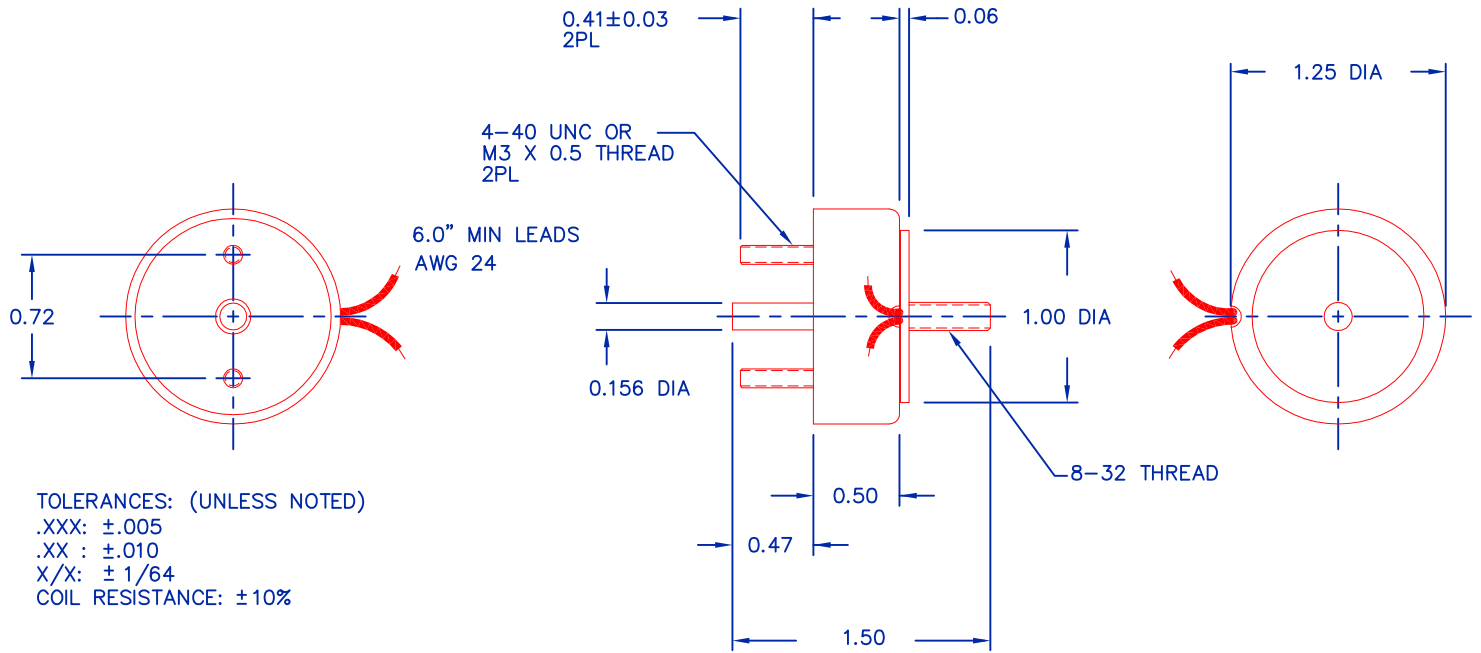
AWG number	resistance	volts DC	volts DC	volts DC	volts DC
24	0.8	1.8	2.6	3.6	5.7
25	1.3	2.3	3.2	4.5	7.1
26	1.9	2.9	4.1	5.8	9.2
27	3.0	3.6	5.1	7.2	11.4
28	4.7	4.6	6.5	9.1	14.5
29	7.3	5.7	8.1	11.4	18.1
30	11.9	7.3	10.4	14.6	23.2
31	18.9	9.3	13.1	18.4	29.2
32	28.4	11.4	16.2	22.7	36.1
33	46.0	14.5	20.6	28.9	45.9
34	72.3	18.4	26.1	36.6	58.1
35	117	23.3	33.0	46.3	73.6
36	193	29.3	41.5	58.1	92.4
37	337	39.8	56.3	79.0	126
38	434	45.7	64.7	90.8	144
39	756	59.8	84.6	119	189
40	1197	76.2	108	151	240
41	1912	92.5	131	184	292

HEAT SINK: For proper heat dissipation, body of solenoid should be mounted on an equivalent of 4.0" x 4.0" x 1/8" aluminum plate in an unrestricted flow of air.

# MAGNETIC SENSOR SYSTEMS

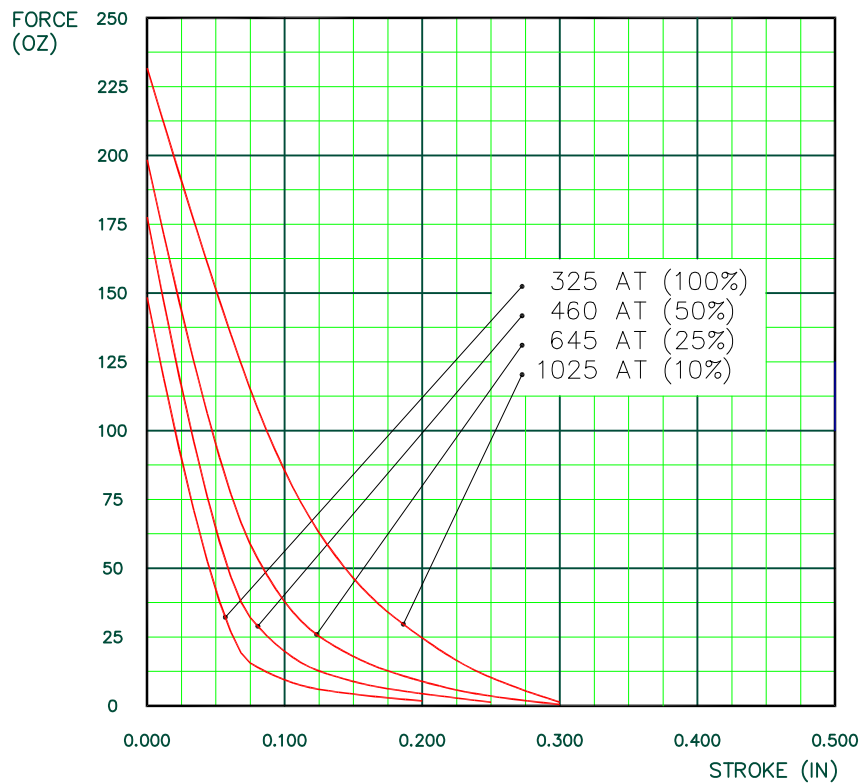
S-05-125

## MECHANICAL DIMENSIONS



SOLENOID SHOWN ENERGIZED

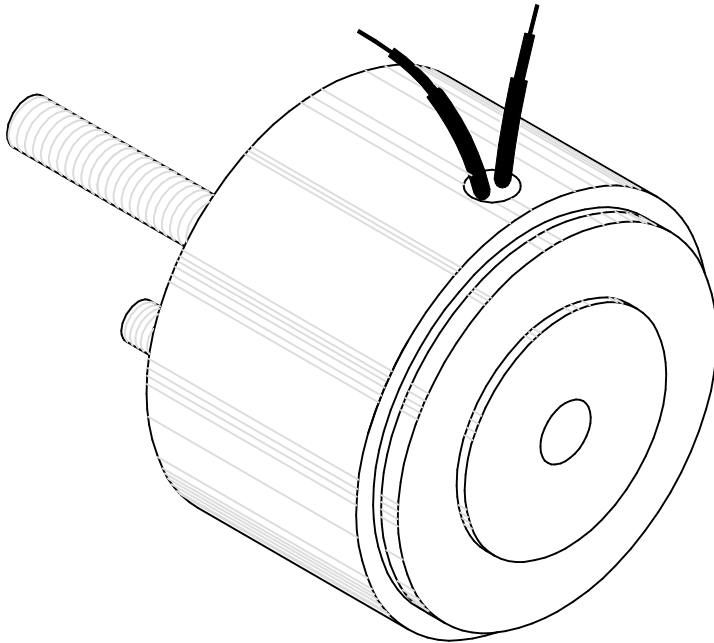
## TYPICAL PULL FORCE VERSUS STROKE





# MAGNETIC SENSOR SYSTEMS

## *Tubular Low Profile Clapper Solenoid*



**Series S-16-261**  
**2 5/8" DIA X 1.56"**  
**[66.8 mm X 39.6 mm]**

**TOTAL WEIGHT: 34.7 OUNCES [984 GR]**

**PLUNGER WEIGHT: 9.3 OUNCES [264 GR]**

duty cycle	1	1/2	1/4	1/10
maximum "ON" time, (Sec.)	∞	230	90	30
watts	20	40	80	200
approximate ampere turns	1200	1700	2400	3800

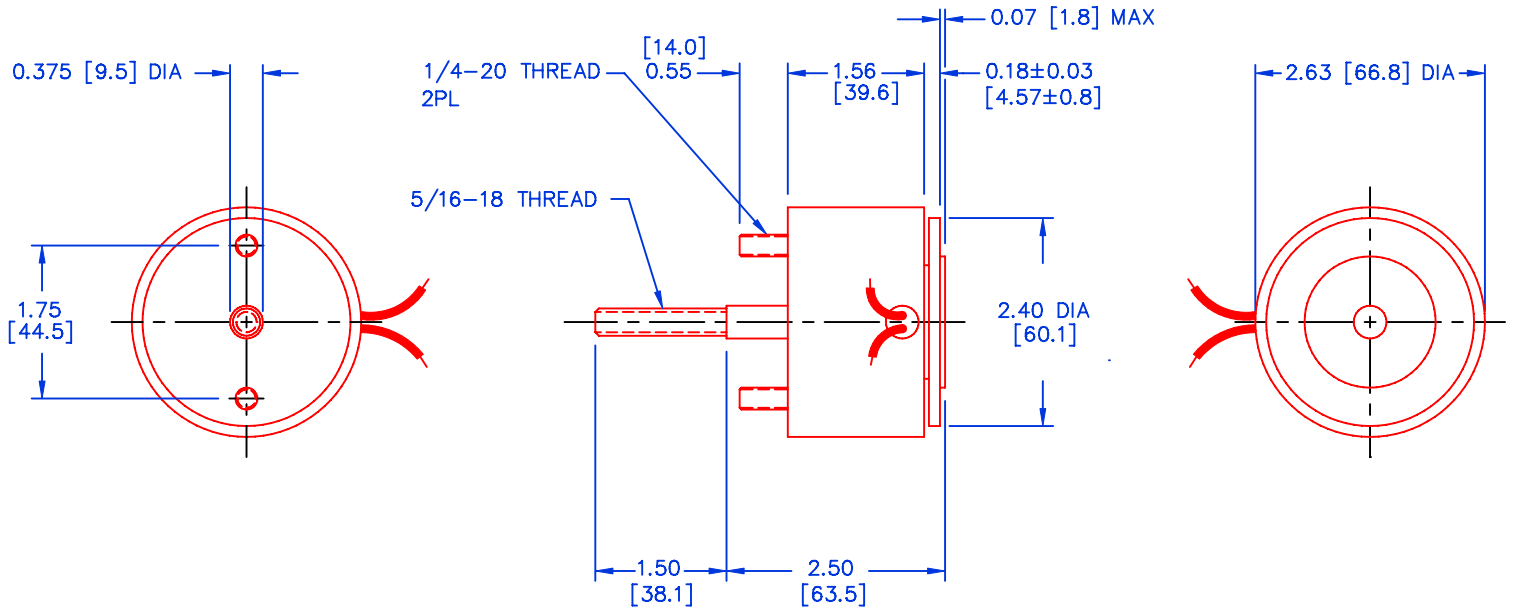
AWG number	resistance (Ω)	volts DC	volts DC	volts DC	volts DC
19	1.4	5.2	7.3	10.3	16.3
20	1.8	5.8	8.2	11.5	18.2
21	3.0	7.7	10.9	15.3	24.3
22	4.5	9.6	13.6	19.2	30.5
23	7.8	12.1	17.2	24.2	38.3
24	12.0	15.5	21.9	31.0	49.0
25	18.5	19.1	27.1	38.3	60.6
26	32.5	25.1	35.5	50.2	79.4
27	48.4	31.4	44.5	62.8	99.4
28	75.2	39.6	56.1	79.2	125
29	127	50.9	72.1	102	161
30	201	63.4	89.9	127	201
31	313	78.3	111	157	248
32	469	97.6	138	195	309
33	770	124	176	249	393
34	1330	161	228	321	509
35	2257	207	293	413	654

HEAT SINK: For proper heat dissipation, body of solenoid should be mounted on an equivalent of 5.0" x 5.0" x 1/4" aluminum plate in an unrestricted flow of air.

# MAGNETIC SENSOR SYSTEMS

S-16-261

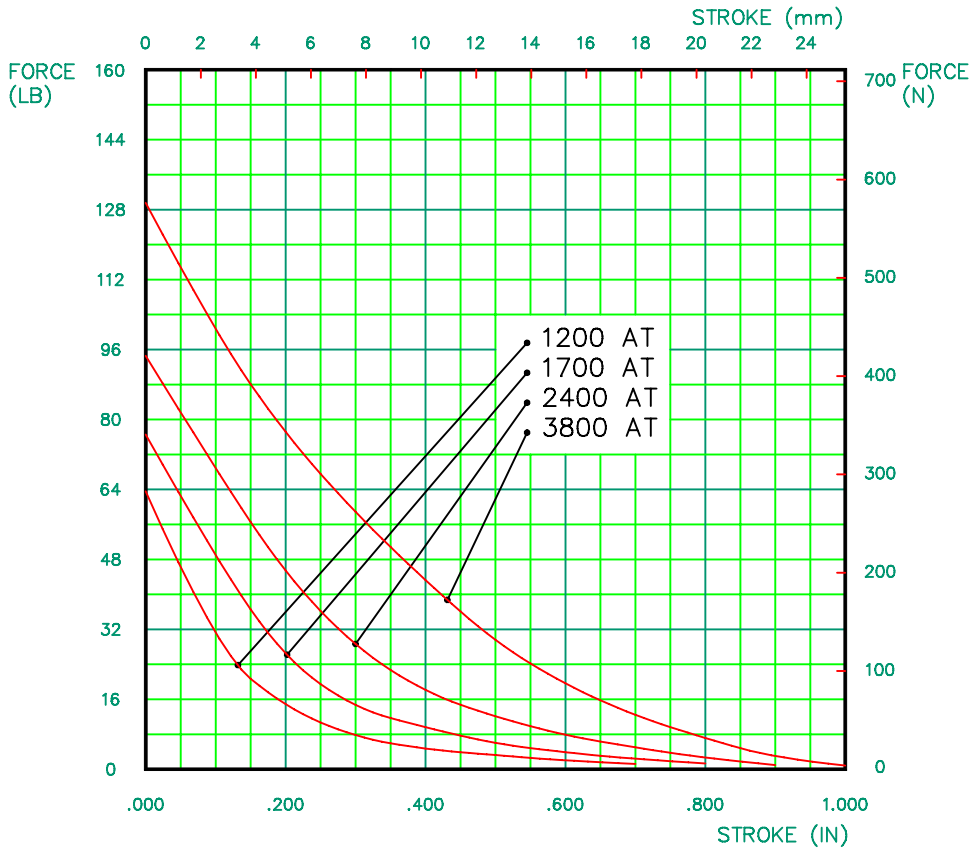
## MECHANICAL DIMENSIONS



TOLERANCES: (UNLESS NOTED)  
 0.XXX: ±0.005  
 0.XX : ±0.010  
 X/X: ±1/64  
 COIL RESISTANCE: ±10%  
 DIMENSIONS IN INCHES [mm]

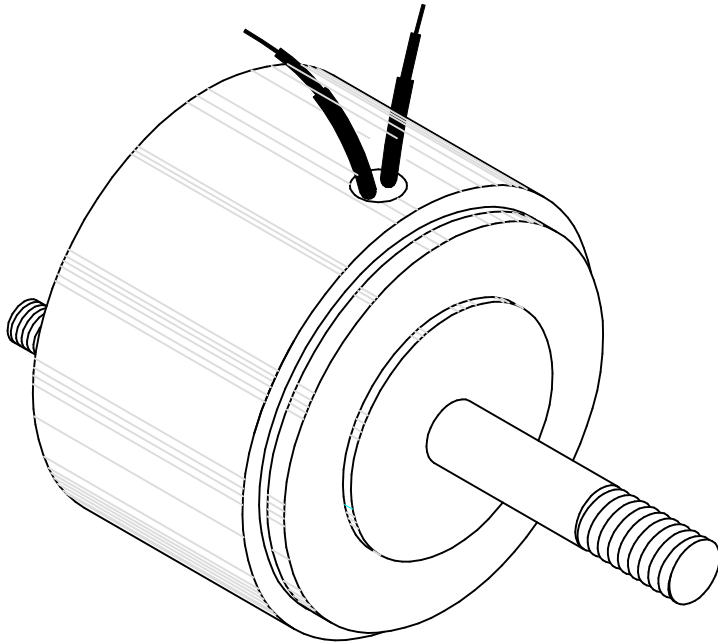
SOLENOID SHOWN ENERGIZED

## TYPICAL PUSH FORCE VERSUS STROKE



# MAGNETIC SENSOR SYSTEMS

## *Tubular Low Profile Clapper Solenoid*



**Series S-16-264**  
**2 5/8" DIA X 1.56"**  
**[66.8 mm X 39.6 mm]**

**TOTAL WEIGHT: 34.7 OUNCES [984 GR]**  
**PLUNGER WEIGHT: 9.3 OUNCES [264 GR]**

duty cycle	1	1/2	1/4	1/10
maximum "ON" time, (Sec.)	∞	230	90	30
watts	20	40	80	200
approximate ampere turns	1200	1700	2400	3800

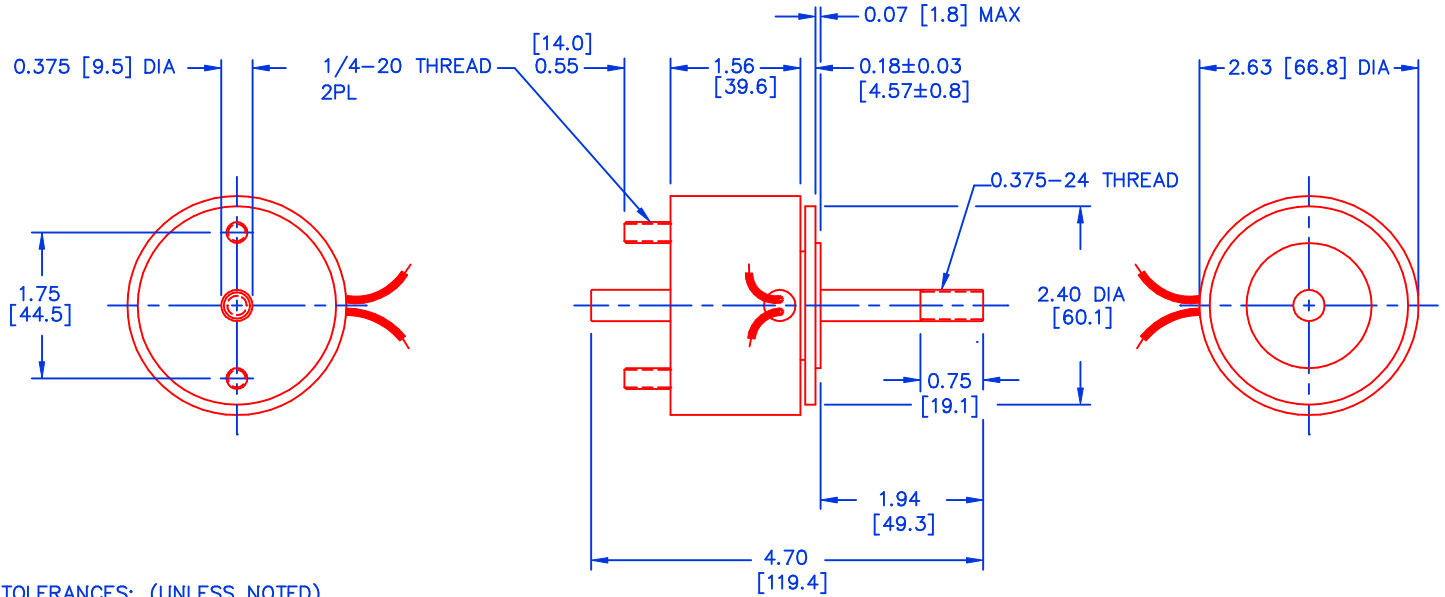
AWG number	resistance (Ω)	volts DC	volts DC	volts DC	volts DC
19	1.4	5.2	7.3	10.3	16.3
20	1.8	5.8	8.2	11.5	18.2
21	3.0	7.7	10.9	15.3	24.3
22	4.5	9.6	13.6	19.2	30.5
23	7.8	12.1	17.2	24.2	38.3
24	12.0	15.5	21.9	31.0	49.0
25	18.5	19.1	27.1	38.3	60.6
26	32.5	25.1	35.5	50.2	79.4
27	48.4	31.4	44.5	62.8	99.4
28	75.2	39.6	56.1	79.2	125
29	127	50.9	72.1	102	161
30	201	63.4	89.9	127	201
31	313	78.3	111	157	248
32	469	97.6	138	195	309
33	770	124	176	249	393
34	1330	161	228	321	509
35	2257	207	293	413	654

HEAT SINK: For proper heat dissipation, body of solenoid should be mounted on an equivalent of 5.0" x 5.0" x 1/4" aluminum plate in an unrestricted flow of air.

# MAGNETIC SENSOR SYSTEMS

S-16-264

## MECHANICAL DIMENSIONS



TOLERANCES: (UNLESS NOTED)  
 0.XXX: ±0.005  
 0.XX : ±0.010  
 X/X: ±1/64  
 COIL RESISTANCE: ±10%  
 DIMENSIONS IN INCHES [mm]

SOLENOID SHOWN ENERGIZED

## TYPICAL PULL FORCE VERSUS STROKE

