



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Industrial
16mm Size
Conductive Plastic
Precision Rotary Sensor

Features

- Robust Construction
- 2 Million Cycle Life
- 2% Precision Linearity
- Water Resistant (IP54, IP67)
- Wide Temperature Range
- Solder Lug, Faston, PC Terminal
- Continuous Rotation Available
- RoHS Compliant



Electrical and Mechanical Specifications

Resistance Range

1 K through 500 K ohms, linear
Consult CTS for audio taper

Resistance Tolerance

± 10%, ± 20%

Power Rating

0.25 watts @ 55°C

Dielectric Strength

750 VDC for 1 minute

Maximum Operating Voltage

500 VDC

Insulation Resistance

1000 Megohms minimum @ 500 VDC

Angle of Rotation

250°, 300°, 360°
(Refer to Resistance Tapers for detail)

Rotational Torque

3 – 50 gf-cm

Stop Strength

9 kgf-cm minimum

Push-Pull Strength of Shaft

13.6 kg for 10 seconds

Mounting Information

Bushing Mount

Rotational Life

2 M cycles

Linearity

± 2%

Temperature

Operating: -40°C to 125°C
Storage: -55°C to 150°C

Solder Heat Resistance

350°C for 5 seconds

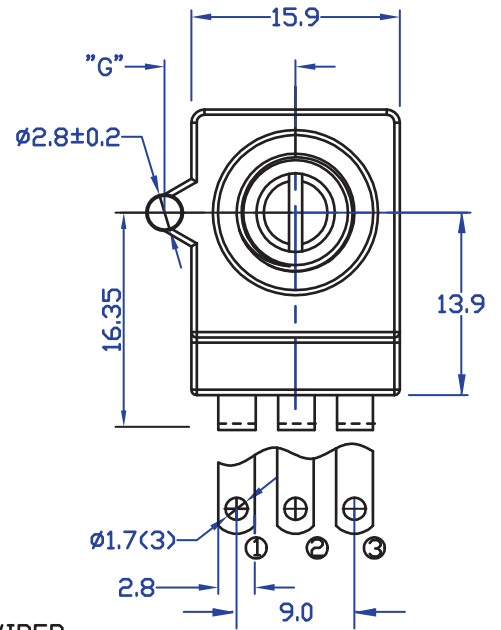
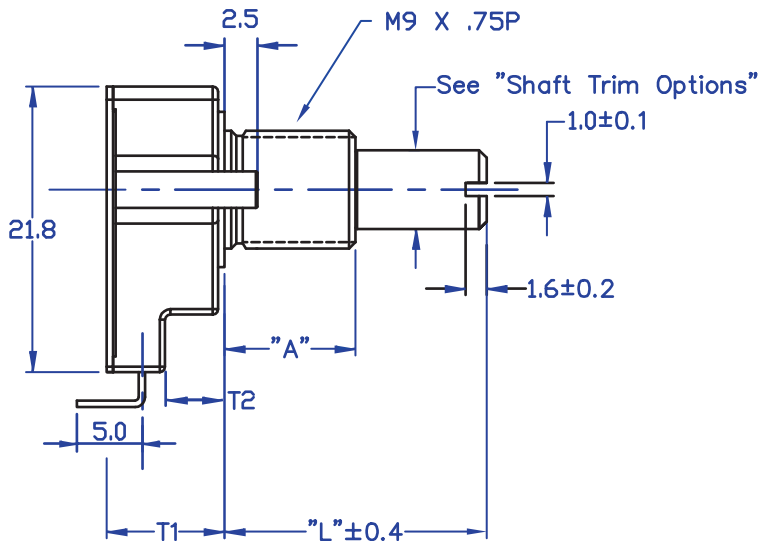
Ingress Protection Rating

IP54, IP67

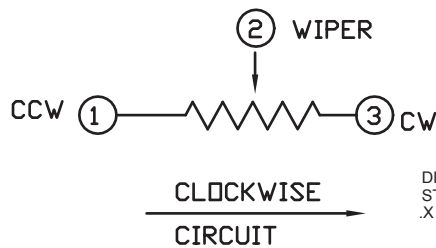
Vibration

15G, 10 to 2000 Hz

282S Metal Shaft, Bushing Mount, Solder Lug (Faston) Terminal Formed to Rear

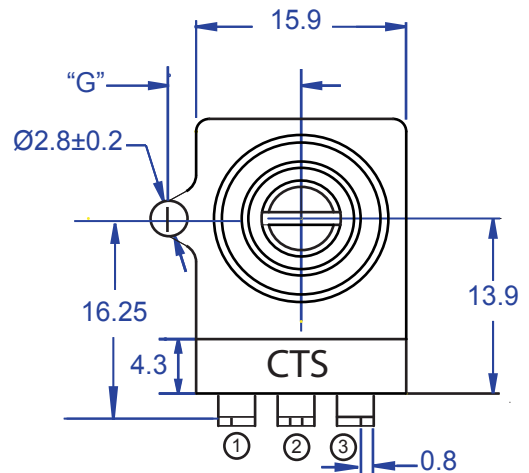
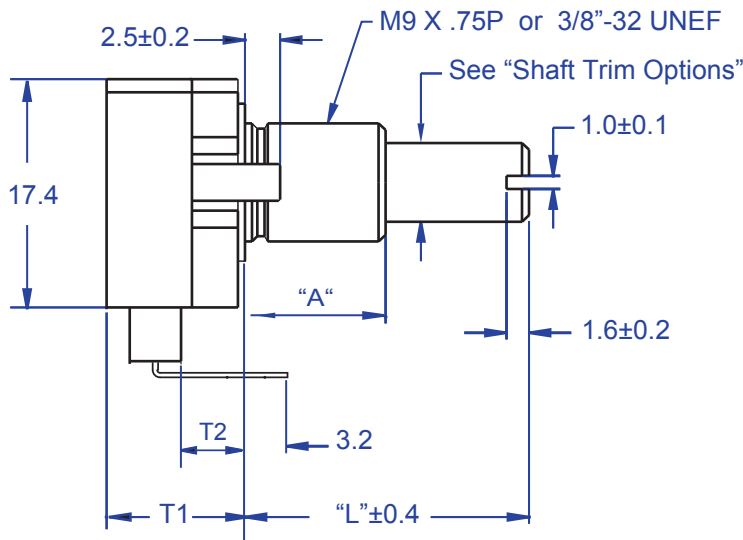


Locating Lug "G"	Thickness "T1"
10 mm Lug	9.0 mm
8 mm & No Lug	8.6 mm



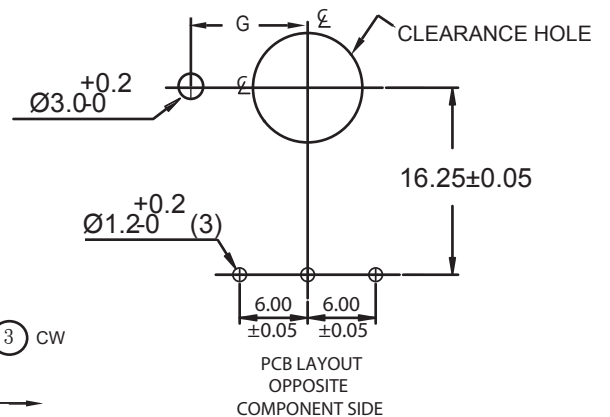
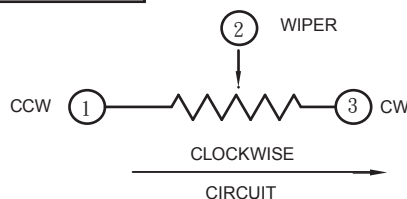
DIMENSION : mm
STANDARD TOLERANCE :
.X (1 PLACE) : ±0.3 .XX(2 PLACE) : ±0.13

282U Metal Shaft, Bushing Mount, PC Terminal Formed to Front

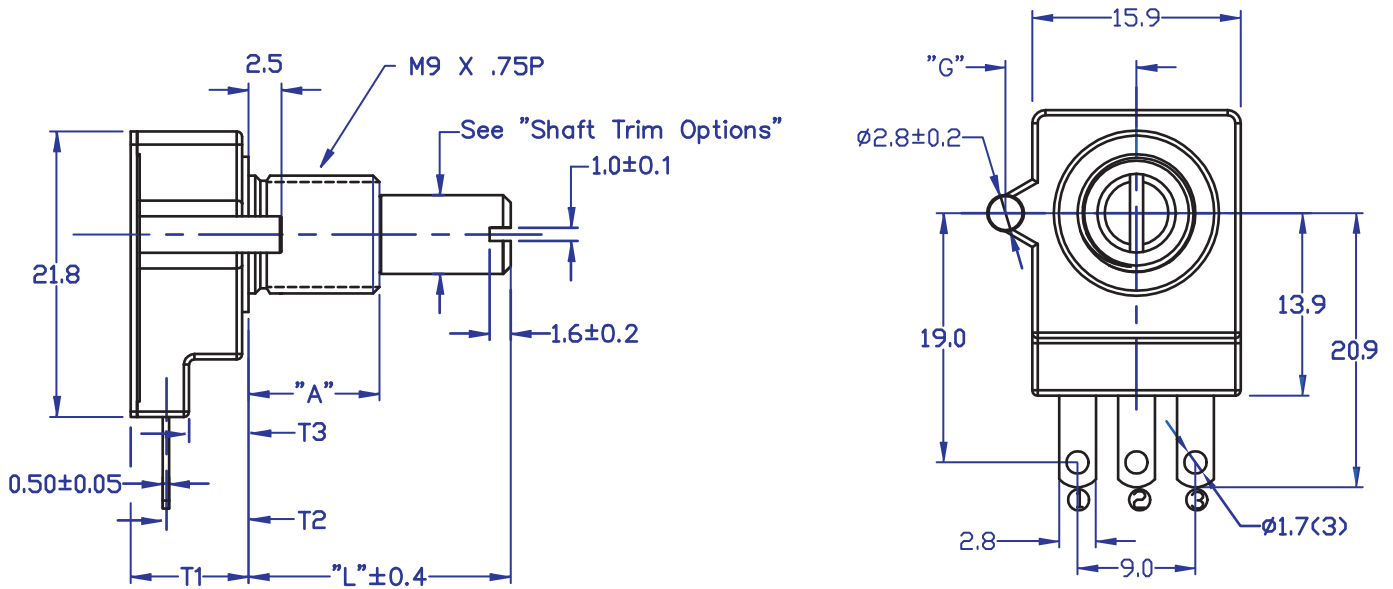


Locating Lug "G"	Thickness "T1"	Thickness "T2"
8 mm	9.4 mm	4.1 mm
10 mm	9.8 mm	4.5 mm

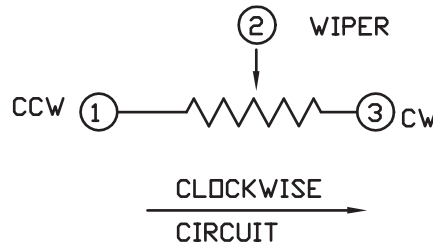
DIMENSION : mm
STANDARD TOLERANCE :
.X (1 PLACE) : ±0.3 .XX(2 PLACE) : ±0.13



282T Metal Shaft, Bushing Mount, Solder Lug (Faston) Terminal



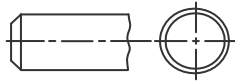
Locating Lug "G"	Thickness "T1"
10 mm Lug	9.0 mm
8 mm & No Lug	8.6 mm



DIMENSION : mm
STANDARD TOLERANCE :
.X (1 PLACE) : ±0.3 .XX(2 PLACE) : ±0.13

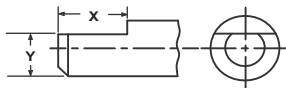
Shaft Trim Options

ROUND



Shaft Trim	Diameter
R	.236" (6.00 mm)
O	.250" (6.35 mm)

FLATTED



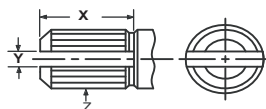
Shaft Trim	Diameter	X	Y
F	.236" (6.00 mm)	.375" (9.52 mm)	.156" (3.96 mm)
L	.250" (6.35 mm)	.440" (11.18 mm)	.217" (5.50 mm)

SD SLOT



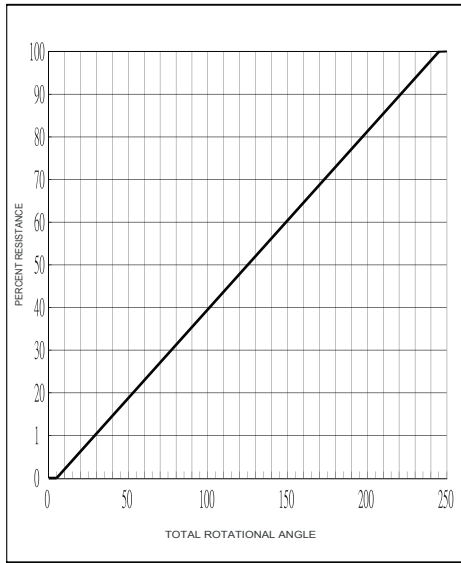
Shaft Trim	Diameter	X	Y
S	.236" (6.00 mm)	.063" (1.6mm)	.039" (1.0mm)
D	.250" (6.35 mm)	.063" (1.6mm)	.039" (1.0mm)

KNURLED & SLOTTED

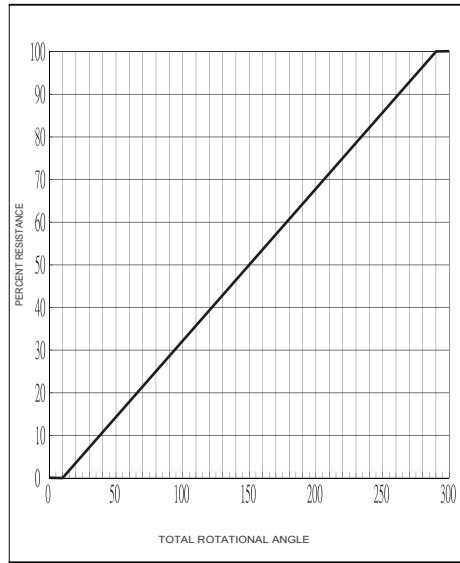


Shaft Trim	Diameter	X	Y	Z
K	.236" (6.00 mm)	.344" (8.74 mm)	.063" (1.60 mm)	24 Teeth

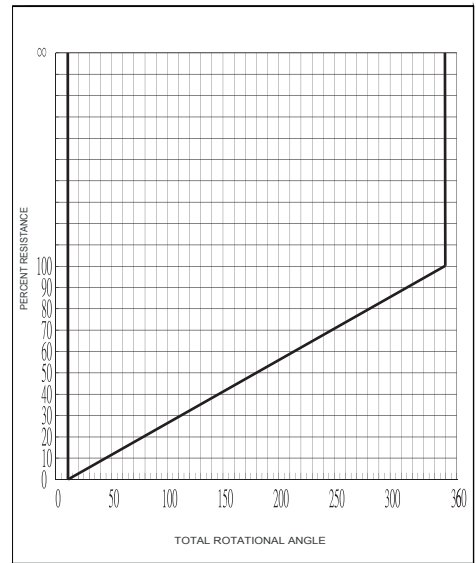
Resistance Tapers



TOTAL ROTATIONAL ANGLE: 250



TOTAL ROTATIONAL ANGLE: 300°



TOTAL ROTATIONAL ANGLE: 360°

Ordering Information

282 **T** **A** **A** **R** **103** **A** **2** **5** **B** **1**

TERMINAL STYLE

T- Solder Lug(Faston)
S- Solder Lug Formed to Rear
U- PC Terminals Formed to Front

SHAFT LENGTH "L"

Examples:

mm	inch
A - 10 mm	1 - .625"
B - 15 mm	2 - .750"
C - 20 mm	3 - .875"
D - 25 mm	4 - 1.000"
E - 30 mm	5 - 1.125"

Note:
Incremental length : 5mm or .125"

RESISTANCE CODE EXAMPLES

CODE	RESISTANCE
102	1K
103	10K
503	50K
104	100K
504	500K

LINEARITY

2 - ± 2%

LOCATING LUG "G"

1 - Left, 10mm
2 - Left, 8mm
3 - No Lug

BUSHING MOUNT "A"

Bushing Length

mm	inch
A - 5.0 mm	2 - .250"
B - 7.5 mm	3 - .375"
C - 10.0 mm	4 - .500"

Notes:
Incremental Length : 2.5mm or .125"
Bushing Dia. & Thread:
M9 X .75P (metric)
3/8" - 32 UNEF (imperial)

SHAFT TRIM OPTIONS

Shaft Diameter 6mm (.236")

*R - Round
F - Flatted .375" X .156"
K - Knurled 24 Teeth
S - SD Slot .039"W X .063" D

Shaft Diameter 6.35mm (.250")

*O - Round
L - Flatted .440" X .217"
D - SD Slot .039" W X .063" D

Notes:
*Round shafts are not applicable for 360° rotational angle option.

RESIST TOL

A - ± 10%
B - ± 20%

IP Rating

5 - IP54
6 - IP67

ROTATION ANGLE

	Total	Effective
A -	250°	240°
B -	300°	280°
C -	360°	340

Please consult factory for other mounting options or custom features not listed.

Standard Part - 282T33L502A25A2, 282T33L502A25C2, 282TCBS103A25B1
282T33L502A26A2, 282T33L502A26C2, 282TCBS103A26B1