Series 282

16mm Precision Rotary Potentiometer

- Conductive Plastic Element
- Extended Rotational Life (2 Million Cycles)
- Precision Linearity (±2%)
- Ingress Protection (IP65 & IP67 Options)
- Wide Operating Temperature Range
- Shaft and Bushing Length Options
- Terminal Options
- Continuous Rotation Available



Description

The 282 Series robust construction provides the user with a long life, highly reliable precision product in a sealed housing which meets up IP standards. Options include various terminal configurations, shaft and bushing lengths, shaft styles, resistance values and tolerances, and various rotation angles to meet design requirements.

Ordering Information

Series	Terminal Styles	Bushing Length "A"	Shaft Length "L"	Shaft Trim	Resistance Code	Resistance Tolerance	Linearity	IP Rating	Rotational Angle	A/R Lug Options
282	T	A	A	R	103	A	2	5	B	1

Code	Spec
T	Solder lug
S	Solder lug formed to rear
U	PC formed to front

Code	Spec.
2	.250" (6.35mm)
3	.375" (9.53mm)
4	.500" (12.7mm)
Diameter: 3/8"- 32UNEF-2A	
Length increment: 1/8"	
A	5.0mm (.196")
B	7.5mm (.295")
C	10.0mm (.393")
Diameter: M9 x .75P	
Length increment: 2.5mm	

Code	Spec.
1	.625" (15.8mm)
2	.750" (18.4mm)
3	.875" (22.2mm)
4	1.000" (25.4mm)
5	1.125" (28.5mm)
Diameter: 1/4"	
Length increment: 1/8"	
A	10mm (.393")
B	15mm (.590")
C	20mm (.787")
D	25mm (.984")
E	30mm (1.181")
Diameter: 6mm	
Length increment: 5mm	

Code	Resistance
102	1 kΩ
252	2.5 kΩ
502	5 kΩ
103	10 kΩ
503	50 kΩ
104	100 kΩ
504	500 kΩ

Code	Spec.	Dia.
R*	Round	6mm
F	Flatted	6mm
K	Split Knurl *(24 Teeth)*	6mm
S	Slotted	6mm
O*	Round	.250"
L	Flatted	.250"
D	Slotted	.250"

**Not available with 360° rotation*

Code	Spec.
2	±2%

Code	Spec.
A	±10%
B	±20%

Code	Spec.
5	IP54
6	IP67

Code	Total	Electrical
A	250°	240°
B	300°	280°
C	360°	340°

Code	Spec.
1	Left side *(10mm)*
2	Left side *(8mm)*
3	No lug

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Electrical Specifications

Parameter	Conditions & Remarks	Min	Max	Unit
Resistance Range	Linear	1k	500k	Ω
	Audio	100k	500k	Ω
Resistance Tolerance	Standard	-20	+20	%
	Special	-10	+10	%
Dielectric Strength	1 minute		750	VDC
Power Rating (Standard)	@ 55°C		0.25	watt
Power Rating (Special)	@ 75°C		0.50	watt
Operating Voltage			500	VDC
Insulation Resistance	500 VDC	1000		MΩ
Linearity		+2	-2	%

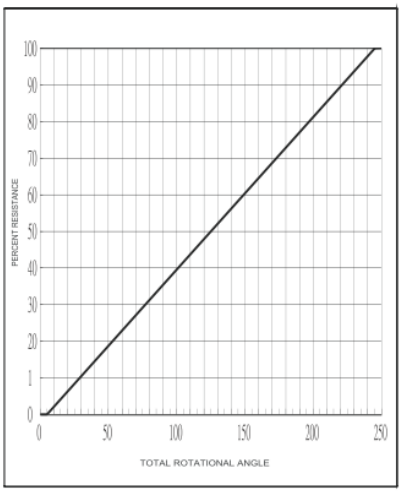
Mechanical and Environmental

Parameter	Conditions & Remarks	Min	Max	Unit
Operating Temperature		-40	+125	°C
Storage Temperature		-55	+150	°C
Rotational Torque		20	180	gf-cm
Rotational Life		2,000,000		cycles
Stop Strength		9		kgf-cm
Mechanical Angle	250°, 300° & 360°			
Vibration	15 G, 10 to 2000 Hz			
Push-Pull Strength of Shaft	13.6 kg for 10 seconds			
Ingress Protection Rating	IP54 & IP67			
Soldering Condition:	Maximum temperature of 350°C for 5 seconds			
Mounting Information	Bushing mount			
Packaging:	Standard tray packaging			

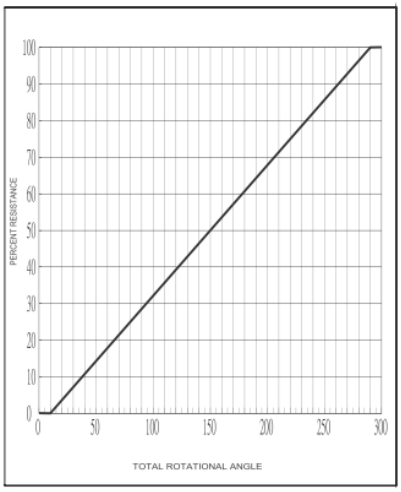
All testing is performed at room ambient conditions except as noted. Users should verify device actual performance in their specific applications.
This product is compliant to RoHS3 Directive 2015/863 Amendments of Annex II on 31 March 2015, and REACH SVHC Directive EC 1907/2006 Amendments of Annex XIV & Annex XVII on 15 January 2018.
Custom and value-added options available on request. Please contact your sales representative for additional information.

Electrical and Mechanical Specifications

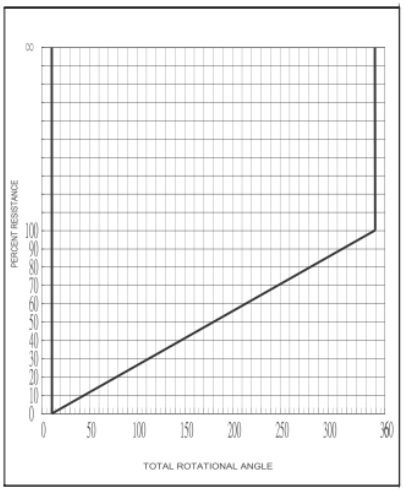
Resistance Tapers



TOTAL ROTATIONAL ANGLE: 250



TOTAL ROTATIONAL ANGLE: 300°



TOTAL ROTATIONAL ANGLE: 360°

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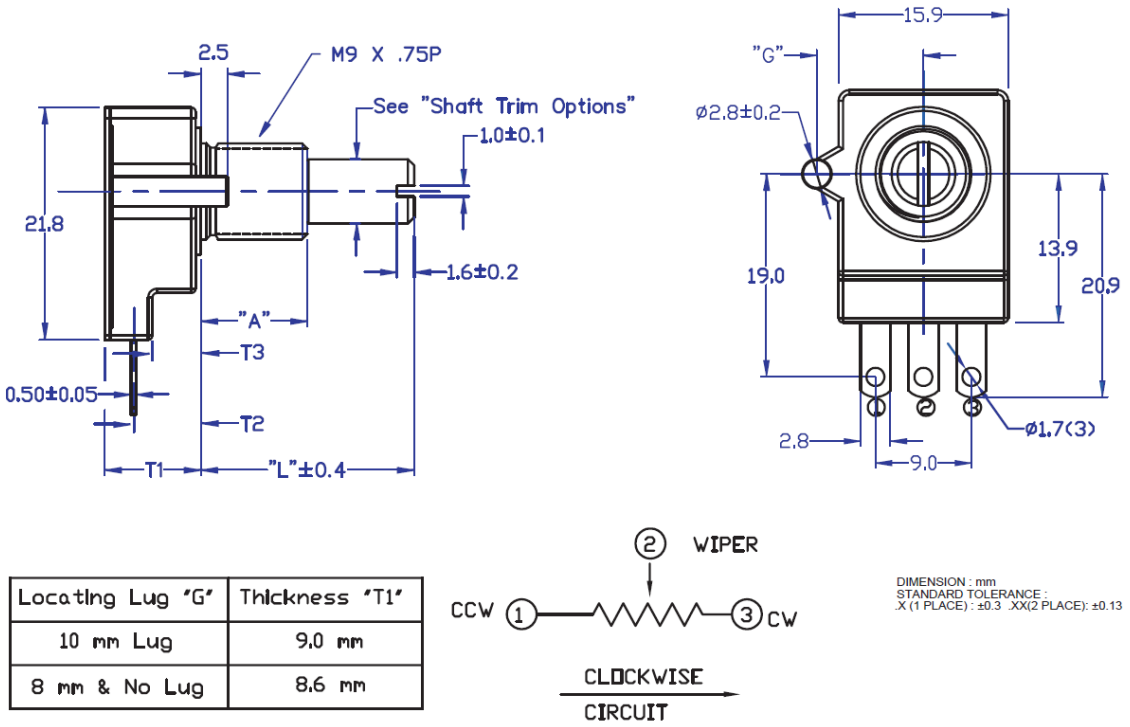
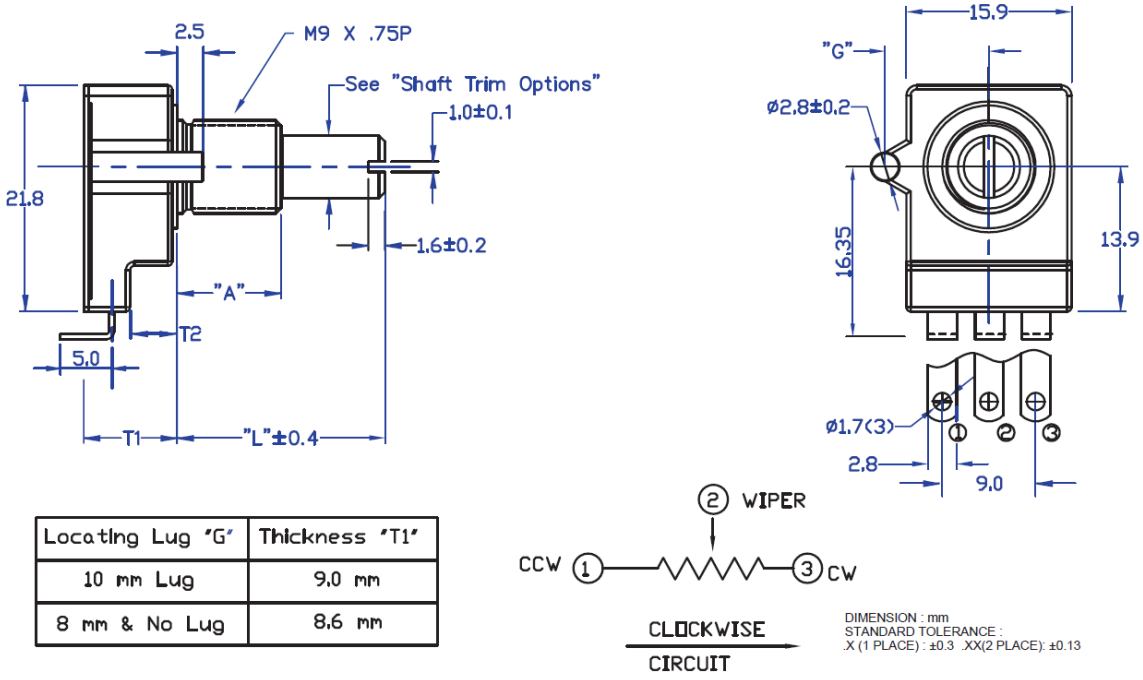
Electrical and Mechanical Specifications

Series 282T Metal Shaft, Bushing Mount, Solder Lug “T” Type Terminals, 8 mm Locating Lug



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

Series 282S Metal Shaft, Bushing Mount, Solder Lug “S” Type Terminal Formed to Rear



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

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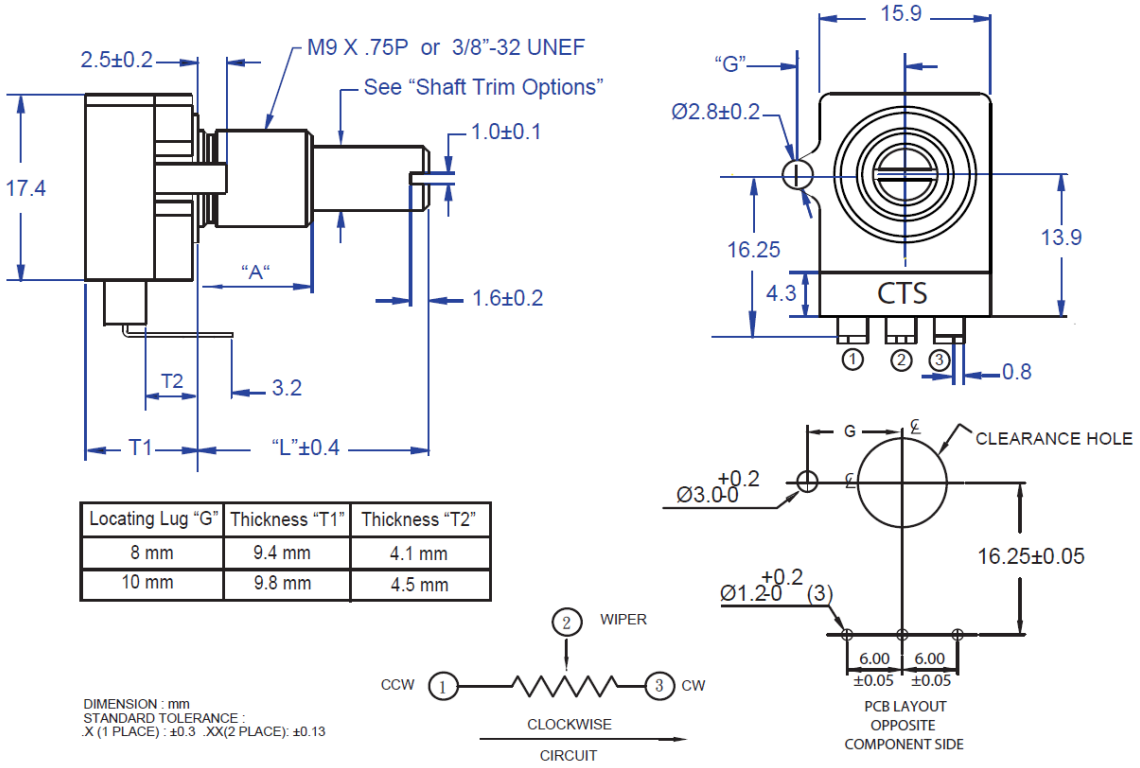
Electrical and Mechanical Specifications

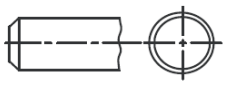
Series 282U Metal Shaft, Bushing Mount, PC "U" Type Terminal Formed to Front



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

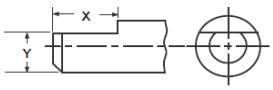
Shaft Trim and Diameter Options

ROUND



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

FLATTED



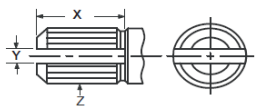
Shaft Trim	Diameter	X	Y
F	.236" (6.00 mm)	.375" (9.52 mm)	.156" (3.96 mm)
L	.250" (6.35 mm)	.440" (11.18 mm)	.217" (5.50 mm)

SLOTTED



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)

SPLIT KNURL



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

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