Multi-Turn Trimmer

Model 89 and 90

Features:

- 3/4” rectangular
- Cermet

Electrical

Standard Resistance Range, Ohms	10 to 2Meg
Standard Resistance Tolerance	±10% (<100 Ohms = ±20%)
Input Voltage, Maximum	200 Vdc or rms not to exceed power rating
Slider Current, Maximum	100mA or within rated power, whichever is less
Power Rating, Watts	0.75 at 85°C derating to 0 at 125°C
End Resistance, Maximum	2 Ohms
Actual Electrical Travel, Turns, Nominal	20
Dielectric Strength	1,000 Vrms
Insulation Resistance, Minimum	1,000 Megohms
Resolution	Essentially infinite
Contact Resistance Variation, Maximum	1% or 1 Ohm, whichever is greater

Environmental

Seal	85°C Fluorinert® (No Leaks)
Temperature Coefficient, Maximum	±100ppm/°C
Operating Temperature Range	–55°C to +125°C
Thermal Shock	5 cycles, –55°C to +125°C (1% ΔRT, 1% ΔVR)
Moisture Resistance	Ten 24 hour cycles (1% ΔRT, IR 100 Megohms Min.)
Shock, 6ms Sawtooth	100G's (1% ΔRT, 1% ΔVR)
Vibration	20G's, 10 to 2,000 Hz (1% ΔRT, 1% ΔVR)
High Temperature Exposure	250 hours at 125°C (2% ΔRT, 2% ΔVR)
Rotational Life	200 cycles (3% ΔRT)
Load Life at 0.75 Watts	1,000 hours at 70°C (2% ΔRT)
Resistance to Solder Heat	260°C for 10 sec. (1% ΔRT)

Mechanical

Mechanical Stops	Clutch Action, both ends
Torque, Starting Maximum	5 oz.-in. (0.035 N-m)
Weight, Nominal	.05 oz. (1.4 grams)

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

© TT electronics plc

TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 922321
Ph: +1 (714) 447-2345
www.ttelectronics.com/bi-technologies

Packaging Information

Standard: Boxes

Capacity	=	100 Units (89P) 50 Units (All other styles)

Option: Tubes (Models 89P, 89PH, 89X, 89XH and 90P only.)
All units oriented with #1 pin to same side.

Magazine	Width	=	0.28"
	Height	=	0.65"
	Length	=	21.5"
	Capacity	=	25 Units

Ordering Information

Standard:

89 P R 10K LF

- 89 — Model Series (Use Model 90 to order with transparent housing)
- P — Pin Style
- R — Resistance Prefix
- 10K — Resistance Value
- LF — RoHS Compliant Product Code - Optional

Option:

89 P R 10K LF TB

- P — Pin Style
- TB — Packaging Option: TB = Tubes (Models 89P, 89PH, 89X, 89H, 90P Only.)

Option:

89 P B R 10K LF

- P — Pin Style
- B — Panel Mount Adapter (Use 89B to order Adapter without Trimmer)

Standard Resistance Values

10	200	5K	50K	500K
20	500	10K	100K	1Meg
50	1K	20K	200K	2Meg
100	2K	25K	250K	

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

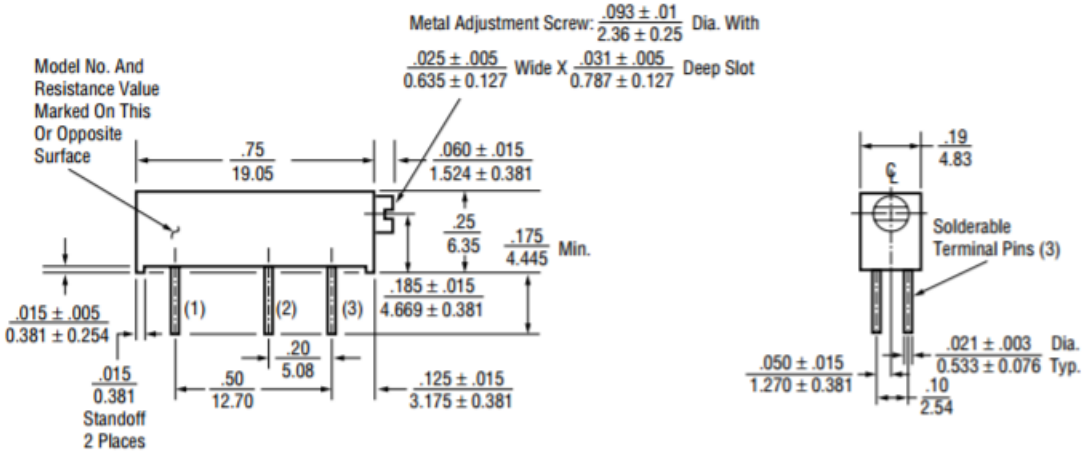
© TT electronics plc

TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 922321
Ph: +1 (714) 447-2345
www.ttelectronics.com/bi-technologies

Outline Drawings

LOW PROFILE (Inch/mm)

Model 89P and 90P



Model 89P dimensions applicable to all other models except as noted.

Model 89W

Model 89X

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

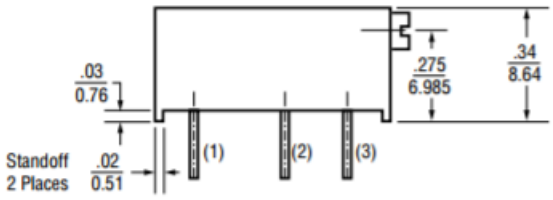
© TT electronics plc

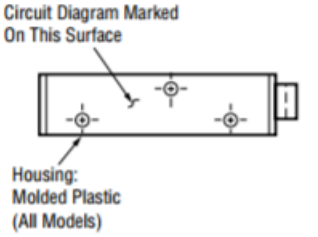
TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 922321
Ph: +1 (714) 447-2345
www.ttelectronics.com/bi-technologies

Outline Drawings

HIGH PROFILE (Inch/mm)

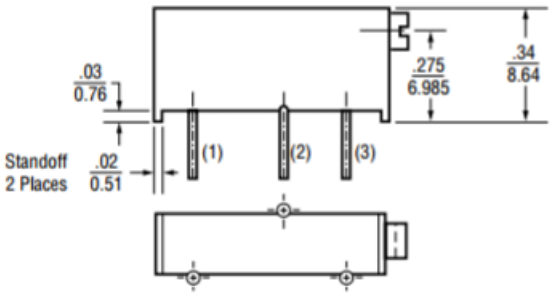
Model 89PH





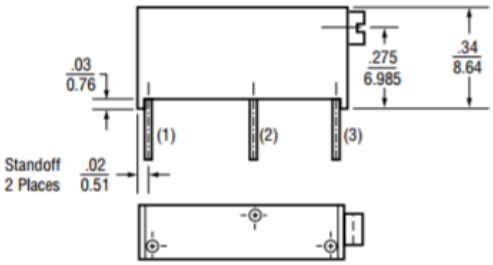
Pin Dimensions Same For 89P And 89PH

Model 89WH



Pin Dimensions Same For 89W And 89WH

Model 89XH



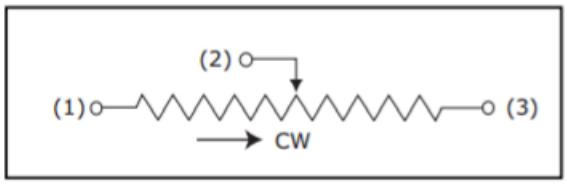
Pin Dimensions Same For 89X And 89XH

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

© TT electronics plc

TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 922321
Ph: +1 (714) 447-2345
www.ttelectronics.com/bi-technologies

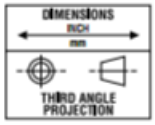
CIRCUIT DIAGRAM



NOTES

Metric equivalents, based on 1 inch = 25.4mm are rounded to the same number of significant figures as in the original English units and are provided for general information only.

Tolerances unless otherwise specified:
Linear = ± .01 inches (.25mm)
Angular = ± 2 degrees



General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

© TT electronics plc

TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 922321
Ph: +1 (714) 447-2345
www.ttelectronics.com/bi-technologies

Issue	Change Description	Approval	Date
A			11/2016
B	Updated logo and fonts. Changed footer address from Fullerton address to Mexicali address	Brooke Combs	4/5/2019

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

© TT electronics plc

TT Electronics | BI Technologies
413 Rood RD, Suite 7
Calexico, CA 922321
Ph: +1 (714) 447-2345
www.ttelectronics.com/bi-technologies