



# BETTER SOUND CONTROLS FOR PROFESSIONAL AUDIO

SENSORS AND SPECIALIST COMPONENTS



# BETTER PANEL CONTROLS FOR PRO AUDIO.

## HIGH QUALITY WITHOUT THE HASSLE.

Designed and delivered to your exact requirements, TT Electronics has developed a comprehensive line of panel potentiometers and encoders specifically for professional audio applications, ideal for pre-amps, amplifiers, electric guitars, foot pedals, stomp boxes, digital drums, sound processors, broadcast mixing consoles, electric mixing boards and guitar effect consoles.

TT Electronics' panel controls provide the superior performance and customized feel needed for today's generation of products. Constructed with superior materials and built to robust designs, our potentiometers feature life cycles up to 2 million rotation



### CUSTOMIZED FEEL

Customized tactile feel for precision tuning

### MORE PLAYING TIME

Longer life means fewer field failures and more playing time

### SPECIAL REQUESTS WELCOME

We offer customization capabilities including value add assembly and unique housing and shaft requirements

### SUPERIOR QUALITY

Constructed with conductive plastic elements, metal or plastic shafts on metal bushings, TT Electronics' controls have life cycles of up to 2 million rotations

### DEDICATED EXPERTISE WORLDWIDE

Our global team of engineers are dedicated to providing you with the knowledge and assistance needed to get you the standard or customized panel posts you want

# Panel Potentiometers Selection Guide

Model	Style	Package Size	Shaft Material	Bushing	Rated Power	Rotational Life	Switch	Multi-Ganged
P090L	Side adjust	9 mm	Plastic	No	0.03W	100K	No	N/A
P090S	Top adjust	9 mm	Plastic	No	0.03W	100K	No	N/A
P09xS/N	Side adjust	9 mm	Metal	Yes	0.05W	100K	Yes	8
P09x5N	Top adjust	9 mm	Metal	Yes	0.05W	100K	No	2
P110KV/KV1	Side adjust	11 mm	Plastic	Yes	0.05W	30K	No	N/A
P110KH/KH1	Top adjust	11 mm	Plastic	Yes	0.05W	30K	No	N/A
P120PK	Top adjust	12 mm	Plastic	No	0.05W	100K	No	2
P120K	Side adjust	12 mm	Plastic	No	0.05W	100K	No	2
P140KH/KH1	Top adjust	14 mm	Plastic	Yes	0.2W	30K	No	2
P140KV/KV1	Side adjust	14 mm	Plastic	Yes	0.2W	30K	No	2
P160KN	Side adjust	16 mm	Metal	Yes	0.2W	100K	Yes	6
P160KNPD	Rear adjust	16 mm	Metal	Yes	0.2W	100K	Yes	6
P160KNP	Solder lug	16 mm	Metal	Yes	0.2W	100K	Yes	6
P161	Top and Side adjust	17 mm	Metal	Yes	0.2W	15K	Yes	2
P162	Side adjust	17 mm	Metal	Yes	0.2W	100K	Yes	1
P163	Top and Side adjust	17 mm	Metal	Yes	0.2W	15K	Yes	2
P164	Top, Side, and Rear adjust	17 mm	Metal	Yes	0.2W	100K	No	2
P165	Top adjust	17 mm	Metal	Yes	0.1W	100K	No	1
P166V	Side Adjust	17 mm	Metal	Yes	0.2W	15K	No	1
P166P	Top Adjust	17 mm	Metal	Yes	0.2W	15K	No	1
P166H	Side Adjust	17 mm	Metal	Yes	0.2W	15K	No	1
P170S/N	Solder lug	17 mm	Metal	Yes	0.1W	100K	Yes	N/A
P170S2/N2	Side adjust	17 mm	Metal	Yes	0.1W	100K	Yes	N/A
P170SP1/NP1	Top adjust	17 mm	Metal	Yes	0.1W	100K	Yes	N/A
P170SPD/NPD	Rear adjust	17 mm	Metal	Yes	0.1W	100K	Yes	N/A
P230	Solder lug	24 mm	Metal	Yes	0.5W	500K	No	N/A
P231	Solder lug	24 mm	Metal	Yes	0.5W	100K	No	N/A
P232	Solder lug	24 mm	Metal	Yes	0.5W	2,000K	No	1
P233	Solder lug	24 mm	Metal	Yes	0.5W	2,000K	No	2
P260P	Side adjust	12.7 mm	Metal	Yes	0.5W	1,000K	No	6
P260S (Switch)	Side adjust	12.7 mm	Metal	Yes	0.5W	100K	Yes	5
P260D (Detent)	Side adjust	12.7 mm	Metal	Yes	0.5W	100K	No	6
P260T	Top adjust	12.7 mm	Metal	Yes	0.5W	1,000K	Yes	2
P261P	Solder lug	12.7 mm	Metal	Yes	0.5W	1,000K	No	6
P261S	Solder lug	12.7 mm	Metal	Yes	0.5W	1,000K	Yes	5
P261D	Solder lug	12.7 mm	Metal	Yes	0.5W	1,000K	No	6
P265P	PC Pins	12.5 mm	Metal	Yes	0.5W	50K	No	1
P265S	Solder Hook	12.5mm	Metal	Yes	0.5W	50K	No	1
P270	Solder lug	27 mm	Metal	Yes	2.0W	1,000K	No	1
P271	Solder lug	27 mm	Metal	Yes	2.0W	1,000K	No	2
P272	Solder lug	27 mm	Metal	Yes	2.0W	1,000K	No	2
P278	Solder lug	27 mm	Metal	Yes	2.0W	1,000K	No	1

## Encoders Selection Guide

Model	Size	Adjust	Pulses	Detents	Switch	Threaded Bushing	Shaft	Life
EN05HS	5 mm	Top	12	12	No	No	Plastic	100K
EN05VS	5 mm	Side	12	12	No	No	Plastic	100K
EN05VT	5 mm	Side	12	12	No	No	Plastic	100K
EN09H1020ASF012	9 mm	Side	10	20	Yes	Yes	Metal	20K
EN09H1020ANFW012	9 mm	Side	10	20	No	Yes	Metal	20K
EN09V1020ASKS115	9 mm	Top	10	20	Yes	Yes	Metal	20K
EN09B1020ANKW200	9 mm	Top	10	20	No	Yes	Metal	20K
EN11-HSM	11 mm	Top	20	0, 20	Yes	Yes	Metal	30K
EN11-HNM	11 mm	Top	20	0, 20	No	Yes	Metal	30K
EN11-HSB	11 mm	Top	20	0, 20	Yes	No	Metal	30K
EN11-HNB	11 mm	Top	20	0, 20	No	No	Metal	30K
EN11-VSM	11 mm	Side	20	0, 20	Yes	Yes	Metal	30K
EN11-VNM	11 mm	Side	20	0, 20	No	Yes	Metal	30K
EN11-VSB	11 mm	Side	20	0, 20	Yes	No	Metal	30K
EN11-VNB	11 mm	Side	20	0, 20	No	No	Metal	30K
EN12-HS	12 mm	Top	12, 24	0, 12, 24	Yes	No	Plastic	30K
EN12-HN	12 mm	Top	12, 24	0, 12, 24	No	No	Plastic	30K
EN12-VS	12 mm	Side	12, 24	0, 12, 24	Yes	No	Plastic	30K
EN12-VN	12 mm	Side	12, 24	0, 12, 24	No	No	Plastic	30K
EN16-H	16 mm	Top	12, 24	0, 12, 24	No	Yes	Plastic	30K
EN16-V	16 mm	Side	12, 24	0, 12, 24	No	Yes	Plastic	30K

## Slide Potentiometers Selection Guide

Model	Gang(s)	Rated Power	Cycle Life	Stroke Length	Dust Cover	Center Detent	LED
PS45G	Dual	0.25W	200K	45mm	Yes	No	No
PS60G	Dual	0.25W	200K	60mm	Yes	No	No
PS100-1	Single	0.25W	100K	100mm	No	No	No
PS100-2	Dual	0.25W	100K	100mm	No	No	No
PSxx-1	Single	N/A	100K	15 - 60mm	No	Yes	No
PSxx-2	Dual	N/A	100K	16 - 60mm	No	Yes	No
PSxxL	Single	N/A	100K	20 - 60mm	Yes	Yes	Yes
PSxxM	Dual	N/A	100K	20 - 60mm	Yes	Yes	No
PSS1	Single	0.025W	15K	20 - 30mm	No	Yes	No
PSS2	Dual	0.025W	15K	20 - 30mm	No	Yes	Yes
LM1001	Single	0.5W	30K	60 - 100mm	Yes	No	No
PSL2	Single	0.5W	300K	45 - 100mm	Yes	No	No

# Our Applications

## Electric Guitars



Most popular models include: P160, P230, P231 and P270 series.

## Keyboards



Most popular models include: P090S, P090L series, EN11, EN12 and EN16 panel encoders.

## Mixing Boards



Most popular models include: P090 and P09X series.

## Foot Pedals



Most popular models include: P160, P230, P231, P232 and P270 series.

## Amplifiers



Most popular models include: P160, P260 and P270 series.

To check inventory with our global distributor network, visit:  
<http://dilp.netcomponents.com/ttelectronics.html>

Committed to providing world-class products and service to the professional audio market, TT Electronics delivers high quality panel controls, exactly the way you want them. Our dedicated engineering team will work with you throughout the entire customization process to ensure you receive the specific products you need.

**TT ELECTRONICS | BI TECHNOLOGIES**

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## ABOUT TT ELECTRONICS SENSORS AND SPECIALIST COMPONENTS

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The Sensors and Specialist Components division works with customers to develop standard and customised solutions, including sensors and power management devices. Our solutions improve the precision, speed and reliability of critical aspects of our customers' applications.



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[www.ttelectronics.com](http://www.ttelectronics.com)

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