

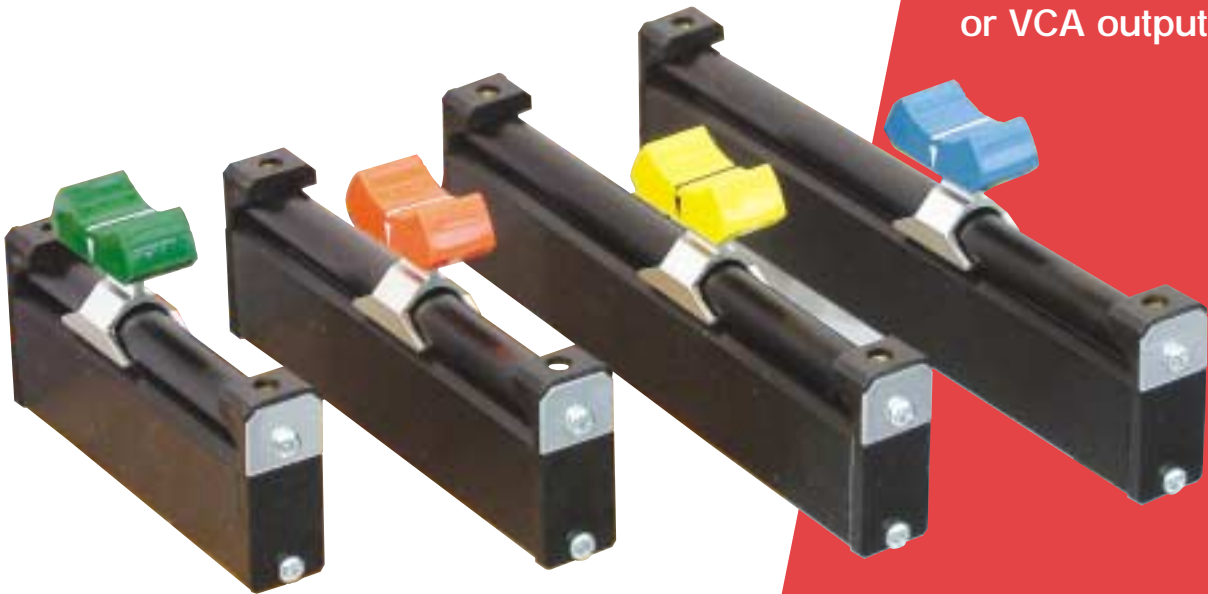
# Penny+Giles

A Curtiss-Wright Company

Penny+Giles PGF3000 Series faders offer the ultimate in performance having been designed for demanding professional applications.

They incorporate conductive plastic tracks, precious metal contacts, environmental shielding, and are available in a choice of stroke lengths from 45mm to 104mm.

- multiple stroke lengths
- compact size
- track switches
- microswitches
- single or dual channels
- linear, audio log or VCA outputs



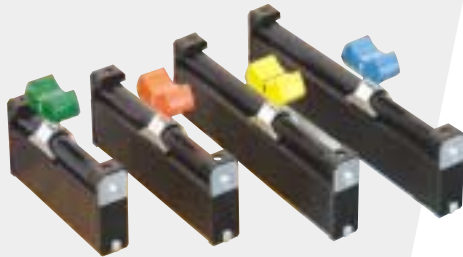
[www.pennyandgiles.com](http://www.pennyandgiles.com)

## PGF3000 SERIES

### LINEAR MANUAL FADERS

# PGF3000

linear manual fader



## SELECT THE FADER OPTIONS YOU REQUIRE

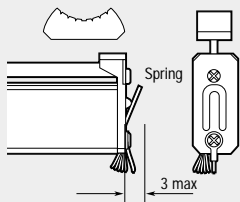
Stroke length	45 <sup>4</sup>	65 <sup>0</sup>	70 <sup>5</sup>	83 <sup>6</sup>	104 <sup>2</sup>
Output law	Log audio taper <sup>2</sup>		Linear <sup>1</sup>	VCA <sup>6</sup>	
Output channels	One <sup>0</sup>	Two <sup>2</sup>			
Fader type	series PGF3	stroke	law	channels	
Resistance ±20%	1kΩ <sup>B</sup>	5kΩ <sup>C</sup>	10kΩ <sup>D</sup>	VCA2k7Ω <sup>E</sup>	
Mounting threads	M3 <sup>M</sup>	4-40 UNC <sup>U</sup>			

### Safety warning

### 50Vdc maximum voltage

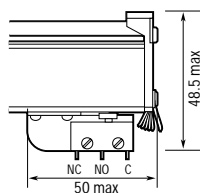
The PGF3000 is designed for operation at voltages not exceeding 50Vdc

## SWITCH OPTIONS



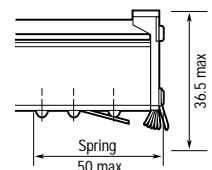
### Pre-fade listen

The switch operates before the active track is reached. This is at the infinity end of the fader and is always under spring load. Spring returns switch to off when knob is released.



### Fader start/Auxiliary

The switch operates within 4mm from the mechanical stop at the infinity end of the fader and can be microswitch or track switch based. Microswitch illustrated.



### Detent

Spring holds track switch in ON position

Note: For external microswitch Pre-fade listen option refer to those dimensions given under Fader start/Auxiliary added to that given under Pre-fade listen.

Internal pre-fade listen track switch (2mA max)	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1st internal track switch (2mA max) fader start/auxiliary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2nd internal track switch (2mA max) fader start/auxiliary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External microswitch (100mA max) fader start/auxiliary 1 off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External microswitch (100mA max) fader start/auxiliary 2 off	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
External microswitch (100mA max) pre fade listen (see note)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detent switch actuator and spring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-detent switch actuating slider (standard option)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Detent switch actuating slider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

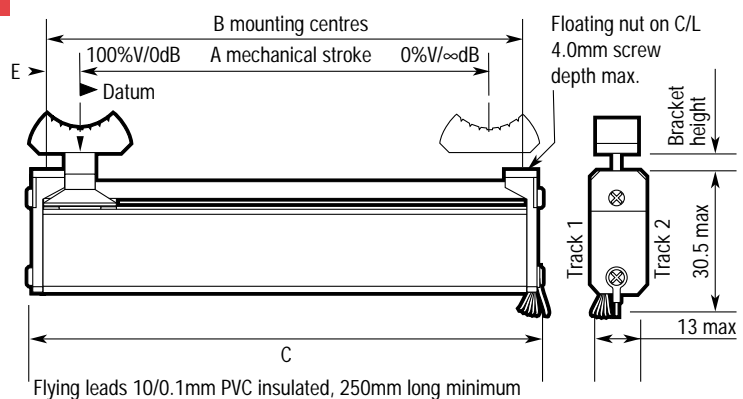
Only one option per column can be selected

## DIMENSIONS AND KNOB BRACKET OPTIONS

All dimensions shown in mm

Stroke length	A	45	65	70	83	104
Mounting centres	B	61	80	101.6	101.6	120
Length	C	74	93	114.6	114.6	133
Mounting to datum	E	8.0	7.5	15.8	9.3	8.0

Bracket height	4.1 <sup>A</sup>	5.3 <sup>B</sup>	6.6 <sup>C</sup>	8.5 <sup>D</sup>
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## OUTPUT LAW CHARACTERISTICS

### Log audio taper

Maximum insertion loss 1.0dB. Typical input related crosstalk 100dB

Type	Accuracy	Matching accuracy for stereo option (relative to track 1)	Cut off
3420 3422	±2.0dB (0-20)	- ±3.0dB (0-20)	80dB
3020 3022	±2.0dB (0-30)	- ±2.0dB (0-30)	85dB
3520 3522 3620 3622	±2.0dB (0-30)	- ±2.0dB (0-20) - ±2.0dB (0-20)	95dB
3220 3222	±1.0dB (0-20) ±2.0dB (21-40)	- ±1.0dB (0-40)	100dB

### Linear

Maximum end volts 0.1%

Type	Accuracy	Matching accuracy (relative to track 1)
3410 3412 3010 3012	- ±3.0%	- ±5.0% - ±5.0%
3510 3512 3610 3612 3210 3212	- ±2.0%	- ±5.0% - ±2.0% - ±2.0%

### VCA

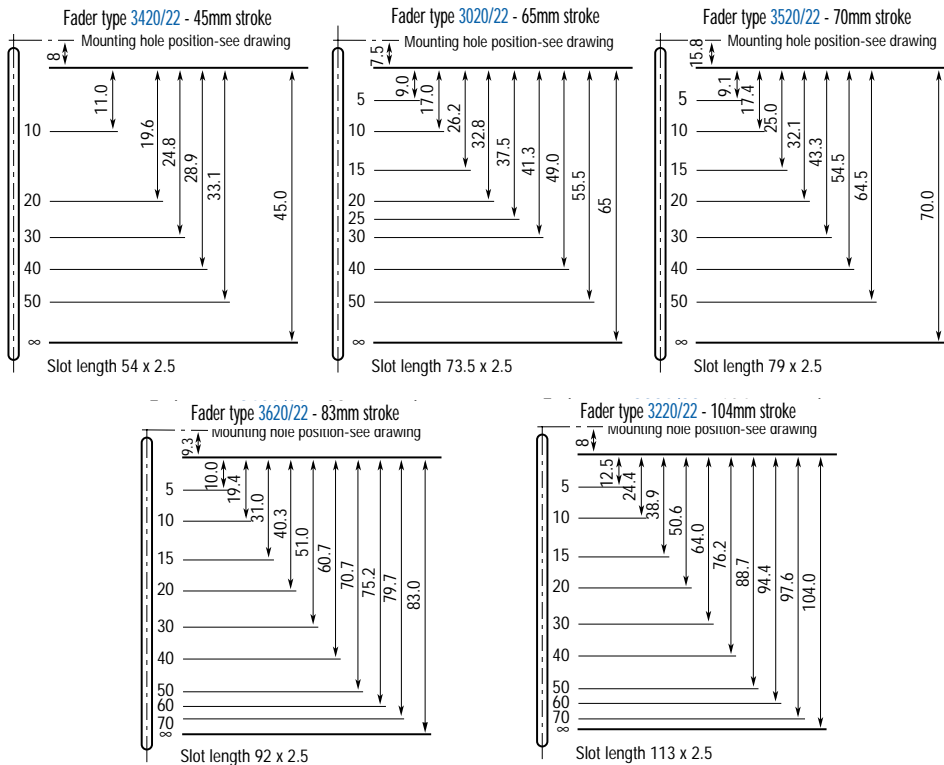
Refer to Penny+Giles for laws other than standard.

Type	Slider travel (mm)	% Output	% Tolerance
3260	0	100	-0.1
	12.5	95	±2.0
	24.4	90	±2.0
	38.9	85	±2.0
	50.6	80	±2.0
	64.0	70	±3.0
	76.2	60	±3.0
	88.7	50	±3.0
	94.4	40	±5.0
	100.1	30	-
	104.0	0	+0.1

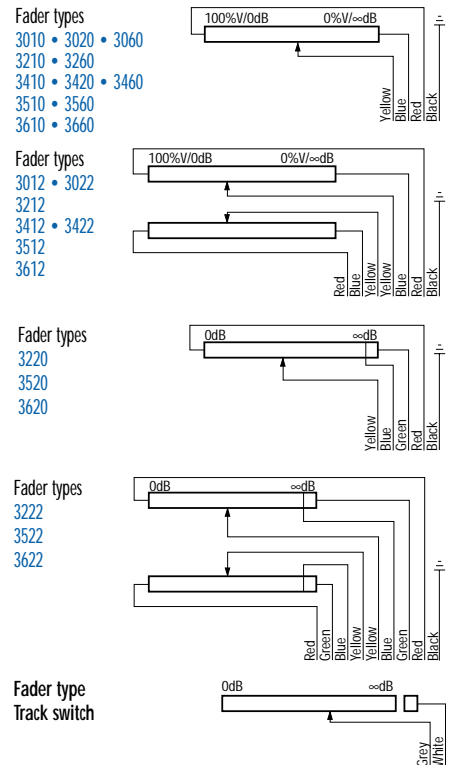
Note: The ratio of fader resistance to wiper load should be 100:1 or higher.

Test conditions: • wiper load 100kΩ log only • element resistance 10kΩ • frequency for cut-off 15kHz • frequency for law accuracy 1kHz • insulation resistance 20MΩ at 50Vdc

## PANEL GRADUATIONS/SLOTS



## CIRCUIT DIAGRAMS/TERMINATIONS



## FADER KNOB OPTIONS

The following knob colours are available in both 11mm and 16mm widths. 11mm white are fitted as standard.



## TO ORDER OR OBTAIN A QUOTATION PLEASE CONTACT YOUR NEAREST SALES OFFICE AND ADVISE:

The series number and description, the output law, resistance, fixing threads, switches and bracket height

For example: • PGF3000 manual fader • 45mm stroke • log law • 2 channels • 10kΩ resistance • M3 mounting inserts • one auxiliary microswitch, non-detent switch actuating slider • 4.1mm knob bracket height. Penny+Giles would code this fader as:

Fader type	series	stroke	law	channels	resistance	inserts	switches	bracket
	PGF3	4	2	2 /	D /	M / -	- A	- / A

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

## Penny & Giles

Faders and controllers, position sensors, joysticks and solenoids for commercial and industrial applications.

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## Quality Approvals



Certificate No. LRO 0924881

Penny+Giles are accredited to BS EN ISO 9001:2008

Quality is at the heart of all our systems ensuring the reliability of our products from initial design to final despatch.



### EMC Directive 2004/108/EEC

The products detailed in this document are supplied as components for installation into an electrical apparatus or system. They are outside the scope of the EEC directive and will not be CE marked.

The information contained in this brochure on product applications should be used by customers for guidance only.

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