Penny+Giles

A Curtiss-Wright Company

Combining innovative design with carefully selected materials, the PGFM8000 series fader provides the features and reliability that you expect from a Penny+Giles product.

Conductive plastic tracks, precious metal contacts and twin guide rods ensure smooth operation whilst maintaining excellent long term electrical and mechanical performance.

- **100mm stroke**
- **motorised operation**
- **internal track switch options**
- **single channel**
- **linear, audio log or VCA output**

www.pennyandgiles.com

PGFM8000 SERIES

LINEAR MOTORISED FADERS

PGFM8000
standard motorised fader

SELECT THE FADER OPTIONS YOU REQUIRE

Stroke length	**100** 1			
Output law	**Servo** 0	**Linear** 1	**Log audio taper** 2	**VCA** 6
Output channels	**One** 0			

	series	stroke	law	channels
Fader type	PGFM8	1		0

Please enter the code for your output law option. This will indentify the fader data shown opposite.

Resistance ±20%	**5kΩ** C	**10kΩ** D	**VCA2k7Ω** E	For servo track resistance refer to details opposite
Mounting threads	**M3** M			
Motor type	**coreless** H	**iron cored** J		
Motor position	**100%V/0dB end** Y	**0%V/∞dB end** Z		

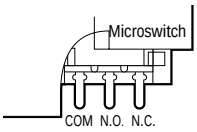
Safety warning

50Vdc maximum voltage
The PGFM8000 is designed for operation at voltages not exceeding 50Vdc

SWITCH OPTIONS

Pre-fade listen (PFL)
The switch operates before the active track is reached. This is at the infinity end of the fader and is always under spring load.

Fader start/auxiliary
An internal track switch or external microswitch which operates when the slider is within 4mm from the infinity mechanical stop.



Internal pre-fade listen track switch *(2mA max)	O	-	-	-
Internal track* (2mA max)	S	-	-	-
External microswitch (100mA max)	-	-	A	-
Overpress mechanism (no internal switch)	-	-	-	P

Only one option per column can be selected

* Availale only on servo touch units

DIMENSIONS, KNOB BRACKET AND DRIVE MOTOR DATA

All dimensions shown in mm

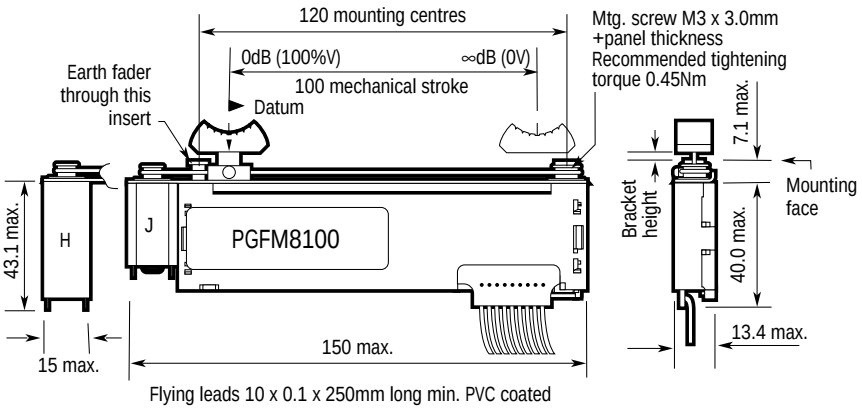
Bracket height 4.1 F

DRIVE MOTOR DATA

		coreless
Motor supply	Vdc	12 nominal
		iron cored
Motor supply	Vdc	5-11.5 (8 nominal)

It is important that the fader slider is NOT driven against the end stops.

Some track options may not be available with the iron cored motor. Contact your nearest Penny+Giles sales office to discuss requirements.



OUTPUT LAW CHARACTERISTICS

Log audio taper
Maximum insertion loss 0.5dB. Typical input related crosstalk 85dB

Type	Accuracy	Cut off
M8120	±1.0dB (0-20) ±2.0dB (21-40)	100dB

Linear
Maximum end volts 1.0%

Type	Accuracy
M8110	±2.0%

VCA

Type	Slider travel (mm)	% Output	% Tolerance
M8160	0	100	-1.0
	12.0	95	±2.0
	23.5	90	±2.0
	37.4	85	±2.0
	48.7	80	±2.0
	61.5	70	±3.0
	73.3	60	±3.0
	85.3	50	-
	90.8	40	-
	93.9	30	-
	100.0	0	+1.0

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

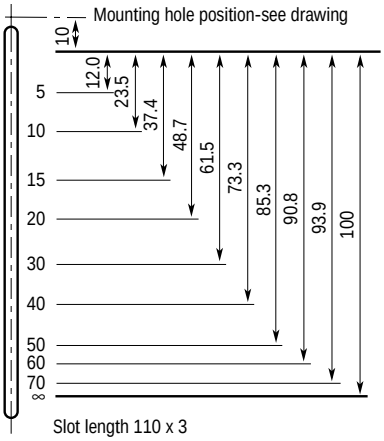
Servo track
The servo track is nominally 2mm longer than the mechanical stroke. The nominal end voltages are 990mV and 10mV (1V reference) and only in extremes of tolerance are the end voltages achieved, thus allowing servo control over the full mechanical stroke.

Standard resistance for faders having no additional tracks (servo & touch sense only)	±20%	10kΩ
Standard resistance for faders having a 5k audio track	±30%	16.5kΩ
Standard resistance for faders having a 10k audio track	±30%	33kΩ
Standard resistance for faders having a 2k7 VCA track	±30%	25kΩ
Linearity		±0.75%

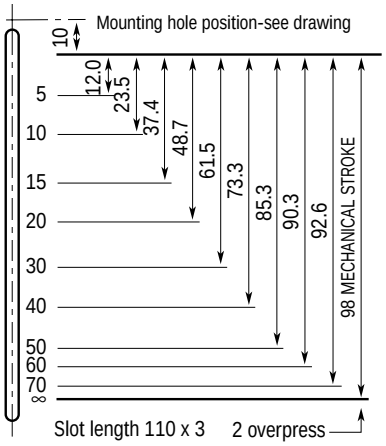
Test conditions: • wiper load 100kΩ log only • element resistance 10kΩ • frequency for crosstalk and cut-off 15kHz • frequency for law accuracy 1kHz • complies with test specification D460351

PANEL GRADUATIONS/SLOTS

Log audio taper



Log audio taper with overpress

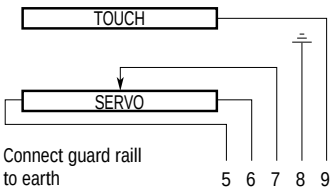


FADER KNOB OPTIONS

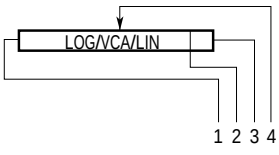
An 11mm satin finish chrome P+G knob is available separately .

CIRCUIT DIAGRAMS/TERMINATIONS

Fader type
PGFM8100
Pin 5 - Red
Pin 6 - Blue
Pin 7 - Yellow
Pin 8 - Black
Pin 9 - Grey

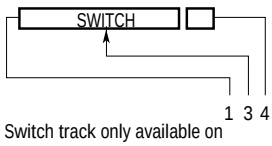


Fader type
PGFM8110
8120 • 8160
Pin 1 - Red
Pin 2 - Green
Pin 3 - Blue
Pin 4 - Yellow



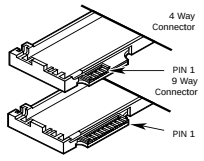
Pin 2 only used on log audio tracks

Fader type
PGFM8100
Pin 1 - Black
Pin 3 - White
Pin 4 - Grey



Switch track only available on PGFM8100

Note: Faders are fitted with either a 4 or 9 way connector.
Mating connector
Contacts JST type SEH-001T-P0.6
Housing JST type EHR-4 or EHR-9



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, bracket height, motor type, motor position, motor drive
For example: • PGFM8000 motorised fader • log law • one channel •10kΩresistance • M3 mounting inserts • 4.1mm knob bracket height •12V coreless motor •100%V/0dB Penny+Giles would code this fader as:

	series	stroke	law	channels		resistance		inserts		switches				bracket		motor		position
Fader type	PGFM8	1	2	0	/	D	/	M	/	-	-	-	-	/ F	/	H	/	Y

Penny+Giles
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Penny & Giles
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Quality Approvals

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.

Certificate No. LRQ 0924881

CE

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.

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