The Penny+Giles PGFM9000 series fader builds on the reputation and strengths of the 3000 series fader. With an innovative design that provides improved environmental protection, the robust PGFM9000 series fader continues the Penny+Giles long standing tradition of excellence.

With a sleek, low under panel profile the PGFM9000 series is perfectly suited to applications where under panel space is limited.

- environmentally protected
- 60mm and 100mm options
- low profile design
- linear servo output
- integrated motorised control

www.pennyandgiles.com
PGFM9000
linear motorised fader

SELECT THE FADER OPTIONS YOU REQUIRE

Stroke length
60 100 100

Output channels
One

Resistance ±20%
5kΩ 10kΩ

Mounting threads
M3 4-40 UNC

Terminations
AMP JST Flying leads

Output law
Servo short Servo long

Safety warning
50Vdc maximum voltage
The PGFM9000 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 motor end of the fader and is always under spring load. Spring returns switch to off when knob is released.

Pre-fade listen track switch (2mA maximum) P
No switch N
No switch, rubber stop fitted * S

*The fader mechanical stroke will be reduced if this option is selected

ELECTRICAL DATA

Linearity
±2%

Maximum wiper current
2mA

Touch resistance
<300Ω at 0.1 m/sec

Insulation resistance
20MΩ at 50V d.c

DRIVE MOTOR DATA

Motor type
Iron cored

Motor supply
Vdc 5.0 – 11.5

Nominal supply
Vdc 8 constant

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

DIMENSIONS AND KNOB BRACKET OPTIONS

All dimensions shown in mm

Mounting nut (two places)
CSK screw length minimum
4.5 + panel thickness
maximum 5.5 + panel thickness

Bracket height
4.1 5.3 6.6 8.5 11.5

Motor type
Iron cored

Motor supply
Vdc 5.0 – 11.5

Nominal supply
Vdc 8 constant

It is important that the fader slider is NOT driven against the end stops.
CIRCUIT DIAGRAMS/TERMINATIONS

No Switch - N or S options

<table>
<thead>
<tr>
<th>Pin</th>
<th>Colour</th>
<th>Function</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Red</td>
<td>Motor positive</td>
</tr>
<tr>
<td>2</td>
<td>Blue</td>
<td>Motor negative</td>
</tr>
<tr>
<td>3</td>
<td>Red</td>
<td>Serve 100%</td>
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<tr>
<td>4</td>
<td>Blue</td>
<td>Serve 0%</td>
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<tr>
<td>5</td>
<td>Yellow</td>
<td>Serve wiper</td>
</tr>
<tr>
<td>6</td>
<td>Grey</td>
<td>Touch sense</td>
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</tbody>
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Pre-Fade Listen - P option

<table>
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<tr>
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<tr>
<td>2</td>
<td>Blue</td>
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<tr>
<td>3</td>
<td>White</td>
<td>Switch</td>
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<tr>
<td>4</td>
<td>Green</td>
<td>Switch wiper</td>
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<tr>
<td>5</td>
<td>Red</td>
<td>Serve 100%</td>
</tr>
<tr>
<td>6</td>
<td>Blue</td>
<td>Serve 0%</td>
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<tr>
<td>7</td>
<td>Yellow</td>
<td>Serve wiper</td>
</tr>
<tr>
<td>8</td>
<td>Black</td>
<td>Ground</td>
</tr>
<tr>
<td>9</td>
<td>Grey</td>
<td>Touch sense</td>
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</tbody>
</table>

Note
Faders are fitted with either flying leads, AMP (770602) connector on 100mm leads or JST (EHR-6 or EHR-9) connector on 100mm leads.

Mating connectors (board mounted)
Housing - JST type EH mating shrouded header or AMP type MTA-100 headers.

SERVO DETAILS

Long servo
The electrical length of the servo track is longer than the mechanical stroke of the fader so that 0%V and 100%V are never achieved.

Short servo
The electrical length of the servo track is shorter than the mechanical stroke of the fader so that 0%V and 100%V are achieved before reaching the limits of mechanical travel.

FADER KNOB OPTION

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

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

The series number and description • the stroke length • resistance • fixing threads • switches • bracket height • connector type or flying leads • servo type
For example: • PGFM9000 motorised fader • 100mm stroke • 10kΩ resistance • M3 mounting inserts • no switch • 4.1mm knob bracket height • AMP connector • long servo track

Penny+Giles would code this fader as:

<table>
<thead>
<tr>
<th>Fader type</th>
<th>series</th>
<th>stroke</th>
<th>resistance</th>
<th>inserts</th>
<th>switches</th>
<th>bracket</th>
<th>termination</th>
<th>servo</th>
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<td>PGFM9</td>
<td>100</td>
<td>D</td>
<td>M</td>
<td>N</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>L</td>
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</tbody>
</table>
Innovation In Motion

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

36 Nine Mile Point Industrial Estate
Cwmfelinfach
Gwent NP11 7HZ
United Kingdom
+44 (0) 1495 202000
+44 (0) 1495 202006 Fax
sales@pennyandgiles.com

665 North Baldwin Park Boulevard
City of Industry, CA 91746
USA
+1 626 480 2150
+1 626 369 6318 Fax
us.sales@pennyandgiles.com

3-1-A, Xiandai Square,
No 333 Xingpu Rd,
Suzhou Industrial Park, 215126
China
+86 512 6287 3380
+86 512 6287 3390 Fax
sales@pennyandgiles.com.cn

15 Airfield Road
Christchurch
Dorset BH23 3TG
United Kingdom
+44 (0) 1202 409409
+44 (0) 1202 409475 Fax
sales@pennyandgiles.com

6 Straussenlettenstr. 7b
85053 Ingolstadt,
Germany
+49 (0) 841 885567-0
+49 (0) 841 885567-67 Fax
info@penny-giles.de

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.

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.
Penny+Giles Controls Ltd makes no warranty or representation in respect of product fitness or suitability for any particular design application, environment, or otherwise, except as may subsequently be agreed in a contract for the sale and purchase of products. Customer’s should therefore satisfy themselves of the actual performance requirements and subsequently the products suitability for any particular design application and the environment in which the product is to be used.

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