## herga



Herga Electric Limited is an independent UK manufacturer of switching systems. In addition to Footswitches, we offer other innovative switching solutions:-

| hergair | Airswitching systems |
| :--- | :--- |
| herga | Pressure \& Vacuum switches |
| hergalite | Fibre Optics / Infra red safety products |
| herga | Hand Controls |

Our expertise spans the automotive, medical, packaging, domestic appliance and spa industries.

Herga is driven to respond rapidly to delight our customers. Herga seeks to develop its relations with customers to achieve their business goals.

## Global Presence

Our distributor network covering the world's major markets enables technical help and assistance to be just a phone call away.

## Continuous Improvement

Herga's approval to ISO 9002 ensures that we are fully in control of our quality. However, this is just the starting point for an aspiring World Class company. We encourage training and development and continuous improvements at individual, team and company level.

How can we help you?
This brochure provides a brief overview of our product range. If you require further information, please contact us at our e-mail address:
herga.electric@dial.pipex.com
Herga's customers worldwide include

## BMW/Rover Electrolux Jacuzzi <br> RS Components Siemens General Electric

## 6251 Heavy Duty Footswitch

This stylish, yet tough, industrial diecast footswitch can be supplied in a variety of colours, with or without a guard. It incorporates various switch options and is sealed to IP67 or IP68 upon request. Can be supplied with cordsets attached.

## 6252 Heavy Duty Footswitch

BG approved meets requirements of EN 60204 and EN 60947-5-1 with forced break contacts. This is a stylish, yet tough, industrial footswitch. The footswitch also incorporates various switch options and sealed to IP67 or IP68 upon request. Can be supplied with cordsets attached.

## 6253 Heavy Duty Foot Potentiometer

Combining a wide choice of colour combinations with standard 5K and 10K potentiometer switching. This footswitch can be sealed to IP67 or IP68 upon request. Herga can also offer advice or help with interfacing modules.

## 6255 'Mistral' Industrial Foot Air Valve

Utilising the stylish benefits of the industrial diecast footswitch offering a combination of pneumatic valves, $3 / 2$ and $5 / 2$ ports using the most advanced flow valves available. It is available in a variety of colours, with or without a guard.

## 6254 General Industrial Footswitch

Rigorous and tough diecast aluminium footswitch offering a wide variety of switching combinations with unlimited cordset options that can be sealed up to IP68 upon request. Foot guard options and colour options are available upon request.

## 6210 Light Industrial Footswitch

Tough all plastic lightweight construction footswitch offering a wide variety of switching combinations, it can be sealed up to IP68 upon request. Foot guard and colour options are available upon request.

## 6289 General Purpose Footswitch

Small and compact footswitch offering a vast variety of switching combinations with unlimited cordset options. It can be sealed up to IP68 upon request. A choice of foot guards and colour options are available upon request.

## 6220 and 6221 Leptron Palm/Footswitches

Innovative front hinged, low profile footswitch designed for improved user comfort. The Leptron all plastic switch is ideal for foot or palm use. Offering a vast variety of switching combinations with unlimited cordset options it can be supplied with a choice of foot guards for operator safety.

## Multi-Pedal Footswitches

Excellent for OEM applications where multi-switching combinations are required, these footswitches offer a wide variety of foot pedals in a variety of colour combinations and unlimited designs. These footswitches can be sealed up to IP68 upon request.

## 6240 Footswitch Bellows

A neat and compact hand or foot operated switch made from tough flexible PVC double insulated with a wide choice of colours. Available with aluminium base plate for permanent fixing and offers contact and switching options. With foot guard option available.

## Your Guide to Certification Markings

Covers most worldwide authorities/certification marks.

## Your Guide to IP Ratings

Sealing of electrical enclosures.

## Your Guide to Standards and Comparisons of Wire Size and Ratings with Fax back form and sketch pad.

 IP41? IP65?


Page FS19



## Benefits

* Average life expectancy $1 \times 10^{6}$ operations
* Rugged high performing heavy duty footswitch
* Waterproof to IP67, IP68 upon request
- Choice of colours
- Distinctive styling
* Screw terminals and self-lifting clamp for connection of flexible leads $2 \times 1.5 \mathrm{~mm}^{2}$ or wire up to $2 \times 2.5 \mathrm{~mm}^{2}$
- Available in your own livery for a small cost
* Competitively priced for OEM users


Cover Option

1. Model Number
2. Cover and Guard Colours

| A Cover - Yellow | B Guard - Yellow |  |
| :--- | :--- | :--- |
| C Cover - White | D Guard - White |  |
| E Cover - Blue | F Guard - Blue |  |
| G Cover - Orange | H Guard - Orange |  |
| M Cover - Red | N | Guard - Red |

3. Base Colour

A Black
B White
C Silver Grey
4. Threading / Hole Information

A Single Back Entry 20 mm
B Single Back Entry PG 13.5 Gland Thread
C Double Side Entry 20 mm Gland Thread
D Double Side Entry PG 13.5 Gland Thread
5. Tread Colour

A Black
6. Action - First letter denotes the action, second letter denotes the electrical rating in section 7 (please note the choice of action dictates the electrical rating)
AA Momentary, Slow Make and Break
BB Momentary, Snap Action Make and Break
CB Alternate Action, Snap Action Make and Break
DB Momentary, 2 Pole Snap Action Make and Break
EA Momentary, 2 Pole Slow Make and Break
F Double Pole, Double Action, V3 Single Break, Snap Action
G Double Pole, Double Throw, V3 Single Break, Snap Action
Note: For options F and G please select E, F or G below only
7. Electrical Rating

A Slow Make and Break 380 V 10A 500 V 6 A
B Snap Action 380V 10A 500 V 6A
E V3 Silver Contacts C/Over ( 3 Off 6.3 mm Amp Tags) 21A 250 V ac
F V3 Gold Contacts C/Over (3 Off 6.3 mm Amp Tags) 0.1 A 250 V ac
G V3 Silver Contacts C/Over (3 Off 6.3 mm Amp Tags) 25A 277 V ac

. Emergency Stop
Z No Emergency stop fitted


## MICROSWITCHES 21A

| Average Life Expectancy | Mechanical | $1.0 \times 10^{6}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Electrical | $2.0 \times 10^{5}$ @ 10A |  | $1.0 \times 10^{4} @ 21 \mathrm{~A}$ |
|  |  | Max. Electrical Load |  |  |
|  | Voltage | Resistive | Inductive | Motor (Pf0.75) |
| AC | $\begin{aligned} & 250 \mathrm{~V} \\ & 250 \mathrm{~V} \\ & 125 \mathrm{~V} \end{aligned}$ | $\begin{aligned} & 21 A \\ & 21 A \\ & 21 A \end{aligned}$ | 8A | $\begin{aligned} & 2 \mathrm{HP} \\ & 1 \mathrm{HP} \end{aligned}$ |
| DC | $\begin{gathered} 6 \mathrm{~V} \\ 12 \mathrm{~V} \\ 24 \mathrm{~V} \\ 60 \mathrm{~V} \\ 110 \mathrm{~V} \\ 220 \mathrm{~V} \end{gathered}$ | $\begin{array}{r} 21 \mathrm{~A} \\ 15 \mathrm{~A} \\ 8 \mathrm{~A} \\ 1 \mathrm{~A} \\ 0.5 \mathrm{~A} \\ 0.25 \mathrm{~A} \end{array}$ | $\begin{array}{r} 21 \mathrm{~A} \\ 15 \mathrm{~A} \\ 7 \mathrm{~A} \\ 0.5 \mathrm{~A} \\ 0.2 \mathrm{~A} \\ 0.1 \mathrm{~A} \end{array}$ |  |

In all applications except where protective extra low voltage (PELV) circuits are being switched, an earth conductor must be installed. The earth conductor should be rated in accordance with the prevailing standards.
$\begin{array}{ll}\text { Microswitch Standards: } & \text { EN } 60730 \text { EN } 61058 \text { and UL } 508 \\ \text { Microswitch Approvals: } & \text { CE, BEAB, CSA, DEMCO, IMQ, KEMA, } \\ & \text { NEMCO, OVE, SEMCO, SETI, SEV, UL, VDE }\end{array}$

| Average Life <br> Expectancy | Mechanical | $1.0 \times 10^{6}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Electrical | $2.0 \times 10^{5} @ .01 \mathrm{~A}$ |  |  |  |
|  | Max. Electrical Load |  |  |  |  |
|  | Voltage | Resistive | Inductive | Motor (Pf0.75) |  |
| AC | 250 V | 0.1 A | 0.05 | N/A |  |
| UL/CSA Only | 125 V | 0.1 A | --- | --- |  |

Notes: Dry Switching
These switches must be used for low power circuits i.e. low current ( 4 to 100 milliamperes) and low voltage (below 30V), consult herga for further advice.

## MICROSWITCHES 25A

| Average Life Expectancy | Mechanical | $1.0 \times 10^{6}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Electrical | $1.0 \times 10^{5} @ 1.0 \mathrm{~A}$ |  |  |
|  |  | Max. Electrical Load |  |  |
|  | Voltage | Resistive | Inductive | Motor (Pf0.75) |
| AC | 277 V | 25A |  | 2 HP |
|  | 250 V | 25A |  | 2 HP |
| UL/CSA Only | 125 V | 25A |  | 1HP |

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## Benefits

* Forced break positive opening contacts, BG approved to EN 60204-1 / EN 60947-5-1
* Average life expectancy $1 \times 10^{6}$ operations
* Rugged high performing heavy duty footswitch
* Waterproof to IP67, IP68 upon request
* Choice of colours
* Distinctive styling
* Screw terminals and self-lifting clamp for connection of flexible leads $2 \times 1.5 \mathrm{~mm}^{2}$ or wire up to $2 \times 2.5 \mathrm{~mm}^{2}$
* Available in your own livery for a small cost
* Competitively priced for OEM users



In all applications, except where protective extra low voltage (PELV) circuits are being switched, an earth conductor must be installed. The earth conductor should be rated in accordance with the prevailing standards.

Cordsets
The BIA approval can also include your selected, factory fitted, cordset choice. The cordset will not be BIA approved, although the footswitch will remain BIA approved.


BIA 964026 refers to product:
6252-XXXX-MBZ0


## Benefits

* Choice of 5K and 10K Potentiometers
* Average life expectancy $1 \times 10^{6}$ operations
* Rugged high performing heavy duty footswitch
- Waterproof to IP67, IP68 upon request
- Choice of colours
- Distinctive styling
* Available in your own livery for a small cost
* Competitively priced for OEM users


1. Model Number
2. Cover and Guard Colours
A Cover-Yellow Guard - Yellow
C Cover-White
D Guard-White
E Cover-Blue
F Guard-Blue
G Cover-Orange
H Guard - Orange
M Cover-Red
N Guard-Red
3. Base Colour A Black B White C Silver Grey
4. Threading / Hole Information

A Single Back Entry 20 mm Gland Thread
B Single Back Entry PG 13.5 Gland Thread
5. Tread Colour

A Black
6. Action - First letter denotes the action, second letter denotes the electrical rating in section 7 (please note the choice of action dictates the electrical rating)
AA $5.0 \mathrm{k} \Omega$ potentiometer with 2 pole change over, snap action switches, at start of pedal depression
BB $10 \mathrm{k} \Omega$ potentiometer with 2 pole change over, snap action switches, at start of pedal depression
7. Electrical Rating

A Switch Rating: 21A 250 V ac. 1 HP 125 V ac. 2 HP 250 V ac Potentiometer Rating: Resistance $5.0 \mathrm{k} \Omega$ Power Max 0.5 W Voltage Max 50 V
B Switch Rating: 21 A 250 V ac. 1 HP 125 V ac. 2 HP 250 V ac Potentiometer Rating: Resistance $10.0 \mathrm{k} \Omega$ Power Max 0.5W Voltage Max 70V
8. Emergency Stop

Z No Emergency stop fitted

Initial depression of the foot pedal causes both microswitch contacts to change state and further depression creates a resistance change in the potentiometer.

ELECTRICAL SWITCHES

| Average Life Expectancy | Mechanical | $1.0 \times 10^{6}$ Operations |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Electrical | $2.0 \times 10^{5} @ 10 \mathrm{~A}$ |  | $1.0 \times 10^{5} @ 21 \mathrm{~A}$ |
|  |  | Max. Electrical Load |  |  |
|  | Voltage | Resistive | Inductive | Motor (Pf0.75) |
| AC | 250 V | 21A | 8A |  |
|  | 250 V | 21A |  | 2HP |
|  | 125 V | 21A |  | 1HP |
| DC | 6 V | 21A | 21A |  |
|  | 12 V | 15A | 15A |  |
|  | 24 V | 8A | 7 A |  |
|  | 60 V | 1A | 0.5A |  |
|  | 110 V | 0.5A | 0.2 A |  |
|  | 220 V | 0.25A | 0.1A |  |

POTENTIOMETER

| Electrical Data | $5.0 \mathrm{k} \Omega$ | $10.0 \mathrm{k} \Omega$ |
| :--- | :---: | :---: |
| Resistance Tolerance | $\pm 20 \%$ | $\pm 20 \%$ |
| Linearity | $\pm 1.0 \%$ | $\pm 1.0 \%$ |
| Recommended Wiper Current | $<0.1 \mu \mathrm{~A}$ | $<0.1 \mu \mathrm{~A}$ |
| Power Rating | $0.5 \mathrm{~W} / 40^{\circ} \mathrm{C}$ | $0.5 \mathrm{~W} / 40^{\circ} \mathrm{C}$ |
| Max Wiper Fault Current | 10 mA | 10 mA |
| Max Potentiometer Rating | 50 V | 70 V |
| Dielectric Strength | 1000 V ac | 1000 V ac |
| Resistance | Conductive Plastic |  |

Mechanical Data

| Average Life Expectancy Cycles | $5.0 \times 10^{6}$ | $5.0 \times 10^{6}$ |
| :--- | :--- | :--- | :--- | :--- |

Microswitch Approvals: CE, BEAB, CSA, DEMCO, IMQ, KEMA, NEMCO, OVE, SEMCO, SETI, SEV, UL and VDE
Microswitch Standards: EN 60730 EN 61058 and UL 508
Notes: Dry Switching: If switching low power circuits i.e. low current ( 4 to 100 milliamperes) and low voltage (below 30 V ), please consult herga for advice

IP Rating: The electrical housing has an environmental rating of IP67 (IP68 upon request)

## RECOMMENDED SCHEMATIC



DE-RATING CURVE
Watt


In all applications except where protective extra low voltage (PELV) circuits are being switched, an earth conductor must be installed. The earth conductor should be rated in accordance with the prevailing standards.

* Other potentiometer resistance values from 1K Ohm to 10K Ohm can be supplied in medium batch volumes, although these versions cannot be supplied with microswitch contacts.


## Benefits

* The Mistral heavy industrial foot air valve offers high performance and style
* Available in a choice of colour combinations and valve options including valve port threads
* Special colours available for volume OEM customers
* Robust construction from die-cast aluminium
* The guard is large enough to allow the operator to wear industrial protective shoes
- Competitively priced for OEM users
* Mechanical performance $10^{6}+$ operations


$$
\text { * Mechanical performance } 10^{6}+\text { operations }
$$

## Cover Option




| Technical Data |  |
| :--- | :--- |
| Maximum Operating Pressure | 10 bar $(145 \mathrm{PSI} / 1000 \mathrm{kPa})$ |
| Temperature Range | $-20^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}\left(-40^{\circ} \mathrm{F}\right.$ to $\left.+176^{\circ} \mathrm{F}\right)$ |
| Air Condition | Filtered to 40 microns lubricated or dry |
| Flow Rate at $6 \mathrm{Bar}(87 \mathrm{PSI} / 600 \mathrm{kPa})$ | $19 \mathrm{dm}^{3} / \mathrm{sec}(40 \mathrm{SCFM})$ |
| Ports | ISO R228 (1/8" BSP) standard or NPT |
| Weights | Cover/Unguarded $800 \mathrm{grms} /$ Guarded 1.5 kg |

## Connection Information

## Valve connected as a $\mathbf{3 / 2}$ Normally Closed valve

* The air supply should be connected to Port 1.
* Port 2 is redundant and should be plugged with the plug fitting supplied.
* The outlet is connected to Port 4.
* Ports 3 and 5 are exhaust ports and should be left open to
 atmosphere or fitted with silencers. See note below.


## Valve connected as $\mathbf{3 / 2}$ Normally Open valve

* The air supply should be connected to Port 1.
* Port 4 is redundant and should be plugged with the plug fitting supplied.
* The outlet is connected to Port 2.
* Ports 3 and 5 are exhaust ports and should be left open to
 atmosphere or fitted with silencers. See note below.


## Valve connected as $\mathbf{5 / 2}$ valve

* The air supply should be connected to Port 1.
- Ports 2 and 4 are outlet or cylinder ports.
* Ports 3 and 5 are exhaust ports and should be left open to atmosphere or fitted with silencers. See note below.


Note: We recommend that the exhaust ports of the valve are fitted with silencers. These will reduce the noise of the exhausting air and prevent dirt entering the valve.

A kit of 6 mm fittings including elbows and silencers is available from herga, please quote part number 6050-5500-0029.



## Benefits

* Made of die cast aluminium it's toughness and modest cost make it ideal for OEM applications
* Ideal for remote switching in harsh environmental conditions where durability is required
* Low profile designed to reduce operator fatigue
* Non electrical version available, please refer to Airswitching section
* Guard in stove enamelled mild steel as standard
* Sealed to IP40 (IP68 upon request)
* Customer colours and logos available

| Model No | 6254-CT | 6254-CC | 6254-D0 | 6254-DA | 6254-W0 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Weight | 457 g | 475g | 475g | 525g | 625g |
| Guard | Available | Available | Available | Available | Available |
| Black Body/Base | Die-cast aluminium | Die-cast aluminium | Die-cast aluminium | Die-cast aluminium | Die-cast aluminium |
| Guard Black as Std | Stove enamelled mild steel | Stove enamelled mild steel | Stove enamelled mild steel | Stove enamelled mild steel | Stove enamelled mild steel |
| No. of Poles | Single pole | Single pole | Double pole operating together | Double pole <br> Two stage action | Single pole |
| Contact Configuration | Change over | Change over | Normally open | Normally open | Normally open |
| Cable | Terminal block | PVC 4 core | Terminal block | Terminal block | PVC 4 core |
| Length as Std | N/A | 2 metres | N/A | N/A | 2 metres |
| Conductor | N/A | $0.75 \mathrm{~mm}^{2}$ | N/A | N/A | $0.75 \mathrm{~mm}^{2}$ |
| Cable O/D | N/A | 7.5 mm ( NOM ) | N/A | N/A | 6.8 mm ( NOM ) |
| Current Rating | 6 Amp 250V Ac 3 Amp 1/2 HP | 6 Amp 250V Ac 3 Amp 1/2 HP | 6 Amp 250V Ac 3 Amp 1/2 HP | 6 Amp 250V Ac 3 Amp 1/2 HP | 6 Amp 250V Ac (1.5A IND) |
| Enclosure Rating | IP40 | IP40 | IP40 | IP40 | IP67 |
| Approvals | EN 61058-2-1, EN 61058, EN 60601-1 and EN 60950 |  |  |  |  |

* Cordset variations of each standard option are available (up to IP68 upon request). (6254-DO and DA versions can be cordset built).



## Benefits

- Economic moulded plastic construction
* Versatile plastic switch designed to reduce operator fatigue
* Ideal for repetitive use for office equipment, domestic/medical appliances and general industrial applications
* Sealed to IP40 ( IP68 upon request)
* Non electrical versions available, please refer to Airswitching section
* Sealed to IP40 ( IP68 upon request)
* Guard available
* Customer colours and logos available
* Unlimited cordset options available

| Model No | 6210-ST | 6210-SC | 6210-W0 | 6210-CC | 6210-DT | 6210-DO |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Weight Aprox | 350 grms | 375 grms | 375 grms | 375 grms | 355grms | 375 grms |
| Guard | Available | Available | Available | Available | Available | Available |
| Material (Black Std) | Glass filled nylon | Glass filled nylon | Glass filled nylon | Glass filled nylon | Glass filled nylon | Glass filled nylon |
| Body (Black Std) | Glass filled nylon | Glass filled nylon | Glass filled nylon | Glass filled nylon | Glass filled nylon | Glass filled nylon |
| Guard (mild steel) | Stove enamelled | Stove enamelled | Stove enamelled | Stove enamelled | Stove enamelled | Stove enamelled |
| Number of Poles | Single pole | Single pole | Single pole | Single pole | Double pole | Double pole |
| Contact Configuration | Normally open | Normally open | Normally open | Change over | Normally open | Change over |
| Cable | Terminal block | 2 core PVC | 2 core PVC | 4 core PVC | Terminal block | 5 core PVC |
| Length (as Std) | N/A | 2 metres | 2 metres | 2 Metres | N/A | 2 Metres |
| Conductor | N/A | $0.75 \mathrm{~mm}^{2}$ | $0.75 \mathrm{~mm}^{2}$ | $0.5 \mathrm{~mm}^{2}$ | N/A | $0.5 \mathrm{~mm}^{2}$ |
| Cable O/D | N/A | 6.8 mm ( NOM ) | 6.8 mmO (NOM) | 6.8 mm ( NOM ) | N/A | 6.8 mm ( NOM ) |
| Current Rating | 6 Amp 250V Ac | 6 Amp 250V Ac | 6 Amp 250 V Ac | 3 Amp 250V Ac | 6 Amp 250V Ac | 3 Amp 250 VAc |
| Enclosure Rating | IP40 | IP40 | IP67 | IP40 | IP40 | IP40 |
| Approvals | EN 61058-2-1, EN 61058, EN 60601-1 and EN 60950 |  |  |  |  |  |

* Cordset variations of each standard option are available (up to IP68 upon request).

Note: Models 6210-CC and 6210-DO contain an unconnected earth wire.


## Benefits

- Tough, compact and versatile
- Steel construction gives long life and reliability
- Multi pedal versions available
* Non electrical versions available, please refer to Airswitching section

Sealed to IP40 or IP67 (IP68 upon request)

* Guards available
* Customer logo's available
* Variants available for medical applications

| Model No | 6289-PP | 6289-W0 | 6289-D0 | 6289-DA | 6289-SC | 6289-CC | 6289-CT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Depth | 89 mm | 89 mm | 89 mm | 89 mm | 89mm | 89 mm | 89 mm |
| Width | 63 mm | 63 mm | 63 mm | 63 mm | 63 mm | 63 mm | 63 mm |
| Height | 20 mm | 20 mm | 20 mm | 20 mm | 20 mm | 20 mm | 20 mm |
| Weight | 283 g | 283 g | 283 g | 283 g | 283 g | 283 g | 283 g |
| Guard | Available | Available | Available | Available | Available | Available | Available |
| Material: Body | (Grey Hammertone as Std) 16 SWG mild steel shell |  |  |  |  |  |  |
| Tread | (Black as standard) Polypropylene |  |  |  |  |  |  |
| Guard | 2 Sizes available/Stove enamelled mild steel/Hammertone |  |  |  |  |  |  |
| Number of Poles | Single pole | Single pole | Double pole | Two Stage Action | Single pole | Single pole | Single pole |
| Contact Configuration | Latching | Normally open | Normally open | Normally open | Normally open | Change over | Change over |
| Cable | 3 core PVC | 3 core PVC | 5 core PVC | 5 core PVC | 3 core PVC | 4 core PVC | INT. terminal block |
| Cable Length | 2 m (Std) | 2 m (Std) | 2 m (Std) | 2 m (Std) | 2 m (Std) | 2 m (Std) | N/A |
| Conductor | $0.75 \mathrm{~mm}^{2}$ | $0.75 \mathrm{~mm}^{2}$ | $0.5 \mathrm{~mm}{ }^{2}$ | $0.5 \mathrm{~mm}{ }^{2}$ | $0.75 \mathrm{~mm}^{2}$ | $0.5 \mathrm{~mm}^{2}$ | N/A |
| Cable O/D | 6.8 mm | 6.8 mm | 6.8 mm | 6.8 mm | 6.8 mm | 6.8 mm | 7.0 grommet |
| Current Rating @ 250V ac | 6 Amp resistive <br> 3 Amp inductive ½ HP 250V | 6 Amp resistive 1.5 Amp inductive | 3 Amp resistive <br> 3 Amp inductive <br> $1 / 2$ HP 250V | 3 Amp resistive <br> 3 Amp inductive <br> $1 / 2$ HP 250V | 6 Amp resistive 3 Amp inductive $1 / 2$ HP 250V | 3 Amp inductive <br> / resistive <br> $1 / 2$ HP 250V | 6 Amp resistive 3 Amp $1 / 2 \mathrm{HP}$ 250 V |
| Enclosure Rating | IP40 | IP67 | IP40 | IP40 | IP40 | IP40 | IP40 |
| Approvals | EN 61058-2-1, EN 61058, EN 60601-1 and EN60950 |  |  |  |  |  |  |

* Cordset variations of each standard option are available (up to IP68 upon request).


## 6289 ~ General Purpose Footswitch



6289-SB (Guard optional)


## Benefits 6289-SB

* Wide choice of switching options
* Various pedal and base colours available
* Robust high repeatability
* Customer logos available upon request


6289-01


## Benefits 6289-01

* Sealed to IP40 or IP67 (IP68 upon request)
* Variable switching options
* Custom made lengths on request
* Choice of colour toppings

| Model No | 6289-SB Standard | 6289-01 Standard |
| :---: | :---: | :---: |
| Depth | 100 mm | 95 mm |
| Width | 180 mm | 760 mm (200mm to 3 metres possible) |
| Height | 32 mm | 25 mm |
| Weight | 795 g | 1200 grms |
| Guard | $230 \mathrm{~mm} \times 100 \mathrm{~mm} \times 100 \mathrm{~mm}$ (optional extra) | N/A (possible on shorter lengths) see below |
| Divider Option | Fitted to central boss with or without herga logo | N/A |
| Material: Body <br> Tread <br> Guard | 2 switches on diecast aluminium base <br> Std black polypropylene (grey, red \& white also available) Painted 18 SWG mild steel | Switch bodies grey hammertone mild steel (underneath) Rubber on aluminium extrusion (or vinyl) <br> Available up to 300 mm long |
| Colour Option | Grey hammertone (various textures and colours available) | Black rubber tread (vinyl floor types available) |
| Wiring Configurations | Single and double pole variants (silver as Std) | $2 \times \mathrm{N} / \mathrm{O}$ single pole footswitches (Change over and double pole available upon request) |
| Contact Configuration | Silver and gold variants available (silver as Std) | Silver and gold variants available |
| Cable | PVC (other types available upon request) | 3 core PVC with earth as standard |
| Cable Length | 2 metres (other lengths/types available upon request) | 2 metres (can be provided with extra lengths) |
| Current Rating | Variations of 24 V and 250 V available <br> 3 Amp ½ HP (dependent on component use) | 6 Amp resistive 250 V <br> 3 Amp inductive $1 / 2 \mathrm{HP}$ |
| Enclosure Rating | IP40 and IP67 (IP68 upon request) | IP40 (IP67 and IP68 available upon request) |
| Approvals | EN 61058-2-1, EN 61058, EN 60601-1 and EN 60950 | EN 61058-2-1, EN 61058, EN 60601-1 and EN 60950 |

## For IP40/IP41 Single Pole Switching

1. Model Number
2. Cover and Base Colour Option

A Black Cover \& Black Base
B Grey Cover \& Black Base
E Red Cover \& Black Base
L Blue Cover \& Black Base
3. Base Configuration

A Base fitted with M3 Brass Inserts
Z No Inserts in Base, can be mounted using self tapping screws
4. Pedal Operation

A Light, suitable for hand operation
B Heavy, suitable for foot operation
5. Switch Action

A Single Pole, Momentary Action, Normally Open Contact, For Cordset see Sections 6 \& 8, select 2 Core Cordset
B Single Pole, Momentary Action, Change Over Contact, For Cordset see Sections 7 \& 8, select 3 Core Cordset
E Kit of Parts supplied loose, Refer Box 9 for options
Only one Cordset selection can be made from 1 of the next 4 sections, enter Z - No Option Chosen for the 3 remaining sections
6. 2 Core \& 2 Core Screened Cordsets sealed to IP40 (BS EN 60529)

A 3A $24 \mathrm{Vac} / \mathrm{dc} 2$ Core $0.75 \mathrm{~mm}^{2}$ Colour Black 2 Metres long, Silver Contact
B 3A 250V 2 Core $0.75 \mathrm{~mm}^{2}$ Colour Black 2 Metres long, Silver Contact
C $1.75 \mathrm{~A} 24 \mathrm{Vac} / \mathrm{dc} 2$ Core $0.22 \mathrm{~mm}^{2}$ Colour Black 'UL' 2 Metres long, Silver Contact
D $1.75 \mathrm{~A} 24 \mathrm{Vac} / \mathrm{dc} 2$ Core $0.22 \mathrm{~mm}^{2}$ Colour White 'UL' 2 Metres long, Silver Contact
E 3A 24Vac/dc 2 Core $0.22 \mathrm{~mm}^{2}$ Shielded Flexible, Colour Black 2 Metres long, Silver Contact
F 0.1A $24 \mathrm{Vac} / \mathrm{dc} 2$ Core $0.75 \mathrm{~mm}^{2}$ Colour Black 2 Metres long, Gold Contact
G 0.1 A 250 V 2 Core $0.75 \mathrm{~mm}^{2}$ Colour Black 2 Metres long, Gold Contact
H $0.1 \mathrm{~A} 24 \mathrm{Vac} / \mathrm{dc} 2$ Core $0.22 \mathrm{~mm}^{2}$ Colour Black 'UL' 2 Metres long, Gold Contact
J 0.1A $24 \mathrm{Vac} / \mathrm{dc} 2$ Core $0.22 \mathrm{~mm}^{2}$ Colour White 'UL' 2 Meters long, Gold Contact
K 0.1A $24 \mathrm{Vac} / \mathrm{dc} 2$ Core $0.22 \mathrm{~mm}^{2}$ Shielded Flexible Colour Black 2 Metres long, Gold Contact
Z No Option chosen
7. 3 Core \& 3 Core Screened Cordsets Sealed to IP40 (BS EN 60529)

A $0.1 \mathrm{~A} 24 \mathrm{Vac} / \mathrm{dc} 3$ Core $0.25 \mathrm{~mm}^{2}$ Colour Light Grey 2 Metres Long, Gold Contact
B 3A 250V 3 Core $0.5 \mathrm{~mm}^{2}$ Colour Black 2 Metres Long, Silver Contact
C 0.1 A 250 V 3 Core $0.5 \mathrm{~mm}^{2}$ Colour Black 2 Metres Long, Gold Contact
D 3A $24 \mathrm{Vac} / \mathrm{dc} 3$ Core $0.5 \mathrm{~mm}^{2}$ Colour Black 2 Metres Long, Silver Contact
E $1.75 \mathrm{~A} 24 \mathrm{Vac} / \mathrm{dc} 3$ Core $0.25 \mathrm{~mm}^{2}$ Colour Grey Screened 2 Metres Long, Silver Contact
Z No Option chosen
8. 2 \& 3 Core Plug Cordsets Sealed To IP40 (BS EN 60529)

A 0.1A $24 \mathrm{Vac} / \mathrm{dc} 2$ Core Colour Black 'UL' 2 Metres Long with 3.5 mm Mono Jackplug, Gold Contact B 0.1A $24 \mathrm{Vac} / \mathrm{dc} 2$ Core Colour White 'UL' 2 Metres Long with 3.5 mm Mono Jackplug, Gold Contact
C $0.1 \mathrm{~A} 24 \mathrm{Vac} / \mathrm{dc} 2$ Core Screen Colour Grey 2 Metres Long with 3.5 mm Mono Jackplug, Gold Contact
D 0.1A $24 \mathrm{Vac} / \mathrm{dc} 2$ Core Shielded Flexible Colour Black 2 Metres Long with 6.35 mm Mono Jackplug, Gold Contact
E 0.1A 24Vac/dc 3 Core Colour Light Grey 2 Metres Long with 3.5 mm Stereo Jackplug, Gold Contact
F 0.1A 24Vac/dc 3 Core Screened Colour Grey 2 Metres Long with 6.35 Stereo Jackplug, Gold Contact
Z No Option chosen
9. Non Cordset IP40 Variants - Customer to Attach Own Cordset

A Fitted Change Over Microswitch Silver Contact Max. 16A 250V Lucar Blade $6.3 \mathrm{~mm} \times 0.8$ Tag
B Fitted Change Over Microswitch Gold Contact Max. 0.1A 250V Lucar Blade $6.3 \mathrm{~mm} \times 0.8 \mathrm{Tag}$
C Fitted Change Over Microswitch Silver Contact Max. 16A 250V Solder Tag
D Fitted Change Over Microswitch Gold Contact Max. 0.1A 250V Solder Tag
Z No Option chosen
Note: The cordset rating must exceed the maximum control circuit rating. Options 9B and 9D are low power switches and must only be used in applications where suitable design constraints are met.

For IP40/IP41 Single Pole Switching


## Benefits

* Front hinged low profile footswitch designed for improved user comfort
* All plastic construction with pimple tread pattern, ideal for palm or foot operation
* Its versatility and innovative design make it an ideal product for OEM use
* Switches are designed to meet medical, industrial and office/commercial standards
* Enclosure rating IP41
* Choice of operating force
* Options for customers to fit their own cables

| Depth/Length | 91 mm |
| :--- | :--- |
| Width | 66 mm |
| Height | 27 mm |
| Weight | 212 g (including cable) |
| Guards | Available - please contact herga for details |
| Material | Glass filled Nylon 6 |
| Number of Poles | Single pole momentary |
| Contact Configuration | Normally open, normally closed and common (change over) |
| Enclosure Rating | EN 61058-2-1 |
| Standards | EN 61058 |
| (dependent upon application chosen) | EN 60601-1 |
| EN 60950 |  |
| Options for OEM Customers | Special versions considered |

## For IP67 and Double Pole Switching



* Other feasible switching solutions can be considered upon request.
* Unlimited cordset options are available upon request.


## 6221 ~ Leptron Foot / Palm Switch

## For IP67 and Double Pole Switching



## Benefits

* Front hinged low profile footswitch designed for improved user comfort
* All plastic construction with pimple tread pattern, ideal for palm or foot operation
* Choice of operating force
* Switches are designed to meet medical, industrial and office/commercial standards
* Enclosure rating IP67 (IP68 upon request)
* Its versatility and innovative design make it an ideal product for OEM use

| Depth/Length | 91 mm |
| :---: | :---: |
| Width | 66 mm |
| Height | 27 mm |
| Weight | 212 g (including cable) |
| Guards | Available - please contact herga for details |
| Material | Glass filled Nylon 6 |
| Number of Poles | Single pole momentary or double pole momentary |
| Contact Configuration | Normally open, normally closed and common (change over) |
| Enclosure Rating | IP67 (IP68 available upon request) |
| Standards <br> (dependent upon application chosen) | EN 61058-2-1 <br> EN 61058 <br> EN 60601-1 <br> EN 60950 |
| Options for OEM Customers | Special versions considered <br> Customised labels available <br> Additional colours may be available - please contact herga for details if your preferred colour is not shown |



## Benefits

* Using all of the options available with the multi-pedal footswitching, we can meet a wide variety of OEM applications and comply to the differing international Standards
* Multi-pedal bases are made from a tough ABS with textured finish in grey or black or painted diecast aluminium
* Sealed to IP40 \& IP67 (IP68 upon request)
* Maximum electrical ratings are determined by application
* Other pedal versions are also feasible

In keeping with our innovative design of the Leptron and 6289 styles, we can now offer equally attractive 2 , 3 and 4 pedal Footswitches (larger pedals can be considered). Talk to us about your requirements for multi-pedal Footswitches. Multipedal bellow variants are also available for non electrical switching.

## Help on Standards

Herga has many years of experience of international standards. With the huge choice of footswitches available, we believe that together we can offer you the correct model to meet the various standards. However, as no one understands your market better than yourselves, the final design and responsibility of meeting the correct standards is yours.



## Benefits

* Ideal for hand or foot operation
- Tough flexible PVC cover
- IP67 double insulated (IP68 upon request)
* Choice of colours (others upon request)
* Available with aluminium base plate for added stability or permanent fixing with ant-slip foam pad
* Change over contact variants available
* Cordsets can be supplied with plugs/sockets etc


1. Model Number
2. Colour Option
A Black
B Grey
C White
E Brown/Tan
$\begin{array}{ll}\text { D } & \text { Red } \\ \text { F } & \text { Green }\end{array}$
3. Mounting Plate

A Mounting Plate Fitted
B Mounting Plate Supplied Loose with Screws/Inserts Fitted
C No Mounting Plate but with M4 Inserts Fitted as Std in rear of base
Z No Mounting Plate or Inserts Supplied
4. Contact Configuration

A Single Pole Normally Open
B Single Pole Normally Closed
C Change Over Contacts (3 Core Minimum)
5. Cable Length
A 2 Metres Long
B 3 Metres Long
C 5 Metres Long
D 10 Metres Long
6. IP40 Cordset Electrical Rating

A 3A 24 V ac/dc Silver Contact, 2 Core $0.75 \mathrm{~mm}^{2}$ Colour Black PVC
C 0.1 A 24 V ac/dc Gold Contact, 2 Core $0.75 \mathrm{~mm}^{2}$ Colour Black PVC
D 3 A 24 V ac/dc Silver Contact, 3 Core $0.5 \mathrm{~mm}^{2}$ Colour Black PVC
F 0.1 A 24 V ac/dc Gold Contact, 3 Core Colour Black PVC
7. IP67 Cordset Electrical Rating

A 3A 24 V ac/dc Silver Contact, 2 Core $0.75 \mathrm{~mm}^{2}$ Colour Black PVC
C 0.1 A 24 V ac/dc Gold Contact, 2 Core $0.75 \mathrm{~mm}^{2}$ Colour Black PVC
D $3 \mathrm{~A} 24 \mathrm{~V} \mathrm{ac} / \mathrm{dc}$ Silver Contact, 3 Core $0.5 \mathrm{~mm}^{2}$ Colour Black PVC
F 0.1 A 24 V ac/dc Gold Contact, 3 Core Colour Black PVC

* 250 Volt versions available upon request


EN 60529 outlines an international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign bodies (i.e. tools, dust, fingers) and moisture. This classification system utilises the letters "IP" ("Ingress Protection") followed by two or three digits. (A third digit is sometimes used. An "x" is used for one of the digits if there is only one class of protection; i.e. IPX4 which addresses moisture resistance only.)

## Degrees of Protection - First Digit

The first digit of the IP code indicates the degree that persons are protected against contact with moving parts (other than smooth rotating shafts, etc.) and the degree that equipment is protected against solid foreign bodies intruding into an enclosure.
0 No special protection.
1 Protection from a large part of the body such as a hand (but no protection from deliberate access); from solid objects greater than 50 mm in diameter.
2 Protection against fingers or other object not greater than 80 mm in length and 12 mm in diameter.
3 Protection from entry by tools, wires, etc., with a diameter or thickness greater than 2.5 mm .

4 Protection from entry by solid objects with a diameter or thickness greater than 1.0 mm .

5 Protection from the amount of dust that would interfere with the operation of the equipment.
6 Dust tight.

## Degrees of Protection - Second Digit

The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.)
0 No special protection.
1 Protection from dripping water.
2 Protection from vertically dripping water.
3 Protection from sprayed water.
4 Protection from splashed water.
5 Protection from water projected from a nozzle.
6 Protection against heavy seas, or powerful jets of water.
7 Protection against immersion.
8 Protection against complete, continuous submersion in water. Submersion depth and time must be specified by the enduser. The requirement must be more onerous than IP67.

## The IP Code Symbols

The chart at the right illustrates the use of special symbols in the IP classification system. In the "1st digit" column, note the grid-like symbols next to numbers 5 and 6 . In the "2nd digit" column numbers 3-8 are symbolised by teardrop shaped symbols, sometimes enclosed in a box or a triangle, sometimes unenclosed (\#7-8). These symbols can be placed on equipment to illustrate the IP protection provided.

IP54 =


| $\begin{gathered} \text { 1st } \\ \text { Digit } \end{gathered}$ | Protection form solid objects |  | $\begin{aligned} & \text { 2nd } \\ & \text { Digit } \end{aligned}$ | Protection | om moisture |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | Non protected |  | 0 | Non protected |  |
| 1 |  | Protected against solid objects greater than 50 mm | 1 |  | Protected against dripping water |
| 2 |  | Protected against solid objects greater than 12 mm | 2 |  | Protected against dripping water when tilted up to $15^{\circ}$ |
| 3 |  | Protected against solid objects greater than $2.5 \mathrm{~mm} \varnothing$ | 3 |  | Protected against spraying water |


| 4 | Protected against solid objects greater than $1.0 \mathrm{~mm} \varnothing$ | 4 |  <br> Protected against splashing water |
| :---: | :---: | :---: | :---: |
| 5 | Dust protected | 5 |  <br> Protected against water jets |


| Nost tight |
| :--- |
| Note: EN 60529 does not specify sealing <br> effectiveness against the following: <br> mechanical damage of the equipment; the <br> risk of explosions; certain types of <br> moisture conditions, e.g. those that are <br> produced by condensation; corrosive <br> vapours; fungus; vermin. |


| European |  |  |  |  |  | American |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rating | Conductor Standing |  | Cross Sect. Area mm² |  | AWG | Conductor Standing |  |
| Amps | Imperial | Metric |  |  | Regular | Hi Flex |
| 1.5 | 7/.0076" |  | 0.193 |  |  |  |  |  |
| 1.75 |  | $7 / 0.2 \mathrm{~mm}$ | 0.22 | 0.22 | 24 | 71.008" | 19/.0050" |
|  |  |  |  | 0.357 | 22 | 71.010" | 19/.0063" |
| 3 | 14/.0076" |  | 0.377 |  |  |  |  |
| 3 |  | 16/0.2mm | 0.5 |  |  |  |  |
|  |  |  |  | 0.510 | 20 | 10/.010" |  |
| 6 | 23/.0076" |  | 0.65 |  |  |  |  |
| 6 |  | 24/0.2mm | 0.75 |  |  |  |  |
|  |  |  |  | 0.816 | 18 | 16/010 | 41/.0063" |
| 10 |  | $32 / 0.2 \mathrm{~mm}$ | 1.0 |  |  |  |  |
| 13 | 40/.0076" |  | 1.1 |  |  |  |  |
|  |  |  |  | 1.32 | 16 | 26/.010" | 56/.0063" |
| 15 |  | $30 / 0.25 \mathrm{~mm}$ | 1.50 |  |  |  |  |
| 18 | 70/.0076" |  | 1.93 |  |  |  |  |
|  |  |  |  | 2.09 | 14 | 41/010" |  |
| 20 |  | 50/0.25mm | 2.50 |  |  |  |  |
| 24 | 110/.0076" |  | 3.1 |  |  |  |  |
|  |  |  |  | 3.31 | 12 | 65/.010" |  |
| 25 |  | 56/0.3mm | 4.0 |  |  |  |  |
| 31 | 162/.0076" |  | 4.5 |  |  |  |  |
|  |  |  |  | 5.26 | 10 | 65/0.129" |  |

## Important Notice

Foot controls should only be used where devices have been properly installed and are utilised so that it is impossible for the operators hands to remain within the point of operation during the machine cycle.


## Standard Switch Contact Configurations

| Description | Form | Symbol |
| :--- | :---: | :---: |
| SPST-NO <br> Single pole, single throw, normally open | B |  |
| SPST-NC <br> Single pole, single throw, normally closed | $\mathbf{C}$ |  |
| SPDT <br> Single pole, double throw, break before make | $\mathbf{X}$ |  |
| SPST-NO <br> Single pole, single throw, normally open, <br> double break | $\mathbf{Y}$ |  |
| SPST-NC <br> Single pole, single throw, normally closed, <br> double break | $\mathbf{Z a}$ |  |
| SPDT <br> Single pole, double throw, break before make, <br> double break moving contact of same polarity |  |  |


| Description | Form |
| :--- | :--- |
| SPDT <br> Single pole, double throw, break before make, <br> double break moving contacts are electrically separate | $\mathbf{Z b}$ |
| DPST-NO <br> Double pole, single throw, normally open | AA |
| DPST-NC <br> Double pole, single throw, normally closed | $\mathbf{B B}$ |
| DPST <br> Double pole, single throw, break before make | $\mathbf{A B}$ |
| DPDT <br> Double pole, double throw, break before make | $\mathbf{C C}$ |

It is our goal to give you a response within 24 hours. By completing this form it will help us to help you! Thank you.

| CUSTOMER |  |  |  |
| :---: | :--- | :--- | :--- |
| CONTACT NAME |  | TEL: | FAX: |

PLEASE TICK THE BOXES YOU NEED AND FILL IN YOUR REQUIREMENTS


## Notes:

Notes or Sketches
You may find it necessary to attach further information to Fax Back Form


Designed, Built and Specified for Long Term Reliability



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