# herga



# **Footswitches**

SWITCHING AND SENSING SOLUTIONS





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
RS Components
Siemens
General Electric



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.



Page FS1 & 2

## 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.



Page FS3 & 4

#### 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.



Page FS5 & 6

### 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.



Page FS7 & 8

## 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.



Page FS9

#### 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.



Page FS10

### 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.



Page FS11 & 12

#### 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.



Page FS13 - 16

## **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.



Page FS17 -18

#### 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.



Page FS19

#### Your Guide to Certification Markings

Covers most worldwide authorities/certification marks.





Page FS20

## Your Guide to IP Ratings

Sealing of electrical enclosures.

**IP65?** 

Page FS21

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



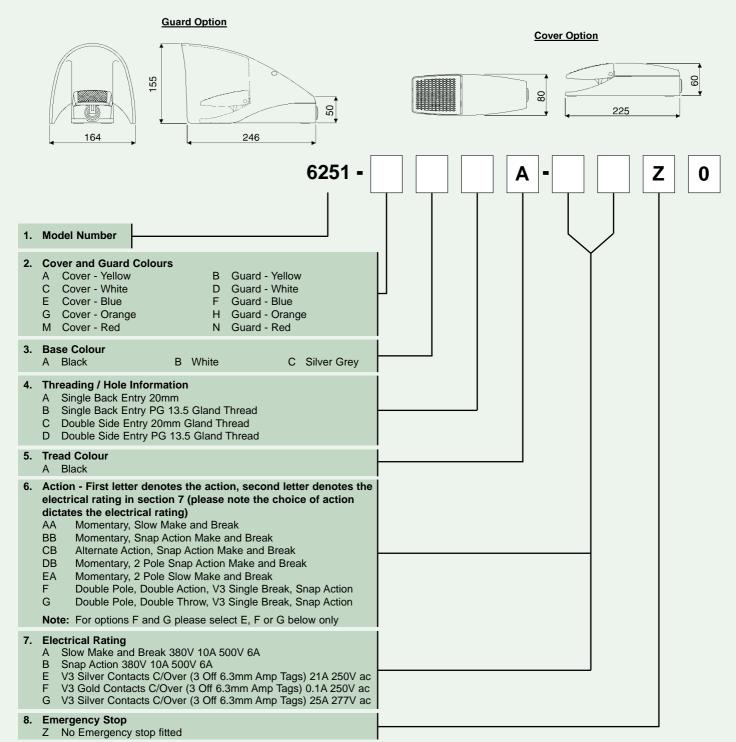
Page FS22





#### **Benefits**

- Average life expectancy 1x10<sup>6</sup> 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 x 1.5mm<sup>2</sup> or wire up to 2 x 2.5mm<sup>2</sup>
- Available in your own livery for a small cost
- Competitively priced for OEM users





Design	To EN 60204-1							
IP Rating	The electrical housing	The electrical housing has an environmental rating of IP67 (IP68 upon request)						
Approvals	Switches to EN 61058	3						
Rated Operational Voltage	500V ac, over 380V a	c same potential only						
Rated Operational Current		10A 380V AC1 10A 110V AC1 6A 500V AC1 6A 250V AC11						
Contact Configuration	Normally open / normal	ally closed						
Contact Gap	>3mm suitable for ma	ins isolation						
Temperature Operating Range	-25°C to +60°C							
Mechanical Endurance	1x10 <sup>6</sup> operations	1x10 <sup>6</sup> operations						
Electrical Life Expectancy At Category AC-15	0.5 x 10 <sup>6</sup> switching cy	0.5 x 10 <sup>6</sup> switching cycles when interrupting AC-11 6A at 250V						
Terminals	Minimum 2 x 1.5mm <sup>2</sup>	Screw terminals with self-lifting clamps for connection of flexible leads Minimum 2 x 1.5mm² Standard Conductor Maximum 2 x 2.5mm² Standard Conductor						
Action Type from Order Code	А	В	С	D				
Connection Diagram	1 Pole Slow Make Slow Break	1 Pole Snap Action	2 Pole Snap Action	2 Pole Slow Make Slow Break				
Limit Switches (Other switching sequences are available upon request)	1 2 0 0 3 4	3 4 0 0 1 2	3 4 0 0 1 2 3 4 0 0 1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1	1 2 0 0 3 4 1 2 0 0 3 4				

#### **MICROSWITCHES 21A**

Average Life	Mechanical		1.0 x 10 <sup>6</sup>				
Expectancy	Electrical	2.0 x 10 <sup>5</sup> @	2.0 x 10 <sup>5</sup> @ 10A 1.0				
		Ma	Max. Electrical Load				
	Voltage	Resistive	Inductive	Motor (Pf0.75)			
	250V	21A	8A	2HP			
AC	250V	21A		1HP			
	125V	21A		INF			
	6V	21A	21A				
DC	12V	15A	15A				
	24V	8A	7A				
	60V	1A	0.5A				
	110V	0.5A	0.2A				
	220V	0.25A	0.1A				

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.

Microswitch Standards: EN 60730 EN 61058 and UL 508 Microswitch Approvals: CE, BEAB, CSA, DEMCO, IMQ, H

CE, BEAB, CSA, DEMCO, IMQ, KEMA, NEMCO, OVE, SEMCO, SETI, SEV, UL, VDE

#### **GOLD CONTACT MICROSWITCHES**

Average Life	Mechanical	1.0 x 10 <sup>6</sup>				
Expectancy	Electrical	2.0 x 10⁵ @ .01A				
		Max. Electrical Load				
	Voltage	Resistive Inductive		Motor (Pf0.75)		
AC	250V	0.1A	0.05	N/A		
UL/CSA Only	125V	0.1A				
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**

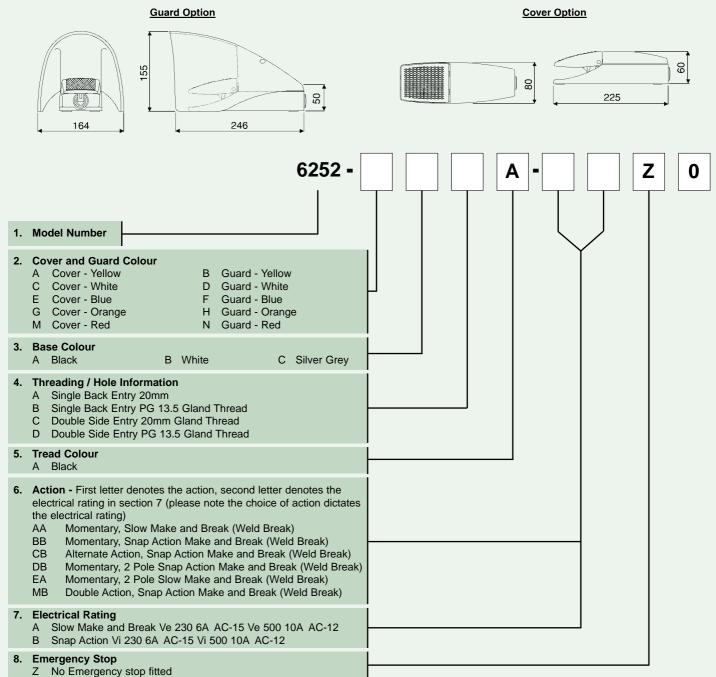
Average Life Expectancy	Mechanical	1.0 x 10 <sup>6</sup>				
	Electrical	1.0 x 10⁵ @ 1.0A				
		Max. Electrical Load				
	Voltage	Resistive	Inductive	Motor (Pf0.75)		
AC	277V	25A		2HP		
7.0	250V	25A		2HP		
UL/CSA Only	125V	25A		1HP		





### Benefits

- Forced break positive opening contacts, BG approved to EN 60204-1 / EN 60947-5-1
- Average life expectancy 1x10<sup>6</sup> 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 x 1.5mm<sup>2</sup> or wire up to 2 x 2.5mm<sup>2</sup>
- Available in your own livery for a small cost
- Competitively priced for OEM users





Design	To EN 60204-1 with switching to meet EN 60947-5-1. VDE 0660 part 200, IEC 947-5-1						
IP Rating	The electrical housing has an environmental rating of IP67 (IP68 upon request)						
Rated Operational Voltage	500V ac, over 380V ac same potential only						
Rated Operational Current	AC (40 to 60hz)         DC           1e/AC-12         Uele         Ac-15         Uele         DC-12         Le/DC-13           10         24         10         24         10         10           10         125         10         48         6         4           10         230         6         110         4         1           10         400         4         220         1         0.4           10         500         3         440         0.5         0.2           Note: When the footswitch is supplied with a pre-wired cordset, the cordset rating will take precedence over the footswitch rating. The rating will be marked on the cordset.						
Contact Configuration	Normally open + normally closed positive opening operation to EN 60947-5-1						
Contact Gap	>3mm suitable for mains isolation						
Temperature Operating Range	-25°C to +60°C						
Mechanical Endurance	1x10 <sup>6</sup> operations						
Electrical Life Expectancy At Category AC-15	0.5 x 10 <sup>6</sup> switching cycles when interrupting AC-15 6A at 250V						
Terminals	Screw terminals with self-lifting clamps for connection of flexible leads Minimum 2 x 1.5mm² Standard Conductor Maximum 2 x 2.5mm² Standard Conductor						
Action Type from Order Code (Action Option)	A B D E F						
Connection Diagram	1 Pole 1 Pole 2 Pole 2 Pole Double Action Slow Make Snap Action Snap Action Slow Break Slow Break						
Limit Switches	13 14 21 22 13 14 13 14 21 22 50 20 20 20 20 20 20 20 20 20 20 20 20 20						

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 964025 refers to products:

6252-XXXX-AAZ0 6252-XXXX-BBZ0 6252-XXXX-DBZ0 6252-XXXX-DAZ0



BIA 964026 refers to product:

6252-XXXX-MBZ0

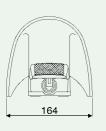


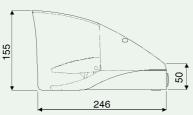


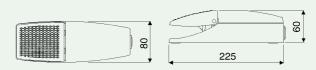
**Guard Option** 

#### Benefits

- Choice of 5K and 10K Potentiometers
- Average life expectancy 1x10<sup>6</sup> 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

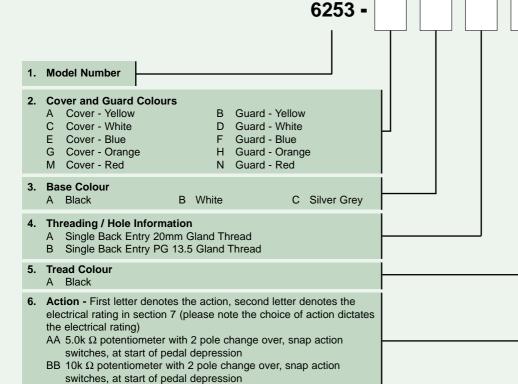






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**Cover Option** 



## 7. Electrical Rating

- A Switch Rating: 21A 250V ac. 1HP 125V ac. 2HP 250V ac Potentiometer Rating: Resistance 5.0k  $\Omega$
- Power Max 0.5W Voltage Max 50V

  B Switch Rating: 21A 250V ac. 1HP 125V ac. 2HP 250V ac Potentiometer Rating: Resistance 10.0k Ω

  Power Max 0.5W Voltage Max 70V

## 8. Emergency Stop

Z No Emergency stop fitted

## 6253 ~ Heavy Duty Foot Potentiometer



 $5.0 \times 10^6$ 

 $5.0 \times 10^6$ 

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	Mechanical	1.0	x 10 <sup>6</sup> Operati	ons		
Expectancy	Electrical	2.0 x 10 <sup>5</sup> @	x 10 <sup>5</sup> @ 21A			
		Max. Electrical Load				
	Voltage	Resistive	Inductive	Motor (Pf0.75)		
	250V	21A	8A			
AC	250V	21A		2HP		
	125V	21A		1HP		
	6V	21A	21A			
	12V	15A	15A			
DC	24V	8A	7A			
DC	60V	1A	0.5A			
	110V	0.5A	0.2A			
	220V	0.25A	0.1A			

#### **POTENTIOMETER**

Electrical Data	5.0k Ω	10.0k Ω	
Resistance Tolerance	±20%	±20%	
Linearity	±1.0%	±1.0%	
Recommended Wiper Current	<0.1 µ A	<0.1 µ A	
Power Rating	0.5W/40°C	0.5W/40°C	
Max Wiper Fault Current	10mA	10mA	
Max Potentiometer Rating	50V	70V	
Dielectric Strength	1000V ac	1000V ac	
Resistance	Conductive Plastic		
Mark and ad Data			
Mechanical Data			

CE, BEAB, CSA, DEMCO, IMQ, KEMA, NEMCO, OVE, SEMCO, SETI, SEV, UL and VDE Microswitch Approvals:

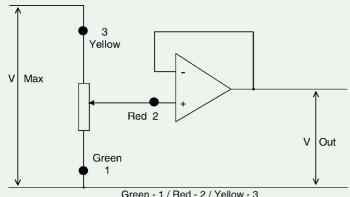
Microswitch Standards: EN 60730 EN 61058 and UL 508

If switching low power circuits i.e. low current (4 to 100 milliamperes) and low voltage (below 30V), Dry Switching: Notes:

please consult herga for advice

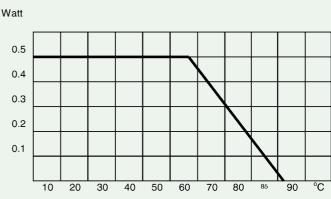
IP Rating: The electrical housing has an environmental rating of IP67 (IP68 upon request)

# RECOMMENDED SCHEMATIC



## **DE-RATING CURVE**

Average Life Expectancy Cycles



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.

## 6255 ~ 'Mistral' Industrial Foot Air Valve





#### 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 106+ operations

## **Guard Option Cover Option** 9 155 8 20 246 164 6255 -Ζ Α 1. Model Number **Cover and Guard Colours** Cover - Yellow Guard - Yellow Cover - White D Guard - White Cover - Blue Е F Guard - Blue Cover - Orange Guard - Orange M Cover - Red Guard - Red 3. Base Colour A Black 4. Base Configuration A Entrance ports on each side of base 5. Tread Colour A Black **Valve Action** Momentary 5/2 Valve 1/8" BSP ISO R228 Standard Momentary 5/2 Valve 1/8" NPT Momentary 3/2 Valve 1/8" BSP ISO R228 Standard Momentary 3/2 Valve 1/8" NPT Note: Options C and D are supplied with one blanking plug **Pneumatic Rating** A Maximum Operating Pressure 10 Bar Temperature -20°C to +80°C. Flow Rate at 6 Bar 19dm3 / Sec 40 SCFM

## 6255 ~ 'Mistral' Industrial Foot Air Valve

atmosphere or fitted with silencers. See note below.

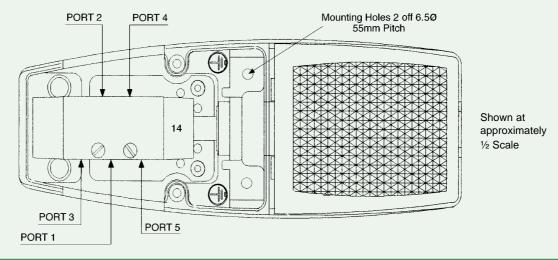


Technical Data	
Maximum Operating Pressure	10 bar (145 PSI / 1000kPa)
Temperature Range	-20°C to + 80°C (-40°F to +176°F)
Air Condition	Filtered to 40 microns lubricated or dry
Flow Rate at 6 Bar (87 PSI / 600kPa)	19dm³ / sec (40 SCFM)
Ports	ISO R228 (1/8" BSP) standard or NPT
Weights	Cover/Unguarded 800grms / Guarded 1.5kg

Connection Information	
Valve connected as a 3/2 Normally Closed valve	
The air supply should be connected to Port 1.	4 2
Port 2 is redundant and should be plugged with the plug fitting supplied.	
The outlet is connected to Port 4.	14 5 \$ 3
Ports 3 and 5 are exhaust ports and should be left open to atmosphere or fitted with silencers. See note below.	1
Valve connected as 3/2 Normally Open valve	
The air supply should be connected to Port 1.	4 2
Port 4 is redundant and should be plugged with the plug fitting supplied.	
The outlet is connected to Port 2.	14 5 \$ 3 12
Ports 3 and 5 are exhaust ports and should be left open to atmosphere or fitted with silencers. See note below.	1
Valve connected as 5/2 valve	4 2
The air supply should be connected to Port 1.	
Ports 2 and 4 are outlet or cylinder ports.	T V V T 12
Ports 3 and 5 are exhaust ports and should be left open to	14 5 \( \psi \)

**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.

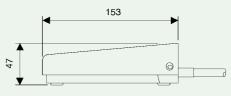
A kit of 6mm fittings including elbows and silencers is available from herga, please quote part number 6050-5500-0029.

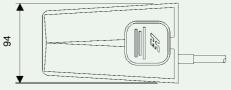


## 6254 ~ General Industrial Footswitch









#### 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

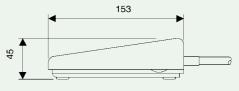
Model No	6254-CT	6254-CC	6254-D0	6254-DA	6254-W0		
Weight	457g	475g	475g	525g	625g		
Guard	Available	Available	Available	Available	Available		
Black Body/Base	Die-cast aluminium	Die-cast aluminium	Die-cast aluminium	Die-cast aluminium	Die-cast aluminium		
Guard Black as Std	Stove enamelled mild steel	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 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	0.75mm <sup>2</sup>	N/A	N/A	0.75mm <sup>2</sup>		
Cable O/D	N/A	7.5mmØ (NOM)	N/A	N/A	6.8mmØ (NOM)		
Current Rating	6 Amp 250V Ac	6 Amp 250V Ac	6 Amp 250V Ac	6 Amp 250V Ac	6 Amp 250V Ac		
	3 Amp 1/2 HP	3 Amp 1/2 HP	3 Amp 1/2 HP	3 Amp 1/2 HP	(1.5A IND)		
Enclosure Rating	IP40	IP40	IP40	IP40	IP67		
Approvals	EN 61058-2-1, EN 61058, EN 60601-1 and EN 60950						

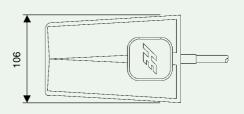
Cordset variations of each standard option are available (up to IP68 upon request). (6254 - DO and DA versions can be cordset built).

# 6210 ~ Light Industrial Footswitch









#### Benefits

- Economic moulded plastic construction
- Versatile plastic switch designed to reduce operator fatique
- 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

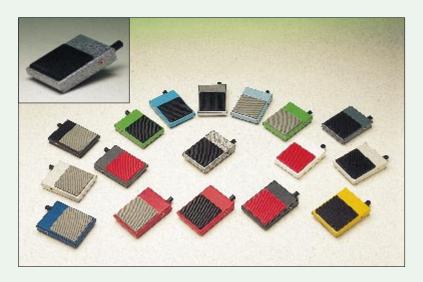
Model No	6210-ST	6210-SC	6210-W0	6210-CC	6210-DT	6210-DO	
Weight Aprox	350grms	375grms	375grms	375grms	355grms	375grms	
Guard	Available	Available	Available	Available	Available	Available	
Material (Black Std)	Glass filled nylon	Glass filled nylon	Glass filled nylon	Glass filled nylon	Glass filled nylon	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	0.75mm <sup>2</sup>	0.75mm <sup>2</sup>	0.5mm <sup>2</sup>	N/A	0.5mm <sup>2</sup>	
Cable O/D	N/A	6.8mmØ (NOM)	6.8mmØ (NOM)	6.8mmØ (NOM)	N/A	6.8mmØ (NOM)	
Current Rating	6 Amp 250V Ac	6 Amp 250V Ac	6 Amp 250V Ac	3 Amp 250V Ac	6 Amp 250V Ac	3 Amp 250V Ac	
Enclosure Rating	IP40	IP40	IP67	IP40	IP40	IP40	
Approvals	EN 61058-2-1, EN 61058, EN 60601-1 and EN 60950						

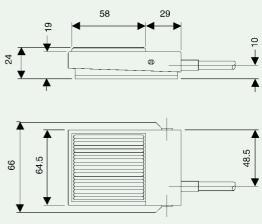
Cordset variations of each standard option are available (up to IP68 upon request).

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

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### **Benefits**

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

- Multi pedal versions available
- Sealed to IP40 or IP67 (IP68 upon request)
- Choice of colours and switching operations
- Customer logo's available
- Variants available for medical applications

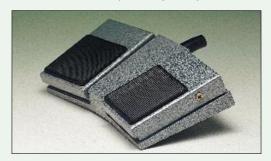
Model No	6289-PP	6289-W0	6289-D0	6289-DA	6289-SC	6289-CC	6289-CT	
Depth	89mm	89mm	89mm	89mm	89mm	89mm	89mm	
Width	63mm	63mm	63mm	63mm	63mm	63mm	63mm	
Height	20mm	20mm	20mm	20mm	20mm	20mm	20mm	
Weight	283g	283g	283g	283g	283g	283g	283g	
Guard	Available	Available	Available	Available	Available	Available	Available	
Material: Body			(Grey Hammerto	one as Std) 16 SW	G mild steel shell			
Tread			(Black a	as standard) Polypi	ropylene			
Guard		2	Sizes available/St	ove enamelled mil	d steel/Hammertor	ne		
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	2m (Std)	2m (Std)	2m (Std)	2m (Std)	2m (Std)	2m (Std)	N/A	
Conductor	0.75mm <sup>2</sup>	0.75mm <sup>2</sup>	0.5mm <sup>2</sup>	0.5mm <sup>2</sup>	0.75mm <sup>2</sup>	0.5mm <sup>2</sup>	N/A	
Cable O/D	6.8mm	6.8mm	6.8mm	6.8mm	6.8mm	6.8mm	7.0 grommet	
Current Rating @ 250V ac	6 Amp resistive 3 Amp inductive ½ HP 250V	6 Amp resistive 1.5 Amp inductive	3 Amp resistive 3 Amp inductive ½ HP 250V	3 Amp resistive 3 Amp inductive ½ HP 250V	6 Amp resistive 3 Amp inductive ½ HP 250V	3 Amp inductive / resistive ½ HP 250V	6 Amp resistive 3 Amp ½ HP 250V	
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).



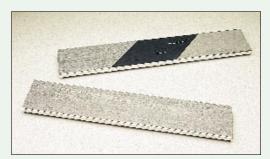


6289-SB (Guard optional)





6289-01



## Benefits 6289-SB

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

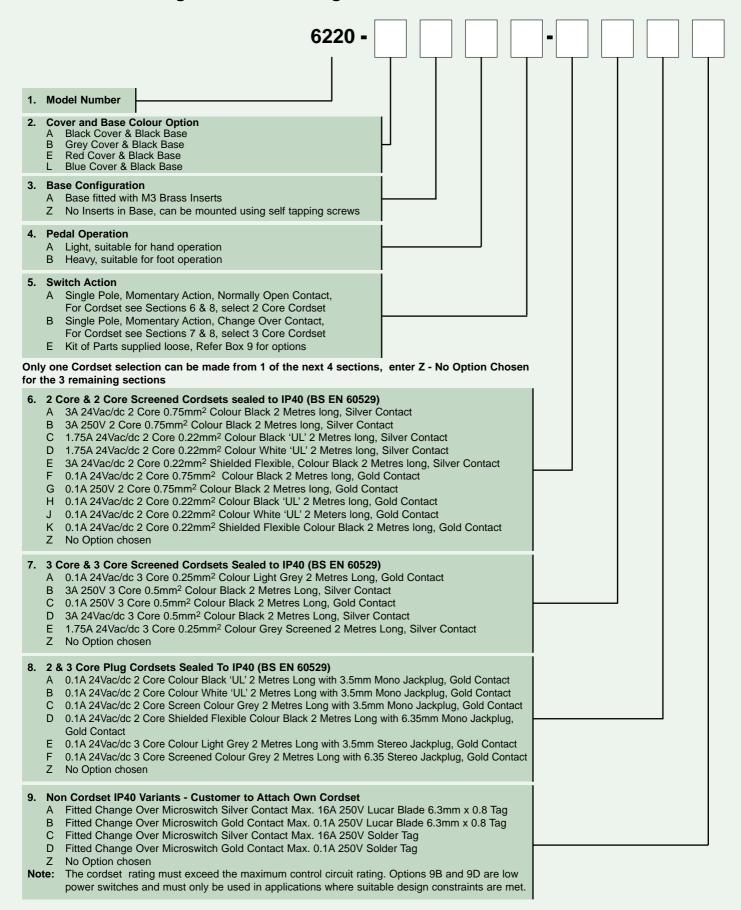
## Benefits 6289-01

- 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	100mm	95mm
Width	180mm	760mm (200mm to 3 metres possible)
Height	32mm	25mm
Weight	795g	1200grms
Guard	230mm x 100mm x 100mm (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	2 switches on diecast aluminium base	Switch bodies grey hammertone mild steel (underneath)
Tread	Std black polypropylene (grey, red & white also available)	Rubber on aluminium extrusion (or vinyl)
Guard	Painted 18 SWG mild steel	Available up to 300mm 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 x N/O single pole footswitches
Trining Corningulations	Cingle and double pole variance (cirver de cia)	(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 24V and 250V available	6 Amp resistive 250V
Ourient Rading	3 Amp ½ HP (dependent on component use)	3 Amp inductive ½ 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



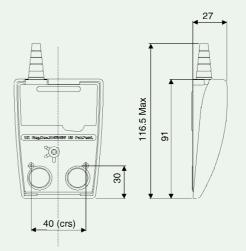
## For IP40/IP41 Single Pole Switching





## For IP40/IP41 Single Pole Switching







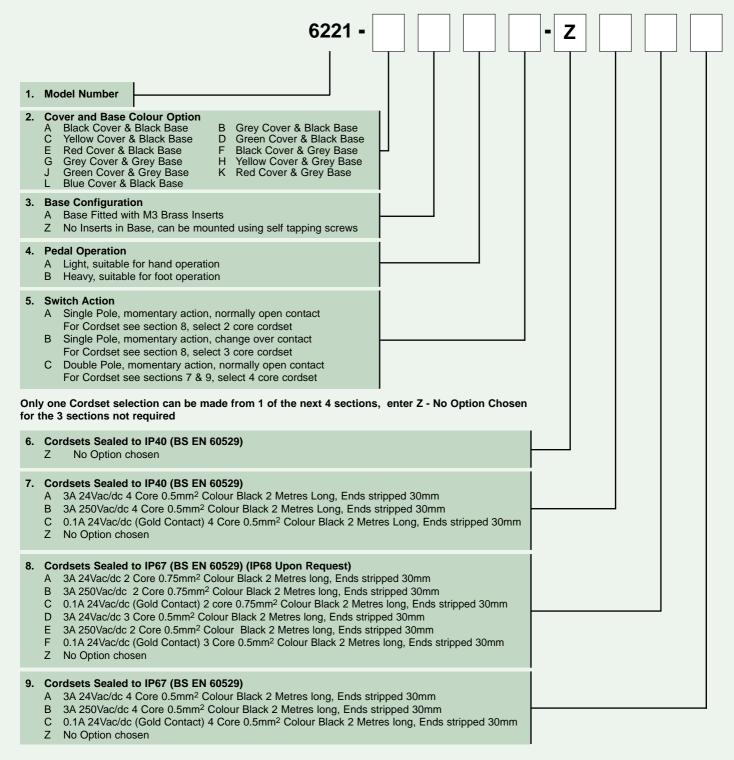
#### **Benefits**

- 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	91mm
Width	66mm
Height	27mm
Weight	212g (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	IP40/IP41
Standards	EN 61058-2-1
(dependent upon application chosen)	EN 61058
	EN 60601-1
	EN 60950
Options for OEM Customers	Special versions considered
	<ul> <li>Customised labels available</li> </ul>
	Additional colours may be available - please contact herga for details if your preferred colour is not shown



## For IP67 and Double Pole Switching

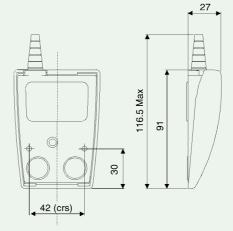


- Other feasible switching solutions can be considered upon request.
- Unlimited cordset options are available upon request.



## For IP67 and Double Pole Switching







#### **Benefits**

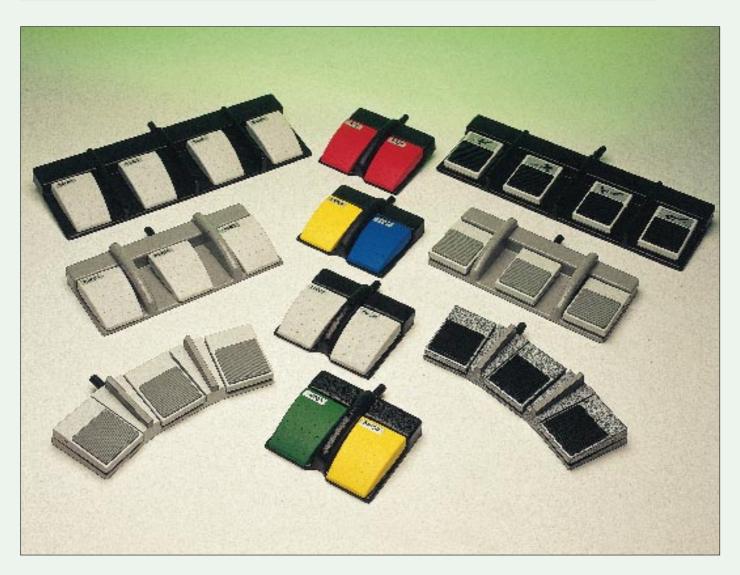
- Front hinged low profile footswitch designed for improved user comfort
- All plastic construction with pimple tread pattern, ideal for palm or foot operation
- Choice of operating force

- 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	91mm
Width	66mm
Height	27mm
Weight	212g (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	EN 61058-2-1
(dependent upon application chosen)	EN 61058
	EN 60601-1
	EN 60950
Options for OEM Customers	<ul> <li>Special versions considered</li> </ul>
	<ul> <li>Customised labels available</li> </ul>
	Additional colours may be available - please contact herga for details if your preferred colour is not shown

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#### **Benefits**

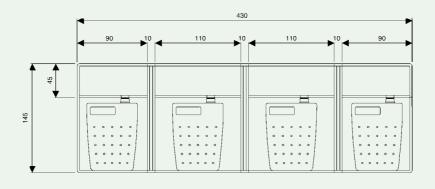
- Using all of the options available with the multi-pedal footswitching, we can meet a wide variety of OEM applications and comply to the differing international Standards
- Multi-pedal bases are made from a tough ABS with textured finish in grey or black or painted diecast aluminium
- Sealed to IP40 & 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.

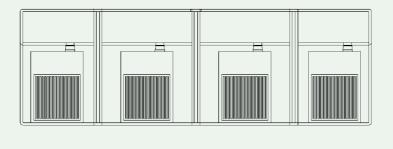
## Help on Standards

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.

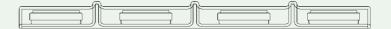


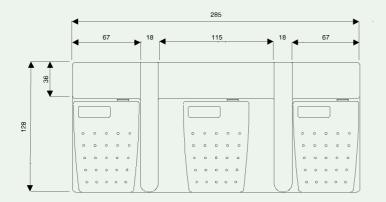


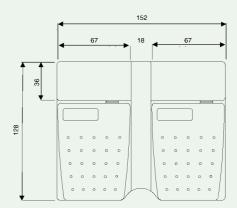




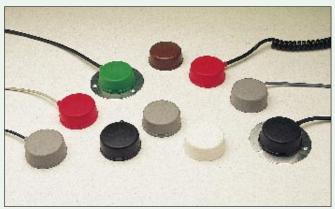






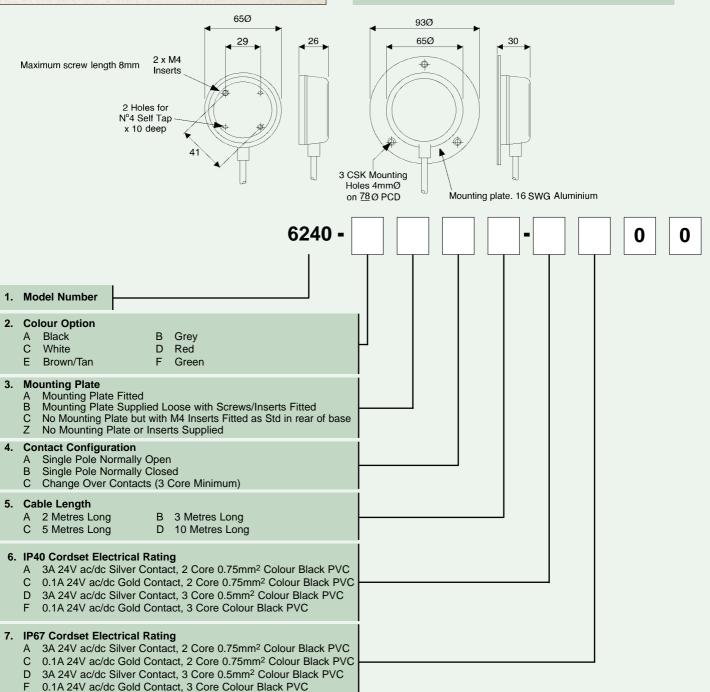






#### **Benefits**

- 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



250 Volt versions available upon request

# **Your Guide To Certification Markings**



Country	<u>Agency</u>	<u>Mark</u>	Country	<u>Agency</u>	<u>Mark</u>
Australia	SAA		Japan	MITI	
Austria	OVE	OVE	Netherlands	KEMA	KEMA
Belgium	CEBEC	CEBEC	New Zealand	SECV SECQ SECWA	POPROVED TO
Canada	CSA			EANSW ETSA HECT SANZ	FEALAND STAND
Denmark	DEMKO	$\bigcirc$			
Europe	MANY	CE	Norway	NEMKO	<u>N</u>
Finland	FEI	(FI)	Republic of South Africa	SABS	S S A
			Sweden	SEMKO	S
France	UTE		Switzerland	SEV	(+ s)
Germany	VDE	D <sup>V</sup> E	United Kingdom	ASTA	<del>A\$A</del>
				BSI	
India	ISI			BEAB	BEAB
Ireland	IIRS		United States	UL	
Italy	IMQ				

## Your Guide to IP Ratings



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 50mm in diameter.
- Protection against fingers or other object not greater than 80mm in length and 12mm in diameter.
- 3 Protection from entry by tools, wires, etc., with a diameter or thickness greater than 2.5mm.
- 4 Protection from entry by solid objects with a diameter or thickness greater than 1 0mm
- 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 =			
	IP	5	4
IP Letter code			
1st digit —			
2nd digit			

1st Digit	Protection form solid objects	2nd Digit	Protection from moisture		
0	Non protected	0	Non protected		
1	Protected against solid objects greater than 50mm	1	Protected against dripping water		
2	Protected against solid objects greater than 12mm	2	Protected against dripping water when tilted up to 15°		
3	Protected against solid objects greater than 2.5mmØ	3	Protected against spraying water		
4	Protected against solid objects greater than 1.0mmØ	4	Protected against splashing water		
5	Dust protected	5	Protected against water jets		
6	Dust tight	6	Protected against heavy seas		
Note: EN 60529 does not specify sealing effectiveness against the following: mechanical damage of the equipment; the risk of explosions; certain types of moisture conditions, e.g. those that are produced by condensation; corrosive vapours; fungus; vermin.		7	0.15m - 1m Protected against the effects of immersion		
		8	Protected against submersion (see note)		

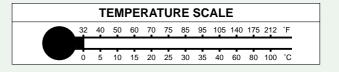
# **Your Guide to Standards and Comparisons of Wire Size and Ratings**



<u>European</u>							Ame	erican_	
Rating Amps	Conducto Imperial	r Standing Metric	Cross Sect. Area mm²		Cross Sect. Area mm <sup>2</sup>		AWG	Conductor Regular	Standing Hi Flex
1.5	7/.0076"		0.193						
1.75		7/0.2mm		0.22	0.22	24	7/.008"	19/.0050"	
					0.357	22	7/.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		32/0.2mm		1.0					
13	40/.0076"		1.1						
					1.32	16	26/.010"	56/.0063"	
15		30/0.25mm		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 Single pole, single throw, normally open	A	_/_
SPST-NC Single pole, single throw, normally closed	В	
SPDT Single pole, double throw, break before make	С	
SPST-NO Single pole, single throw, normally open, double break	X	_/_
SPST-NC Single pole, single throw, normally closed, double break	Y	
SPDT Single pole, double throw, break before make, double break moving contact of same polarity	Za	

Description	Form	Symbol
SPDT Single pole, double throw, break before make, double break moving contacts are electrically separate	Zb	
<b>DPST-NO</b> Double pole, single throw, normally open	AA	
<b>DPST-NC</b> Double pole, single throw, normally closed	ВВ	
<b>DPST</b> Double pole, single throw, break before make	AB	
<b>DPDT</b> Double pole, double throw, break before make	СС	

# Rapid Response Form (Photostat and fax back)



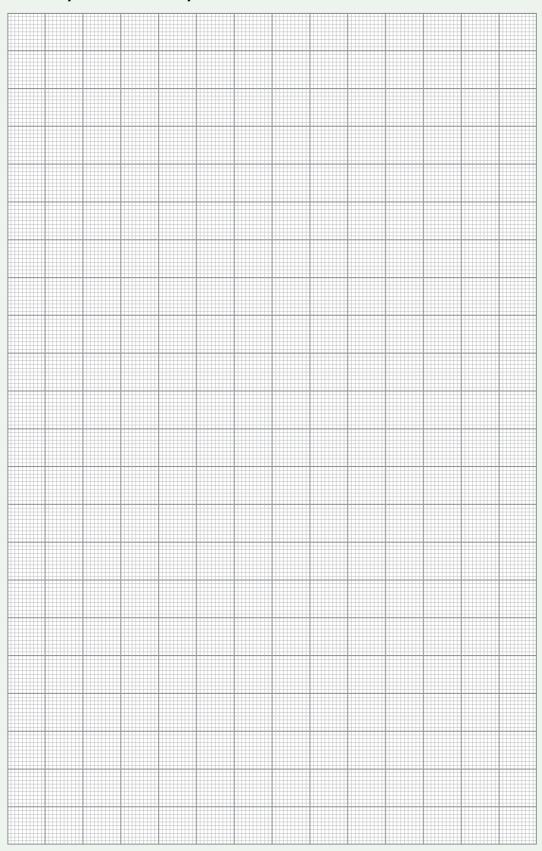
It is our goal to give you a response within 24 hours. By completing this form it will help us to help you! Thank you.

CUSTOMER					
CONTACT NAME		TEL:	FAX:		
PLEASE TICK THE BO	OXES YOU NEED AND FILL IN YOU	UR REQUIREMENTS			
PLEASE:	QUOTE	PROVIDE PRODUCT REF	SAMPLE	☐ TIME SCALE	
BASIC MODEL:	<u> </u>	6289 -	<u>6210 -</u>	LEPTRON/MULTIPEDAL	
PLEASE REFER TO	☐ 6252 BG	6289 MULTIPEDAL	<u>6240</u>	<u>6220</u>	
CLOSEST STANDAR OR MATRIX OPTION		☐ TREADLE	OTHER MULTIPEDAL	<u> </u>	
OR MATRIX OPTION	6255 MISTRAL	6254			
SWITCH ACTION:	☐ DOUBLE ACTION	MOMENTARY	LATCHING	OTHER	
CONTACTS:	☐ NORMALLY OPEN	☐ NORMALLY CLOSED	CHANGE OVER	SINGLE POLE	
	☐ DOUBLE POLE				
MULTI PEDAL:	2 PEDAL	3 PEDAL	4 PEDAL	OTHER	
BASE:	CASTING	☐ VAC FORM GREY	☐ VAC FORM BLACK	OTHER	
CONTACTS:	PEDAL 1:	PEDAL 2:	PEDAL 3:	PEDAL 4:	
SWITCH ACTION:	PEDAL 1:	PEDAL 2:	PEDAL 3:	PEDAL 4:	
RATING:	STANDARD	OTHER		GOLD CONTACT	
SEALED TO:	☐ IP40	☐ IP67	☐ IP68	OTHER	
COLOUR:	STANDARD		☐ POWDER PAINT	☐ WET PAINT	
FINISH:	STANDARD				
CABLE:	STANDARD	N/A TERMINAL VERSION	SPECIAL	FREE ISSUE	
CABLE TYPE:	<u> </u>		SCREENED	LENGTH:	
PLUG/SOCKET:	□ N/A	SPECIFY	FITTED	FREE ISSUE	
		1			
APPROVALS:	□ N/A				
APPLICATION:			INDUSTRIAL	MEDICAL	
		I			
LABEL:	HERGA STD	CUSTOMER LOGO (ATT	FACHED INFORMATION)		
		I —	T_		
PACKAGING:	BOXES	POLY BAGS	TRAYS IF AVAILABLE	OTHER	
QUANTITY	PER ANNUM	SAMPLES:	SCHEDULED OF	RDER	
Notes:					



# **Notes or Sketches**

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



























IP40? <sup>IP</sup>60; IP68; IP41? IP65?



Designed, Built and Specified for Long Term Reliability

