

# Marshall-Tufflex TuffMaster

Metal clad and ingress protected switches,  
sockets and RCDs for demanding environments

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(62)	X (H123)



[www.marshall-tufflex.com](http://www.marshall-tufflex.com)



## Ingress protected products suitable for demanding environments

It's a fact - the TuffMaster range of ingress protection (IP) rated products has been designed and engineered to exacting standards to achieve high levels of IP rated approvals and to ensure maximum reliability and durability.

So when it comes to choosing IP rated products, you can have total confidence that TuffMaster provides a high quality product range and exceptional versatility, from residual current devices (RCD), switches, sockets, spur units and switching options - ideally suited for commercial, industrial and agricultural environments, to domestic outdoor locations.

### Reliability

The design of TuffMaster enclosure lids combines a specialist seal material with a unique clipping action lock, to create constant pressure on the seals and ensure water and dust cannot enter the enclosures. In addition, thermoplastic elastomer rubber seals are used as bungs and cable glands to ensure IP compliance.

### Versatility

TuffMaster products are constructed using a versatile seal material that will return to its original profile when released from pressure. This ensures that a good seal forms when the lid or cover is closed, providing full protection even when different cable sizes and profiles are used.

### Durability

TuffMaster enclosures are manufactured from a high impact resistant polycarbonate\* material that is ideal for coping with the rigours expected in a demanding environment. Our products have excellent colour fastness, are resistant to ultra violet light and maintain their composition in temperatures from -40 to +70 degrees centigrade.



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Specialist seals to ensure water and dust cannot enter the enclosures.

\*Except OEM IP56 units on page 5.



## TuffMaster IP56 Enclosures

The TuffMaster IP56 range is protected against adverse weather conditions when in use (fully closed). The range is designed to perform in demanding environments where exposure to dust or water may be encountered.



### Product Information:

#### RCD Protected Sockets (Prewired)

- Protected to IP56 when in use with lid closed
- Available as 30mA, electrically or mechanically latched
- 1 and 2 gang options available
- When an earth leakage occurs (from a fault in a circuit or an accident with equipment) an imbalance occurs and this is detected by the RCD which will automatically cut off power before any injury or damage is caused.

#### IP56 Sockets

- Weatherproof to level IP56
- Options available as 1, 2 or 3 gang sockets
- Installation is safe, quick and easy
- International versions available
- Range of colours available, see technical section.

#### IP56 Switch Socket Combinations

- Weatherproof to level IP56
- Installation is safe, quick and easy
- Neon versions available.

### IP56 RCD PROTECTED SOCKETS



IP56 RCD Protected 13 Amp sockets – 1 Gang

Product code	Description	Pack
TM5603LG	30mA RCD mechanically latched	1
TM5604LG	30mA RCD electrically latched	1

All above 109 x 152 x 90mm



IP56 RCD Protected 13 Amp Sockets – 2 Gang 30mA

Product code	Description	Pack
TM5607LG	30mA RCD mechanically latched	1
TM5608LG	30mA RCD electrically latched	1

All above 109 x 229 x 90mm

### RCD SPUR UNIT



IP56 13 Amp Fused RCD Spur 30mA

Product code	Description	Pack
TM5611LG	30mA RCD mechanically latched	1

All above 109 x 152 x 90mm

### IP56 SOCKETS



IP56 13 Amp Socket 1 Gang

Product code	Description	Pack
TM5613LG	13 Amp socket 1 gang 109 x 75 x 90mm	1



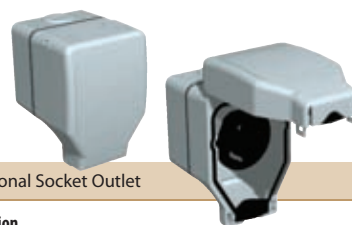
IP56 13 Amp Socket 3 Gang

Product code	Description	Pack
TM5615LG	13 Amp socket 3 gang 109 x 229 x 90mm	1



IP56 13 Amp Socket 2 Gang

Product code	Description	Pack
TM5614LG	13 Amp socket 2 gang 109 x 152 x 90mm	1



IP56 16A 230V International Socket Outlet

Product code	Description	Pack
TM5616LG	Schuko socket outlet 109 x 75 x 90mm	1
TM5617LG	French / Belgian socket outlet 109 x 75 x 90mm	1

### IP56 SWITCHED SOCKET COMBINATIONS



IP56 Switched Socket

Product code	Description	Pack
TM5618LG	13 Amp 1 gang switched socket 109 x 152 x 90mm	1
TM5619LG	13 Amp 2 gang switched socket 109 x 229 x 90mm	1
TM5620LG	16 Amp switched Schuko socket 2 gang 109 x 229 x 90mm	1



IP56 Switched Socket with Neon

Product code	Description	Pack
TM5621LG	13 Amp double pole switched socket 1 gang with neon 109 x 152 x 90mm	1
TM5622LG	16 Amp double pole switched Schuko socket with neon 109 x 152 x 90mm	1

### IP56 FUSED SPUR UNITS



IP56 Fused Spur Switched Unit

Product code	Description	Pack
TM5623LG	Fused spur switched with neon 109 x 152 x 90mm	1



IP56 Fused Spur Unswitched Unit

Product code	Description	Pack
TM5624LG	Fused spur unswitched 109 x 75 x 90mm	1

## IP56 EMPTY ENCLOSURES

### Empty Enclosures

#### Benefits of IP56 Empty Enclosures

- Protected to IP56 even when in use (with lid completely closed)
- Offers flexibility and versatility to house specific switch requirements
- Empty enclosures are available as single, twin and triple
- Lid allows lock or seal to be fitted
- Constructed in polycarbonate material.



#### IP56 Empty Enclosures

Product code	Description	Pack
TM5628LG	Single grid 109 x 75 x 90mm	1
TM5629LG	Single grid lockable 109 x 75 x 90mm	1
TM5630LG	Double grid 109 x 152 x 90mm	1
TM5631LG	Double grid lockable 109 x 152 x 90mm	1
TM5632LG	Triple grid 109 x 229 x 90mm	1
TM5633LG	Triple grid lockable 109 x 229 x 90mm	1
TM5634BK	Single grid 109 x 75 x 90mm	1

## For industrial use:

### IP56 Lid and Housing for OEM usage (No back box supplied)

- Protected to IP56 even when in use (with lid completely closed)
- Greater impact strength (glass nylon polyimide material)
- Resistant to fertilisers, petrochemical products, mild acids, cleaning / washing agents
- Lid allows lock or seal to be fitted
- For OEM applications (no back box supplied).

## IP56 LID/HOUSING/RCD



#### IP56 1 Gang RCD 30mA

Product code	Description	Pack
TM5625BK	30mA mechanically latched – UK 13 Amp	1
TM5626BK	30mA electrically latched – UK 13 Amp	1

All above 109 x 75 x 90mm



#### IP56 1 Gang Socket

Product code	Description	Pack
TM5627BK	Single socket 13 Amp 230V UK 109 x 75 x 90mm	1





## TuffMaster IP55 Enclosures

Rated to IP55, our enclosures protect against limited ingress of dust and low pressure jets of water from all directions.

### Product Information:

- Ideal for use in the garden, garages and patio areas, as well as industrial environments
- Available as 30mA, electrically or mechanically latched
- Lid allows lock or seal to be fitted
- Underside cable entry
- Removable lid for easy wiring access.



### IP55 ENCLOSURES

#### IP55 13 Amp 2 Gang Socket 30mA RCD

Product code	Description	Pack
TM5501LG	13 Amp 2 gang socket 30mA RCD mechanically latched	1
TM5508LG	13 Amp 2 gang socket 30mA RCD electrically latched	1

All above 166 x 142 x 90mm

#### IP55 Fused Spur 30mA RCD

Product code	Description	Pack
TM5502LG	Fused spur 30mA RCD mechanically latched	1
TM5509LG	Fused spur 30mA RCD electrically latched	1

All above 166 x 142 x 90mm

#### IP55 13 Amp 2 Gang Socket

Product code	Description	Pack
TM5503LG	13 Amp 2 gang socket metal face plate	1

#### IP55 13 Amp 2 Gang Socket 30mA RCD

Product code	Description	Pack
TM5504LG	13 Amp 2 gang socket polycarbonate face plate	1



## TuffMaster IP54 Enclosures

Protected to IP54 the range is splash proof and protected to prevent limited dust ingress, for use in areas such as residential porches, garages and covered patio areas, as well as selected industrial areas that will not be subjected to heavy jets of water.

Switches, sockets and combinations of these are all available and are designed for a reliable long service life.



The TuffMaster IP54 is ideal for garage interiors.

### IP54 SWITCHES

#### IP54 2 Way Switched

Product code	Description	Pack
TM5401LG	1 gang 2 way switched 75 x 75 x 52mm	1
TM5406LG	2 gang 2 way switched 75 x 152 x 52mm	1



#### IP54 2 Gang 1 Way Switched

Product code	Description	Pack
TM5404LG	2 gang 1 way switched shared 75 x 75 x 52mm	1



#### IP54 Double Pole Switched

Product code	Description	Pack
TM5402LG	1 gang double pole switched 75 x 75 x 52mm	1
TM5407LG	2 gang double pole switched 75 x 152 x 52mm	1



#### IP54 1 Gang Switched with Neon

Product code	Description	Pack
TM5409LG	1 gang 2 way switched with neon	1
TM5410LG	1 gang double pole switched with neon	1



All above 75 x 75 x 52mm

#### IP54 Intermediate Switched

Product code	Description	Pack
TM5403LG	1 gang intermediate switched 75 x 75 x 52mm	1
TM5408LG	2 gang intermediate switched 75 x 152 x 52mm	1



### IP54 SOCKETS

#### IP54 13 Amp Socket

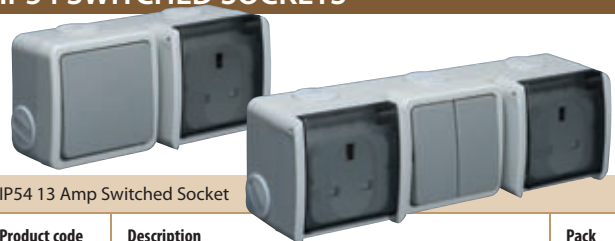
Product code	Description	Pack
TM5411LG	13 Amp socket 1 gang 75 x 75 x 62mm	1
TM5412LG	13 Amp socket 2 gang 75 x 152 x 62mm	1
TM5413LG	13 Amp socket 3 gang 75 x 229 x 62mm	1



### IP54 SWITCHED SOCKETS

#### IP54 13 Amp Switched Socket

Product code	Description	Pack
TM5414LG	13 Amp switched socket 1 gang 75 x 152 x 62mm	1
TM5416LG	13 Amp switched socket 2 gang 75 x 229 x 62mm	1
TM5415LG	13 Amp double pole switched socket 1 gang 75 x 152 x 62mm	1



## TuffMaster Metal Clad wiring accessories

TuffMaster's metal clad range of switched sockets is ideal for use in garages, offices, factories, commercial and industrial environments.

### Product Information:

- One and two gang switched sockets
- RCDs available as 30mA, electrically or mechanically latched



### SOCKETS



Metal Clad Switched Socket

Product code	Description	Pack
TM0001SG	1 gang switched socket 86 x 86 x 51mm	1
TM0002SG	2 gang switched socket 86 x 147 x 51mm	1



Metal Clad Switched Socket with Neon

Product code	Description	Pack
TM0003SG	1 gang switched socket with neon 86 x 86 x 51mm	1
TM0004SG	2 gang switched socket with neon 86 x 147 x 51mm	1

### RCDs



Metal Clad 13 Amp Socket 30mA RCD

Product code	Description	Pack
TM0005SG	2 gang socket 30mA mechanically latched 86 x 147 x 51mm	1
TM0014SG	2 gang socket 30mA electrically latched 86 x 147 x 51mm	1



Metal Clad Fused Spur 30mA RCD

Product code	Description	Pack
TM0007SG	Fused spur 30mA RDC mechanically latched	1

All above 86 x 86 x 51mm

## TuffMaster RCDs

- For interior perimeter fitting
- Residential and commercial applications
- For mounting in custom enclosures

### POLYCARBONATE RCD FACE PLATES ONLY



Polycarbonate Fused Spur 30mA RCD

Product code	Description	Pack
TM0009WH	Fused spur 30mA RCD mechanically latched 86 x 86 x 51mm	1



Polycarbonate 2 Gang Socket 30mA RCD

Product code	Description	Pack
TM0010WH	2 gang unswitched socket RCD 30mA mechanically latched 86 x 147 x 51mm	1



## Technical Information

### IP Ratings Explained

An IP (ingress protection) number is used to specify the environmental protection of enclosures around electrical equipment which is determined by specific tests. The IP number is composed of two numbers, the first referring to the protection against solid objects and the second against liquids.

First Digit	Solid Object Protection
0	No protection
1	Protected against solid objects up to 50mm e.g. accidental touch by hands
2	Protected against solid objects up to 12mm e.g. fingers
3	Protected against solid objects up to 2.5mm e.g. tools and wires
4	Protected against solid objects up to 1mm e.g. wires, nails etc
5	Protected against dust limited ingress, not harmful deposits
6	Totally protected against dust

Second Digit	Water Ingress Protection
0	No protection
1	Protected against vertically falling drops of water e.g. condensation
2	Protected against direct sprays of water up to 15° from the vertical
3	Protected against direct sprays of water up to 60° from the vertical
4	Protected against water splashed from all directions, limited ingress permitted
5	Protected against low pressure jets of water from all directions, limited ingress permitted
6	Protection against strong jets of water e.g. on ship decks, limited ingress permitted
7	Protection against the effects of temporary immersion between 15cm and 1m. Duration of test 30 mins
8	Protection against long periods of immersion under pressure

### RCD Operational Modes

#### Electrically Latched (Active)

The device trips with loss of supply live and/or loss of neutral. Suitable for applications that would be potentially dangerous if they restarted unattended upon restoration of power e.g. hedge trimmers, power tools, lawn mowers, machine tools and manufacturing equipment.

#### Mechanically Latched (Passive)

This device trips only with detection of current leakage. Contacts do not open upon loss of supply e.g. for use with vending machines, fridge/freezers, water filtration and other systems with which automatic restart is desirable after a power loss.

#### Colour code suffix – Available for IP56 only

Please replace the last two letters with those detailed below.

**LG**  Light grey (standard)

**WH**  White

**TC**  Terracotta

**GN**  Green

**GD**  Grey dark

**OR**  Orange

**BK**  Black

Coloured variants may have a lead time and minimum order quantities may apply.

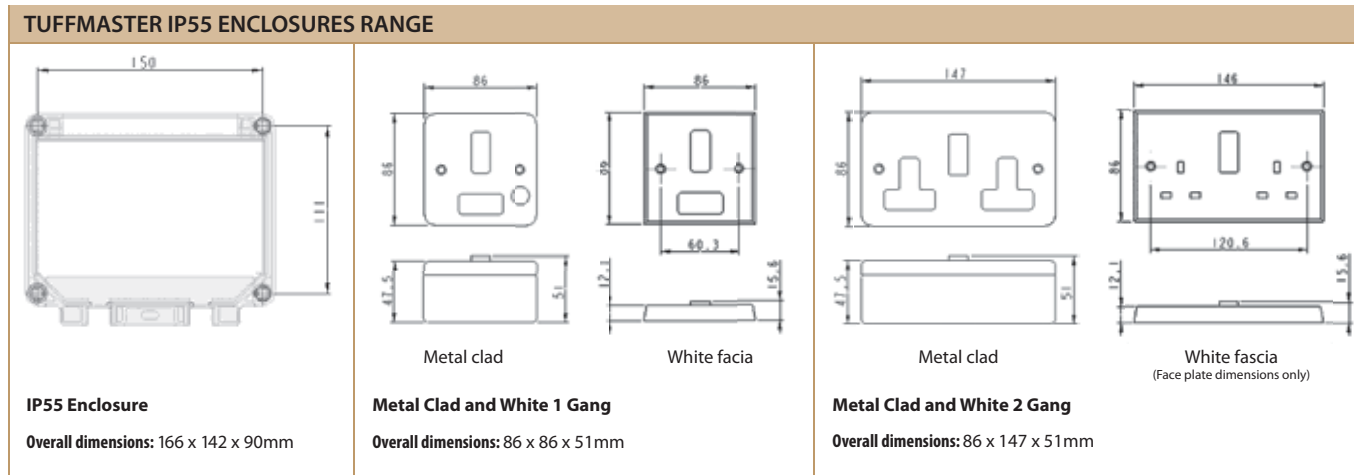
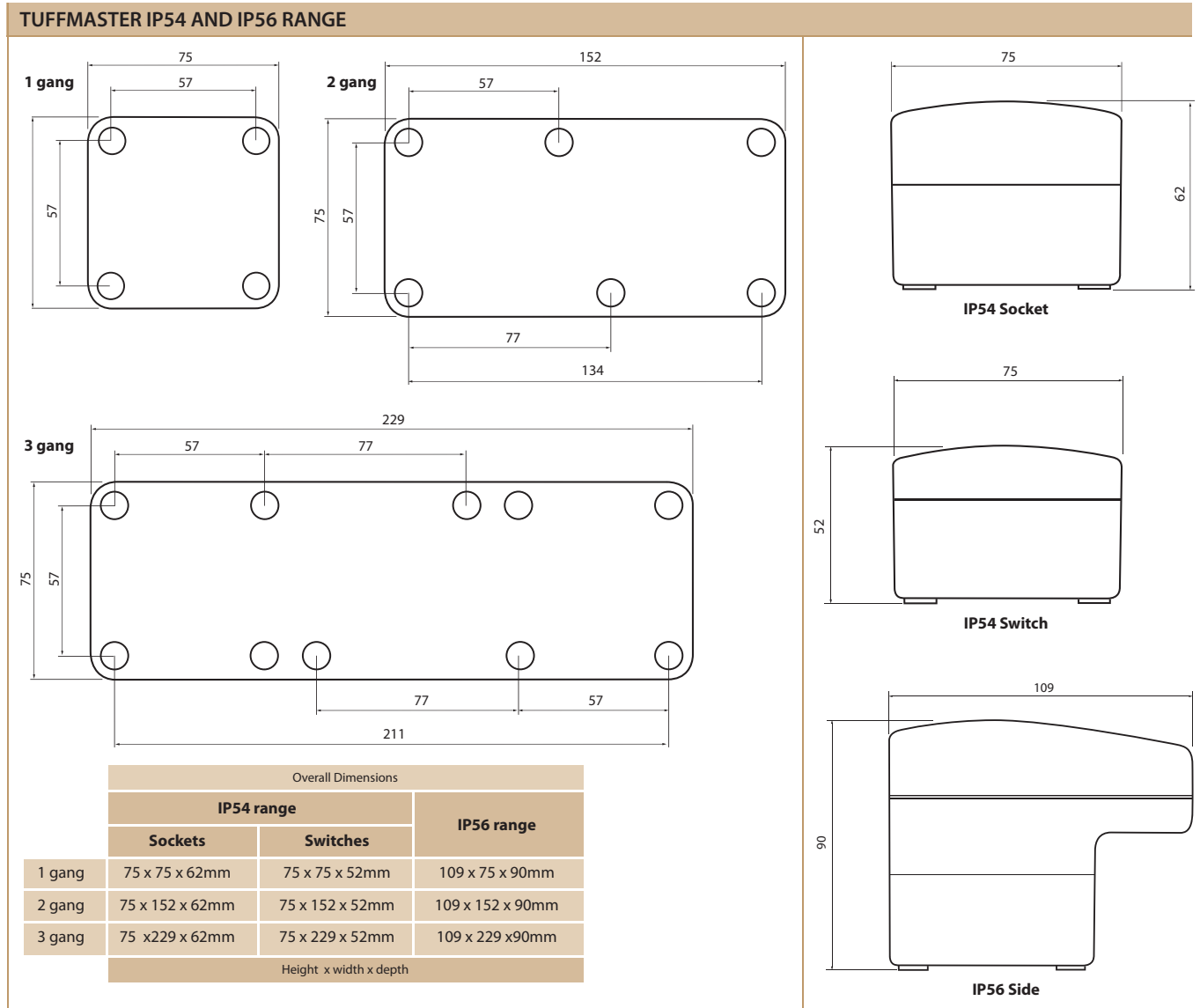
Representative of product colour.



IP rated products constructed to British Standards.

## Technical Information

### Product dimensions



All measurements are shown in millimetres

## Environmental



Marshall-Tufflex actively pursues a comprehensive programme to develop formulations based on environmentally acceptable materials, whilst still maintaining and, where possible, improving on long-term performance properties.

**Jim Fletcher**, Managing Director

Marshall-Tufflex is recognised by the BSI as a firm of Assessed Capability to BS EN ISO 14001:2004.

### Carbon assessment

The Carbon Trust was set up by Government in 2001 as an independent company. Their mission is to accelerate the move to a low carbon economy by working with organisations to reduce carbon emissions and develop commercial low carbon technologies.

Marshall-Tufflex was assessed by the Carbon Trust in 2007 and received an excellent report.

### Sustainability

Polycarbonate is a 100% recyclable material. Should disposal be required, the appropriate route is through a specialist plastic recycling contractor. It is landfill inert and will not degrade to any products or by-products that would contribute to soil or water contamination. It should only be incinerated under approved conditions.

Steel is a 100% recyclable material and can be recycled many times without loss of quality. Recycling facilities for steel are well-established in the UK and elsewhere.

### RECYCLING

Marshall-Tufflex is active in and supports the use and control of PVC-based materials, with the aim of increasing awareness and use of recycled material.



Certificate No. Q05393  
Registration  
BS EN ISO 9001:2008

### Quality Management Systems:

Marshall-Tufflex is totally committed to quality and customer satisfaction and the Company is recognised by the British Standards Institution as a firm of Assessed Capability to BS EN ISO 9001:2008.



Certificate No. EMS 539245  
Registration  
BS EN ISO 14001:2004

### Environmental Management Systems:

Marshall-Tufflex is totally committed to achieving high environmental standards. The Company is recognised by the BSI as a firm of Assessed Capability to BS EN ISO 14001:2004.



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In pursuance of our policy of continued product improvement Marshall-Tufflex reserve the right to change the design or specification of its products without notification.

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