Introduction	<b>FIT:2 - 3</b>
<b>Metallic DC Clips</b> For securing conductors to walls and roofs etc	FIT:4
<b>Metallic Cable Saddles</b> For use in both Lightning Protection and Earthing Systems	FIT:5
<b>Non-Metallic DC Clips</b> PVC clips for securing conductors to walls and roofs etc. Colours blend with our range of PVC coloured conductors	FIT:6
Adhesive Clips For securing conductors to surfaces where drilling is not permitted	FIT:7
<b>One Hole Cable Clips</b> Simple solution for fixing circular conductors to flat surfaces	FIT:8
<b>Clip Bases</b> For securing clips to surfaces including bitumen roofing and ridge tiles	FIT:9
<b>Clamps</b> Square and Tee clamps for providing three and four way conductor connections	FIT:10 - 11
Holdfasts Bases for special fixing applications	FIT:12 - 14
<b>Standing Seam Clamps</b> For securing lightning conductors to Standing Seam roofing sheets	FIT:15
<b>Test Links/Clamps</b> Disconnectable clamps to separate lightning conductor from the Earthing System during testing	FIT:16 - 17
<b>Bimetallic Connectors</b> For connecting aluminium conductors to copper conductors	FIT:18
<b>Lightning Strike Counter</b> Counts the number of lightning strikes to a building	FIT:19
Screws and Plugs	FIT:20



# Introduction

Once the type of Conductor has been chosen, it is important to consider how to fix/secure this to the structure to be protected. The Kingsmill range includes fixings for both roof and wall and are designed to suit most applications, as well as materials.

DC Clips, Saddles, Clips, Hold Fasts, Adhesive Clips, Bimetallic Connectors, special roofing fixings etc. Materials used include: high copper content alloys, aluminium and UV resistant plastics.



Kingsmill connection components that have been tested to BS:EN 62561-1 - Lightning Protection Components - requirements for Connection Components have passed both environmental ageing and 100kA impulse current testing and are rated H.



# Introduction

When choosing a connector it is important to ensure:

- The connector is mechanically robust.
- The connector is selected according to its application.
- The connector is rated for its application.
- To avoid bimetallic corrosion use a bimetallic connector (do not connect bare copper directly to bare aluminium, or have water run-off from copper, fall onto aluminium).

#### Galvanic corrosion - happens when there is a potential difference between dissimilar metals:

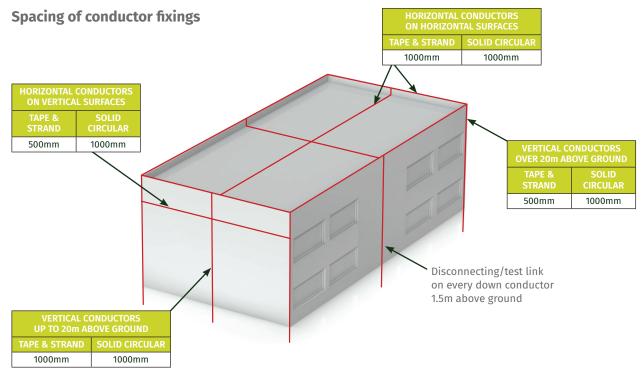
- When the materials are in contact in the presence of an electrolyte, corrosion occurs. One metal becomes the anode, the other the cathode. The anode will tend to go into solution and therefore corrode. The electrolyte can be water with impurities from the air.
- In the instance of water run-off from copper the water carries fine copper corrosion particles which, when they drip on to aluminium or zinc, may result in corrosion. The direct contact of the dissimilar metals in not required for corrosion to occur in such a case.

#### From BS:EN 62305 ...

BS:EN 62305-3 contains guidance on the quantity of fixings to be used through specifying minimum distances and usage.

Down conductors should each have the provision of a test or disconnecting link to separate the above and below ground conductor networks during testing.

Conductor fixings should be placed taking into account the minimum spacings recommended within BS:EN 62305, as well as practical considerations associated with building geometry.



Most Kingsmill connection components have been tested to BS:EN 62561-1 - Lightning Protection Components - requirements for connection components. They have passed both environmental ageing and 100kA impulse current testing and rated H.



## BS:EN 62305 Metallic DC Clips (Flat conductor)



**BS:EN 62305 Metallic DC Clips** for securing lightning conductors to flat surfaces.

CONDUCTOR SIZE (mm)	CONDUCTOR TYPE	WEIGHT (kg)	PART NO.
25 x 3	Bare Copper	0.047	MDCF253
25 x 6	Bare Copper	0.057	MDCF256
31 x 6	Bare Copper	0.061	MDCF316
40 x 4	Bare Copper	0.062	MDCF404
50 x 6	Bare Copper	0.077	MDCF506
25 x 3	PVC Copper	0.055	MDCF253P
25 x 6	PVC Copper	0.064	MDCF256P
31 x 6	PVC Copper	0.069	MDCF316P
40 x 4	PVC Copper	0.071	MDCF404P
50 x 6	PVC Copper	0.084	MDCF506P
25 x 3	Aluminium	0.017	MDAF253
25 x 3	PVC Aluminium	0.020	MDAF253P
MATERIAL: High Quality Copper Alloy/Aluminium			mped design (part red) coming soon

FIXINGS 1 x CSK 1½ x No.10 woodscrew (BCSW1.5-10 brass for copper/A2CSKSLT1.5-10 stainless steel for aluminium) + plug (PP10) not included

SEE PAGE FIT:20

## Heavy Duty Metallic DC Clips (Flat conductor)

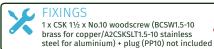




**Heavy Duty Metallic DC Clips** are suitable for use in Earthing and Lightning Protection applications.

CONDUCTOR SIZE (mm)	CONDUCTOR TYPE	WEIGHT (kg)	PART NO.
20 x 3	Bare Copper	0.09	MDC203
25 x 3	Bare Copper	0.07	MDC253
25 x 4	Bare Copper	0.06	MDC254
25 x 6	Bare Copper	0.06	MDC256
31 x 3	Bare Copper	0.09	MDC313
31 x 6	Bare Copper	0.11	MDC316
38 x 3	Bare Copper	0.12	MDC383
38 x 5	Bare Copper	0.12	MDC385
38 x 6	Bare Copper	0.14	MDC386
40 x 4	Bare Copper	0.14	MDC404
40 x 6	Bare Copper	0.14	MDC406
50 x 3	Bare Copper	0.15	MDC503
50 x 4	Bare Copper	0.15	MDC504
50 x 6	Bare Copper	0.17	MDC506
25 x 3	PVC Copper	0.13	MDC253P
25 x 6	PVC Copper	0.10	MDC256P
50 x 6	PVC Copper	0.26	MDC506P
25 x 3	Lead Covered Copper	0.20	MDC253LD
20 x 3	Bare Aluminium	0.02	MDA203
25 x 3	Bare Aluminium	0.03	MDA253
25 x 6	Bare Aluminium	0.04	MDA256
50 x 6	Bare Aluminium	0.05	MDA506
25 x 3	PVC Aluminium	0.04	MDA253P
50 x 6	PVC Aluminium	0.06	MDA506P

STANDARD: BS:EN 62561-4



ed SEE PAGE FIT:20



# Heavy Duty Metallic Cable Saddles

**Heavy Duty Metallic Cable Saddles** are suitable for use in both Lightning Protection and Earthing Systems.

#### Use with bare solid and stranded copper conductor

CONDUCTOR CSA (mm <sup>2</sup> )	CONDUCTOR DIA (approx mm)	CONDUCTOR TYPE	WEIGHT (kg)	PART NO.
50	8	Bare solid copper	0.100	HDSC08
16	5.1	Bare stranded copper	0.105	HDCS16
25	6.42	Bare stranded copper	0.105	HDCS25
35	7.56	Bare stranded copper	0.105	HDCS35
50	8.9	Bare stranded copper	0.100	HDCS50
70	10.7	Bare stranded copper	0.100	HDCS70
95	12.6	Bare stranded copper	0.107	HDCS95
120	14.21	Bare stranded copper	0.107	HDCS120
150	15.75	Bare stranded copper	0.215	HDCS150
185	17.64	Bare stranded copper	0.205	HDCS185
240	20.25	Bare stranded copper	0.300	HDCS240
300	22.68	Bare stranded copper	0.290	HDCS300
400	25.65	Bare stranded copper	0.285	HDCS400

Material: High copper content alloy



#### Use with PVC insulated copper cable

CONDUCTOR CSA (mm <sup>2</sup> )	CONDUCTOR DIA (approx mm)	CONDUCTOR TYPE	WEIGHT (kg)	PART NO.
16	7.10	PVC insulated copper cable	0.105	HDCS16INS
25	8.90	PVC insulated copper cable	0.100	HDCS25INS
35	9.95	PVC insulated copper cable	0.100	HDCS35INS
50	11.70	PVC insulated copper cable	0.110	HDCS50INS
70	13.35	PVC insulated copper cable	0.115	HDCS70INS
95	15.60	PVC insulated copper cable	0.215	HDCS95INS
120	17.20	PVC insulated copper cable	0.205	HDCS120INS
150	19.10	PVC insulated copper cable	0.205	HDCS150INS
185	21.30	PVC insulated copper cable	0.295	HDCS185INS
240	24.30	PVC insulated copper cable	0.285	HDCS240INS
300	27.05	PVC insulated copper cable	0.280	HDCS300INS
400	30.35	PVC insulated copper cable	0.275	HDCS400INS

Material: High copper content alloy



 FIXINGS

 1 x CSK 1½ x No.10 woodscrew

 (BCSW1.5-10) + plug (PP10) not included







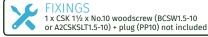
## Non-Metallic DC Clips (Flat conductor)



**Non-Metallic DC Clips** are available in six colours to match bare and PVC copper and aluminium tapes.

CONDUCTOR SIZE (mm)	CONDUCTOR TYPE	COLOUR	WEIGHT (kg)	PART No.	
20 x 3	Bare	Brown	0.01	PCBN203B	
20 x 3	Bare	Grey	0.01	PCGY203B	
25 x 3	Bare	Brown	0.01	PCBN253B	
25 x 3	Bare	Grey	0.01	PCGY253B	
50 x 6	Bare	Brown	0.01	PCBN506B	
25 x 3	PVC	Brown	0.01	PCBN253P	
25 x 3	PVC	Black	0.01	PCBL253P	
25 x 3	PVC	Grey	0.01	PCGY253P	
25 x 3	PVC	Green	0.01	PCGN253P	
25 x 3	PVC	Stone	0.01	PCST253P	
25 x 3	PVC	White	0.01	PCWH253P	
Interial: UV Stabilized Polypropylone					

#### Material: UV Stabilised Polypropylene



SEE PAGE FIT:20

## Non-Metallic DC Clips (Circular - push in type)



One-piece **Non-Metallic DC Clips** are designed for ease of installation. They suit 8mm bare and PVC sheathed circular conductors and are UV stabilised to prevent degradation in cold weather conditions.

CONDUCTOR DIA. (mm)	CONDUCTOR TYPE	COLOUR	WEIGHT (kg)	PART No.
8.0	Bare	Brown	0.01	PCBN08B/PUSH
8.0	Bare	Grey	0.01	PCGY08B/PUSH
8.0	PVC	Brown	0.01	PCBN08P/PUSH
8.0	PVC	Grey	0.01	PCGY08P/PUSH
8.0	PVC	Black	0.01	PCBL08P/PUSH
8.0	PVC	Stone	0.01	PCST08P/PUSH
8.0	PVC	White	0.01	PCWH08P/PUSH



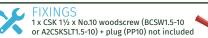


## Non-Metallic DC Clips (Circular - wrap over type)



**Wrap Over Type Clips** are designed for ease of installation. They suit 8mm bare and PVC sheathed circular conductors.

CONDUCTOR DIA. (mm)	CONDUCTOR TYPE	COLOUR	WEIGHT (kg)	PART No.
8.0	Bare	Brown	0.01	PCBN08B/BUTT
8.0	Bare	Grey	0.01	PCGY08B/BUTT
8.0	PVC	Brown	0.01	PCBN08P/BUTT
8.0	PVC	Grey	0.01	PCGY08P/BUTT
8.0	PVC	Black	0.01	PCBL08P/BUTT
8.0	PVC	Stone	0.01	PCST08P/BUTT
8.0	PVC	White	0.01	PCWH08P/BUTT



Material: UV Stabilised Polypropylene

SEE PAGE FIT:20



CLIPS

#### Adhesive Clips are used where no mechanical fixing method can be achieved or allowed. The base has a threaded hole and is supplied with a fixing screw to suit our **Non-Metallic DC Clip**.

The base is fixed using the adhesive peel off strip and must be applied to a clean and dust free surface. Please use the **Surface Primer** to clean the surface (Part No. SP01).

CONDUCTOR SIZE (mm)	CONDUCTOR	COLOUR	WEIGHT (kg)	PART NO.
25 x 3	Bare	Brown	0.03	PCBN253B/AD
25 x 3	Bare	Grey	0.03	PCGY253B/AD
25 x 3	PVC Covered	Brown	0.03	PCBN253P/AD
25 x 3	PVC Covered	Grey	0.03	PCGY253P/AD
25 x 3	PVC Covered	Black	0.03	PCBL253P/AD
25 x 3	PVC Covered	Stone	0.03	PCST253P/AD
25 x 3	PVC Covered	White	0.03	PCWH253P/AD

Material: UV stabilised polypropylene

## Adhesive Clips (Circular conductor)

Adhesive Clips are used where no mechanical fixing method can be achieved or allowed. The base has a threaded hole and is supplied with a fixing screw to suit our **Non-Metallic DC Clip**.

The base is fixed using the adhesive peel off strip and must be applied to a clean and dust free surface. Please use the **Surface Primer** to clean the surface (Part No. SP01).

CONDUCTOR SIZE (mm)	CONDUCTOR	COLOUR	WEIGHT (kg)	PART NO.
8.0	Bare	Brown	0.02	PCBN08B/AD
8.0	Bare	Grey	0.02	PCGY08B/AD
8.0	PVC Covered	Brown	0.02	PCBN08P/AD
8.0	PVC Covered	Grey	0.02	PCGY08P/AD
8.0	PVC Covered	Black	0.02	PCBL08P/AD
8.0	PVC Covered	Stone	0.02	PCST08P/AD
8.0	PVC Covered	White	0.02	PCWH08P/AD

Material: UV stabilised polypropylene

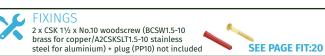
#### SURFACE PRIMER

We recommend the use of a suitable **Surface Primer** (such as Norbond N2292) to clean the surface that the **Adhesive Clip** is being adhered to.

Metal **Tape Clips** hold the tape flush to the surface and are fixed using two screws. They are only suitable for use with bare tape.

CONDUCTOR SIZE (mm)	MATERIAL	WEIGHT (kg)	PART NO.	
20 x 3	Copper	0.02	TPC203	
25 x 3	Copper	0.02	TPC253	
25 x 3	Aluminium	0.02	TPA203	
25 x 3	Aluminium	0.02	TPA253	
25 x 3	Copper	0.02	TPC253P	

Material: Copper to BS:EN 13601 (formerly BS 1432) Aluminium to BS:EN 755-5





## Tape Clips (Flat conductor)





# One Hole Cable Clips (Circular conductor)





**One Hole Cable Clips** are a simple solution for fixing stranded or solid circular conductors to flat surfaces.

CONDUCTOR SIZE (mm)	CONDUCTOR TYPE	WEIGHT (kg)	PART NO.
8 Dia	Copper	0.01	OH8C
8 Dia	Aluminium	0.01	OH8A
8 Dia	Copper PVC Covered	0.01	OH10C
8 Dia	Aluminium PVC Covered	0.01	OH10A
Material: Conner/Alumir	ium		

Material: Copper/Aluminium

A simple, economical clip design for securing cables to flat surfaces.

#### Use with bare stranded copper conductor

CONDUCTOR CSA (mm <sup>2</sup> )	CONDUCTOR DIA (approx mm)	CONDUCTOR TYPE	WEIGHT (kg)	PART NO.
16	5.1	Bare stranded copper	0.020	OH016
25	6.42	Bare stranded copper	0.020	OH025
35	7.56	Bare stranded copper	0.020	OH035
50	8.9	Bare stranded copper	0.020	OH050
70	10.7	Bare stranded copper	0.020	OH070
95	12.6	Bare stranded copper	0.022	OH095
120	14.21	Bare stranded copper	0.022	OH120
150	15.75	Bare stranded copper	0.025	OH150
185	17.64	Bare stranded copper	0.025	OH185
240	20.25	Bare stranded copper	0.027	OH240
300	22.68	Bare stranded copper	0.027	OH300
400	25.65	Bare stranded copper	0.032	OH400

#### Use with PVC insulated copper cable

CONDUCTOR CSA (mm <sup>2</sup> )	CONDUCTOR DIA (approx mm)	CONDUCTOR TYPE	WEIGHT (kg)	PART NO.
16	7.10	PVC insulated copper cable	0.020	OH016INS
25	8.90	PVC insulated copper cable	0.020	OH025INS
35	9.95	PVC insulated copper cable	0.020	OH035INS
50	11.70	PVC insulated copper cable	0.022	OH050INS
70	13.35	PVC insulated copper cable	0.022	OH070INS
95	15.60	PVC insulated copper cable	0.025	OH095INS
120	17.20	PVC insulated copper cable	0.027	OH120INS
150	19.10	PVC insulated copper cable	0.027	OH150INS
185	21.30	PVC insulated copper cable	0.027	OH185INS
240	24.30	PVC insulated copper cable	0.030	OH240INS
300	27.05	PVC insulated copper cable	0.032	OH300INS
400	30.35	PVC insulated copper cable	0.032	OH400INS

Material: High Copper Content Alloy





### **Felt Pad Clip Bases**

Only use on bitumen roofing felt. Includes clip.					
CONDUCTOR SIZE/TYPE (mm)	COLOUR	WEIGHT (kg)	PART NO.		
8 Bare	Brown	0.05	PCBN08B/PUSH/FP		
8 Bare	Grey	0.05	PCGY08B/PUSH/FP		
8 PVC Covered	Brown	0.05	PCBN08P/PUSH/FP		
8 PVC Covered	Grey	0.05	PCGY08P/PUSH/FP		
8 PVC Covered	Black	0.05	PCBL08P/PUSH/FP		
8 PVC Covered	Stone	0.05	PCST08P/PUSH/FP		
8 PVC Covered	White	0.05	PCWH08P/PUSH/FP		
25 x 3 Bare	Brown	0.05	PCBN253B/FP		
25 x 3 Bare	Grey	0.05	PCGY253B/FP		
25 x 3 PVC Covered	Brown	0.05	PCBN253P/FP		
25 x 3 PVC Covered	Grey	0.05	PCGY253P/FP		
25 x 3 PVC Covered	Black	0.05	PCBL253P/FP		
25 x 3 PVC Covered	Stone	0.05	PCST253P/FP		
25 x 3 PVC Covered	White	0.05	PCWH253P/FP		
25 x 3 PVC Covered	Green	0.05	PCGN253P/FP		

Material: Roofing felt/polypropylene

nateriaa kooning lett/potypropytelle

## Flexible DC Clip Bases

Supplied with an M6 CSK screw for attaching the clip. Can be used with our **DC Clip** and **Square Clamp** ranges.

DESCRIPTION	COLOUR	WEIGHT (kg)	PART NO.
Flexible self-adhesive DC Clip Base	Brown	0.037	PCBNFAD/BASE
Flexible self-adhesive DC Clip Base	Grey	0.037	PCGYFAD/BASE
Flexible DC Clip Base	Brown	0.011	PCBNF/BASE
Flexible DC Clip Base	Grey	0.011	PCGYF/BASE

Material: Polypropylene





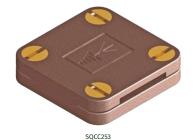


# Square Clamps (Flat conductor)



# 

SQCA253





SQCC506

#### BS62305 hot stamped design - NEW

**Square Clamps** are designed for a four way connection and are suitable for crossing over tapes, straight through joints or 'T' connections to form a continuous network of tapes.

Countersunk hole in the base for fixing the clamp in place.

CONDUCTOR SIZE (mm)	CONDUCTOR MATERIAL	WEIGHT (kg)	PART NO.
25 x 3	Aluminium	0.05	SQCAF253
25 x 3	Copper	0.15	SQCCF253
25 x 6	Copper	0.19	SQCCF256
31 x 3	Copper	0.22	SQCCF313
31 x 6	Copper	0.22	SQCCF316
40 x 6	Copper	0.79	SQCCF406
50 x 6	Copper	0.35	SQCCF506
Material: Aluminium/Co	NEW hot stam	oed design (part	

Material: Aluminium/Copper Alloy Standard: BS:EN 62561-1, Class H

Tightening Torque: 6Nm

FIXINGS 1 x CSK 1½ x No.10 woodscrew (BCSW1.5-10 brass for copper/A2CSKSLT1.5-10 stainless steel for aluminium) + plug (PP10) not included



numbers in red) coming soon



Kingsmill **Square Clamps** permit neat joints on PVC covered conductors due to the recessed lid.

#### **Earthing Range**

CONDUCTOR SIZE (mm)	CONDUCTOR MATERIAL	WEIGHT (kg)	PART NO.
25 x 3	Aluminium	0.08	SQCA253
25 x 3	Copper	0.23	SQCC253
25 x 6	Copper	0.44	SQCC256
31 x 3	Copper	0.30	SQCC313
31 x 6	Copper	0.22	SQCC316
40 x 6	Copper	0.79	SQCC406
50 x 6	Copper	1.00	SQCC506

Material: Aluminium/High Copper Content Alloy/Gunmetal Standard: BS:EN 62561-1, Class H

Tightening Torque: 6Nm



SEE PAGE FIT:20



# Square Clamps (Circular conductor)

**Square Clamps** provide four way connection and are suitable for crossing over cable, straight through joints or 'T' connections to form a continuous network of cables. Countersunk hole in the base for fixing the clamp in place.

CONDUCTOR SIZE (mm/mm <sup>2</sup> )	MATERIAL	WEIGHT (kg)	PART NO.
8 Dia	Aluminium	0.23	SQCA08
8 Dia	Copper	0.23	SQCW08
50	Copper	0.30	SQCW50
70	Copper	0.26	SQCW70
95	Copper	0.33	SQCW95



Material: Aluminium/copper alloy Standard: BS:EN 62561-1, Class H Tightening Torque: 6Nm

### Square Clamps (Flat to circular conductor)

# **Square Clamps** provide four way connection and are suitable for crossing over tapes and cables in straight through joints or 'T' connections to form a continuous cable network.

Countersunk hole in the base for fixing the clamp in place.

CONDUCTOR SIZE (mm)	CONDUCTOR RANGE (mm/mm²)	WEIGHT (kg)	PART NO.
25 x 3	8 Dia	0.16	SQCC25308
25 x 3	50	0.16	SQCC25350
25 x 3	70	0.14	SQCC25370
25 x 3	95	0.12	SQCC25395

Material: Gunmetal

Standard: BS:EN 62561-1, Class H Tightening Torque: 6Nm

X	FIXINGS 1 x CSK 1½ x No.10 woodscrew (BCSW1.5-10) + plug (PP10) not included SEE PAGE FIT:20



**Tee Clamps** 

Kingsmill **Tee Clamps** are designed for a three way connection.

CONDUCTOR SIZE (mm)	MATERIAL	WEIGHT (kg)	PART NO.		
8 Dia	Copper	0.17	TEEC08		
8 Dia Aluminium 0.07 TEEA08					
Matorial: Coppor alloy/alu	Material: Conner allov/aluminium				

Material: Copper alloy/aluminium Standard: BS:EN 62561-1, Class H Tightening Torque: 12Nm





## **Circular Conductor Joining and Tee Clamps**

Circular Conductor Joining and Tee clamps connect 8mm diameter conductor in straight or crossover configurations.

CONDUCTOR SIZE (mm)	MATERIAL	WEIGHT (kg)	PART NO.
8 Dia	Steel	0.05	SQCS08-MV
8 Dia	Copper	0.05	SQCC08-MV
8 Dia	Aluminium	0.01	SQCA08-MV

Material: Copper/aluminium/zinc plated steel Standard: BS:EN 62561-1



SQCC08-MV



SQCA08-MV



## Slate Holdfasts (Flat and circular conductor)



**Slate Holdfasts** are used for the installation of circular conductor tape above the roof tiles without the need for drilling holes.

The aluminium tail slides under the roof tile and is fixed to the wooden beam or tile batten using proprietary galvanised nails. The clip then protrudes from the tile and offers a fixing for the tape.

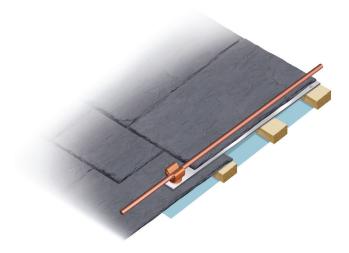
#### For use with circular conductor

CONDUCTOR DIA (mm)	CONDUCTOR TYPE	COLOUR	WEIGHT (kg)	PART No.
8	Bare	Brown	0.05	SHBN08B/PUSH
8	Bare	Grey	0.05	SHGY08B/PUSH
8	PVC covered	Brown	0.05	SHBN08P/PUSH
8	PVC covered	Grey	0.05	SHGY08P/PUSH
8	PVC covered	Black	0.05	SHBL08P/PUSH
8	PVC covered	Stone	0.05	SHST08P/PUSH
8	PVC covered	White	0.05	SHWH08P/PUSH

#### For use with flat conductor

CONDUCTOR SIZE (mm)	CONDUCTOR TYPE	COLOUR	WEIGHT (kg)	PART No.
25 x 3	Bare	Brown	0.05	SHBN253B
25 x 3	Bare	Grey	0.05	SHGY253B
25 x 3	PVC	Brown	0.05	SHBN253P
25 x 3	PVC	Grey	0.05	SHGY253P
25 x 3	PVC	Black	0.05	SHBL253P
25 x 3	PVC	Stone	0.05	SHST253P
25 x 3	PVC	Green	0.05	SHGN253P
25 X 3	PVC	White	0.05	SHWH253P

Material: Polypropylene clip/Aluminium tape Standard: Aluminium tape to BS:EN 755-5





# **FITTINGS**

# **Pyramid Holdfasts**

Supplied filled with concrete. Lip around the base enables building in to bitumen type roofs.

CONDUCTOR DIA (mm)	CONDUCTOR TYPE	FIXING SCREW	CLIP PROVISION	WEIGHT (kg)	PART NO.
8	Bare	-	x 2	1.00	PHFB08X2
8	Bare	-	x 1	0.98	PHFB08
10	PVC Covered	-	x 1	0.98	PHFB10
Universal	Universal	M6	x 1	0.98	PHFBM6

Material: Polyethylene

Standard: BS:EN 62561-1, Class H



Clip/Clamps NOT included - must be ordered separately.



PHFB08 + PHFB10



PHFBM6



PHFB8X2



## **Glazing Bar Holdfasts**





**Glazing Bar holdfast** is used to fix clips to glazing bars. Can be used with both metallic and non-metallic clips.

CONDUCTOR TYPE	MATERIAL	WEIGHT (kg)	PART NO.			
Aluminium	Aluminium	0.04	AGBH			
Copper	Copper	0.11	GGBH			
Material: Gunmetal/Aluminium						

Material: Gunmetal/Aluminium



### **Back Plate Holdfasts**



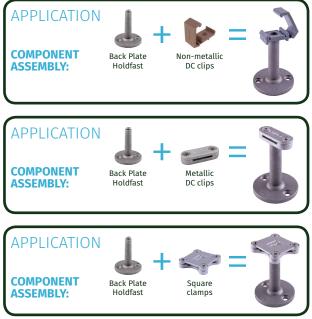
**Back Plate holdfast** maintains a set distance of 75mm between lightning conductor and the surface of the structure being protected (when required).

Supplied with M6 CSK screw for attaching either Tape Clip or Square Clamp.

CONDUCTOR TYPE	MATERIAL	WEIGHT (kg)	PART NO.				
Aluminium	Aluminium	0.84	ABPH				
Copper	Copper	0.26	BBPH				
Material: Copper Alloy/Aluminium							

aterial: Copper Alloy/Aluminium





Clip/Clamps NOT included - must be ordered separately.



## **FITTINGS**

## **Standing Seam Clamps**

**Standing Seam Clamps** are designed to allow the installer to secure Lightning Conductors to roofing sheets that use the Standing Seam construction.

#### Aluminium Standing Seam Clamps (seam widths 16 - 30mm)

	-				
FIXING TYPE	CONDUCTOR SIZE (mm)	CONDUCTOR MATERIAL	FIXING COLOUR	WEIGHT (kg)	PART NO.
Non-metallic	25 x 3	Bare Al	Grey	0.096	KMFBAL-PCGY253B
DC Clip	25 x 3	PVC Al	Grey	0.096	KMFBAL-PCGY253P
Metallic	25 x 3	Bare Al	-	0.098	KMFBAL-MDA253
DC Clip	25 x 3	PVC Al	-	0.099	KMFBAL-MDA253P
Push-In	8mm dia	Bare Al	Grey	0.096	KMFBAL-PCGY08B/PUSH
Clip	8mm dia	PVC Al	Grey	0.096	KMFBAL-PCGY08P/PUSH
Square	25 x 3	Aluminium	-	0.168	KMFBAL-SQCA253
Clamp	25 x 3	Aluminium	-	0.168	KMFBAL-SQCAF253
Standing Seam only	-	-	-	0.095	KMFBAL



#### Stainless Steel Standing Seam Clamps (seam widths 16 - 30mm)

	-	-			
FIXING TYPE	CONDUCTOR SIZE (mm)	CONDUCTOR MATERIAL	FIXING COLOUR	WEIGHT (kg)	PART NO.
Non-metallic	25 x 3	Bare Al	Grey	0.16	KMFBSS-PCGY253B
DC Clip	25 x 3	PVC Al	Grey	0.16	KMFBSS-PCGY253P
Metallic	25 x 3	Bare Al	-	0.18	KMFBSS-MDA253
DC Clip	25 x 3	PVC Al	-	0.19	KMFBSS-MDA253P
Push-In	8mm dia	Bare Al	Grey	0.16	KMFBSS-PCGY08B/PUSH
Clip	8mm dia	PVC Al	Grey	0.16	KMFBSS-PCGY08P/PUSH
Square	25 x 3	Aluminium	-	0.23	KMFBSS-SQCA253
Clamp	25 x 3	Aluminium	-	0.23	KMFBSS-SQCAF253
Non-metallic	25 x 3	Bare Cu	Brown	0.16	KMFBSS-PCBN253B
DC Clip	25 x 3	PVC Cu	Brown	0.16	KMFBSS-PCBN253P
Metallic	25 x 3	Bare Cu	-	0.22	KMFBSS-MDCF253
DC Clip	25 x 3	PVC Cu	-	0.28	KMFBSS-MDCF253P
Push-In	8mm dia	Bare Cu	Brown	0.16	KMFBSS-PCBN08B/PUSH
Clip	8mm dia	PVC Cu	Brown	0.16	KMFBSS-PCBN08P/PUSH
Square	25 x 3	Copper	-	0.39	KMFBSS-SQCC253
Clamp	25 x 3	Copper	-	0.38	KMFBSS-SQCCF253
Standing Seam only	-	-	-	0.15	KMFBSS

Material: Stainless Steel

The **Standing Seam Clamp** only can be used with a range of other fittings and is supplied with an M6 stainless steel bolt and nut for securing the chosen accessory.





KMBAL-SQCAF253



KMBAL-SQCA253



KMFBAL



KMFBSS

#### Plate Type Test Clamp



**Plate Type Test Clamps** are used to form a disconnecting joint between the Down Conductor System and the Earthing System. Conductors are secured by the top and bottom plates being clamped together.

CONDUCTOR SIZE (mm)	CONDUCTOR MATERIAL	WEIGHT (kg)	PART NO.
25 x 3	Copper	0.90	PTTC253
Material: Gunmetal Standard: BS:EN 62561-1, G	Class H		
Tightening Torque: 15Nm			

#### **Screw Down Test Clamp**



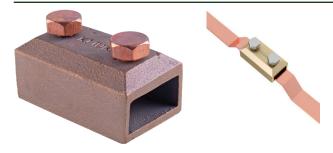
**Screw Down Test Clamps** join 25 x 3 conductor tape to facilitate annual testing of the Lightning Protection System. The heavy duty lid simply screws on and off the threaded base.

CONDUCTOR SIZE (mm)	CONDUCTOR MATERIAL	WEIGHT (kg)	PART NO.
25 x 3	Copper	0.84	SDTC253

Material: Copper Standard: BS:EN 62561-1, Class H Tightening Torque: 20Nm



#### **Oblong Test Clamps**



**Oblong Test Clamps** are designed to join conductor tape to facilitate in the annual testing of the Lightning Protection System. The clamp is designed to allow the conductor to be overlapped and secured using bolts. *Suitable for use with PVC covered tape.* 

CONDUCTOR SIZE (mm)	CONDUCTOR MATERIAL	WEIGHT (kg)	PART No.
25 x 3	Aluminium	0.16	OTCA253
25 x 3	Copper	040	OTCC253
31 x 6	Copper	0.38	OTCC316
40 x 5	Copper	0.53	OTCC405
50 x 6	Copper	1.35	OTCC506

Material: Aluminium/Copper Standard: BS:EN 62561-1, Class H Tightening Torque: 15Nm



## **FITTINGS**

#### **Cable Test Clamps**

**Cable Test Clamps** are used to form a disconnecting joint between the Down Conductor System and the Earthing System. The conductors overlap end to end and secure together using two bolts.

CONDUCTOR MATERIAL	WEIGHT (kg)	PART NO.
Copper	0.40	TC50
Copper	0.40	тс70
Copper	0.40	TC95
	Copper Copper	Copper 0.40 Copper 0.40

Material: Gunmetal

Standard: BS:EN 62561-1, Class H

Tightening Torque: 6Nm







## Test Clamps (Flat to circular conductor)

**Test Clamps** form a disconnecting joint between either 8mm and 8mm diameter conductor or 8mm and 25 x 3mm conductor.

CONDUCTOR DIA. (mm)	CONDUCTOR SIZE (mm)	CONDUCTOR MATERIAL	WEIGHT (kg)	PART NO.	
8.0	25 x 3	Copper	0.20	TC08	
8.0	25 x 3	Aluminium	0.09	TAO8	Ĩ

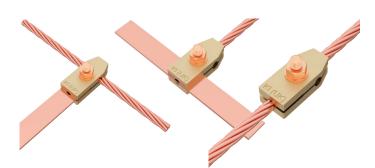
Material: Copper/Aluminium Standard: BS:EN 62561-1, Class H Tightening Torque: 12Nm



TC08



TA08



## **Bimetallic Connectors**



**Bimetallic Connectors** are designed to connect aluminium conductor to copper earth conductor. They are a practical joining method without the need for tinning, riveting or wrapping around the joint. We recommend the use of oxide inhibiting compound (UNP250) with Bimetallic Connectors.

CONNECTOR MATERIAL	WEIGHT (kg)	PART NO.
Stainless Steel	0.18	BM253HS
Stainless Steel	0.18	BM08HS
Stainless Steel	0.18	BM08253SS
Copper/Aluminium	0.18	BM253FC
	Stainless Steel Stainless Steel Stainless Steel	Stainless Steel0.18Stainless Steel0.18Stainless Steel0.18

Material: Stainless Steel grade 303 (BM253HS/BM08HS/BM08253SS) Copper/Aluminium fuse welded (BM253FC)

Standard: BS:EN 62561-1, Class H Tightening Torque: 12Nm

ignitening forque: 12Nm



Stainless steel connector for use with 25mm x 3mm conductor



Copper/aluminium connector for use with 25mm x 3mm conductor



Stainless steel connector for use with 25mm x 3mm, 8 dia or 50mm² conductor



## **Lightning Strike Counter**

**Lightning Strike Counters** register direct lightning events. They have a long life and do not require a battery or external power.

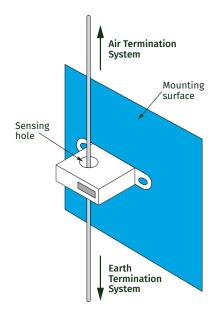
A sensitive response trigger current of only 500A can register very high lightning strikes up to 150kA 8/20µs. **Lightning Strike Counters** utilise a 6 digit mechanical count display and are IP67 rated for outdoor use. Suitable for use with 8mm dia and 25 x 3mm conductors.

PART NO.	HIT-LEC-D		
Counting current (rise time ≥8µs)	>500A		
Impulse sequence	>1s		
Display model	Electromechanical digital display		
Indicator	Lightning event 0 - 999999		
Current sample mode	Inductive probe (built-in)		
Working mode	No battery need		
Operation temperature	-20°C - +60°C		
Window dimension	32mm		
Counter dimension	150mm x 80.5mm x 36mm		
Enclosure material	Steel		
Degree of protection	IP67		

SEE PAGE FIT:20

FIXINGS 2 x CSK 1½ x No.10 woodscrew (A2CSKSLT1.5-10) + plug (PP10) not included







# Screws & Plugs



DESCRIPTION	SIZE	WEIGHT (kg)	PART NO.
Brass C/S Woodscrew	11⁄2" x 10g	0.50	BCSW1.5-10
Brass C/S Woodscrew	11⁄2" x 12g	0.60	BCSW1.5-12
CSK SLT ST/ST Screws	1" x 10g	0.60	A2CSKSLT101
CSK SLT ST/ST Screws	11⁄2" x 10g	0.60	A2CSKSLT1.5-10
Plastic Wall Plug (Red) 8 - 10G	No.10	0.06	PP-10
Plastic Wall Plug (Brown) 10 - 12G	No.12	0.06	PP-12
Brass Roundhead Woodscrew	No.12	0.60	BRHW1.5-12
Stainless Steel Roundhead Woodscrew	No.12	0.60	A2RHSL1.5-12

OTHER MATERIALS ARE AVAILABLE ON REQUEST

