Air rod

Rod length	Rod diameter	Thread size	Conductor material	Weight each	Part No.
For use with flat tape					
500 mm	15 mm	M16	Copper	0.73 kg	RA215†
1000 mm	15 mm	M16	Copper	1.51 kg	RA225†
1500 mm	15 mm	M16	Copper	2.35 kg	RA230
2000 mm	15 mm	M16	Copper	3.00 kg	RA240
3000 mm	15 mm	M16	Copper	4.70 kg	RA250-FU
500 mm	15 mm	M16	Aluminium	0.29 kg	RA015
1000 mm	15 mm	M16	Aluminium	0.53 kg	RA025
1500 mm	15 mm	M16	Aluminium	0.80 kg	RA030
2000 mm	15 mm	M16	Aluminium	1.06 kg	RA040
3000 mm	15 mm	M16	Aluminium	1.60 kg	RA050
For use with solid circular conductor					
500 mm	10 mm	M10	Copper	0.33 kg	RA400-FU
1000 mm	10 mm	M10	Copper	0.65 kg	RA402
500 mm	10 mm	M10	Aluminium	0.11 kg	RA080
1000 mm	10 mm	M10	Aluminium	0.22 kg	RA085
For use with stranded conductor					
500 mm	15 mm	M16	Copper	0.73 kg	RA215†
1000 mm	15 mm	M16	Copper	1.51 kg	RA225†
1500 mm	15 mm	M16	Copper	2.35 kg	RA230
2000 mm	15 mm	M16	Copper	3.00 kg	RA240
3000 mm	15 mm	M16	Copper	4.70 kg	RA250-FU

Manufactured from high conductivity hard drawn copper or aluminium, with rolled threads. Supplied complete with locknut.

"Field Trials in the United States, carried out over many years research have confirmed that blunt air rods are struck by lightning in preference to taper pointed air rods."

"Lightning rod improvement studies" by C B Moore, W Rison, J Mathis, G Aulich. Journal of Applied Meteorology, May 2000.

Note: during high winds and extreme weather conditions air rods over 1000 mm long can be subjected to fatigue mechanisms. It is therefore recommended that additional supports are considered before installation.

BS EN 50164-2
†UL96 (RA215, RA225)

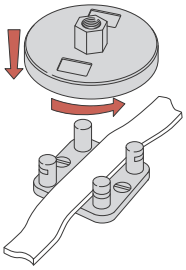
RA225 + RA600 + SD105-H

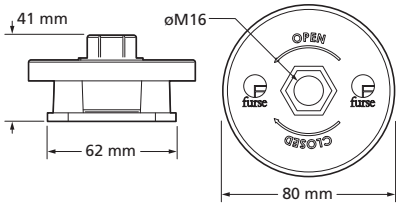
Air rod shown with multiple point accessory, connecting to flat tape conductor system

Air termination

Air rod base

SD105-H





Rod diameter	Thread size	Maximum conductor width	Conductor material	Weight each	Part No.
15 mm	M16	25 mm	Copper	0.43 kg	SD105-H†
15 mm	M16	25 mm	Aluminium	0.14 kg	SD003-H
NEW 15 mm	M16	50 mm	Copper	0.7 kg	SD120*

* Not as illustrated (drawing available on request).

Manufactured from high quality copper and aluminium alloys. Simple to install, providing an effective connection between air rod and air termination tape.

BS EN 50164-1 Class H

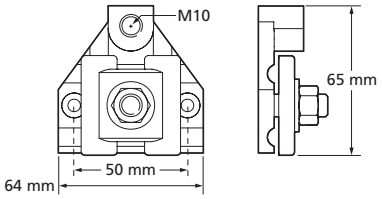
†UL96 (SD105-H)

Fix using countersunk wood screws (Part no. **SW005** or **SW105**) and wall plugs (Part no. **PS305**)

Air rod base

SD307

SD305



Conductor diameter	Thread size	Conductor material	Weight each	Mounting plate	Part No.
8 mm	M10	Copper	0.30 kg	Horizontal	SD305
8 mm	M10	Copper	0.30 kg	Vertical	SD307
8 mm	M10	Aluminium	0.11 kg	Horizontal	SD005
8 mm	M10	Aluminium	0.11 kg	Vertical	SD007

Manufactured from high quality copper and aluminium alloys. Simple to install, providing an effective connection between an air rod and solid circular air termination conductor in either the horizontal or vertical plane.

BS EN 50164-1 Class H

Fix using countersunk wood screws 1½" No. 10 or M6 (Part no. **SW005** or **SW105**) and wall plugs (Part no. **PS305**) -

Tightening torque 15 Nm

Flat saddle

Conductor diameter	Rod diameter	Thread size	Conductor material	Weight each	Part No.
50 mm²	15 mm	M16	Copper	1.03 kg	SD155
70 mm²	15 mm	M16	Copper	0.95 kg	SD160
95 mm²	15 mm	M16	Copper	0.95 kg	SD165

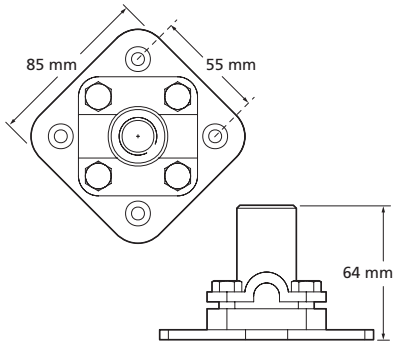
Manufactured from a high quality copper alloy. Simple to install, providing an effective connection between air rod and stranded conductors.

BS EN 50164-1 Class H

Fix using countersunk wood screws 1½" No. 10 or M6 (Part no. **SW005**) and wall plugs (Part no. **PS305**)

Tightening torque 12 Nm

SD160



Ridge saddle

Rod diameter	Thread size	Maximum conductor width	Conductor material	Weight each	Part No.
15 mm	M16	31 mm	Copper	1.07 kg	SD115

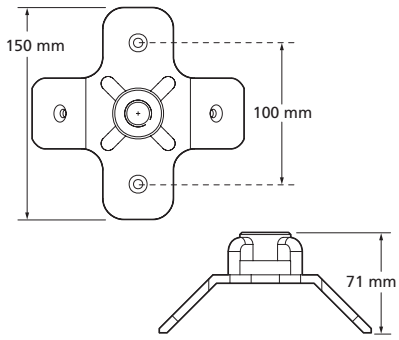
For supporting lightning conductor air rods on ridges.

BS EN 50164-1 Class H

Fix using countersunk wood screws 1½" No. 10 or M6 (Part no. **SW005** or **SW105**) and wall plugs (Part no. **PS305**) - see Accessories page 72.

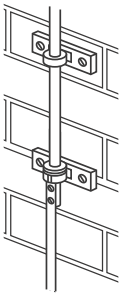
Tightening torque 15 Nm

SD115



Rod brackets

BR105



Rod diameter	Rod material	Weight each	Part No.
15 mm	Copper	0.90 kg	BR105
15 mm	Aluminium	0.28 kg	BR005

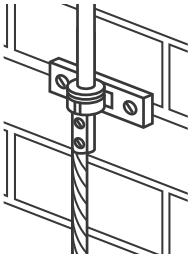
Manufactured from high quality copper and aluminium alloys. Simple to install, providing an effective means of mounting an air rod on a vertical surface e.g. chimney stack. Use in conjunction with a rod to flat tape, or rod to stranded conductor coupling.

Fix using roundhead wood screws 1½" x no. 12 or M8 and wall plugs.

Rod to conductor coupling

CG600

CG705



Conductor size	Rod diameter	Thread size	Rod material	Weight each	Part No.
For use with flat tape conductor					
25 x 3 mm	15 mm	M16	Copper	0.23 kg	CG600
25 x 3 mm	15 mm	M16	Aluminium	0.08 kg	CG500
For use with stranded conductor					
50-70 mm²	15 mm	M16	Copper	0.25 kg	CG705
95 mm²	15 mm	M16	Copper	0.25 kg	CG710

Manufactured from high quality copper and aluminium alloys. Provides an effective connection between air rod and air termination tape or stranded air termination conductor. Use in conjunction with rod brackets.

BS EN 50164-1 Class H

Tightening torque 7 Nm (tape); 6 Nm (stranded)

Multiple point

Rod diameter	Conductor material	Weight each	Part No.
15 mm	Copper	0.27 kg	RA600
15 mm	Aluminium	0.10 kg	RA500

NEW

Manufactured from high conductivity hard drawn copper or aluminium, suitable for use with air rods

RA600

RA500

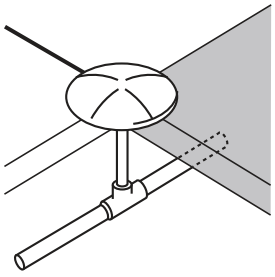
Strike pad

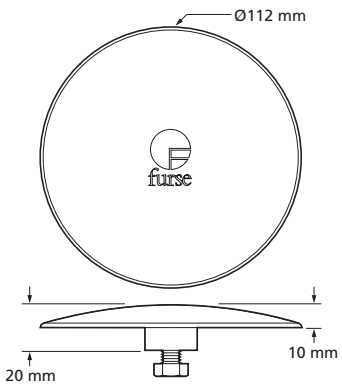
Conductor material	Weight each	Part No.
Copper	0.41 kg	PL010
Aluminium	0.13 kg	PL005
Copper stem for use with PL010	0.07 kg	SM010

Manufactured from high quality copper and aluminium alloys. Designed to provide an exposed attractive point on conductor systems hidden/embedded in the building's fabric e.g. below the tiles of a pitched roof.

Supplied with setscrew for attachment of lightning conductors.

PL010





Air termination

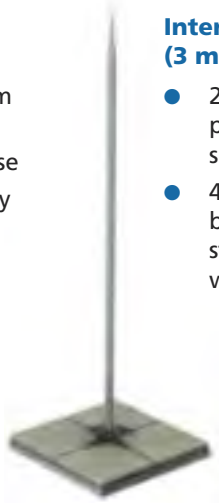
Free standing air termination

Furse free standing interception air rods are designed to protect rooftop mounted or exposed equipment, such as air conditioning units or photovoltaic panels, from a direct lightning strike.

Free standing interception air rods are easily constructed from a small range of components including air rod or interception pole, support frame and concrete base, to create a complete unit which when connected to the air termination network provides a highly versatile and effective lightning protection solution.

Interception air rod (0.5 m to 2 m height)

- Copper or aluminium air rod
- Circular concrete base
- Rod connects directly into base

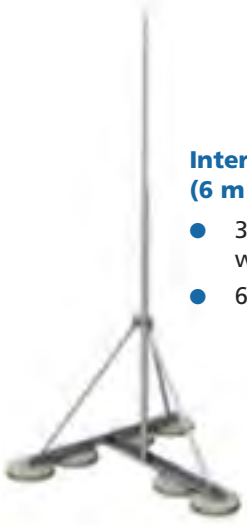


Interception air rod (3 m to 4 m height)

- 2 piece interception pole with square support frame
- 4 square concrete bases (or 8 double-stacked for higher wind speeds)

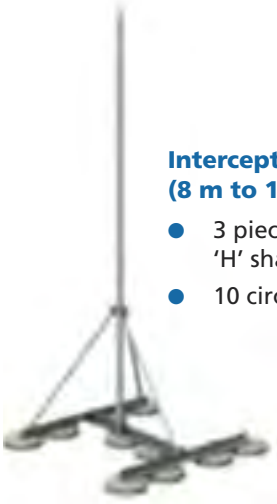
Interception air rod (4.5 m to 5.5 m height)

- 2 piece interception pole with tripod support frame
- 3 circular concrete bases



Interception air rod (6 m to 8 m height)

- 3 piece interception pole with tripod support frame
- 6 circular concrete bases



Interception air rod (8 m to 10 m height)

- 3 piece interception pole with 'H' shaped support frame
- 10 circular concrete bases

Features & benefits

- Protects rooftop mounted equipment from direct lightning strikes
- Complies with BS EN/IEC 62305 standard
- Lightweight construction
- Corrosion resistant
- Quick and easy to assemble
- Available in a range of heights from 0.5 m to 10 m
- Range of frames and concrete weights for different wind zones
- Large protection zones
- Modular, versatile and robust

Note: installed interception air rods must have sufficient height to provide a clear zone of protection around the equipment to be protected, as defined by BS EN/IEC 62305-3 (see protective angle method). Further information can be found in the Furse Guide to BS EN 62305.

Product selection

Free standing air rod selection is based on two factors:

a) air rod height required to create the necessary protective zone around the equipment

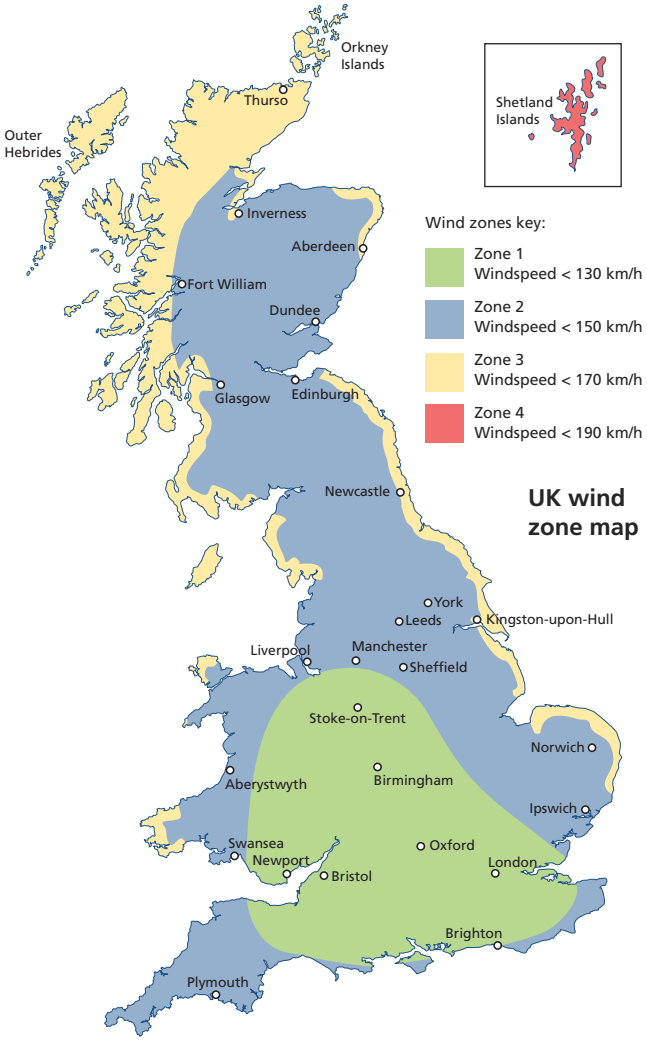
b) anticipated wind loading at the installation

Wind loading is an important factor, especially for taller interception air rods as extreme weather can subject them to fatigue mechanisms.

For UK installations, the map featured right highlights four key wind zones from which the appropriate free standing air rod can be established.

Relevant part numbers can then be determined through cross referencing wind loading with the height of air rod required in the table below.

For non-UK installations, please refer to available data for local wind conditions or contact your Furse representative to discuss your particular requirements.



UK wind zone map

Rod height	Interception pole Part No.	Frame (where required) and Base Part No. for windspeeds < 130 km/h	< 150 km/h	< 170 km/h	< 190 km/h
0.5 m	RA215 or RA015	103101-FU	103101-FU	103101-FU	103101-FU
1 m	RA225 or RA025	103101-FU	103101-FU	103101-FU	103101-FU
1.5 m	RA230 or RA030	103110-FU	103110-FU	103110-FU	103110-FU
2 m	RA240 or RA040	103110-FU	103110-FU	103110-FU	103110-FU
3 m	912000-FU	499000-FU / 4 x 499100-FU	499000-FU / 4 x 499100-FU	499000-FU / 4 x 499100-FU	499000-FU / 4 x 499100-FU
3.5 m	912001-FU	499000-FU / 4 x 499100-FU	499000-FU / 4 x 499100-FU	499000-FU / 4 x 499101-FU	499000-FU / 4 x 499101-FU
4 m	912002-FU	499000-FU / 4 x 499100-FU	499000-FU / 4 x 499101-FU	499000-FU / 8 x 499100-FU	499000-FU / 8 x 499101-FU
4.5 m	912003-FU	499005-FU / 3 x 103101-FU	499005-FU / 3 x 103110-FU	499005-FU / 3 x 103118-FU	499006-FU / 3 x 103103-FU
5 m	912004-FU	499005-FU / 3 x 103101-FU	499005-FU / 3 x 103110-FU	499005-FU / 3 x 103118-FU	499006-FU / 3 x 103103-FU
5.5 m	912005-FU	499005-FU / 3 x 103110-FU	499005-FU / 3 x 103118-FU	499006-FU / 6 x 103103-FU	499006-FU / 3 x 103103-FU
6 m	912006-FU	499006-FU / 6 x 103103-FU	499006-FU / 6 x 103103-FU	499006-FU / 6 x 103103-FU	499006-FU / 6 x 103101-FU
6.5 m	912007-FU	499006-FU / 6 x 103103-FU	499006-FU / 6 x 103103-FU	499006-FU / 6 x 103101-FU	499006-FU / 6 x 103118-FU
7 m	912008-FU	499006-FU / 6 x 103103-FU	499006-FU / 6 x 103101-FU	499006-FU / 6 x 103110-FU	on request
7.5 m	912009-FU	499006-FU / 6 x 103101-FU	499006-FU / 6 x 103110-FU	499006-FU / 6 x 103118-FU	on request
8 m	912010-FU	499006-FU / 6 x 103110-FU	499006-FU / 6 x 103118-FU	499007-FU / 10 x 103118-FU	on request
9 m	912011-FU	499007-FU / 10 x 103118-FU	499007-FU / 10 x 103118-FU	499007-FU / 10 x 103118-FU	on request
10 m	912013-FU	499007-FU / 10 x 103118-FU	499007-FU / 10 x 103118-FU	on request	on request

Free standing interception pole

912002-FU / 912006-FU / 912010-FU

Pole Height	Pole diameter	Pole make up	Weight each	Part No.
3 m	10-42 mm	2 pce	5.0 kg	912000-FU
3.5 m	10-42 mm	2 pce	5.5 kg	912001-FU
4 m	10-42 mm	2 pce	7.0 kg	912002-FU
4.5 m	10-42 mm	2 pce	9.2 kg	912003-FU
5 m	10-42 mm	2 pce	10.0 kg	912004-FU
5.5 m	10-42 mm	2 pce	10.6 kg	912005-FU
6 m	10-60 mm	3 pce	18.0 kg	912006-FU
6.5 m	10-60 mm	3 pce	19.0 kg	912007-FU
7 m	10-60 mm	3 pce	23.5 kg	912008-FU
7.5 m	10-60 mm	3 pce	26.0 kg	912009-FU
8 m	10-60 mm	3 pce	28.7 kg	912010-FU
9 m	10-60 mm	3 pce	30.5 kg	912011-FU
10 m	10-60 mm	3 pce	35.5 kg	912013-FU

For construction of interception air rods from 3 to 10 m in height comprising interception pole, support frame and concrete bases. All interception poles are grade 304 stainless steel with aluminium interception tip.
Multi-component, stackable system with screw retention. Supplied with 3 terminal lugs for base frame connection.

Base frame

499000-FU

Frame type	Dimensions	Weight each	Part No.
Square base	650 x 650 mm	7 kg	499000-FU
Tripod base	1350 x 1350 mm	8 kg	499005-FU
Tripod base	1850 x 1850 mm	24.5 kg	499006-FU
H shaped base	1850 x 1850 mm	39.5 kg	499007-FU

499006-FU

Concrete base

Description	Weight each	Part No.
Square concrete base 300 x 300 x 60 mm	12 kg	499100-FU
Square concrete base 300 x 300 x 80 mm	16 kg	499101-FU
Circular concrete base with M16 insert	12 kg	103103-FU
Circular concrete base with M16 insert	16 kg	103101-FU
Circular concrete base with M16 insert	20 kg	103110-FU
Circular concrete base with M16 insert	25 kg	103118-FU
Accessories		
Protective polyethylene tray for circular concrete blocks	0.4 kg	103102-FU
Stainless steel clamp for connecting 25 x 3 mm copper tape to 5-19 mm thickness steel	0.55 kg	919828-FU

103103-FU

499100-FU