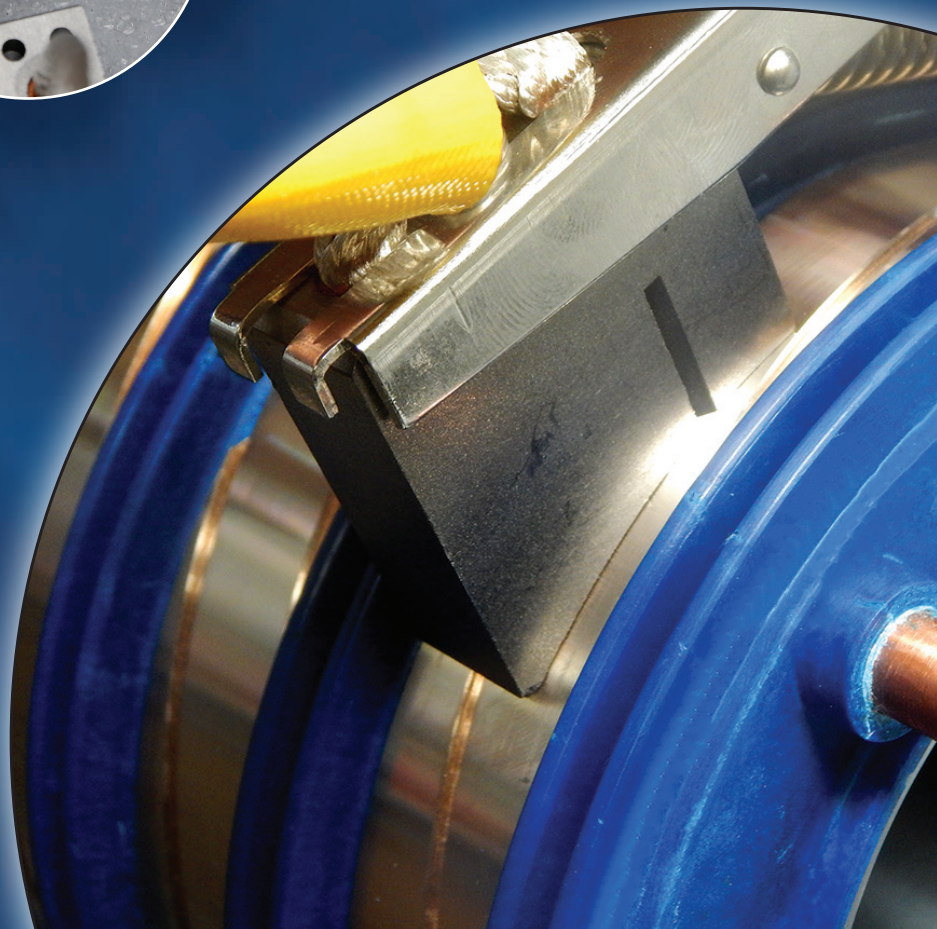




# BGB BRUSH HOLDER

## DATASHEETS



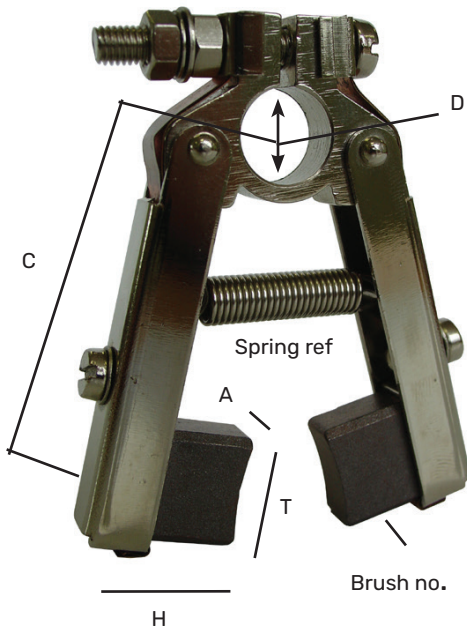
# BRUSH HOLDERS

## DATASHEET INDEX:

- > BRUSH HOLDER MEASURING / DESCRIPTIONS
- > D SERIES (SINGLE LEG)
- > DD SERIES
- > DA SERIES (SINGLE LEG)
- > DDA SERIES
- > AC SERIES
- > FIXED BOX SERIES
- > WIND BRUSH HOLDERS
- > LIGHTNING PROTECTION
- > PARATEC



# Brush Holder Descriptions



Example Holder:

**DD80-200-61-1/2-04 E1340-10**

Relating to the picture opposite:

**DD** = Indicator that the holder has 2 legs. A single leg holder would be shown as D

**80-200** = The brush size - in this case  
A = 8mm and T = 20mm.

H = Depth of brush (Not required)

**61** = The distance in mm from the centre of the mounting hole to the centre of the brush when the holder is in it's working position. Shown as C

**1/2** = The diameter of the mounting hole for the spindle. Shown as D

**04** = Indicates which spring is to be used, the first section of the part number is E1215.

**E1340-10** is the part number and description for the brush

DDA - Extra Lug

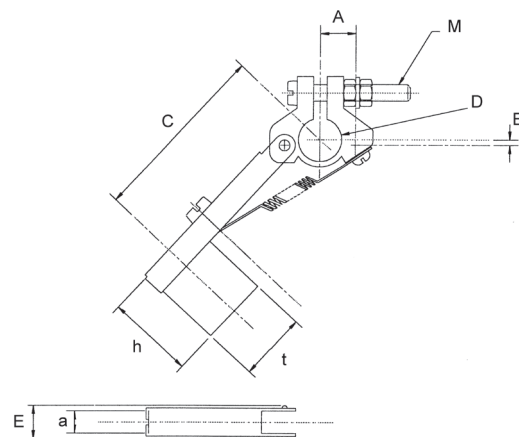
D - Single Leg



## D Series Slip Ring Brush Holders

Designed for use with both fast moving slip rings i.e. Alternators and slip ring motors, and slow moving high current density applications such as cable reeling drums and leisure rides. These units are therefore very adaptable and lend themselves to many varied applications. Current ratings are available upon request.

Dimension 'C' = Approximate distance between centre of clamping hole and centre line of brush when brush holder is in working position.



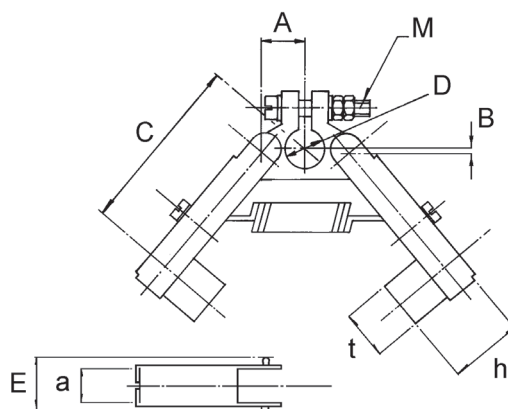
Type	Brush.Dimensions			Bore					E.	
	a.	t.	h.	A.	B.	C.	D.	Max.	Max.	M.
D40/80/33	4	8	15	10	-	33	9.5	10	7.6	M4
D40/120/37	4	12	15	10	-	37	9.5	10	6.6	6BA
D40/120/48	4	12	15	10	-	48	9.5	10	6.6	6BA
D63/80/39	6.3	8	16	10	-	39	9.5	10	10.5	M4
D63/125/37	6.3	12.5	16	10	-	37	9.5	10	10.5	M4
D63/80/50	6.3	8	16	10	-	50	9.5	10	10.5	M4
D63/125/48	6.3	12.5	16	10	-	48	9.5	10	10.5	M4
D80/160/56	8	16	20	12	1.6	56	12	13	12.8	M5
D80/200/54	8	20	20	12	1.6	54	12	13	12.8	M5
D80/160/63	8	16	20	12	1.6	63	12	13	12.8	M5
D80/200/61	8	20	20	12	1.6	61	12	13	12.8	M5

**CONSTRUCTION** Brass with copper foil connections, spring:- plated spring steel.  
All parts steel plated. Double spring versions and brushes are available upon request.

## DD Series Slip Ring Brush Holders

Designed for use with both fast moving slip rings i.e. Alternators and slip ring motors, and slow moving high current density applications such as cable reeling drums and leisure rides. These units are therefore very adaptable and lend themselves to many varied applications. Current ratings are available upon request.

Dimension 'C' = Approximate distance between centre of clamping hole and centre line of brush when brush holder is in working position.



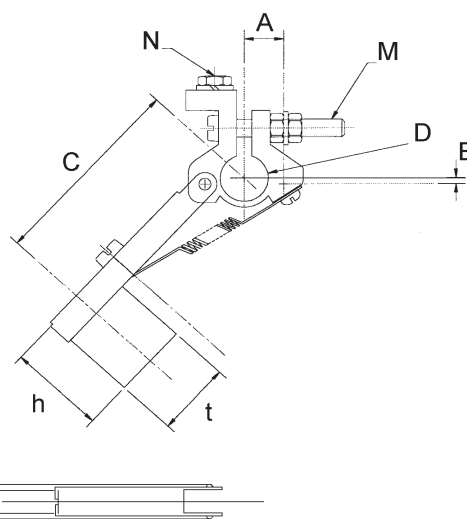
Type	Brush Dimensions			Bore			E.			
	a.	t.	h.	A.	B.	C.	D.	Max.	Max.	M.
DD40/80/33	4	8	15	9.5	-	33	9.5	10	7.6	M4
DD40/120/37	4	12	15	10	-	37	9.5	10	6.6	6BA
DD40/120/48	4	12	15	10	-	48	9.5	10	6.6	6BA
DD63/80/39	6.3	8	16	10	-	39	9.5	10	10.5	M4
DD63/125/37	6.3	12.5	16	10	-	37	9.5	10	10.5	M4
DD63/80/50	6.3	8	16	10	-	50	9.5	10	10.5	M4
DD63/125/48	6.3	12.5	16	10	-	48	9.5	10	10.5	M4
DD80/160/56	8	16	20	12	1.6	56	12	13	12.8	M5
DD80/200/54	8	20	20	12	1.6	54	12	13	12.8	M5
DD80/160/63	8	16	20	12	1.6	63	12	13	12.8	M5
DD80/200/61	8	20	20	12	1.6	61	12	13	12.8	M5

**CONSTRUCTION** Brass with copper foil connections, spring:- plated spring steel.  
All parts steel plated. Double spring versions and brushes are available upon request.

## DA Series Slip Ring Brush Holders

Designed for use with both fast moving slip rings i.e. Alternators and slip ring motors, and slow moving high current density applications such as cable reeling drums and leisure rides. These units are therefore very adaptable and lend themselves to many varied applications. Current ratings are available upon request.

Dimension 'C' = Approximate distance between centre of clamping hole and centre line of brush when brush holder is in working position.



Type	Brush.Dimensions						Bore		E.		
	a.	t.	h.	A.	B.	C.	D.	Max.	Max.	M.	N.
DA100/250/70	10	25	32	12.5	5	70.5	12.7	13	16	M6	M6x8
DA127/222/64	12.7	22.2	30	15	5	64	16	19	17.5	M6	M6x8
DA127/254/83	12.7	25.4	28	15	5	83	16	19	17.5	M6	M6x8
DA160/320/76	16	32	32	15	5	76	16	19	21	M6	M8x10

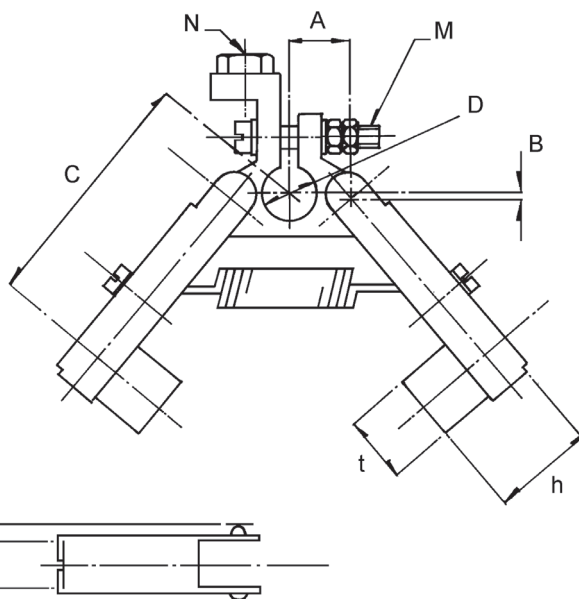
**CONSTRUCTION** Brass with copper foil connections, spring :- plated spring steel.

All steel parts plated. Note: DA160/320/76 - braid connections. Variations and brushes can be supplied upon request.

## DDA Series Slip Ring Brush Holders

Designed for use with both fast moving slip rings i.e. Alternators and slip ring motors, and slow moving high current density applications such as cable reeling drums and leisure rides. These units are therefore very adaptable and lend themselves to many varied applications. Current ratings are available upon request.

Dimension 'C' = Approximate distance between centre of clamping hole and centre line of brush when brush holder is in working position.



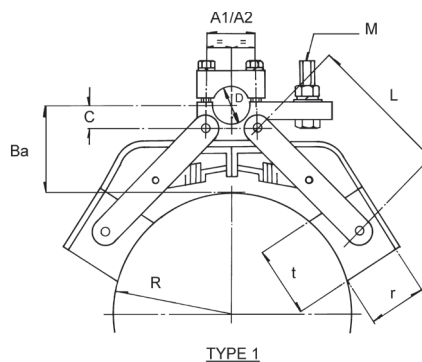
Type	Brush.Dimensions			Bore			E.				
	a.	t.	h.	A.	B.	C.	D.	Max.	Max.	M.	N.
DDA100/250/70	10	25	32	12.5	5	70.5	12.7	13	16	M6	M6x8
DDA127/222/64	12.7	22.2	30	15	5	64	16	19	17.5	M6	M6x8
DDA127/254/83	12.7	25.4	28	15	5	83	16	19	17.5	M6	M6x8
DDA160/320/76	16	32	32	15	5	76	16	19	21	M6	M8x10

**CONSTRUCTION** Brass with copper foil connections, spring:- plated spring steel.

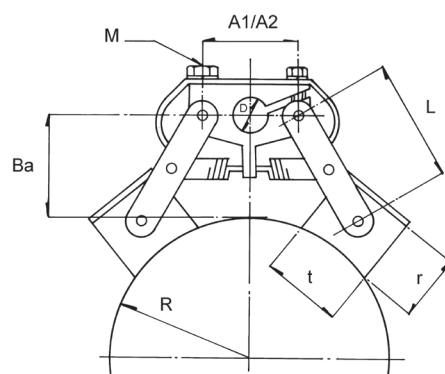
All parts steel plated. Note: DDA160/320/76 - braid connections. Double spring versions and brushes are available upon request.

## AC Series Slip Ring Brush Holders

Designed for use in slow moving power transmission applications. Brushes have pivoting facility so that they are self-aligning for larger slip ring diameters. Current is transmitted by fine woven copper braids, insulated by high temperature glass sleeving.



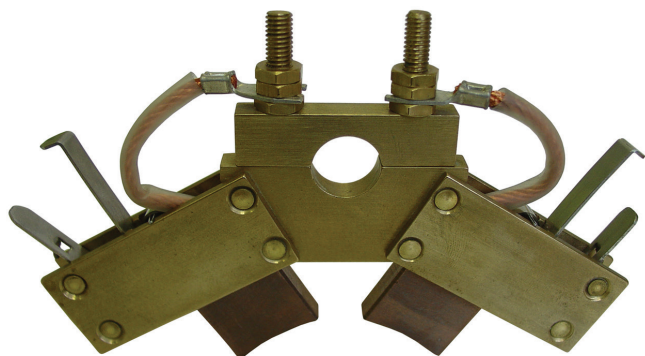
TYPE 1



TYPE 2

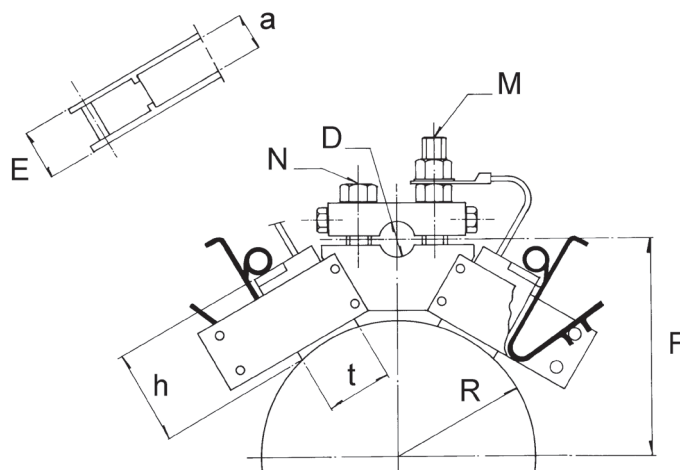
Reference	Current Rating	Type	Brush.Dimensions			Radius Range R.	Bore D					A1	A2	C.	L.
			t.	a.	r.		Normal	Up to	E.	M.	Ba.	Terminal	Pivot		
												Screw Centres	Centre		
AC1035/70/22	100A	1	35	10	25	60 UPWARDS	22	22	17	6	50	32	32	14	70
AC1640/85/22	200A	1	40	16	30	50 UPWARDS	22	22	22	8	50	32	32	14	85
AC2050/85/22	300/400A	1	50	20	30	70 UPWARDS	22	22	26	10/12	55	32	32	14	85
AC2050/60/19/10	300A	2	50	20	30	70/135	19	19/20	30	10	30-45	30	48	-	60
AC2050/60/19/12	400A	2	50	20	30	70/135	19	19/20	30	12	30-45	30	48	-	60

## Fixed Box Series Brush Holder Constant Force Springs



This range of brushgear has been designed for heavy duty service with slip rings. Spring pressure is via constant force springs on a stainless steel clip. It is recommended that carbon brushes have an insulated grooved top to locate the springs. Centre clamps are from extruded brass and boxes are fabricated from brass section.

Other brush box sizes are available up to a section of 1" square, giving current loadings up to 300 amps.



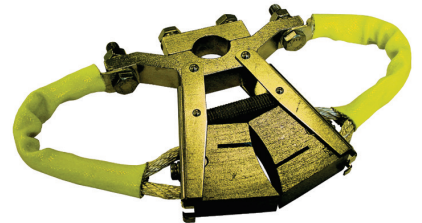
Reference	Brush Dimensions			D.	E.	N. (Clamp)	R.	M. (Terminal)	F.
	a.	t.	h.						
FB80/250/100	8	25	35	16	12.5	M6	50	M6	79.4
FB100/250/12.7/100	10	25	35	12.7	15	M6	51	M6	82.5
FB127/220/20/127	12.7	22	38.1	20	18	M6	63.5	M6	105

## Brush Holders For The Wind Industry

BGB has been designing and manufacturing brush holder and slip ring solutions for the wind industry since the early 1990's. BGB's range of brushes can be found in leading OEM's across the globe, including Vestas, Suzlon, ABB, Siemens and GE.

### Caliper Brush Holders

Designed for use with both fast-moving slip rings i.e. alternators and slip ring motors, and slow-moving high current density applications such as cable reeling drums and leisure rides



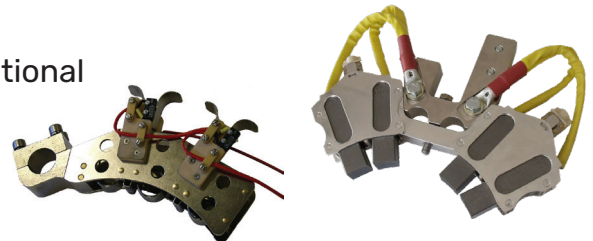
### Paratec

The original parallel brush holder specifically designed for Vestas wind turbines. The non-metallic body ensures suitability for operation in corrosive environments like marine.



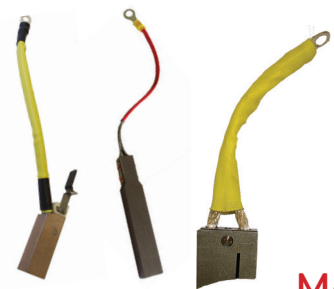
### Generator / Power Brush Holders

Generator brush holders are primarily used in high rotational speed / high current density applications.



### Generator / Power Brushes

Carbon brushes are adapted for power transmission, earthing, lightning protection and slip rings for pitching blades. Brushes are produced in copper and silver for extreme turbine environments.



More...



## Brush Holders For The Wind Industry

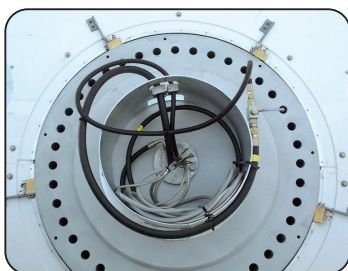
Continued...

### Earthing

A specific brush composition that discharges any electrostatic energy down to earth operating on the main shaft and providing a reliable solution. The Ground Contact design is retrofittable to the main shaft of a turbine. Works well in a range of atmospheric conditions that wind turbines are commonly exposed to.

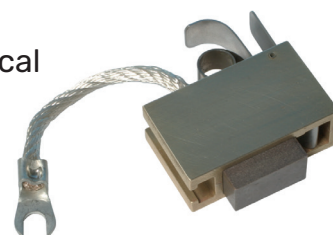


### Lightning Protection



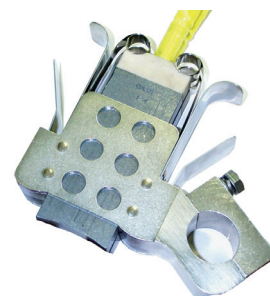
Robust brush holders that are designed to dissipate lightning energy and thus defend critical components

(Typically main shaft and yaw bearings)



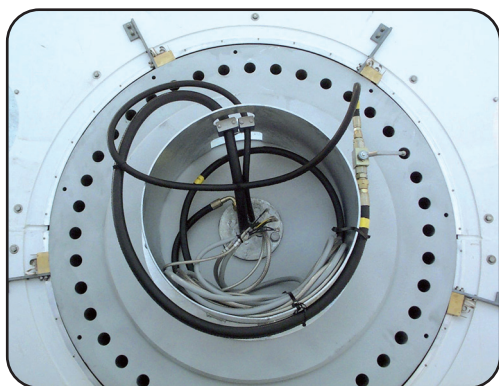
### Custom Brush Holders

BGB can design and produce any style of brush holder and combine it with a range of brush grade alternatives. Our experience is second-to-none in the wind industry with our brush holder and slip ring solutions found in wind turbines worldwide.



## 120 Amp Brush Holder (GA4124)

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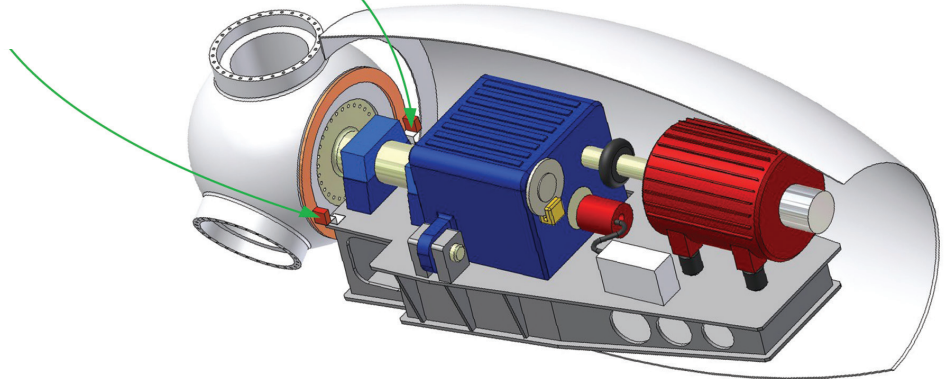
Robust brush holders that are designed to dissipate lightning energy and thus defend critical components

(Typically main shaft and yaw bearings)



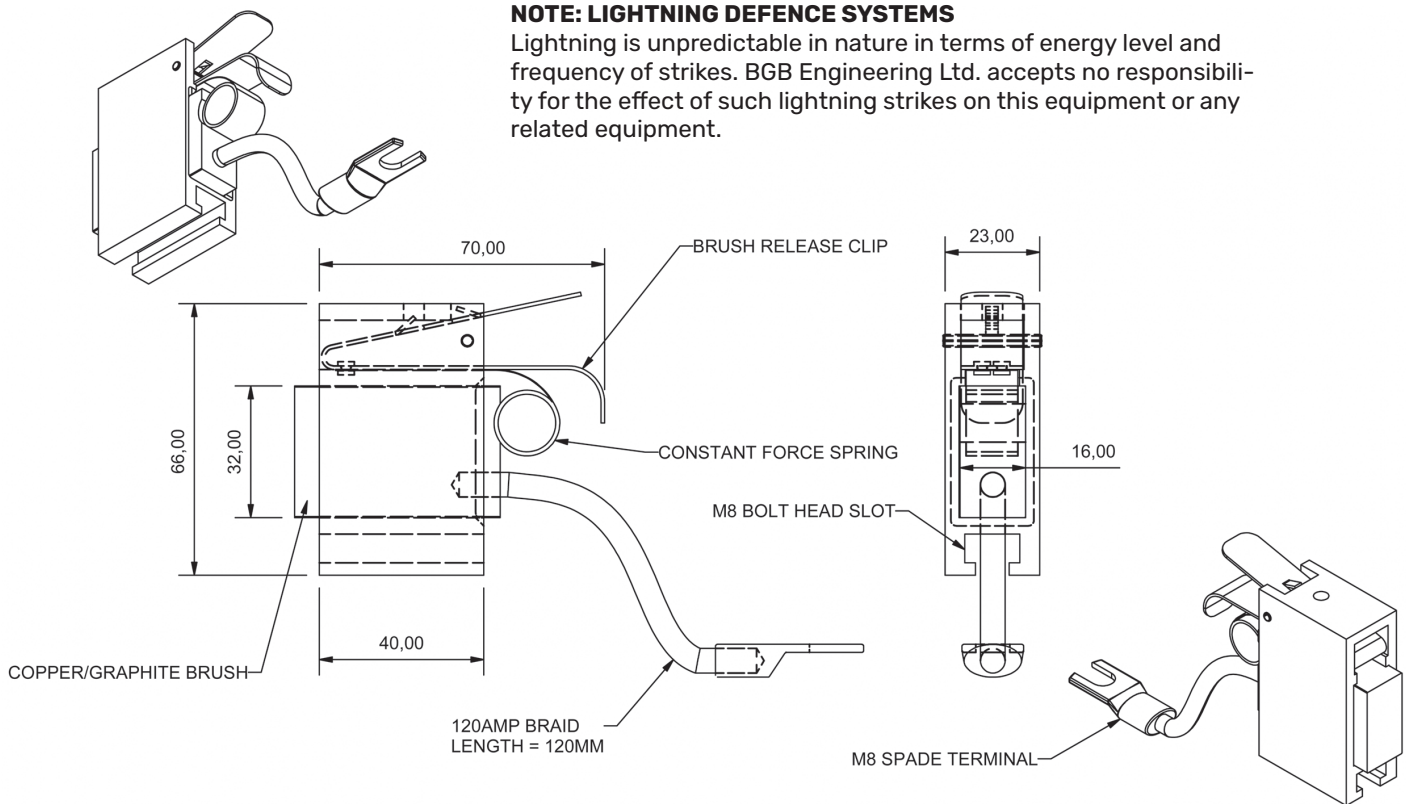
More...

## 120 Amp Brush Holder (GA4124) (continued)

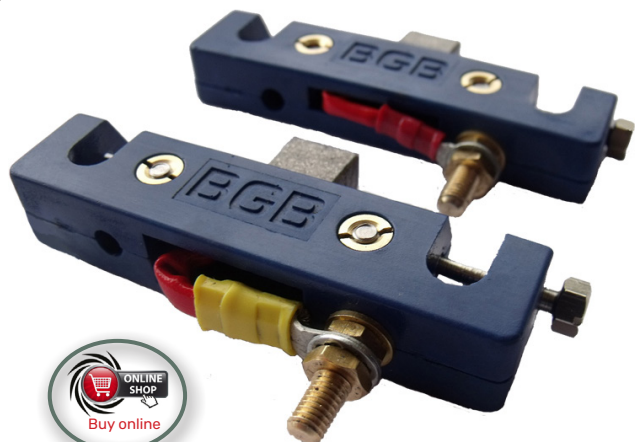


### NOTE: LIGHTNING DEFENCE SYSTEMS

Lightning is unpredictable in nature in terms of energy level and frequency of strikes. BGB Engineering Ltd. accepts no responsibility for the effect of such lightning strikes on this equipment or any related equipment.



# PARATEC® Brush Holders

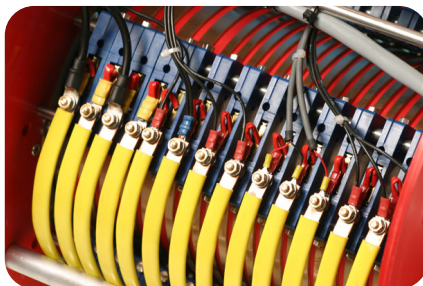
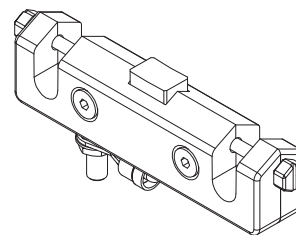
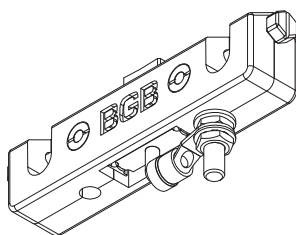
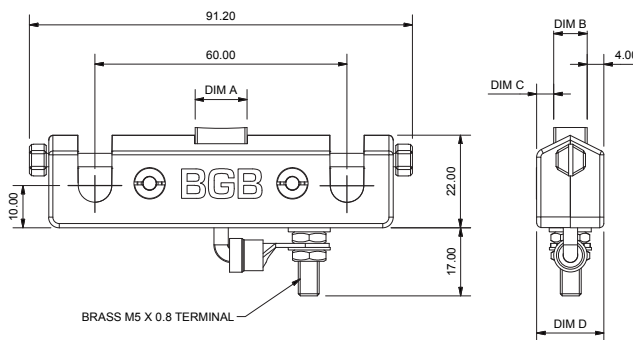


Parallel action brush systems provide high contact integrity and system stability for both signal and power applications. The non-metallic body ensures suitability for operation in corrosive environments (such as marine) whilst captive screws improve serviceability.

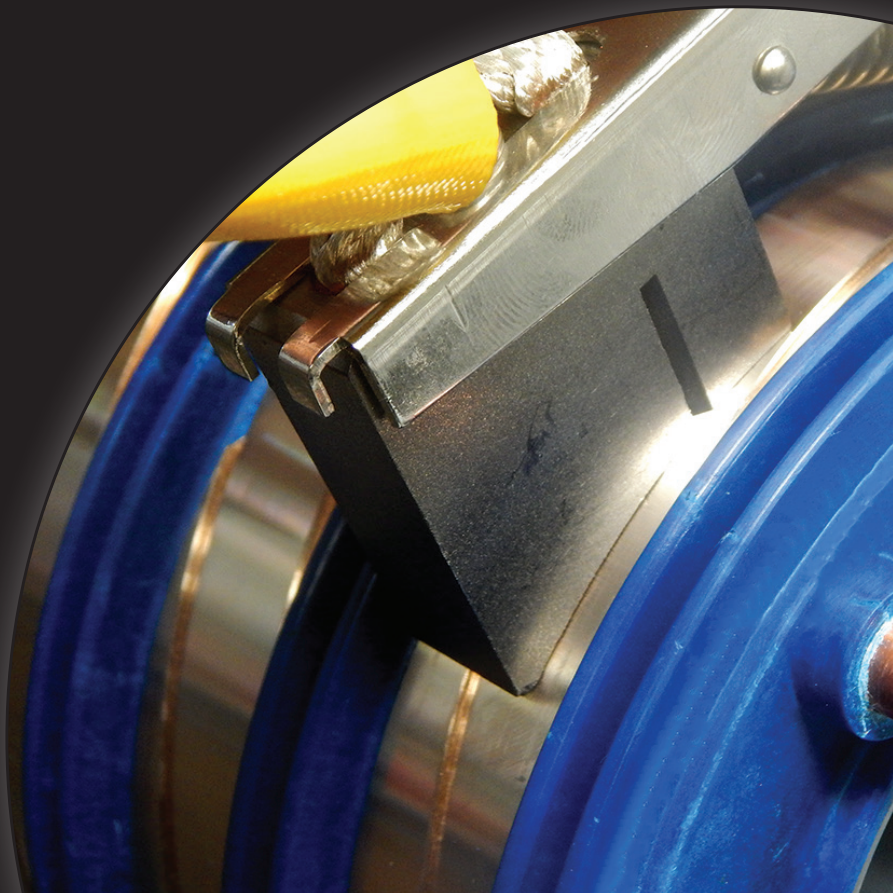
We now fit this product as standard for specific applications to eliminate the problem of fretting corrosion which can occur with conventional metallic brush holders.

Paratec's success has warranted it's name being trademarked.

Reference	Brush Material	Dim A	Dim B	Dim C	Dim D	Max Ampage
GA4270-11	CU	12.5mm	4mm	5mm	13mm	10A
GA4270-33	CU	12.5mm	6mm	3mm	13mm	15A
GA4270-55	CU	12.5mm	8mm	4mm	16mm	20A
GA4270-22	AG	12.5mm	4mm	5mm	13mm	15A
GA4270-44	AG	12.5mm	6mm	3mm	13mm	22A
GA4270-66	AG	12.5mm	8mm	4mm	16mm	30A



*\*PARATECs used in a slip ring package for the  
Wind Turbine industry*





## PROVIDING ENGINEERING SOLUTIONS SINCE 1976

*"To connect, inspire and work closely together  
so that we are proud of our achievements, community  
and shared success."*



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