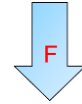


# GC102\_F

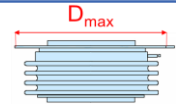
## BAR CLAMP FOR HOCKEY PUK DEVICES



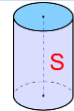
**$F = 12 \text{ kN} \div 24 \text{ kN}$**



**$D_{max} = 89 \text{ mm}$**



**$S = 2 \div 136 \text{ mm}$**



**$T_{op} = -30 \div 230 \text{ }^{\circ}\text{C}$**



Scan this QR code to download this datasheet

To display 3D images correctly, please use last version of Acrobat PDF Reader <https://get.adobe.com/it/reader/>  
 (Once the application has started, click the Options button and then select: "Trust this document one time only", then click on the 3D image and wait until the upload is complete)

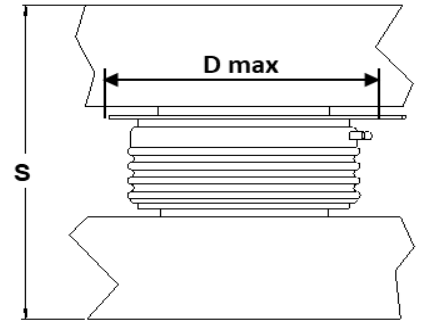
Characteristic	Unit	Types	Testing conditions	Values		
				Min	Typ	Max
F	Clamping Force	kN		12		24
$\Delta F$	Clamping Force tolerance	%				$\pm 10\%$
V <sub>INS</sub>	Insulation Voltage	V	50 Hz, RMS, 60 s		3000	
D <sub>s</sub>	Surface creepage distance	mm			28	
D <sub>a</sub>	Air strike distance	mm			20.3	
m	Mass	g	GC102S...F	700		850
			GC102B...F	1190		1350
	Insulating Material		Polyphenylene Oxide			PPO
			Polyphenylene Sulfide			PPS
	UL Files		PPO			E121562
			PPS			E95746
T <sub>op</sub>	Operating temperature range	°C	PPO	-30		110
			PPS	-30		230
CTI	Comparative Tracking Index	V	PPO	According to UL746	225.0	
			PPS	According to IEC112/3rd	250.0	
	Flammability	mm	PPO	UL94 V-1 Flame class rating	1.5	
				UL94 V-0 Flame class rating	6.0	
			PPS	UL94 V-0 Flame class rating	1.6	

ORDERING INFORMATION TABLE

Use this part numbering system to order

<b>GC102</b>	<b>B</b>	<b>N</b>	<b>B</b>	<b>A</b>	<b>20</b>	<b>F</b>	<b>S</b>	<b>H</b>	<b>X</b>	<b>L</b>	<b>0</b>
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	

<b>(1) Construction type:</b>	<b>B</b> = with reaction bar <b>S</b> = without reaction bar
<b>(2) Insulator position:</b>	<b>N</b> = on load bar <b>R</b> = on reaction bar
<b>(3) Insulator code:</b>	_ = no insulating cup other : see table below
<b>(4) Bolt code:</b>	_ = no bolt <b>1</b> = only D8 special washers, no bolts other : see table below
<b>(5) Clamping force (in kN):</b>	12 kN ÷ 24 kN, with step of 1 kN
<b>(6) Special accessories</b>	blank = no accessories <b>S</b> = extra bar spacer (*)
<b>(7) Insulating cup material</b>	<b>0</b> = standart PPO insulating cup <b>H</b> high temperature PPS insulating cup
<b>(8) Bolt steel type</b>	<b>0</b> = standard 8.8 steel bolts <b>X</b> = A2 stainless steel bolts (**)
<b>(9)-(10) Bars thickness</b>	<b>00</b> = standart bars thickness (20 mm) <b>L0</b> = low preofile bars thickness ( 15 mm) <b>01</b> = load bar (20 mm)- reaction bar (15 mm) <b>0F</b> = load bar (20 mm)- reaction bar (15 mm) with 5.5 mm aux holes <b>LF</b> = load bar (15 mm)- reaction bar (15 mm) with 5.5 mm aux holes



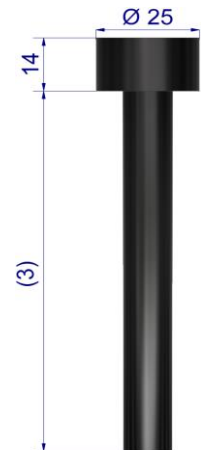
**S**: Total thickness of the assembly to be clamped  
**D max** : Max inner diameter allowable

(\*) Needed to reduce  $S_{Min}$  if a lower allowed clearance is required

(\*\*) Suggested for high current applications, magnetic sensitive applications or any application working in very high E.M. fields

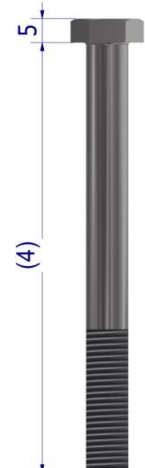
Type GC102BN...F: suggested insulator/bolt types

Allowed clearance S		Insulator choice		Bolt choice		Max height
$S_{Min}$ [mm]	$S_{Max}$ [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
2	16	Z	34	U	70	92
7	21	Z	34	V	75	97
12	26	A	50	W	80	102
22	36	A	50	Y	90	112
32	46	B	70	Z	100	122
42	56	B	70	A	110	132
52	66	B	70	B	120	142
56	76	C	95	C	130	158
66	86	C	95	D	140	168
76	96	C	95	E	150	178
86	106	D	120	F	160	188
96	116	D	120	G	170	198



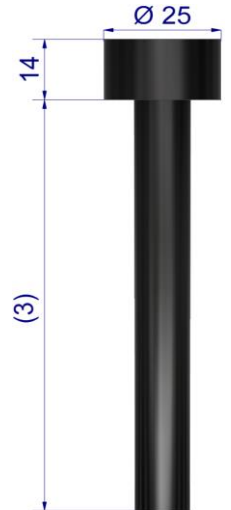
Type GC102BR...F: suggested insulator/bolt types

Allowed clearance S		Insulator choice		Bolt choice		Max height
$S_{Min}$ [mm]	$S_{Max}$ [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
2	16	Z	34	U	70	104
7	21	Z	34	V	75	109
12	26	A	50	W	80	114
22	36	A	50	Y	90	124
32	46	A	50	Z	100	134
42	56	B	70	A	110	144
52	66	B	70	B	120	154
56	76	C	95	C	130	164
66	86	C	95	D	140	174
76	96	C	95	E	150	184
86	106	D	120	F	160	194
96	116	D	120	G	170	204



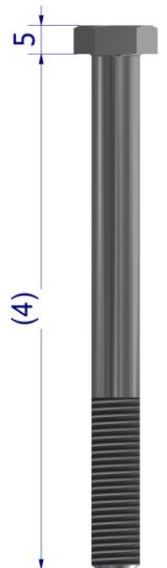
Type GC102SN...F: suggested insulator/bolt types

Allowed clearance S		Insulator choice		Bolt choice		Max height
S <sub>Min</sub> [mm]	S <sub>Max</sub> [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
2	16	Z	34	U	70	78
7	21	Z	34	V	75	83
12	26	A	50	W	80	88
22	36	A	50	Y	90	98
32	46	B	70	Z	100	108
42	56	B	70	A	110	118
52	66	B	70	B	120	128
56	76	C	95	C	130	138
66	86	C	95	D	140	148
76	96	C	95	E	150	158
86	106	D	120	F	160	168
96	116	D	120	G	170	178

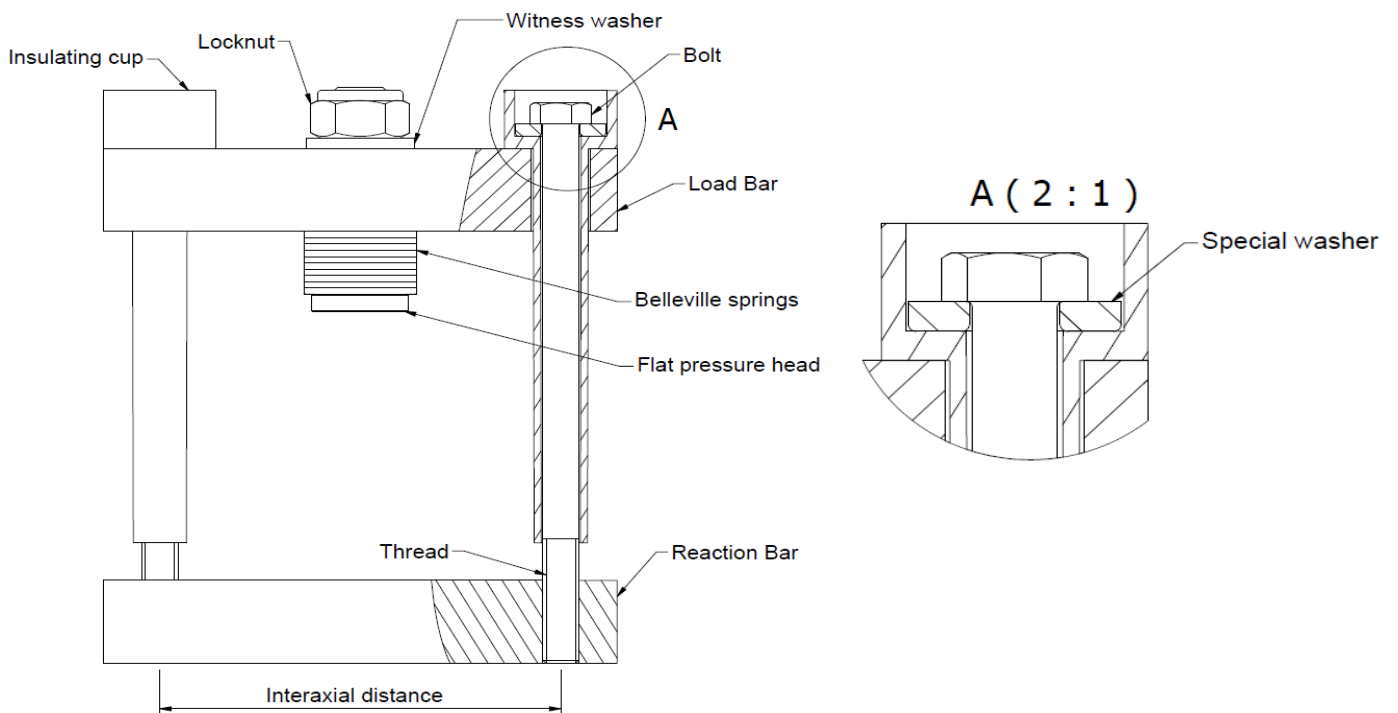


Type GC102SR...F: suggested insulator/bolt types

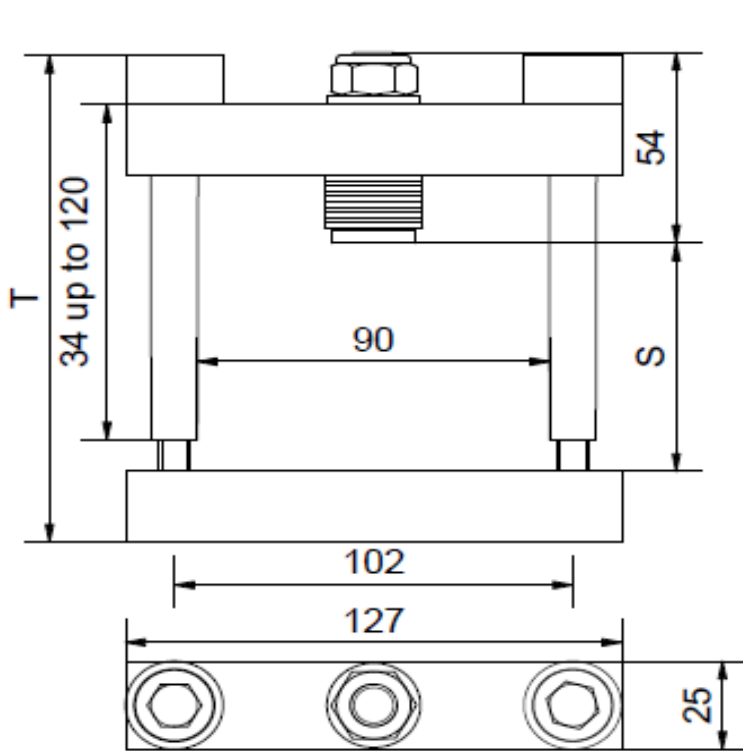
Allowed clearance S		Insulator choice		Bolt choice		Max height
S <sub>Min</sub> [mm]	S <sub>Max</sub> [mm]	(3)	Ins. Length [mm]	(4)	Bolt Length [mm]	T [mm]
22	36	Z	34	U	70	104
27	41	Z	34	V	75	109
32	46	A	50	W	80	114
42	56	A	50	Y	90	124
52	66	B	70	Z	100	134
62	76	B	70	A	110	144
72	86	B	70	B	120	154
76	96	C	95	C	130	164
86	106	C	95	D	140	174
96	116	C	95	E	150	184
106	126	D	120	F	160	194
116	136	D	120	G	170	204



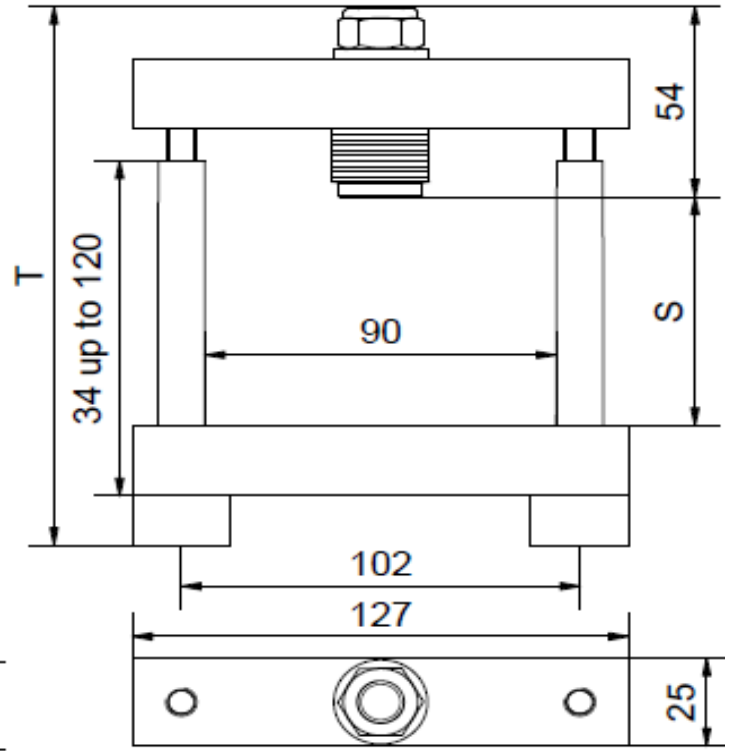
BAR CLAMP COMPONENTS LEGEND



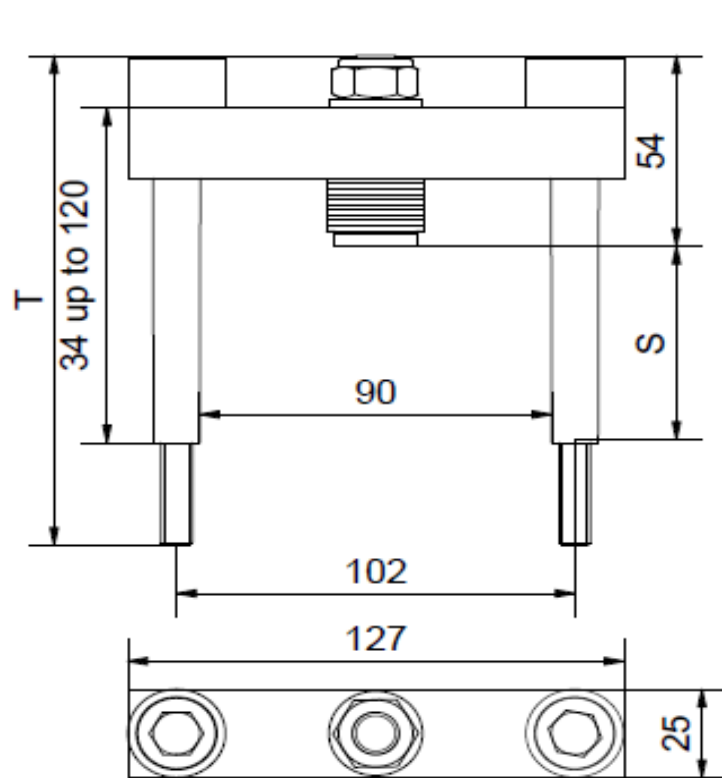
BAR CLAMP OUTLINES



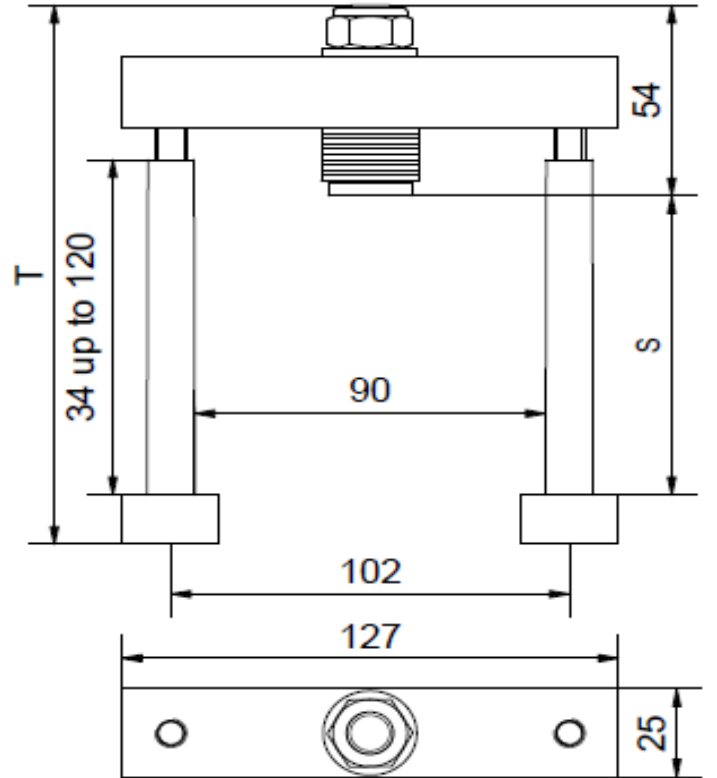
GC102BN...F



GC102BR...F



GC102SN...F

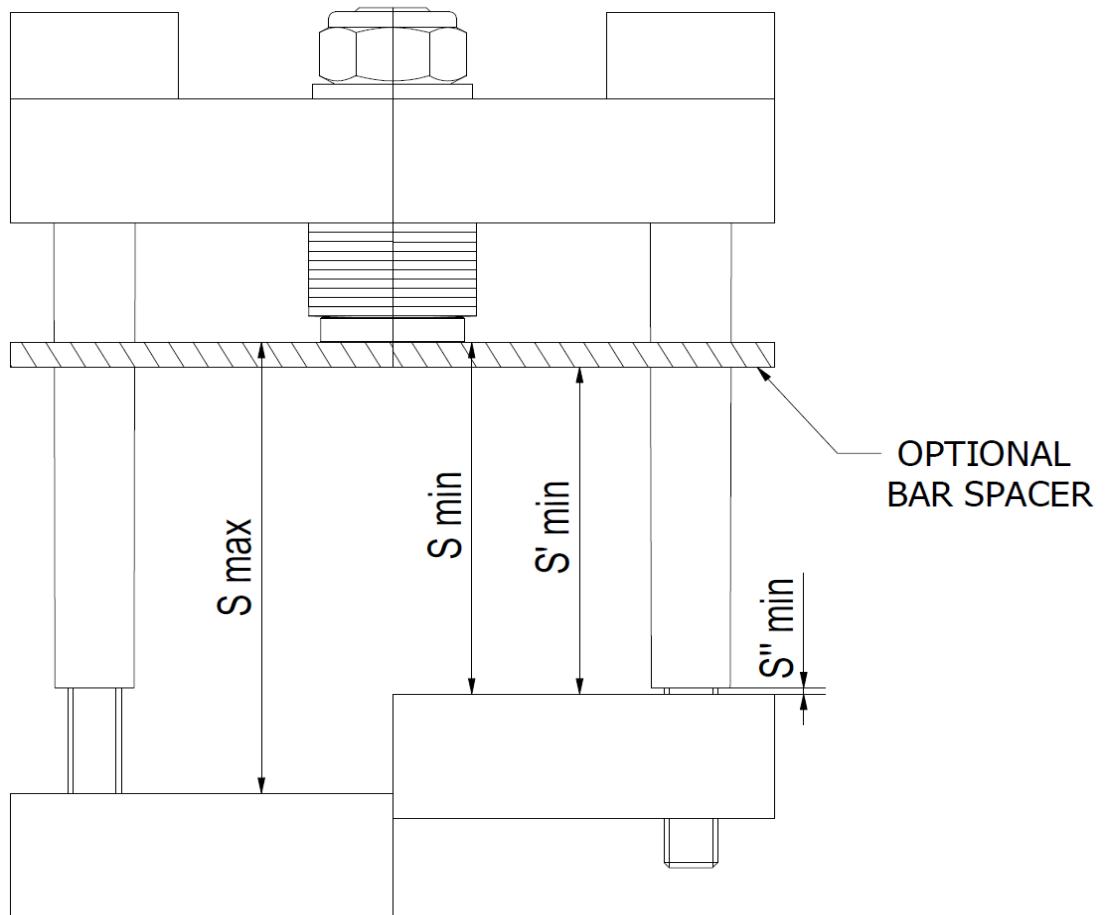


GC102SR...F

Dimensions in mm - Tolerances according to ISO 2768 MK

Step files of clamp structures may be downloaded at [www.gpsemi.it/stepfiles/GC102\\_F\(file step\).zip](http://www.gpsemi.it/stepfiles/GC102_F(file step).zip) or using this QR



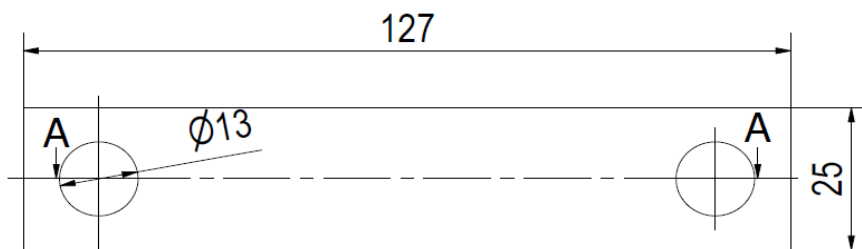


S''\_min = 1 mm (minimum clearance between insulator and reaction bar)

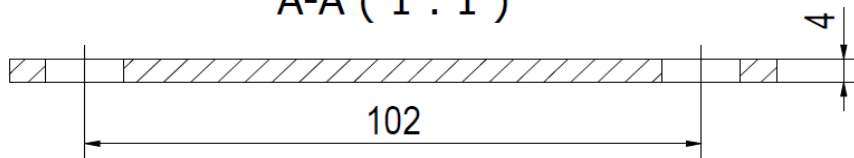
**SPECIAL ACCESSORIES**

The following special accessories are available on request (see ordering information table)

**Bar spacer**



**A-A ( 1 : 1 )**



**Dimensions in mm - Tolerances according to ISO 2768 MK**

In the interest of product improvement Green Power Solutions reserves the right to change any specification given in this data sheet without notice.