

Gas Springs/Mounting Brackets for Gas Springs

Mounting Orientation Limited Type

Gas Springs

Use within this range 30°
60°

Please mount the rod facing downward.

GSS

Material Cylinder : STKM12BEC (Carbon Steel Hollows for Machine Structural Use)
Rod : S35C
Bushing : Polyacetal Resin (White)
Gas : Nitrogen Gas (N2)

Surface Treatment Cylinder : Baked Paint (Black Matt)
Rod : Gas Soft Nitriding Treatment

Twisted Angle ±5° or Less

Operating Temperature: -20 ~ 60°C

RoHS10

Part Number	Type	No.	Max. Length (Lmax)	Min. Length (Lmin)	Stroke	Gas Reaction Force (20°C)				A	B	C1	C2	D	G	H	Applicable Mounting Bracket	Weight (g)	Unit Price			
						Max. Length -10mm		Max. Length-(S)mm														
						N	kgf	N	kgf											(S)		
15050A	GSS	15050A	181.0	131.0	50.0	27	2.8	32	3.4	15	6	15	15	6.5	R8	110	GSSB6A	75				
15050B		85				8.7	102	10.4														
15050C		147				15.0	175	17.9														
15050D		186				19.0	222	22.7														
15050E		206				21.0	245	25.0														
15070A		81	8.3	102	10.4	60																
15070B		119	12.1	124	12.7	41.5																
15070C		196	20.0	245	25.0	60																
15090A		69	7.0	89	9.1	80																
15090B		79	8.1	103	10.5																	
15090C		88	9.0	115	11.7																	
15090D		147	15.0	191	19.5																	
15090E		196	20.0	254	25.9																	
15100A		76	7.8	103	10.5	18	8													R10	161	170
15100K		110	11.2	147	15.0																	
15100B	196	20.0	257	26.2	120																	
18090A	261.0	171.0	90.0	263	26.8					343	35.0	80	151	120								
18100A	281.0	181.0	100.0	324	33.1					428	43.7	90	161	120								
22080K	116	11.8	142	14.5	171					17.8	20.5	21.5	178	195								
22080A	196	20.0	237	24.2	169.5					186	19.5	206	300									
22080B	246	25.1	299	30.5	186					279	28.5	372	38.0	125								
22096A	306.0	210.0	96.0	392	40.0					494	50.4	86	241	265								
22142A	472.0	330.0	142.0	279	28.5					372	38.0	125	286	310								
22147A	147	15.0	194	19.8	130					240	24.5	314	32.0	310								
22147B	240	24.5	314	32.0	140					343	35.0	408	41.6	460								
22150A	464.0	314.0	150.0	587	59.9					799	81.5	179	320.5	370								
22210A	567.0	356.5	210.5	667	68.1					908	92.7	206	360	430								
22235A	22	580.0	344.5	235.5	129					13.2	195	19.9	206	376	500							
22235B					248	25.3	314	32.0	208	R10	372											
22235C					343	35.0	435	44.4	206			376										
22235D					507	51.7	642	65.5	215				376									
22243A					196	20.0	301	30.7	215							380						
22243B		433	44.2	657	67.0	197	376															
22253A		311	31.7	367	37.4	197		376														
22270K		127	13.0	190	19.4	290			376													
22270A		343	35.0	497	50.7	275											452					
22270L		406	41.4	588	60.0	240												500				
22270B		507	51.7	739	75.4	240													500			
22270C		596	60.8	868	88.6	290														525		
22270D		755	77.0	1104	112.7	290															620	
22300K		596	60.8	966	98.6	290																530
22300A		745	76.0	1160	118.4	275																
22300B	850	86.7	1320	134.7	305																	
22315A	795.0	480.0	315.0	833	85.0	1220				124.5	305											
22356A	833.0	476.5	356.5	216	22.0	288				29.4	350											
22356B				345	35.2	460				46.9	350											

Mounting Brackets for Gas Springs (Washer 1 pc. and Retaining Ring 1 pc. included)

RoHS10

GSSB6A

Material Bracket : SUS430
Pin : S35C
Washers : SPHC
Retaining Ring : SK5

Surface Treatment: Trivalent Chromate Plating

Part Number	Mass (g)	Unit Price
GSSB 6A	20	

GSSB8A

Material Bracket : SPHC
Pin : SWRCH
Washers : SPHC
Retaining Ring : SK5

Surface Treatment: Trivalent Chromate Plating

Part Number	Mass (g)	Unit Price
GSSB 8A	60	

GSSB8B

Material Bracket : SPHC
Pin : SWRCH
Washers : SPHC
Retaining Ring : SK5

Surface Treatment: Trivalent Chromate Plating

Part Number	Mass (g)	Unit Price
GSSB 8B	60	

GSSB8C

Material Bracket : SPHC
Pin : SWRCH
Washers : SPHC
Retaining Ring : SK5

Surface Treatment: Trivalent Chromate Plating

Part Number	Mass (g)	Unit Price
GSSB 8C	60	

GSSB8D

Material Bracket : SPHC
Pin : SWRCH
Washers : SPHC
Retaining Ring : SK5

Surface Treatment: Trivalent Chromate Plating

Part Number	Mass (g)	Unit Price
GSSB 8D	60	

GSSB8E

Material Bracket : SPHC
Pin : SWRCH
Washers : SPHC
Retaining Ring : SK5

Surface Treatment: Trivalent Chromate Plating

Part Number	Mass (g)	Unit Price
GSSB 8E	60	

Ordering Example **Part Number**
GSS15050B

Gas Springs/Stainless Steel Gas Springs

Gas Reaction Force Configurable Type

Gas Springs

Usable at any angle.

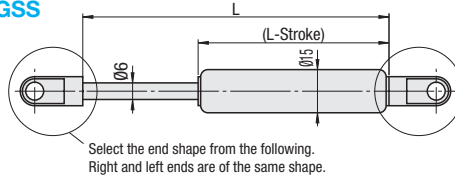
360° 360°

*Though usable at any angle, rod facing downward is recommended.

Operating Temperature : -20 ~ 80°C

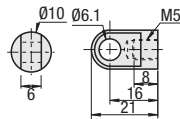
RoHS10

HFGSS

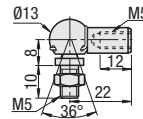


Tip

A



B



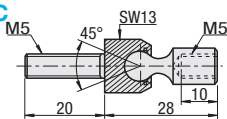
Material

Rod : Alloy Tool Steel (SKS Equivalent)
Main Body : Carbon Steel Tube for Pressure Service (STPG)
(DIN Standards: St37-2)
Clevis : Rolled Steel for General Structure (SS Equivalent)
Gas : Nitrogen Gas
Tip : Rolled Steel for General Structure (SS Equivalent)

Surface Treatment

Rod : Ceramic Coating
Main Body : Black Paint
Clevis : Zinc Galvanizing
Tip : Zinc Galvanizing

C



Part Number	Gas Reaction Force		Lmax	Gas Reaction Force	Weight	Unit Price								
	Type	Stroke				Change Rate	Tip Shape A	Tip Shape B	Tip Shape C					
HFGSS	A	40	20~400	126%	49									
		50												
		60												
	B	80												
		100												
		120												
	C	150							10N Increment	128%	113			
		266												
	326													



Ordering Example

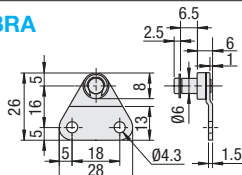
Part Number

Type - Tip Shape Stroke - N

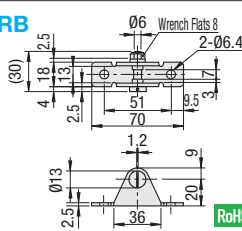
HFGSS - A 60 - N300

Brackets for HFGSS

HFBRA



HFBRB



Part Number	Mass (g)	Unit Price
HFBRA	10	
HFBRB	55	



Ordering Example

Part Number

HFBRA

$$\text{Kgf (Load)} = \text{Nx}0.101972$$

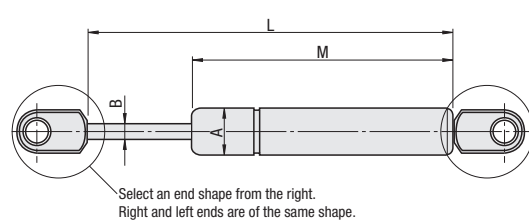
Stainless Steel Gas Springs

Use Within this range.

60° 60°

RoHS10

FRGSS

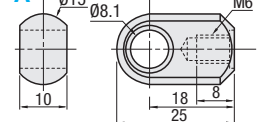


Operating Temperature : -30°C ~ 80°C
Operating Range : Within 60° with rod facing downward

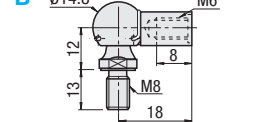
Material Cylinder : DIN EN 10088-1 (SUS304 Equivalent)
Rod : DIN EN 10088-1 (SUS304 Equivalent)
Gas : Nitrogen Gas
Tip : SUS304 Equivalent

Tip

A



B



*M8 thread can tilt 10° from the center.

Part Number	Gas Reaction Force		Lmax	M	A	B	Weight	Unit Price	
	Type	Stroke						Change Rate	Tip Shape A
FRGSS	A	100 (10.2kgf)	171	104.5			140		
		125 (12.8kgf)							
		150 (15.3kgf)							
		200 (20.4kgf)							
		100 (10.2kgf)							
		150 (15.3kgf)							
	B	200 (20.4kgf)	211	126.5	18	8	190		
		300 (30.6kgf)							
		100 (10.2kgf)							
		200 (20.4kgf)							
		300 (30.6kgf)							
		400 (40.8kgf)							

* Example of Gas Reaction Calculation

Specified Gas Reaction Force Max. Length-5mm (Lmax-5)	Min. Length +5mm (Lmax-Stroke+5)
100N	134N

Gas reaction force change rate is 34% regardless of its stroke.

$$\text{Kgf (Load)} = \text{Nx}0.101972$$



Ordering Example

Part Number

Type - Tip Shape Stroke - N

FRGSS - A 60 - 100