



## Model FG115

### APPLICATIONS:

Enable motion and guidance along a linear rail. Ideal for harsh environments, corrosion and vibration resistant. Used in automation and motion control.

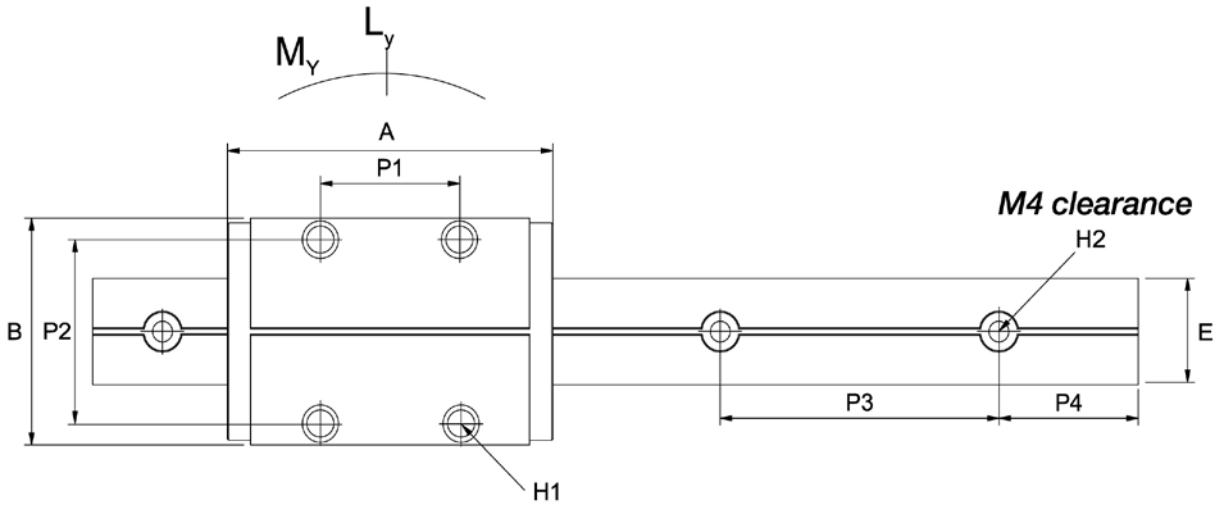
## Model FG115

Linear Friction Guide

Aluminum Rail

Aluminum Carriages

900 lbf [4,000N] Max. Load

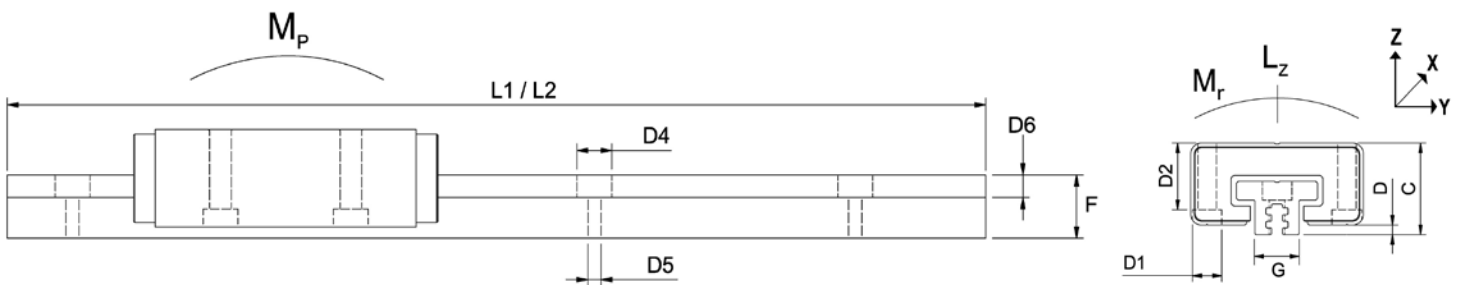


**\*M5 Tapp / M4 clearance**

### Carriage Dimensions [mm/inch]

	A	B	C	D	P1	P2	H1*	D1	D2
Metric (mm)	70	47	24	2.5	30	38	M5	8	17.5
Imperial (inch)	2.76"	1.85"	0.94"	0.10"	1.18"	1.50"	-	0.31"	0.69"

\*Carriage holes are tapped for M5 hardware. Hole clearance allows for M4 or #8 hardware.



### Rail Dimensions [mm/inch]

	E	F	G	L1	L2	P3	P4	H2	D4	D5	D6	
Metric (mm)	22	14	12	1000	2000	60	20	40	M4**	8	4.3	5
Imperial (inch)	0.87"	0.55"	0.47"	39.37"	78.74"	2.36"	0.79"	1.57"	#8	0.31"	0.17"	0.197"

\*\*Rail fixing hole clearance allows for M4 or #8 hardware with head width of 0.31" and height of 0.197".

### Technical Data

	Static Load			Static Moments			Temp Range	
	L <sub>y</sub>	L <sub>z</sub>	-L <sub>z</sub>	M <sub>y</sub>	M <sub>r</sub>	M <sub>p</sub>	Min	Max
Metric (mm)	2 kN	4 kN	4 kN	10 Nm	10 Nm	10 Nm	-10C	+90C
Imperial (inch)	450 lbf	900 lbf	900 lbf	88.5 in-lbs	88.5 in-lbs	88.5 in-lbs	14F	194F

<b>Rail</b>	Aluminum 6063 –T6
<b>Carriage Chassis</b>	Hard Anodized
<b>Friction Elements</b>	Advanced Technical Polymer
<b>Polymer Elements</b>	Acetyl
<b>Metal Components</b>	Stainless Steel/Leaded Brass

Rail length: 39.37" & 78.74" [1m and 2m]  
 Predrilled holes-according to ISO 12090  
 Mount: Side, flat, vertical  
 Hardware: M5 Tapped/M4 Clearance (not provided)

Max. Load Rating: 900 lbf [4000N]  
 Deviation: .039" [1mm]  
 Lubrication: 100% self-lubricated

**Carriage Types**



**Non-Adjust**  
 The non-adjustable carriage does not offer adjustment of the movement or clearances.



**Manual Adjust**  
 The manual adjust carriage can be fine tuned with an allen key to set the perfect clearance or preload for your application.



**Auto Adjust**  
 The auto adjust carriage offers constant preload force that will continue to operate throughout the life of the product.

Description	<i>Non-Adjust Carriage</i>	<i>Manual Adjust Carriage</i>	<i>Auto Adjust Carriage</i>
<b>Model Number</b>	FG115-CASSNA	FG115-CASSMA	FG115-CASSAA
<b>Size</b>	ISO Standard 12090		
<b>Friction Element</b>	Advanced Technical Polymer		
<b>Clearance</b>	± .005" [0.125mm] (Y & Z)	Adjustable ± .012" [0.30mm] (Y) ± .010" [0.25mm] (Z)	N/A
<b>Preload</b>	N/A	Adjustable up to 6.74 lbf [30N]	1.01 lbf (± .2 lbf) [4.5N (± 1N)]
<b>Accuracy</b>	± .018" [0.45mm] (Y) ± .019" [0.475mm] (Z)	± .027" [0.675mm] (Y) ± .030" [0.75mm] (Z)	± .027" [0.675mm] (Y) ± .030" [0.75mm] (Z)
<b>Weight</b>	3.25oz [92g]	3.49oz [99g]	3.39oz [96g]

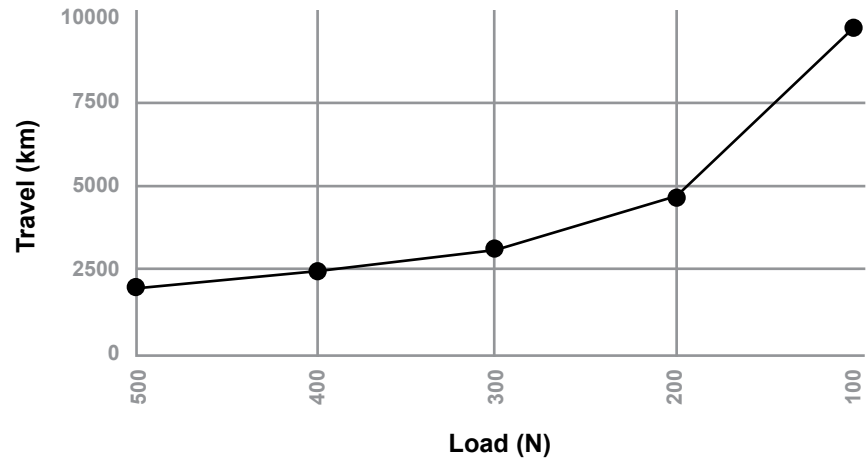
**Ultra Low Wear**

Wear is measured by total travel distance.

Data taken under constant speed of 1m/s and at ambient temp of 20°C.

Off center loads will apply additional wear.

Environment, temperature, and speed can affect performance. Please test products to your specific requirements.



Travel rating based on a single carriage.

**Installation****Rail:**

1. Cut rail to the determined length, or butt multiple rails together for a longer span (misalignment will result in excessive wear).
2. Using the predrilled holes secure rail using M5 Tapped / M4 Clearance (not provided).

**Note:** For optimal performance use all fixing holes.

**Carriages:** Use one or multiple carriages.

Non-Adjust (FG115-CASSNA): Tension between the rail and the carriage can't be adjusted.

Manual Adjust (FG115-CASSMA): Tension between the rail and the carriage can be manually adjusted by via a standard allen wrench (not provided).

Auto Adjust (FG115-CASSAA): Tension between the rail and the carriage is preset via plastic pins (included). Internal springs provide constant and consistent tension.

**Misalignment with Multiple Tracks**

It is recommended to use Non-Adjust Carriages on one side of a parallel track system to compensate for any potential misalignments. The free floating Non-Adjust Carriage will act as a guide.

Rail and carriages are packaged and sold singly.  
Fasteners and technical sheets are not included.

Auto Adjust Carriage includes spring load tool pins  
required for installation.

### Components

FG115-0100T:	39.37" [1m] Aluminum Rail
FG115-0200T:	78.74" [2m] Aluminum Rail
FG115-CASSNA:	Carriage – Non-Adjust
FG115-CASSMA:	Carriage – Manual Adjust
FG115-CASSAA:	Carriage – Auto Adjust

### Order Example

Complete your Friction Guide order by specifying the following:

	<b>QTY</b>	<b>P/N</b>	<b>Length</b>
Total Rails	10 ea	FG115-0100T	39.37"
<b>Total</b>	<b>QTY</b>	<b>P/N</b>	<b>Type</b>
Carriages	20 ea	FG115-CASSAA	Auto-Adjust

**NOTE:** Specifications, materials, prices, terms, and delivery are subject to change without notice.

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