



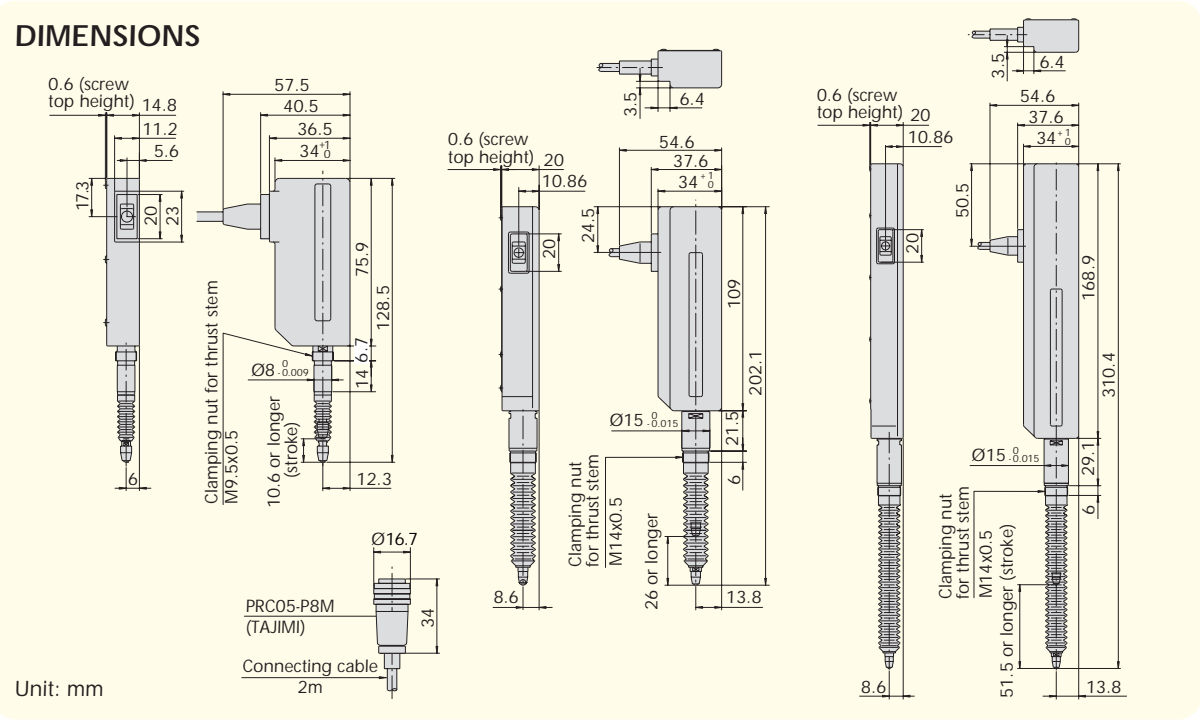
LGF Series Linear Gages

WITH SCALE REFERENCE POINT

For Easy Resetting of Origin/Datum Position



DIMENSIONS



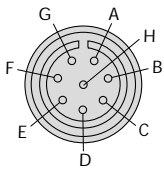
SPECIFICATIONS

Order No.	542-124	542-134	542-125	542-135	542-126	542-136
Resolution	0.001mm/.000050"	0.0005mm/.000005"	0.001mm/.000050"	0.0005mm/.000005"	0.001mm/.000050"	0.0005mm/.000005"
Measuring range	10mm		25mm		50mm	
Accuracy (20°C)	(1.5+L/50)µm (L=mm)					
Measuring force	Upward (♀)	1.2N or less		4.6N or less		5.7N or less
	Horizontal (↔)	1.1N or less		4.3N or less		5.3N or less
	Downward (♂)	1.0N or less		4.0N or less		4.9N or less
Dust/water protection*1	IP-66 equivalent					
Contact point	Ø3mm carbide (mounting threads: M2.5 (P=0.45) X 5mm) 901312					
Stem diameter	Ø8mm		Ø15mm			
Bearing type	Stroke ball bearing					
Position-detection method	Transmission-type photoelectric linear encoder					
Scale reference point	Approx. 3mm from the lower stroke end			Approx. 5mm from the lower stroke end		
Repeatability (reference point, 20°C)	σ≤0.5µm (moving to the same direction at the constant speed of less than 300mm/s)					
Response speed*2	1500mm/sec					
Output signal	90° phase difference, differential square wave (RS-422A equivalent); minimum edge intervals 500ns for 1µm model, 250ns for 0.5µm model					
Signal pitch	4µm	2µm	4µm	2µm	4µm	2µm
Cable length	2m					
Power supply	Supply voltage +5V (4.8V to 5.2V), ripple voltage 200mVp-p max.					
Power consumption	Max. 120mA					
Operating environment	0°C to 40°C (20%RH to 80%RH, without condensation)					
Mass	250g/.55 lbs.		290g/.64 lbs.		380g/.84 lbs.	
Applicable counter	EF-11ZR, EF-12ZR, EV-16Z, EB-11Z					
Standard accessories	Wrench for contact point (538610)			Wrench for contact point (210187)		

*1: The IP value is a standard indicating the degree of protection against solid foreign matter and water. Note that the standard may not apply to certain types of liquids.
 *2: An alarm signal is output when the spindle's movement speed reaches 1500mm/s. Contact us regarding the use of alarm-signal output. When the **542-136** or **542-126** is used, releasing the contact point after pushing it in may cause an overspeed error depending on the extent to which the contact point is pushed inward.

SIGNAL OUTPUT SPECIFICATIONS

- * Used receptacle: PRC05-P8N (TAJIMI)
- * Pin assignment:



Pin No.	Signal
A	+5V
B	GND
C	ØA
D	ØA
E	ØB
F	ØB
G	ØZ
H	N.C.

Gage power supply
 Source voltage: 5V (4.8V - 5.2V)
 Ripple voltage: less than 200mVp-p
 Power consumption: 120mA

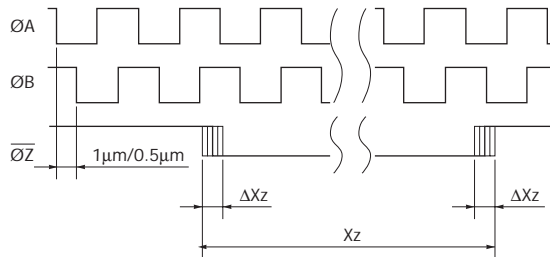
- * I/O signal level: ØA, ØA, ØB, ØB, ØZ (TTL line driver AM26LS31 or equivalent)

- * Output signal timing chart:

ΔXz repeatability of reference point positioning* (edge detection): σ=0.5µm

*Must be detected in the same direction at less than 300mm/sec. of travel speed. If it is detected in the both directions, the repeatability will be lowered by Xz (hysteresis error)

Xz reference point signal width: Approx. 40µm to 60µm



OPTIONAL ACCESSORIES

Order No.	Description
542-065	EF-11ZR counter (1-axis)
542-066	EF-12ZR counter (2-axis)
542-067	EV-16Z
542-094	EB-11Z counter (1-axis)
02ADF260	Extension cable (5m/16.4 feet)
02ADF280	Extension cable (10m/32.8 feet)
02ADF300	Extension cable (20m/65.6 feet)
02ADE230	Air lifter 10 (for 10mm range model)
02ADE250	Air lifter 25 (for 25mm range model)
02ADE270	Air lifter 50 (for 50mm range model)
238772	10mm rubber boot (spare)
962504	25mm rubber boot (spare)
962505	50mm rubber boot (spare)
206983	.375" stem collar for 8mm stem
02ADB680	Thrust stem set (for 10mm range model)
02ADB690	Thrust stem set (for 25mm/50mm range model)

Specifications are subject to change without notice.



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