

Linear Gage LGF

SERIES 542 — 0.1μm, 0.5μm or 1μm Reading

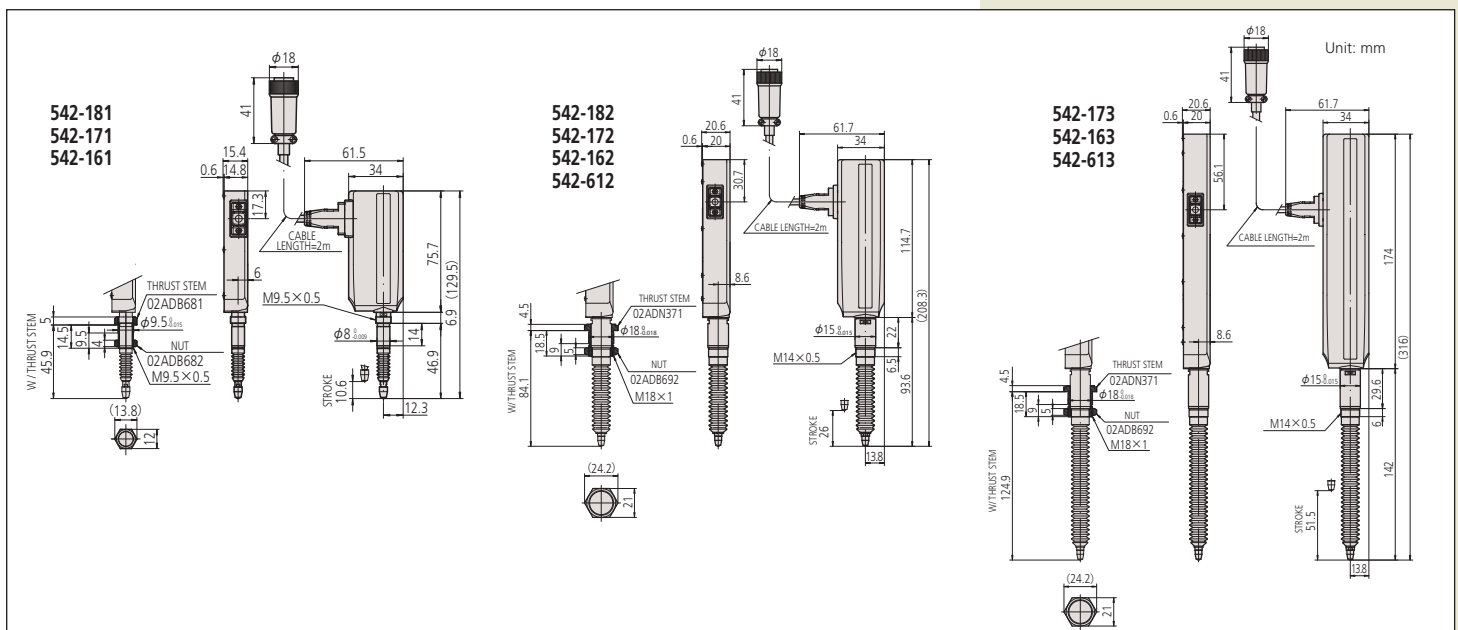


SPECIFICATIONS

Range	Order No.	Resolution	Accuracy*	Measuring force**	Stem dia.	Remarks
10mm (.4")	542-181	0.0001mm	(0.8+L/50)μm	1.2N / 1.1N / 1.0N	8mm	—
10mm (.4")	542-171	0.0005mm	(1.5+L/50)μm	1.2N / 1.1N / 1.0N	8mm	—
10mm (.4")	542-161	0.001mm	(1.5+L/50)μm	1.2N / 1.1N / 1.0N	8mm	—
25mm (1")	542-182	0.0001mm	(0.8+L/50)μm	4.6N / 4.3N / 4.0N	15mm	—
25mm (1")	542-172	0.0005mm	(1.5+L/50)μm	4.6N / 4.3N / 4.0N	15mm	—
25mm (1")	542-162	0.001mm	(1.5+L/50)μm	4.6N / 4.3N / 4.0N	15mm	—
25mm (1")	542-612	0.005mm	(7.5+L/50)μm	4.6N / 4.3N / 4.0N	15mm	—
50mm (2")	542-173	0.0005mm	(1.5+L/50)μm	5.7N / 5.3N / 4.9N	15mm	—
50mm (2")	542-163	0.001mm	(1.5+L/50)μm	5.7N / 5.3N / 4.9N	15mm	—
50mm (2")	542-613	0.005mm	(7.5+L/50)μm	5.7N / 5.3N / 4.9N	15mm	—

*L = Measured length (mm) **Posture of gage: Upward (◊) / Horizontal (+○, ○+) / Downward (◊)

DIMENSIONS AND MASS



Technical Data

Accuracy: Refer to the list of specifications
 Resolution: 1μm, 0.5μm or 0.1μm
 Inch Resolution: Refer to the applicable counters
 Length standard: Photoelectric linear encoder
 Max. response speed: 1500mm/s, (400mm/s: 542-181, 542-182)
 Contact point: ø3mm carbide
 Stem: ø8mm or ø15mm
 Bearing type: Stroke ball bearing
 Measuring force: Refer to the list of specifications
 Output signal: 90° phase difference, differential square wave (RS-422A equivalent)
 Signal pitch: 4μm (542-161, 542-162, 542-163), 2μm (542-171, 542-172, 542-173) or 0.4μm (542-181, 542-182)
 Cable length: 80"/2m
 Dust/Water protection level: IP66

Applicable Counters

EH counter (542-075A, 542-071A)
 EG counter (542-015)
 EB counter (542-092-2)
 EV counter (542-063)

Optional Accessories

238772: Rubber boot (10mm)
 962504: Rubber boot (25mm)
 962505: Rubber boot (50mm)
 902434: Extension cable (5m*)
 902433: Extension cable (10m*)
 902432: Extension cable (20m*)
 02ADB680: Thrust stem set (for 10mm range models)
 02ADB690: Thrust stem set (for 25, 50mm range models)
 02ADE230: Air lifting units (10mm range)
 02ADE250: Air lifting units (25mm range)
 02ADE270: Air lifting units (50mm range)
 *not available for 542-181 and 542-182