Linear Gage LGF-Z with reference point

Series 542

- Economical design. Due to the advanced construction of the plunger guidance assembly the LGF is very resistant to external shocks and vibration.
- IP-66 protection class.
- Differential square-wave signal output for a wide range of applications.
- Very long life due to linear ball-bearings in the spindl unit.
- Scale with Origin Point mark.

Specifications

Scale type	Photoelectric linear encoder
Contact point	Ø3 mm carbide (mounting threads M 2,5 x 0,45)
Bearing type	Linear ball bearing
Output signal	90° phase difference, differential square wave (RS-422A equivalent), edge distance 200 ns for 1 µm model, 250 ns for 0.5 µm model, 200 mV p-p max.
Max. response speed (mm/s)	1500 mm/s
Cable length	2 m
Power supply	+ 5 V (4.8 V to 5.2 V), 120 mA max.
Environmental conditions	0 °C to 40 °C (20 % to 80 % rel. humidity, no condensation)

Standard accessories

No.	Description
538610	Wrench for contact point (for 10 mm range models)
04GAA857	Wrench for contact point (for 25/50 mm range models)

Optional accessories

No.	Description
Extension cable	
02ADF260	Extension cable (5 m)
02ADF280	Extension cable (10 m)
02ADF300	Extension cable (20 m)
Fixing set	
02ADB680	Fixing set Ø 9,5 mm (for 10 mm models)
02ADB690	Fixing set Ø 18 mm for 25/50 mm type
Pneumatic drive	
02ADE230	Pneumatic drive CAP 10 mm
02ADE250	Pneumatic drive CAP 25 mm
02ADE270	Pneumatic drive CAP 50 mm
Thrust stem	
02ADB683	Thrust stem wrench (for 10 mm range models)
02ADB693	Thrust stem wrench (for 25/50 mm range models)

Consumable spares

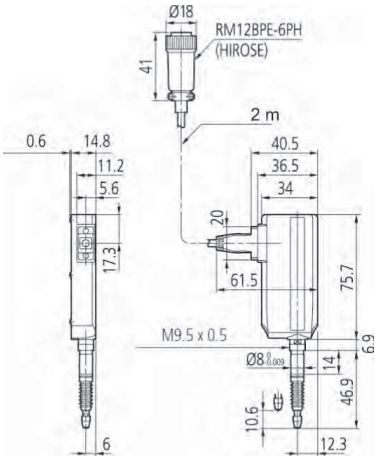
No.	Description
901312	Standard contact point
238772	10 mm rubber boot
962504	25 mm rubber boot
962505	50 mm rubber boot

Refer to the Linear Gauge documentation for more details

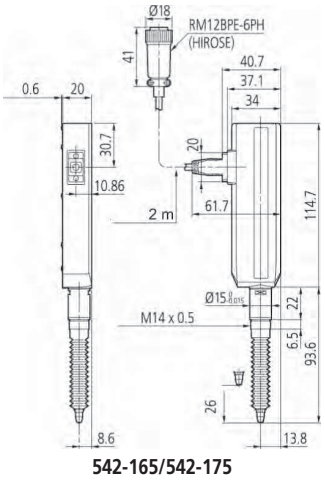
542-164

No.	Range	Resolution mm	Accuracy (20°C)	Measuring force *1	Stem diameter	Signal pitch µm	Mass g
542-174*	0 - 10 mm	0,0005 mm	(1,5 + L/50)µm	1.2 N/1.1 N/1.0 N	8 mm	2 µm	260
542-164	0 - 10 mm	0,001 mm	(1,5 + L/50) µm	1.2 N/1.1 N/1.0 N	8 mm	4	260
542-175*	0 - 25 mm	0,0005 mm	(1,5 + L/50) µm	4.6 N/4.3 N/4.0 N	15 mm	2	300
542-165	0 - 25 mm	0,001 mm	(1,5 + L/50) µm	4.6 N/4.3 N/4.0 N	15 mm	4	300
542-176*	0 - 50 mm	0,0005 mm	(1,5 + L/50) µm	5.7 N/5.3 N/4.9 N	15 mm	2	400
542-166	0 - 50 mm	0,001 mm	(1,5 + L/50) µm	5.7 N/5.3 N/4.9 N	15 mm	4	400

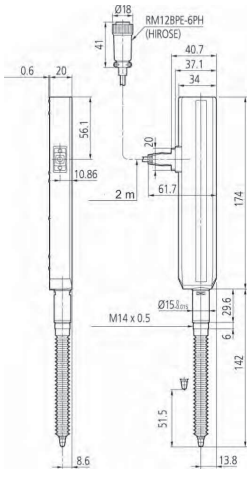
*1 Spindle DOWN/Horizontal/Spindle UP



542-164/542-174
10 mm



542-165/542-175
25 mm



542-166/542-176
50 mm