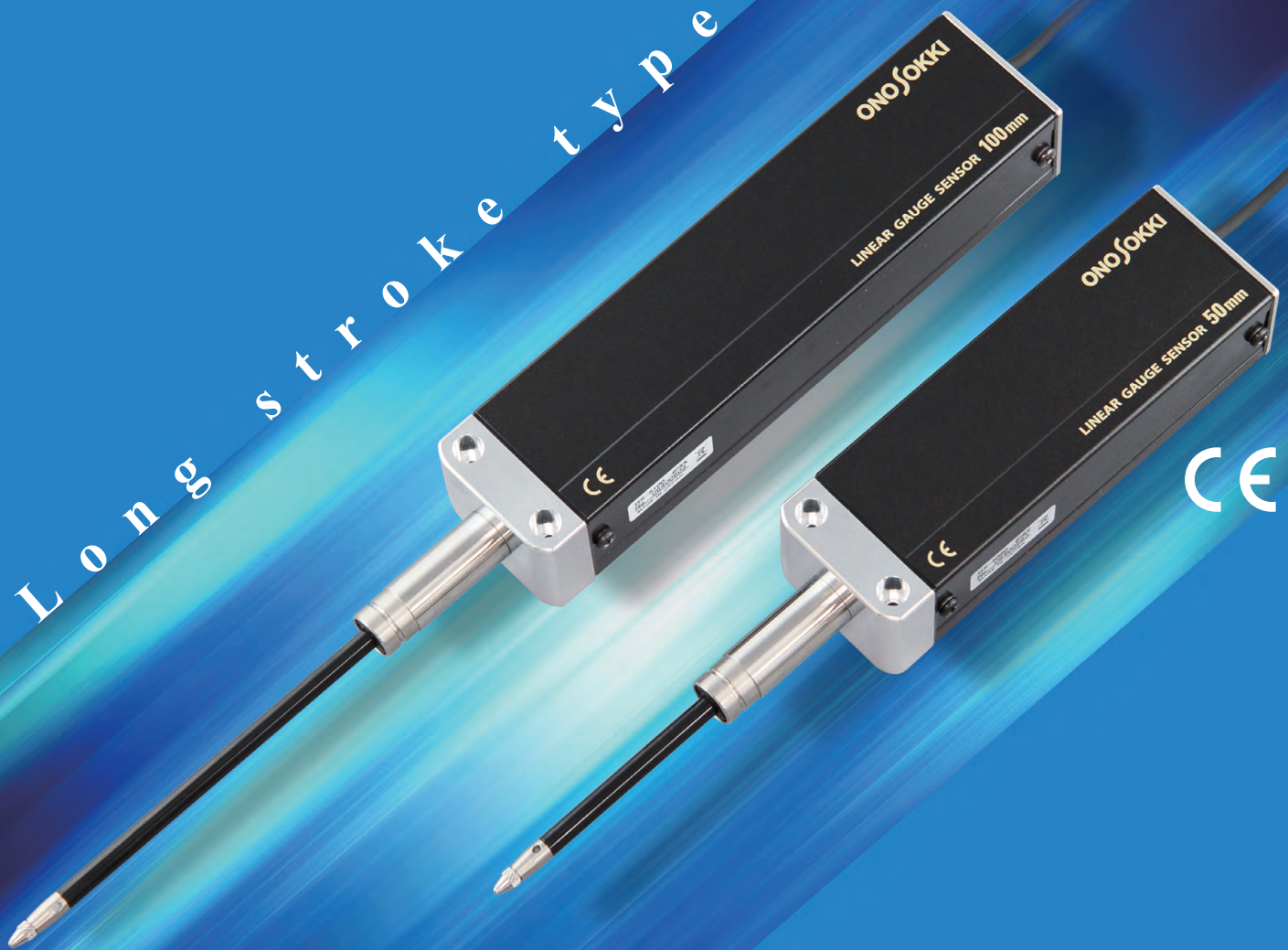


Long stroke type Linear Gauge Sensor

GS-5050/5100 (10 μ m resolution)

GS-5051/5101 (1 μ m resolution)

Long stroke type



The GS-5050 and GS-5100 series are long stroke type linear gauge sensors designed to be shock/vibration resistant structures. They are suitable for measuring displacement of large structure, such as load-strength of construction or automobile outer frame. Since the resolution of either 1 μ m or 10 μ m can be selected in accordance with the measurement application, the GS-5050 and GS-5100 series are available for wide range of applications in production line. All models are compatible with our the DG-4000 series of digital gauge counters which have comparator, offset, peak hold, multiplying, and other functions depending on the model.

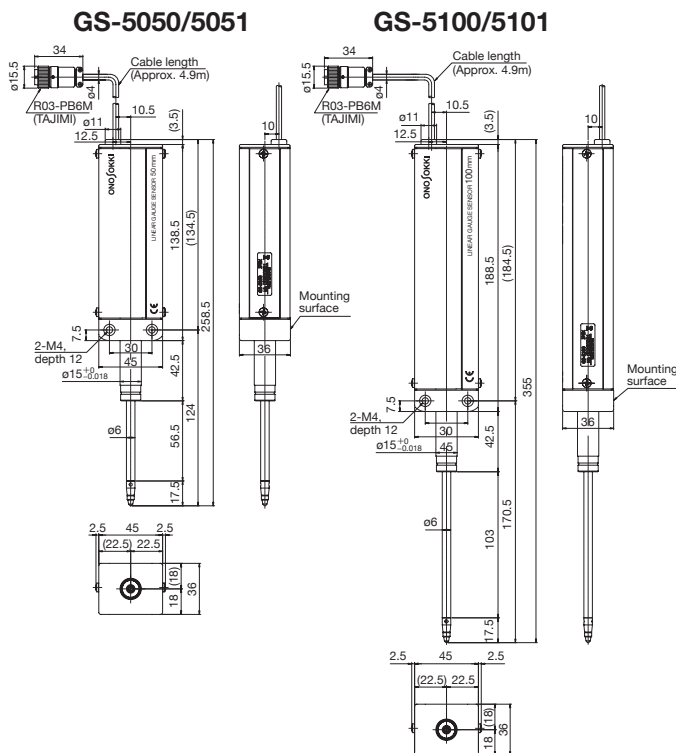
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Long stroke and shock/vibration resistant structure greatly contribute to measuring displacement of a large structure!

Features

- High cost performance
- More than 15 million sliding times
- Protection class IP 5X
- Ball bearing is used
- The pitch of mounting hole and the distance from tip of spindle* after installation are same as those of the GS-5011. *Only for the GS-5050/5051
- New model of measurement range at 100mm and resolution at 1μm is added to line up.

Outer Dimensions



Specification

Item	Model name			
	GS-5050	GS-5100	GS-5051	GS-5101
Measurement range	50mm	100mm	50mm	100mm
Resolution	10μm		1μm	
Accuracy (at +20°C)	10μm	12μm	4μm	5μm
Maximum spindle velocity*1	1(4)m/s		0.3(1.2)m/s	
Measurement force (downward)*2	3N or less	5.5N less	3N or less	5.5N or less
Number of sliding times (proven in our endurance test)	15 million times			
Protection class (excluding connector section)	IP5X			
Stem diameter	Ø15 ⁺⁰ _{-0.009} mm			
Power requirement	4.5 to 5.5VDC			
Power consumption (when 5VDC)	120mA or less			
Signal output (when 5VDC)	Two-phase square wave, phase difference: 90° ±20° Output voltage Hi=4.5V or more, Lo=0.4V or less			
Output impedance	Approx. 22Ω			
Vibration resistance (when the power is off)*3	147 m/s ² in each of the three axial directions (75 minutes per each), 10 cycles of 10Hz to 150Hz sweeping			
Shock resistance (when the power is off)*3	1470 m/s ² in each of direction for each of three axes, three times for each of ±X,Y and Z directions, sine half-wave, pulse duration 6ms			
Operating temperature range	0 to +40°C			
Storage temperature range	-10 to +55°C (with no condensation)			
Cable length	Approx. 4.9m			
Weight (including cable, connector)	Approx. 570g	Approx. 655g	Approx. 570g	Approx. 655g
Accessories	Instruction manual, spanner			
Options (sold separately)	AA-969:Finger lifter ST-0230:Gauge stand AA-844 (30m)/AA-845 (50mm) :Extension spindle		AA-8560:Mounting fixture AA-8801 (5m)/AA-8802 (10m)/ AA-8803 (20m)/AA-8804 (30m) :Extension cable	

*1. When used with Ono Sokki's Gauge Counter. The value within parentheses () is the maximum spindle velocity used with the DG-4140/DG-4190/DG-5100.

*2. An attachment may not return completely if it is facing upwards.

*3. Shock/vibration resistance values described in above are not guaranteed during measurement operation.

• Disconnected or modified signal cable is not applicable to CE marking.

• We also offer several other accessories not listed in this catalogue. For details, please contact your nearest distributor or send an e-mail to us; overseas @onosokki.co.jp

Compatible digital counters

DG-4140

Comparator output
(BCD, Color backlight)



DG-4190

Comparator output
(Analog, Color backlight)



DG-4120

BCD output



DG-4240

Comparator output
(Upper & Lower)



DG-4280

Comparator output
(4-preset)



DG-2310

2ch with multi function



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• Outer appearance and specifications are subject to change without prior notice.

URL: <http://www.onosokki.co.jp/English/english.htm>

U.S.A

Ono Sokki Technology Inc.
2171 Executive Drive, Suite 400
Addison, IL. 60101, U.S.A
Phone : +1-630-627-9700
Fax : +1-630-627-0004
E-mail : info@onosokki.net
<http://www.onosokki.net>

THAILAND

Ono Sokki (Thailand) Co., Ltd.
29/67 Moo 5 Tivanon Road, Pakkred,
Nonthaburi 11120, Thailand
Phone : +66-2-964-3884
Fax : +66-2-964-3887
E-mail : osth_sales@onosokki.co.jp

P.R.CHINA

Ono Sokki Beijing Office
Beijing Jing Guang Center 3510
Hu Jia Lou, Chao Yang Qu
Beijing 100020, P.R.China
Phone : +86-10-6597-3113
Fax : +86-10-6597-3114
E-mail : onosokki@bnn.cn

WORLDWIDE

Ono Sokki Co., Ltd.
3-9-3 Shin-Yokohama, Kohoku-ku,
Yokohama 222-8507, Japan
Phone : +81-45-476-9712
Fax : +81-45-470-7244
E-mail : overseas@onosokki.co.jp