

High Resolution Linear Gauge Sensor

GS-3800 series



- Ball spline bearing and development of new optical system achieve more accurate measurement compared with existing models.
- Robust structure of the GS-3800 series enables usage on a production line keeping high precision measurement. (IP66G)

Specification

Item	Model name	GS-3813	GS-3830
Measurement range		13mm	30mm
Resolution		0.1μm	
Accuracy (at 20°C)		1μm	
Measurement force (downward)*1		2.3N or less	2.7N or less
Maximum spindle velocity*2		1.2m/s	
The number of sliding times (proven in our endurance test)		15 million times or more	
Protection class (not including connector part)		IP66G (Proof structure against dust, water, oil)	
Stem diameter		φ15 ^{+0.009} mm	
Power requirement		4.5 to 5.5VDC	
Power consumption (when 5VDC)		150mA or less	
Signal output (when 5VDC)		90° phase-differential, square wave, applicable to RS422A, line driver output (equivalent to 26C31)	
Vibration resistance (When the power is off.)*3		196m/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		1960m/s ² in each 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	
Cable length		Approx. 5m	
Weight (including cable, connector)		Approx. 350g	Approx. 420g
Accessories		Instruction manual, spanner	
Options (sold separately)		AA-969: Finger lifter ST-0230: Gauge stand AA-844 (30mm)/AA-845 (50mm): Extension spindle AA-4104 (13mm)/AA-4105 (30mm): Dust protective rubber (spare) AA-3300: Mounting fixture AA-8901 (5m)/AA8902 (10m)/ AA-8903 (20m)/ AA-8904 (30m) :Extension cable	

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

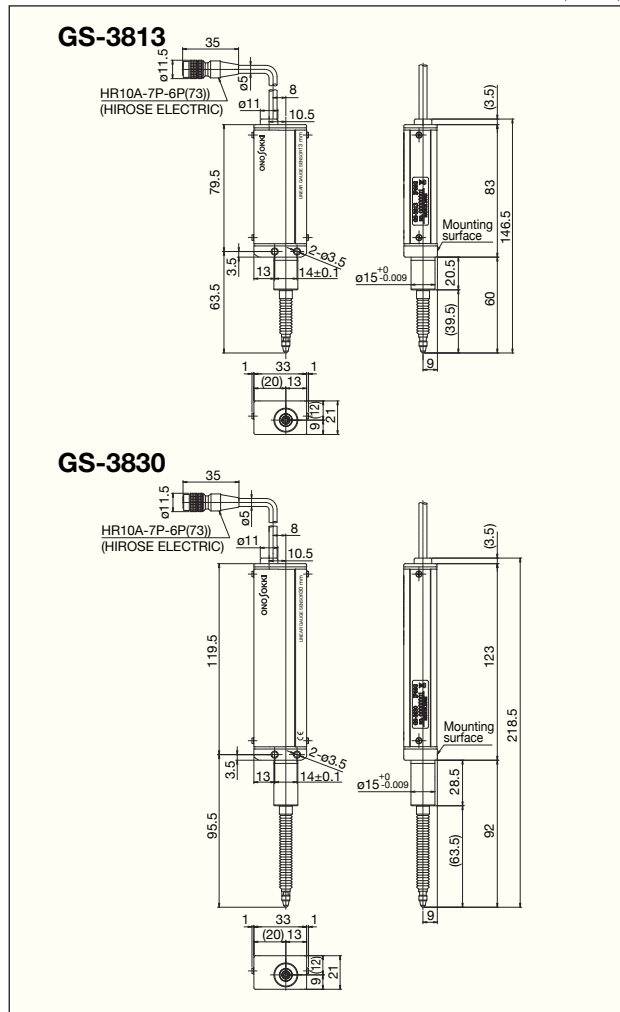
*2. When used with the DG-5100.

*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.

Outer Dimensions

(unit: mm)



High Resolution Digital Gauge Counter

DG-5100



- The DG-5100 has improved counting speed to use with the linear gauge sensor at 0.1μm resolution.
- Various optional cards can be provided for your necessary functions; BCD output, analog output, comparator output, RS-232C interface, and DC power supply functions. (Up to three optional cards)

Specification

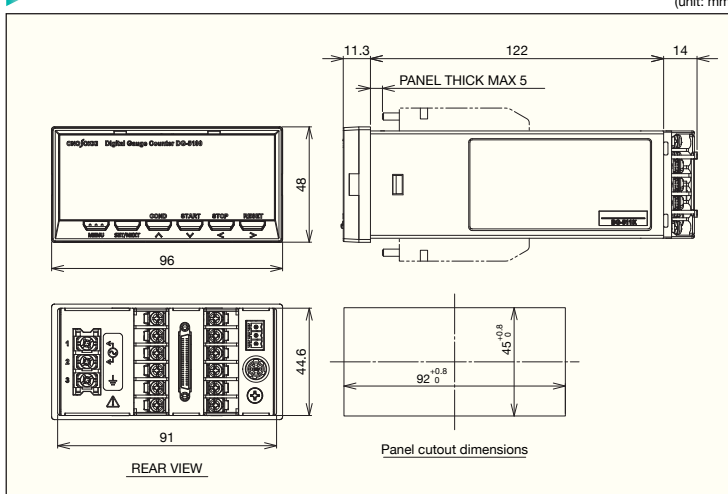
Applicable sensors	GS, BS series
Display	Fluorescent display tube, 7 digits
Measurement range	0.0000 to ±999.9999/0.000 to ±9999.999/0.00 to ±99999.99mm
Input signal	90°phase-differential, square wave, line driver output or voltage output
External control input signal	Hold, reset
Power requirement	100 to 240VAC
Operating temperature range	0 to +40°C
Storage temperature range	-10 to +55°C
Outer dimensions	96(W) x 48(H) x 148(D)mm
Weight	Approx. 370g
Accessories	Instruction manuals, MC1,5/3-ST3,5 (for INPUT connector)

* When connecting to the sensor other than the GS-3800 series, a conversion cable AA-8910 (20cm, sold separately) is required.

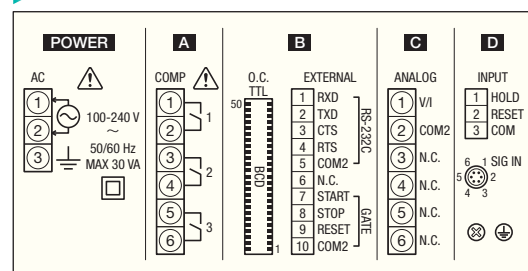
Option

DG-0522 BCD output	Open collector (update time: within 10ms)
DG-0530 Analog output	Output method: Selectable from voltage or current Conversion method: 12bit D/A Output voltage: -10 to +10V/F.S. (F.S. is optionally setup.) Output current: Selectable from 0 to 16mA or 4 to 20mA/F.S. (F.S. is optionally setup.) Load resistance: 100kΩ or more at voltage output, 500Ω or less at current output Linearity error: ±0.3%/F.S.
TM-0301 DC Power supply	12 to 24VDC
TM-0340 Comparator output	1-make contact output (mechanical relay) COPM1, COMP2, COMP3
TM-0350 RS-232C	Communication method: Serial communication (asynchronous) Baud rate: Selectable from 9600bps, 19200bps Reading of measurement data, setting and reading of parameter

Outer Dimensions



Rear Panel



ONOSOKKI

• Outer appearance and specifications are subject to change without prior notice.
URL: <http://www.onosokki.co.jp/English/english.htm>

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