

## InteliSENS™ CG Series Capacitance Gauges

Proton InteliSENS™ CG Series capacitance gauges are for continuous measurement of insulation capacitance on cable extrusion lines. The CG Series enables manufacturers to control the stability of the capacitive characteristics of their cable insulation.

The rugged, compact and durable design, multiple communications options, and easy integration with other systems make the CG Series an excellent, economical choice. The cable runs through the CG capacitance gauge head which is connected to the InteliSENS™ signal processor unit which analyses the capacitance measurement through an advanced auto balancing bridge system, with sophisticated FPGA processing to ensure drift-free capacitance measurement. Integral fixing holes provide versatile mounting options, and the CG gauge head can be used either submerged in a cooling trough or within spray-water area cooling troughs. For high-speed lines, the gauge head can be connected to a high-pressure water supply.

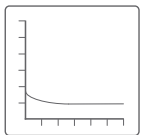
The CG Series gauge head is supplied with an IP65 rated InteliSENS™ signal processing unit (CAP interface box) and a 1.5 metre-long industrial interconnection cable.

On PLC controlled or computerised lines the CAP interface box can communicate directly via RS232/USB or Profibus. Additional interfacing including DeviceNET™ is available upon request.

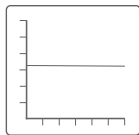
For more conventional set-ups, we supply a CS2G-CAP indicator and control unit with twin LED Displays, and a range of operator presets complementary outputs. The CS2G-CAP interfaces with the InteliSENS™ CAP interface box through CANbus. Various lengths of interconnection cables can be supplied.



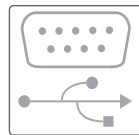
## CHARACTERISTICS



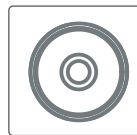
LOW NOISE



LOW DRIFT

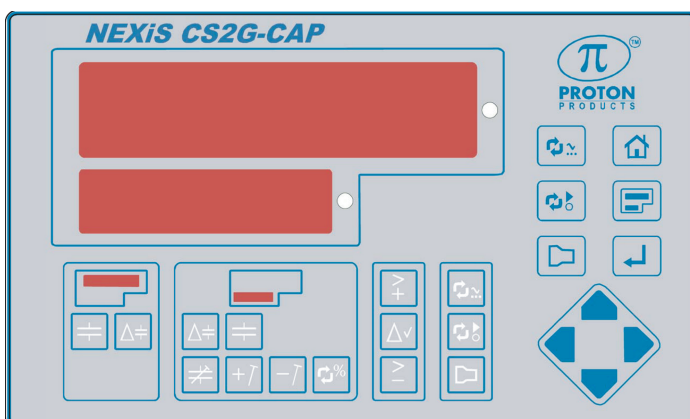


RS232 / USB



LOW-WEAR  
END CAPS

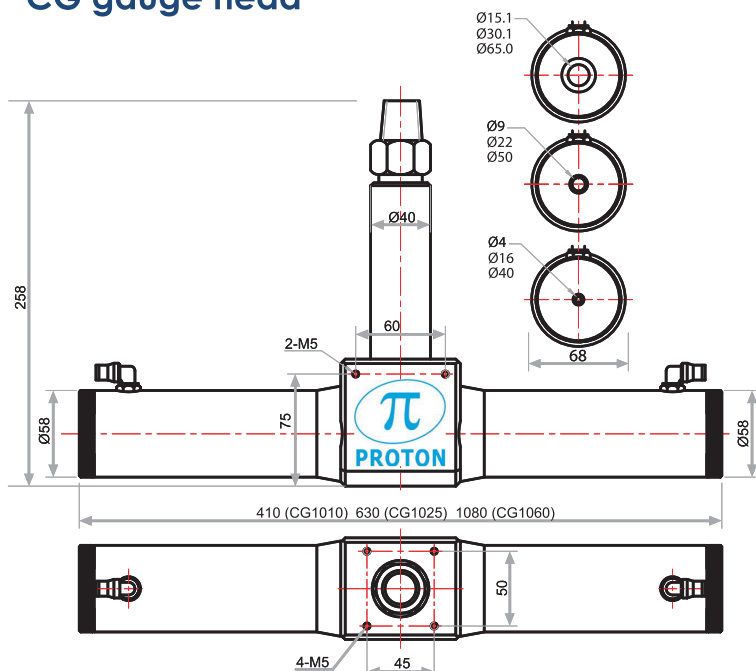
### CS2G-CAP DISPLAY AND CONTROL UNIT



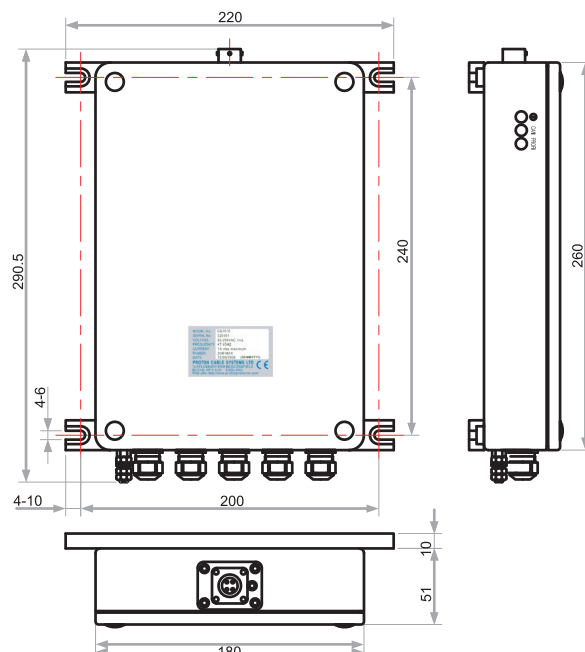
## BENEFITS

- High accuracy, from low to high speeds
- Low drift
- Zero correction function
- Rapid installation
- Unaffected by air bubbles, water temperature, resistivity or pH values
- Range of interfaces for PLC & computers
- Maintenance free system
- IP65 protection
- Direct replacement for old, worn and cumbersome capacitance measuring equipment.

## CG gauge head

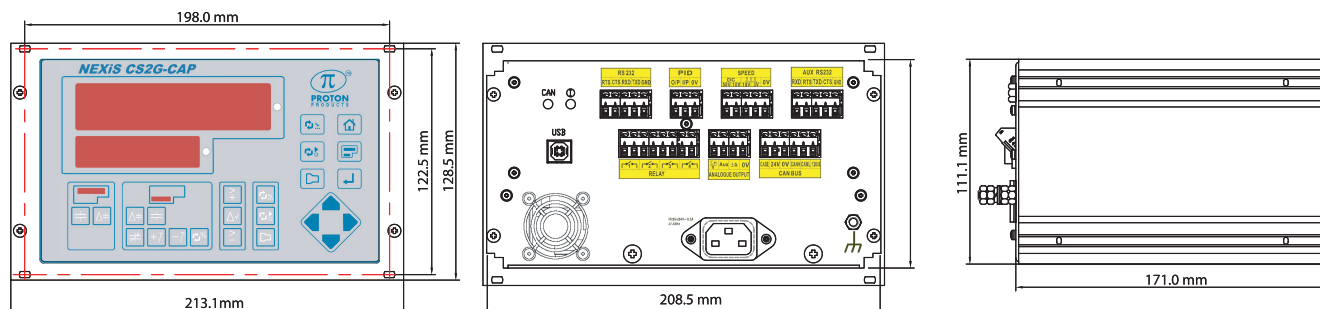


## CAP interface box



InteliSENS™	CG1010	CG1025	CG1060
Maximum cable diameter	10 mm (0.39")	25 mm (0.98")	60 mm (2.36")
Gauge head bore diameter	15.1 mm (0.59")	30.1 mm (1.19")	75 mm (2.95")
Overall gauge head length	410 mm (16.14")	630 mm (24.80")	1080 mm (42.52")
Active electrode length	155 mm (6.10")	140 mm (5.51")	140 mm (5.51")
Capacitance range	0 to 500 pF/m		
Accuracy	+/- 0.2% of measured capacitance		
Connection cable	1.5 m fixed length (from gauge head to CAP interface box)		
Interface	RS232 / USB + CANbus + Profibus (optional extra)		
Power supply	11 to 25 Vdc (via CANbus or DeviceNET port)		
Weight	5.8 kg (Gauge head); 2.5 kg (CAP interface box)		

## NEXiS™ CS2G-CAP : connected to CAP interface box via CANbus



The NEXiS™ CS2G-CAP is a production line control system for use with the CG Series capacitance gauges. The CS2G-CAP outputs control data to production equipment, ensuring preset limits are not exceeded. The system is ideal for cable insulation, jacketing, tubing and many other applications. The CS2G-CAP has a 2-row LED display and membrane control panel, as well as 4 relay outputs, 2 analogue outputs, and USB, RS232 and CANbus connectivity, and features independent tolerance settings, shrinkage setting, alarm functions, and line speed input. See the separate NEXiS™ CS2G datasheet for full details.

## CONTACT

### USA

**Proton Products Inc.**  
9272 Jeronimo Rd #110  
Irvine, CA 92618.  
United States  
Email : [Sales@protonproducts.us](mailto:Sales@protonproducts.us)

### EUROPE

**Proton Products Europe N.V.**  
TerspeltBusinessPark  
Koeweideblock 2/C13  
B-1785 Merchterm  
BELGIUM.  
Email : [sales@protonproducts.eu](mailto:sales@protonproducts.eu)

### ASIA

**Proton Products Chengdu Ltd**  
Tianfu Software Park G3-401  
No. 1800 Central YiZhou Ave.  
Chengdu, SiChuan 610041.  
CHINA.  
Email : [sales@protonproducts.cn](mailto:sales@protonproducts.cn)

### Thailand Agent

**Diamond International Co., Ltd.**  
555/46 Moo 4, Mahasawat,  
Bangkrui, Nonthaburi 11130,  
THAILAND.  
Mr. Kamnat Chanyanimit  
Tel : +66 2038 7144  
Mobile : +66 8 9936 6895  
Email : [sales@diamond-inter.com](mailto:sales@diamond-inter.com)