

**Stainless Steel  
Annular/Force Washer  
LOAD CELL**

**CCG  
Series**



- Capacities 12.5kN to 540kN
- Sealed to IP66
- Low Profile and Very Compact
- Low Deflection
- Suitable for use with Metric and Imperial Bolt Sizes
- Robust Construction
- 3 YEAR WARRANTY

**Options Available**

Non-Standard sizes available on request

Shunt Calibration Facility

Other ranges available on request

Special mounting adaptors available on request

**DESCRIPTION**

The CCG range of annular/force washer load cells has been designed for the measurement of compressive forces and they are used in a wide range of research and industrial applications.

The CCG is often used in electro-mechanical test rigs and other critical bolted installations for monitoring continuously or periodically the tension profile of bolts during their use in the installation. The CCG is also used in cable tension systems and usually positioned at the cable anchor point.

The CCG, as with all other Applied Measurements sensors, can be supplied complete with monitoring/control electronics and calibrated as a system (please refer to the Instrumentation datasheets).

*Transducer Specialists...*

**APPLIED MEASUREMENTS LIMITED**

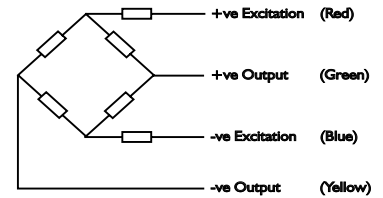
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# SPECIFICATION

Wiring Schematic Diagram



CHARACTERISTICS	CCG	UNITS
Rated Capacities:	12.5, 25, 35, 50, 100, 160, 200, 250, 300, 360, 540	kN
Sensitivity Range:	1.5mV/V nominal	mV/V
Non-Linearity:	<1.5	±% of Rated Output
Repeatability:	< ±1% for identical mounting position, < ±10% for altered mounting position	±% of Rated Output
Zero Balance:	<5 (see note below)	±% of Rated Output
Temperature Range Operating:	-20 to +70	°C
Compensated:	+10 to +60	°C
Temperature Effect On Output:	<0.030	±% of Rated Output/ °C
On Zero:	<0.030	±% of Rated Output/ °C
Safe Overload:	150	% of Rated Capacity
Ultimate Overload:	300	% of Rated Capacity
Excitation Recommended:	10	Volts AC or DC
Maximum:	15	Volts AC or DC
Input Impedance:	375 (750 for capacities above 40kN)	Ohms (nominal)
Output Impedance:	350 (700 for capacities above 40kN)	Ohms
Insulation Impedance:	>500	Megaohms
Construction:	Stainless Steel	
Environmental Protection:	IP66	
Cable:	2 Metre 4 Core PVC Screened	

## Note

The sensitivity range stated above is dependant on the selected mounting position. If the mounting position is maintained during operation, then the CCG will be repeatable and linear within the parameters specified above. If the mounting position is altered, then the sensitivity range may change by up to ±10%, as may repeatability.

## All dimensions in mm

Range (kN)	ØA	ØB	ØC	H
12.5	6.1	10.4	25	12
25	8.2	14	25	12
35	10.2	17.7	32	12
50	12.2	21.3	38	15
100	16.3	29	48	20
160	20.3	36.3	50	20
200	22.3	40.4	55	25
250	24.3	43.5	60	25
300	27.3	49.6	63	25
360	30.5	54.9	76	30
540	36.5	66.1	88	30

