

Load Cell SNC 1500/7500kg



Fully digital, single point oscillating-wire load cell, made of high quality tool-steel, for nominal loads of 1500 to 7500 kg.

General

As in all DIGI SENS load cells, an oscillating-wire transducer is used to convert the force/load into an electrical signal.

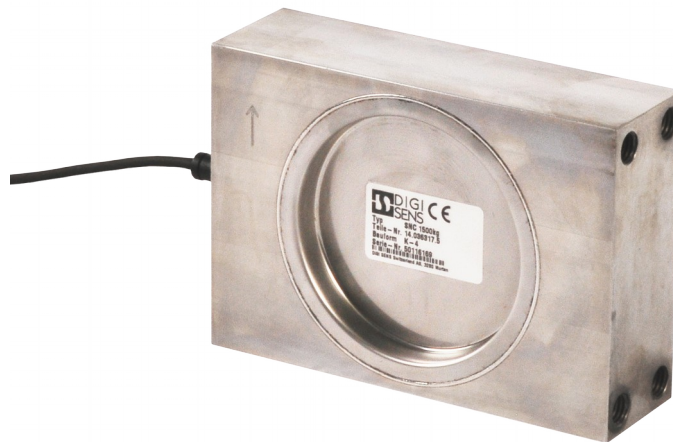
This patented element is able to deliver a signal that can be directly processed by a computer.

The calibration data is stored in the load cell electronics. A built-in temperature measurement ensures active temperature compensation.

Applications

Calibrated measurement of loads, weights and forces in applications such as:

- platform scales
- container scales
- mixers
- tipping weighing systems incorporated in vehicles
- conveyor scales
- robot arm scales



Description

Very robust single point load cell, fully hermetic, made of high tensile steel designed for harsh environments and insensitive to shock.

Torsion forces due to eccentric application of the load are filtered out and complicated suspension systems (pendulum bearings), designed to avoid unwanted stresses, are superfluous.

The logically designed, practically displacement-free mounting is characterised by a very low measuring displacement of less than 0.1 mm.

The result is a weighing system with outstanding measuring precision.

The calibration data of the load cell are stored in a built-in memory.

No adjustment is required either at commissioning or when a load cell is replaced.

A 5V TTL output signal is available for load and temperature.

For processing and transmission of the signal, as well as for other more complex measuring and regulating functions, DIGI SENS offers suitable electronics and software.

Together with this electronics and other components, such as inclinometers or accelerometers, the SNC load cells can be extended to form a complete weight or force measuring systems for static or dynamic applications.

Load Cell SNC



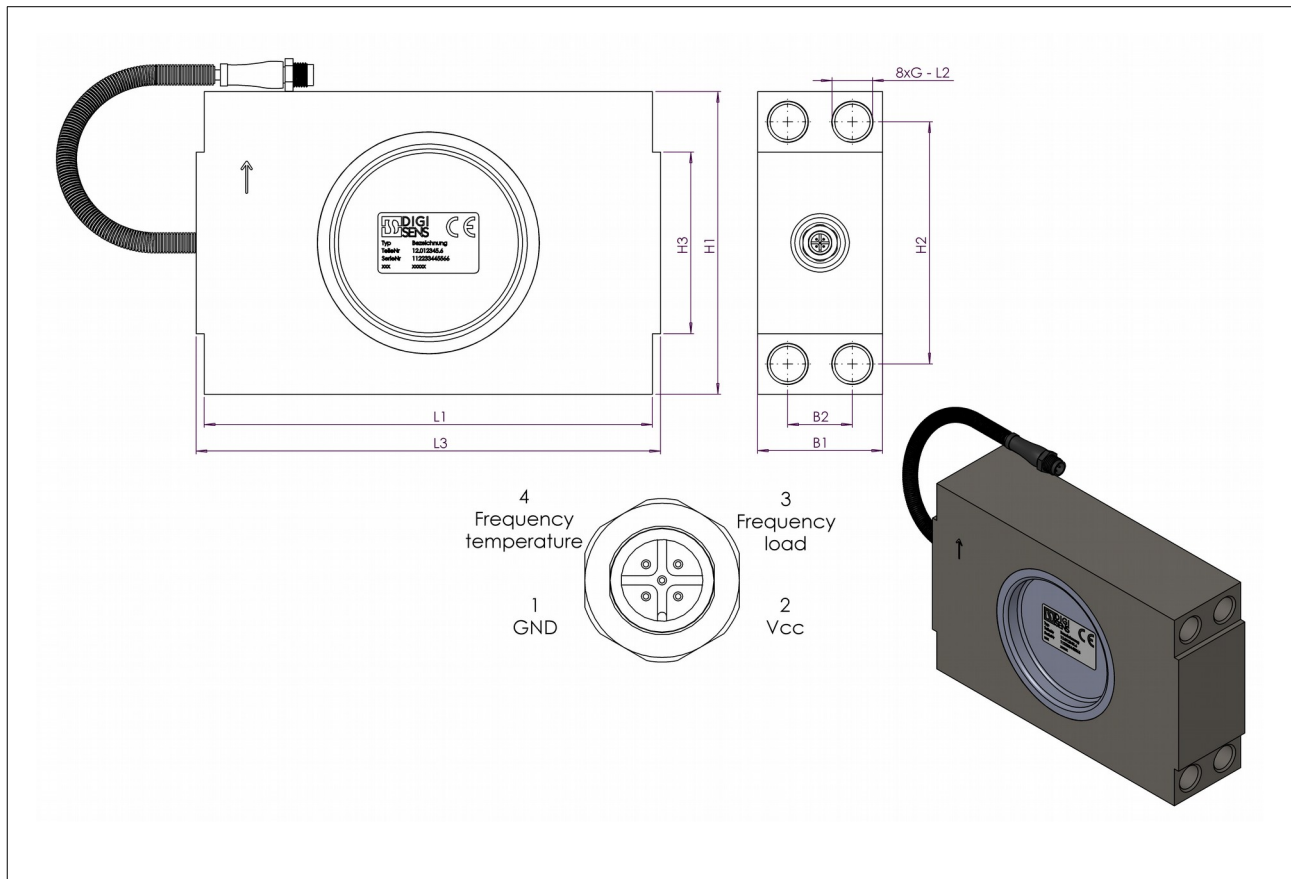
Technical Data

Nominal load (other ranges on request)	E_{max}	kg	1500	7500
Combined error (hysteresis, linearity, repeatability)		% of E_{max}	±0.07	
Repeatability		% of E_{max}	±0.03	
Hysteresis		% of E_{max}	±0.06	
Linearity over measuring range		% of E_{max}	±0.01	
Creep 30 min		% of E_{max}	±0.10	
Temperature drift of zero		%/10K	±0.015	
Temperature drift of sensitivity		%/10K	±0.040	
Overload capability without permanent damage		% of E_{max}	100	
Deflection at nominal load	s_{nom}	mm	< 0.10	
Warming-up time for max error		min	< 5	
Power supply				
• voltage		V DC	5±10%	
• max current consumption		mA	< 25	
• type current consumption		mA	10	
Temperature range				
• calibration		°C	-10...+40	
• service			-15(opt. -30) ...+70	
Output signal				
• frequency at zero	f_0	Hz	15800±500	
• sensitivity	f_n-f_0	Hz	1700±300	
• amplitude		V DC	5V TTL	
Load cell material			High quality tool steel with anticorrosion coating	
Sealing			Complete hermetic sealing, laser welded	
Cable			With connector and exchangeable cable	
Protection class			IP68 / IP69K	
Weight	P	kg	5	13
EMC			according to IEC 61000	
Environmental (shocks / vibrations)			according to IEC 60068	

Load Cell SNC



Dimensional drawing



	L1	B1	H1	G	L2	B2	H2	L3	H3
Loadcell SNC 1500kg	170	50	120	M12	16	30	100	--	--
Loadcell SNC 7500kg	222	62	150	M20	23	32	120	230	90

Mounting instruction manual K235 ; K435

DIGI SENS Switzerland AG
 Freiburgstrasse 65
 CH – 3280 Murten
 Switzerland

Tel. : +41 (0)26 672 98 76
 Fax : +41 (0)26 672 98 79
 sales@digisens.ch
<http://www.digisens.ch>