

Load Cells

SIWAREX WL200T

Overview



The compression load cell is particularly suitable for implementation in container, hopper and vehicle scales.

Design

The measuring element is a solid cylinder made of stainless steel to which 4 strain gauges are applied.

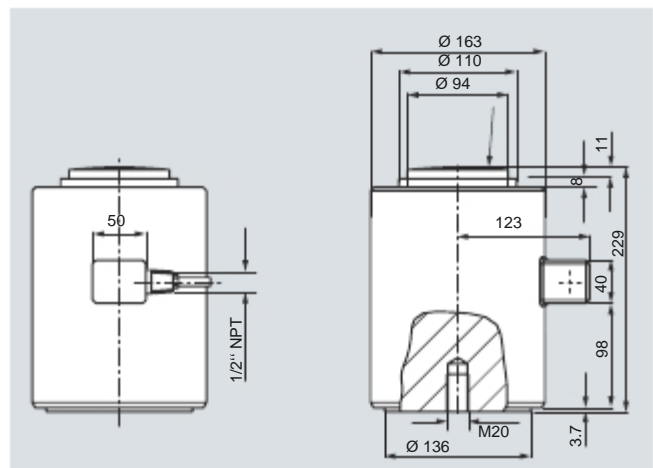
The load which acts centrally in the measuring direction causes the spring bodies and therefore the friction-locked strain gauges to be elastically deformed. This generates a measuring signal voltage that is proportional to the load.

Technical specifications

SIWAREX WL200T	
Possible applications	Container weighers
Model	Compression load cell
Rated load/maximum load E_{max}	200 t
Accuracy class	0.1 %
Repeatability F_V	$\pm 0.017 \% C_n$
Creep error F_{cr}	
· 30 min	$\pm 0.02 \% C_n$
Temperature effect	
· Zero signal T_{K0}	0.017% $C_n/5 K$
· Characteristic value T_{Kc}	0.014 % $C_n/5 K$
Min. dead load E_{min}	0 kg
Safe load limit L_u	150 % E_{max}
Ultimate load L_D	300 % E_{max}
Safe side load L_{lq}	10 % E_{max}
Rated measuring path h_n at E_{max}	0.36 mm
Recommended supply voltage (range)	5 ... 12 V DC
Rated characteristic value C_n	2.0 \pm 0.02 mV/V
Tolerance D_c of characteristic value	Not applicable
Tolerance D_0 of zero signal	$\pm 1.0 \% C_n$
Input resistance R_e	450 \pm 5
Output resistance R_a	480 \pm 5
Insulation resistance R_{is}	5 000 M at 50 V DC
Rated temperature range B_n	-10 ... +40 °C
Operating temperature range B_u	-35 ... +65 °C
Storage temperature range B_s	-35 ... +65 °C
Sensor material	Stainless steel

Degree of protection according to EN 60529; IEC 60529	IP68
Cable connection	
Function	Color
· EXC + (supply +)	· Green
· EXC - (supply -)	· Black
· SIG + (measured signal +)	· White
· SIG - (measured signal -)	· Red
· Shield	· Transparent

Dimensional drawings



Load cell SIWAREX WL200T, dimensions in mm