Force Sensor ACB 1t/C3

Item number: 770



The load cell ACB is used in platform-type weighing scales. Three to four load cells support a platform of any size. The output current calibration allows parallel connection of the load cells for operation at a common measuring amplifier without additional equalization.

The platform is placed on the weighing platform using three or four height-adjustable elastomer bearings (EL 120), in order to avoid twisting.

The load cell ACB conforms to the stringent European requirements for use in calibration-obligatory weighing scales. The method of protection is IP 67.

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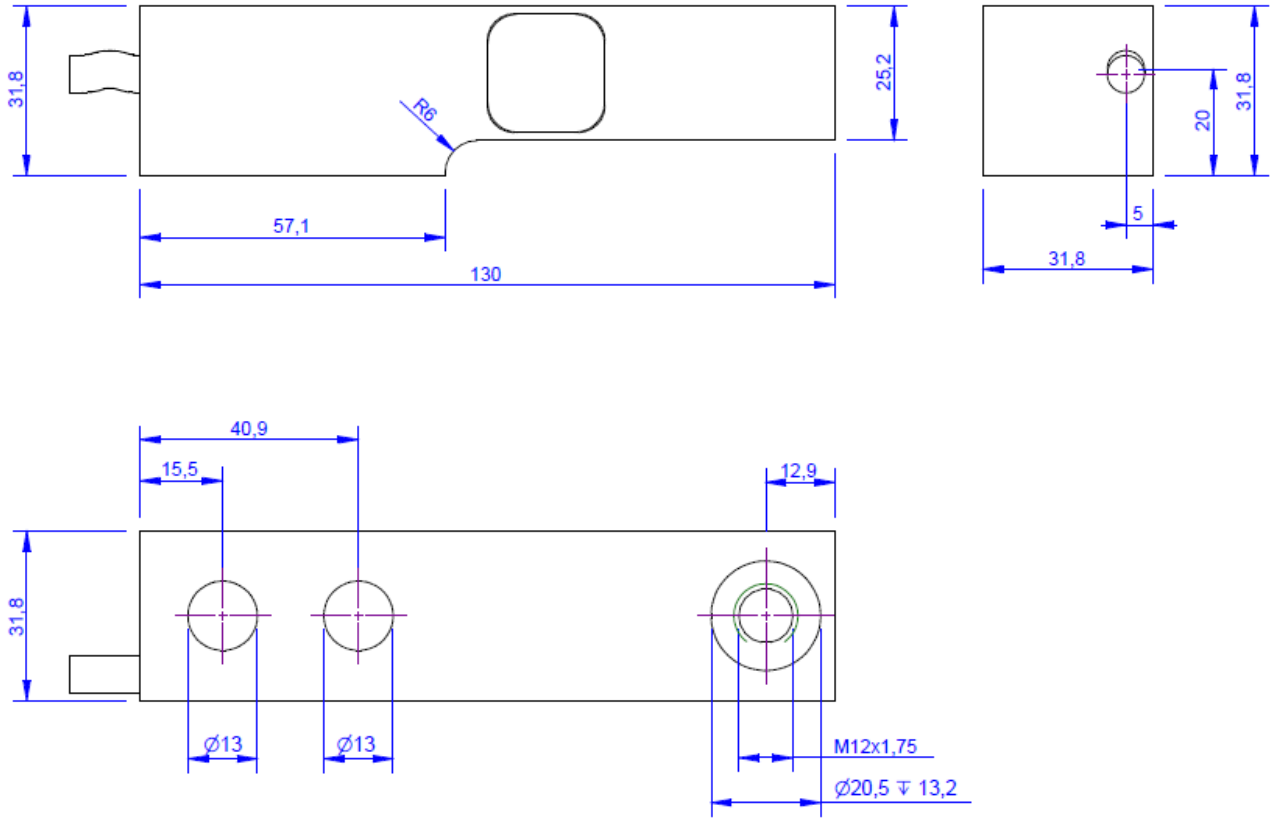
Stand: 18.04.2026

Technical Drawing



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Technical Data

Basic Data		Unit
Type	Wägezelle	
Force direction	Compression	
Rated force Fx	1	t
Force introduction	Internal thread	
Dimension 1	M12x1,75	
Sensor Fastening	Through-hole	
Dimension 2	2xØ13	
Operating force	150	%FS
Rated displacement	0.08	mm
Material	Stainless steel	
Dimensions	130mm x 32mm x 32mm	
Height	32	mm
Length or Diameter	130	mm
Variants	500kg... 2t	

Electrical Data		Unit
Input resistance	9000	Ohm
Tolerance input resistance	50	±
Output resistance	1000	Ohm
Tolerance output resistance	10	±
Insulation resistance	5x10^9	Ohm
Rated range of excitation voltage from	2.5	V
Rated range of excitation voltage to	5	V
Operating range of excitation voltage from	1	V
Operating range of excitation voltage to	10	V
Zero signal	0.05	mV/V
Rated output	2	mV/V / FS

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Accuracy Data		Unit

OIML Accuracy Data		Unit
OIML accuracy class	C3	
Maximum no. of intervals (n)	3000	
Zero return, 30 min.	0.0245	±% of nominal load
Total error	0.023	±% of nominal load
Temperature effect on zero	0.0117	±% of nominal load/5°C
Temperature effect on output	0.0088	±% of nominal load/5°C

Environmental Data		Unit
Rated temperature range from	-10	°C
Rated temperature range to	70	°C
Operating temperature range from	-10	°C
Operating temperature range to	85	°C
Storage temperature range from	-10	°C
Storage temperature range to	85	°C
Environmental protection	IP67	

Abbreviation : RD: „Reading“; FS: „Full Scale“;1) The exact nominal sensitivity is indicated in the test report;2) Nominal output for LCS130 250kg is 0,1%.

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Pin Assignment

Channel	Symbol	Description	Wire color	PIN
Type 500kg ... 2t	+Us	positive bridge supply	green	
	-Us	negative bridge supply	black	
	+Ud	positive bridge output	white	
	-Ud	negative bridge output	red	
	+Uf	positive sense lead	yellow	
	-Uf	negative sense lead	blue	
Type 250kg	+Us	positive bridge supply	brown	
	-Us	negative bridge supply	white	
	+Ud	positive bridge output	green	
	-Ud	negative bridge output	yellow	

Shield- transparent.

Mounting

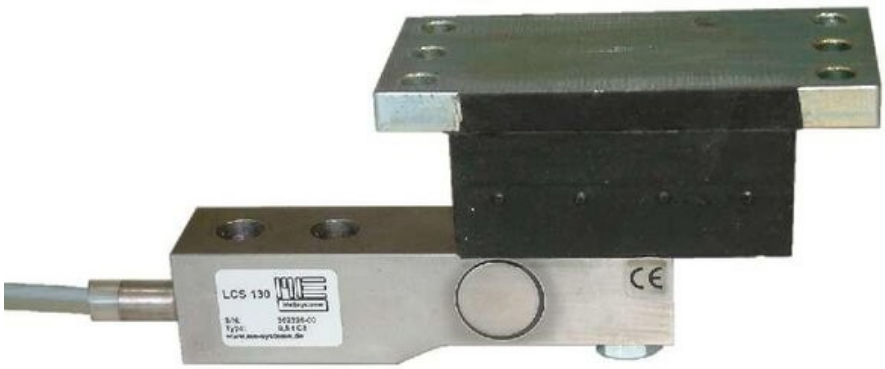
Elastomer bearing EL 120

The elastomer bearing is the connecting element between the load cells and the weighing table or tank, silo, trough etc.

The elastomer bearing is adjustable in height, so that it is possible to achieve a uniform distribution of the load even with four load cells on an uneven foundation.

The elastomer bearing is robust and absorbs load impacts e.g. when used with vibrators.

For the installation of the load cell on a flat surface spacers 57mm x 31.8mm x 5mm with two holes of ø13mm are available.



Dimensions

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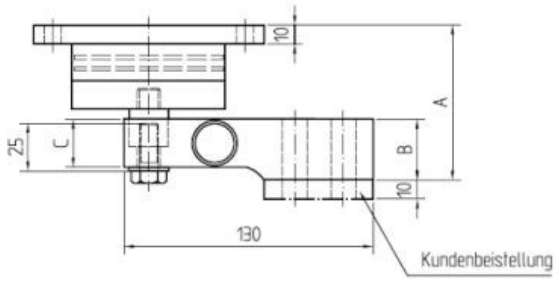

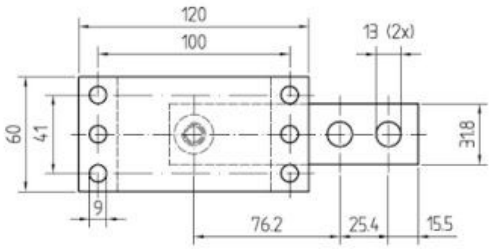

2,0t	85	35,8	31,95
1,0t	81	31,8	27,95
0,5t	81	31,8	26,0
Nennlast	A	B	C

Alle Teile exakt waagerecht ausrichten und verspannungsfrei montieren!

Einfederung bei Nennlast (2t)	0,8–1,0mm
zulässige Abhebekraft	Dauerbelastung 1,5kN; kurzfristig 2,3kN
zulässige Horizontalkraft	2,7kN
zulässige Horizontalverformung:	5,2mm

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