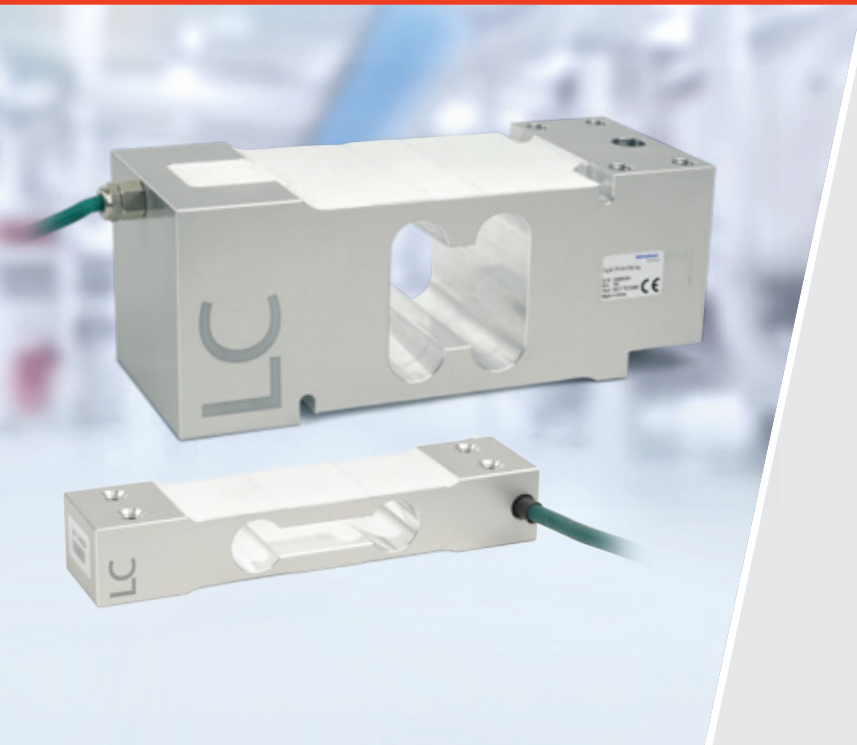


Single Point load cell LC

Accurate measurement results for scale production



ⓘ Benefits

- Reliable weighing through accurate measurement results
- Three different models for easy integration
- Versatile optional weighing electronics
- Design-in support from specialists



Ideal for integration in bench scales, counting scales and checkweighers: with the LC series Single Point load cells, you can rely on the tried-and-tested quality of a leading manufacturer of industrial weighing technology. Suitable for load ranges of 7.5 kg to 500 kg and a platform size of up to 800 mm × 800 mm.

Verifiable load cells for a variety of industrial applications

- ⓘ The load cells developed in Germany guarantee accurate weighing results.
All load cells are verifiable according to OIML.
- ⓘ **Three different models** cover a wide range of load levels – from 7.5 kg up to half a tonne.
- ⓘ A comprehensive optional portfolio of **transmitters, indicators and controllers** ensures reliable continuous processing of the measurement signals as desired.
- ⓘ Comprehensive expertise in scale production ensures **high-quality advice** for individual projects.

The right solution for all of these applications:



Weighing



Filling and dosing



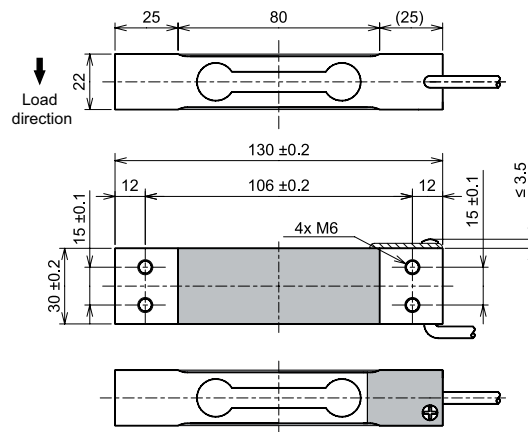
Fill quantity
control

Technical specifications

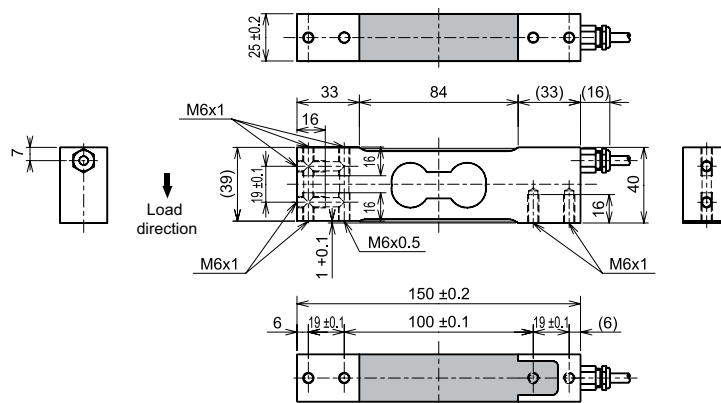
Single Point load cell LC						
Parameters	Description	Abbr.	PR 40	PR 43	PR 47	Unit
Accuracy class			0.02			%E _{max}
Minimum dead load	Lowest limit of specified measuring range	E _{min}	0			%E _{max}
Maximum capacity	Highest limit of specified measuring range	E _{max}	7.5, 15, 30	15, 30, 50, 100	100, 150, 250, 500	kg
Maximum usable load	Upper limit for measurements	E _{lim}	150			%E _{max}
Destructive load	Danger of mechanical destruction	E _d	300			%E _{max}
Minimum LC verification	Minimum load cell verification interval, $v_{min} = E_{max}/Y$	Y	15,000			
Deadload output return	Factor for deadload output return after load (DR=1/2*E _{max} /Z)	Z	3,000			
Rated output	Relative output at maximum capacity	C _n	2			mV/V
Tolerance on rated output	Permissible deviation from rated output	d _c	< 10			%C _n
Zero output signal	Load cell output signal under unloaded condition	S _{min}	< 5			%C _n
Repeatability error	Max. change in load cell output for repeated loading	ε _R	< 0.0100			%C _n
Creep	Max. change of output signal at E _{max} during 30 min.	d _{cr}	< 0.0166			%C _n
Non-linearity	Deviation from best straight line through zero	d _{Lin}	<0.0166			%C _n
Hysteresis	Max. difference in LC output between loading and unloading	d _{hy}	<0.0166			%C _n
Temperature effect (TK) on S _{min}	Max. change related to C _n of S _{min} per 10K in B _T	TK _{Smin}	< 0.0093			%C _n /10K
Temperature effect (TK) on parameter	Max. change related to C _n of C per 10K in B _T	TK _C	< 0.0117			%C _n /10K
Input impedance	Between supply terminals	R _{LC}	380 ± 38			Ω
Output impedance	Between measurement terminals	R _O	350 ± 25			Ω
Insulation impedance	Between measuring circuit and housing at 100 V _{DC}	R _{IS}	> 5,000 × 10 ⁶			Ω
Insulation voltage	Between circuit and housing (PR 47/.. E only)		500			V
Nominal supply voltage range	To hold the specified performance	B _u	≤12			V
Max. supply voltage	Continuous operation without damage	U _{max}	15			V
Nominal ambient temp. range	To hold the specified performance	B _T	-10 to +40			°C
Usable ambient temp. range	Continuous operation without damage	B _{TU}	-20 to +65			°C
Storage temperature range	Without electrical and mechanical stress	B _{Ti}	-25 to +70			°C
Barometric pressure influence	Influence of barometric pressure on output		< 5	< 15	≤50	g/kPa
Nominal deflection	Max. elastic deformation under maximum capacity	S _{nom}	< 0.55	< 0.5		mm
Cable length			0.5	3		m
Max. platform size	In compliance with the technical data according to OIML R76		350 × 350	450 × 450 for E _{max} = 15 to 30 kg 600 × 600 for E _{max} = 50 to 100 kg	800 × 800	mm × mm
IP protection class	According to EN 60529: IP66 + IP67					

Technical diagrams

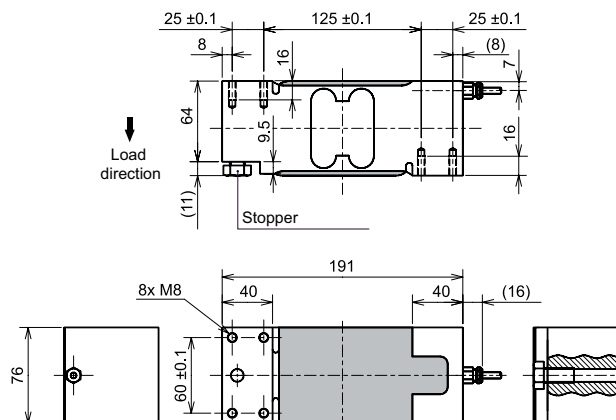
Single Point load cell LC – PR 40

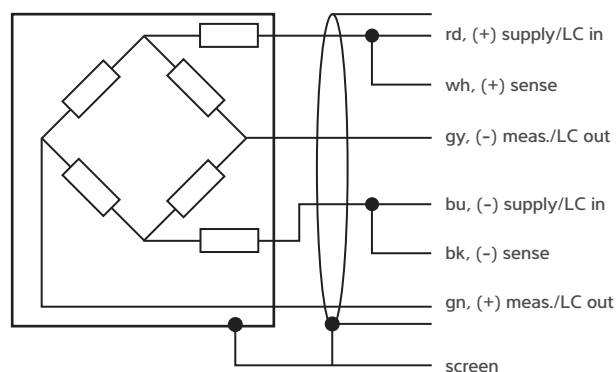


Single Point load cell LC – PR 43



Single Point load cell LC – PR 47





Circuit diagram

Ordering information

Single Point load cell LC – PR 40

Type	Order number
LC PR 40/7.5 kg C3MR	9409 240 07007
LC PR 40/15 kg C3MR	9409 240 07015
LC PR 40/30 kg C3MR	9409 240 07030

Single Point load cell LC – PR 43

Type	Order number
LC PR 43/15 kg C3MR	9409 243 07015
LC PR 43/30 kg C3MR	9409 243 07030
LC PR 43/50 kg C3MR	9409 2430 7050
LC PR 43/100 kg C3MR	9409 2430 7110

Single Point load cell LC – PR 47

Type	Order number
LC PR 47/100 kg C3MR	9409 247 07110
LC PR 47/150 kg C3MR	9409 247 07115
LC PR 47/250 kg C3MR	9409 247 07125
LC PR 47/500 kg C3MR	9409 247 07150

The products and solutions presented in this data sheet make major contributions in the following sectors:



Food
and beverages



Chemistry



Agribusiness



Building materials



Machinery
(OEM)

The technical data given serves as a product description only and should not be understood as guaranteed properties in the legal sense.

Specifications subject to change without notice.
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