This document will soon proudly feature our new brand & design – Minebea Intec

sartorius mechatronics

PR 6207
Beam Type Load Cell

10 kg... 200 kg Type D1 | C3

- Easy to install
- Full stainless steel construction
- Wide temperature range
- Resistant against vibration
- Hermetically sealed, IP67
- Compatible with other sources

Product Profile
The load cell PR 6207 is specially designed for tank and hopper weighing and for the use in platform scales or belt weighers.

The design principle of the mounting kit PR 6007 will counterbalance movements arising from mechanical and thermal expansion or contraction of its supporting structure.

A particular design characteristic is that the sensor is manufactured out of stainless steel (1.4122) and the membrane is made out of 1.4541.

Therefore the line is distinguished with high measurement accuracy and high repeatability as well as stability and reliability. This is the sound basis for maintenance free work and years without any further adjustments.

The hermetically sealed sensor allows to use the device even under extreme operation conditions.

The entire measurement chain can be calibrated without using a reference weight. Due to "matched output" technology, a damaged load cell can be exchanged without the need of re-calibration. This saves a tremendous amount of time during commissioning and in case of necessary replacement.

Load cell construction
Double bending beam, all stainless steel, hermetically sealed, welded, filled with inert gas.

Material Body
Body 1.4122 (DIN 17440)
Bellow 1.4541 (DIN 17440)

Protection
IP67, DIN 40 050. The load cell can be submerged in water to a depth of 1.5 m for 100hrs.

Cable
sheath: grey, PVC
diameter: D = 5.4 mm
length: 3 m

Bending radius
fixed installation r ≥ 60 mm
with repeated bending r ≥ 150 mm

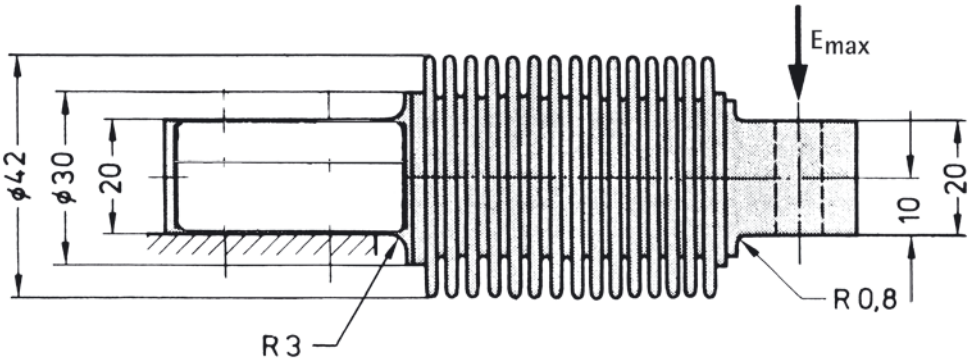
Technical Data

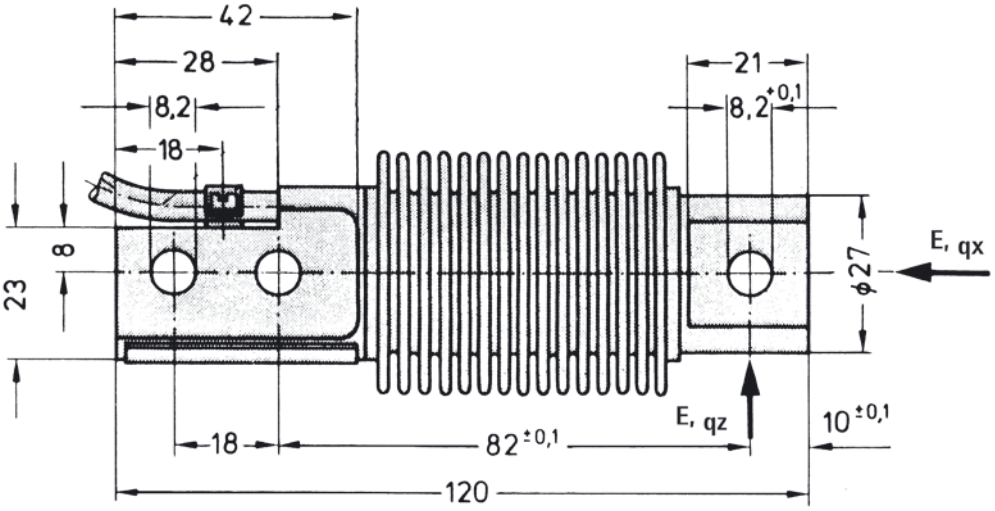
			D1	C3	
Accuracy class			0.05	0.017	% E_{max}
Minimum dead load	lowest limit of specified measuring range	E_{min}	0	0	% E_{max}
Maximum capacity	highest limit of specified measuring range	E_{max}	s. table	s. table	
Max. side load (x)	highest limit of static load in x-direction	L_{lqx}	200	200	% E_{max}
Max. side load (z)	highest limit of static load in z-direction	L_{lqz}	200	200	% E_{max}
Min. LC verification interval	minimum load cell verification interval, $v_{min} = E_{max} / Y$	Y	2.778	11.111	
Rated output	relative output at nominal load	C_n	2	2	mV/V
Tolerance on rated output	permissible deviation from rated output	d_c	< (+1.0 - 0.1)	< 0.1	% C_n
Zero output signal	load cell output signal under unloaded condition	S_{min}	< 1.0	< 1.0	% C_n
Repeatability error	max. change in load cell output for repeated loading	ε_R	< 0.03	< 0.01	% C_n
Creep, during 30 min.	max. change in load cell output under nominal load	d_{cr}	< 0.05	< 0.017	% C_n
Non-Linearity	max. deviation from best straight line through zero	d_{Lin}	< 0.05	< 0.017	% C_n
Hysteresis	max. difference in load cell output when loading from	d_{hy}	< 0.05	< 0.018	% C_n
Temperature effect on S_{min}	max. change of S_{min}/10 K over B_T	TK_{Smin}	< 0.05	< 0.013	% C_n/10 K
Temperature effect on C	max. change of C/10 K over B_T	TK_c	< 0.05	< 0.008	% C_n/10 K
Input impedance	between supply terminals	R_{LC}	350... 480	350... 480	Ω
Output impedance	between measuring terminals	R_0	356 ± 0.2	356 ± 0.12	Ω
Insulation impedance	between measuring circuit and housing at 100 V_{DC}	R_{IS}	> 5.000 × 10^6	> 5.000 × 10^6	Ω
Recommended supply voltage	to hold the specified performance	B_u	4... 12	4... 12	V
Max. supply voltage	permissible for continuous operation without damage	U_{max}	18	18	V
Nominal ambient temp. range	to hold the specified performance	B_T	-10... +70	-10... +70	°C
Usable ambient temp. range	permissible for continuous operation without damage	B_{Tu}	-30... +70	-30... +70	°C
Storage temperature range	Transportation and storage	B_{Tl}	-50... +85	-50... +85	°C
Vibration resistance	resistance against oscillation (IEC 68-2-6 Fc)		10 g, 100 h, 10... 150 Hz	10 g, 100 h, 10... 150 Hz	
Nominal deflection	max. elastic deformation under nominal load	s_{nom}	0.3 - 0.4	0.3 - 0.4	mm

Definitions acc. to VDI/VDE 2637

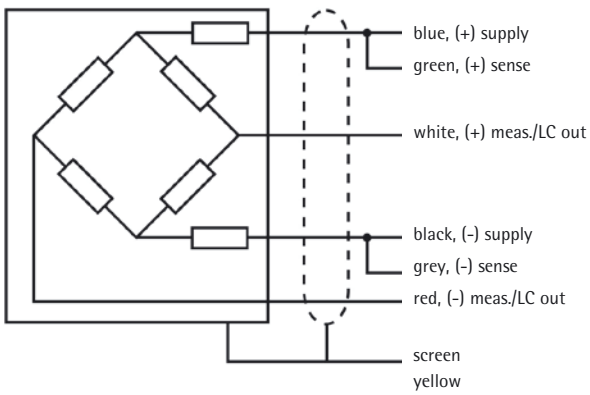
The technical data given here serve only as a product description and must not be interpreted as guaranteed characteristics in the legal sense.

PR 6207/10... 200 kg





Dimensions in mm



6-wire

Order information

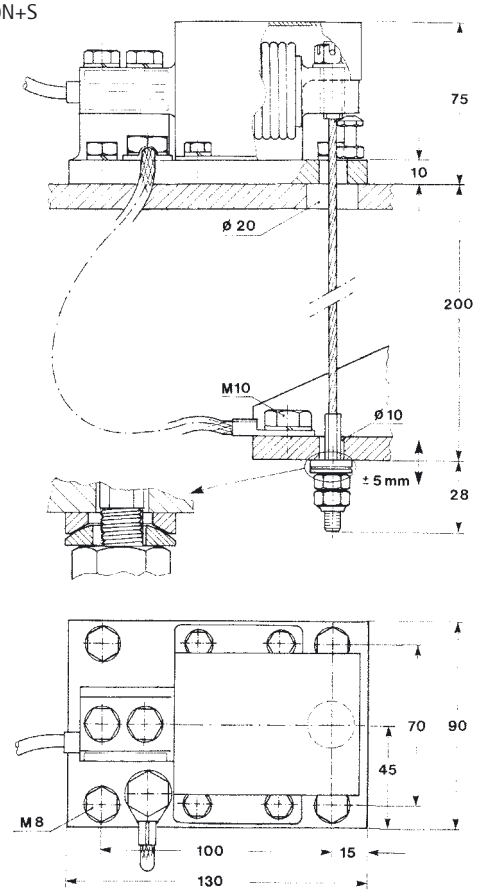
Type	Nominal Load E_{max}	Version	Max. usable load (in % of E_{max})	Destructive load (in % of E_{max})	Packing	Weight gross | net
PR 6207/11	10 kg	D1/C3	150	> 300	280 × 160 × 90 mm	0.9 kg | 0.5 kg
PR 6207/21	20 kg	D1/C3	150	> 300	280 × 160 × 90 mm	0.9 kg | 0.5 kg
PR 6207/51	50 kg	D1/C3	150	> 300	280 × 160 × 90 mm	0.9 kg | 0.5 kg
PR 6207/12	100 kg	D1/C3	150	> 300	280 × 160 × 90 mm	0.9 kg | 0.5 kg
PR 6207/22	200 kg	D1/C3	150	> 300	280 × 160 × 90 mm	0.9 kg | 0.5 kg

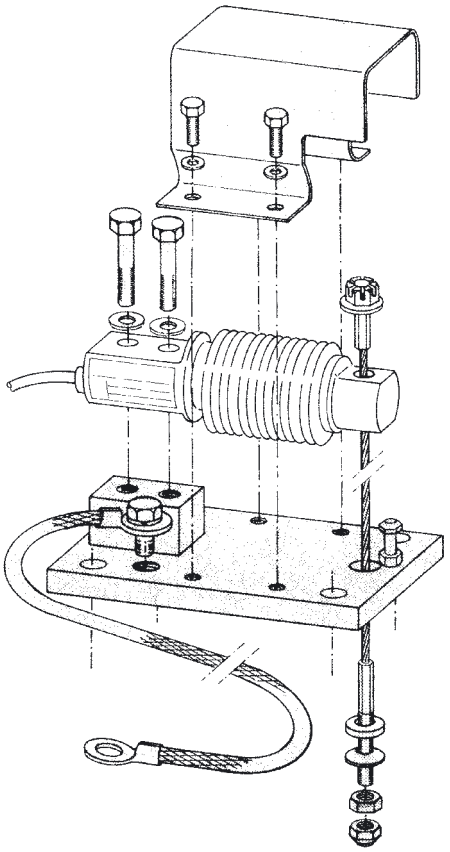
Further options

Type	Description		Dimensions	Order number
PR 6130/08	Plastic Cable junction box	for all industrial applications, max. 8 load cells	200 × 120 × 75 mm	9405 361 30081
PR 6130/04N	Cable junction box	Aluminium, grey painted, IP67, for all industrial applications, max. 4 load cells	175 × 80 × 57 mm	9405 361 30041
PR 6130/64Sa	Stainless steel cable junction box	material stainless steel 1.4301, IP68, IP69K, for all industrial, intrinsically safe and W&M applications, max. 4 load cells	190 × 160 × 60 mm	9405 361 30642
PR 6130/65S	Stainless steel cable junction box	material stainless steel 1.4301, IP68, IP69K, for all cable junction box industrial applications, instrinsically safe and W&M applications, max. 4 load cells	172 × 105 × 55 mm	9405 361 30652
PR 6130/68S	Stainless steel cable junction box	material stainless steel 1.4404, IP68, IP69K, for all cable junction box industrial applications, instrinsically safe and W&M applications, max. 8 load cells	240 × 170 × 70 mm	9405 361 30682
PR 6135	Extension cable	for all applications, grey	D = 9 mm	9405 361 35..2
PR 6135/..A	Extension cable, armoured	for all applications, grey	D = 13 mm	9405 361 35..9
PR 6136	Extension cable	for intrinsically safe applications, blue	D = 11 mm	9405 361 36..2
PR 6136/..A	Extension cable, armoured	for intrinsically safe applications, blue	D = 13 mm	9405 361 36..9

Type	Description		Dimensions	Order number
PR 6007/00N	Mounting kit	material St37, zinc plated, chromated		9405 360 07001
PR 6007/00S	Mounting kit	material 1.4301		9405 360 07002

PR 6007/00N+S





Dimensions in mm

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