

Weighing module Novego®

Hygienic all-in-one solution for reliable weighing of vessels



! Benefits

- Hygienic weighing module ensures efficient cleaning
- High degree of process reliability and precision thanks to the innovative side-force-resistant system
- Quick and easy commissioning due to smart add-on parts
- Durable, reliable weighing solution with excellent corrosion resistance

The weighing module Novego® was specifically developed to meet the increasingly stringent requirements of the food industry. This hygienic all-in-one solution boasts a range of innovative properties to ensure simple, error-free installation and maximum resistance to lateral forces.

Unique on the market: reliable measurement accuracy – even with high side forces

- ① Minimum **sensitivity to side forces**: the weighing module Novego® reliably absorbs lateral forces. The six strain gauges ensure maximum measurement accuracy and prevent incorrect quantities, even when using mixers.
- ① The **optimal accessibility** of all components enables quick, easy and efficient cleaning, and prevents soiling.
- ① The **built-in height adjuster and innovative tilt correction** for sloped surfaces ensure intuitive installation of the Novego®, meaning it is ready for operation immediately.
- ① The high **product quality and corrosion resistance** of the Novego® reduce set-up costs and machine downtime.

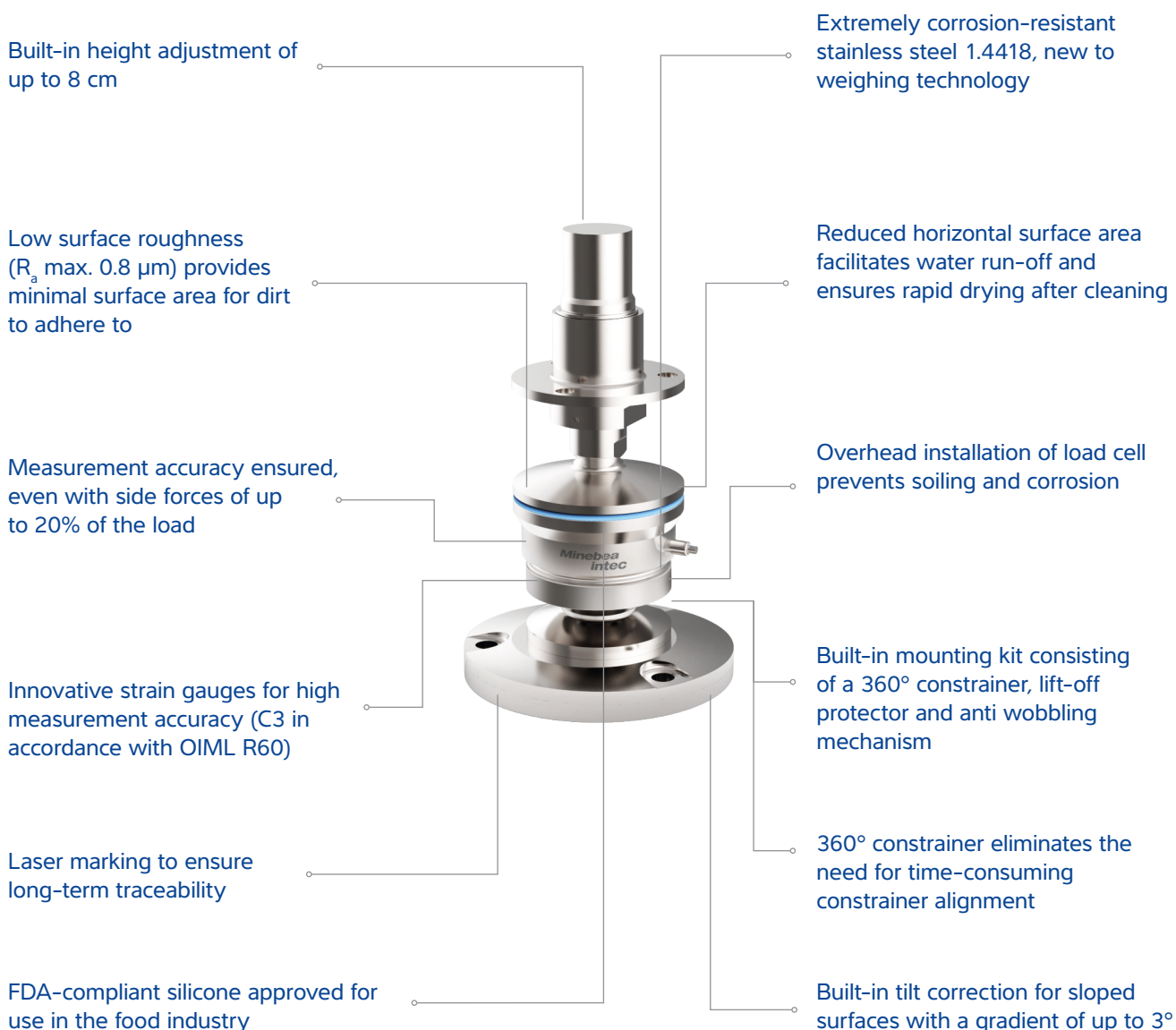
Novego®: one weighing module, a world of advantages

Novego® ensures process reliability, measurement accuracy and rapid cleaning. The exceptional corrosion resistance of the stainless steel and the product design in accordance with EHEDG guidelines make the weighing module resistant to dirt, water and even aggressive cleaning products.



The weighing module Novego® was developed in line with the stringent design standards of the European Hygienic Engineering and Design Group (EHEDG).

Technological advancement is the sum of many small details



Technical Data



Regional
metrological
certificates
available

Weighing module Novego® / PR 6261 (125kg - 2t)

Parameter	Description	Abbr.	D1	C3	Unit
Accuracy class			0.04	0.015	% 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}	125	125, 250, 500, 1,000, 2,000	kg
Safe load limit	Maximum load without irreversible damage	E _{lim}	150		% E _{max}
Destructive load	Danger of mechanical destruction	E _d	>300		% E _{max}
Max. permissible lifting force	To still hold the specified performance afterwards		100		% E _{max}
Destructive lifting force	Danger of mechanical destruction (by lifting)		>300 but max. 3 t		% E _{max}
(Nominal) side force range	Range of side force to hold the specified performance	QK _n	<20		% load
Side force limit	Maximum side force without irreversible damage	E _{lq}	For 125 kg: 200 For 250/500 kg: 150 For 1 t, 2 t: 100 (max. 1 t)		% E _{max}
Minimum LC verification	Minimum load cell verification interval $v_{min} = E_{max} / Y$	Y	5,000	14,000	
Deadload output return	Factor for dead load output return after load ($DR = \frac{1}{2} * E_{max} / Z$)	Z	1,000	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	<0.25	<0.07	% C _n
Zero output signal	Load cell output signal under unloaded condition	S _{min}	0 ± 2.0	0 ± 1.5	% C _n
Repeatability error	Max. change in load cell output for repeated loading	ε _R	<0.01	<0.005	% C _n
Creep, during 30 min	max.change in load cell output under E _{max}	d _{cr}	<0.03	<0.016	% C _n
Non-linearity	Max. deviation from best straight line through zero	d _{lin}	<0.035	<0.01	% C _n
Hysteresis	Max. difference in LC output between loading and unloading	d _{hy}	<0.035	<0.016	% C _n
Temperature effect (TK) on S _{min}	Max. change of S _{min} over B _T	TK _{Smin}	<0.028	<0.01	% C _n /10K
Temperature effect on C ¹⁾	Max. change of C over B _T	TK _C	<0.03	<0.01	% C _n /10K
Input impedance	Between supply terminals	R _{LC}	1,080 ± 10		Ω
Output impedance	Between measuring terminals	R _O	1,010 ± 1		Ω
Insulation impedance	Between measuring circuit and housing at 100 V _{DC}	R _{IS}	>5,000		MΩ
Insulation voltage	Between circuit and housing (Novego® ..E only)		500		V _{DC}
Recommended supply voltage	To hold the specified performance	B _u	4 to 20		V _{DC}
Max. supply voltage	Permissible for continuous operation without damage	U _{max}	24		V _{DC}
Nominal ambient temp. range	To hold the specified performance	B _T	-10 to +40		°C
Usable ambient temp. range	Permissible for continuous operation without damage	B _{Tu}	-30 to +95		°C
Storage temperature range	Transportation and storage	B _{Ti}	-40 to +95		°C
Permissible eccentricity	Permissible displacement from nominal load line	S _{ex}	±2.5		mm
Vibration resistance	Resistance against oscillations (IEC 68-2-6 Fc)		20 g, 100 h, 10 to 150 Hz		
Air pressure effect	Influence of ambient air pressure on S _{min}	PK _{Smin}	<17		g/kPa
Nominal deflection	Max. elastic deformation under nominal load For E _{max} ≤ 500 kg For E _{max} ≥ 1	S _{nom}	Max. 0.1 Max. 0.2		mm
Material (sensor)			1.4418 (DIN EN 10088-3)		
Material (pendulum base)	1.4301 and 1.4418 (DIN EN 10088-3)				
Protection class	according IEC 529 – Novego®: IP66 / IP68* / IP69 – Connexx®: IP66 / IP 68**				
Cables	TPE colour: grey, length: 5 m, ø 5 mm, 4 x 0.35 mm ² Novego® ..E TPE, colour: blue, length: 5 m, ø 5 mm, 4 x 0.35 mm ²				
Cable bending radius	≥25 mm in case of fixed installation ≥75 mm in case of flexible installation				

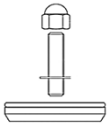
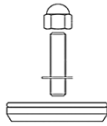
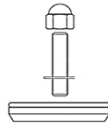
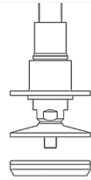
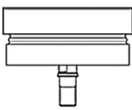
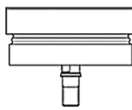
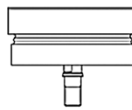
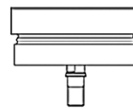


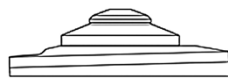

* The load cell can be submerged in water at a depth of 1.5 m for 10,000 hours.

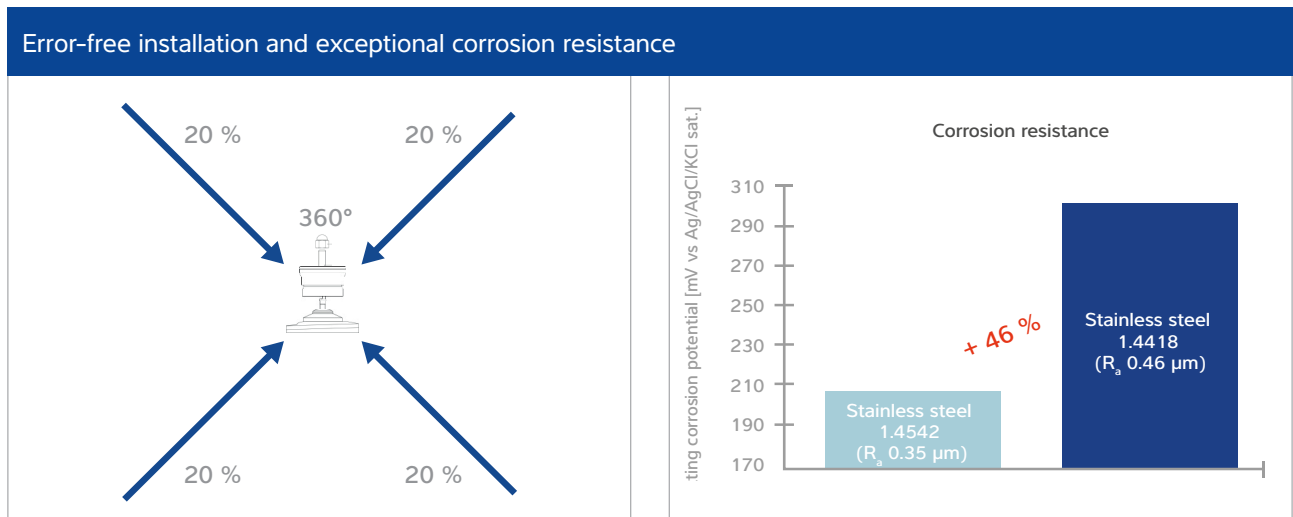
** The module can be submerged in water at a depth of 1.5 m for 100 hours.

¹⁾ The data for Non-linearity (d_{lin}), hysteresis (d_{hy}) and TK are typical values. For OIML R60 or NTEP approved load cells the sum of these values is within the permissible cumulative error limits.

Everything you need for easy installation, built-in: mounting kit with height adjuster and tilt correction

Novego® offers innovative features for the food industry that ensure simple, error-free installation. By choosing this weighing module, you are opting for rapid, precise, hygienic assembly, and save yourself additional, time-consuming constrainer alignment.

Weighing module Novego® product configuration				
Adapter plate				
	Novego®/00S	Novego®/00S	Novego®/00S	Novego®/01S
Load cell				
	Novego® 125 ... 2.000 kg C3	Novego® 125 ... 2.000 kg C3	Novego® 125 ... 2.000 kg C3	Novego® 125 ... 2.000 kg C3
Pendulum base				
	Novego®/02S rack-mounted	Novego®/03S floor-mounted	Novego®/04S tilt correction for floor mounting	Novego®/04S tilt correction for floor mounting



Simple installation without time-consuming constrictor alignment: the built-in 360° constrictor makes incorrect assembly impossible. In addition, reliable compensation for side forces of up to 20% of the load ensures consistent, precise measurement results.

The stainless steel 1.4418 used to make the Novego® has a maximum roughness (Ra) of 0.8 µm, thereby meeting EHEDG requirements. It is especially corrosion-resistant and durable, as proven by the pitting corrosion potential of stainless steel 1.4542 as used in conventional load cells as compared to the stainless steel 1.4418 used for the Novego®.

Protection class and country-specific explosion protection certificates

Protection classes IP68 and IP69, in accordance with DIN EN 60529. The load cell can be submerged in water to a depth of 1.5 m for 10,000 hours, and is spray-proof. The weighing module is suitable for explosion sub-group IIC.

Designation of the load cell for potentially explosive atmospheres

Zone	Designation	Certificate no.	For
0 and 1	II 1G Ex ia IIC T6 Ga Ex ia IIC T6 Ga 0Ex ia IIC T6 (*)	BVS 16 ATEX E 005 IECEX BVS 16.0005	Only PR 6261/..E (Novego® ..E)
20 and 21	II 1D Ex ta IIIC T160°C Da Ex ta IIIC T160°C Da Ex ta IIIC T160°C X (*)	TÜV 03 ATEX 2301 X IECEX TUN 17.0025X	all PR 6261 (Novego®)
2	II 3G Ex nA IIC T6 Gc 2Ex nA IICT6X (*)	Manufacturer's declaration	All PR 6261 (Novego®)
22	II 3D Ex tc IIIC T85 °C Dc Ex tc IIIC T85 °C X (*)	Manufacturer's declaration	All PR 6261 (Novego®)
	Ambient temperature in Ex-Area -30... +55 °C (*) only with approval TP TC 012 (TRCU 012) -52...+55 °C		
FMus	IS CL I, II, II, DIV 1, GP A, B, C, D, E, F, G Entity - 4012 101 5688 NI CL I, II, II, DIV 2, GP A, B, C, D, E, F, G NIFW - 4012 101 5688 T4A Ta= -40 °C bis 70 °C; T5 Ta= -40 °C bis 55 °C	FM17US0276	All PR 6261 (Novego®)
FMca	IS CL I, II, II, DIV 1, GP A, B, C, D, E, F, G Entity - 4012 101 5688 NI CL I, II, II, DIV 2, GP A, B, C, D, E, F, G NIFW - 4012 101 5688 T4A Ta= -40 °C bis 70 °C; T5 Ta= -40 °C bis 55 °C	FM17CA0138	All PR 6261 (Novego®)

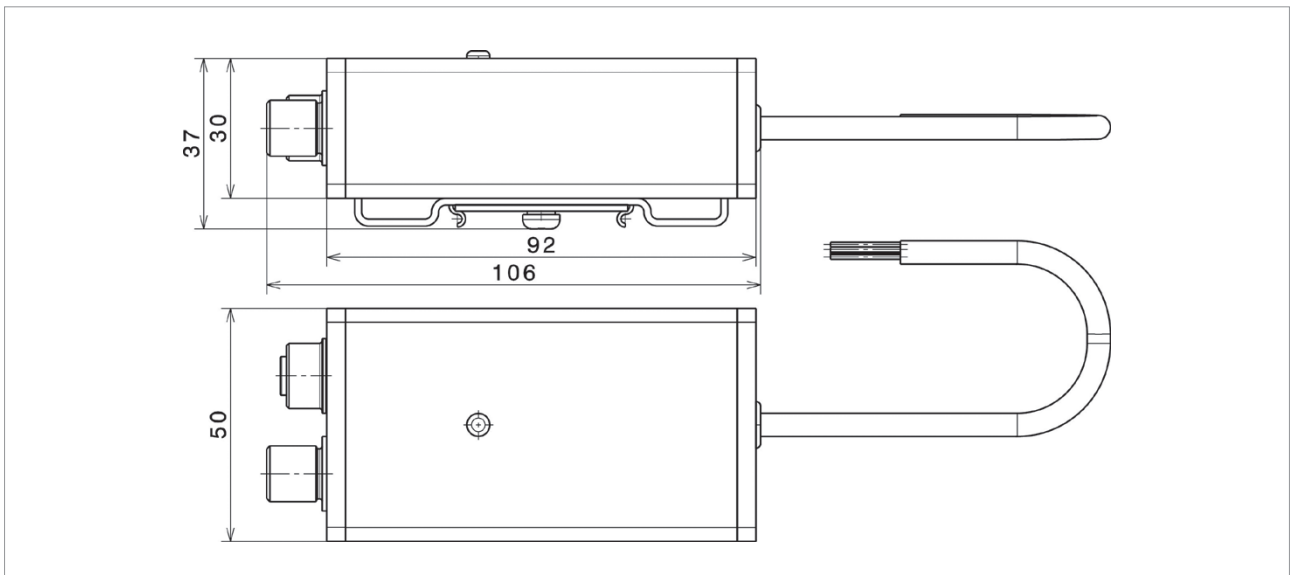


Converter Connex[®]



Fitted with the converter Connex[®], the load cell Novego[®] offers a whole host of possibilities:

- The digital version guarantees fast signalling times for reliable dosing processes.
- Thanks to the use of field bus communication, the cable junction box is no longer needed.
- The standard interface CANopen ensures straightforward installation and calibration.
- CANopen allows for extra-long communication paths of up to 200 m.
- Weight values can also be generated individually – per load cell – meaning that defective load cells can be identified more easily.

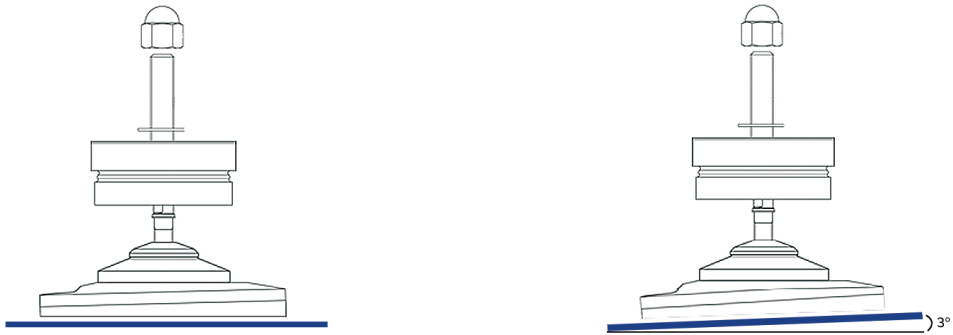


Converter Connex[®]

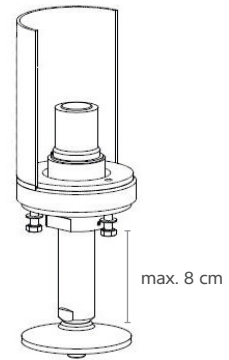
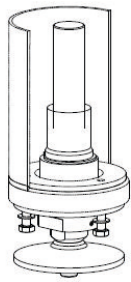
Parameter	Description	Abbr.	C3*	Unit
Nominal ambient temp. range	To hold the specified performance	B _f	-10 ... +40	°C
Usable temperature range	Permissible for continuous operation without damage	B _{tu}	-30 ... +60	°C
Storage temperature range	Without electrical and mechanical stress	B _{ti}	-30 ... +70	°C

Technical drawings

Built-in tilt correction and height adjuster

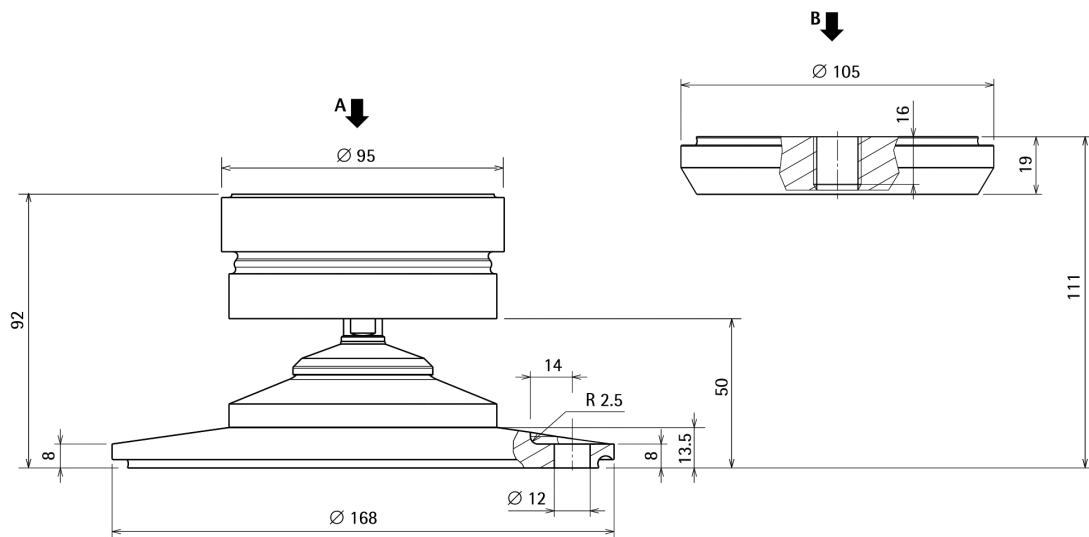


Built-in tilt correction for sloped surfaces with a gradient of up to 3°

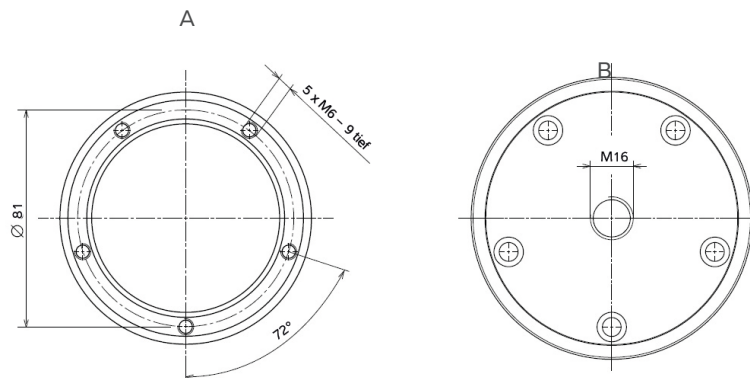


Built-in height adjuster to balance out vessel feet

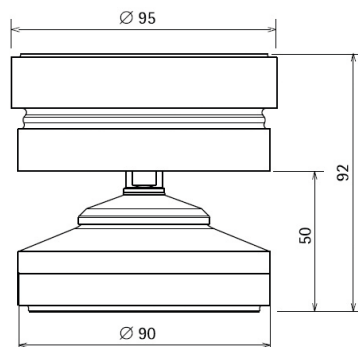
Dimensions of individual components



Dimensions of the load cell Novego®, pendulum base for floor mounting Novego®/03S and adapter plate Novego®/00S

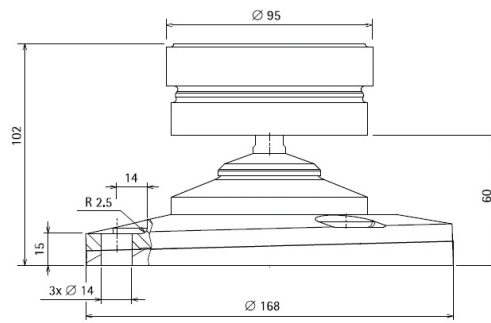


Drilling pattern for load cell Novego® and adapter plate Novego®/00S

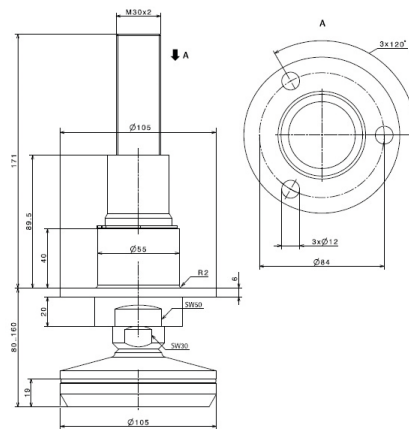


Dimensions of the load cell Novego® and pendulum base for rack mounting Novego®/02S

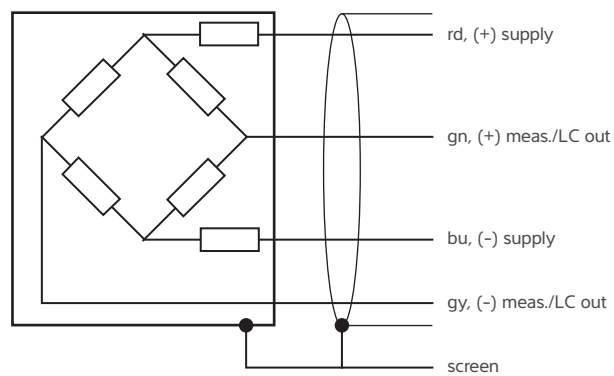
Dimensions of individual components



Dimensions of the load cell Novego® and pendulum base with tilt correction for floor mounting Novego®/04S



Dimensions and drilling pattern for height adjuster Novego®/01S



Connection diagram

Weighing module Novego®

Type	Packaging (mm)	Weight gross/net (kg)	Order number	Converter Connexx® (optional)
PR 6261/125 kg D1	ca. 290×210×120	ca. 1.7/ca. 1.4	940526101112	•
PR 6261/125 kg C3	ca. 290×210×120	ca. 1.7/ca. 1.4	940526103112	•
PR 6261/250 kg C3	ca. 290×210×120	ca. 1.7/ca. 1.4	940526103125	•
PR 6261/500 kg C3	ca. 290×210×120	ca. 1.7/ca. 1.4	940526103150	•
PR 6261/1t C3	ca. 290×210×120	ca. 1.7/ca. 1.4	940526103210	•
PR 6261/2t C3	ca. 290×210×120	ca. 1.7/ca. 1.4	940526103220	•

Weighing module Novego® as ex-version

Type	Packaging (mm)	Weight gross/net (kg)	Order number
PR 6261/125 kg D1E	ca. 290×210×120	ca. 1.7/ca. 1.4	940566101112
PR 6261/125 kg C3E	ca. 290×210×120	ca. 1.7/ca. 1.4	940566103112
PR 6261/250 kg C3E	ca. 290×210×120	ca. 1.7/ca. 1.4	940566103125
PR 6261/500 kg C3E	ca. 290×210×120	ca. 1.7/ca. 1.4	940566103150
PR 6261/1t C3E	ca. 290×210×120	ca. 1.7/ca. 1.4	940566103210
PR 6261/2t C3E	ca. 290×210×120	ca. 1.7/ca. 1.4	940566103220

Mounting parts weighing module Novego®

	Type	Description	Packaging (mm)	Weight gross/net (kg)	Order number
Pendulum	PR 6061/02S	Pendulum base for rack mounting	ca. 255×255×65	ca. 1.8/1.3	940536061022
	PR 6061/03S	Pendulum base for floor mounting	ca. 255×255×65	ca. 2.9/2.5	940536061032
	PR 6061/04S	Pendulum base for floor mounting with built-in tilt correction	ca. 255×255×65	ca. 4.8/4.2	940536061042
Adapter plate	PR 6061/00S	Adapter plate with threaded bolts	ca. 147×125×50	ca. 1.2/1.1	940536061002
	PR 6061/01S	Adapter plate with built-in height adjuster	ca. 425×105×100	ca. 3.7/3.3	940536061012
	PR 6061/05S	Shim set	ca. 200×130×40	ca. 1.6/1.4	940536061052
	PR 6061/06S	Transport and assembling Kit	ca. 190×140×40	ca. 0.3/0.2	940536061062
	PR 6061/07S	Pivot	ca. 290×210×120	ca. 2.6/2.2	940536061072

Accessoires weighing module Novego®

Type	Description		Packaging (mm)	Weight gross/net (kg)
PR 6130/64Sa	Cable junction box for use in potentially explosive atmospheres	Material: stainless steel 1.4301, IP68, IP69 for all industrial, intrinsically safe and verifiable applications, for up to 4 load cells	190×160×60 mm	ca. 1.4/ca. 1.2
PR 6130/65S	Cable junction box for use in potentially explosive atmospheres	Material: rust-proof stainless steel 1.4301, IP68, IP69 for all industrial, intrinsically safe and verifiable applications, for up to 4 load cells	172×105×55 mm	ca. 1.0/ca. 0.75
PR 6130/34Sa	Cable junction box	Material: rust-proof stainless steel 1.4301, IP68, IP69 for all industrial, verifiable applications, for up to 4 load cells	190×160×60 mm	ca. 1.3/ca. 1.0
PR 6130/35S	Cable junction box	Material: rust-proof stainless steel 1.4301, IP68, IP69 for all industrial, verifiable applications, for up to 4 load cells	172×105×55 mm	ca. 0.8/ca. 0.6
PR 6135	Installation cable	For all applications, grey	D = 9 mm	
PR 6135/A	Installation cable, reinforced	For all applications, grey	D = 13 mm	
PR 6136	Installation cable	For all intrinsically safe applications, blue	D = 11 mm	
PR 6136/A	Installation cable, reinforced	For all intrinsically safe applications, blue	D = 13 mm	

Ordering information

Converter Connexx®		
Type	Description	Order number
PR 6261/DIGITAL KIT	The converter Connexx® can only be ordered with the above-mentioned load cells from the PR 6261 series. When ordering, both order numbers need to be given.	940516100000

Additional information:

The converters Connexx® can be used with the Indicator X3.

To do this, the indicator X3 must be equipped with a CANopen interface card PR 5510/05 (940535510051).

Converter Connexx® – application sets		
Type	Description	Order number
PR 6154/03	Application set for 3 load cells. Includes: 2 × PR 6155/05, 1 × PR 6152/25, 1 × PR 6153/99	940536154031
PR 6154/04	Application set for 4 load cells. Includes: 3 × PR 6155/05, 1 × PR 6152/25, 1 × PR 6153/99	940536154041

Converter Connexx® – load cell accessories		
Type	Description	Order number
PR 6152/10	Connection cable between Connexx® and X3 (10 m)	940536152101
PR 6152/25	Connection cable between Connexx® and X3 (25 m)	940536152251
PR 6152/40	Connection cable between Connexx® and X3 (40 m)	940536152401
PR 6153/98	Divided cable gland	940536153981
PR 6153/99	Terminal resistor for Connexx®, M12	940536153991
PR 6155/05	Connection cable between Connexx® and Connexx® (5 m)	940536155051
PR 6155/10	Connection cable between Connexx® and Connexx® (10 m)	940536155101

Sales rep.:



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



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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