

# Weighing module Novego<sup>®</sup>, Converter Connexx<sup>®</sup>

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



# (!) Your 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<sup>®</sup> 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

- Minimum sensitivity to side forces: the weighing module Novego<sup>®</sup> reliably absorbs lateral forces. The six strain gauges ensure maximum measurement accuracy and prevent incorrect quantities, even when using mixers.
- 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<sup>®</sup>, meaning it is ready for operation immediately.
- ① The high product quality and corrosion resistance of the Novego<sup>®</sup> reduce set-up costs and machine downtime.

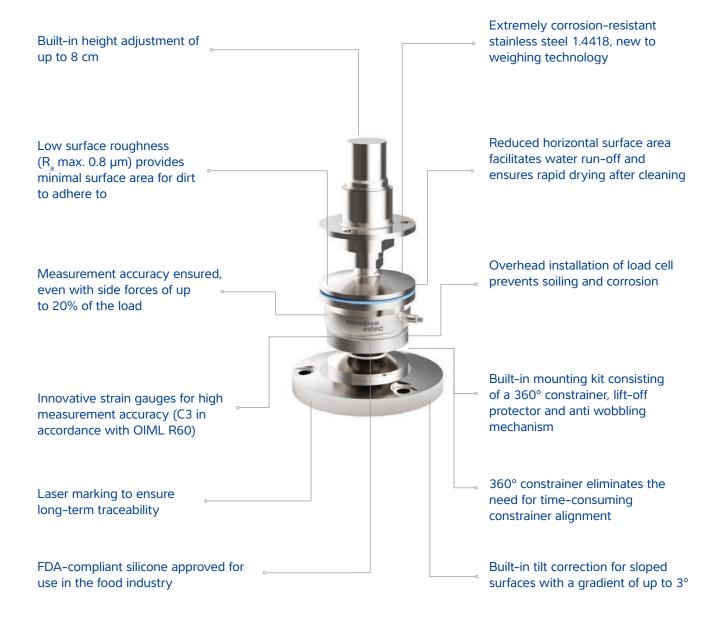
## Novego®: one weighing module, a world of advantages

Novego<sup>®</sup> 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<sup>®</sup> 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



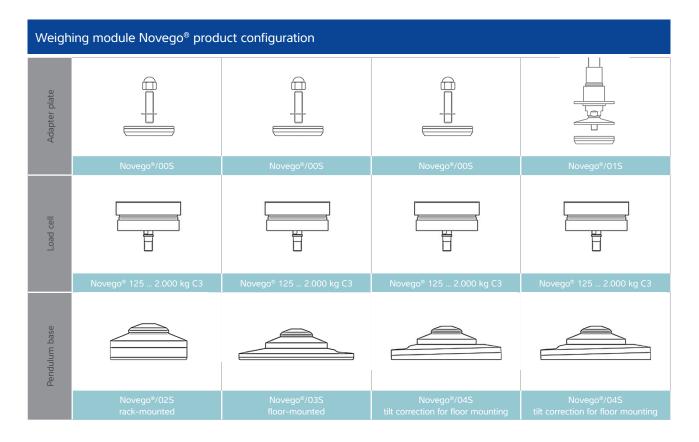
# weighing module Novego® / PR 6261 (125kg - 2t)

Parameter	Description			Unit
Accuracy class			0.015	% E <sub>max</sub>
Minimum dead load	Lowest limit of specified measuring range	E <sub>min</sub>	0	% E <sub>max</sub>
Maximum capacity	Highest limit of specified measuring range	E <sub>max</sub>	125, 250, 500, 1,000, 2,000	kg
Safe load limit	Maximum load without irreversible damage	Elim	150	% E <sub>max</sub>
Destructive load	Danger of mechanical destruction	Ed	>300	% E <sub>max</sub>
Max. permissible lifting force	To still hold the specified performance afterwards	d	100	% E <sub>max</sub>
Destructive lifting force	Danger of mechanical destruction (by lifting)		>300 but max. 3 t	% E <sub>max</sub>
(Nominal) side force range	Range of side force to hold the specified performance	QK	<20	% load
Side force limit	Maximum side force without irreversible damage	E <sub>lq</sub>	For 125 kg: 200 For 250/500 kg: 150 For 1t, 2t: 100 (max. 1t)	% E <sub>max</sub>
Minimum LC verification	Minimum load cell verification interval $v_{min} = E_{max} / Y$	Υ	14,000	
Deadload output return	Factor for dead load output return after load (DR= $\frac{1}{2}$ *E <sub>may</sub> /Z)	Z	3,000	
Rated output	Relative output at maximum capacity	C <sub>n</sub>	2	mV/V
Tolerance on rated output	Permissible deviation from rated output	d	<0.07	% C
Zero output signal	Load cell output signal under unloaded condition	S <sub>min</sub>	0 to 1.5	% C_
Repeatability error	Max. change in load cell output for repeated loading	ε <sub>R</sub>	<0.005	% C
Creep, during 30 min	max.change in load cell output under $E_{max}$	d <sub>cr</sub>	<0.016	% C_
Non-linearity	Max. deviation from best straight line through zero	d <sub>Lin</sub>	<0.01	% C
Hysteresis	Max. difference in LC output between loading and unloading	d <sub>hy</sub>	<0.016	% C
Temperature effect (TK) on S <sub>min</sub>	Max. change of $S_{min}$ over $B_{T}$	TK <sub>Smin</sub>	<0.01	% C_/10
Temperature effect on C <sup>1)</sup>	Max. change of C over B <sub>r</sub>	TK	<0.01	% C / 10k
Input impedance	Between supply terminals	R <sub>LC</sub>	1,080±10	Ω
Output impedance	Between measuring terminals	Ro	1,010±1	Ω
Insulation impedance	Between measuring circuit and housing at 100 $V_{pc}$	R <sub>IS</sub>	>5,000	MΩ
Insulation voltage	Between circuit and housing (Novego <sup>®</sup> E only)	IS	500	V <sub>DC</sub>
Recommended supply voltage	To hold the specified performance	B,	4 to 20	V
Max. supply voltage	Permissible for continuous operation without damage	U <sub>max</sub>	24	V
Nominal ambient temp. range	To hold the specified performance	B <sub>T</sub>	-10 to +40	°C
Usable ambient temp. range	Permissible for continuous operation without damage	B <sub>TU</sub>	-40 to +95	°C
Storage temperature range	Transportation and storage	B <sub>Ti</sub>	-40 to +95	°C
Permissible eccentricity	Permissible displacement from nominal load line	S <sub>ex</sub>	±2.5	mm
Vibration resistance	Resistance against oscillations (IEC 68-2-6 Fc)	ex	20 g, 100 h, 10 to 150 Hz	
Air pressure effect	Influence of ambient air pressure on $S_{min}$	PK <sub>Smin</sub>	<17	g/kPa
Nominal deflection	Max. elastic deformation under nominal load For $E_{max} \le 500 \text{ kg}$ For $E_{max} \ge 1$	S <sub>nom</sub>	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®: IP68*/IP69 – ConnexxR: IP65 / IP 68**	
Cables			TPE, colour: grey, ø 5 mm, 4 x 0.35 mm <sup>2</sup> Novego <sup>®</sup> E TPE, colour: blue, ø 5 mm, 4 x 0.35 mm <sup>2</sup>	
Cable bending radius			$\geq$ 25 mm in case of fixed installation $\geq$ 75 mm in case of flexible installation	

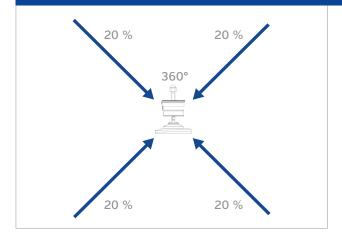
 \* The load cell can be submerged in water at a depth of 1.5 m for 10,000 hours.
 \*\* The module can be submerged in water at a depth of 1.5 m for 100 hours.
 \*) The data for Non-linearity, hysteresis and TKC are typical values. For OIML R60 or NTEP approved load cells the sum of these values is within the permissible cumulative error limits.

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

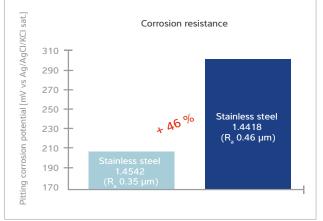
Novego<sup>®</sup> offers innovative features for the food industry that ensure simple, error-free installation. By choosing this weighing module, you are opting for rapid, precise, hygienic assembly, and save yourself additional, time-consuming constrainer alignment.



#### Error-free installation and exceptional corrosion resistance



Simple installation without time-consuming constrainer alignment: the built-in 360° constrainer 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 (R<sub>2</sub>) 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	ll1G Ex ia llC T6 Ga Ex ia llC T6 Ga 0Ex ia llC T6 (")	BVS 16 ATEX E 005 IECEx BVS 16.0005	Only PR 6261/E (Novego®E)
20 and 21	II 1D Ex ta IIICT160°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	ll 3G Ex nA llC T6 Gc 2Ex nA llCT6X (")	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 Connexx®



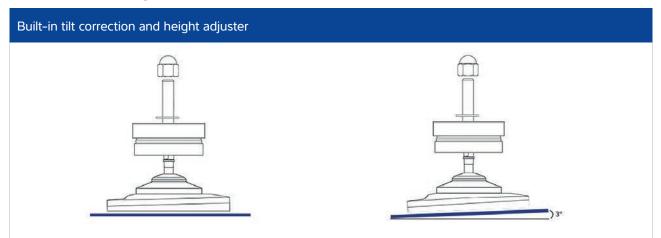
Fitted with the converter Connexx<sup>®</sup>, the load cell Novego<sup>®</sup> offers a whole host of possibilities:

- 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

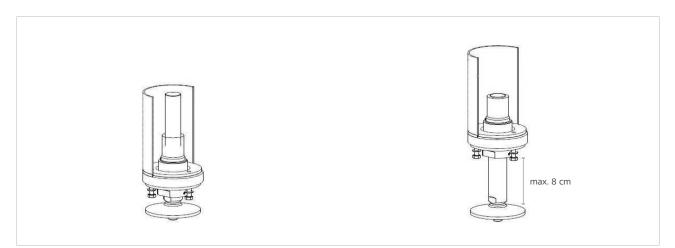
   per load cell meaning that defective load cells
   can be identified more easily.

Parameter	Description	Abbr.	C3*	Unit
Nominal ambient temp. range	To hold the specified performance	B <sub>T</sub>	-10+40	°C
Usable temperature range	Permissible for continuous operation without damage	B <sub>Tu</sub>	-30+60	°C
Storage temperature range	Without electrical and mechanical stress	B <sub>Ti</sub>	-30+70	°C

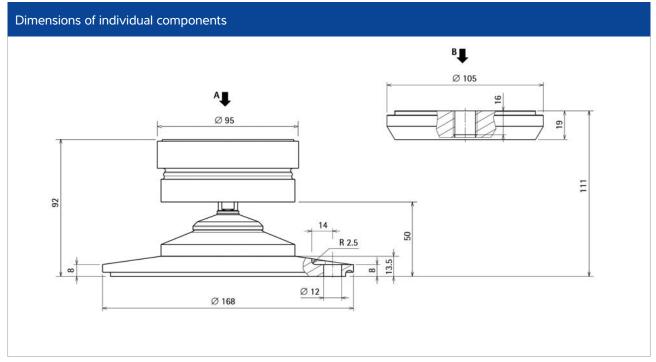
# Technical drawing



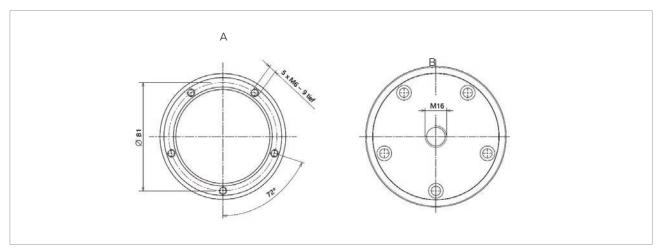
Built-in tilt correction for sloped surfaces with a gradient of up to  $3^{\circ}$ 



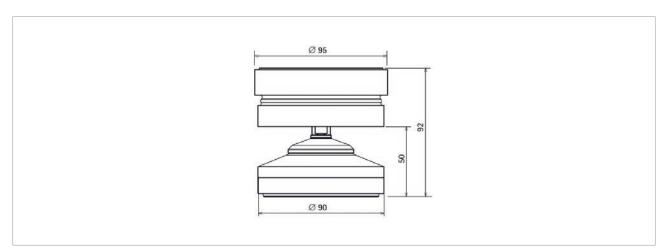
Built-in height adjuster to balance out vessel feet



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



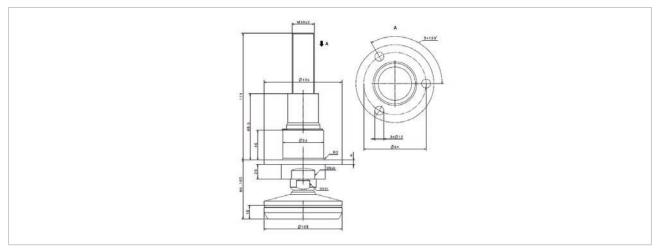
Drilling pattern for load cell Novego® and adapter plate Novego®/00S



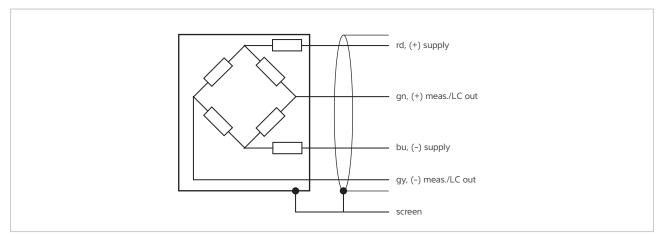
Dimensions of the load cell Novego® and pendulum base for rack mounting Novego®/02S

# Dimensions of individual components

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

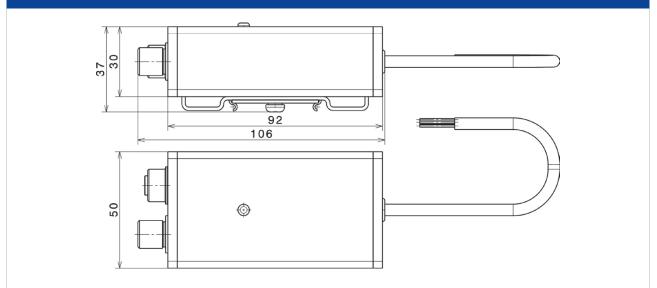


Dimensions and drilling pattern for height adjuster Novego®/01S



Connection diagram

#### Converter Connexx®



Converter Connexx®



## Mounting parts weighing module Novego®

	31 3 .	5			
	Туре	Description	Packaging (mm)	Weight gross/net (kg)	Order number
E	PR 6061/02S	Pendulum base for rack mounting	ca. 255×255×65	ca. 1,8/1,3	940536061022
Iulu	PR 6061/03S	Pendulum base for floor mounting	ca. 255×255×65	ca. 2,9/2,5	940536061032
Pend	PR 6061/04S	Pendulum base for floor mounting with built-in tilt correction	ca. 255×255×65	ca. 4,8/4,2	940536061042
D	PR 6061/00S	Adapter plate with threaded bolts	ca. 147×125×50	ca. 1,2/1,1	940536061002
plate	PR 6061/01S	Adapter plate with built-in height adjuster	ca. 425×105×100	ca. 3,7/3,3	940536061012
ter	PR 6061/05S	Shim set	ca. 200×130×40	ca. 1,6/1,4	940536061052
Adaptei	PR 6061/06S	Transport and assembling Kit	ca. 190×140×40	ca. 0,3/0,2	940536061062
4	PR 6061/07S	Pivot	ca. 290×210×120	ca. 2,6/2,2	940536061072

Weighing module Novego <sup>®</sup> as ex-version			
Туре	Packaging (mm)	Weight gross/net (kg)	Order number
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

## Accessoires weighing module Novego®

Туре	Description		Abmessung	Gewicht Brutto/ Netto (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

Weighing module Novego®				
Туре	Packaging (mm)	Weight gross/net (kg)	Order number	Converter Connexx <sup>®</sup> Option*
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	•

Converter Connexx®		
Туре	Description	Order number
PR 6261/DIGITAL KIT	The converter Connexx <sup>®</sup> 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<sup>®</sup> 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 <sup>®</sup> – application sets		
Туре	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 <sup>®</sup> – load cell accessories		
	Туре	Description	Order number
	PR 6152/10	Connection cable between Connexx $^{\circ}$ and X3 (10 m)	940536152101
	PR 6152/25	Connection cable between Connexx $^{\circ}$ and X3 (25 m)	940536152251
	PR 6152/40	Connection cable between Connexx $^{\scriptscriptstyle \otimes}$ and X3 (40 m)	940536152401
	PR 6153/98	Divided cable gland	940536153981
	PR 6153/99	Terminal resistor for Connexx <sup>®</sup> , M12	940536153991
	PR 6155/05	Connection cable between Connexx $^{\circ}$ and Connexx $^{\circ}$ (5 m)	940536155051
	PR 6155/10	Connection cable between Connexx $^{\circ}$ and Connexx $^{\circ}$ (10 m)	940536155101

\* In combination with the Connexx<sup>®</sup> Converter, the weighing module is also available in a digital version.

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

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