



ELEVATOR OVERLOAD CONTROL SYSTEMS

Dear colleagues!

My name is Petro Syniehub. I am the owner of the VAGAR SP. Z O.O. in Poland and the group of companies «MIR VESOV» in Ukraine.

For more than 20 years we are manufacturing and selling weighing equipment: trade scales, commodity packing scales, crane scales, platform scales and warehouse scales, elevator overload control systems, weighing systems in motion, weighing shelves for retail chains, innovative solutions to increase sales and «Out-Of-Stock».

Since 2008 we have been a developer of elevator overload control systems. To the present day, more than 60,000 devices of our design have been delivered to our customers around the world, directly or through representatives. Among our developments, there are ready-made solutions for overload control systems with various places and methods of installation, overall dimensions, and sensors, including: under the cab, in the cab frame, in ropes, and in various suspension systems. The key characteristics of our products are reliability (less than 0.1% of complaints, 3 years warranty), measurement accuracy and competitive price. For more than three years we sell weight kits to Europe and have experience in developing and modifying existing overload control devices to suit all the customer requirements. It is also possible to organize OEM production.

We have experience, a product, a professional team, production facilities, factories, and warehouses of components in Ukraine and China, as well as a desire to continue working and developing in Europe and the world. My team and I are ready to consider any request, choose an analog from our range or develop an overload control system according to your terms of reference.

With all respect,
Owner of VAGAR SP. Z O.O. (Poland),
«MIR VESOV» (Kyiv, Ukraine),
Petro Syniehub



ABOUT US



23+

Years
in weighing
industry

15+

Years in elevator
overload
controlling field

50+

Elevator
manufacturers
use our solutions

60000+

Device
kits sold

100%
control

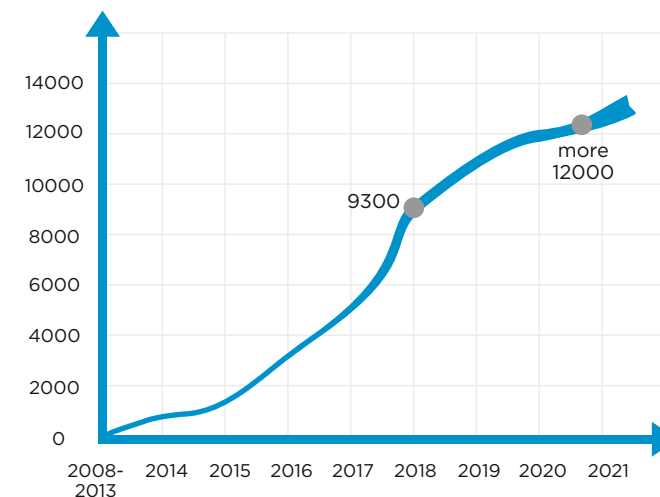
100% quality
control of finished
kits before shipment

3

Years
of warranty

SALES FOR MAIN CLIENTS

2008...2013	Σ 4300
2014	1200
2015	1300
2016	3700
2017	4800
2018	9300
2019	11000
2020	12000
2021	12500



BENEFITS

of using elevator overload systems

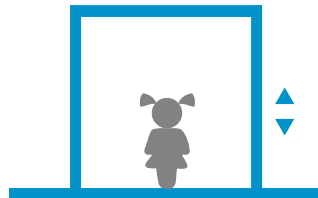
Security - elevator protection from overload



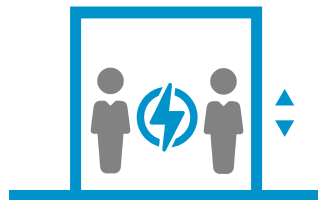
Comfort of elevator - the elevator does not stop to pick up passengers when loaded



Determination of availability passengers weight is < 15 kg. its means the elevator will «see» even a child

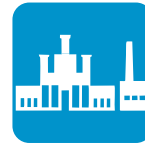


Energy saving. Power regulation of engine depend from loading of the elevator



ADVANTAGES

of elevator overload systems



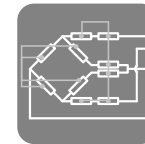
Factory production - guarantees high accuracy and reliability of the system



Humidity protection class IP67



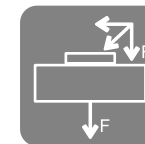
Rubber pillow - protects device from dynamic overload and provides equal load of sensors



The presence of temperature compensation allows work without errors in different climatic conditions



The presence of a full bridge Wheatstone allows significantly improve the accuracy of work and accordingly accurately determine presence of a passenger in the elevator



The round shape of the load cells - as a result of the reading load cells do not depend on the angle of application of the load. This form allows you to compensate parasitic non-axial force effects



Availability of fixin connector - protects the wires from bending and rubbing, which increases the reliability



Availability of a technical passport

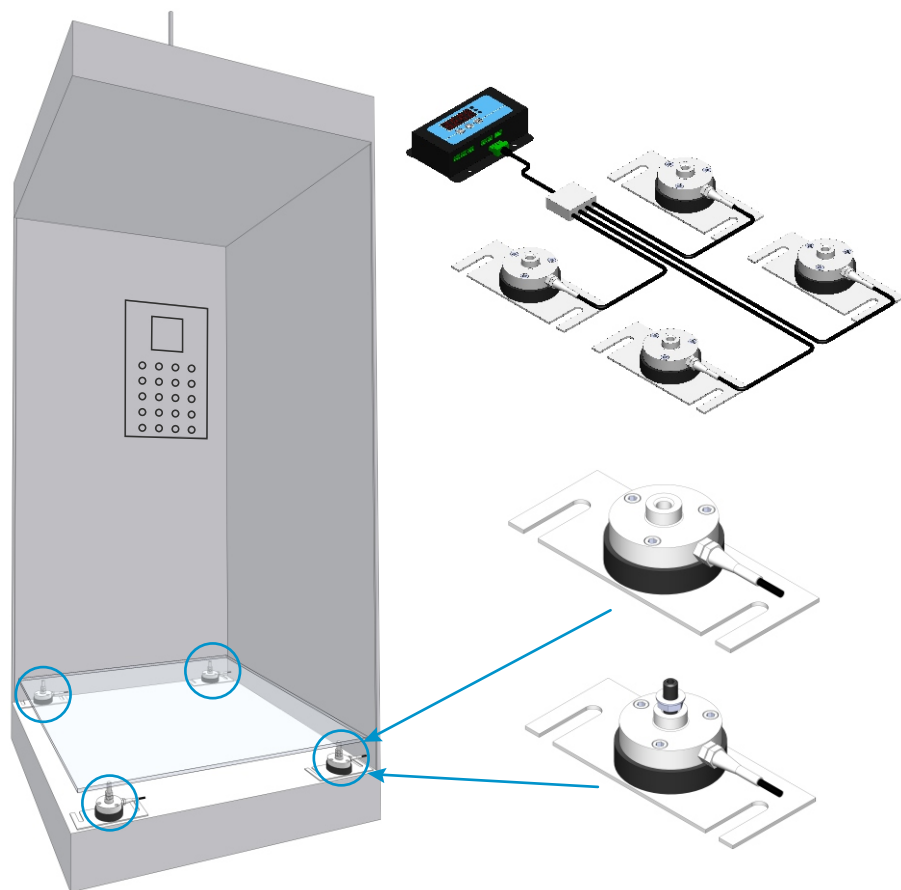


Metal housing - provides additional strength and protection from electromagnetic interference



Warranty - 3 years

Elevator overload control system EOS-C(1) (installation under the cab floor)



Set Contains

Quantity	Full article description
4 / 6 / 8 / 12	Load Cell
1	IP65 Junction Box
1	Indicator

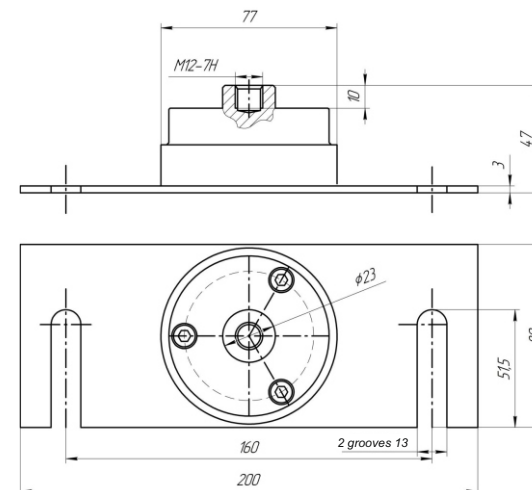
Technical characteristics

The set of load cells designed to install under the elevator cabin. The rated loading capacity of the load cell is 1 ton. The load cells have a protective sleeve against cable bending and a fixing gland to provide the IP 67 degree of protection. The load cells are mounted on shock absorbers to protect against dynamic influences during the movement of the elevator and provide an equal load of the load cells. The round shape of the load cell makes it possible to compensate for parasitic non-axial forces.

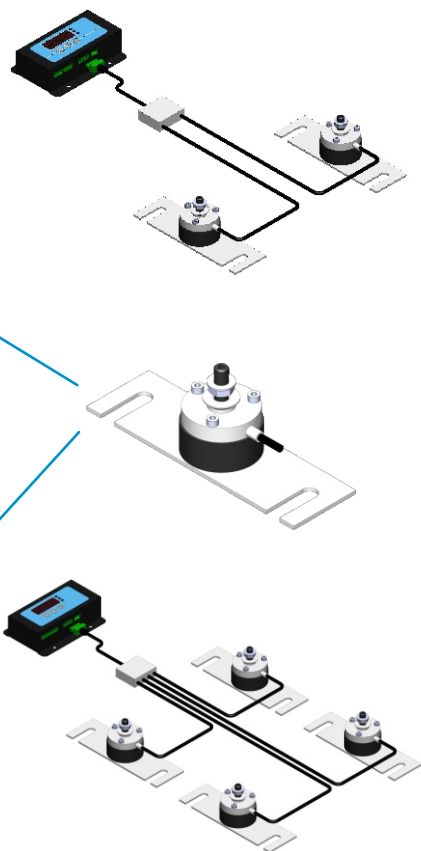
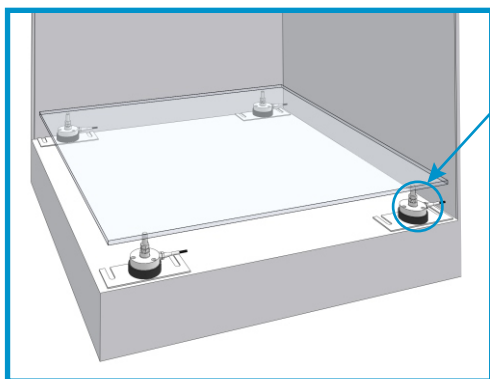
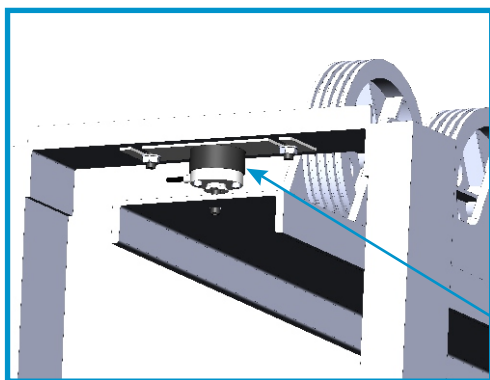
Studs and nuts are included in the kit EOS-C(1). Kit EOS-C is fully the same, but without studs and nuts.

Capacity	4000kg, 6000kg, 8000kg, 12000kg
Maximum short-time overload	12000kg, 18000kg, 24000kg, 36000kg
Load cell capacity	1000kg
Accuracy class	0,5%
Quantity of relay outputs	3
Levels of relay outputs	15 kg (passenger availability) 90% (move without stopping) 110% (overload)
Supply voltage	-230±20V 50±1Hz -24±4V (option)
Working temperature range	-10...+50°C
Protection class	IP54 IP67
Warranty	3 years

Overall dimensions (mm)



Elevator overload control system EOS-CS (installation under the cab floor, under the cab, in frame)



Set Contains

Quantity	Full article description
2 / 4	Load Cell
1	IP65 Junction Box
1	Indicator

Technical characteristics

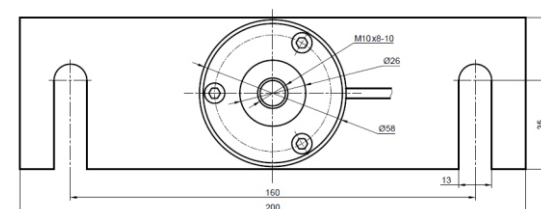
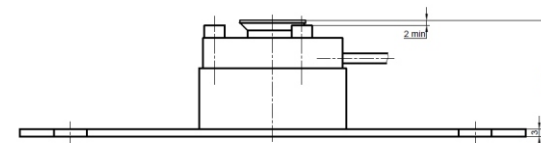
The set of load cells designed to install under the elevator cabin and on the elevator bed frame. The rated loading capacity of the load cell is 1 ton. The load cells are mounted on shock absorbers to protect against dynamic influences during the movement of the elevator and provide an equal load of the load cells. The round shape of the load cells makes it possible to compensate for parasitic non-axial forces. Studs and nuts are included in the kit.

The load cells have reduced overall dimensions in comparison with elevator overload control system EOS-C, which allows them to be installed in elevators with limited installation space.

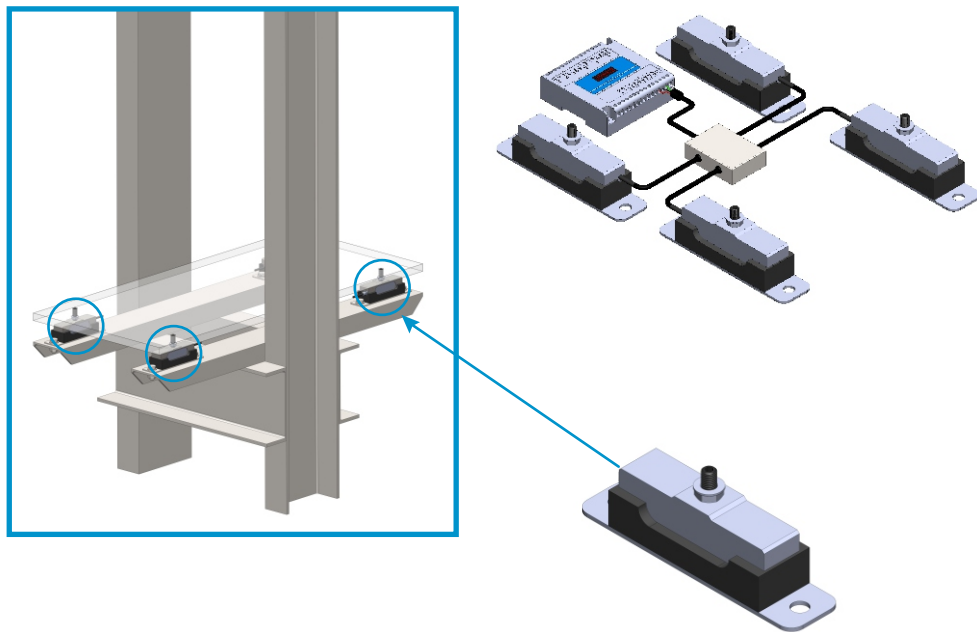
This set of load cells could be installed in other parts of the elevator structure, such as under motor bed frame.

Capacity	2000kg, 4000kg
Maximum short-time overload	6000kg, 12000kg
Load cell capacity	1000kg
Accuracy class	0,5%
Quantity of relay outputs	3
Levels of relay outputs	15 kg (passenger availability) 90% (move without stopping) 110% (overload)
Supply voltage	-230±20V 50±1Hz -24±4V (option)
Working temperature range	-10...+50°C
Protection class	IP54 IP67
Warranty	3 years

Overall dimensions (mm)



Elevator overload control system EOS-B (installation under the cab floor)



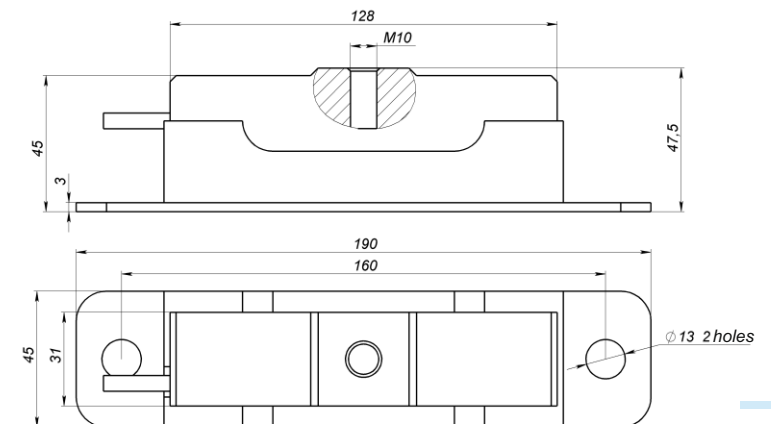
Technical characteristics

The set of load cells designed to install under the elevator cabin and on the elevator bed frame. The rated loading capacity of the load cell is 800 kg. The load cells are mounted on shock absorbers to protect against dynamic influences during the movement of the elevator and provide an equal load of the load cells. Studs and nuts are included in the kit.

The load cells have reduced overall dimensions in comparison with elevator overload control system EOS-C and EOS-CS, which allows them to be installed in elevators with limited installation space.

Capacity	3200kg
Maximum short-time overload	8000kg
Load cell capacity	800kg
Accuracy class	0,5%
Quantity of relay outputs	3
Levels of relay outputs	15 kg (passenger availability) 90% (move without stopping) 110% (overload)
Supply voltage	-230±20V 50±1Hz -24±4V (option)
Working temperature range	-10...+50°C
Protection class	- Indicator - Load cells
Warranty	3 years

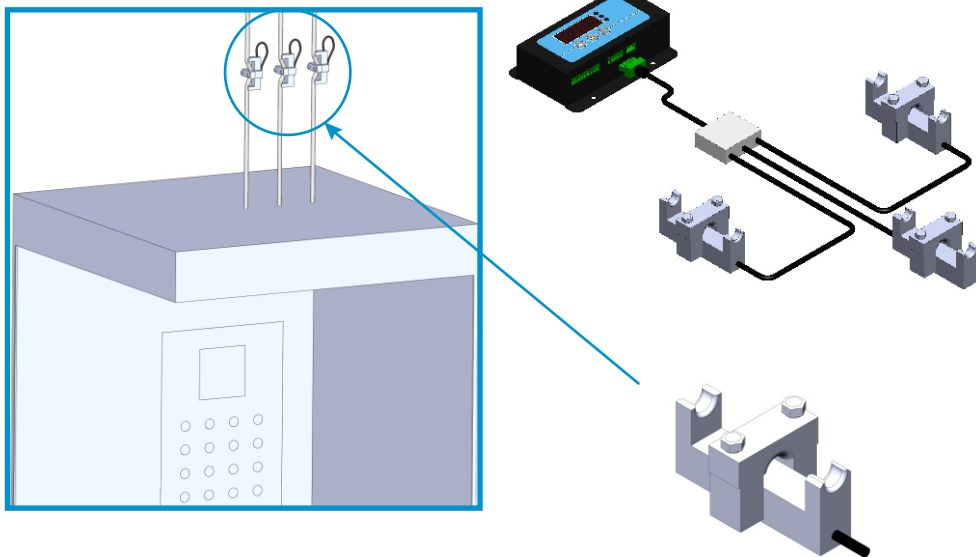
Overall dimensions (mm)



Set Contains

Quantity	Full article description
4	Load Cell
1	IP65 Junction Box
1	Indicator

Elevator overload control system EOS-R (installation in ropes)



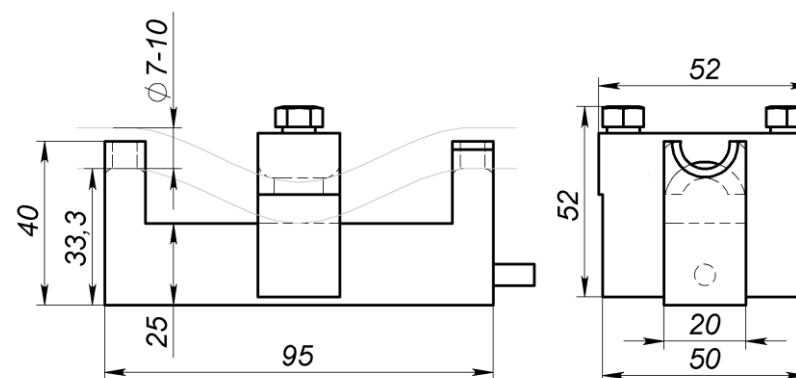
Technical characteristics

The set of load cells designed to install in a rope. The rated load capacity of the load cell is 0.5 or 1 ton. It is possible to produce a set with the number of load cells from 1 to 8 pcs at the request of the customer. The load cells are designed to be installed without the need to unload ropes. The nominal diameter of the cable for the load cell is from 7 to 10 mm for load cells with a nominal capacity of 0.5 ton and from 11 to 13 mm for load cells with a nominal capacity of 1 ton.

This kit is recommended for elevators where installation of other types of load cells is impossible or difficult, as well as for elevator modernization programs where overload control devices have not been installed before.

Capacity (per load cell)	500kg or 1000kg
Maximum short-time overload (per load cell)	1000kg or 2000kg
Accuracy class	0,5%
Quantity of relay outputs	3
Levels of relay outputs	15 kg (passenger availability) 90% (move without stopping) 110% (overload)
Supply voltage	~230±20V 50±1Hz -24±4V (option)
Working temperature range	-10...+50°C
Protection class	- Indicator - Load cells
Warranty	3 years

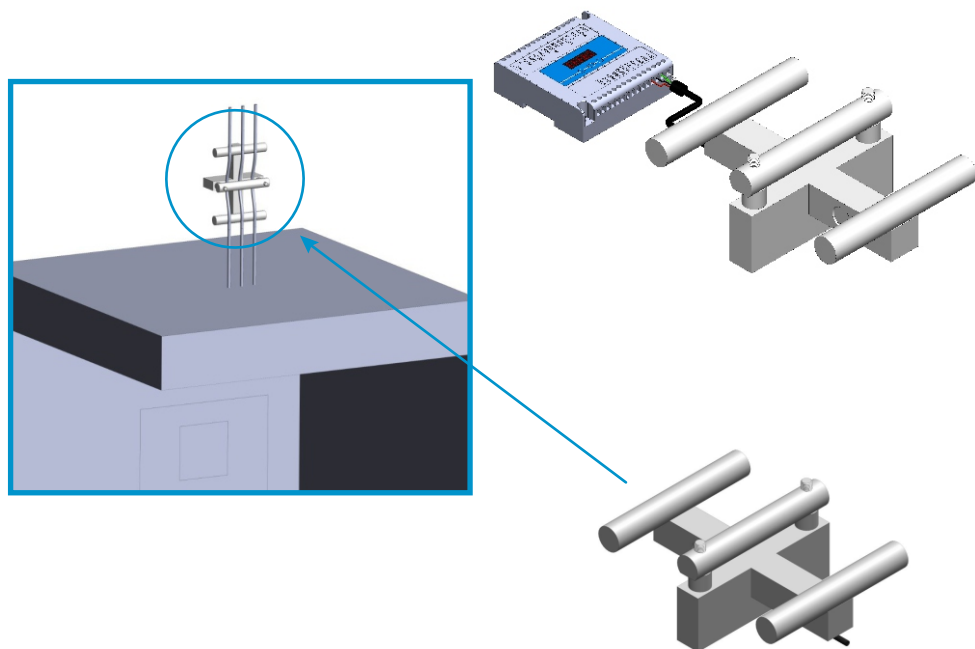
Overall dimensions (mm)



Set Contains

Quantity	Full article description
1/2/3/4/5/6	Load Cell
1	IP65 Junction Box
1	Indicator

Elevator overload control system EOS-R1 (installation in ropes)



Set Contains

Quantity	Full article description
1 +	Load Cell
1	IP65 Junction Box
1	Indicator

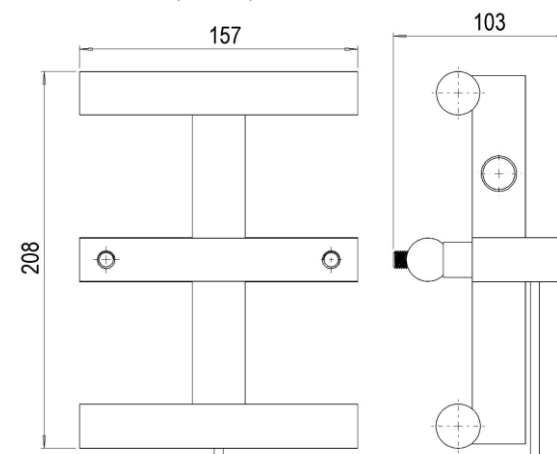
Technical characteristics

The set is designed for installation on several elevator ropes at ones. The rated loading capacity of the load cell is 3 or 4.5 tons depending on the selected model. The load cell has the IP 67 degree of protection. The load cell is suitable for ropes with diameter from 6 to 23 mm. It is possible to manufacture kits with more than one load cell to increase the rated load capacity or for needed amount of ropes.

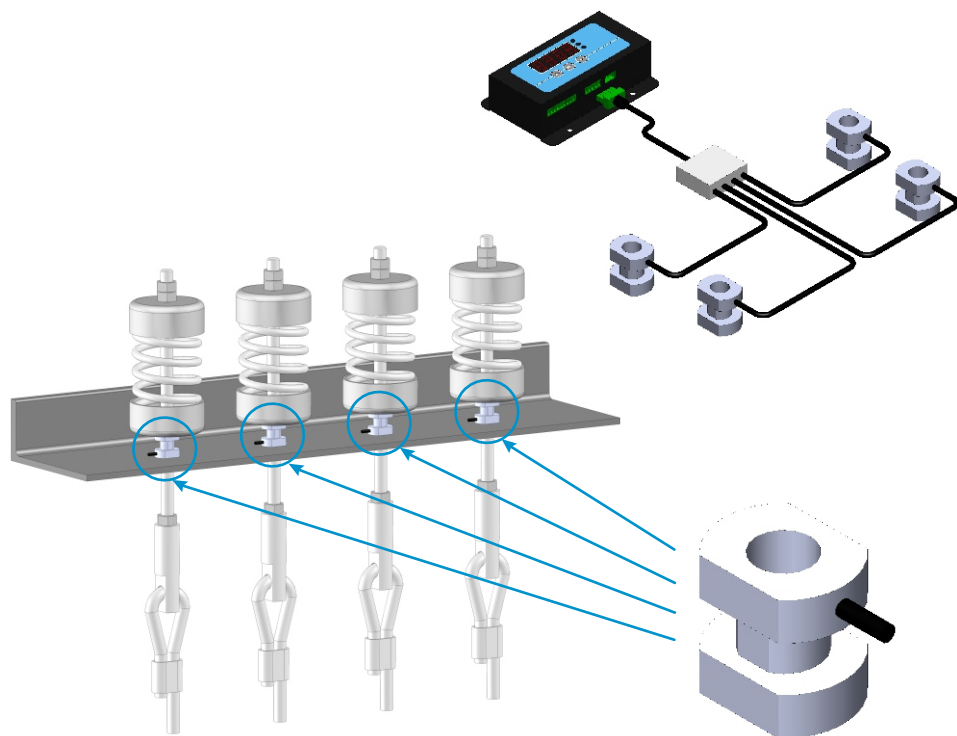
This kit is recommended for elevators where installation of other types of load cells is impossible or difficult, as well as for elevator modernization programs where overload control devices have not been installed before.

Capacity (per load cell)	3000kg or 4500kg
Maximum short-time overload (per load cell)	4500kg or 6750kg
Accuracy class	0,5%
Quantity of relay outputs	3
Levels of relay outputs	15 kg (passenger availability) 90% (move without stopping) 110% (overload)
Supply voltage	-230±20V 50±1Hz -24±4V (option)
Working temperature range	-10...+50°C
Protection class	- Indicator - Load cells
Warranty	3 years

Overall dimensions (mm)



Elevator overload control system EOS-W1 (installation under springs)



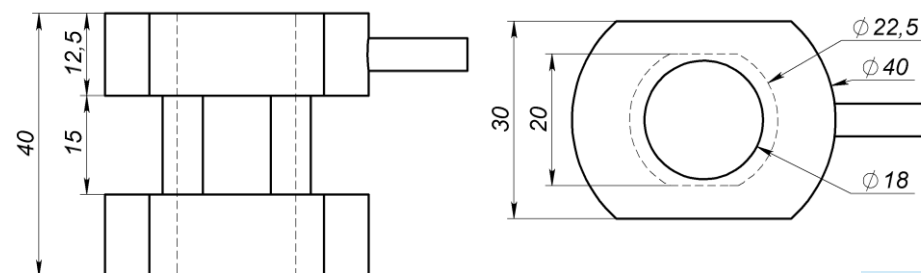
Technical characteristics

The set of load cells is intended for installation in a spring suspension at the rope terminal fixed point. The rated loading capacity of the load cell is 1 ton. The round shape of the load cells makes it possible to compensate for parasitic non-axial forces.

This set of load cells has special reduced dimensions, which allows them to be installed in elevator suspensions where the ropes are located close to each other. It is possible to manufacture a set with a different number of load cells at the request of the customer.

Capacity	4000kg
Maximum short-time overload	6000kg
Load cell capacity	1000kg
Accuracy class	0,5%
Quantity of relay outputs	3
Levels of relay outputs	15 kg (passenger availability) 90% (move without stopping) 110% (overload)
Supply voltage	-230±20V 50±1Hz -24±4V (option)
Working temperature range	-10...+50°C
Protection class	IP54 IP65
Warranty	3 years

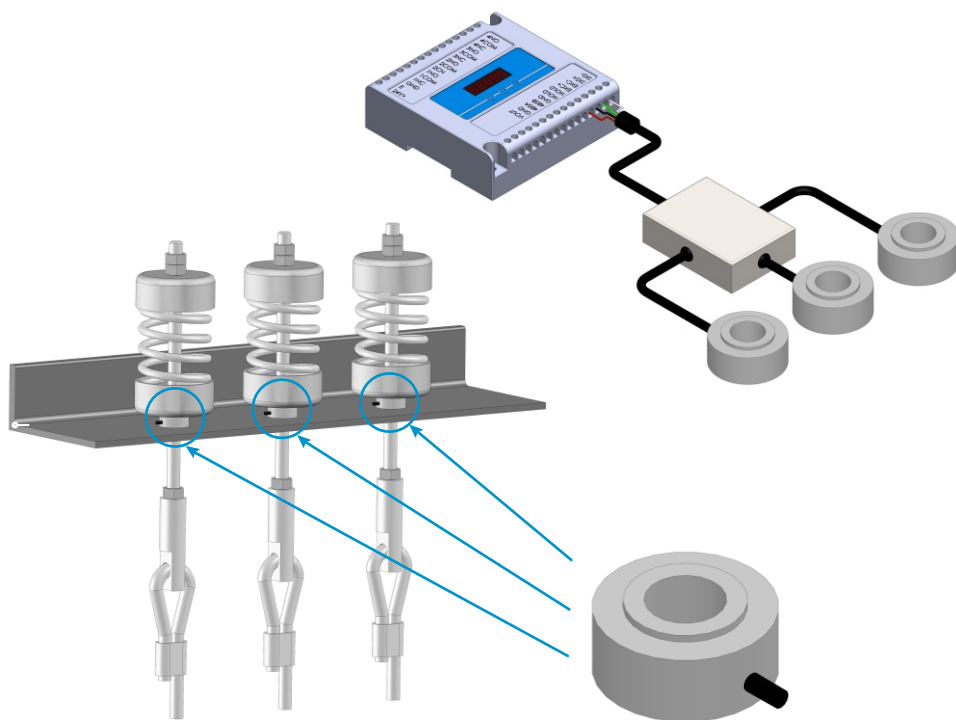
Overall dimensions (mm)



Set Contains

Quantity	Full article description
4	Load Cell
1	IP65 Junction Box
1	Indicator

Elevator overload control system EOS-W (instalation under springs)



Set Contains

Quantity	Full article description
3	Load Cell
1	IP65 Junction Box
1	Indicator

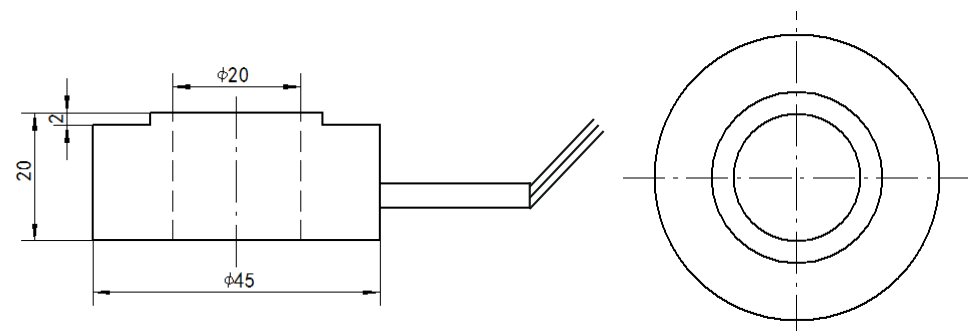
Technical characteristics

The set of load cells is intended for installation in a spring suspension at the rope terminal fixed point. The rated loading capacity of the load cell is 1 ton. The round shape of the load cells makes it possible to compensate for parasitic non-axial forces.

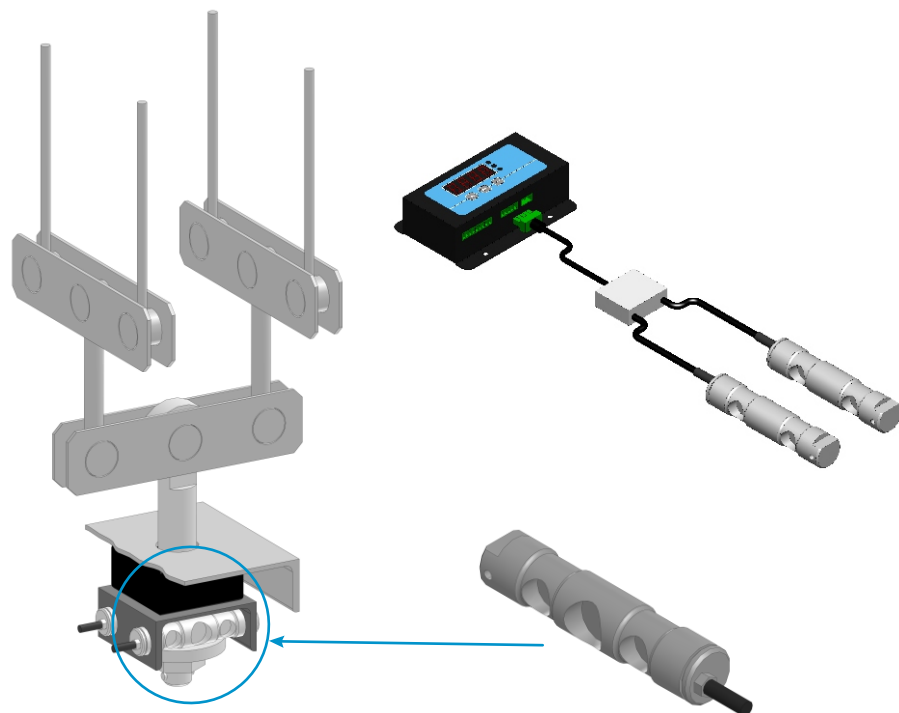
This set of load cells has small dimensions, which allows them to be installed in elevators where the installation space is limited. It is possible to manufacture a set with a different number of load cells at the request of the customer.

Capacity	3000kg
Maximum short-time overload	4500kg
Load cell capacity	1000kg
Accuracy class	0,5%
Quantity of relay outputs	3
Levels of relay outputs	15 kg (passenger availability) 90% (move without stopping) 110% (overload)
Supply voltage	-230±20V 50±1Hz -24±4V (option)
Working temperature range	-10...+50°C
Protection class	IP54 IP67
Warranty	3 years

Overall dimensions (mm)



Elevator overload control system EOS-A (installation in a balance suspension)



Set Contains

Quantity	Full article description
2	Load Cell
1	IP65 Junction Box
1	Indicator

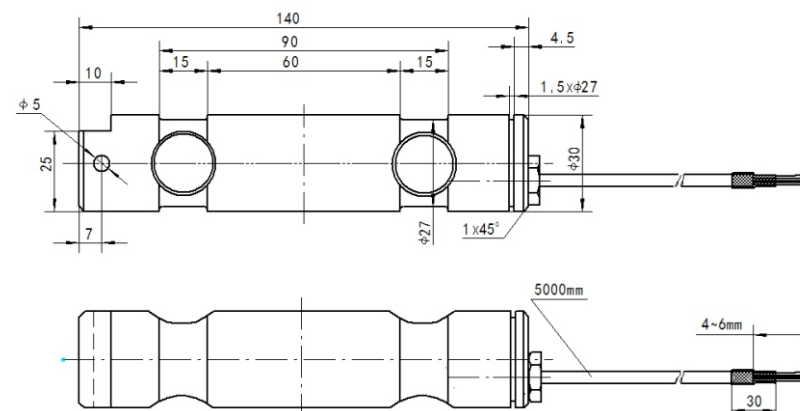
Technical characteristics

The set of load cells designed to install in a balancer suspension of elevator cabin. The rated loading capacity of the load cell is 1 ton. The load cells have a cable gland to provide the IP 67 degree of protection.

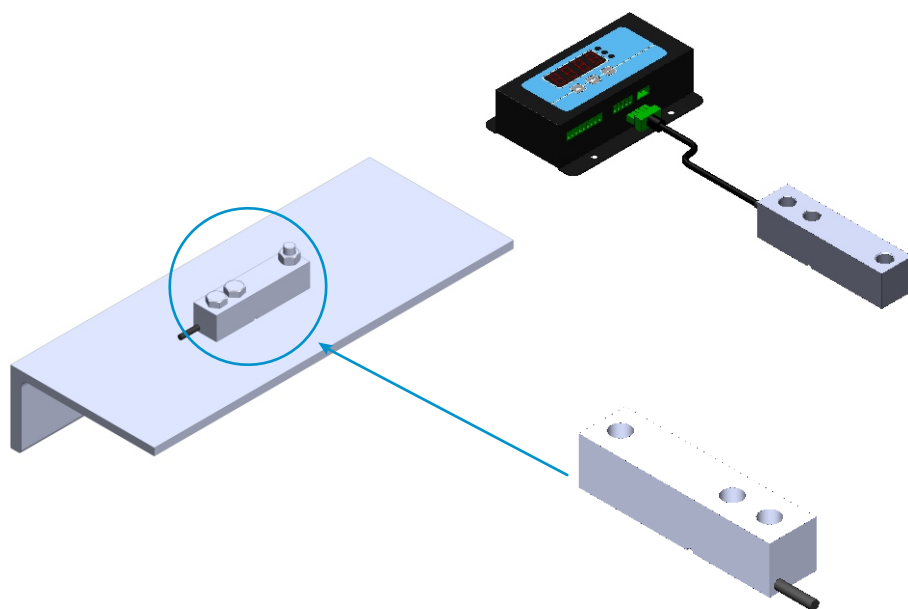
This set of load cells is also installed in other parts of the elevator structure, such as under motor bed frame, using special assemblies. It is possible to manufacture a set with a different number of load cells at the request of the customer.

Capacity	2000kg
Maximum short-time overload	3000kg
Load cell capacity	1000kg
Accuracy class	0,5%
Quantity of relay outputs	3
Levels of relay outputs	15 kg (passenger availability) 90% (move without stopping) 110% (overload)
Supply voltage	-230±20V 50±1Hz -24±4V (option)
Working temperature range	-10...+50°C
Protection class - Indicator - Load cells	IP54 IP67
Warranty	3 years

Overall dimensions (mm)



Elevator overload control system EOS-B1 (installation in a base frame)



Set Contains

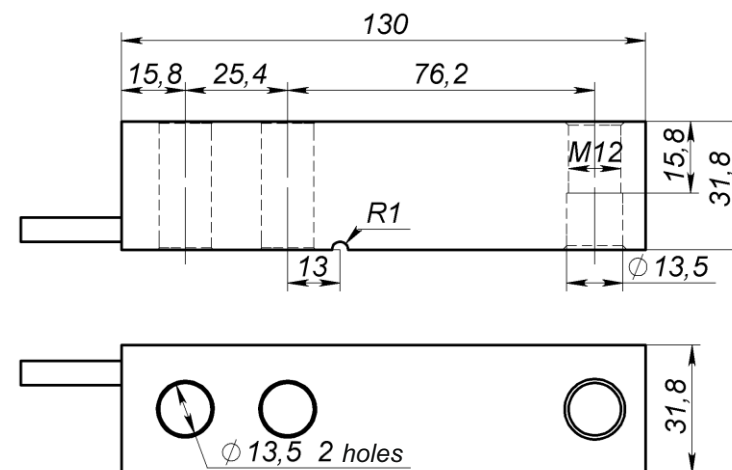
Quantity	Full article description
1	Load Cell
1	IP65 Junction Box
1	Indicator

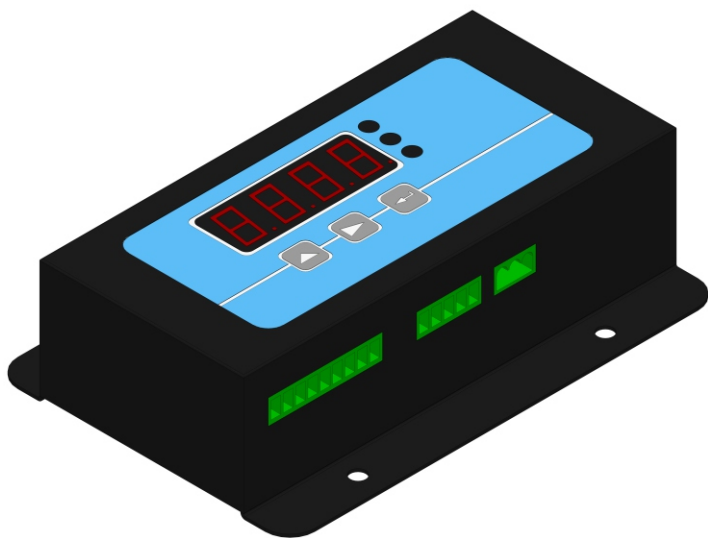
Technical characteristics

The set is designed for installation on the elevator support frame beam. The rated loading capacity of the load cell is 3 tons. The load cell has a cable gland to provide the IP 67 degree of protection. It is possible to manufacture kits with two load cells to increase the accuracy.

Load cell capacity	3000kg
Maximum short-time overload	6000kg
Accuracy class	0,5%
Quantity of relay outputs	3
Levels of relay outputs	15 kg (passenger availability) 90% (move without stopping) 110% (overload)
Supply voltage	-230±20V 50±1Hz -24±4V (option)
Working temperature range	-10...+50°C
Protection class	- Indicator - Load cells
Warranty	3 years

Overall dimensions (mm)





Indicator	Status	Key	Functions
110%	LED Overload		Reset button / Scroll parameter / Increase value
90%	LED 90% Load		Select a digit / Scroll menu
	LED Child only in elevator		Turn on and off the display / Enter

Technical characteristics

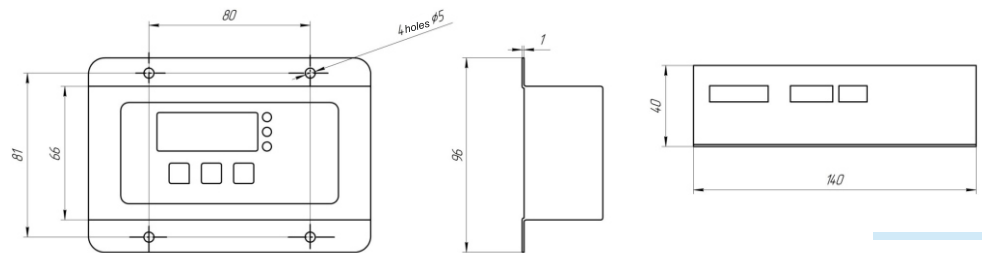
The load control indicator has 3 configurable relays and a metal housing that protects it from mechanical damage and electromagnetic interference. The device is powered by 230 V AC voltage.

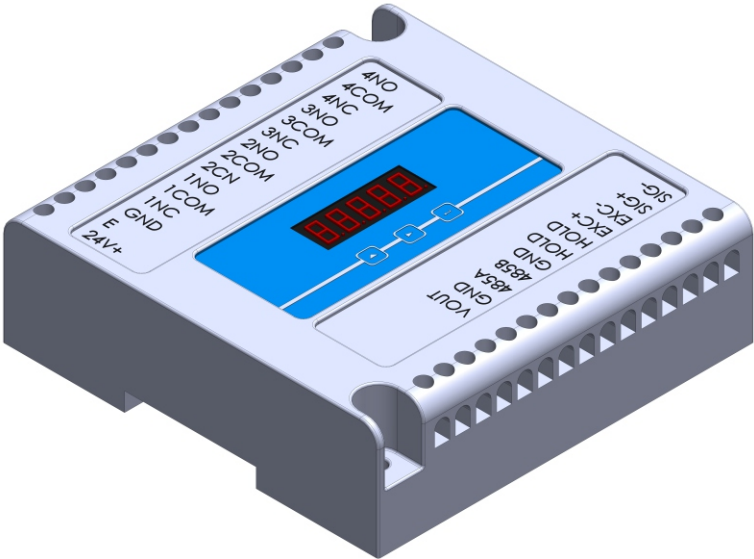
It is possible to manufacture an indicator with additional options at the request of the customer:

- additional fourth relay (50 % load);
- CAN / RS-232 / RS-485 output interface;
- analog output 0-20mA;
- analog output 0-10V;
- HOLD input (prevents the measuring of control unit during travel);
- 24 V DC power supply;
- special software modifications at the request of the customer.

Full Scale Input Signal	-11,7...+11,7 mV (-3,9...+3,9 mV/V)
Loadcell Excitation Voltage	3,0 ± 3% Vdc (typ.)
Number of Loadcells	8x350 Ohm / 16x700 Ohm
System Linearity	±10 ppm -1 (typ.)
System Input Error	10 µV (typ.)
System Offset Drift	15 nV/°C (typ.)
System Gain Drift	7 ppm-1 /°C (typ.)
Power Supply	230 Vac +/-10% / 50-60Hz or 24 +/-10% Vdc
Fusing	1,10A resettable
Power Consumption	6W (max.)
Operating Temperature	-10...+40°C
Storage Temperature	-20...+50°C
Operating Humidity	0-90% at 20°C
Enclosure Dimensions	14.0 x 9.6 x 4.0 cm
Indicator Net Weight	0,60 kg

Overall dimensions (mm)





Indicator	Status	Key	Functions
110%	LED Overload		Reset button / Scroll parameter / Increase value
90%	LED 90% Load		
50%	LED 50% Load		Select a digit / Scroll menu
LED Child only in elevator			
%	Load displayed in «%» from elevator capacity		Turn on and off the display / Enter
kg	Load displayed in «kg»		

Technical characteristics

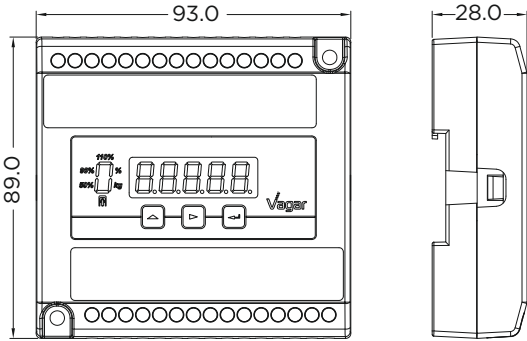
The load control indicator has 3 or 4 configurable relays and a plastic housing that makes device simpler, smaller and lighter. The device is powered by 230 V AC voltage. The indicator can display the weight in kg and in % of the rated load. The housing of the device has reduced overall dimensions in comparison with EOS-2 indicator, which allows it to be installed in elevators with limited installation space. The device comes with a built-in mount for installation on a DIN rail.

It is possible to manufacture an indicator with additional options at the request of the customer:

- CAN / RS-232 / RS-485 output interface;
- analog output 0-20mA;
- analog output 0-10V;
- 24 V DC power supply;
- HOLD input (prevents the measuring of control unit during travel);
- special software modifications at the request of the customer.

Full Scale Input Signal	-12.9 ~ +12.9 mV (-3.9 ~ +3.9 mV/V)
Loadcell Excitation Voltage	3.3±3% Vdc (typ.)
Number of Loadcells	8 x 350Ω / 16 x 700Ω
System Linearity	±10 ppm (typ.)
System Input Error	10 μV (typ.)
System Offset Drift	15 nV/degC (typ.)
System Gain Drift	7 ppm/degC (typ.)
Display	5-digit LED, 0.36inch/9.14mm 7-segment
Keypad	3-key flat tact switch
Power Supply	100-240 Vac / 50-60Hz or 24 +/-10% Vdc
Fusing	0.12 A resettable
Power Consumption	5W (max.)
Operating Temperature	-10 ~ +40 degC (+14 ~ +104 degF)
Operating Humidity	0 ~ 90 % at 20 degC (rel.)
Enclosure Material	ABS Plastic
Indicator Net Weight	0.16 kg

Overall dimensions (mm)





+48 222 304 536

+48 608 498 993



+38 050 4786584



info@vagarload.com



www.vagarload.com

