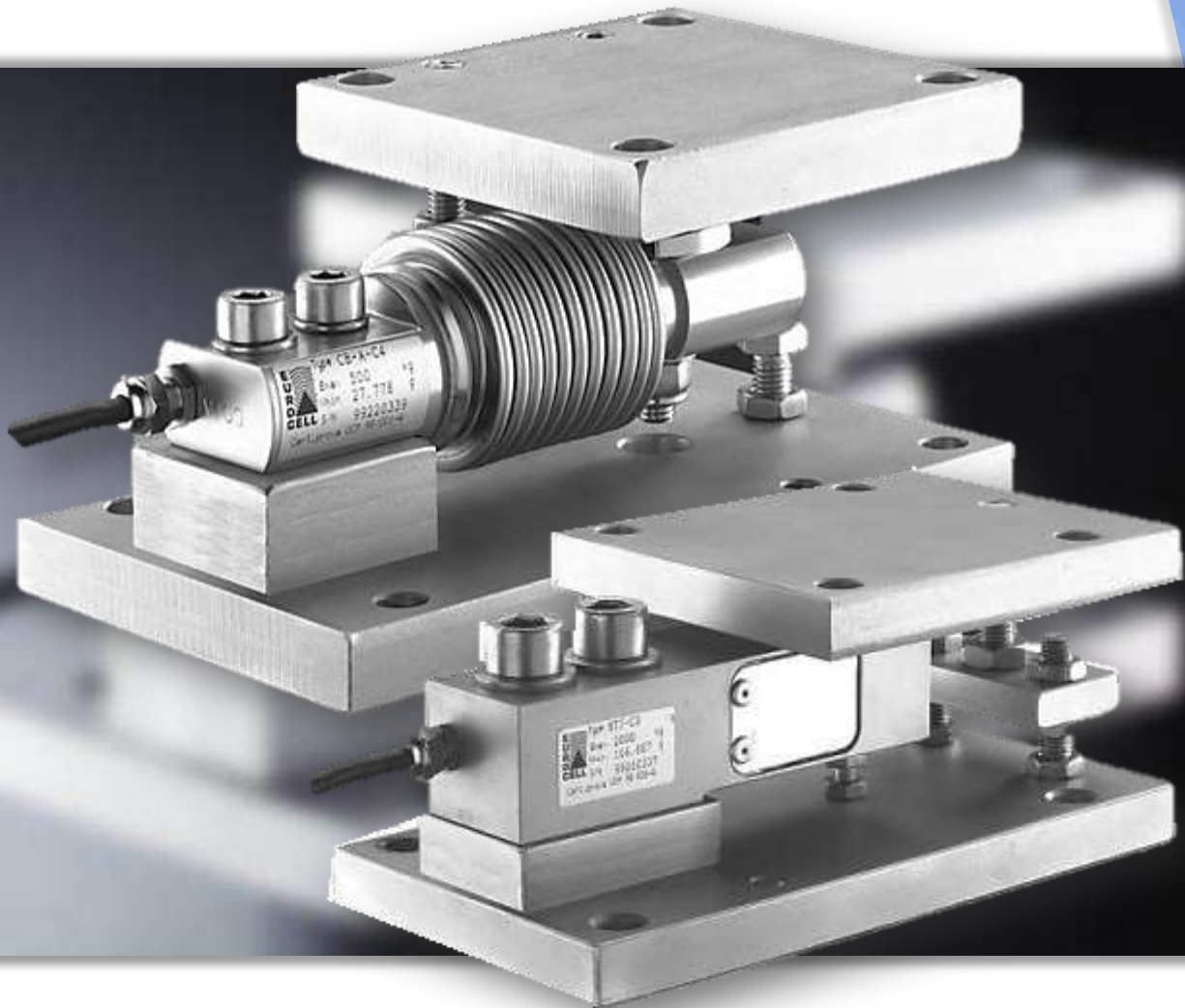





PRE-ASSEMBLED LOAD CELL UNITS



-  for industrial scales with small and medium weighing ranges
-  for industrial scales with low or high horizontal straining
-  for hopper scales, weighing frames and silo or tank scales



Load cell unit **LWE-B**

- universally suited for all industrial scales with low horizontal straining e.g. hopper scales for liquids and bulk goods, weighing platforms and frames
- good horizontal stabilization due to integrated metal rubber element
- easy assembly without additional construction
- flat design
- approved for verifiable commercial scales to EG, OIML and PTB
- also available in explosion-protected version (with ATEX approval)
- precision class 0.02 %

The shallow design permits exceptionally flat mounting. The corrosion-proof high-grade steel load cells are ideally suited for rugged environmental conditions. .



Article No.	Nominal load(kg)	Dimension (W x H x D) mm	Weight (kg)	Connection-lead (m)
LWEB0.020.000	20	90 x 102,5 x 170	3,2	3
LWEB0.050.000	50			
LWEB0.100.000	100			

Article No.	Designation	Description
LWEB0.000.010	Weld plate	for LWE-B
LWEPB.003.000	Dummy bearing unit	for nominal loads 0,5 up to 3 t, not for verifiable scales
LWEPB.010.000	Dummy bearing unit	for nominal loads up to 10 t, not for verifiable scales
LWEPB.030.000	Dummy bearing unit	for nominal loads up to 30 t, not for verifiable scales
LWEPB.050.000	Dummy bearing unit	for nominal loads up to 50 t, not for verifiable scales

Precision: composite error 0.018 % (in relation to the load cell nominal load))



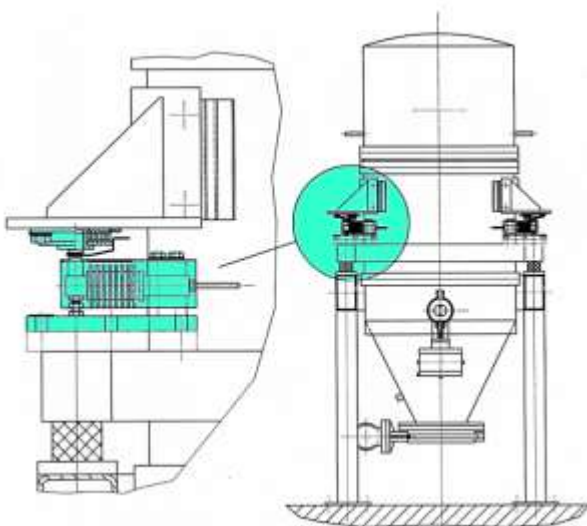
Features

- compact, pre-assembled units with versatile implementation options in
- industrial scale construction
- ideally suited for high precision requirements, even in unfavorable environmental conditions
- Standardized electrical connection data

Technical Data LWE-B

Nominal temperature	-10 up to +40°C
Service temperature	-20 up to +70°C
Storage temperature	-50 up to +85°C
Used load (for nominal loads up to 30 t)	150 %
Overload stop loadable up to	1000 kg
Integrated overload protection activated at	120 %
Supply voltage	10 up to 30 V
Characteristic value	2 mV/V
Input/output resistance	ca. 360 W
Connection lead	6 x 0,22 mm ²
Main body made of	steel ST37, ST52, galvanized, Neoprene synthetic
Load cell made of	rubber rustproof high grade steel, welded hermetically tight, protection class IP 67

Mounting example LWE-B



Parallel connection of several LWE-Bs

Any number of LWE-Bs per scale may be connected in parallel, without exceeding the nominal load of each individual load cell unit. Connection is performed in a terminal box in the vicinity of the scale with an unchanged characteristic value (2mV/V).

Precision: composite error 0,018 %
(in relation to the load cell nominal load)



Load cell unit **LWE-P**

- universal suitability for all industrial scales with low horizontal stressing, e.g. for hopper scales for liquids and bulk goods, agitator tank scales, weighing platforms and frames, outdoor silos (not wind-stressed or with insignificant wind forces)
- for incoming goods and loading as well as blending charge systems
- good horizontal stabilization due to integrated metal rubber element
- easy assembly without additional construction, flat design
- approved for verifiable commercial scales according to EG, OIML and PTB
- precision class 0.02 % (0.08 %)



The flat design permits exceptionally shallow installation. The corrosion-proof high grade steel load cells are ideally suited to rugged environmental conditions.

Article No.	Nominal load (t)	Dimension (W x H x D) mm	Version	Weight (kg)	Connection lead (m)
LWEP3.000.500-01	0,5	90 x 70 x 90	LWE-P3 resolution 3000 d	1,9	3
LWEP3.001.000-01	1			1,9	3
LWEP3.002.000-01	2			2,3	6
LWEP3.003.000-01	3			2,3	6
LWEP3.010.000-01	10			160 x 138 x 160	12
LWEP3.030.000-01	30	245 x 176 x 245		38	16 (10)
LWEP3.050.000-01	50	245 x 190 x 245		46	16 (10)

Precision: composite error LWE-P3 0,018 % (in relation to the load cell nominal load)



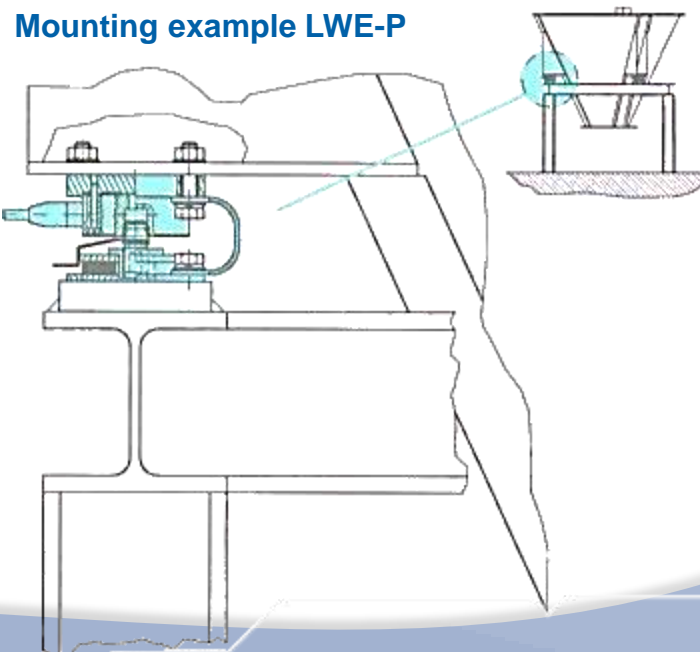
Features

- compact, pre-assembled units with versatile implementation options in the industrial scale construction sector
- ideally suited for high precision requirements, even in unfavorable environmental conditions
- standardized electrical connection data

Technical Data LWE-P

Nominal temperature	-10 up to +40°C
Service temperature	-10 up to +70°C
Storage temperature	-50 up to +95°C
Smallest weighing range	15 % (in relation to the nominal load)
Used load (for nominal loads up to 30 t)	150%
Overload protection (for nominal loads up to 3 t)	>150%
Supply voltage	10 up to 30 V
Characteristic value	2 mV/V
Input/output resistance	ca. 1kΩ
Connection lead	6 x 0,22 mm ²
Main body	steel ST37, ST52, galvanized, Neoprene synthetic rubber
Load cell	Rustproof high grade steel, welded hermetically tight, protection class IP68

Mounting example LWE-P



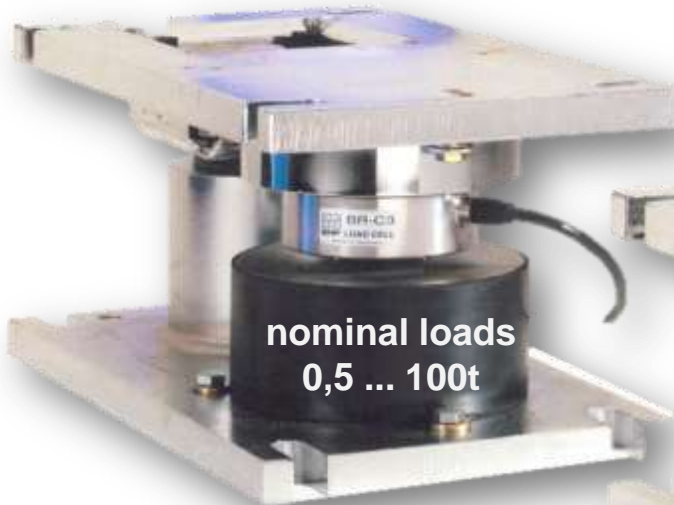
Parallel connection of several LWE-Ps

Any number of LWE-Bs per scale may be connected in parallel, without exceeding the nominal load of each individual load cell unit. Connection is performed in a terminal box in the vicinity of the scale with an unchanged characteristic value (2mV/V).



Load cell unit **LWE-PL**

- universal suitability for all industrial scales with high horizontal straining e.g. outdoor silos or tanks (wind stressed), mixers, agitator tanks etc. with relatively large drives and change in gravity due to mixed goods movements



**nominal loads
0,5 ... 100t**



- for incoming goods and loading as well as blending mixed loads
- high horizontal load capacity due to integrated, variable guiding systems
- computer interface for transparency in the goods management
- easy assembly without additional constructions
- approved for verifiable commercial scales to EG, OIML and PTB
- precision class 0.02 %

The flat design permits exceptionally shallow installation. The corrosion-proof high grade steel load cells are ideally suited to rugged environmental conditions.

Features

- with PWE-PL load cell units scales may be produced to withstand maximum horizontal stresses
- ideally suited for high precision requirements, even in unfavorable environmental conditions
- standardized electrical connection data



Parallel connection of several LWL-PLs

Any number of LWL-Bs per scale may be connected in parallel, without exceeding the nominal load of each individual load cell unit. Connection is performed in a terminal box in the vicinity of the scale with an unchanged characteristic value (2mV/V).

Model variants

- Locating bearing: no horizontal degree of clearance
- Thrust bearing: 1 degree of freedom
- Floating bearing: 2 degrees of freedom

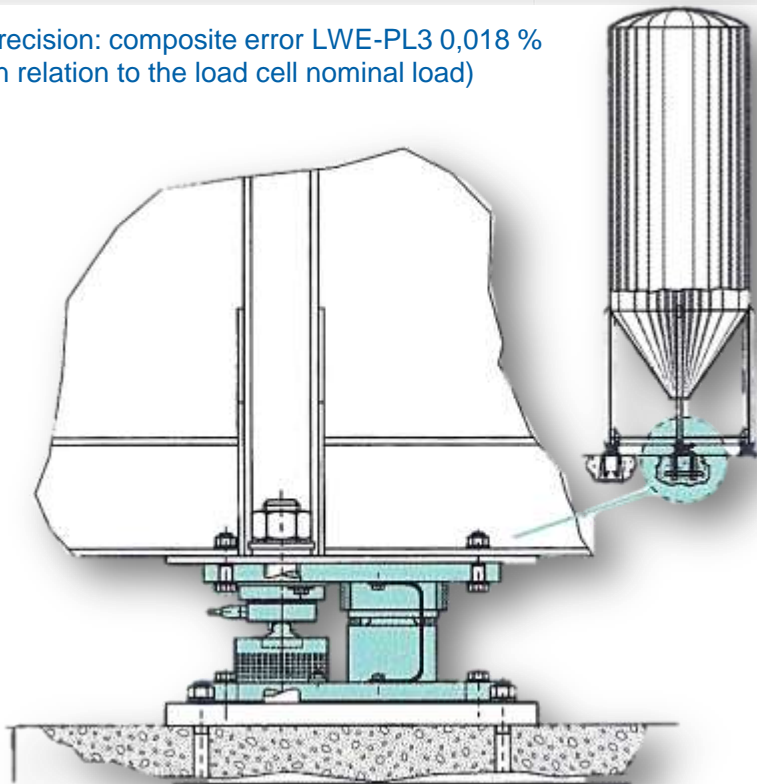
Article No.	Nominal-load (t)	Version		Dimension mm (WxHxD)	Weight (kg)	Connection-lead (m)
LWPL3.000.500-01	0,5	Locating bearing	LWPL3 resolution 3000 d	295 x 112 x 140	14	6
LWPL3.000.501-01		Thrust bearing				
LWPL3.000.502-01		Floating bearing				
LWPL3.001.000-01	Locating bearing					
LWPL3.001.001-01	Thrust bearing					
LWPL3.001.002-01	Floating bearing					
LWPL3.002.000-01	2	Locating bearing				
LWPL3.002.001-01		Thrust bearing				
LWPL3.002.002-01		Floating bearing				
LWPL3.003.000-01	3	Locating bearing				
LWPL3.003.001-01		Thrust bearing				
LWPL3.003.002-01		Floating bearing				
LWPL3.010.000-01	10	Locating bearing				
LWPL3.010.001-01		Thrust bearing				
LWPL3.010.002-01		Floating bearing				
LWPL3.030.000-01	30	Locating bearing				
LWPL3.030.001-01		Thrust bearing				
LWPL3.030.002-01		Floating bearing				
LWPL3.050.000-01	50	Locating bearing				
LWPL3.050.001-01		Thrust bearing				
LWPL3.050.002-01		Floating bearing				
LWPL3.100.000	100	Locating bearing				
LWPL3.100.001		Thrust bearing				
LWPL3.100.002		Floating bearing				



Technical Data LWE-PL

Nominal temperature	-10 up to +40°C
Service temperature	-10 up to +70°C
Storage temperature	-50 up to +95°C
Smallest weighing range	15 % (in relation to nominal load)
Used load (for nominal loads up to 30 t)	150%
Overload protection (for nominal loads up to 3 t)	>150%
Supply voltage	10 up to 30 V
Characteristic value	2 mV/V
Input/output resistance	ca. 1kΩ
Connection lead	6 x 0,22 mm ²
Main body made of	steel ST37, galvanized, Neoprene synthetic rubber
Load cell	Rustproof high grade steel, welded hermetically tight, protection class IP 68

Precision: composite error LWE-PL3 0,018 %
(in relation to the load cell nominal load)

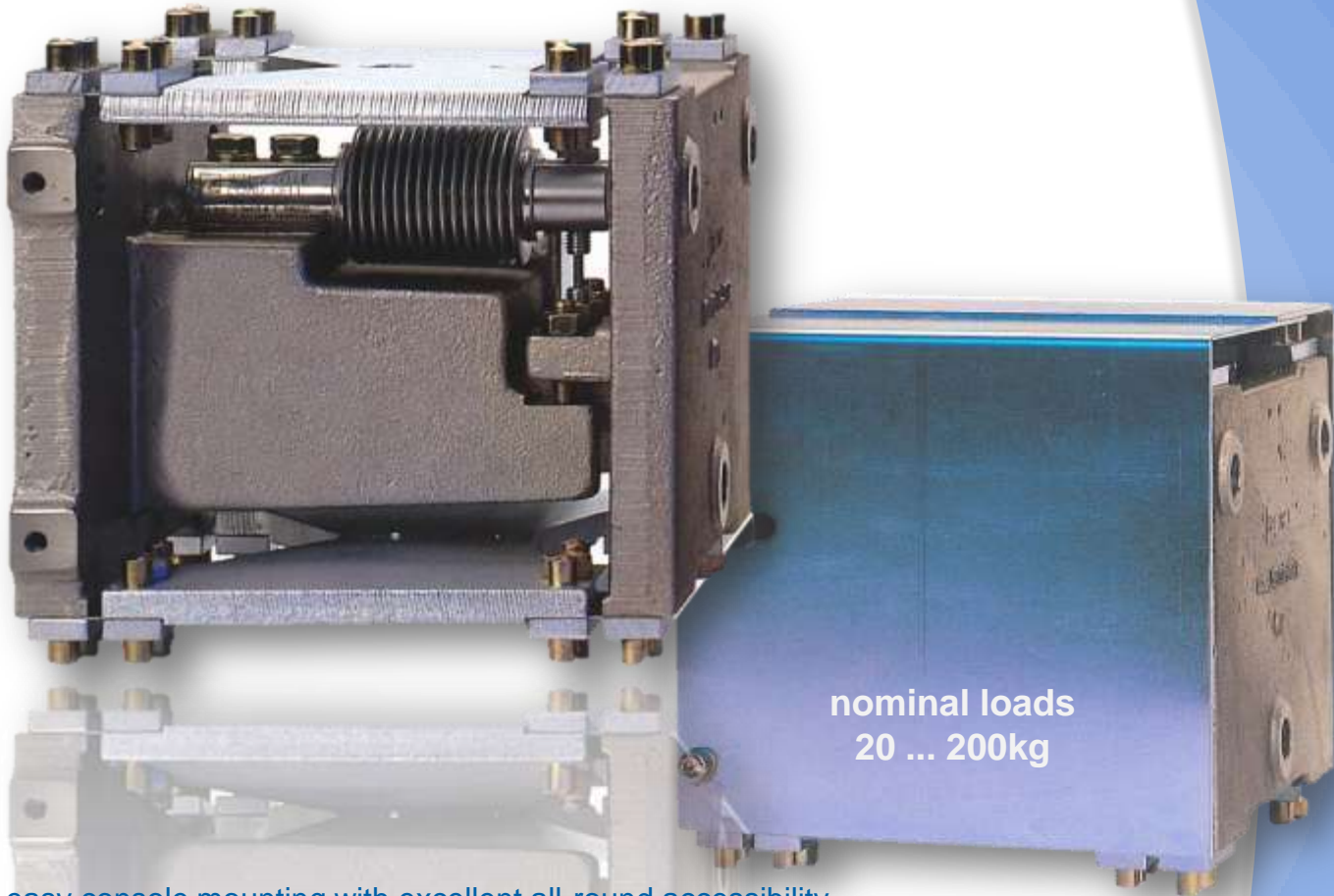


Mounting example LWE-PL



Load cell unit **LWE-W**

- universal suitability for industrial scales with small to medium weighing ranges, e.g. filling and bagging scales, hopper scales of all kinds, proportioning and agitator scales



nominal loads
20 ... 200kg

- easy console mounting with excellent all-round accessibility
- compact integration of all necessary technical weighing elements
- top long term stability
- approved for verifiable commercial scales according to EG, OIML and PTB
- precision class 0.02 %

All function elements of a scale are optimally united in this compact unit. Additional sophisticated guiding constructions are not necessary. As only one LWE-W is required for a scale and frame structures have also been dispensed with, an exceptionally good degree of space is gained for planning proportioning apparatus and units.



Article No.	Nominal load (kg)	Version	Dimension mm (WxHxD)	Weight (kg)	Connection lead (m)
LWEW0.020.000	20	Without oil damper	194 x 180 x 185	16,5	3
LWEW0.050.000	50				
LWEW0.100.000	100				
LWEW0.200.000	200				

Article No.	Designation	Description
LWEWD.900.110	Damper oil P1	Low viscosity (1 L)
LWEWD.900.120	Damper oil P5	Medium viscosity (1 L)
LWEWD.900.130	Damper oil P6	High viscosity (1 L)

Precision: composite error 0,018 % (in relation to the load cell nominal load)

Features

- Designed for bending and distortion-resistant one-point console assembly
- The all-over parallel guided load cell system permits depositing of the load at a different gravitational point
- Torques and forces influencing the horizontal are kept away from the measuring system and are channeled directly to the securing plate at the console side
- Dual-action overload stops and walkover cover protect the measuring-sensitive weighing system

Technical Data LWE-W

Nominal temperature	-10 up to +40°C
Service temperature	-30 up to +70°C
Storage temperature	-50 up to +85°C
Smallest weighing range	20 %
Used load	150% in relation to the nominal load
Overload protection	300%
Supply voltage	12 up to 18 V
Characteristic value	2 mV/V
Input/output resistance	350 Ω
Main body made of	steel galvanized
Load cell	Rustproof high grade steel, welded hermetically tight, protection class IP67

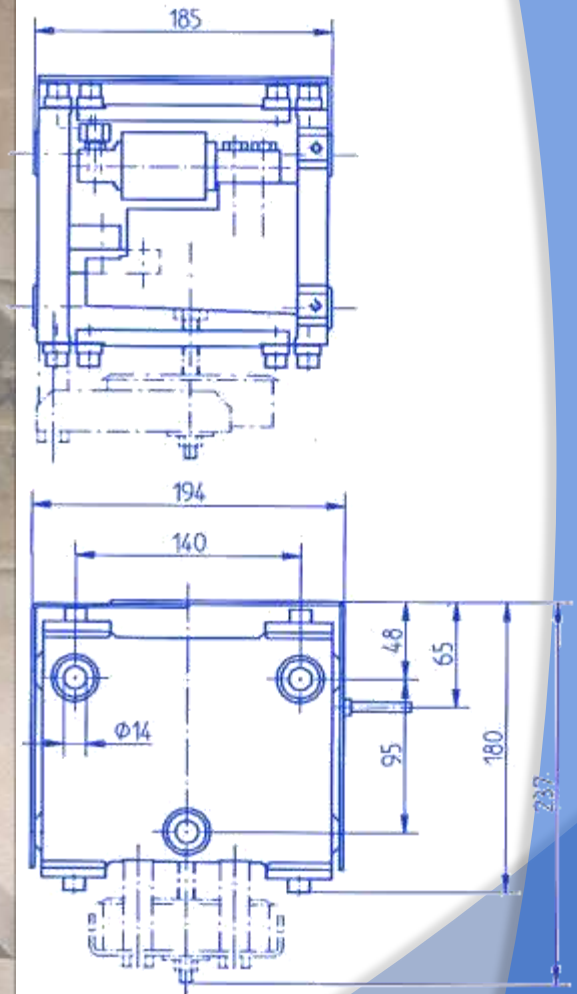




Mounting example LWE-W

Hopper scale for chemical products

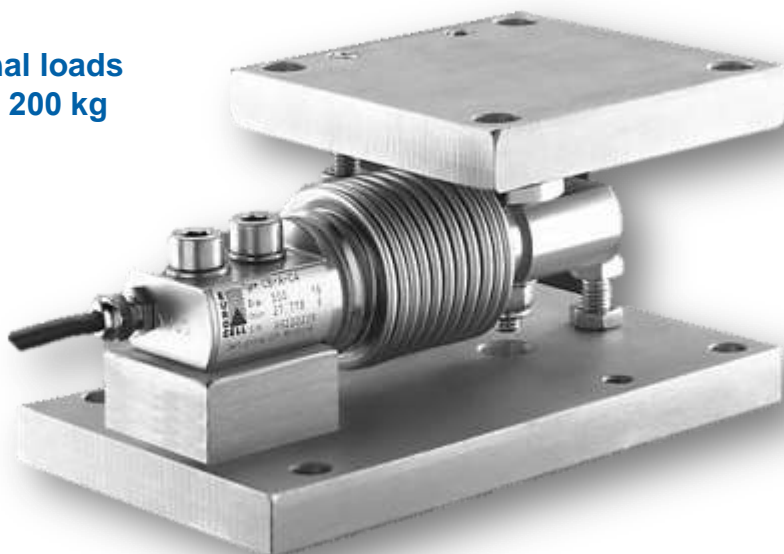
Dimensions



Load cell unit GPA-NF

- universal suitability for industrial scales with low horizontal straining e.g. hopper scales for liquids and bulk goods, weighing platforms and frames
- easy assembly w/o additional construction
- flat design
- approved for verifiable commercial scales according to EG, OIML

**nominal loads
 50 ... 200 kg**



The flat design permits exceptionally shallow installation. The corrosion-proof high grade steel load cells are ideally suited to rugged environmental conditions

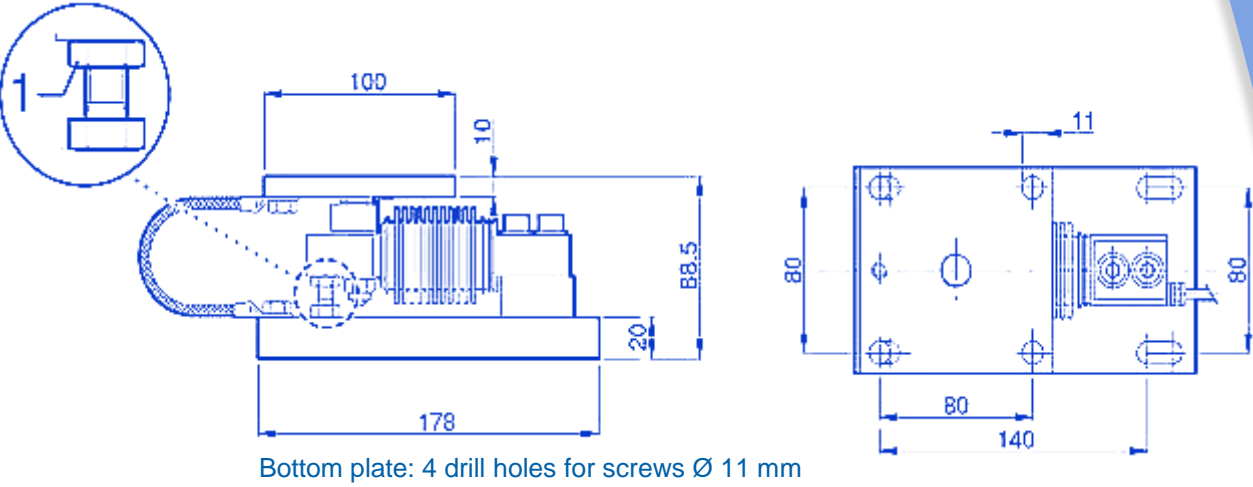
Article No.	Nominal load (kg)	Version	resolution	Weight (kg)	Connection lead (m)
LWGPA.050.002	50	h/g steel, verifiable	max. 3000 d		
LWGPA.100.002	100	h/g steel, verifiable	max. 3000 d	4,15	3
LWGPA.200.002	200	h/g steel, verifiable	max. 3000 d		

Technical Data LWE-NF

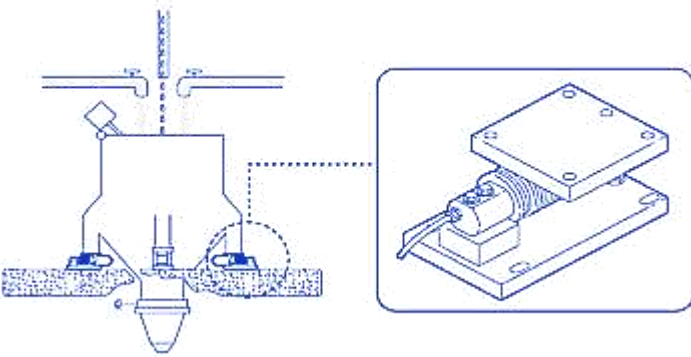
Nominal temperature	-10 up to +40°C
Service temperature	-20 up to +80°C
Storage temperature	-40 up to +80°C
Equipped with a bi-directional ring load cell with welded concertina walls	
Protection class IP 67	
Smallest weighing range	2,5kg
Used load (for nominal loads up to 200 t)	150%
Overload protection (for nominal loads up to 200 t)	300%



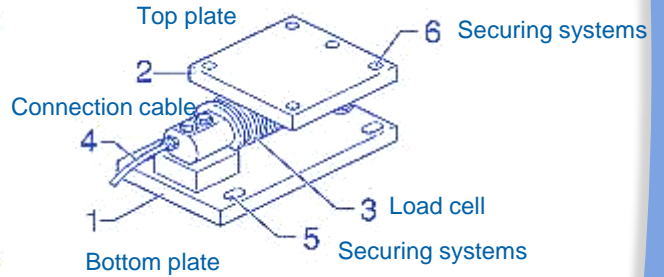
Dimensions & drill holes GPA-NF



Mounting example GPA-NF



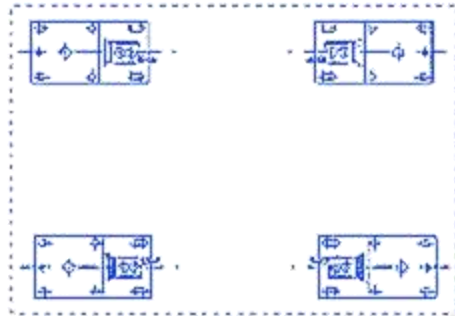
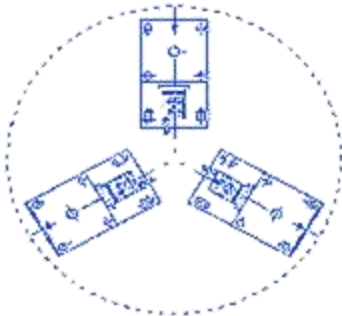
Design GPA-NF



Assembly diagram GPA-NF

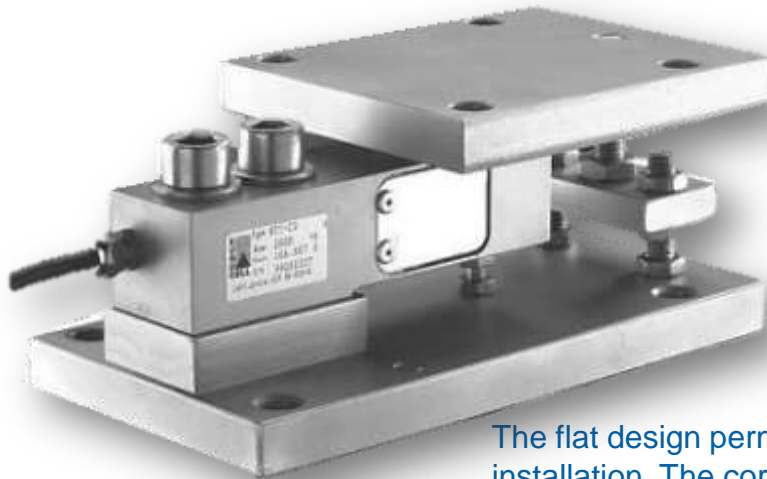
system with 3 supports

system with 4 supports



Load cell unit GPA-NT

- universal suitability for industrial scales with medium horizontal straining, e.g. hopper scales for liquid and bulk goods, agitator tank scales, weighing platforms and frames, outdoor silos
- easy assembly without additional construction, flat design
- approved for verifiable commercial scales according to EG, OIML



**nominal loads
 500 ... 2000 kg**

The flat design permits exceptionally shallow installation. The corrosion-proof high grade steel load cells are ideally suited to rugged environmental conditions.

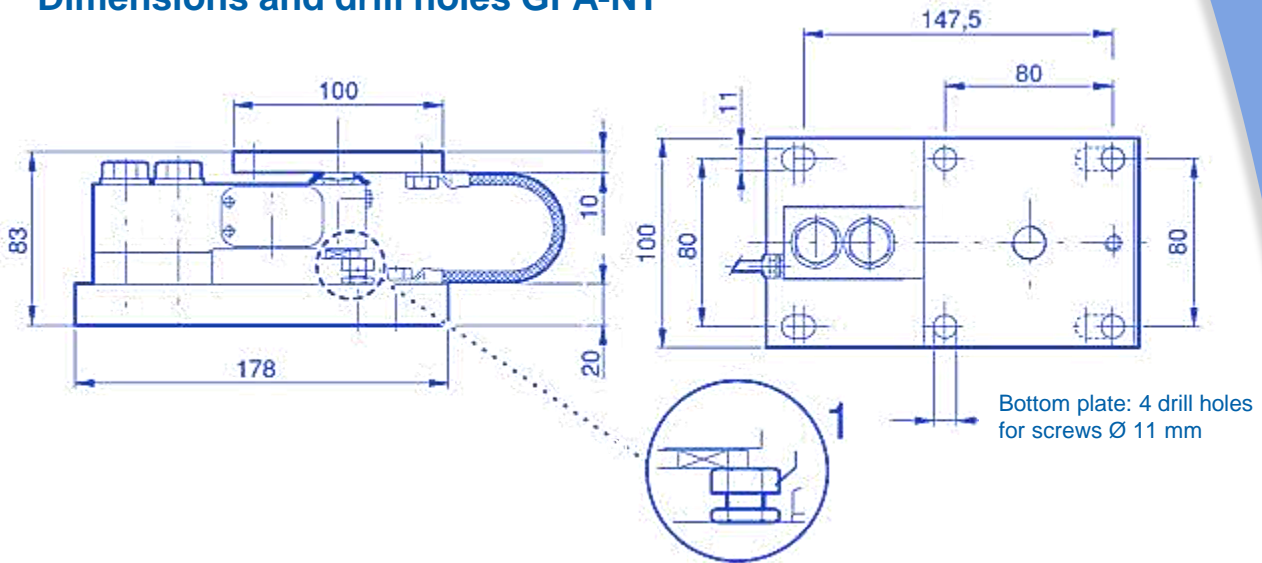
Article No.	Nominal load(kg)	Version	resolution	Weight (kg)	Connection lead (m)
LWGPA.500.002	500	h/g steel, verifiable	max. 3000 d	5,2	5
LWGPA.001.002	1000	h/g steel, verifiable	max. 3000 d		
LWGPA.002.002	2000	h/g steel, verifiable	max. 3000 d		

Technical Data LWE-NT

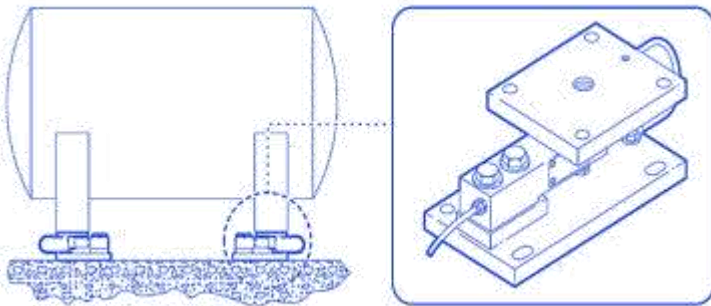
Nominal temperature	-10 up to +40°C
Service temperature	-30 up to +70°C
Storage temperature	-40 up to +80°C
Equipped with high grade steel load cell	
Protection class IP 67	
Smallest weighing range	0,5 % (in relation to nominal load)
Used load	150% (in relation to nominal load)
Overload protection	300%(in relation to nominal load)



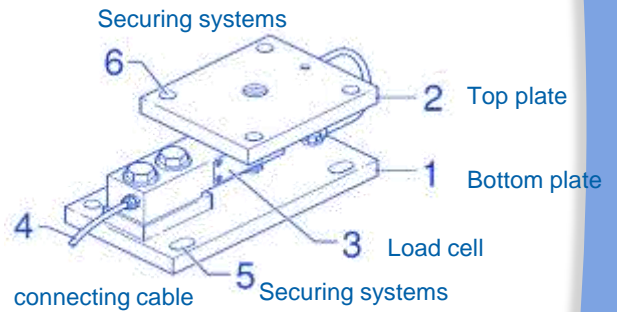
Dimensions and drill holes GPA-NT



Mounting example GPA-NT

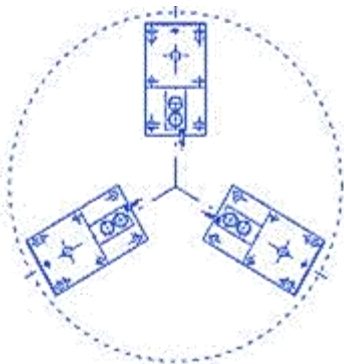


Design GPA-NT

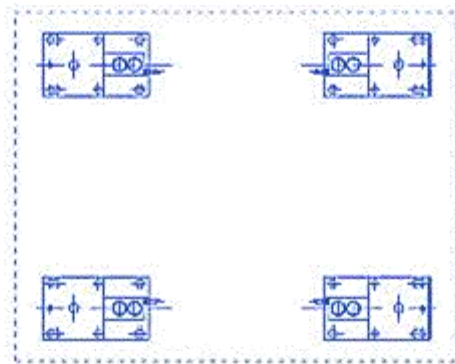


Assembly diagram GPA-NT

System with 3 supports



System with 4 supports

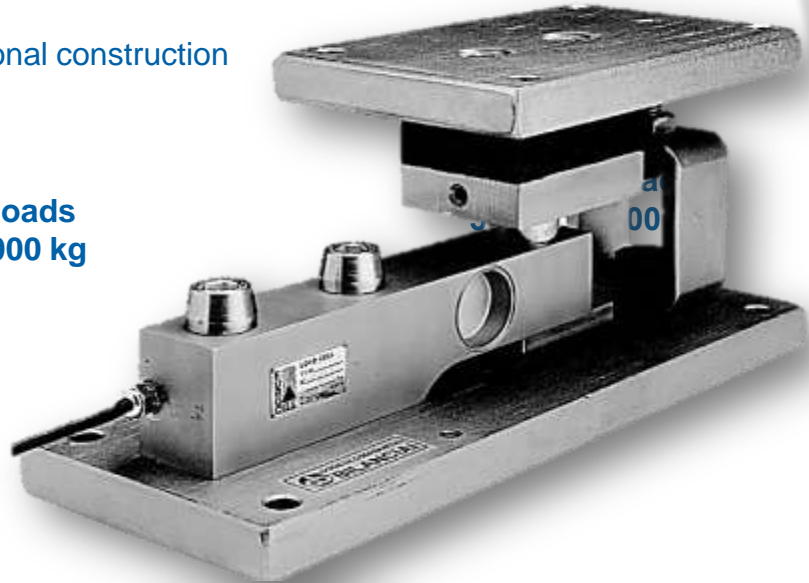


Load cell unit GPA-T

Load cell with guiding system thus

- Universal suitability for industrial scales with high horizontal straining, e.g. outdoor silos or tanks
- Easy assembly without additional construction
- Flat design

**nominal loads
 3000 ... 5000 kg**



Article No.	Nominal load (kg)	Version	resolution	Weight (kg)	Connection lead m
LWGPA.003.002	3000	hot-dip galvanized, rubber bearing, verifiable	max. 3000 d	14,6	5
LWGPA.005.002	5000	hot-dip galvanized, rubber bearing, verifiable	max. 3000 d	24,2	5

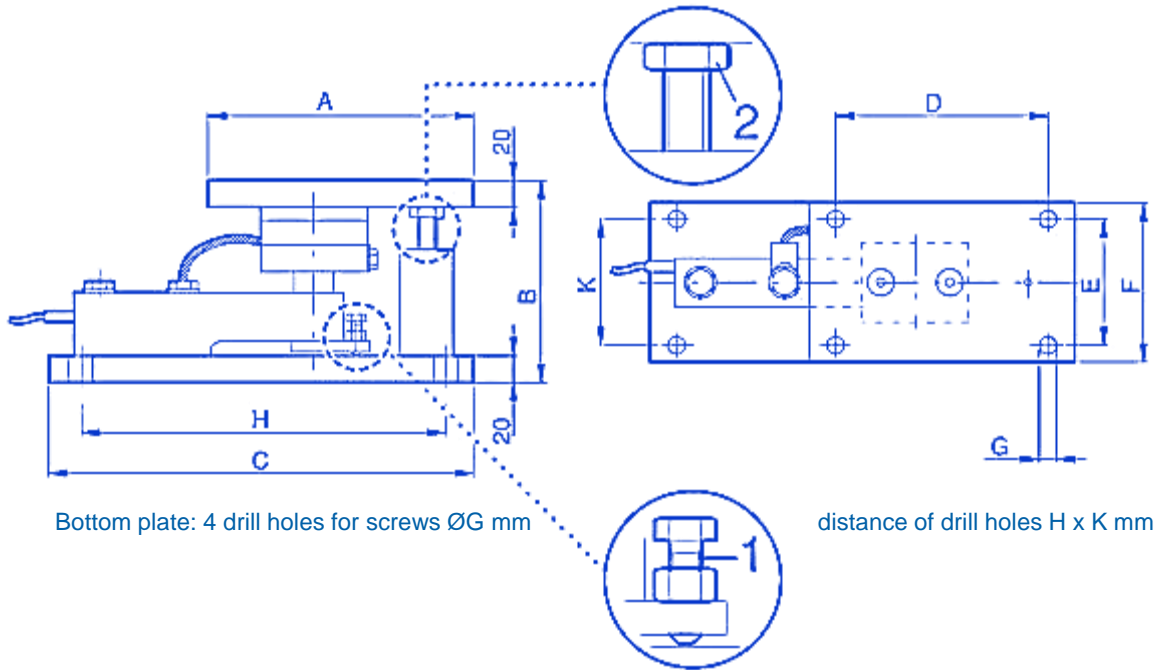
Technical Data GPA-T

Nominal temperature	-10 up to +40°C
Service temperature	-20 up to +80°C
Storage temperature	-40 up to +80°C
Equipped with a high grade steel load cell	
Protection class IP 67	
Smallest weighing range	25 kg
Used load (for nominal loads up to 5000 t)	150%
Overload protection (for nominal loads up to 5000t)	300%



Model	Dimensions (mm)								
	A	B	C	D	E	F	G	H	K
GPA-T 3000	200	152	320	160	95	120	11	280	95
GPA-T 5000	220	187	360	180	130	160	13	320	130

Dimensions and drill holes



Bottom plate: 4 drill holes for screws $\text{Ø}G$ mm

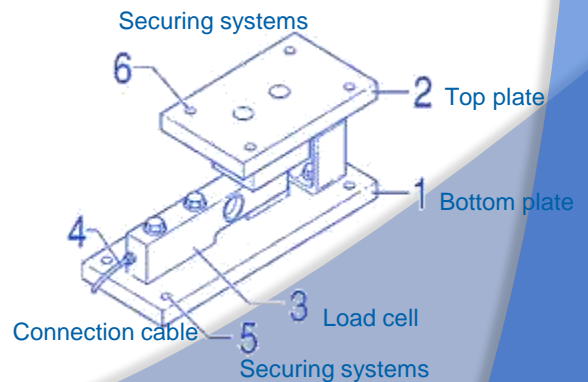
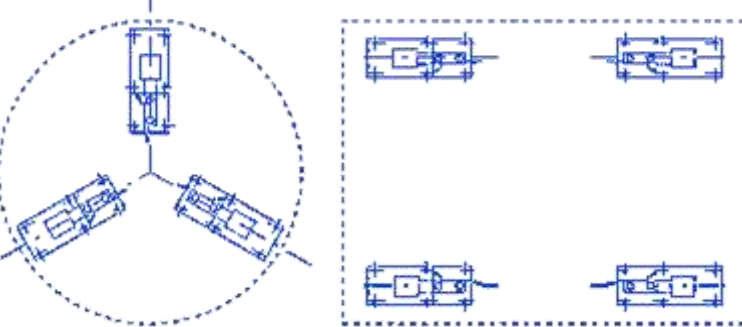
distance of drill holes $H \times K$ mm

Assembly diagram GPA-T

Design GPA-T

system with 3 supports

system with 4 supports



Load cell unit GPA-C

- universal suitability for industrial scales with maximum horizontal straining, e.g. outdoor silos or tanks
- very low construction height
- rugged design



**nominal loads
 5000 ... 50000 kg**

Article No.	Nominal load(kg)	Version	Resolution	Weight (kg)	Connection lead (m)
LWGPA.000.050	5000	Compression load cell Protection class IP 67 non verifiable	up to 2000 d	16,9	10
LWGPA.000.100	10000			16,9	
LWGPA.000.200	20000			20,9	
LWGPA.000.500	50000			28,9	

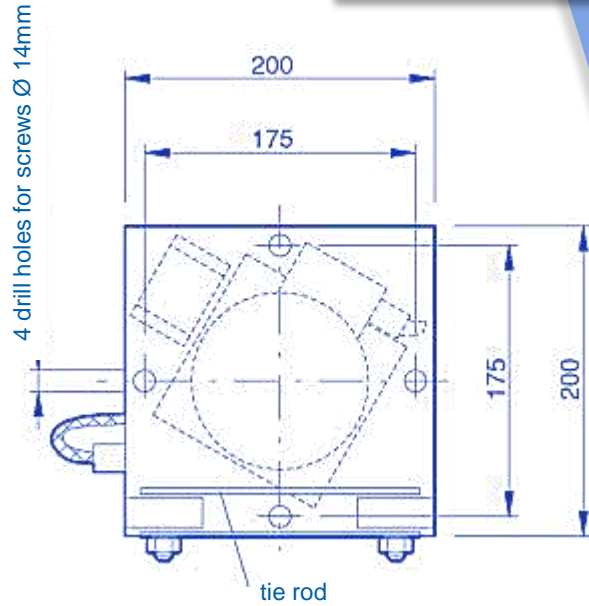
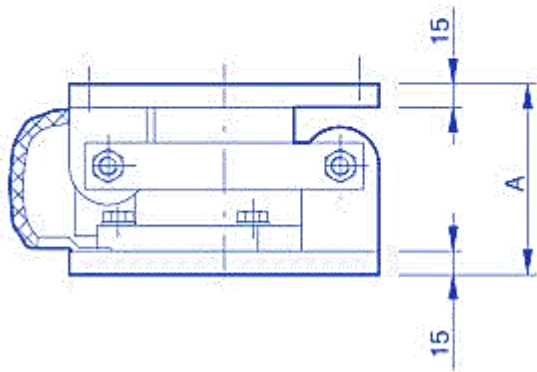
Model	Dimensions A (height) mm
GPA-C 5000	123
GPA-C 10000	123
GPA-C 20000	133
GPA-C 50000	141

Technical Data GPA-C

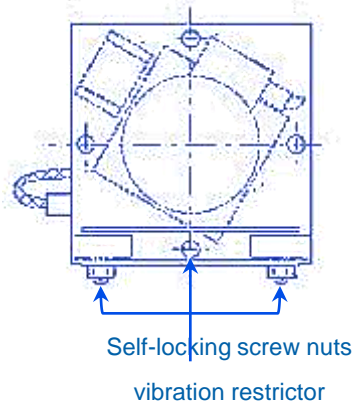
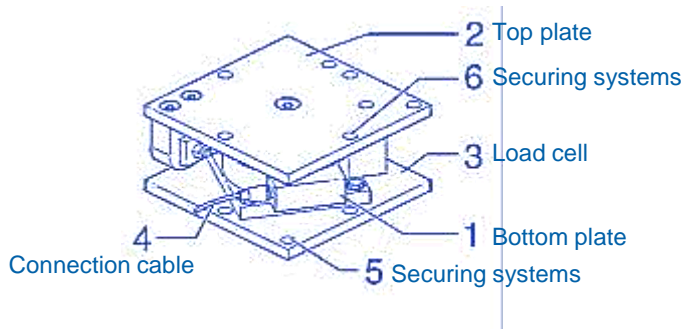
Nominal temperature	-10 up to +40°C
Service temperature	-20 up to +70°C
Storage temperature	-40 up to +70°C
Smallest weighing range	2,5 kg
Used load	150% (of nominal load)
Overload protection	300% (of nominal load)



Dimensions and drill holes GPA-C

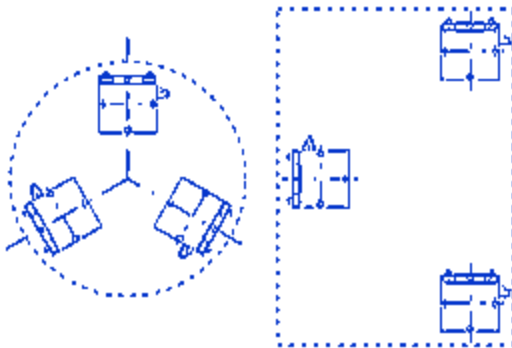


Design GPA-C

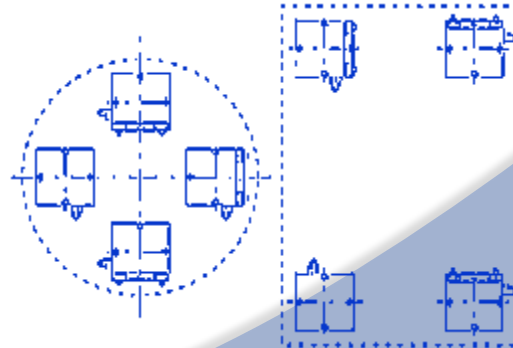


Assembly diagram GPA-C

system with 3 supports



system with 4 supports



Load cell unit GPA-C is fitted with vibration restrictors and securing studs



Load cell unit GPA-MF

Conversion kit for mechanical scales

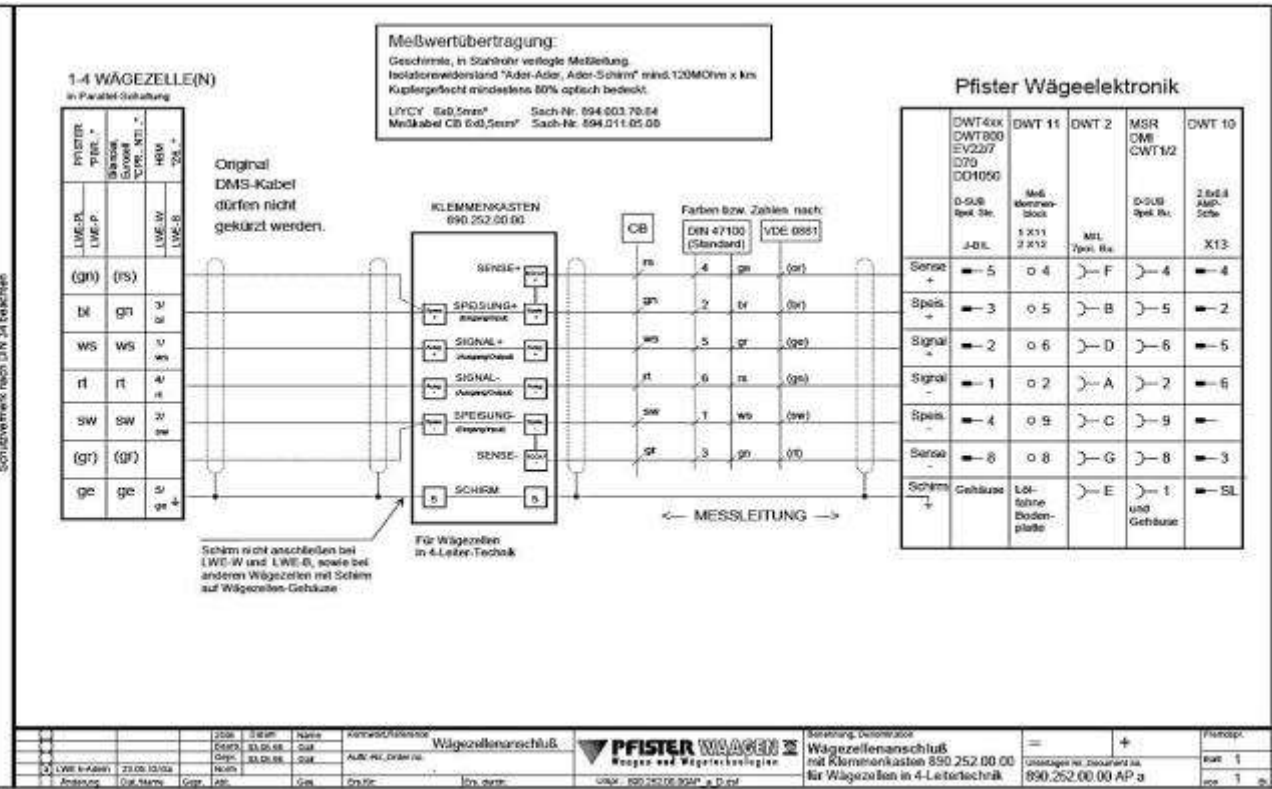
- High grade steel load cells, mechanical parts hot-dip galvanized
- With connection rings for inserting the load cell unit in the „pull lever“ of mechanical scales



nominal loads
50 ... 200 kg

Article No.	Nominal load(kg)	Version	resolution	Weight (kg)	Connection lead (m)
LWGPA.100.006	100	verifiable, with connection box	up to 3000 d	approx. 4	3
LWGPA.200.006	200	verifiable, with connection box			

Example: Junction box – Load cell connection for load cell units



-Technical data subject to modification without notice-

