

Digital and Analogue Load Cells for Truck Weighbridges

from our own production



FOR HIGHEST PRECISION REQUIREMENTS
AND BEST SERVICE





DIGITAL LOAD CELL CPD

Stainless steel

housing, rugged and corrosion-resistant design

ATEX-certified for gas and dust hazardous areas

Manufactured acc. to **OIML**-recommendation R60

EMC-approved

12 pieces of overvoltage-protection parts

Digital temperature compensation

Laser-welded housing, hermetically sealed and vacuum tested, thus long-lasting.



Available load ranges
20 / 35 / 50 t

Housing protection class **IP 68 (DIN 40050)**.

Data transfer by digital output signal **RS 485**

Approved up to 6000 divisions acc. to 90/384 EEC

Plug-in socket for wiring

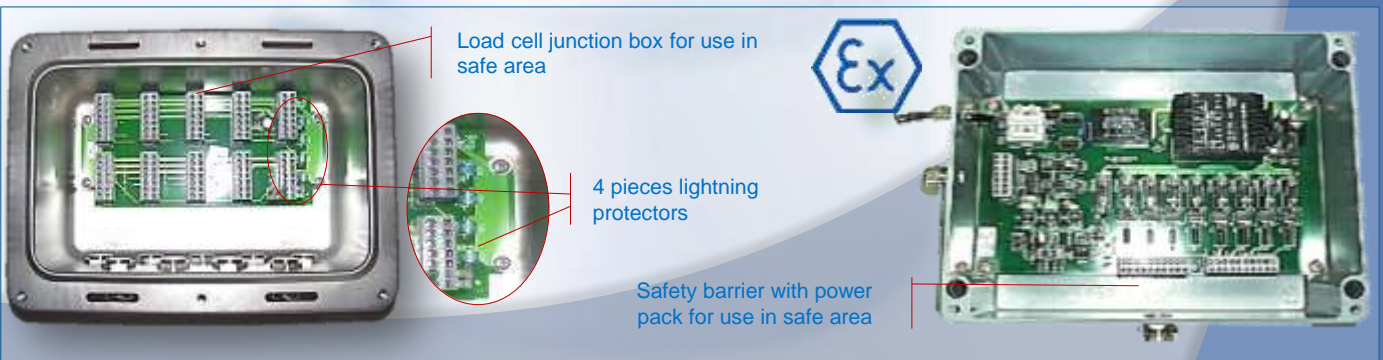
Integrated active and passive lightning protection

Self-adjusting function. Potential interferences are reported.

Operating temperature range **-30°C bis +70°C**

Load Cell Junction Box for Digital CPD-Load Cells

- Protection class IP 68
- with additional lightning protection for easy service
- with 8 plugs for digital load cells with bus connectivity

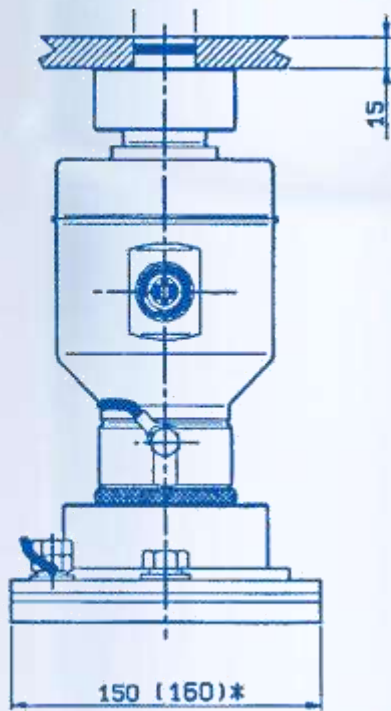




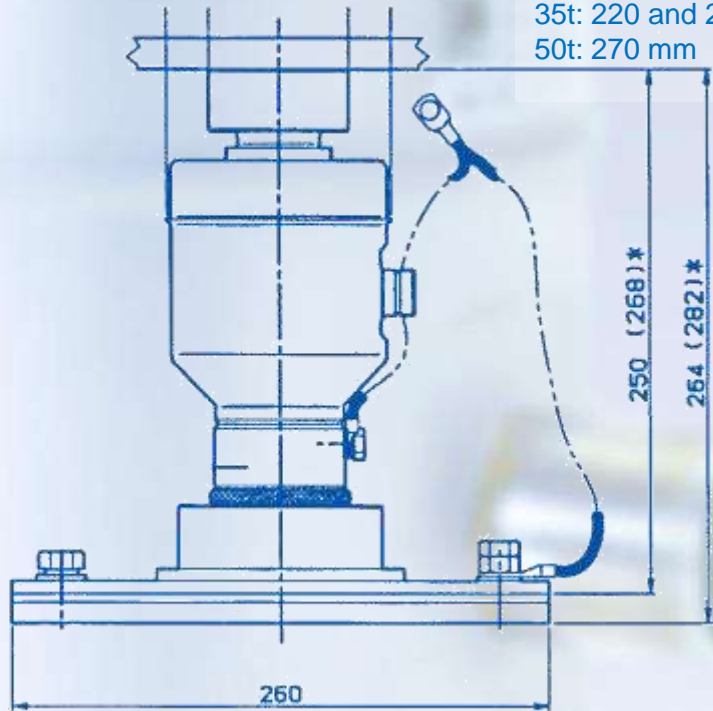
Digital Load Cell CPD Technical Data

Construction Height CPD

20t: 220 and 250 mm
35t: 220 and 250 mm
50t: 270 mm

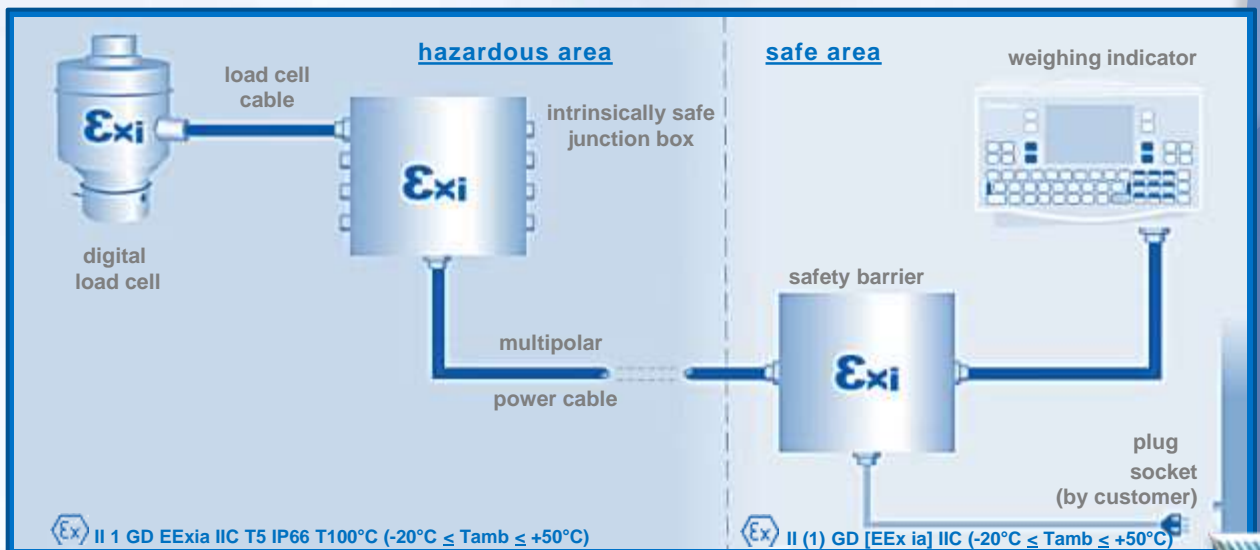


[...] * 50 t





Dimensions in [mm]

CPD-Load cell used in hazardous area



Digital Load Cell CPD

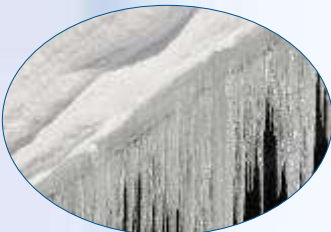
Accuracy Class	C	C1	C2	C3	C4	C5	C6
Maximum capacity (E _{max})	(t)	20 / 35 / 50					
Max. N° divisions (n _{max}) nLC		1000	2000	3000	4000	5000	6000
Ratio Y (E _{max} / V _{min})		5000	7000	18000	18000	20000	20000
Mind. dead load (E _{min})	% E _{max}	0,5					
Safe load	% E _{max}	150					
Ultimate overload	% E _{max}	≥ 300					
Safe side load	% E _{max}	10					
Sensitivity	(S)n°	200000 ± 0,1 %					
Zero balance	% S	≤ 0,5					
Combined error	% S	≤± 0,030	≤± 0,023	≤± 0,020	≤± 0,0173	≤± 0,0140	≤± 0,0115
Non-repeatability	% S	≤± 0,080	≤± 0,040	≤± 0,040	≤± 0,0300	≤± 0,0240	≤± 0,0200
Temperature effect on min. dead load	% S / 5°K	≤± 0,016	≤± 0,0114	≤± 0,0044	≤± 0,0044	≤± 0,0040	≤± 0,0040
Temperature effect on sensitivity	% S / 5°K	≤± 0,0132	≤± 0,0066	≤± 0,0057	≤± 0,0045	≤± 0,0036	≤± 0,0030
Min. dead load (E _{min} .)	% S	≤± 0,050	≤± 0,025	≤± 0,0167	≤± 0,0125	≤± 0,0100	≤± 0,0083
Creep in 30 min.	% S	≤± 0,056	≤± 0,028	≤± 0,028	≤± 0,0210	≤± 0,0168	≤± 0,0140
Creep from 20 to 30 min.	% S	≤± 0,0105	≤± 0,0053	≤± 0,0053	≤± 0,0039	≤± 0,0032	≤± 0,0025
Nominal temperature range	°C	-10 / +40					
Operating temperature range	°C	-30 / +70					
Storage temperature range	°C	-40 / +80					
Data transmission/Interface		RS 485					
Protection class		IP 68					
Weight	kg	ca. 3					
Material/housing		Stainless steel					
Protection class ATEX load cell		 II 1 GD [EEx ia] IIC T5 IP 66 T100°C					
Protection class ATEX safety barrier		 II (1) GD [EEx ia] IIC					

Digital load cell CPD Our technology – Your benefit

rodents



ice and snow



water and flooding



rust and corrosion



Extreme temperatures



lightning strike



Our digital load cells already in standard version are equipped with an integrated active and passive lightning protection

Cable defective? No problem!
 Plug connection for simple cable replacement.
 Thus no re-calibration required !

Accessories / Options

- plug in socket: straight or with 90° angle
- available with different cable lengths: 5m, 12m, 18m

Rodent protection cable (option) between load cell, junction box and indicator as an additional protection against rodents.



Analogue load cell CPR-M

Entire stainless steel housing. Robust and corrosion resistant design.

High-precision compression load cell with stainless steel housing.

Approved up to 4000 d (acc. to OIML R60).

Optionally available in EX (i) version

Protection class IP 68
(Wägezellen und Wägezellenverteiler-Klemmenkasten)

Operating temperature range -30°C bis +70°C

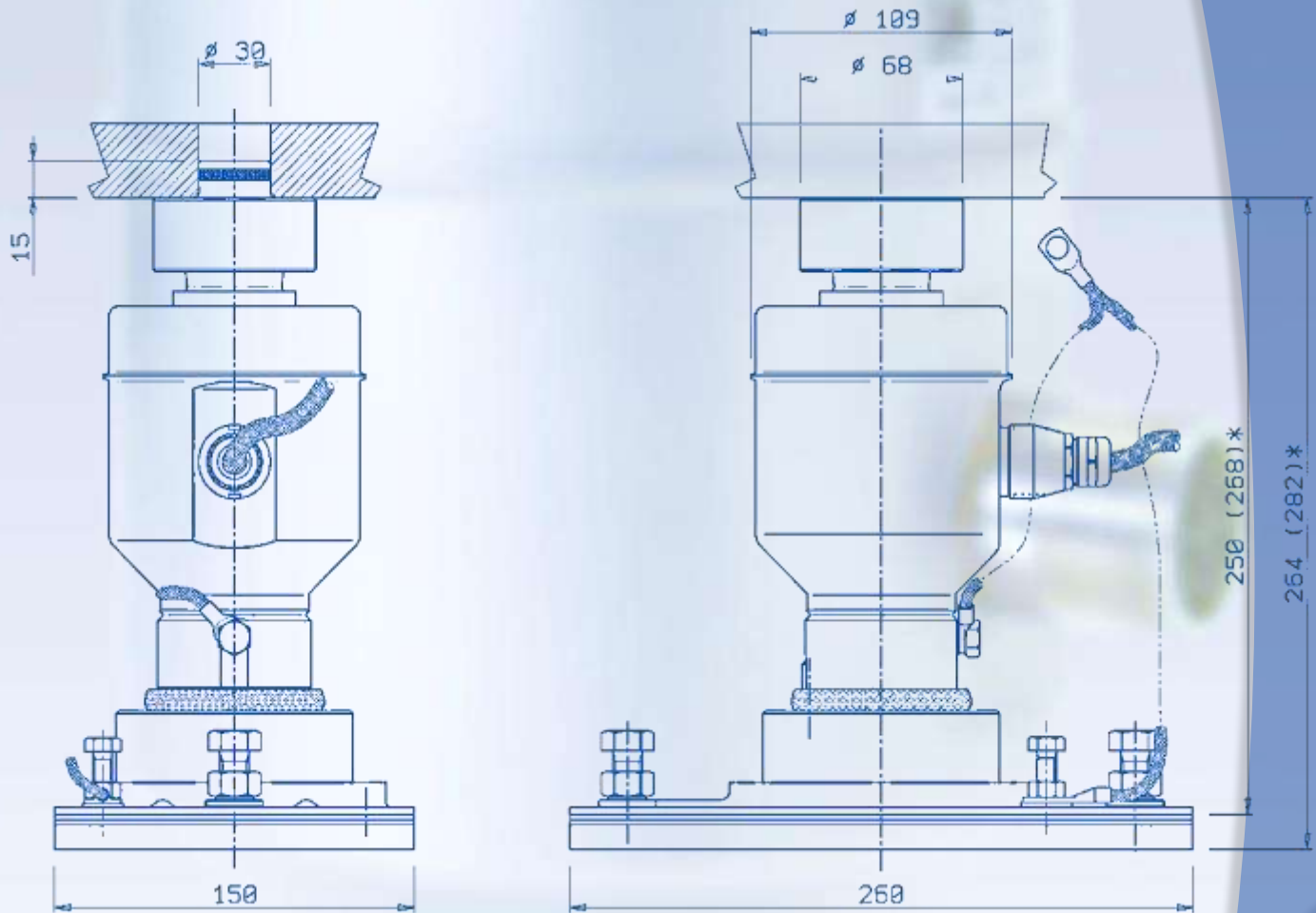
Self-adjusting function

EMC-approved

Available nominal loads :
20t / 35t / 50t



Analogue load cells CPR-M Technical Data



*(...) 50 t

Dimensions in [mm]

Construction height CPR-M

20t: 220 und 250 mm
 35t: 220 und 250 mm
 50t: 270 mm



Analogue Load Cells CPR-M

Accuracy Class	C	C3/M	C1	C2	C3	C4
Max. Capacity (E _{max})	(t)			20 / 35 / 50		
Max. N° divisions nLC		3000	1000	2000	3000	4000
Ratio $\gamma = E_{max} / V_{min}$		18000	5000	7000	12000	18000
Ratio $z = E_{max} / 2 DR$		8000				
Min. dead load E _{min} /E _{max}	% E _{max}			0,5		
Safe overload	% E _{max}			150		
Ultimate overload	% E _{max}			300		
Excitation voltage	V(AC;DC)			5 ÷ 15		
Max. excitation voltage	V(AC;DC)			18		
Input resistance	Ω			700 ± 5		
Output resistance	Ω			705 ± 5		
Insulation resistance	M Ω			≥ 5000		
Zero balance	% S			≤ 2		
Rated output	S (m V/V)			2 ± 0,1 %		
Combined error	% S	≤± 0,016	≤± 0,025	≤± 0,024	≤± 0,022	≤± 0,018
Non-repeatability	% S	≤± 0,010	≤± 0,015	≤± 0,015	≤± 0,010	≤± 0,010
Temp. effect on min. dead load	% S / 5°K	≤± 0,005	≤± 0,014	≤± 0,01	≤± 0,007	≤± 0,005
Temp. effect on sensitivity	% S / 5°K	≤± 0,005	≤± 0,0116	≤± 0,058	≤± 0,005	≤± 0,004
Min. dead load (E _{min})	% S	≤± 0,006	≤± 0,05	≤± 0,025	≤± 0,016	≤± 0,0125
Creep in 30 min.	% S	≤± 0,0245	≤± 0,049	≤± 0,0245	≤± 0,0245	≤± 0,018
Creep from 20 to 30 Min.	% S	≤± 0,0053	≤± 0,015	≤± 0,0075	≤± 0,0053	≤± 0,0037
Nominal temperature range	°C			-10 / +40		
Operating temperature range	°C			-30 / +70		
Storage temperature range	°C			-40 / +80		
Reference temperature	°C			+20		
Cable length	m			18 ± 0,2		
Weight	kg			ca. 3,5		
Effect of barometric variation				≤ val. lim. OIML R60 ed 2000		
Protection class				IP 68		
EX (i) version	-20°C ≤	⊕ II 1 G [Ex ia] IIC T5, T4; II 1 D [Ex ia] D 20 IP66 T85°C				
Z22 version	T _{amb} ≤ +55 °C	⊕ II 3 D IP6x T80°C				

Notes:

Accuracy class (C1...C4) acc. to OIML R60.

C3/M = special selection for multi-division or multiple range scales.

S = sensitivity at max. capacity (kg) under gravitational acceleration
(tested conditions: $g = 9.805428 \text{ m/s}^2$)

-Technical data subject to modification without notice-

