Data sheet

C2A/…, C2A/…/Exd

Load cells

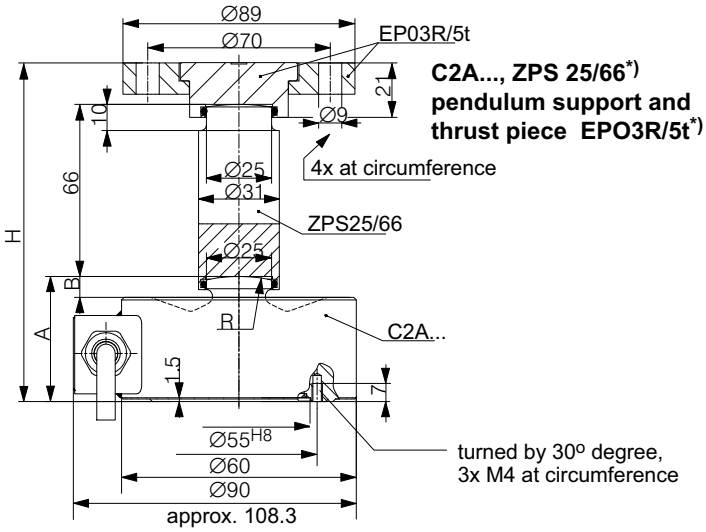
C2A/...

C2A/.../Exd

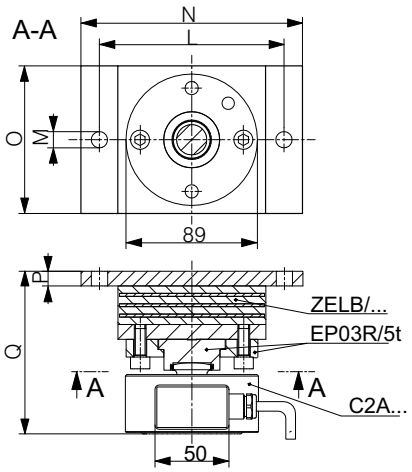
Special features

- **Load cells and mounting aids made from stainless steel**
- **Max. capacities: 1 t ... 10 t**
- **Low profile**
- **Complies with OIML R60 regulations for up to 4000 verification intervals**
- **Meets EMC standards according to EN 45 501**
- **Explosion proof version (optional)**

Dimensions (in mm; 1 mm= 0.03937 inches)



C2A... with ZELB/...*) rubber-metal bearing and EPO3R/5t*) thrust piece

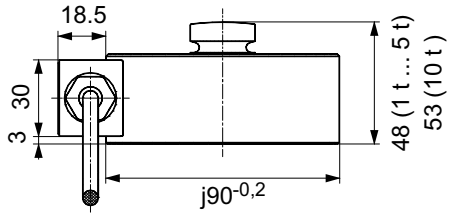


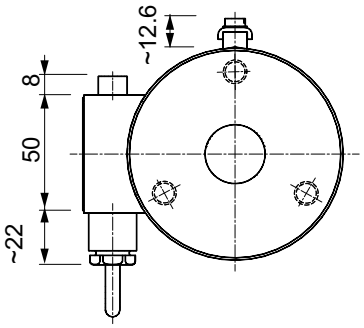
Max. cap.	A	B	R	H	S_{max} (mm)	F_R (% of load)	L	M	N	O	P	Q	S_{max} (mm)	F_R (N)
1t; 2t	48	10	30; 50	130	± 5	1; 1.5	100	9	120	60	10	103	± 4.5	400
5t	48	8	60	130	± 5	1.7	125	11	150	100	10	110	± 8	620
10t	53	8	80	135	± 5	2.2	175	13	200	100	12	124	± 9.5	810

S_{max}: Max. sidewards displacement at max. capacity **F_R**: Restoring force for 1 mm sidewards displacement

Dimensions C2A/.../Exd (Continuation)

The dimensions of the cable terminal box and the housing connection of the load cells with **flameproof enclosure "d"** are not identical with those of the standard load cells.





Please note, when mounting; the fixed connection lead must have a mechanical securing.

Specifications

Type		**C2A/..., C2A/.../Exd**	
Max. capacity (E_{max})		1t / 2t / 5t / 10t	
Accuracy class to OIML R60		D1	C3
Max. number of load cell intervalls (n_{LC})		1000	3000
Min. load cell verification interval (v_{min})		0.0286	0.0100
Sensitivity (C_n)	mV/V	2	
Tolerance on sensitivity	%	< ±0.1000	< ±0.0500
Temperature effect on sensitivity (TK_C)[1)]	% of C_n / 10K	< ±0.0420	< ±0.0080
Temperature effect on zero signal (TK_0)	% of C_n / 10K	< ±0.0400	< ±0.0140
Hysteresis[1)]	%	< ±0.0500	< ±0.0180
Non-linearity (d_{lin})[1)]	%	< ±0.0500	< ±0.0170
Creep (d_{DR}) in 30 min	%	< ±0.0500	< ±0.0167
Input resistance (R_{LC}) (black-blue)	Ω	400 ... 430	
Output resistance (R_0) (red-white)	Ω	356 ±1.5	356 ±0.12
Reference excitation volt. (U_{ref})	V	5	
Nominal range of excitation voltage (B_U)	V	0.5 ... 12	
Isolation Resistance (R_{is})	GΩ	>5	
Nominal temperature range (B_T)[2)]	°C [°F]	-10 ... +40 [+14 ... +104]	
Service temperature range (B_{tu})	°C [°F]	-30 ... +70 [-22 ... +158]	
Storage temperature range (B_{tl})	°C [°F]	-50 ... +85 [-58 ... 185]	
Save load limit (E_L)	% of E_{max}	150	
Breaking load (E_d)	% of E_{max}	300	
Side load limit (E_{lq})	% fo E_{max}	50	
Permissible dynamic load (F_{srel})[3)] (Vibration amplitude to DIN 50100)	% of E_{max}	100	
Deflection at max. capacity, (s_{nom}) (± 15%)	mm	0.15 / 0.15 / 0.17 / 0.2	
Weight (G), approx.	kg	1.7 / 1.8 / 1.8 / 1.8	
Protection class (IP) to EN 60529 (IEC529)		IP67	
Material, Measuring body Cable gland Cable sheath		stainless steel nickel plated brass [4)], silicone thermoplast. elastomer	

1) The data for Non-linearity (d_{lin}), Hysteresis error (d_{hy}) and Temperature effect on sensitivity (TK_C) are typical values. The sum of these data meets the requirements according to OIML R60.

2) For the destination in flameproof enclosure areas the ambient temperature range **-30°C ≤ T_a ≤ +65°C** described on the load cell has to be ensured.

3) 70% with C2A../10t

4) With C2A/.../Exd: stainless steel

Optional

Explosion proof version

AI1/21 IECEx+ATEX zone 1/21 + FM, intrinsically safe, II2G Ex ia IIC T6/T4 Gb / II2D Ex ia IIIC T125°C Db [only with Option 6=N]
AI2/21 IECEx+ATEX zone 2/21, non-intrinsically safe, II3G Ex nA IIC T6/T4 Gc / II2D Ex tb IIIC T125°C Db [only with Option 6=N]

Accuracy class C4 (not possible in connection with Exd version) [5)]

5) With EC-Type Examination Certificate

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