

C16A...

100/200/400 t

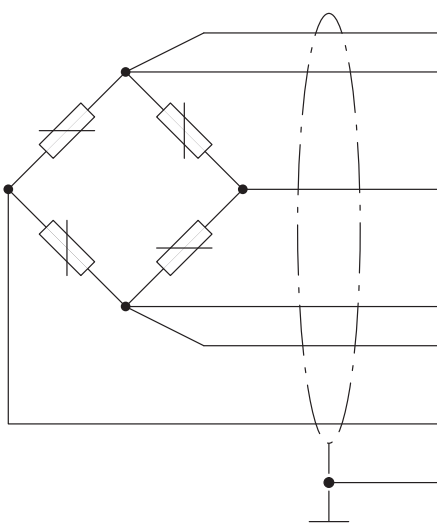
Self-centering pendulum lead cells

SPECIAL FEATURES

- Self-restoring function
- Nominal (rated) loads: 100 t, 200 t and 400 t
- Simple installation
- Rust-resistant materials, laser-welded, IP68/IP69K
- Legal for trade
100 t with up to 3000 d (OIML R60 D1 + C3)
200 t, 400 t with up to 1000 d (OIML R60 D1)
- Optimized for parallel connection
- Explosion-protection design as per ATEX, IECEx and FM (US/CA)



CABLE ASSIGNMENT (6-WIRE CONFIGURATION)



- | | |
|---------|---|
| (gray) | Sensing element (-) |
| (black) | Excitation (-) |
| (white) | Signal (+) |
| (blue) | Excitation (+) |
| (green) | Sensing element (+) |
| (red) | Signal (-) |
| (-) | Cable shield/drain wire,
connected to enclosure ground |

SPECIFICATIONS

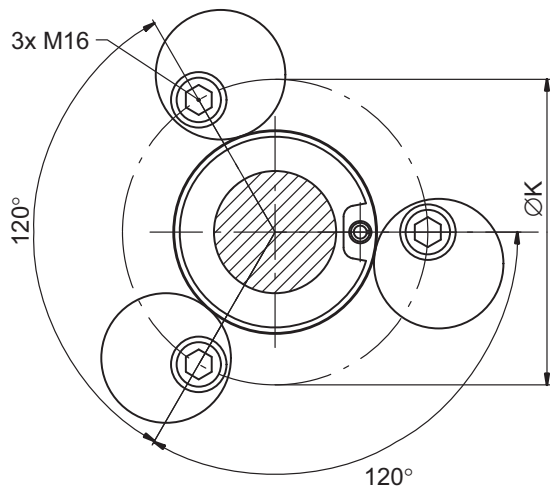
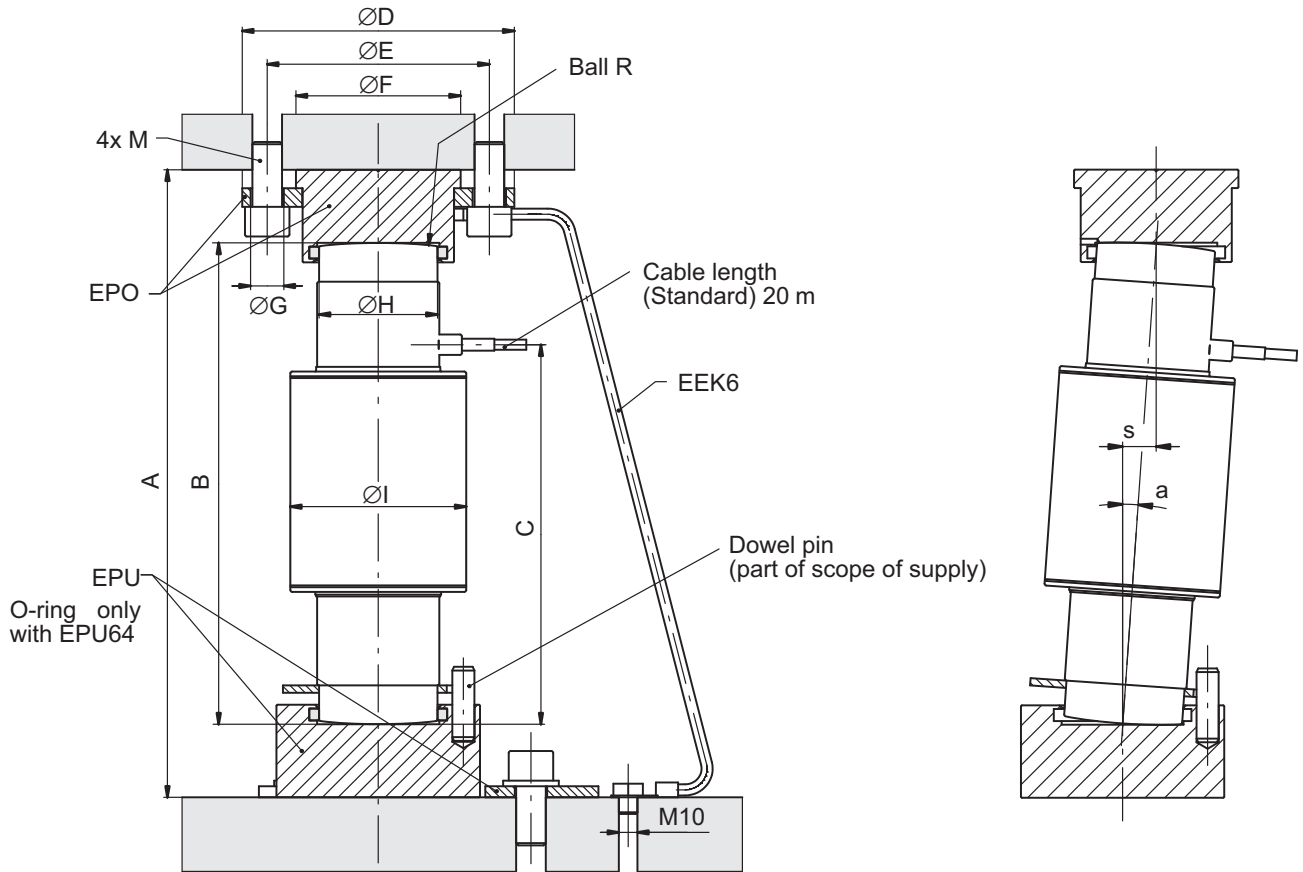
Type	C16A						
Accuracy class per OIML R60			D1			C3	
Number of scale intervals	n_{LC}		1000			3000	
Nominal (rated) load	E_{max}	t	100	200	400	100	
Minimum load cell verification interval	v_{min}	% of E_{max}	0.0200			0.0100	
Ratio of minimum verification interval	Y		5000			10000	
General specifications							
Nominal (rated) sensitivity	C_n	mV/V	2				
Sensitivity tolerance ¹⁾		%	±0.5				
Temperature coefficient of sensitivity ²⁾	TK_C	% of $C_n/10\text{ K}$	±0.0250			±0.0080	
Temperature coefficient of zero signal	TK_0		±0.0285			±0.0140	
Relative reversibility error ²⁾	d_{hy}	% of C_n	±0.0330			±0.0170	
Non-linearity ²⁾	d_{lin}		±0.0300			±0.0180	
Load creep in 30 min.	d_{cr}		±0.0330			±0.0167	
Minimum dead load output return, 30 min.	DR		± 0.0330			±0.0167	
Input resistance (black-blue)	R_{LC}	Ω	700 ±20				
Output resistance ¹⁾ (red-white)	R_0		706 ±3.5				
Reference excitation voltage	U_{ref}	V	5				
Nominal (rated) range of the supply voltage	B_U		0.5 ... 12				
Insulation resistance	R_{is}	G Ω	> 5				
Nominal (rated) ambient temperature range	B_T	°C	-10 ... +40				
Operating temperature range	B_{tu}		-50 ... +70				
Storage temperature range	B_{tl}		-50 ... +85				
Limit load	E_L	% of E_{max}	150				
Breaking load	E_d		> 350	> 200	> 300	> 350	
Relative permissible oscillatory stress (oscillation width as per DIN 50100)	F_{srel}		70				
Nominal (rated) displacement at E_{max} , approx.	s_{nom}	mm	1.57	2.15	2.64	1.57	
Weight without cable, approx.	G	kg	8	10.8	22.0	8	
Degree of protection per EN60529 (IEC529)			IP68 (test conditions 1 m water column / 100 h) IP69 K (water at high pressure, steam cleaner)				
Material:	Measuring body+ housing Cable entry Seal Cable sheath		Stainless steel ³⁾ Stainless steel ³⁾ Viton [®] Thermoplastic elastomer				

¹⁾ Because of the off-center load compensation, the sensitivity and output resistance are matched in such a way that when there is eccentric loading, the scale display is within the permissible error limits.

²⁾ The values for non-linearity (d_{lin}), relative reversibility error (d_{hy}) and temperature coefficient of sensitivity (TC_S) are recommended values. The sum of these values is within the cumulative error limit for $p_{LC} = 0.7$ according to OIML R60.

³⁾ As per EN 10088-1

DIMENSIONS AND LOADING FITTINGS FOR MAXIMUM CAPACITIES 100 T ... 400 T



	Dowel pin	M
100 t/200 t	Ø12 x 40	M16
400 t	Ø14 x 50	M24

Cable: Ø 5,4 mm

Nominal (rated) load	Thrust pieces top + bottom (1 set = 2 pieces)	A	B	C	ØD	ØE	ØF	ØG	ØH	ØI	ØK	R	a _{max} ¹	s _{max} ²	F _R ³⁾	
															at s _{max}	at s = 1 mm
100 t 200 t	EPO3/100 t, C16/EPU64	339 ±1.5	260	205	147	120	89	18	64	95	165	290	4°	18	8.6	0.48
															400	2°
400 t	EPO3/400 t, C16/EPU109	386 ±1.5	260	205	240	196	160	26	109	154	230	570	2°	9	11.8	1.31

1) Max. permissible misalignment
 2) Max. permissible lateral displacement of load application
 3) Restoring force in % of applied load

OPTIONS FOR C16A

- Explosion protection versions as per ATEX, IECEx and FM (US/CA)
 - AI1/21 ATEX+IECEEx+FM Zone 1/21, intrinsically safe;
 - ATEX/IECEEx: II 2G Ex ia IIC T6/T4 Gb + II 2D Ex ia IIIC T125°C Db;
 - FM(US/CA): Class I Zone 1 AEx/Ex ia IIC T4 Gb + Zone 21 AEx/Ex ia IIIC T125°C Db;
 - FM(US): Class I, II, III Division 1, Groups A, B, C, D, E, F, G T4
 - AI2/21 ATEX+IECEEx Zone 2/21, not intrinsically safe;
 - ATEX/IECEEx: II 3G Ex ec IIC T6/T4 Gc + II 2D Ex tb IIIC T125°C Db
- Overvoltage protection
- Cable length 40 m

ACCESSORIES (TO BE ORDERED SEPARATELY)

- **EPO3/100t** Thrust piece for top, incl. clamping ring (100 t and 200 t)
- **C16/EPU64** Thrust piece for bottom, incl. 3 eccentric discs (100 t and 200 t)
- **EEK6** Ground cable, 600 mm long

C16A LOAD CELLS, OPTIONAL VERSIONS

Ordering number
K-C16A2

Code	Option 1: Mechanical design
S	Standard

Code	Option 2: Accuracy class
D1	D1 (OIML)
C3	C3 (OIML) [only with option 3 = 20 / 30 / 40 / 60 / 100]
C4	C4 (OIML) [only with option 3 = 30 / 40 / 60]
C5	C5 (OIML) [only with option 3 = 30 / 40 / 60] (on request)

Code	Option 3: Maximum capacity
20	20 t [only with option 2 = D1 / C3]
30	30 t [only with option 2 = D1 / C3 / C4 / (C5 on request)]
40	40 t [only with option 2 = D1 / C3 / C4 / (C5 on request)]
60	60 t [only with option 2 = D1 / C3 / C4 / (C5 on request)]
100	100 t [only with option 2 = D1 / C3]
200	200 t [only with option 2 = D1 and option 6 = N]
400	400 t [only with option 2 = D1]

Code	Option 4: Explosion protection
N	No Ex protection
AI1/21	ATEX+IECEX+FM zone 1/21 [only with option 6 = N]
AI2/21	ATEX+IECEX zone 2/21

Code	Option 5: Cable length
S12	12 m (standard) [only with option 3 = 20 / 30]
S20	20 m (standard) [only with option 3 = 40 / 60 / 100 / 200]
20	20 m [only with option 3 = 20 / 30]
40	40 m
20R	20 m (standard) [only with option 3 = 20 / 30 / 40 / 60]

Code	Option 6: Overvoltage protection
N	None
L	With overvoltage protection

Code	Option 7: Other
N	None
Y	Y=20000 [only with option 2 = C3 + Option 3 = 30/40/60]

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Not all codes can be combined with one another. Take note of the conditions in square brackets!

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Subject to modifications. All product descriptions are for general information only. They are not to be understood as a guarantee of quality or durability.

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