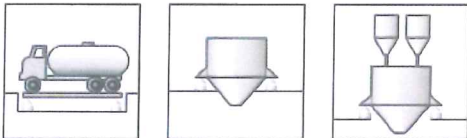




## C16A... 100/200/400 t

Self-centering  
pendulum load cell

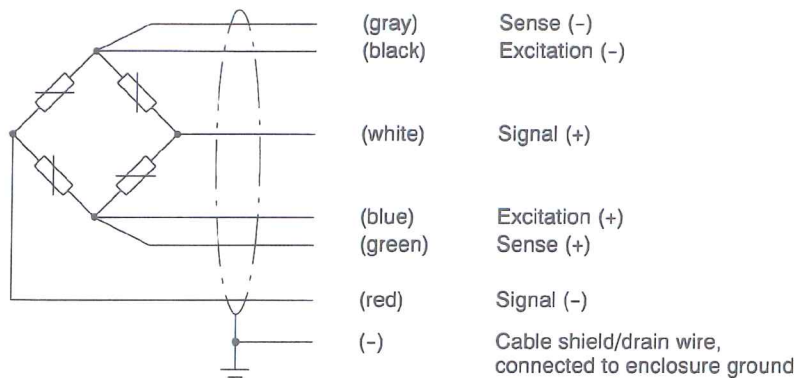


### Special features

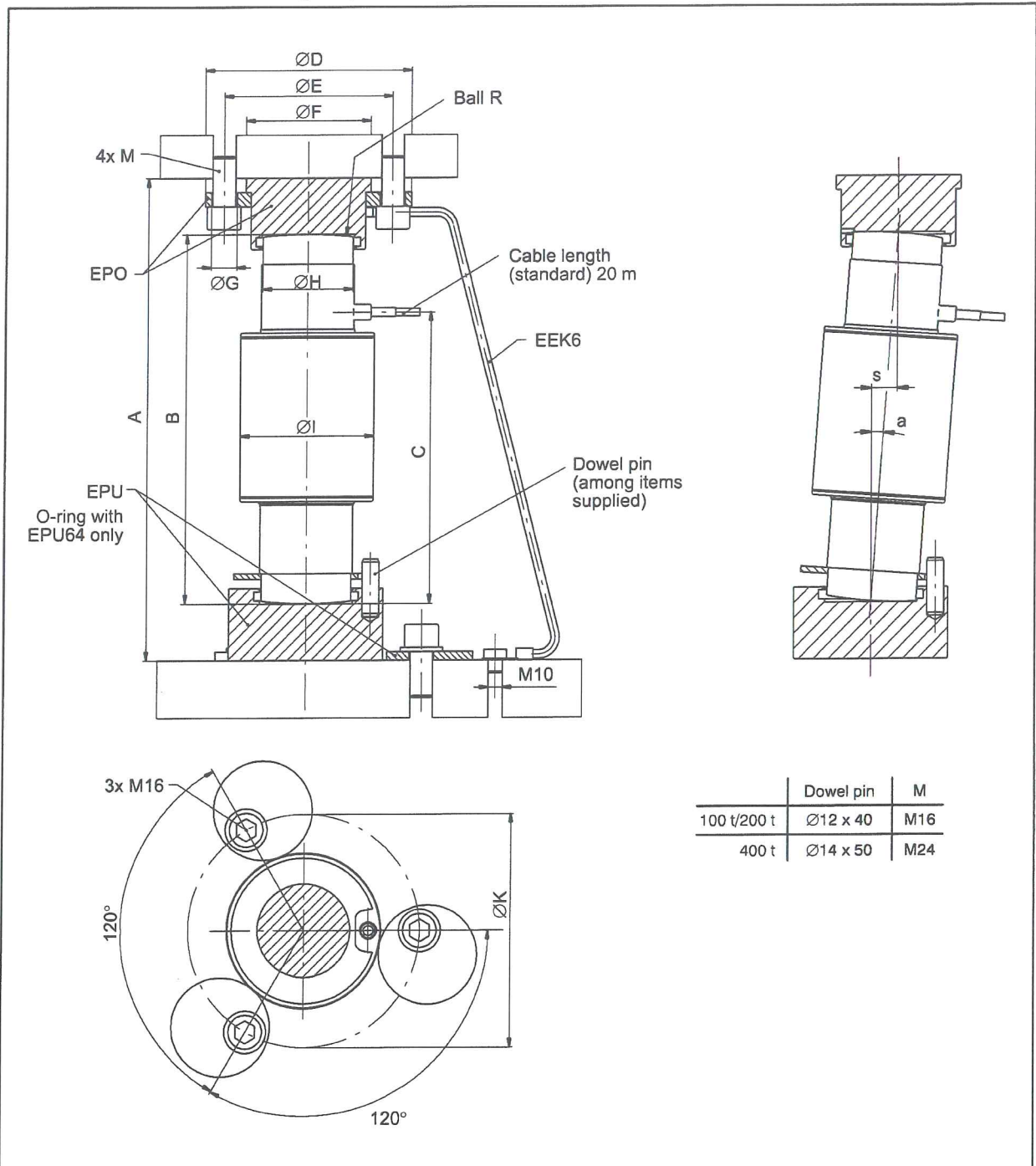
- Self-restoring function
- Maximum capacities: 100 t, 200 t and 400 t
- Simple installation
- Rust-resistant materials, laser-welded, IP68
- Optimized for parallel connection by off-center load compensation
- Meets EMC-requirements in accordance with EN 45 501
- Ex protection versions as per ATEX (optional)

### Cable assignment

Cable assignment (six-wire configuration):



## Dimensions and mounting depth



Maximum capacity	Thrust pieces top + bottom (1 set = 2 pieces)	A	B	C	$\varnothing D$	$\varnothing E$	$\varnothing F$	$\varnothing G$	$\varnothing H$	$\varnothing I$	$\varnothing K$	R	$a_{\max}^1$	$a_{\max}^2$	$F_R^3$	
															at $s_{\max}$	at $s = 1 \text{ mm}$
100 t	EPO3/100 t, C16/EPU64	339	260	205	147	120	89	18	64	95	165	290	4°	18	8.6	0.48
200 t	C16/EPU64	$\pm 1.5$										400	2°	9	7.3	0.81
400 t	EPO3/400 t, C16/EPU109	412	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 as % of the applied load

## Specifications

Type		C16A D1 *			C16A C3 *		
		100 t	200 t	400 t	100 t	200 t	400 t
Maximum capacity ( $E_{max}$ )		100 t	200 t	400 t	100 t	200 t	400 t
Accuracy class per OIML R60		D1 (0.0330 %)			C3 (0.0170 %)		
Number of load cell verification intervals ( $n_{LC}$ )		1000			3000		
Minimum load cell verification interval ( $v_{min}$ )	% of $E_{max}$	0.0200			0.0100	0.0125	
Nominal (rated) sensitivity ( $C_n$ )	mV/V	2					
Sensitivity tolerance <sup>1)</sup>	%	±0.5					
Temperature coefficient of sensitivity ( $TK_C$ ) <sup>2)</sup>	% of $C_n$ / 10 K	±0.0250			±0.0080		
Temperature coefficient of zero signal ( $TK_0$ )		±0.0285			±0.0140	±0.0175	
Relative reversibility error ( $d_{hy}$ ) <sup>2)</sup>		±0.0330			±0.0170		
Non linearity ( $d_{lin}$ ) <sup>2)</sup>	% of $C_n$	±0.0300			±0.0180		
Creep upon loading ( $d_{cr}$ ) over 30 min.		±0.0330			±0.0167		
Input resistance ( $R_{LC}$ )		700 ±20					
Output resistance ( $R_0$ ) <sup>1)</sup>	Ω	706 ±3.5					
Reference excitation voltage ( $U_{ref}$ )	V	5					
Nominal (rated) supply voltage range ( $B_U$ )		0.5 ... 12					
Insulation resistance ( $R_{is}$ )	GΩ	> 5					
Nominal (rated) ambient temperature range ( $B_T$ )		-10 ... +40					
Operating temperature range ( $B_{tu}$ )	°C	-30 ... +70					
Storage temperature range ( $B_{tl}$ )		-50 ... +85					
Limit load ( $E_L$ )		150					
Breaking load ( $E_d$ )		> 350	> 200	> 300	> 350	> 200	> 300
Relative permissible oscillatory stress ( $F_{srel}$ ) (oscillation width as per DIN 50 100)	% of $E_{max}$	70					
Nominal (rated) displacement at $E_{max}$ ( $S_{nom}$ ), approx.	mm	1.57	2.15	2.64	1.57	2.15	2.64
Weight (G) with cable, approx.	kg	8	10.8	22.0	8	10.8	22.0
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 <sup>3)</sup> stainless steel <sup>3)</sup> Viton® thermoplastic elastomer					

<sup>1)</sup> 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.

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

<sup>3)</sup> as per EN 10 088-1

### Options:

- **Overvoltage protection** (not possible with Ex protection)
  - **Ex protection versions as per ATEX:**
    - II 2 G Ex ia IIC T4 and T6 (Zone 1) \*)
    - II 3 G Ex nA II T6 (Zone 2)
    - II 2 D Ex tD A21 IP68 T80 °C (Zone 21) \*)
    - II 3 D Ex tD A22 IP68 T80 °C (Zone 22 for non-conductive dust)
    - II 2 G EExd IIC T6 (Zone 1) \*) see separate data sheet
- \*) with EC Type Approval Test Certificate

- **40 m cable**

### 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)
- **EPO3/400t** Thrust piece for top, incl. clamping ring (400 t)
- **C16/EPU109** Thrust piece for bottom, incl. 3 eccentric discs (400 t)
- **EEK6** Ground cable, 600 mm long

Modifications reserved.  
All product descriptions are for general information only. They are not to be understood as a guarantee of quality or durability and do not constitute any liability whatsoever.

**Hottinger Baldwin Messtechnik GmbH**

Im Tiefen See 45 · 64293 Darmstadt · Germany  
Tel. +49 6151 803-0 · Fax: +49 6151 803-9100  
E-mail: [info@hbm.com](mailto:info@hbm.com) · [www.hbm.com](http://www.hbm.com)

measure and predict with confidence

