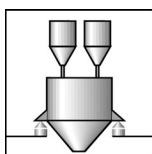
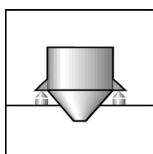
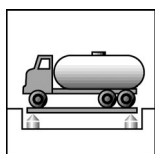




C16A... 100/200/400 t

Self-centering
pendulum load cells

Data sheet

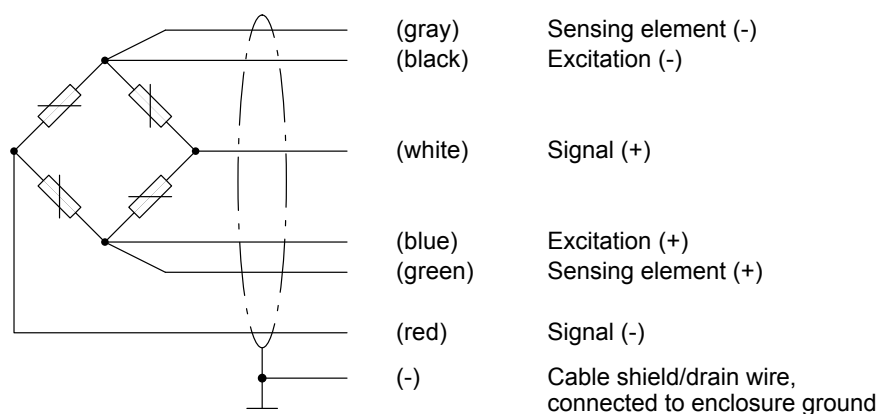


Special features

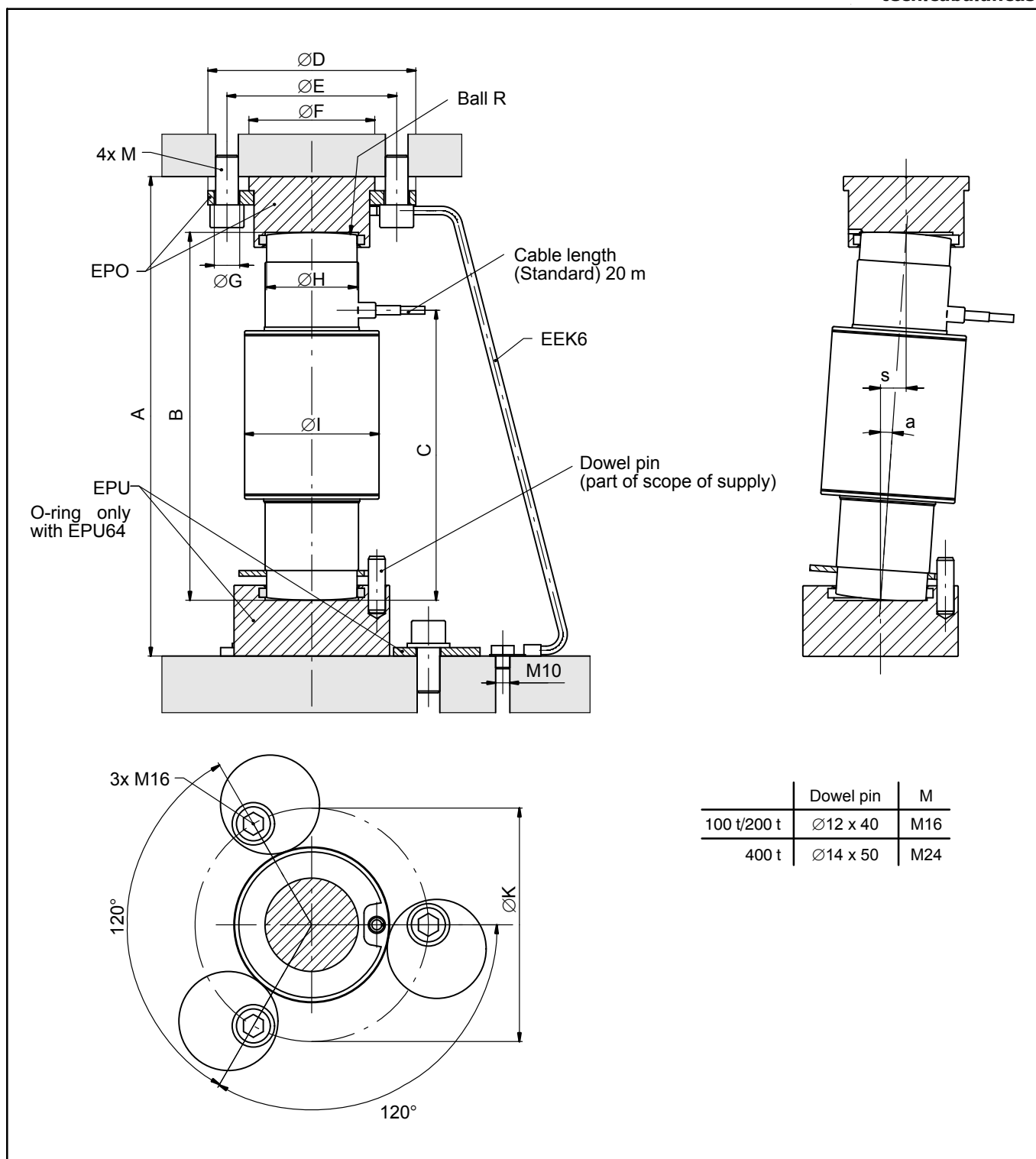
- Self-restoring function
- Nominal (rated) loads: 100 t, 200 t and 400 t
- Simple installation
- Rust-resistant materials, laser-welded, IP68
- Optimized for parallel connection by off-center load compensation
- Meets EMC requirements as per EN 45501
- Ex-protection design as per ATEX (optional)

Cable assignment

Cable assignment (six-wire configuration):



Dimensions and mounting depth



Nominal (rated) load	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	s_{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		± 1.5													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
		± 1.5														

¹⁾ max. permissible misalignment

²⁾ max. permissible lateral displacement of load application

³⁾ Restoring force in % of applied load

Specifications

Type			C16A D1			C16A C3
Nominal (rated) load	$E_{\max}$		100 t	200 t	400 t	100 t
Accuracy class per OIML R60			D1 (0.0330 %)			C3 (0.0170 %)
Number of scale intervals	n_{LC}		1000 (10000 NTEP III LM)	1000		3000
Minimum load cell verification interval	$v_{\min}$	% of $E_{\max}$	0.0200 (0.0068 NTEP III LM)	0.0200		0.0100
Nominal (rated) sensitivity	C_n	mV/V	2			
Sensitivity tolerance ¹⁾		%	±0.5			
Temperature coefficient of sensitivity ²⁾	TK_C	% of	±0.0250			±0.0080
Temperature coefficient of zero signal	TK_0	$C_n/10$ K	±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
Input resistance	R_{LC}	Ω	700 ±20			
Output resistance ¹⁾	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}		-30 ... +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

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 $^{\circ}\text{C}$ (Zone 21) ^{*)}
 - II 3 D Ex tD A22 IP68 T80 $^{\circ}\text{C}$ (Zone 22 for non-conductive dust)
 - II 2 G EExd IIC T6 (Zone 1) ^{*)} see separate data sheet
- **40 m cable**

^{*)} with EC Type Approval Test Certificate

Accessories (to be ordered separately):

- **EPO3/100t** Thrust piece for top, incl. clamping ring (100t and 200t)
- **C16/EPU64** Thrust piece for bottom, incl. 3 eccentric discs (100t and 200t)
- **EPO3/400t** Thrust piece for top, incl. clamping ring (400t)
- **C16/EPU109** Thrust piece for bottom, incl. 3 eccentric discs (400t)
- **EEK6** Ground cable, 600mm long

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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