



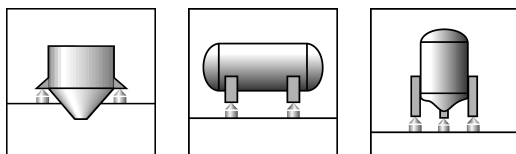
C2...

Load cells

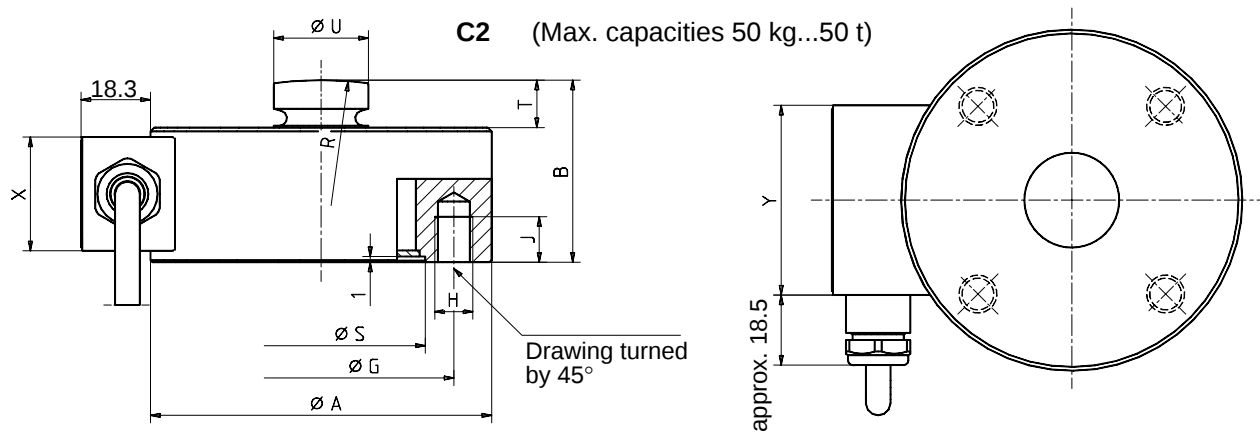


Special features

- Load cells made of stainless steel materials
- Max. capacities: 50 kg ... 50 t
- Small deflection
- High permissible dynamic load
- Six-wire circuit
- Low profile
- Meets EMC requirements according to EN 45 501
- Explosion proof version acc. to ATEX 95 (optional)



Dimensions (in mm; 1 mm= 0.03937 inches)



Max. cap. [t]	ØA _{0.2}	B	ØG	H	J	R	ØSH ⁸	T	ØU	X	Y
0.05...1	50	30	42	4xM5	7	60	34	7	13	20	35
2 and 5	90	48	70	4xM10	12	100	55	12.5	25	30	50
10 and 20	115	60	90	4xM12	16	160	68	12.5	32	30	50
50	155	90	125	4xM16	20	300	97	15.5	44	30	50

Specifications

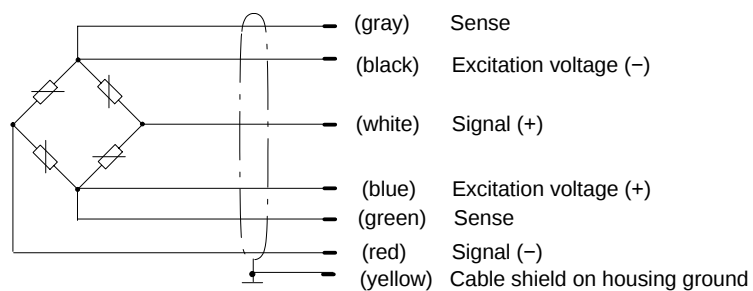
Type		C2	
Accuracy class		0.2	0.1
Max. capacity	kg t	50 –	100, 200, 500 1, 2, 5, 10, 20, 50
Sensitivity (C_n)	mV/V	2	
Tolerance on sensitivity	%	<±0.20	
Temperature effect on sensitivity (TK_C) in the nominal temperature range in the service temperature range	%/10 K %/10 K	<+0.05 <±0.10	
Temperature effect on zero balance (TK_0) in the nominal temperature range in the service temperature range	%/10 K %/10 K	<+0.05 <±0.10	
Hysteresis error (d_{hy})	%	<±0.15	
Non-linearity (d_{lin})	%	<±0.20	<±0.10
Creep (d_{DR}) over 30 min.	%	<±0.06	
Input resistance (R_{LC})	Ω	340...450	
Output resistance (R_0)	Ω	356±0.2	
Reference excitation voltage (U_{ref})	V	5	
Nominal range of excitation voltage (B_U)	V	0.5...10	0.5...12
Max. permissible excitation voltage	V	12	18
Insulation resistance (R_{is})	GΩ	>5	
Nominal temoerature range (B_T)	°C [°F]	-10...+40 [14...104]	
Operating temperature range (B_{tu})	°C [°F]	-30...+85 [-22...185] (-30...+120) ¹⁾ [-22...248] ¹⁾	
Storage temperature range (B_{st})	°C [°F]	-50...+85 [-58...185]	
Safe load limit (E_L)		130	150
Breaking load (E_d)		300	
Rel. static lateral load limit (E_{lq})	% of rated capacity	50	
Permissible dynamic load (F_{srel}) (peak to peak acc. to DIN 50100)		100	
Degree of protection class (IP) to EN 60 529 (IEC 529)		IP 68 (test conditions: 100 h at 1 m water column) IP 69 K (water at high pressure, steam jet cleaning)	
Material: Measuring body		Stainless steel	
Cable gland		Nickel plated brass, Silicone	
Cable sheath		Thermoplastic elastomer	

¹⁾ Optionally available with extended operating temperature range.

Mechanical values

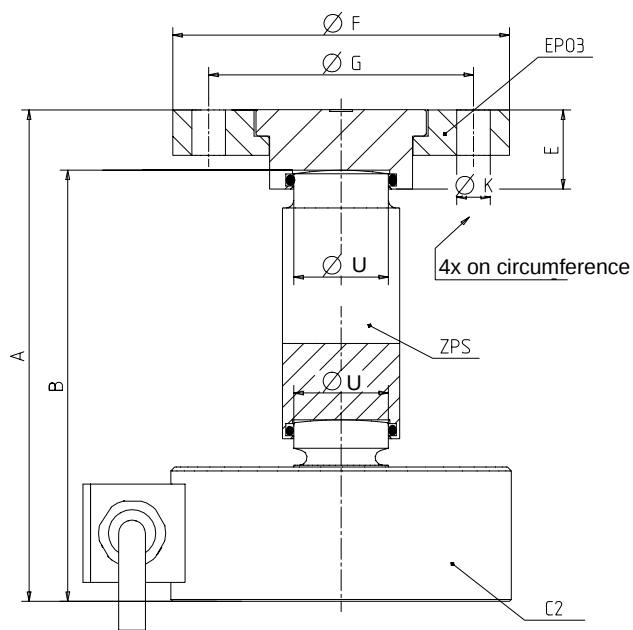
Max. capacity [t]	Deflection at max. capacity (s_{nom}) [mm], approx.	Weight (G), approx. [kg]	Cable length [m]
0.05	< 0.1	0.4	3
0.1	< 0.1	0.4	3
0.2	< 0.1	0.4	3
0.5	< 0.1	0.4	3
1	< 0.1	0.4	3
2	< 0.06	1.8	6
5	< 0.06	1.8	6
10	< 0.06	3	12
20	< 0.06	3	12
50	< 0.1	8.6	12

Wiring code



Mounting accessories

ZPS¹⁾ Pendle bearing support and EPO3/EPO3R¹⁾ Pendle bearing above



S_{perm.}: Max. permissible lateral displacement [mm] with rated load

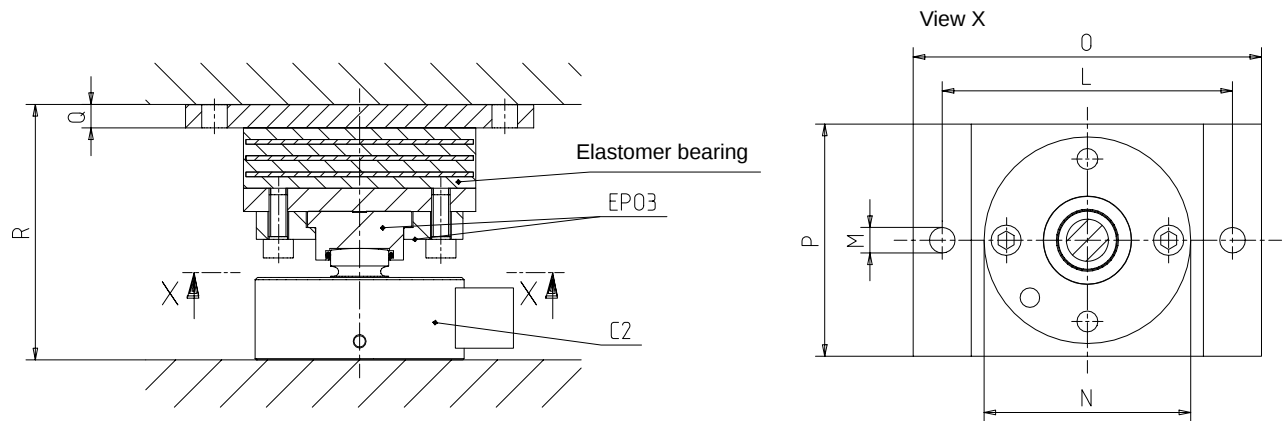
F_R: Restoring force [% of load applied] with a lateral displacement of 1mm

Max. capac.	Pendle bearing support ¹⁾	Pendle bearing above ¹⁾	A	B	E	ØF	ØG	ØU	ØK	S _{perm.}	F _R
50 kg...1 t	1-ZPS 13/44	1-EPO3/200 kg	90	74	21	89	70	13	9	±3	2.4
2 and 5 t	1-ZPS 25/66	1-EPO3R/5 t	130	114	21	89	70	25	9	±5	2.6
10 and 20 t	1-ZPS 32/115	1-EPO3R/20 t	195	175	27.5	110	90	32	13	±9	1.2
50 t	1-ZPS 44/150	1-EPO3/50 t	280	239.5	50	147	120	44	17	±10	1.5

¹⁾ ZPS Pendle bearing support, EPO3R and EPO3/200 kg Pendle bearings above are made from stainless steel.

Mounting accessories (continued)

ZELA/ZELB Elastomer bearing and EPO3/EPO3R¹⁾ pendle bearing



$S_{perm.}$: Max. permissible lateral displacement [mm] with rated load

F_R : Restoring force [N] with a lateral displacement of 1mm

Max. capac. [t]	Elastomer bearing ¹⁾	Pendle bearing ¹⁾	L	M	N	O	P	Q	R	$S_{perm.}$	F_R
0.5 and 1	1-ZELB/2 t	1-EPO3/200 kg	100	9	89	120	60	10	85.5	±4.5	400
2	1-ZELB/2 t	1-EPO3R/5 t	100	9	89	120	60	10	103	±4.5	400
5	1-ZELB/5 t	1-EPO3R/5 t	125	11	89	150	100	10	110	±8	620
10	1-ZELB/10 t	1-EPO3R/20 t	175	13	110	200	100	12	135	±9.5	810
20	1-ZELA/20 t	1-EPO3R/20 t	230	13	110	260	150	12	142	±15	1400
50	1-ZELA/50 t	1-EPO3/50 t	335	17	148	370	200	15	200	±10.5	2300

¹⁾ ZELB Elastomer bearing, EPO3R/... and EPO3/200 kg Pendle bearings are made from stainless steel.

Options:

Explosion-proof versions according to ATEX 95:

- II 2 G EEx ia IIC T4 resp. T6 (Zone 1) *)
- II 2 D IP67 T80°C (Zone 21) *)
- II 3 G EEx nA II T6 (Zone 2)
- II 3 D IP67 T80°C (Zone 22 for non-conductive dust)
- *) with EC-type examination certificate

Operating temperature range extended to 120 °C [248 °F] (not possible in connection with ATEX 95)

Accessories, to be ordered separately:

- ZPS Pendle bearing support and EPO3/EPO3R Pendle bearing
- ZELA/ZELB Elastomer bearing and EPO3/EPO3R Pendle bearing
- EEK Grounding cable

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