



# C2...

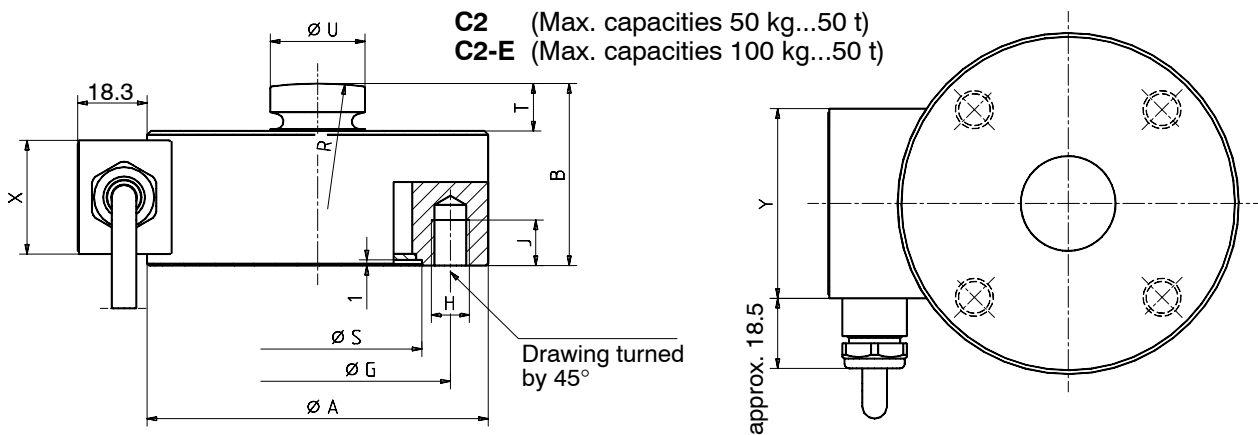
## Load cells



### Special features

- Load cells made of corrosion-resistant 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 <sub>0.2</sub>	B	ØG	H	J	R	ØS <sup>H8</sup>	T	ØU	X	Y
0.05...1	50	30	42	4xM5	7	60	34	7	13	20	35
2 a. 5	90	48	70	4xM10	12	100	55	12.5	25	30	50
10 a. 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

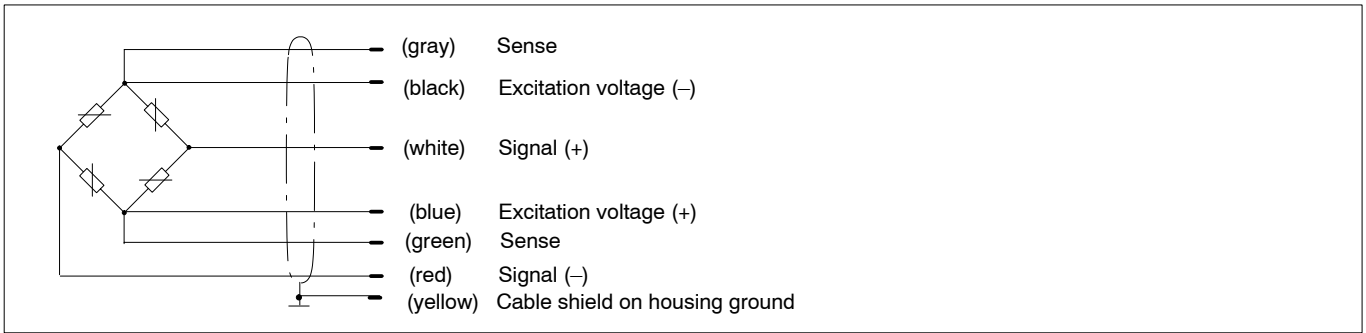
Type		C2	
		0.2	0.1
<b>Accuracy class</b>		0.2	0.1
<b>Max. capacity</b>	kg t	50 –	100, 200, 500 1, 2, 5, 10, 20, 50
<b>Sensitivity (C<sub>n</sub>)</b>	mV/V		2
<b>Tolerance on sensitivity</b>	%		<±0.20
<b>Temperature effect on sensitivity (TK<sub>C</sub>)</b>			
in the nominal temperature range	%/10 K		<±0.05
in the service temperature range	%/10 K		<±0.10
<b>Temperature effect on zero balance (TK<sub>0</sub>)</b>			
in the nominal temperature range	%/10 K		<±0.05
in the service temperature range	%/10 K		<±0.10
<b>Hysteresis error (d<sub>hy</sub>)</b>	%		<±0.15
<b>Non-linearity (d<sub>lin</sub>)</b>	%	<±0.20	<±0.10
<b>Creep (d<sub>DR</sub>) over 30 min.</b>	%		<±0.06
<b>Input resistance (R<sub>LC</sub>)</b>	Ω		340...450
<b>Output resistance (R<sub>0</sub>)</b>	Ω		356±0.2
<b>Reference excitation voltage (U<sub>ref</sub>)</b>	V		5
<b>Nominal range of excitation voltage (B<sub>U</sub>)</b>	V	0.5...10	0.5...12
<b>Insulation resistance (R<sub>is</sub>)</b>	GΩ		>5
<b>Nominal temperature range (B<sub>T</sub>)</b>	°C [°F]		-10...+40 [14...104]
<b>Service temperature range (B<sub>tu</sub>)</b>	°C [°F]	-30...+85 [-22...185]	(-30...+120) <sup>1</sup> [-22...248] <sup>1</sup>
<b>Storage temperature range (B<sub>st</sub>)</b>	°C [°F]		-50...+85 [-58...185]
<b>Safe load limit (E<sub>L</sub>)</b>	% of rated capacity	130	150
<b>Breaking load (E<sub>d</sub>)</b>	% of rated capacity		300
<b>Lateral load limit (E<sub>lq</sub>)</b>	% of rated capacity		50
<b>Permissible dynamic load (F<sub>srel</sub>)</b> (peak to peak acc. to DIN 50100)	% of rated capacity		100
<b>Protection class (IP) to EN 60 529 (IEC 529)</b>			IP67
<b>Material:</b>			
<b>Measuring body</b>			stainless steel
<b>Cable gland</b>			Nickel plated brass, Neoprene
<b>Cable sheath</b>			Silicone

<sup>1)</sup> Optionally available with extended service temperature range.

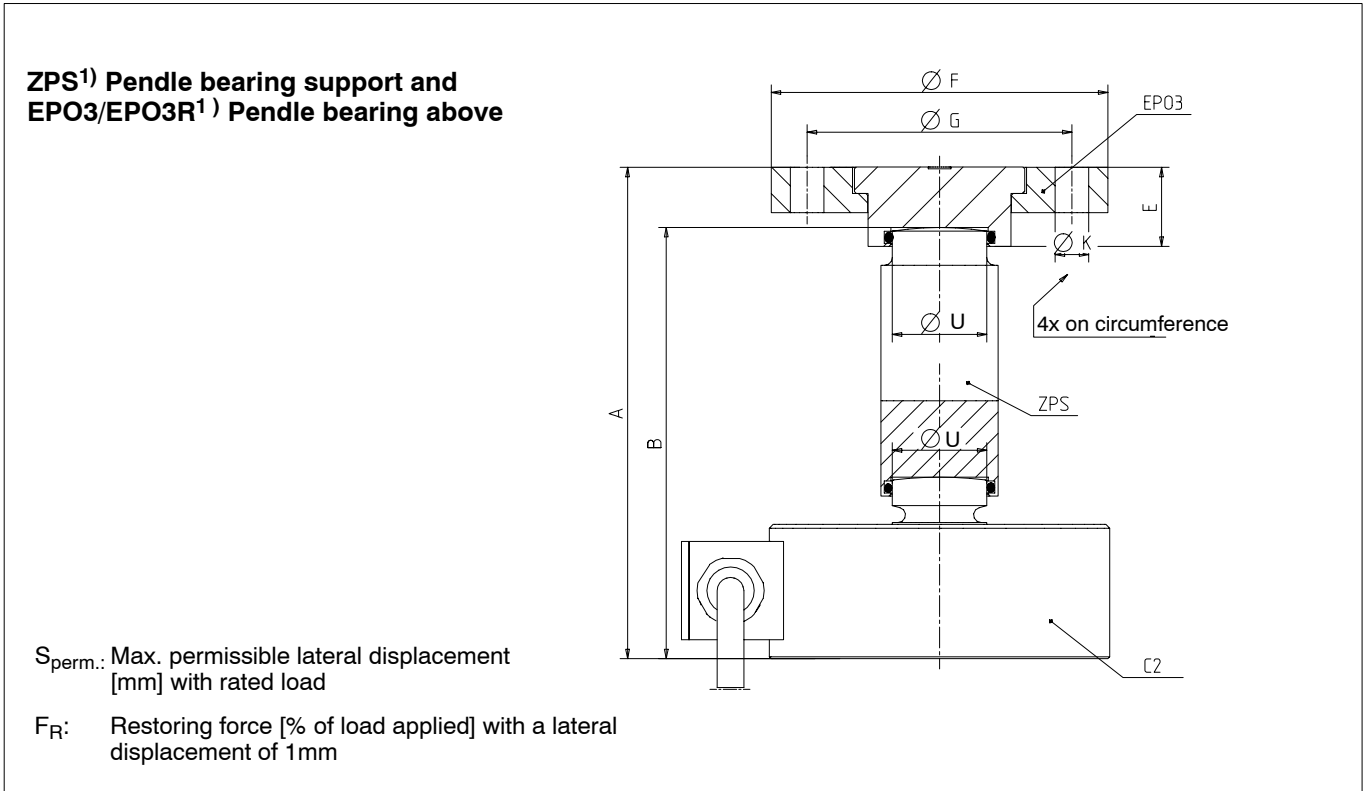
## Mechanical values

Max. capacity [ t]	Deflection at max. capacity (S <sub>nom</sub> ) [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

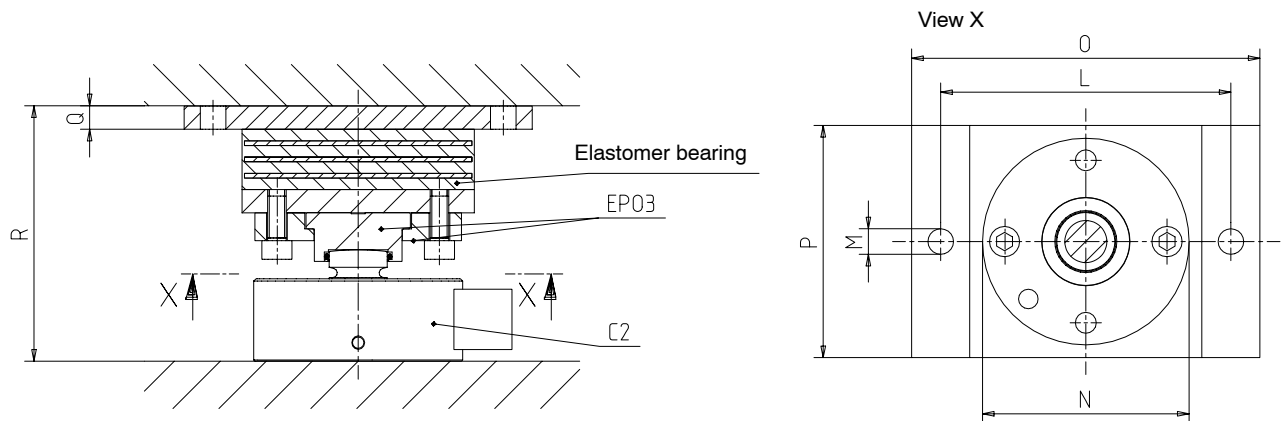


Max. capac.	Pendle bearing support <sup>1)</sup>	Pendle bearing above <sup>1)</sup>	A	B	E	ØF	ØG	ØU	ØK	$S_{perm.}$	$F_R$
50 kg...1 t	1-ZPS13/44	1-EPO3/200 kg	90	74	21	89	70	13	9	±3	2.4
2 a. 5 t	1-ZPS25/66	1-EPO3R/5 t	130	114	21	89	70	25	9	±5	2.6
10 a. 20 t	1-ZPS32/115	1-EPO3R/20 t	195	175	27.5	110	90	32	13	±9	1.2
50 t	1-ZPS44/150	1-EPO3/50 t	280	239.5	50	147	120	44	17	±10	1.5

<sup>1)</sup> 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/EPO3R<sup>1)</sup> pendle bearing



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

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

Max. capac. [t]	Elastomer bearing <sup>1)</sup>	Pendle bearing <sup>1)</sup>	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

<sup>1)</sup> ZELB Elastomer bearing, EPO3R/... and EPO3/200 kg Pendle bearings are made from corrosion-resistant steel.

### Options :

#### Explosion-proof versions according to ATEX 95 (for HLC\_C3):

- II 2 G EEx ia IIC T4 resp. T6 (Zone 1)
- II 3 G EEx nA II T6 (Zone 2)
- II 3 D IP68 (Zone 22 for non-conductive dust)
- Service temperature range extended to 1205C [2485F]

### Accessories, to be ordered separately:

ZPS Pendle bearing support and EPO3/EPO3R Pendle bearing  
ZELA/ZELB Elastomer bearing and EPO3/EPO3R Pendle bearing

Modifications reserved.

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