

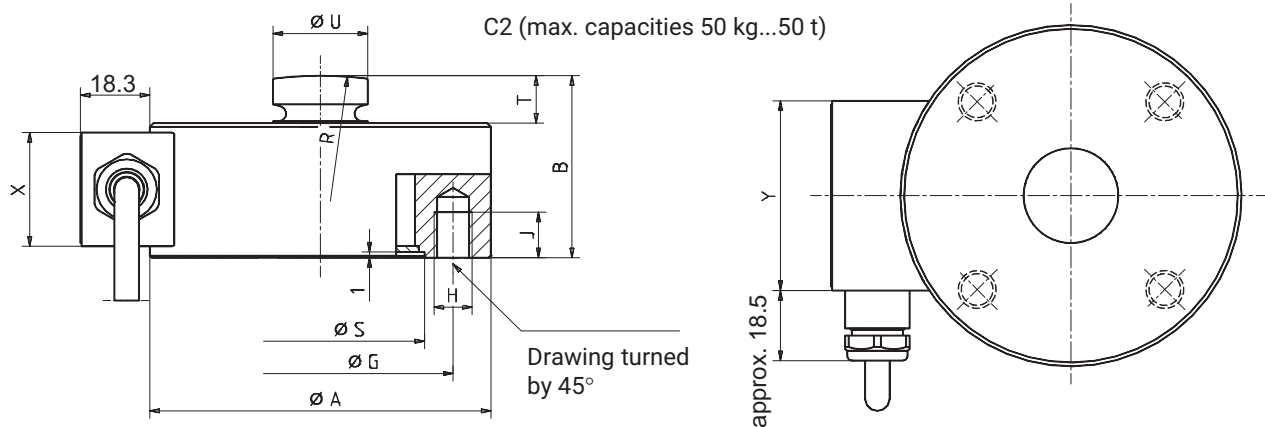
## C2... Load cells

### SPECIAL FEATURES

- Load cells made of stainless materials
- Max. capacities: 50 kg ... 50 t
- Small deflection
- High permissible dynamic load
- Six-wire circuit
- Low profile
- Explosion proof version (optional)



### DIMENSIONS



Dimensions in mm; (mm= 0.03937 inches)

Max. cap. [t]	ØA <sub>0.2</sub>	B	ØG	H	J	R	ØSH <sup>8</sup>	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	$TK_C$	% / 10 K	<±0.05 <±0.10	
In the nominal temperature range				
In the service temperature range		% / 10 K	<±0.10	
Temperature effect on zero balance	$TK_0$	% / 10 K	<±0.05 <±0.10	
In the nominal temperature range				
In the service temperature range		% / 10 K	<±0.10	
Hysteresis error	$d_{hy}$	%	<±0.15	
Non-linearity	$d_{lin}$	%	<±0.20	<±0.10
Creep over 30 min.	$d_{DR}$	%	<±0.06	
Input resistance	$R_{LC}$	Ω	340 ... 550	
Output resistance	$R_0$	Ω	356 ±0.2 (for cable lengths less than 20 m) 359 ±0.2 (for cable length 20 m)	
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 temperature range	$B_T$	°C [°F]	-10...+40 [14...104]	
Operating temperature range	$B_{tu}$	°C [°F]	-30...+85 [-22...185] (-30...+120) [-22...248] <sup>1)</sup>	
Storage temperature range	$B_{tl}$	°C [°F]	-50...+85 [-58...185]	
Safe load limit	$E_L$	% of rated capacity	130	150
Breaking load	$E_d$		300	
Rel. static lateral load limit	$E_{lq}$		50	
Permissible dynamic load (peak to peak acc. to DIN 50100)	$F_{srel}$		100	
Degree of protection class (IP) to EN 60 529 (IEC 529)			IP 67	
Material			Stainless steel <sup>2)</sup>	
Measuring body			Stainless steel <sup>2)</sup>	
Cable gland			Nickel plated brass, Silicone	
Cable sheath			Thermoplastic elastomer	

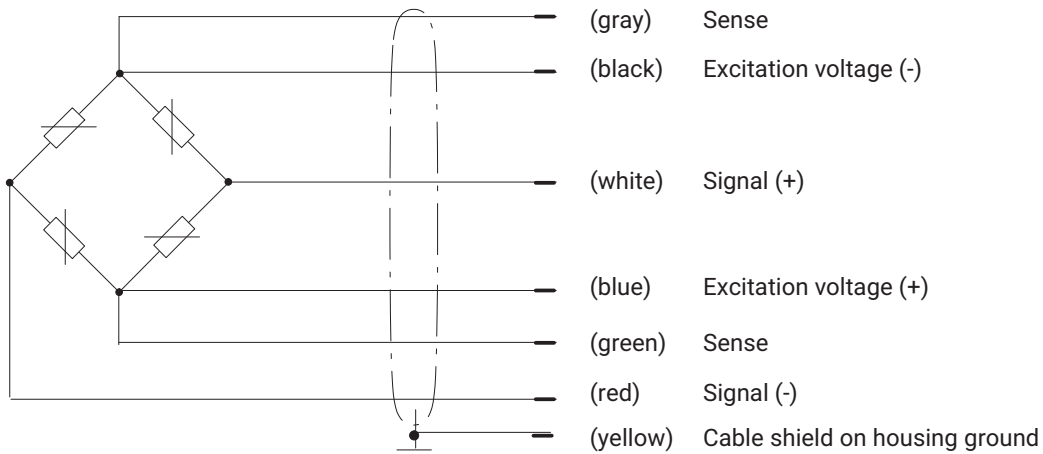
<sup>1)</sup> Optionally available with extended operating temperature range, not for Explosion-proof versions

<sup>2)</sup> According to EN 10088-1

## MECHANICAL VALUES

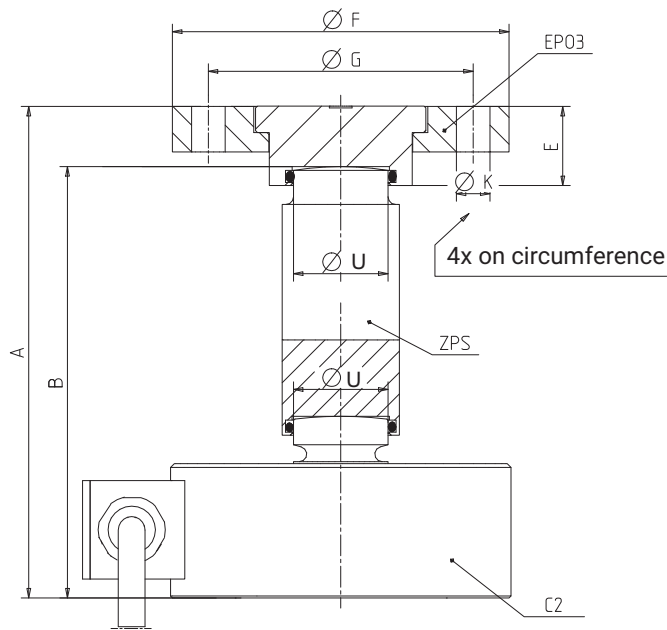
Max. capacity [t]	Deflection at max. capacity ( $s_{nom}$ ) [mm], approx.	Weight (G), approx. [kg]	Cable length [m]
0.05	< 0.1	0.4	3
0.1	< 0.1	0.4	3
0.2	< 0.1	0.4	3
0.5	< 0.1	0.4	3
1	< 0.1	0.4	3
2	< 0.06	1.8	6
5	< 0.06	1.8	6
10	< 0.06	3	12
20	< 0.06	3	12
50	< 0.1	8.6	12

## WIRING CODE



## MOUNTING ACCESSORIES

ZPS<sup>1)</sup> Pendle bearing support and EPO3/EPO3R<sup>1)</sup>; Pendle bearing above



Sperm.: Max. permissible lateral displacement [mm] with rated load

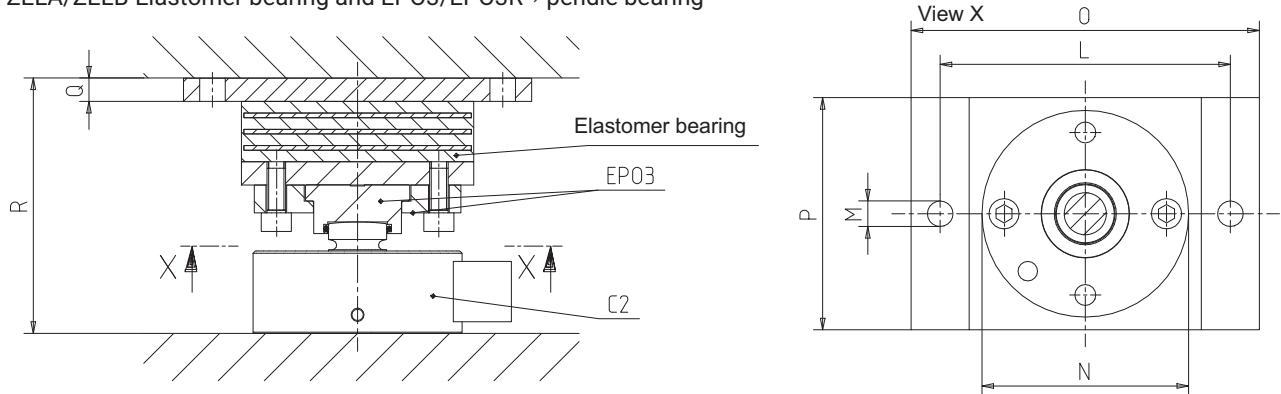
F<sub>R</sub>: Restoring force [% of load applied] with a lateral displacement of 1mm

Max. capac.	Pendle bearing support <sup>1)</sup>	Pendle bearing above <sup>1)</sup>	A	B	E	ØF	ØG	ØU	ØK	S <sub>perm.</sub>	F <sub>R</sub>
50 kg...1 t	1-ZPS13/44	1-EPO3/200 kg	90	74	21	89	70	13	9	±3	2.4
2 and 5 t	1-ZPS25/66	1-EPO3R/5 t	130	114	21	89	70	25	9	±5	2.6
10 and 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



Sperm.: Max. permissible lateral displacement [mm] with rated load  
 $F_R$ : Restoring force [N] with a lateral displacement of 1mm

Max. capac. [t]	Elastomer bearing <sup>1)</sup>	Pendle bearing <sup>1)</sup>	L	M	N	O	P	Q	R	S <sub>perm.</sub>	F <sub>R</sub>
<b>0.5 and 1</b>	1-ZELB/2 t	1-EPO3/200 kg	100	9	89	120	60	10	85.5	±4.5	400
<b>2</b>	1-ZELB/2 t	1-EPO3R/5 t	100	9	89	120	60	10	103	±4.5	400
<b>5</b>	1-ZELB/5 t	1-EPO3R/5 t	125	11	89	150	100	10	110	±8	620
<b>10</b>	1-ZELB/10 t	1-EPO3R/20 t	175	13	110	200	100	12	135	±9.5	810
<b>20</b>	1-ZELA/20 t	1-EPO3R/20 t	230	13	110	260	150	12	142	±15	1400
<b>50</b>	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.

## 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

## PRODUCT NUMBERS

Type	C2	
Accuracy class	0.20%	0.10%
Maximum capacity	Ordering number	Ordering number
50 kg	1-C2/50KG	-
100 kg	-	1-C2/100KG
200 kg	-	1-C2/200KG
500 kg	-	1-C2/500KG
1 t	-	1-C2/1T
2 t	-	1-C2/2T
5 t	-	1-C2/5T
10 t	-	1-C2/10T
20 t	-	1-C2/20T
50 t	-	1-C2/50T

Ordering number		
<b>K-C2_</b>		
<b>1</b>	Code	Option 1: Mechanical design
	<b>S</b>	Standard
<b>2</b>	Code	Option 2: Accuracy class
	<b>S</b>	Standard
<b>3</b>	Code	Option 3: Maximum capacity
	<b>50</b>	50 kg
	<b>100</b>	100 kg
	<b>200</b>	200 kg
	<b>500</b>	500 kg
	<b>1</b>	1 t
	<b>2</b>	2 t
	<b>5</b>	5 t
	<b>10</b>	10 t
	<b>20</b>	20 t
<b>50T</b>	50 t	
<b>4</b>	Code	Option 4: Explosion protection
	<b>N</b>	No explosion protection
	<b>A11/21</b>	ATEX+IECEX+FM Zone 1/21, intrinsically safe; ATEX/IECEX: 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 [only with option 6 = N]
	<b>A12/21</b>	ATEX+IECEX Zone 2/21, not intrinsically safe; ATEX/IECEX: II 3G Ex ec IIC T6/T4 Gc + II 2D Ex tb IIIC T125°C Db [only with option 6 = N]
<b>5</b>	Code	Option 5: Cable length
	<b>S3</b>	3 m (standard) [only with option 3 = 50 / 100 / 200 / 500 / 1]
	<b>S6</b>	6 m (standard) [only with option 3 = 2 / 5]
	<b>S12</b>	12 m (standard) [only with option 3 = 10 / 20 / 50T]
	<b>6</b>	6 m [only with option 3 = 50 / 100 / 200 / 500 / 1]
	<b>12</b>	12 m [only with option 3 = 50 / 100 / 200 / 500 / 1 / 2 / 5]
<b>6</b>	Code	Option 6: Operating temperature
	<b>N</b>	Standard
	<b>120</b>	Operating temperature up to 120°C [only with option 4 = N + not with option 3 = 50]

<b>K-C2</b>	-	<input type="text"/>	-	<input type="text"/>	-	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	-	<input type="text"/>	<input type="text"/>	<input type="text"/>	-	<input type="text"/>	<input type="text"/>	<input type="text"/>
		<b>1</b>		<b>2</b>		<b>3</b>		<b>4</b>			<b>5</b>		<b>6</b>				

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