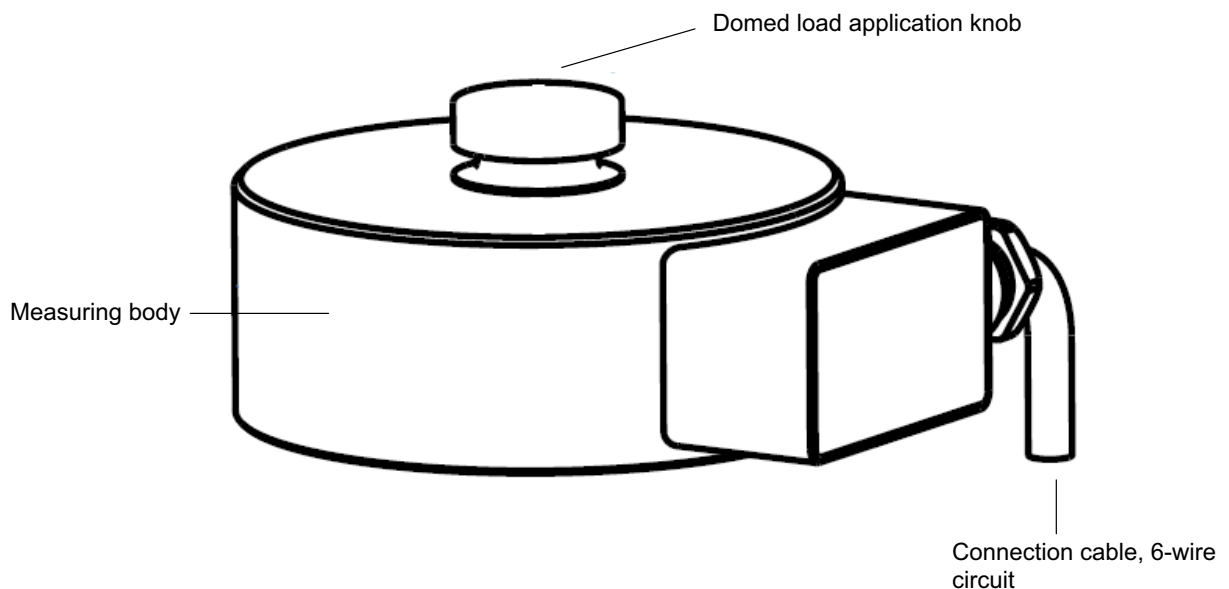


C2

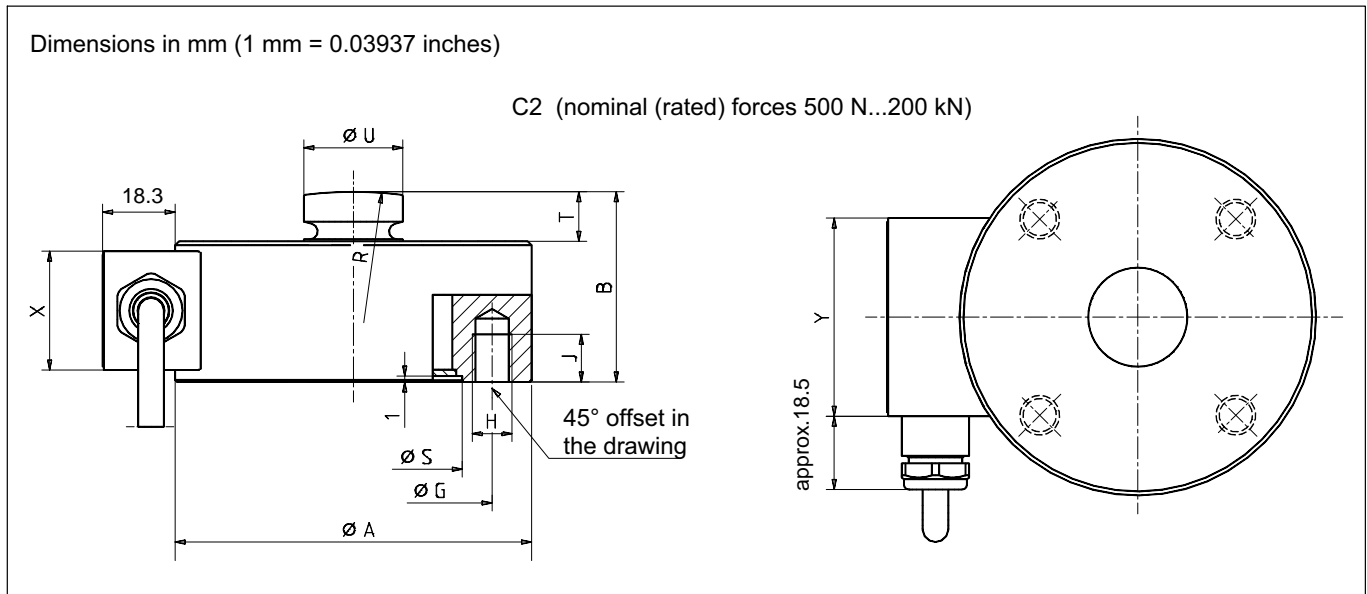
Force Transducer

Special features

- Compressive force transducer
- Non-rusting, degree of protection IP67
- Can be configured with different cable lengths, plug fitting and TEDS on request
- Lateral force compensation
- Low overall height
- Nominal (rated) forces 500 N ... 200 kN
- Accuracy class 0.1

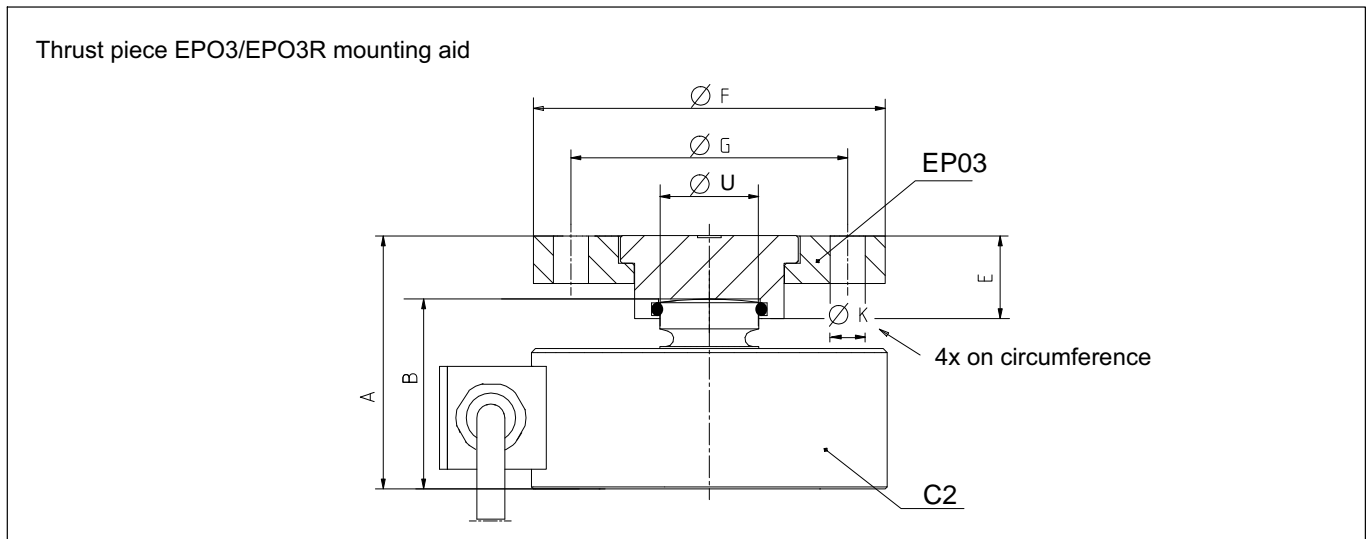


Dimensions



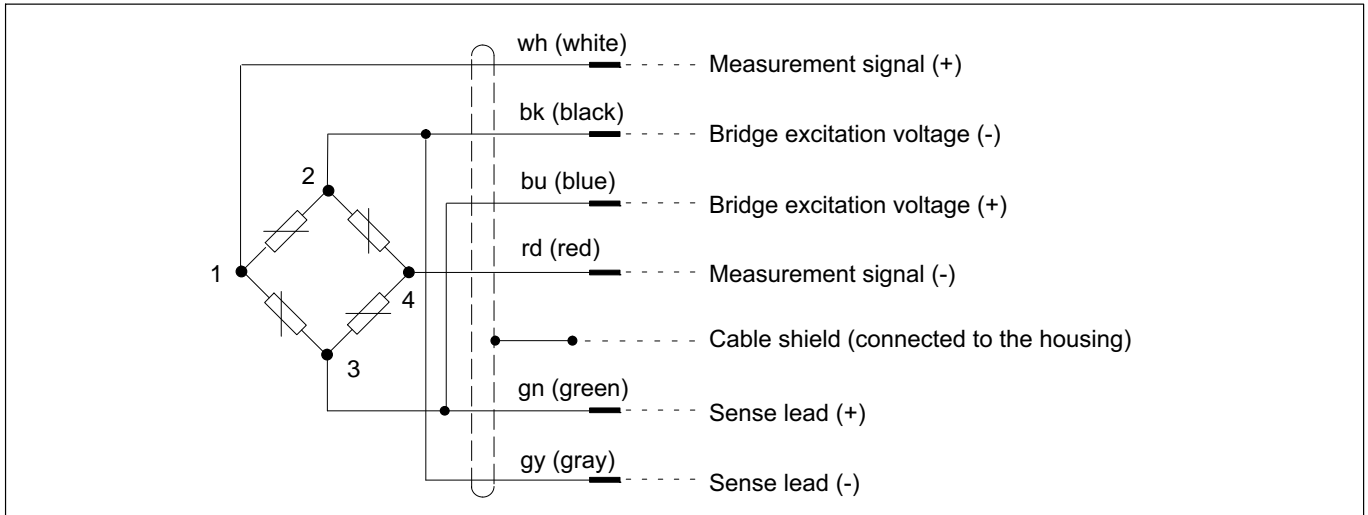
Nominal (rated) force	ØA _{-0.2}	B	ØG	H	J	R	ØS ^{H8}	T	ØU	X	Y
500 N...10 kN	50	30	42	4xM5	7	60	34	7	13	20	35
20 kN, 50 kN	90	48	70	4xM10	12	100	55	12.5	25	30	50
100 kN, 200 kN	115	60	90	4xM12	16	160	68	12.5	32	30	50

Accessories, to be ordered separately: Thrust piece EPO3/EPO3R



Nominal (rated) force	Thrust piece ¹⁾	A	B	E	ØF	ØG	ØU	ØK
500 N...10 kN	1-EPO3/200KG	46	30	21	89	70	13	9
20 kN, 50 kN	1-EPO3R/5T	64	48	21	89	70	25	9
100 kN, 200 kN	1-EPO3R/20T	80	60	27.5	110	90	32	13

Cable wiring assignment (6-wire circuit)



C2 versions and ordering numbers

Code	Measuring range	Ordering number	<p>The ordering numbers shown in gray are preferred types and can be delivered rapidly. All preferred types come with free ends and without TEDS transducer identification.</p> <p>The example below describes a C2 with a capacity of 50 kN, 12 m connection cable, fitted SUB-HD plug for connection to the QuantumX amplifier and TEDS transducer identification chip</p>
500N	500 N	1-C2/500N	
001K	1 kN	1-C2/1KN	
002K	2 kN	1-C2/2KN	
005K	5 kN	1-C2/5KN	
010K	10 kN	1-C2/10KN	
020K	20 kN	1-C2/20KN	
050K	50 kN	1-C2/50KN	
100K	100 kN	1-C2/100KN	
200K	200 kN	1-C2/200KN	

Cable length	Plug version	Transducer identification
3 m 03M0	Free ends Y	With TEDS T
6 m 06M0	15-pin Sub-D plug F	Without TEDS S
12 m 12M0	MS3106PEMV plug N	
20 m 20M0	15-pin Sub-HD plug Q	
30 m 30M0		

K-C2-	050K-	12M0	Q	T
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Scope of supply

- C2 force transducer
- Mounting instructions
- Manufacturing certificate

Accessories (not included in the scope of supply)

Description	Ordering number
Ground cable, 400 m	1-EEK4
Ground cable, 600 m	1-EEK6
Ground cable, 800 m	1-EEK8
Thrust piece for nominal (rated) forces 500 N \square 10 kN	1-EPO3/200kg
Thrust piece for nominal (rated) forces 20 kN \square 50 kN	1-EPO3R/5t
Thrust piece for nominal (rated) forces 100 kN \square 200 kN	1-EPO3R/20t

Specifications as per DIN/VDE2638

Type			C2								
Nominal (rated) force	F_{nom}	N	500								
		kN		1	2	5	10	20	50	100	200
Accuracy											
Accuracy class			0.2	0.1							
Relative reproducibility and repeatability errors without rotation	b_{rg}	%	0.1								
Rel. reversibility error ($0.5 * F_{nom}$)	$V_{0.5}$		0.2	0.15							
Non-linearity	d_{lin}		0.2	0.1							
Creep upon loading (30 min)	d_{crF}		0.06								
Effect of eccentricity ¹⁾ ($10\% F_{nom} * 10 \text{ mm}$)	d_E		0.3	0.2	0.1						
Temperature effect on sensitivity	TC_S	% / 10 K	0.1								
Temperature effect on zero signal	TC_0		0.05								
Characteristic electrical values											
Nominal (rated) sensitivity	C_{nom}	mV/V	2								
Rel. zero signal error	$D_{s,0}$		1								
Sensitivity error	d_c	%	0.2								
Input resistance	R_i	Ω	> 340								
Output resistance	R_o		200 ... 400								
Insulation resistance	R_{is}		> 2								
Operating range of the excitation voltage	$B_{U,G}$	V	0.5 ... 12								
Reference excitation voltage	U_{ref}		5								
Connection			6-wire circuit								

Nominal (rated) force	F_{nom}	N	500								
		kN		1	2	5	10	20	50	100	200
Temperature											
Reference temperature	t_{ref}	°C	+23								
Nominal (rated) temperature range	$B_{T,nom}$		-10 to +70								
Operating temperature range	$B_{T,G}$		-30 to +85								
Storage temperature range	$B_{T,S}$		-50 to +85								
Mechanical quantities											
Maximum operating force	F_G	% of F_{nom}	130			150					
Limit force	F_L		130			150					
Breaking force	F_B		300								
Static lateral limit force ²⁾ When loading with nominal (rated) force	F_Q		100			70	40	55	12	15	9
Permissible eccentricity	e_G	mm	5.4	5.3	5.2	4.8	4.2	8.0	2.0	1.5	1.5
Nominal (rated) displacement ±15%	S_{nom}		0.049	0.053	0.047	0.048	0.04	0.069	0.074	0.08	0.10
Fundamental frequency	f_G	kHz	4.4	8.7	9.7	18.5	19.3	13	14	13	14
Relative permissible oscillatory stress	F_{rb}	% of F_{nom}	100								
General information											
Degree of protection per DIN EN 60529³⁾			IP67								
Spring element material			Non-rusting stainless steel								
SG protection			Hermetically-welded measuring body								
Cable			6-wire, polyethylene insulated								
Cable length			As requested by the customer								
Weight		kg	0.4				1.8			3	

1) Lateral force effect application point

2) Permissible FQ application point

3) 1 m water column, 0.5 h

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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measure and predict with confidence

