

C18

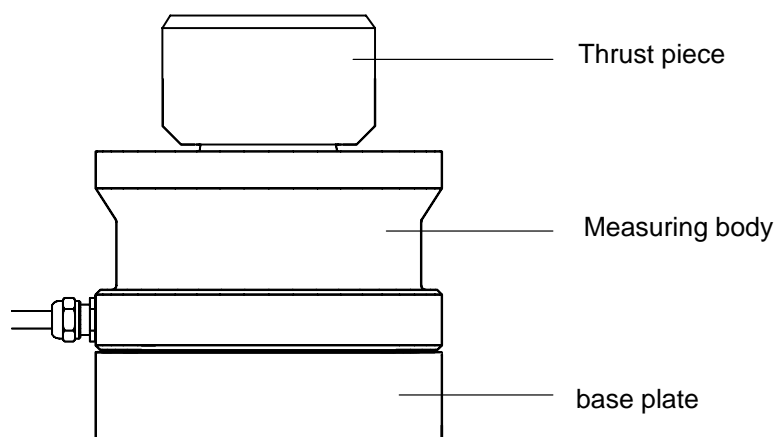
Force transducers



Special features

- Compressive force transducer
- Nominal torque 10 kN ... 4.5 MN
- Small size
- Low weight
- Including force introduction parts
- Classification option with DKD calibration certificate according to EN10002-3: Class 0.5

Schematic diagram: C18 Force transducer



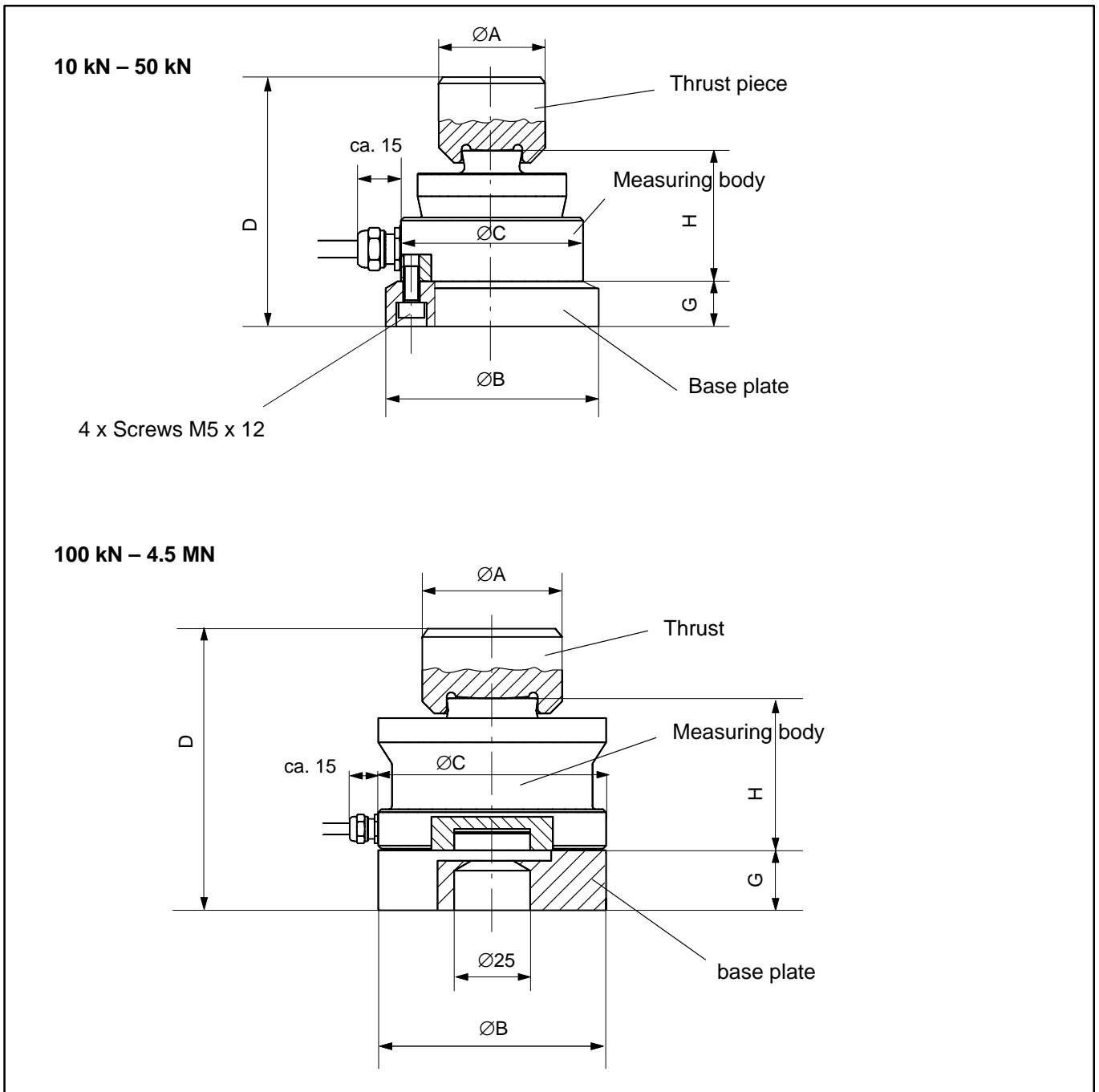
Specifications

Type	C18					
Specifications acc. to DIN/VDE 2638						
Nominal force	F_{nom}	kN	10 – 200	300	500 – 1000	2000 – 4500
Accuracy class	0.05					
Nominal sensitivity	C_{nom}	mV/V	2			
Rel. sensitivity deviation	d_C	%	0.1			
Rel. deviation from zero (zero signal tolerance)	$d_{s,0}$	%	1			
Rel. zero point compensation ¹⁾	f_0	%	0.012	0.024		
Rel. reproductibility and repeatability errors (0.2 F_{nom} to F_{nom}) at:: unchanged mounting position, typically ¹⁾ different mounting positions, typically ¹⁾	b_I	%	0.04			
	b	%	0.08			
Rel. reversibility error (0.2 F_{nom} to F_{nom}) ¹⁾	u	%	0.08			
Linearity deviation	d_{lin}	%	0.05			
Temperature effect on the sensitivity/10 K related to the sensitivity	TK_C	%	0.01			
Temperature effect on the zero signal/10 K related to the sensitivity	TK_0	%	0.01			
Effect of lateral forces (lateral force 10 % F_{nom}) ²⁾	d_Q	%	0.035	0..1	0.15	
Effect of eccentricity per mm	d_E	%	0.02			
Rel. creep over 30 min	d_{crF+E}	%	0.03			
Input resistance	R_e	Ω	4450 \pm 100			
Output resistance	R_a	Ω	4010 \pm 2			
Isolation resistance	R_{is}	Ω	> 50 x 10 ⁹			
Reference excitation voltage	U_{ref}	V	5			
Operating range of the excitation voltage	$B_{U,G,T}$	V	5 to 30			
Carrier frequency of the excitation voltage		Hz	\leq 225			
Nominal temperature range	$B_{t,nom}$	$^{\circ}C$	+10 ... +40			
Operating temperature range	$B_{t,G}$	$^{\circ}C$	-30 ... +80			
Storage temperature range	$B_{t,S}$	$^{\circ}C$	-50 ... +85			
Reference temperature	t_{ref}	$^{\circ}C$	+22			
Max. operational force	(F_G)	%	170			150
Limit force	(F_L)	%	170			150
Breaking force	(F_B)	%	400			320
Static lateral limit force	(F_Q)	%	0.3 F_{nom} ; (for $F_z \leq 0.5F_{nom}$) 0.5($F_{nom}-0.8F_z$); (for $F_z > 0.5F_{nom}$) (F_z = force in the direction of measurement)			

¹⁾ Accuracy: 0.5 acc. to EN 10002-3 or ISO 376,
Classification only guaranteed if combined with a DKD calibration certificate.

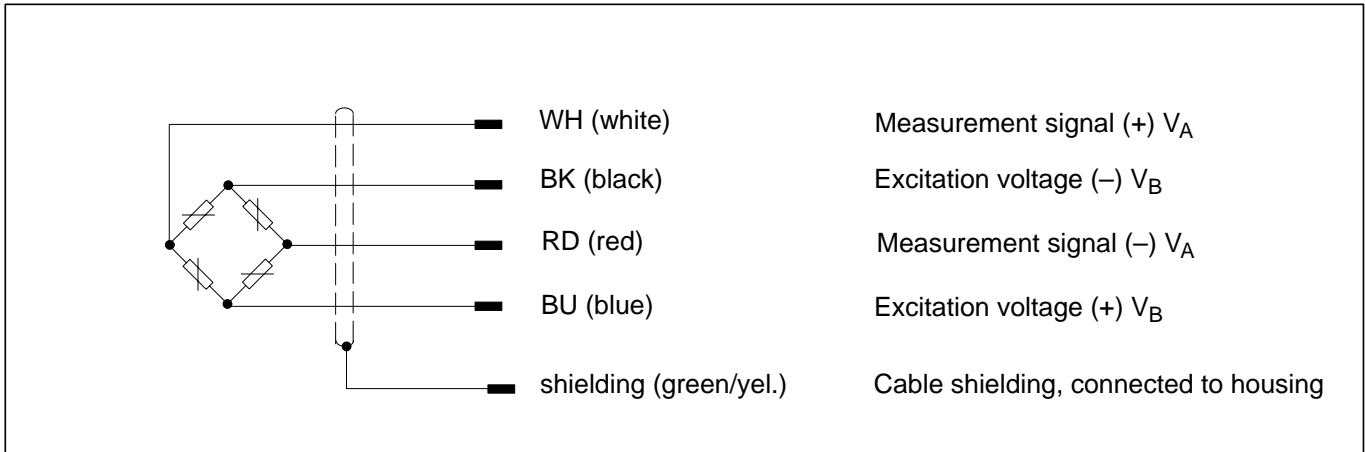
²⁾ rel. to a point of force introduction on the load introduction cap

Nominal force	F_{nom}	kN	10	20	50	100	200	300	500	1000	2000	3000	4500
Nominal displacement	S_{nom}	mm	0.13	0.11	0.13	0.17	0.19	0.23	0.26	0.45	0.62	0.79	0.98
Weight		kg	1.2	1.2	1.2	2.3	2.3	3.9	10.4	15.3	45.6	52.6	90.4
Rel. permissible vibrational stress	F_{rb}	%	70										
Degree of protection to DIN EN 60529			IP68										
Cable length, four-wire technique		m	5										



Type	Ø A	Ø B	Ø C	D	G	H
C18 / 10 kN ... 50kN	35	70	60	72	15	43
C18 / 100 kN ... 200 kN	45	75	75	89	20	50
C18 / 300 kN	58	95	95	112	20	65
C18 / 500 kN	85	130	130	157	37	85
C18 / 1 MN	100	150	150	171	40	90
C18 / 2 MN	135	230	225	239	50	130
C18 / 3 MN	135	230	225	254	50	145
C18 / 4.5 MN	160	275	270	303	60	170

Pin assignment



Scope of supply:

C18 Measuring body
Thrust piece
Base plate

Änderungen vorbehalten.
Alle Angaben beschreiben unsere Produkte in allgemeiner Form. Sie stellen keine Eigenschaftszusicherung im Sinne des §459, Abs. 2, BGB dar und begründen keine Haftung.

Hottinger Baldwin Messtechnik GmbH



measurement with confidence

D 20.C18.10 en