Data Sheet

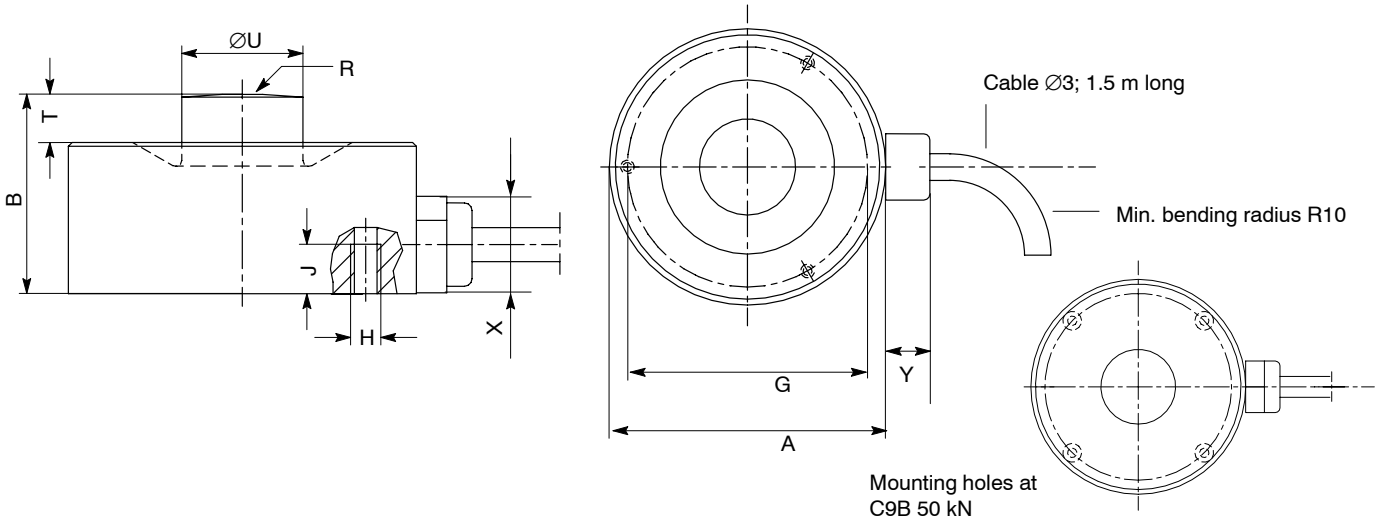
C9B

Force Transducers

Special features

- **Compression force transducers in non-rusting material**
- **Nominal (rated) forces 50 N ... 50 kN**
- **Small size**
- **Accuracy class 0.5**

Dimensions (in mm; 1 mm= 0.03937 inches)



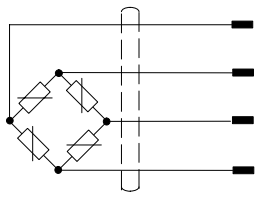
Nominal (rated) force C9B	$A_{-0.1}$	B	$G_{\pm 0.1}$	H	J	R	T	$U_{-0.1}$	X	Y
50 N – 200N	26	15	20.5	3xM3	6	20	2.5	5.5	approx..10.5	approx..5.5
0.5 kN...20 kN	26	13	22.75	3xM2	3.5	40	1	8	approx. 10.5	approx. 5.5
50 kN	46	28	40	4xM4	6	80	8	16	approx. 10.5	approx. 5.5

Specifications

Type			C9B										
Nominal (rated) force		N	50	100	200								
		kN				0.5	1	2	5	10	20	50	
Accuracy class			0.5										
Nominal (rated) sensitivity	C_{nom}	mV/V	1										
Rel. sensitivity deviation	d_c	%	≤1										
Temperature effect on the sensitivity, per 10 K	TK_C												
in the nominal (rated) temperature range		%	≤ ±0.5										
in the service temperature range		%	≤ ± 0.8										
Temperature effect on the zero signal, per 10 K	TK_0												
in the nominal (rated) temperature range		%	≤ ± 0.5										
in the service temperature range		%	≤ ± 0.8										
Linearity		%	≤ ±0.5										
Rel. reversibility error	U	%	≤ ± 0.5										
Rel. repeatability error without rotation		%	≤ ±0.5										
Creep at nominal (rated) force and reference temperature													
over 30 min	d_{crF+E}	%	≤ ±0.2										
Input resistance blk–blu at reference temperature	R_e	Ω	>345										
Output resistance red–whi at reference temperature	R_a	Ω	300–400										
Insulation resistance	R_{Is}	GΩ	>1										
Service range of supply voltage	$B_{U,G}$	V	0.5...12										
Reference supply voltage	U_{ref}	V	5										
Reference temperature	t_{ref}	°C [°F]	+23 [+73]										
Nominal (rated) temperature range	$B_{t,nom}$	°C [°F]	–10...+70 [+14...+158])										
Service temperature range	$B_{t,G}$	°C [°F]	–30...+85 [–22...+185]										
Storage temperature range	$B_{t,S}$	°C [°F]	–30...+85 [–22...+185]										
Protection to DIN EN 60 529			IP 67										
Nominal (rated) measurement displacement ±15 %	S_{nom}	mm	<0.1			0.04			0.06	0.09	0.11	0.13	
Natural frequency ±15 %		kHz	7.3	10	15.7	3.5	5	7	13	15.1	20	12	
Working force	(F_G)	%	300			120							
Breaking force	(F_B)	%	>500			>400							
Relative static side-force limit *)	(F_Q)	%	100			40							
Permissible vibration amplitude to DIN 50 100		%	70									40	
Weight, approx.		g	55			65						260	
Cable length		m	1.5										

*) referred to the 2 mm force introduction point above diaphragm

Cable assignment (Four wire-circuit)



WH (white)	Measuring signal (+) U_A
BK (black)	Excitation voltage (–) U_B
RD (red)	Measuring signal (–) U_A
BU (blue)	Excitation voltage (+) U_B

Cable shielding, connected with housing

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