

Data sheet

Multi component
 transducer
Series DKA-ZE
 (0,5 kN - 10 kN)



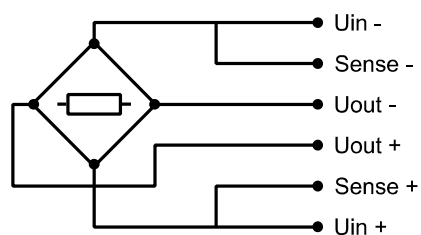
Benefits/Application

● Accuracy class 0.2 and 0,3	● Compact construction
● Little weight	● 6-wire connection technology
● Very easy installation	● Force ratio FZ :FX,Y = 10:1

Technical data

Metrological data	Nominal forces	$\pm F_x$ $\pm F_y$ $\pm F_z$	kN	0,05 0,05 0,5	0,1 0,1 1	0,2 0,2 2	0,5 0,5 5	1 1 10	
	Accuracy class					0,2		0,3	
	force measurement range	d_{lin}	%			0,2		0,3	
	Hysteresis	h	%			0,1		0,2	
	Reproducibility		%			0,01		0,025	
	Creep		%			0,05			
	Temperature effect on characteristic value per 10 K	TK_C	%/10K			0,1			
	Temperature effect on zero signal per 10 K	TK_0	%/10K			0,1			
	Characteristic value difference, tension/compression force	d_{ZD} x, y z	%		0,1 1		0,2 2		0,3 3
	Electrical Data	Rated characteristic value	C_{F_x}, C_{F_y} C_{F_z}	mV/V	0,7 1,0	1,4 2	1,8 1,5	1,8 1,5	1,5 2
Input resistance		R_e	Ω	350 - 450					
Output resistance		R_a	Ω	350					
Insulation resistance		R_{is}	Ω	$>10^9$					
Operating range of excitation voltage		$B_{U, G}$	V	5 - 12					
Protection (DIN EN 60529)				IP 40					
Mechanical Data	Rated Displacement	s_{xnom} s_{ynom} s_{znom}	mm	0,01 0,01 0,02	0,02 0,02 0,03	0,02 0,02 0,02	0,04 0,04 0,05	0,04 0,04 0,08	
	Spring rigidity	c_{ax} c_{ay} c_{az}	kN/mm	0,2 0,2 0,03		10 10 100	12,5 12,5 100	25 25 125	
	Mass	m	kg	0,06		0,15		0,4	
	Proportionate moving mass	m_{mess}	kg	0,05		0,09		0,25 0,26	
	Resonance frequency	f_x f_y f_z	kHz	0,03 0,03 0,1		1,7 1,7 5,3	1,1 1,1 3,2	1,6 1,6 3,5	
	Permissible oscillation stress		%	± 80					
	Limits	Force limit	F_x F_y F_z	%			150 150 150		150 150 130
Breaking force		F_x F_y F_z	%	300					
Rated temperature range		$B_{T, nom}$	$^{\circ}C$	10 - 60					
Operating temperature range		$B_{T, G}$	$^{\circ}C$	5 - 80					

Cable connection



Permanent connection
end not connected

Black cable 6-wire
 \varnothing 2,9 mm
 6 x 0,04 mm²
 Temperature range: -50 °C bis +105 °C

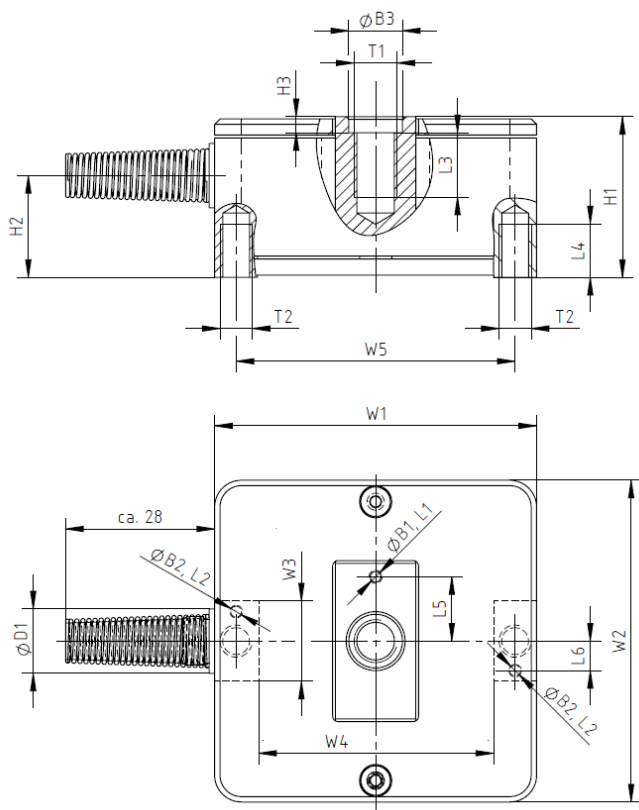
Connection		Color
Supply voltage (+)	U_{in+}	blue
Supply voltage (-)	U_{in-}	black
Measurement signal (+)	U_{out+}	white
Measurement signal (-)	U_{out-}	red
Sense (+)	Sense+	green
Sense (-)	Sense-	yellow
Shielding		grey



End not connected, length 3m



Mating dimensions



Nominal force compression/tension	$\pm F_{norm}$	kN	0,05	0,1	0,2	0,5	1
			0,05 0,5	0,1 1	0,2 2	0,5 5	1 10
Bore	ϕB_1	mm			2		
Bore	ϕB_2	mm			2		
Bore	ϕB_3	mm			10		
Diameter	ϕD_1	mm			12		
Thread	T_1	mm			M8		
Thread	T_2		M5		M6		
Height	H_1	mm	23		32		
Height	H_2	mm	11		19		
Height	H_3	mm			3		
Lenght	L_1	mm			5		
Lenght	L_2	mm			5		
Lenght	L_3	mm	8		12		
Lenght	L_4	mm	6		10		
Lenght	L_5	mm			12		
Lenght	L_6	mm			5,5		
Width	W_1	mm			60		
Width	W_2	mm			60		
Width	W_3	mm			15		
Width	W_4	mm			44		
Width	W_5	mm			52		

Typical normalized sensitivity

Load	Signal		
	F_x	F_y	F_z
F_x	1	0,01	0,01
F_y	0,01	1	0,03
F_z	0,02	0,03	1

Änderungen vorbehalten. Alle Angaben beschreiben unsere Produkte in allgemeiner Form. Sie stellen keine vereinbarte Beschaffenheit im Sinne des § 434 Abs. 1 BGB dar.



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