



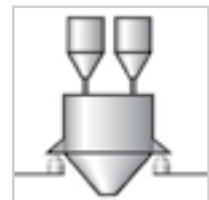
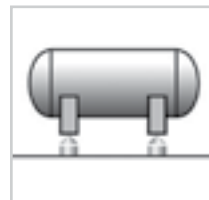
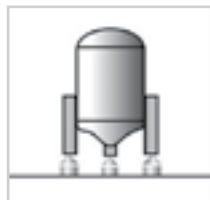
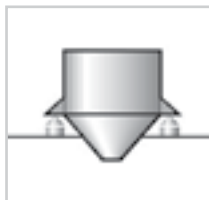
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PRECISION**

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# Lahti Precision Load Cells

## Z6 - load cells 5kg ... 1t



- Welded-on metal bellows
- Nominal (rated) loads: 5 kg ... 1 t
- Load cells and installation aids made of rust-resistant materials
- Verifiable up to 6000 parts, test report as per OIML R60
- Six-wire circuit
- Optimized for parallel connection by off-center load compensation
- Meets EMC requirements as per DIN EN 45501
- Options:
  - Ex-protection designs as per ATEX 95

# Z6

## Technical specifications and dimensions

Type		Z6FD1	Z6FC3	Z6FC3MI	Z6FC4	Z6FC6
Accuracy class to OIML R 60		D1	C3	C3/M17.5	C4	C6
Number of scale intervals ( $n_{LC}$ )		1000	3000	3000	4000	6000
Nominal (rated) load ( $E_{max}$ )	kg	5; 10; 20; 50; 100; 200; 500	10; 20; 50; 100; 200; 500	50; 100; 200	20; 50; 100; 200; 500	50; 100; 200;
	t	1	1	-	-	-
Minimum scale division ( $v_{min}$ )	% of $E_{max}$	0.0360	0.0090	0.5 $E_{max}$ /7500	0.0066	-
Return of minimum dead load signal ( $D_{DR}$ )		-	-		-	-
Nominal (rated) sensitivity ( $C_n$ )	mV/V	+(1;-0.1)		2 ±0.05 <sup>1)</sup>		
Sensitivity tolerance (with load appl. in spec. direction)	%					
Temperature coefficient of sensitivity ( $T_{CS}$ ) <sup>2)</sup>	% of $C_n$ /10 K	±0.0500	±0.0080	±0.0080	±0.0070	±0.0040
Temperature coefficient of zero signal ( $TK_0$ )		±0.0500	±0.0125	±0.0093	±0.0093	±0.0093
Relative reversibility error ( $d_{rv}$ ) <sup>2)</sup>	% of $C_n$	±0.0500	±0.0170	±0.0066	±0.0130	±0.0080
Non linearity ( $d_{ln}$ ) <sup>2)</sup>		±0.0500	±0.0180	±0.0180	±0.0150	±0.0110
Load creep ( $d_{DR}$ ) in 30 min.		±0.0490	±0.0166	±0.0098	±0.0125	±0.0083
Input resistance ( $R_{LC}$ )	Ω	356 ± 0.2	350...480			
Output resistance ( $R_O$ )			356 ± 0.12			
Reference voltage ( $U_{ref}$ )	V	5				
Nominal supply voltage range ( $B_U$ )		0.5...12				
Insulation resistance ( $R_{is}$ )	G Ω	> 5				
Nominal ambient temperature range ( $B_T$ )	°C	-10...+40				
Operating temperature range ( $B_{tu}$ )		-30...+70				
Storage temperature range ( $B_{st}$ )		-50...+85				
Limit load ( $E_l$ )	% of $E_{max}$	150				
Breaking load ( $E_d$ )		≥300				

Nominal (rated) load		kg	5	10	20	50	100	200	500	1000
Relative permissible oscillatory stress	% of $E_{max}$		100	100	100	100	100	100	70	100
Nominal (rated) displacement ( $s_{nom}$ ) approx.	mm		0.24	0.3	0.29	0.27	0.31	0.39	0.6	0.55
Weight, (G) approx.	kg		0.5	0.5	0.5	0.5	0.5	0.5	0.5	2.3
Degree of protection (IP) as per EN60529 (IEC529)		IP 68 (tougher test conditions: 1 m water column; 100)								
Material	Measuring body Bellows Cable inlet gland Cable sheath	Stainless steel <sup>3)</sup> Stainless steel <sup>3)</sup> Stainless steel / Viton® PVC								

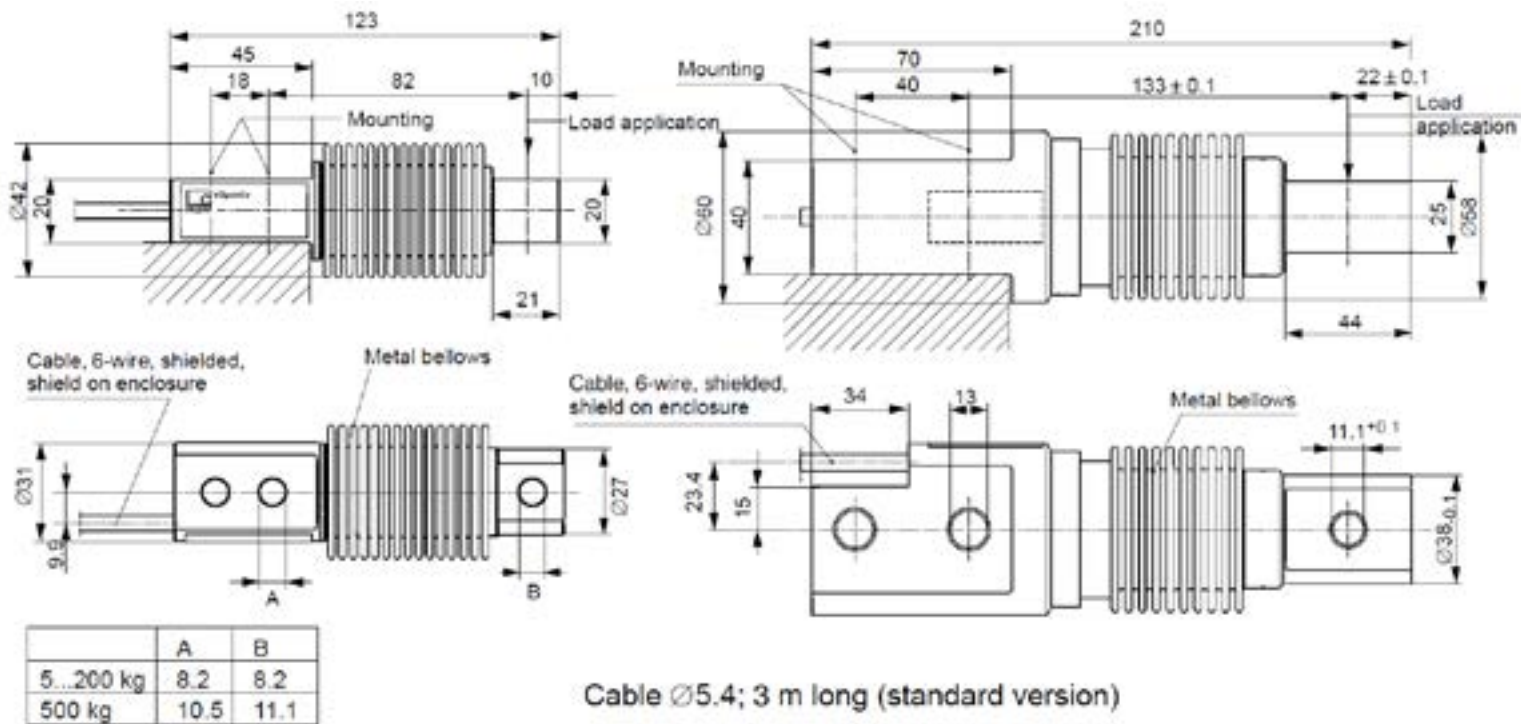
1) For load cell Z6FC3/10kg: ≤ ±0.1 %.

2) The values for linearity deviation, relative reversibility error and temperature effect on sensitivity are typical values. The sum of these values is within the cumulative error limits laid down by OIML R60.

3) As per EN 10088-1

Z6 - Nominal (rated) loads 5 kg...500 kg

Z6 - Nominal (rated) load 1 t



## Options

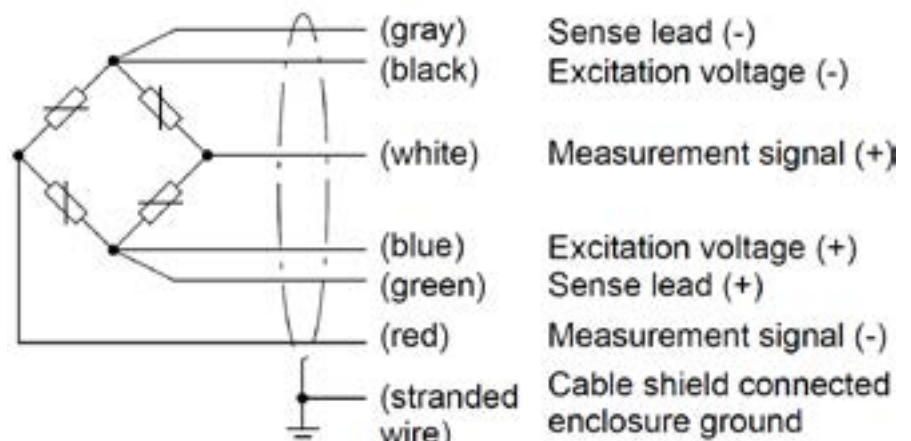
Ex-protection designs as per ATEX 95:

- II 2 G EEx ia IIC T4 or T6 (Zone 1) <sup>1)</sup>
- II 3 G EEx nA II T6 (Zone 2)
- II 2 D IP68 T80C (Zone 21) <sup>1)</sup>
- II 3 D IP68 T80C (Zone 22 for non conductive dust)

<sup>1)</sup> with EC type examination certificate

## Cable assignment

With this cable assignment, the output voltage at the measuring amplifier is positive when the transducer is loaded 1010-3.0 en





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