

# Z6R...

## Load cell

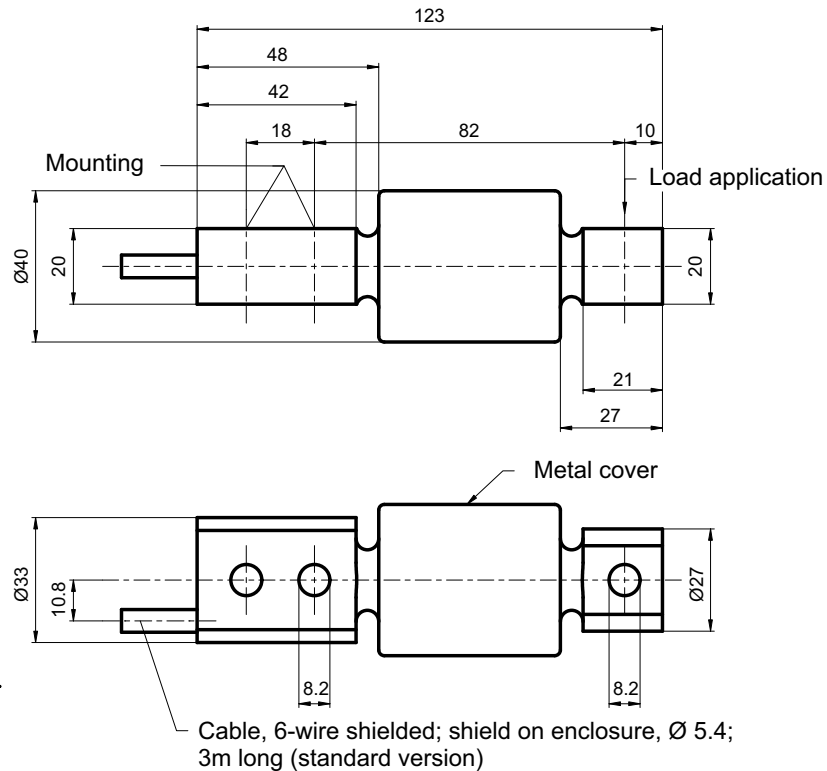


### Special features

- Nominal (rated) loads: 20 kg ... 200 kg
- Welded-on robust cover
- Load cells made of rust-resistant materials
- Easy to clean
- Same dimensions like Z6F
- Verifiable up to 3000 divisions, test report as per OIML R60
- Six-wire circuit
- Optimized for parallel connection
- Meets EMC requirements as per EN 45501:2015
- Options:  
Ex-protection designs as per ATEX and IECEx

Dimensions (in mm; 1 mm = 0.03937 inches)

**Z6RA:** Nominal (rated) loads 20 kg ... 200 kg



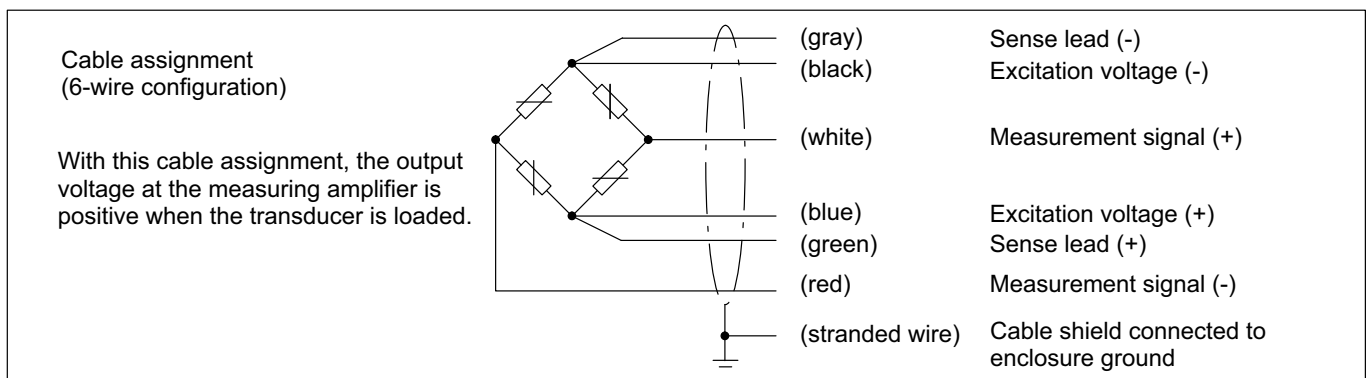
## Specifications

Type	Z6R...	
Accuracy class to OIML R 60	D1	C3
Number of scale intervals ( $n_{LC}$ )	1000	3000
Nominal (rated) load ( $E_{max}$ )	kg	20; 50; 100; 200
Minimum scale division ( $v_{min}$ )	% of $E_{max}$	0.0360
Nominal (rated) sensitivity ( $C_n$ )	mV/V	2
Sensitivity tolerance with load appl. in spec. direction	%	$\pm 0.1$
Temperature coefficient of sensitivity ( $TC_S$ ) <sup>1)</sup>	% of $C_n/10$ K	$\pm 0.0500$
Temperature coefficient of zero signal ( $TK_0$ )	% of $C_n$	$\pm 0.0500$
Relative reversibility error ( $d_{hy}$ ) <sup>1)</sup>	% of $C_n$	$\pm 0.0500$
Non linearity ( $d_{lin}$ ) <sup>1)</sup>	% of $C_n$	$\pm 0.0500$
Load creep ( $d_{DR}$ ) in 30 min.	% of $C_n$	$\pm 0.0490$
Input resistance ( $R_{LC}$ )	$\Omega$	350...480
Output resistance ( $R_0$ )	$\Omega$	$356 \pm 0.2$
Reference voltage ( $U_{ref}$ )	V	5
Nominal supply voltage range ( $B_U$ )	V	0.5...12
Insulation resistance ( $R_{is}$ )	G $\Omega$	> 5
Nominal ambient temperature range ( $B_T$ )	$^{\circ}C$	-10...+40
Operating temperature range ( $B_{tu}$ )	$^{\circ}C$	-30...+70
Storage temperature range ( $B_{tl}$ )	$^{\circ}C$	-50...+85
Limit load ( $E_L$ )	% of $E_{max}$	150
Breaking load ( $E_d$ )	% of $E_{max}$	$\geq 300$

Nominal (rated) load	kg	20	50	100	200
Relative permissible oscillatory stress	% of $E_{max}$	70			
Nominal (rated) displacement ( $s_{nom}$ ) approx.	mm	0.2			
Weight, (G) approx.	kg	0.6			
Degree of protection (IP) as per EN60529 (IEC529)		IP68 (tougher test conditions: 2 m water column; 1000 h) / IP69K			
Material: Measuring body Cover Cable inlet gland Cable sheath		Stainless steel <sup>2)</sup> Stainless steel <sup>2)</sup> Stainless steel / Viton <sup>®</sup> PVC			

1) 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.

2) As per EN 10088-1

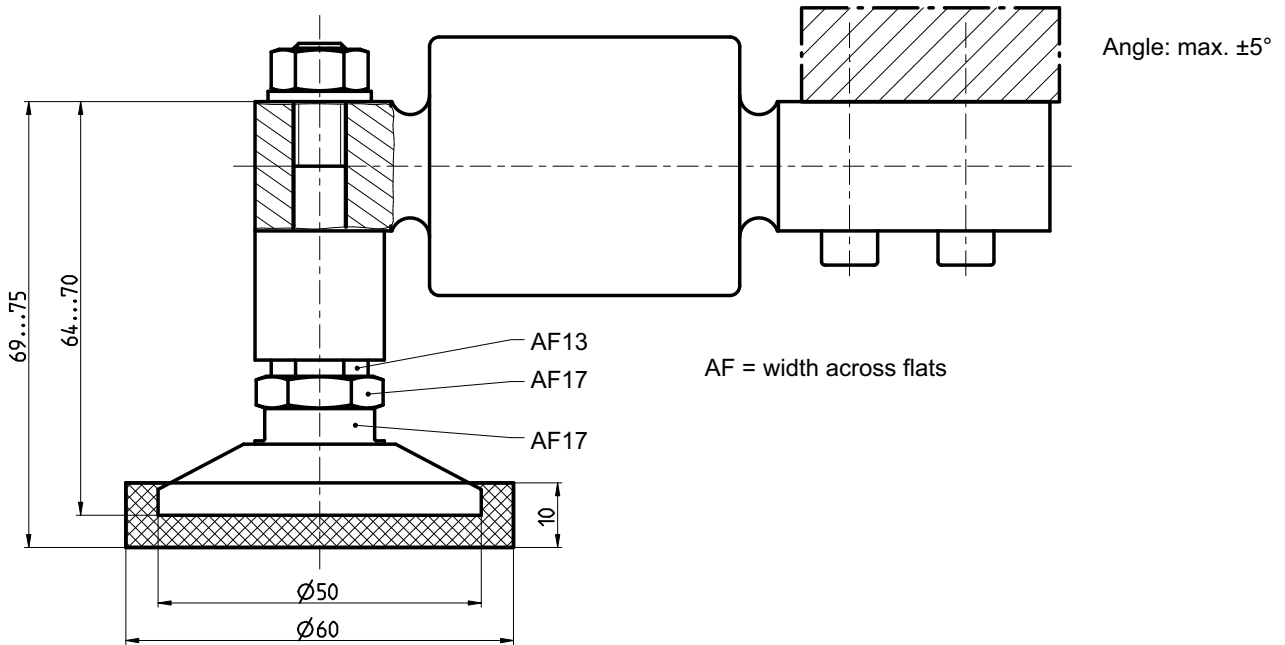


**Installation aids**, not included in scope of delivery (Dimensions in mm; 1 mm = 0.03937 inches)

All installation aids are made of non-rusting material. The rubber parts of the ZEL are made of chloroprene rubber.

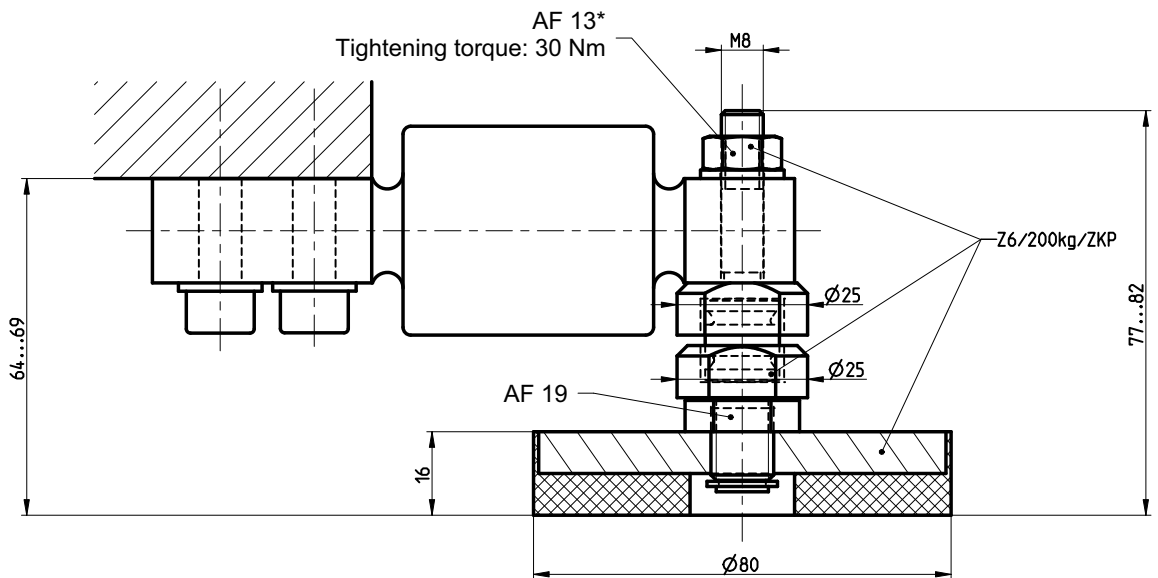
**Oscillating loading foot PCX**

for nominal rated loads 20 kg ... 200 kg (1-Z6/PCX/500kgSet); 1 Set consists of 4 pieces Z6/PCX/500 kg



**Oscillating loading foot for ZKP**

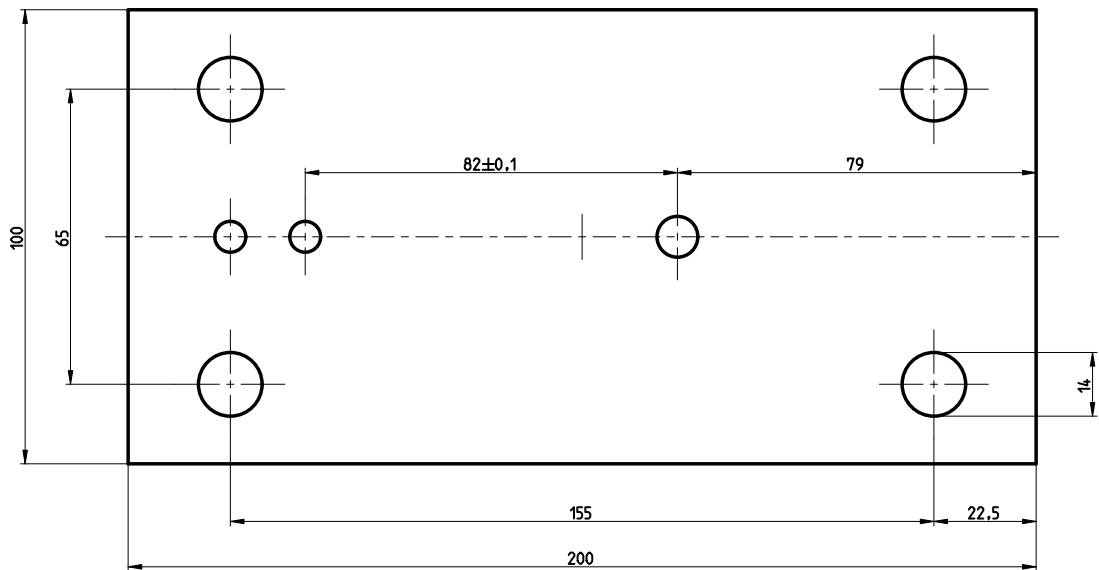
for nominal rated loads 20 kg ... 200 kg (1-Z6/200kg/ZKP)



**Base plate / Mounting set**

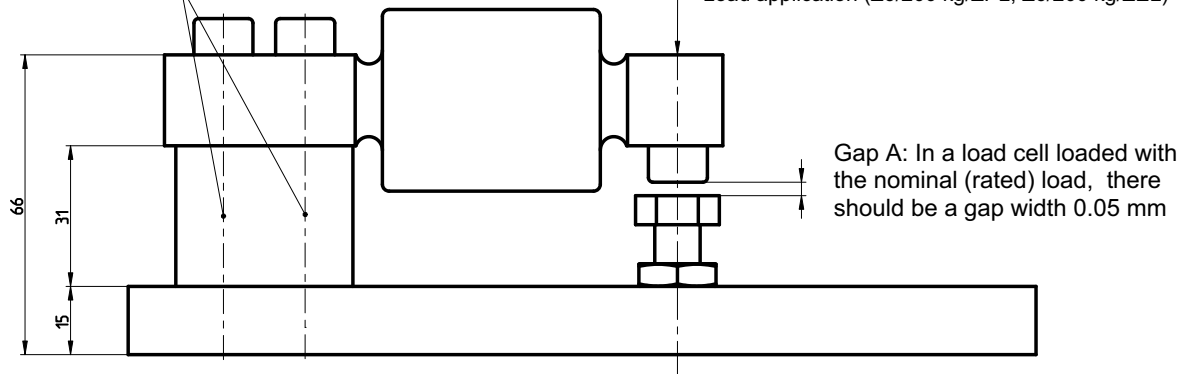
for nominal (rated) loads 20 kg ... 200 kg (1-Z6/ZPU/200kg)

View from below



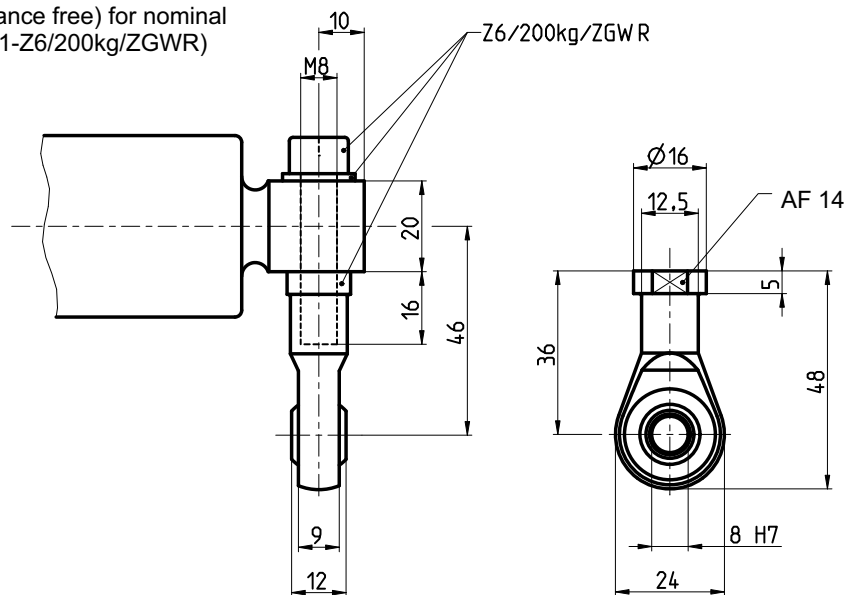
Tightening torque  $M_A$

Load application (Z6/200 kg/ZPL; Z6/200 kg/ZEL)

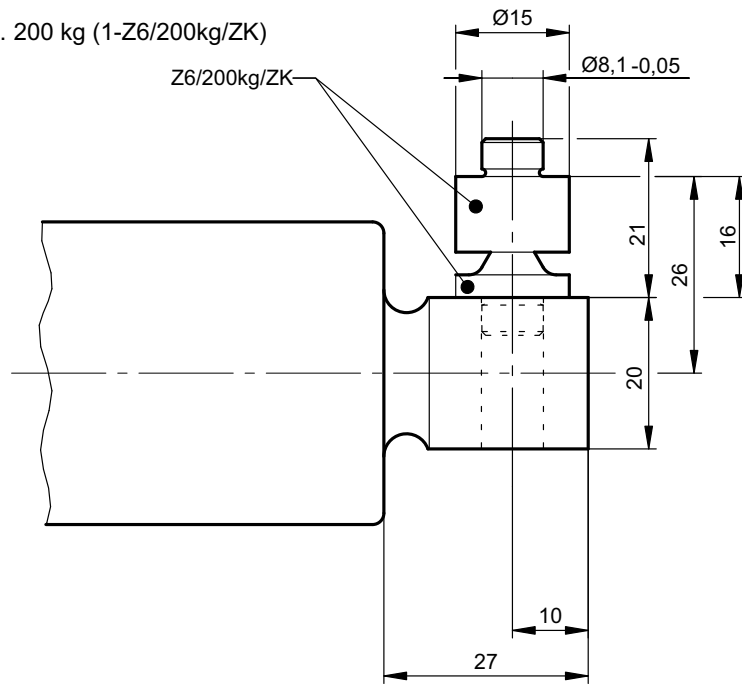


Tightening torque  $M_A$ : 23 N·m

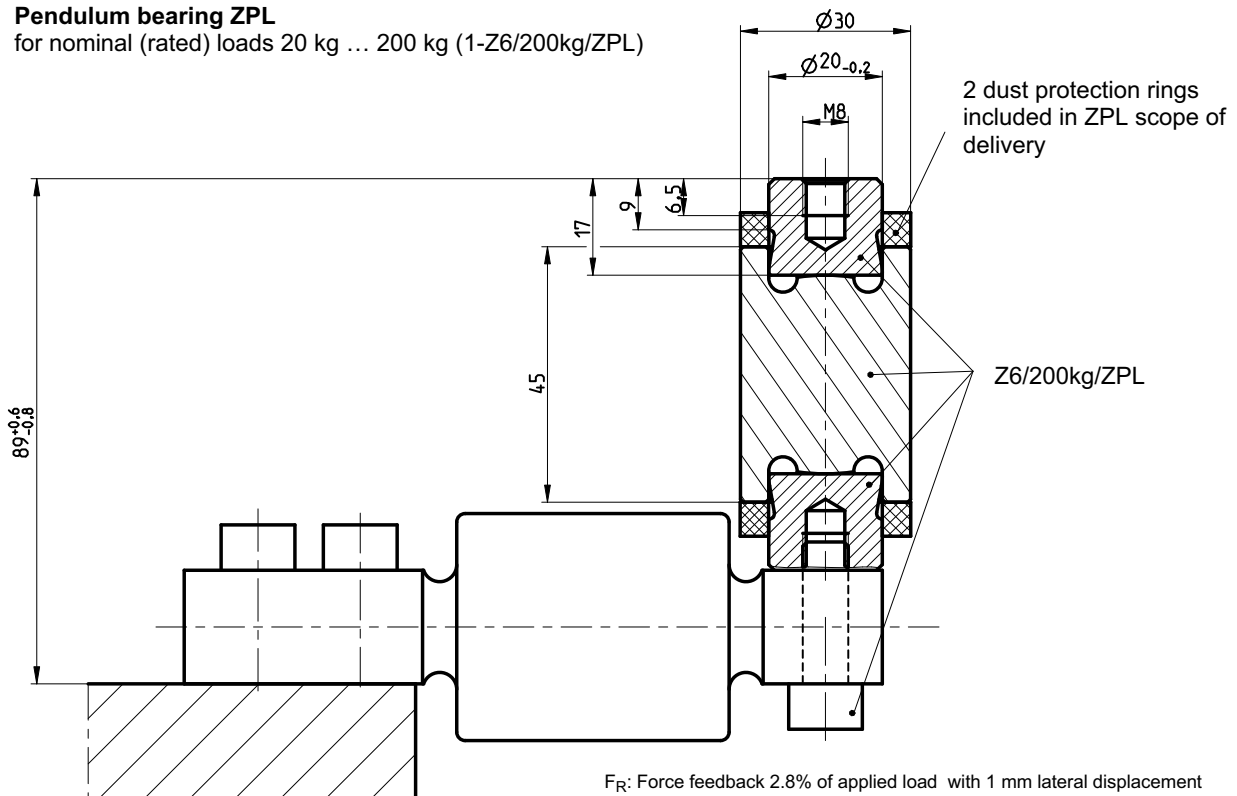
**Knuckle eye ZGWR (maintenance free) for nominal (rated) loads 20 kg ... 200 kg (1-Z6/200kg/ZGWR)**



**Cone, conical pan ZK**  
for nominal (rated) loads 20 kg ... 200 kg (1-Z6/200kg/ZK)



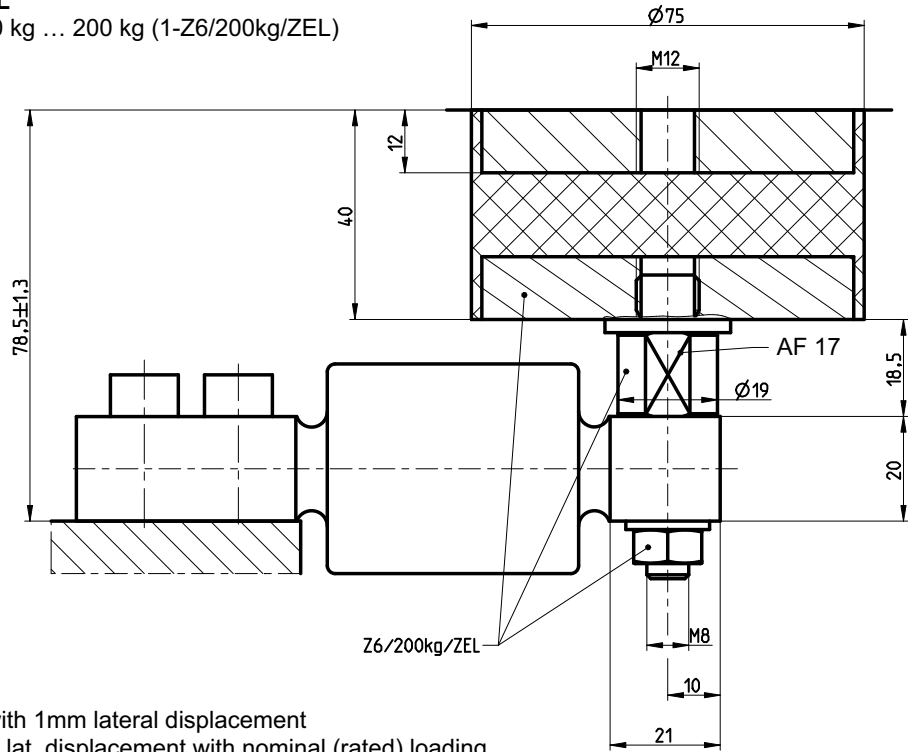
**Pendulum bearing ZPL**  
for nominal (rated) loads 20 kg ... 200 kg (1-Z6/200kg/ZPL)



$F_R$ : Force feedback 2.8% of applied load with 1 mm lateral displacement  
 $s_{max}$ : Maximum perm. lat. displacement of 3.5 mm with nominal (rated) loading

**Rubber-metal bearing ZEL**

for nominal (rated) loads 20 kg ... 200 kg (1-Z6/200kg/ZEL)



$F_R$ : Force feedback 163 N, with 1mm lateral displacement  
 $s_{max}$ : 3 mm, Maximum perm. lat. displacement with nominal (rated) loading

**Z6R Load cells, optional versions**

Order no. **K-Z6R**

Code	Option 1: Design
<b>A</b>	Z6R

Code	Option 2: Accuracy
<b>D1</b>	D1 (OIML)
<b>C3</b>	C3 (OIML)

Code	Option 3: Capacity
<b>20</b>	20 kg
<b>50</b>	50 kg
<b>100</b>	100 kg
<b>200</b>	200 kg

Code	Option 4: Ex protection
<b>N</b>	No Ex protection
<b>AI1/21</b>	IECEX-ATEX zone 1/21
<b>AI2/21</b>	IECEX-ATEX zone 2/21

Code	Option 5: Cable length
<b>S3</b>	3 m (standard)
<b>6</b>	6 m

Code	Option 6: Miscellaneous
<b>N</b>	Without

K-Z6R - **A** -  -  -  -  - **N** -  -  - **N**

## Options

### Ex protection versions per IECEx and ATEX

AI1/21 IECEx+ATEX zone 1/21 intrinsically safe, II 2G Ex ia IIC T6/T4 Gb, II 2D Ex ia IIIC T125°C Db \*

AI2/21\*\* IECEx+ATEX zone 2/21 not intrinsically safe, II 3G Ex nA IIC T6/T4 Gc, II 2D Ex tb IIIC T125°C Db \*

\* with EU type examination certificate (BVS13ATEX E 108 X) and IECEx Certificate of Conformity (IECEx BVS 13.0109 X)

\*\* IECEx Zone 2/21 includes option ATEX2/22 and also offers the additional customer benefit of usage with conductive dust as well.

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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