

# Z6R... Load cell

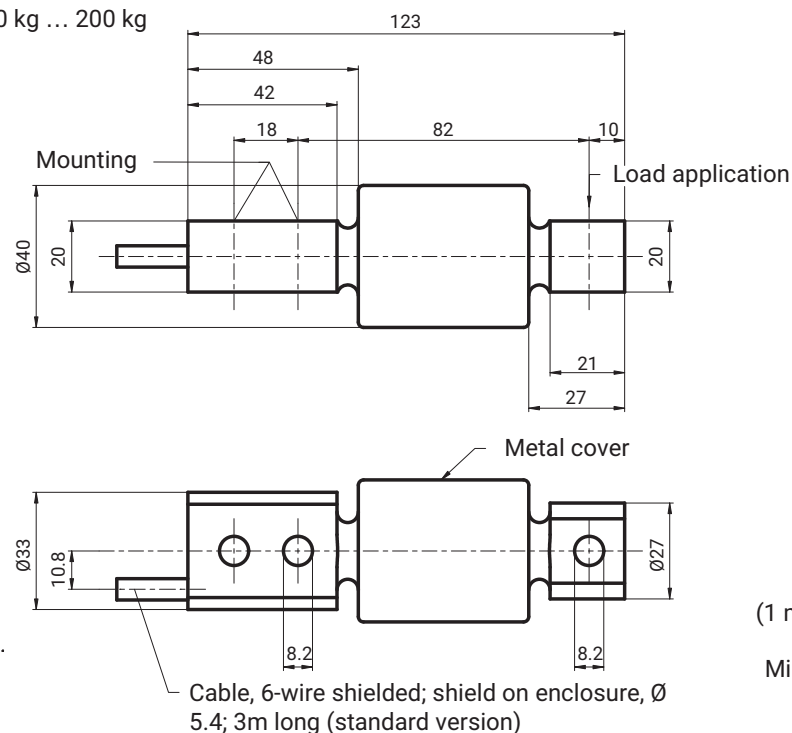
## SPECIAL FEATURES

- 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
- Options: Explosion protection designs
- Also optionally available with M12x1 male connector (as Z6R-P)
- Also optionally available with different cable sheaths (e.g. hygienic) and in different cable lengths



## DIMENSIONS

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



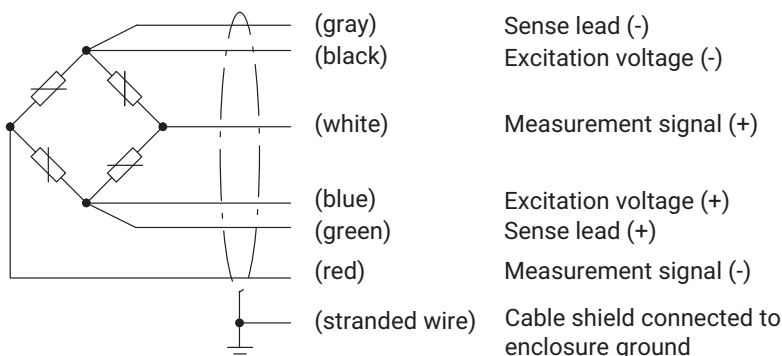
## SPECIFICATIONS

Type			Z6R...			
Accuracy class per OIML R 60			<b>C3</b>			
Number of scale intervals	$n_{LC}$		<b>3000</b>			
Nominal (rated) load	$E_{max}$	kg	20; 50; 100; 200			
Minimum scale division	$v_{min}$	% of $E_{max}$	0.0090			
Ratio of minimum verification interval	Y		11111			
<b>General specifications</b>						
Nominal (rated) sensitivity	$C_n$	mV/V	2			
Sensitivity tolerance with load appl. in spec. direction		%	±0.05			
Temperature coefficient of sensitivity <sup>1)</sup>	$TC_S$	% of $C_n/10\text{ K}$	±0.0080			
Temperature coefficient of zero signal	$TC_0$		±0.0125			
Relative reversibility error <sup>1)</sup>	$d_{hy}$	% of $C_n$	±0.0170			
Non linearity <sup>1)</sup>	$d_{lin}$		±0.0180			
Load creep in 30 min.	$d_{DR}$		±0.0166			
Input resistance	$R_{LC}$	Ω	350...480			
Output resistance	$R_0$		356 ± 0.12			
Reference voltage	$U_{ref}$	V	5			
Nominal supply voltage range	$B_u$		0.5...12			
Insulation resistance	$R_{is}$		GΩ	> 5		
Nominal ambient temperature range	$B_T$	°C	-10...+40			
Operating temperature range	$B_{tu}$		-30...+70			
Storage temperature range	$B_{tl}$		-50...+85			
Limit load	$E_L$	% of $E_{max}$	150			
Breaking load	$E_d$		≥ 300			
Nominal (rated) load	$E_{max}$	kg	20	50	100	200
Relative permissible oscillatory stress		% of $E_{max}$	70			
Nominal (rated) displacement approx.	$s_{nom}$	mm	0.2			
Weight, approx.	G	kg	0.6			
Degree of protection (IP) as per EN60529 (IEC529)			IP68 (tougher test conditions: 2 m water column; 1000 h) / IP69K			
<b>Material</b>						
Measuring body			Stainless steel <sup>2)</sup>			
Cover			Stainless steel <sup>2)</sup>			
Cable inlet gland			Stainless steel / Viton <sup>®</sup>			
Cable sheath			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

### Cable assignment (6-wire configuration)



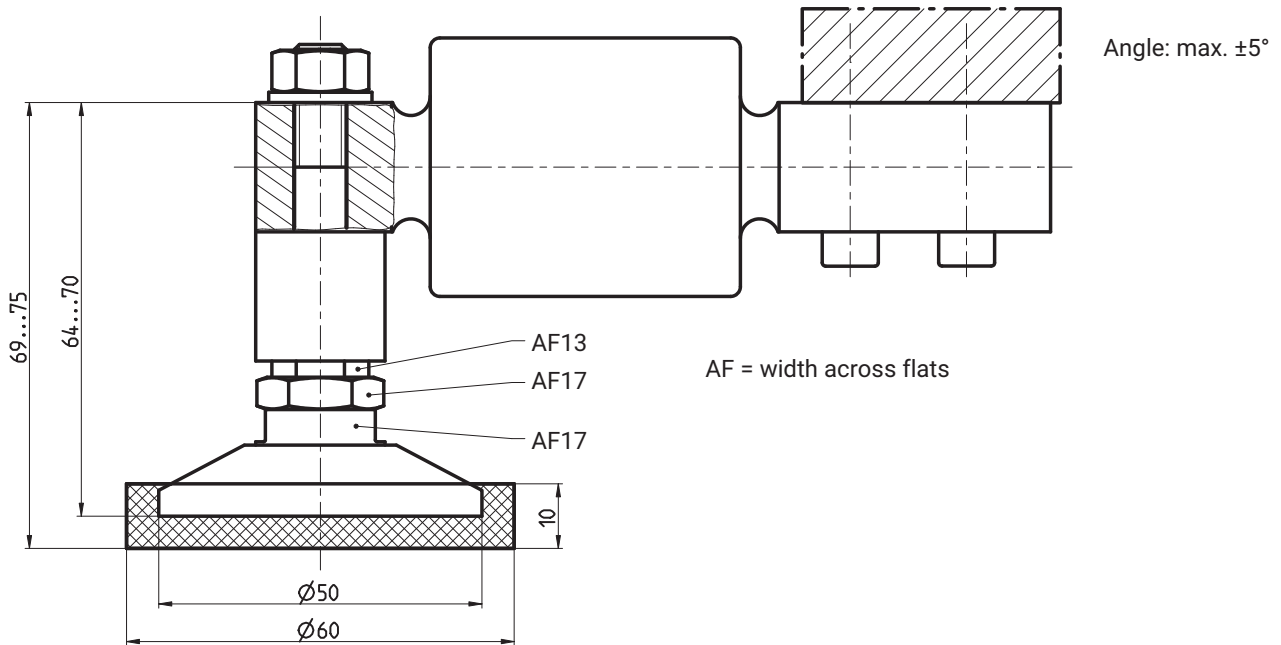
With this cable assignment, the output voltage at the measuring amplifier is positive when the transducer is loaded.

## INSTALLATION AIDS, NOT INCLUDED IN SCOPE OF DELIVERY

All installation aids are made of non-rusting material. The rubber parts of the ZEL are made of chloroprene rubber. Dimensions in mm; 1 mm = 0.03937 inches

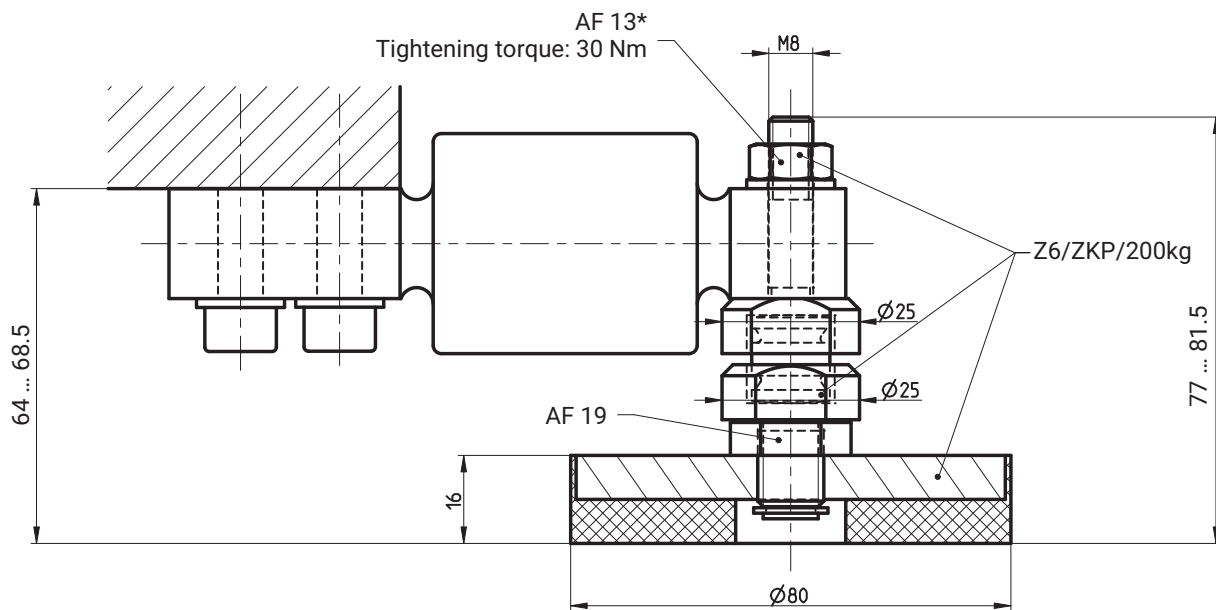
### Oscillating loading foot PCX

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



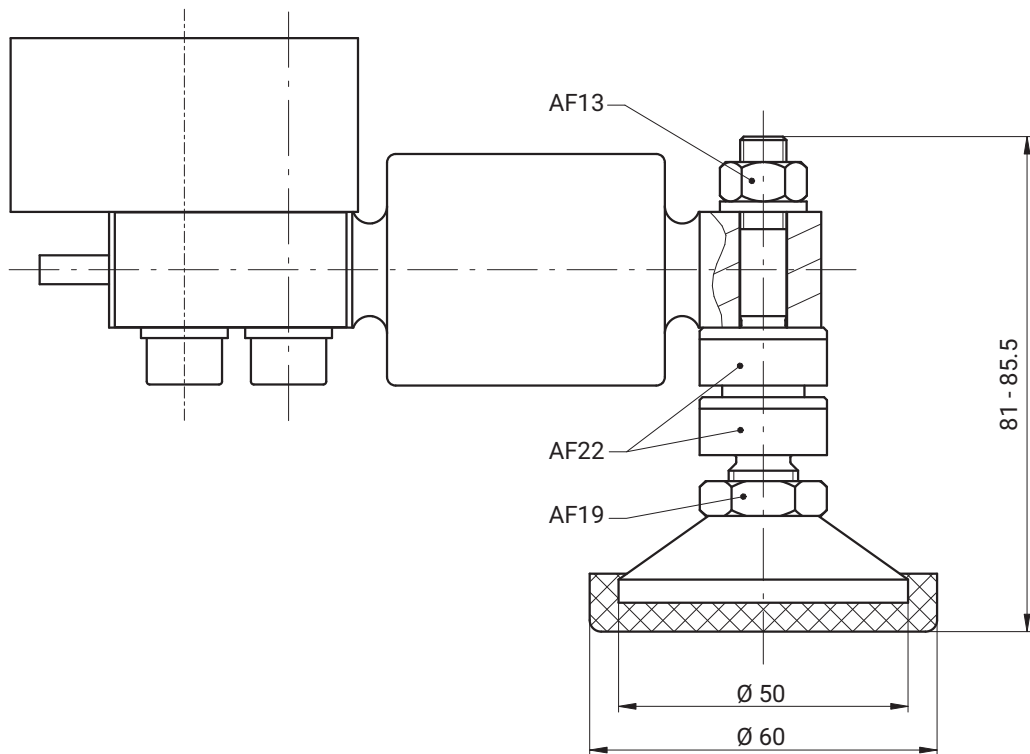
### Oscillating loading foot ZKP

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



## Oscillating loading foot ZFP

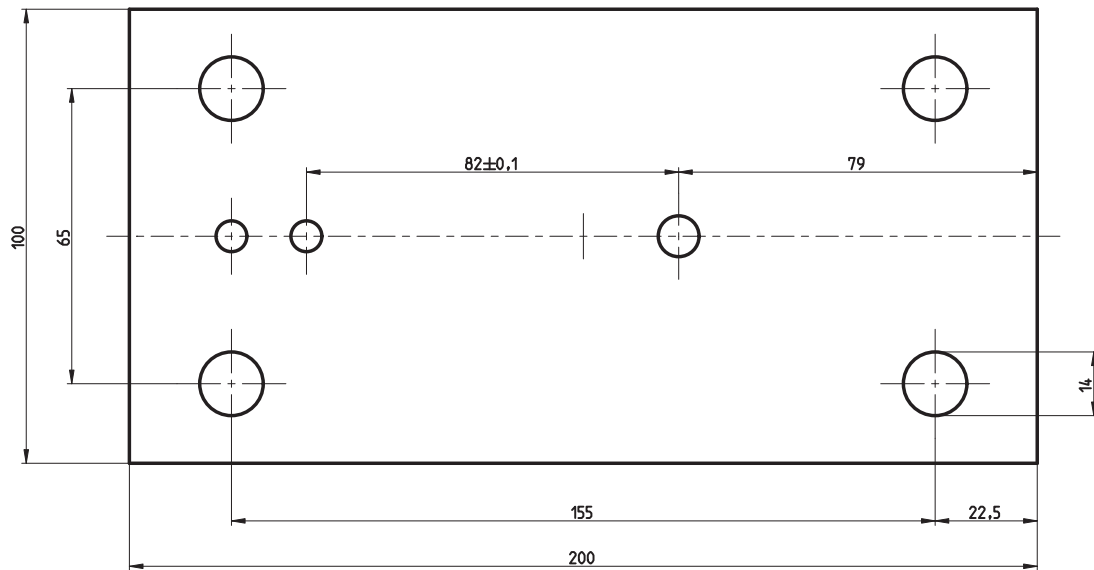
for nominal (rated) loads 20 kg ... 200 kg (1-Z6/ZFP/200kg)



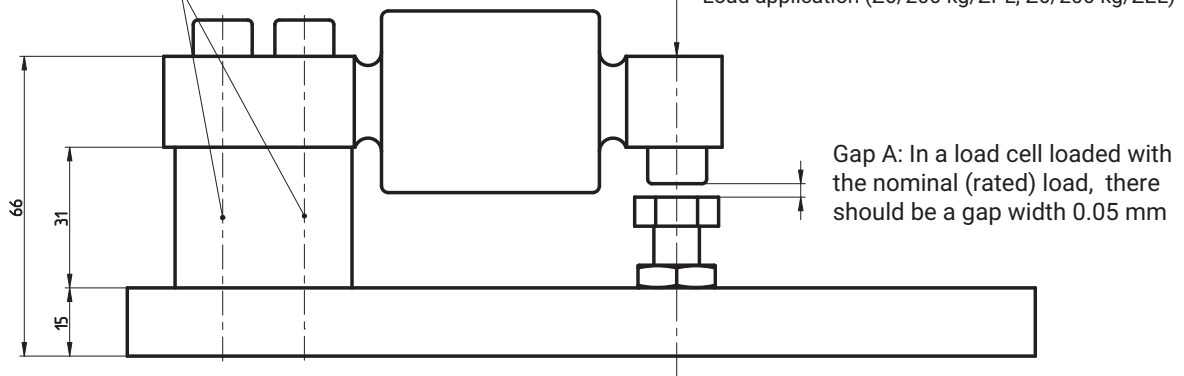
## Base plate / Mounting set

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

View from below



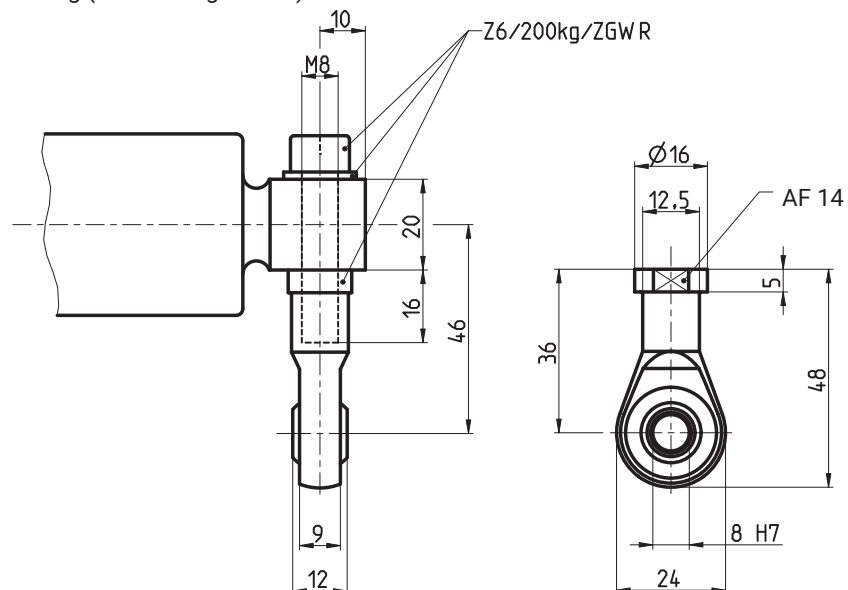
Tightening torque  $M_A$



Tightening torque  $M_A$ : 23 N·m

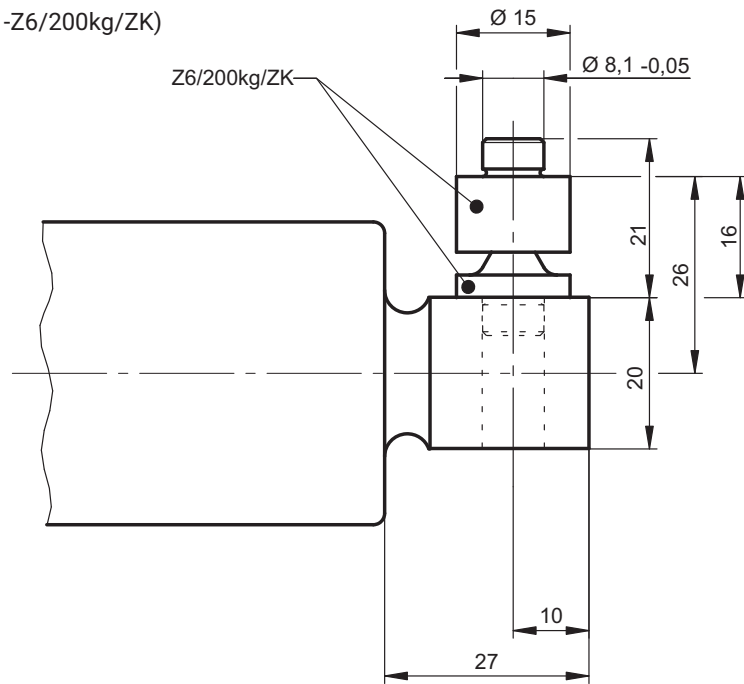
## Knuckle eye ZGWR (maintenance free)

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



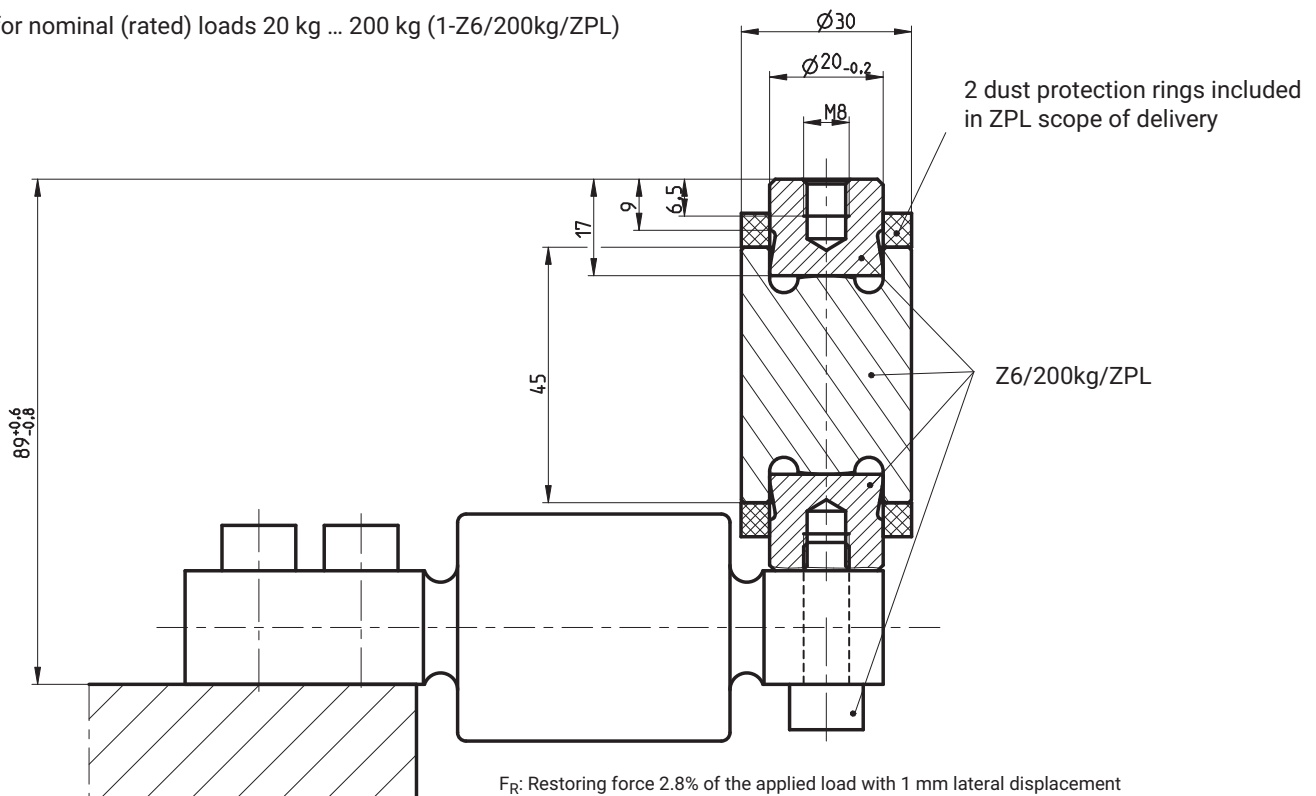
### Cone, conical pan ZK

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



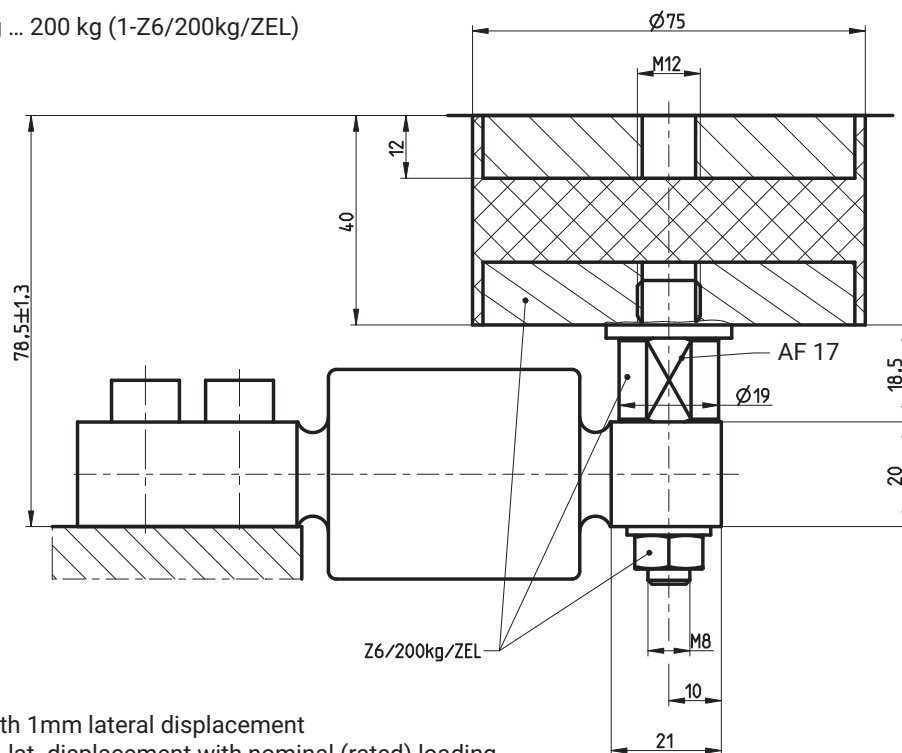
### Pendulum bearing ZPL

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



## 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

## PLACING ORDERS

When placing an order please specify the ordering numbers from the following table. If you need other versions (accuracy class, explosion protection, other cable lengths or materials, etc.) for the available products, please look in the overview "Z6R Load cells, optional versions" on the next page. You can generate specific ordering numbers there from your individual requirements.

Type	Z6R
Accuracy class	C3 (OIML)
Maximum capacities	Ordering number
20 kg	1-Z6RAC3/20KG-1
50 kg	1-Z6RAC3/50KG-1
100 kg	1-Z6RAC3/100KG-1
200 kg	1-Z6RAC3/200KG-1

## Z6R LOAD CELLS, OPTIONAL VERSIONS

K-Z6R		
1	<b>Code</b>	<b>Option 1: Design</b>
	A	Z6R
2	<b>Code</b>	<b>Option 2: Accuracy</b>
	C3	C3 (OIML)
3	<b>Code</b>	<b>Option 3: Maximum capacity</b>
	20	20 kg
	50	50 kg
	100	100 kg
4	<b>Code</b>	<b>Option 4: Explosion protection</b>
	N	No explosion protection
	AI1/21	ATEX+IECEX+FM Zone 1/21
	AI2/21	ATEX+IECEX Zone 2/21
5	<b>Code</b>	<b>Option 5: Cable length</b>
	S3	3 m (standard)
	6	6 m
	3T	3 m TPE cable sheath
	6T	6 m TPE cable sheath
	12T	12 m TPE cable sheath
3PUR	3 m PUR cable sheath, hygienic, antibacterial (doped with silver ions), halogen-free, black [only with option 4 = N]	
6	<b>Code</b>	<b>Option 6: Various</b>
	N	Without

K-Z6R -  -  -  -  -  -  -

1            2            3            4            5            6

## OPTIONS

### Ex protection versions per ATEX and IECEx

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

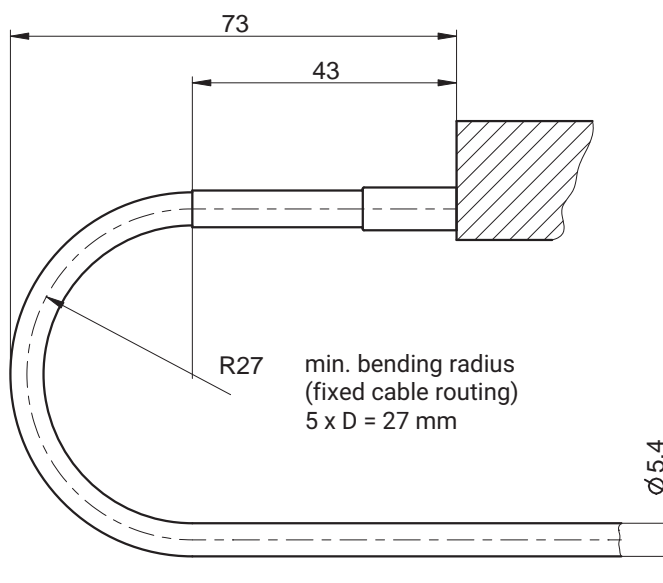
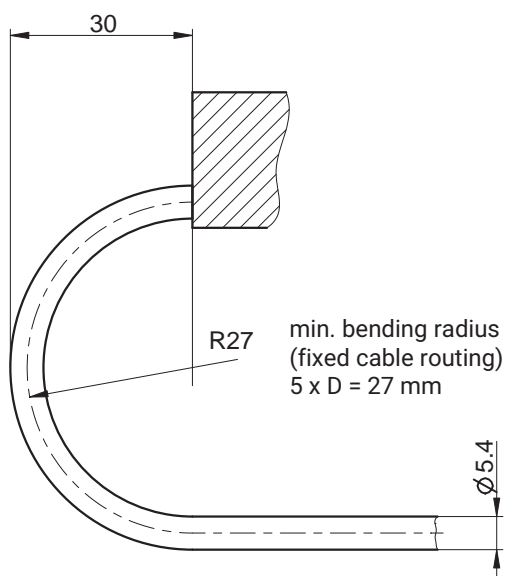
AI2/21 ATEX+IECEX zone 2/21, not intrinsically safe; ATEX/IECEX: II 3G Ex ec IIC T6/T4 Gc + II 2D Ex tb IIIC T125°C Db



### Minimum distances and bending radii of the cables (with fixed cable routing)

PVC cable type (standard), PUR cable type (optional)

TPE cable type (optional)



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