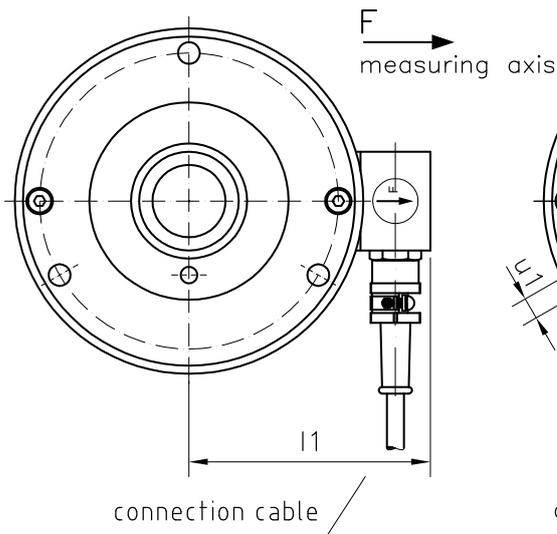
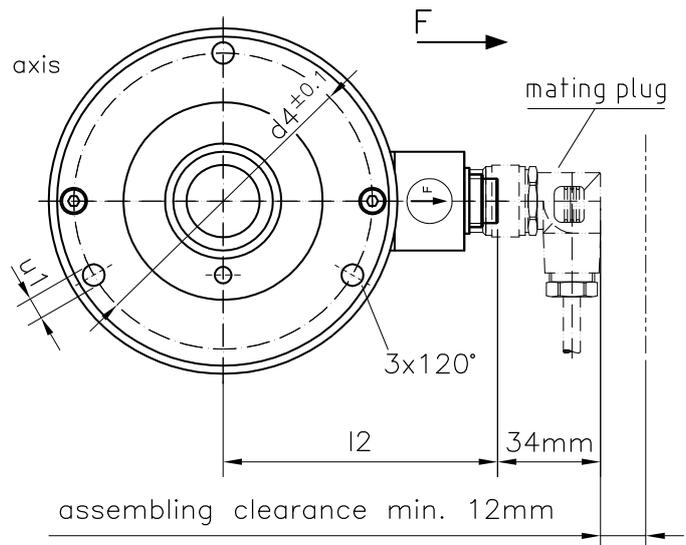


## Scale drawing

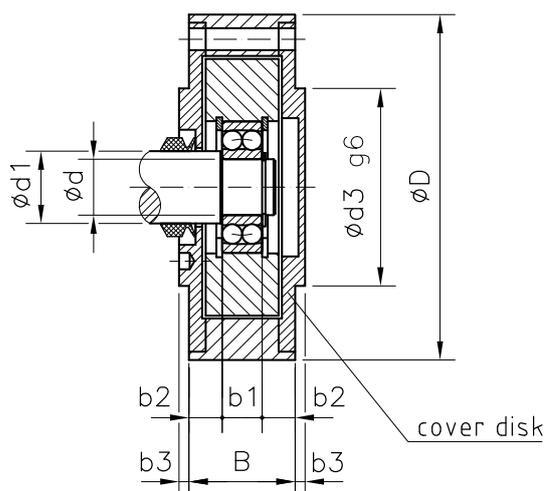
Connection K  
with fixed cable



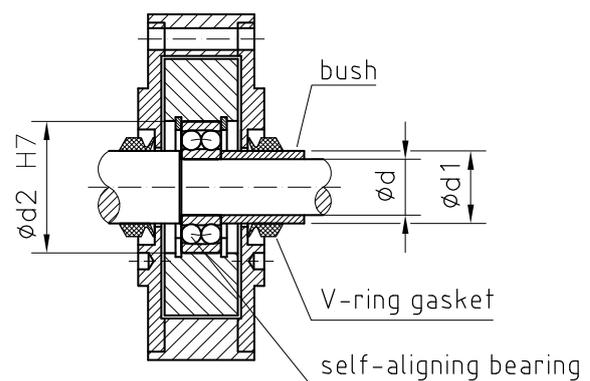
Connection S  
with male socket



Design A  
open cover disk on one side



Design B  
open cover disk on both sides



67194001

### Rated measuring ranges

Size	Nominal force [N]								
1	50	100	200	500	1000				
2			200	500	1000	2000			
3				500	1000	2000	3000	4000	
4					1000	2000	3000	4000	5000

The measuring range of the sensor begins at force's zero point.

Nominal forces differing from the list are available.

### Dimensions and weights

Size	Assembly dimensions [mm]													Weight [kg]
	d	d1	d2	d3	d4	D	b1	b2	b3	B	l1	l2	u1	
1	12	16	32	60	90	105	10	11	3	32	73	87	6,6	1,8
	15	20	35				11	10,5						
	* 17	22	40				12	10						
2	20	25	47	70	105	125	14	13	4	40	83	97	6,6	3,2
	* 25	32	52				15	12,5						
3	30	40	72	100	150	175	19	19	4	57	109	123	9	8,3
	* 35	45	80				21	18						
4	40	50	90	130	190	225	23	22	4	67	130	144	11	16,0
	* 45	55	100				25	21						
	55	65	100				25	21						

\* Preferred construction size

### Order code

WTS 1 17 A 100 K5	
Sensor type	
Construction size	
Axle Ød [mm]	
Design	A open cover disk at one side B open cover disk at both sides
Nominal force [N]	
Connection	K with fixed cable, standard: 5m option: required length [m] S with male socket

### Scope of supply

- sensor
- spring rings
- V-ring gasket

### Recommended rolling bearings

Size	Inner-Ø d	Outer-Ø D	Width	Bearing short cut
	[mm]	[mm]	[mm]	DIN 630 / 635
1	12	32	10	1201
	15	35	11	1202
	17	40	12	1203
2	20	47	14	1204
	25	52	15	1205
3	30	72	19	1306 / 21306
	35	80	21	1307 / 21307
4	40	90	23	1308 / 21308
	45	100	25	1309 / 21309
	55	100	25	2211 / 22211

The bearings **are not included** in the scope of supply, but they can be ordered separately.

### Options

- length of connection cable differing from standard
- seal gas protection
- special connection cable, e.g. oil-resistant or for use in Ex-protection areas

### Special designs

- nominal forces differing from standard
- sensor housing and measuring cell made out of stainless steel, for use in humid environment
- bearing seating without spring ring groove for the bearing in non-locating position, esp. for use at large linear expansion of the fitted measuring roll
- angle situation of the mounting holes
- advanced temperature range
- for measurement in vacuum

### Accessories

- female angled connector as mating plug
- connection cable with female angled connector / open ends
  - connector locking system: bolted, IP67
  - cable: 4x0,38mm<sup>2</sup>, diam. 5,6mm, 5m long (other length on request)
- adjusting collar with fixing pin
- rolling bearings
- for Ex-protection, e.g. Zener-barrier

### Technical data

Rated measuring ranges ( $F_N$ ) for construction size BG1 to BG4	<b>N</b>	0 to 50...0 to 5000
Measuring principle		full strain gauge bridge
Rated output	<b>mV/V</b>	1,0
Rated output tolerance	<b>%</b>	$< \pm 0,2$
Accuracy class		0,1
Excitation voltage max.	<b>V</b>	12
Reference excitation voltage	<b>V</b>	10
Input resistance	<b><math>\Omega</math></b>	$350 \pm 3$
Output resistance	<b><math>\Omega</math></b>	$350 \pm 1$
Isolation resistance	<b>G<math>\Omega</math></b>	$> 10$
Rated temperature range	<b><math>^{\circ}\text{C}</math></b>	5 to 50, option: -10 to 70
Operational temperature range		
- sensor	<b><math>^{\circ}\text{C}</math></b>	-10 to 70
- connection cable	<b><math>^{\circ}\text{C}</math></b>	-30 to 80
Storage temperature range	<b><math>^{\circ}\text{C}</math></b>	-30 to 70
Reference temperature	<b><math>^{\circ}\text{C}</math></b>	23
Temperature influence per 10 K		
- on the zero point (TK0)	<b>% <math>F_N</math></b>	$< \pm 0,1$
- on the calibration (TKC)	<b>% <math>F_N</math></b>	$< \pm 0,15$
Creep after 30 minutes	<b>% <math>F_N</math></b>	$< \pm 0,05$
Linear output signal up to	<b>% <math>F_N</math></b>	approx. 150
Mech. overload protection takes effect at	<b>% <math>F_N</math></b>	approx. 180
Overload protected <sup>1</sup>	<b>% <math>F_N</math></b>	400-800 (depending on nominal force)
Ultimate side load	<b>% <math>F_N</math></b>	200
Deflection at nominal force	<b>mm</b>	$0,10 \pm 20\%$
Connection cable		5 m long, flexible, shielded, 4 x 0,25 mm <sup>2</sup> , total- $\varnothing$ 4,6 mm
Sensor housing		high-tensile steel, black finishing
Protection class		IP 54

<sup>1</sup> radial incoming force without additional bending or tilting moment

### Connections

