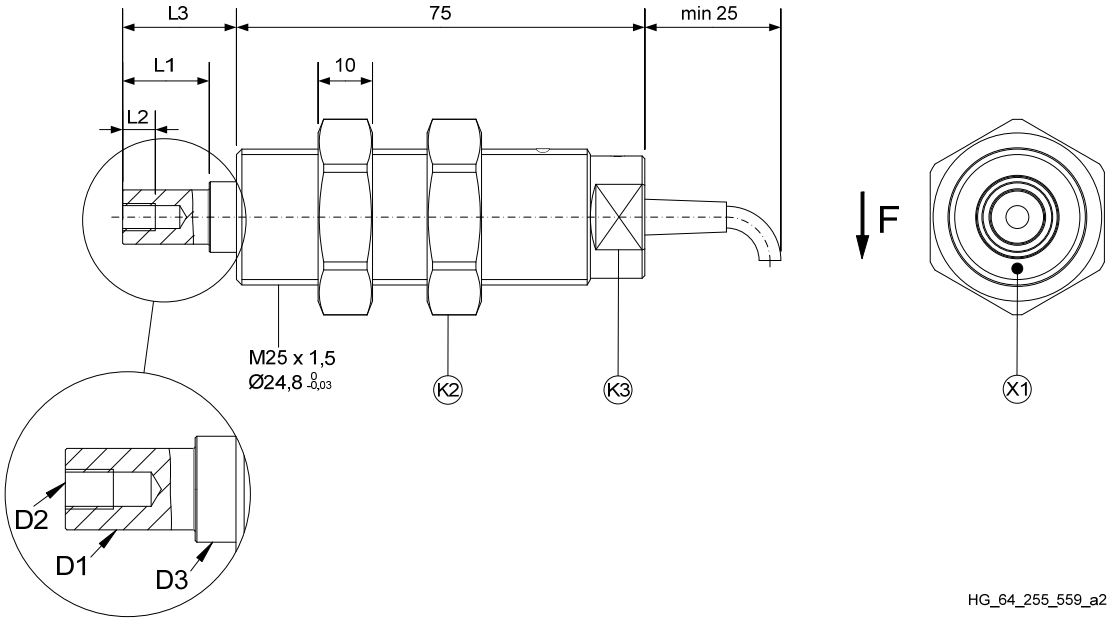
RFS® 150
Radial force measuring axle

Scale drawing



All dimensions in mm

X1: red mark indicates the position of the measuring axis

Rated measuring ranges

Nominal force [N]							Bearing journal Ø [mm]			
1*	2*	3*	4*				5	8	10	
5	10	20	30	40			5	8	10	
50	60	100	200	300	400			8	10	12
500	600	1000**							10	12
			2000***	3000***						12

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

Bearing journals and nominal forces differing from the list are available.

* Special type LR (Low Range)

** Special type HR (High Range)

*** Special type XR (eXtended Range)

Dimensions

Bearing journal Ø							
D1 -0,006 -0,01	L1 +0,02 0	D2	L2	D3	L3	K2	K3
5	9,9	M3	6	7	12,9	WAF 32	WAF 19
8	11,9	M4	6	10	15,9	WAF 32	WAF 19
10	15,9	M5	8	11	20,9	WAF 32	WAF 19
12	19,9	M6	10	14	24,9	WAF 32	WAF 19

All dimensions in mm

WAF: width across flats

Non-standard bearing journal dimensions and housing execution upon request

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Honigmann

Technical Data

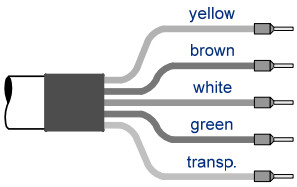
Rated measuring ranges (FN)	**N**	0 - 1 to 0 - 3000
Rated output	**mV/V**	1,0 or 1,5 (depending on nominal force) [#2]
Rated output tolerance	**%**	< ± 0,2
Accuracy class		0,1
Excitation voltage max.	**V**	12
Reference excitation voltage	**V**	10
Input resistance	**Ω**	350 ± 3
Output resistance	**Ω**	350 ± 1
Isolation resistance	**GΩ**	> 10
Rated temperature range	**°C**	5 to 50, Option: -10 to 70
Operational temperature range	**°C**	-10 to 70
Storage temperature range	**°C**	-30 to 70
Reference temperature	**°C**	23
Temperature influence per 10 K		
- on the zero point (TK0)	**% F_N**	< ± 0,1
- on the calibration (TKC)	**% F_N**	< ± 0,15
Creep after 30 minutes	**% F_N**	< ± 0,05
Linear output signal up to	**% F_N**	approx. 125
Mech. overload protection takes effect at	**% F_N**	approx. 140
Overload protected (#1)	**% F_N**	400 to 800 (depending on nominal force)
Ultimate side load	**% F_N**	200
Deflection at nominal force	**mm**	0,07 ± 20%
Typ. natural frequency of the sensor	**kHz**	1 ... 3 (depending on nominal force)
Weight	**g**	approx. 400
Protection class		IP 50
Sensor housing and nuts		stainless steel
Connection cable		3m long, flexible, shielded 4 x 0,14mm², total ∅ 4,5 mm

(#1) radial incoming force without additional bending or tilting moment

(#2) see specification on type label

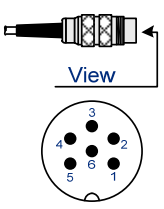
Connections

Standard: Connection type „O“



+U_{Br}	Excitation
-U_{Br}	
+U_{Sig}	Output
-U_{Sig}	
Shield *(not connected to housing)*	

Option: Connection type „S“



1	+U_{Br}	Excitation
2	-U_{Br}	
3	Shield *(not connected to housing)*	
4	+U_{Sig}	Output
5	-U_{Sig}	
6	Reserved	

67164003

Order code

	RFS 150	- 50	- 10	- 3	- O
Sensor type					
Nominal force [N]					
Bearing journal Ø [mm]					
Cable length [m]	Standard: 3m Option: required length				
Cable connection	Standard: **O** (open ends) Option: **S** (connector)				

Scope of supply

- Sensor with connection cable
- Protection cap

Accessories

The following accessories are available:

- Bearing journal adapter
- Winding protection
- Ceramic pin with holder
- Clamping flange for flange mounting

Options / Special versions

- Extended rated temperature range -10 to 70°C
- Seal gas protection
- Cylindrical sensor housing (without outside thread)
- Modified thread housing
- Vacuum design
- Custom-specific bearing journal
- Special nominal force, differing from standard
- High natural frequency (HF)
- 2nd measuring axis (XY)
- Type ES, for use as simple apparatus

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