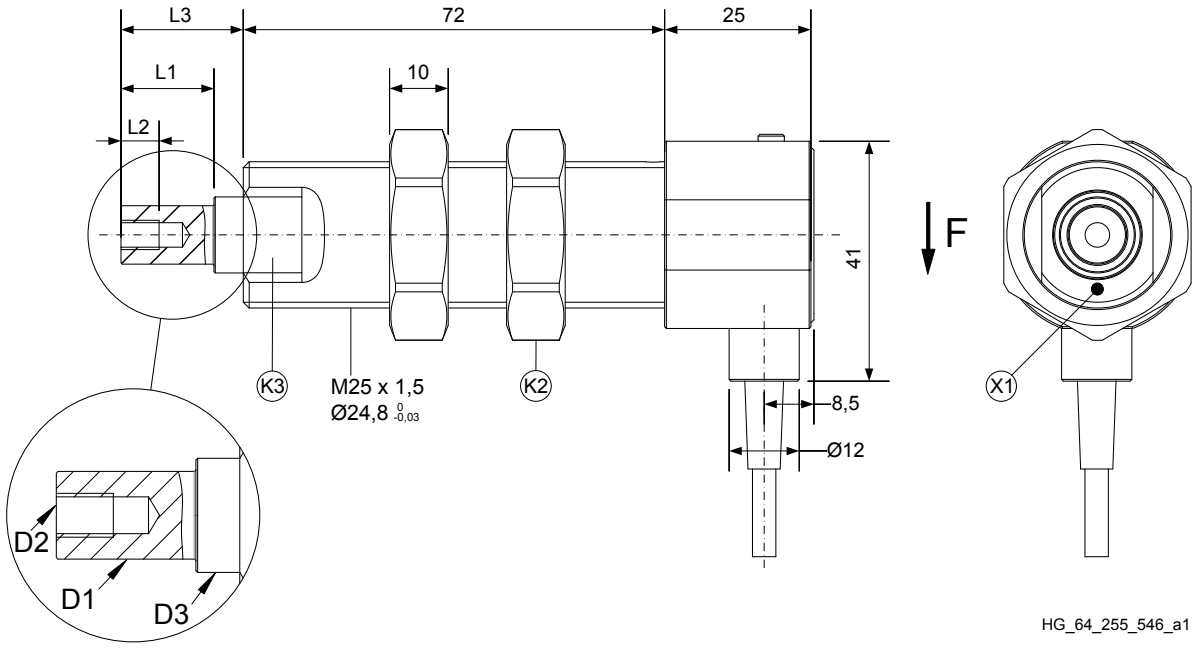
RFS® 150-E

Radial force measuring axle with built-in measuring amplifier

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**							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)

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

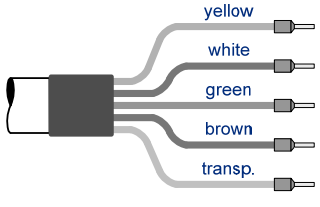
Technical Data

Type		RFS® 150-E
Rated measuring ranges (FN)	**N**	0 - 1 to 0 - 2000
Accuracy class		0,1
Supply voltage	**V DC**	20 to 28
Current consumption (without load)	**mA**	approx. 36
Output		
- Voltage (Standard)	**V**	0 to ±10, $R_L \geq 10k\Omega$
- Current 0-20mA (Option)	**mA**	0 to 20, admissible load 0 to 300Ω
- Current 4-20mA (Option)	**mA**	4 to 20, admissible load 0 to 300Ω
Cut-off frequency f_C (-3dB)	**HZ**	70
Rated temperature range	**°C**	5 to 50
Operational temperature range	**°C**	-10 to 50
Storage temperature range	**°C**	-30 to 70
Reference temperature	**°C**	23
Temperature influence per 10 K		
- on the zero point (TK0)	**% F_N**	< ± 0,2
- 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 to 3 (depending on nominal force)
Weight	**g**	approx. 400
Connection cable		3m long, flexible, shielded 4 x 0,14mm², total ∅ 4,5 mm
Sensor housing and nuts		stainless steel
Protection class		IP 50

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

Connections

Standard: Connection type „O“



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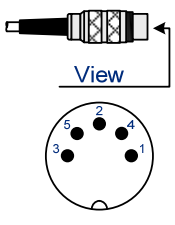
+24V DC	Power supply	
⊥ GND		
Signal	Output	
⊥ GND		
Shield *(not connected to housing)*		

Option: Connection type „S“



1	+24V DC	Power supply	
4	⊥ GND		
3	Signal	Output	
5	⊥ GND		
2	Shield *(not connected to housing)*		

Order code

	RFS 150-E	- 50	- 10	- 3	- O	-10
Sensor type						
Nominal force [N]						
Bearing journal Ø D1 [mm]						
Cable length [m]	Standard: 3m Option: required length					
Cable connection	Standard: **O** (open ends) Option: **S** (connector)					
Output signal	Standard: **10** (0-10V) Option: **0-20** (0-20mA) **4-20** (4-20mA)					

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

- Cylindrical sensor housing (without outside thread)
- Modified thread housing
- Custom-specific bearing journal
- Special nominal force, differing from standard
- Custom-specific orientation of terminal housing

Honigmann Industrielle Elektronik GmbH • Krebsstraße 2-8 • D-42289 Wuppertal • ☎ +49-202-870972-0 • 🖷 +49-202-870972-99