

Type RC1 Load Cell



Flintec load cells are designed to meet the most stringent accuracy requirements. Certifications have been obtained from Weights & Measures Authorities, worldwide.

RC1 rocker column load cells are available in the capacities 250 kN to 900 kN (25.5 t to 91.8 t) and include Accuracy Classifications GP, C1 and C3 according to OIML R 60; NTEP 10000 d.

They offer total stainless steel construction and complete hermetic sealing, making them suitable for use in the toughest industrial environments.

The Flintec calibration technique (in mV/V/Ω) eliminates time consuming corner calibration in multiple load cell systems.

Important Features

- Capacities: 250 kN to 900 kN.
- High accuracy.
- Total stainless steel construction.
- Complete hermetic sealing.
- Protection IP 68.
- W&M certified for 3000 intervals.
- Calibration in mV/V/Ω.
- Easy cable replacement.
- Complete range of loading hardware available.
- Factory mutual approved.

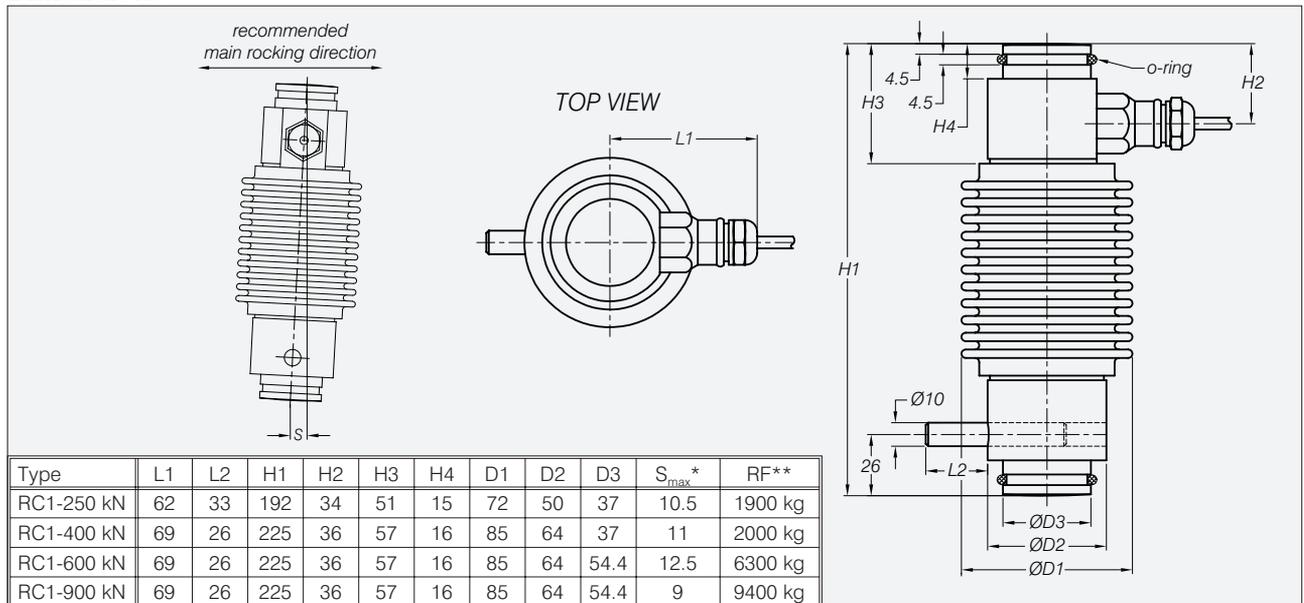
Option

- Explosion proof EEx ia IIC T6...T4.

RC1 Specifications

Maximum capacity (=E _{max})	kN	250 / 400 / 600 / 900		
Metric equivalents (1 N=0.10197 kg)	t	25.5 / 40.8 / 61.2 / 91.8		
Rated Output (=RO)	mV/V	2 ± 0.1%		
Calibration in mV/V/Ω (A...I classified)	%RO	± 0.05 (± 0.005)		
Accuracy class according to OIML R 60		(GP)	C1	C3
Maximum number of verification intervals (n)		n.a.	1000	3000
Minimum load cell verification interval (v _{min})		n.a.	E _{max} /4667	E _{max} /10000
Combined error	%RO	≤ ± 0.040	≤ ± 0.030	≤ ± 0.020
Creep error (30 minutes)	%RO	≤ ± 0.060	≤ ± 0.049	≤ ± 0.024
Temperature effect on minimum dead load output	%RO/°C	≤ ± 0.0040	≤ ± 0.0028	≤ ± 0.0012
Temperature effect on sensitivity	%/°C	≤ ± 0.0020	≤ ± 0.0016	≤ ± 0.0011
Excitation voltage	V	5...15		
Zero balance	%RO	≤ ± 1.0		
Input resistance	Ω	400 ± 5		
Output resistance	Ω	351 ± 1		
Insulation resistance	MΩ	≥ 5000		
Compensated temperature range	°C	-10...+40		
Operating temperature range	°C	-40...+80		
Safe load limit	%E _{max}	200		
Ultimate load	%E _{max}	300		
Load cell material		stainless steel 17-4 PH (1.4548)		
Sealing		complete hermetic sealing; cable entry sealed by glass to metal header		
Protection according DIN 40.050		IP 68		

Dimensions



* S_{max} = maximum lateral displacement of load introduction. Recommended gap 3...5 mm.
 ** RF = restoring force at S_{max} and E_{max}.

All dimensions in mm. Dimensions and specifications are subject to change without notice.

Wiring

- The load cell is provided with a shielded, 4 conductor cable.
- Cable length: 12 m for RC1-250 kN,
16 m for RC1-400 kN,
18 m for RC1-600 and 900 kN.
- Cable diameter: 7.8 mm.
- The shield is floating.

