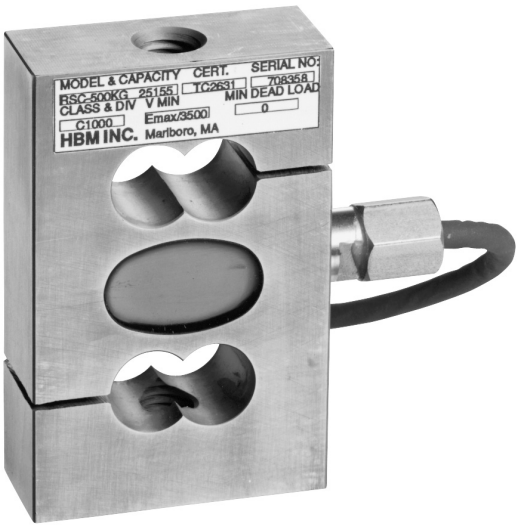
Data Sheet

RSCA...

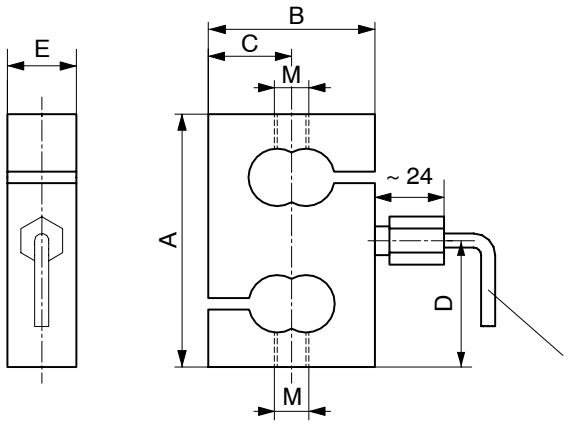
Load cells



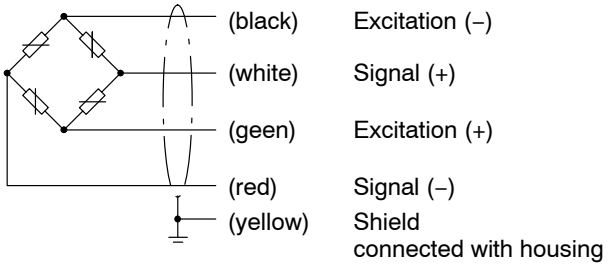
Special features

- **Load cell with strain gage measuring system**
- **Nominal (rated) capacities: 50 kg ... 5 t**
- **Stainless steel**
- **Legal for trade verification up to 3000 d (OIML R60)**
- **Meets EMC / ESD requirements according to EN 45 501**
- **Explosion proof versions according to ATEX 95 (optional)**

Dimensions (in mm; 1 mm= 0.03937 inches)



Wirig code (4-wire circuit)



E_{max} RSCA...	A	B	C	D	E	M
50 kg; 100 kg	62	50.8	25.4	31	15	M8x1.25
200 kg; 500 kg; 1 t	87.3	57.2	28.6	43.7	24	M12x1.75
2 t	100	69.8	34.9	50	30.2	M24x2
5 t	100	76.2	38.1	50	36.6	M24x2

Technical Data

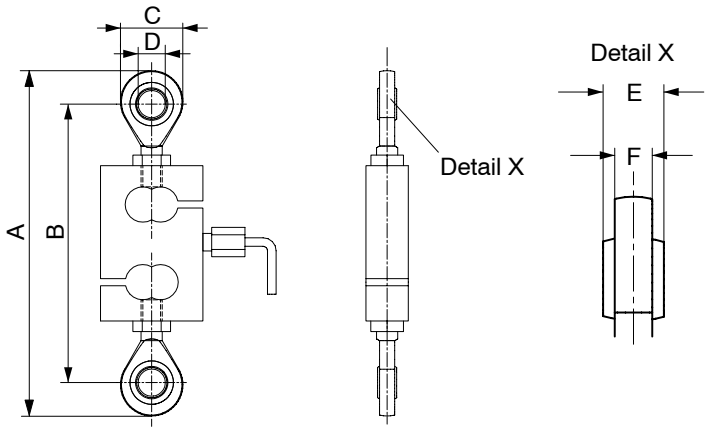
Type		RSCA C1							RSCA C3			
Accuracy class according to OIML R 60 **Max. numbers of load cell intervals (n_{LC})**		C1 1000							C3 3000			
Nominal (rated) capacity (E_{max})		50 kg	100 kg	200 kg	500 kg	1 t	2 t	5 t	500 kg	1 t	2 t	5 t
Minimum LC verification interval (v_{min})	% of E_{max}	0.0286							0.0120			
Sensitivity (C_n)	mV/V	2							2			
Sensitivity tolerance	%	±0.2500							±0.2500			
Temperature effect on sensitivity (TK_C) [1]	% of C_n / 10 K	±0.0230 [1]							±0.0140 [1]			
Temperature effect on zero signal (TK_0)	% of C_n / 10 K	±0.0400							±0.0170			
Hysteresis error (d_{hy}) [1]	% of C_n	±0.0500 [1]							±0.0170 [1]			
Non-Linearity (d_{lin}) [1]	% of C_n	±0.1000 [1]							±0.0180 [1]			
Creep (d_{cr}) 30 min.	% of C_n	±0.0490							±0.0250			
Input resistance (R_{LC}) (nominal)	Ω	350							350			
Output resistance (R_0)	Ω	350 ±1.5							350 ±1.5			
Reference excitation voltage(U_{ref})	V	5							5			
Nominal range of excitation voltage (B_U)	V	0.5 ... 12							0.5 ... 12			
Insulation resistance (R_{is})	GΩ	> 5							> 5			
Nominal range of ambient temperature (B_T)	°C [°F]	−10 ... +40 [+14 ... +104]							−10 ... +40 [+14 ... +104]			
Service temperature range (B_{tu})	°C [°F]	−30 ... +70 [−22 ... +158]							−30 ... +70 [−22 ... +158]			
Storage temperature range (B_{tl})	°C [°F]	−50 ... +85 [−58 ... +185]							−50 ... +85 [−58 ... +185]			
Limit load (E_L)	% of E_{max}	150							150			
Breaking load (E_d)	% of E_{max}	250							250			
Permissible dynamic load (F_{srel}) **(vibration amplitude according to DIN 50100)**	% of E_{max}	70							70			
Deflection at E_{max} (s_{nom}), approx.	mm	0.15				0.25	0.38	0.46	0.15	0.25	0.38	0.46
Weight (G) with cable, approx.	kg	0.4		0.77			1.6	1.8	0.77		1.6	1.8
Protection class accord. to EN60529 (IEC529)		IP65 (tightened test conditions 1 m water column / 30 min.)										
Material: Measuring body / Application sealing Cable fitting / Cable sheath		stainless steel / Polyurethane stainless steel, gasket from Perbunan / Polyurethane										

[1] The data for Non−Linearity (d_{lin}), Hysteresis error (d_{hy}) and Temperature effect on sensitivity (TK_C) are typical values. The sum of these data meets the requirements according to OIML R60.

Optionally Explosion-proof versions according to ATEX: II 3 G EEx nA II T6 (Zone 2)
II 3 D IP65 (Zone 22 for non−conductive dust)

Dimensions and Accessories (in mm; 1 mm = 0.03937 inches)

RSCA... with knuckle eyes



E_{max} RSCA...	Knuckle eyes	A	B	∅ C	∅ D^{H7}	E	F
50 kg + 100 kg	**U1R/200KG/ZGW** (2x)	133 ... 154	109 ... 130	24	8	12	9
200 kg; 500 kg; 1 t	**U2A/1T/ZGUW** (2x)	190 ... 203	158 ... 171	32	12	16	12
2 t	**U2A/5T/ZGUW** (2x)	291 ... 320	231 ... 260	60	25	31	22
5 t	**U2A/5T/ZGUW** (2x)	314 ... 320	260 ... 266	60	25	31	22

Hottinger Baldwin Messtechnik GmbH

Im Tiefen See 45, D-64293 Darmstadt, Germany
Tel.: +49 6151 803−0 Fax: +49 6151 8039100
Email: support@hbm.com Internet: www.hbm.com