Type RC3 Load Cell

称重传感器

IP 68

FM APPROVED

Important Features

- Capacities: 7,5 t to 300 t.
- High accuracy.
- Total stainless steel construction or alloy steel construction.
- Complete hermetic sealing.
- Protection IP 68.
- High input resistance: 1100 Ω.
- W&M certified for 4000 intervals.(PTB: D09-99.09 Rev. 2)
- Calibration in mV/V/Ω.
- Factory Mutual approved.

主要特点

- 量程：7.5t ~ 300t
- 高精度
- 不锈钢结构或合金钢结构
- 全金属焊接密封
- 防护等级(IP68)
- 输入电阻高：1100 Ω，替换性好
- W&M认证， 4000分度。
  (PTB: D09-99.09 Rev. 2)
- 数字标定，标定精度0.05%
- OIML、NTEP、CE、FM、Ex认证

Options

- Explosion protection zone 0, 1, 2 and 20, 21, 22 ATEX.
- Integrated surge arrestors (4x).
- High temperature 200℃ or 250℃

选项

- 防爆保护区域0，1，2 和20，21，22ATEX
- 完整的浪涌保护器 (4x).
- 高温：200℃或250℃可选

选型

RC3/-HT	-量程	-防爆（**EX**）	-高温（**HT**）

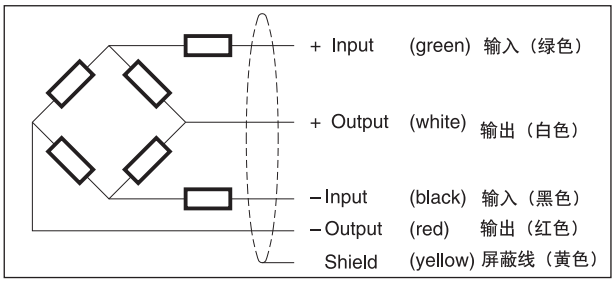
RC3 Specifications 技术参数

Maximum capacity 量程（Emax)	t	7.5/15/22.5/30/40/50/100/150/300	7.5/15/22.5/30/40/50			
Rated Output 输出灵敏度（Cn）	mV/V	2 ± 0.1%				
Calibration in mV/V/Ω 数字标定精度	%Cn	⩽ ± 0.05 (⩽ ± 0.005)				
Accuracy class according to OIML R 60 精度等级		(GP)	C1	C3	C4	C3 MI 8
Maximum number of verification intervals 最大检定分度数(Nmax)		n.a.	1000	3000	4000	3000
Minimum load cell verification interval 最小检定分度(Vmin)		n.a.	Emax/5000	Emax/15000		
Combined error 综合误差	%Cn	⩽ ± 0.040	⩽ ± 0.030	⩽ ± 0.020	⩽ ± 0.018	⩽ ± 0.015
Creep error (30 minutes)/DR 蠕变	%Cn	⩽ ± 0.060	⩽ ± 0.049	⩽ ± 0.016	⩽ ± 0.012	⩽ ± 0.006
Temperature effect on minimum dead load output 零点温度系数	%Cn/℃	⩽ ± 0.0040	⩽ ± 0.0028	⩽ ± 0.0009	⩽ ± 0.0009	⩽ ± 0.0009
Temperature effect on sensitivity 灵敏度温度系数	%/℃	⩽ ± 0.0020	⩽ ± 0.0015	⩽ ± 0.0010	⩽ ± 0.0008	⩽ ± 0.0010
Excitation voltage 激励电压	V	5…15				
Zero balance 零点平衡	%Cn	⩽ ± 5				
Input resistance 输入电阻	Ω	1150 ± 50				
Output resistance 输出电阻	Ω	1000 ± 2				
Insulation resistance 绝缘电阻	MΩ	⩾ 5000				
Compensated temperature range 补偿温度范围	℃	-10…+40				
Operating temperature range 工作温度范围	℃	-40…+80				
Safe load limit 安全载荷限制	%Emax	200				
Ultimate load 极限载荷	%Emax	300				
Load cell material 材料		stainless steel 17-4 PH (1.4548) 不锈钢				
Sealing 密封		complete hermetic sealing; 全金属焊接密封				
Protection according DIN 40.050 防护等级		IP 68				

Wiring

- The load cell is provided with a shielded, 4 conductor cable (AWG 24 for 7.5 to 22.5 t / AWG 20 for 30 to 300 t)..Cable jacket polyurethane.
- Cable length: 12 m for 7.5 to 22.5 t, 18 m for 30 to 300 t.
- Cable diameter: 5 mm for 7.5 to 22.5 t, 7.8 mm for 30 to 300 t.
- The shield is floating (On request the shield can be connected to the load cell body).

接线图



连线

- 称重传感器带屏蔽线，4线制电缆（AWG 24 对于7.5 到 22.5 t / AWG 20 对于 30 到 300 t）
- 电缆长度：对于7.5到22.5 t为12m,对于 30 到300t为18m
- 电缆直径为：对于7.5到22.5 t为5mm，对于30到300 t为7.8mm
- 屏蔽线悬浮(如果要求，屏蔽可与称重传感器本体相连)
- 高温型为高温电缆

RC3-HT Specifications 高温传感器技术参数

Accuracy class 精度等级		GP
Maximum capacity 量程	t	30/50/100/150/200/300
Rated output 输出灵敏度（Cn）	mV/V	2.1 ± 0.2%
Calibration in mV/V/Ω 无砝码标定精度	%Cn	⩽ ± 0.3
Zero balance 零点平衡	%Cn	⩽ 1.0
Combined error 综合误差	%Cn	⩽ ± 0.1
Creep error(30min.)/DR蠕变	%Cn	⩽ ± 0.05
Temperature effect on minimum dead load output 零点温度系数	%Cn/10℃	(0℃…+100℃) ⩽ ± 0.04/(+100℃...+200℃) ⩽ ± 0.06
Temperature effect on sensitivity 灵敏度温度系数	%Cn/10℃	(0℃…+100℃) ⩽ ± 0.02/(+100℃...+200℃) ⩽ ± 0.03
compensated Temperature range 补偿温度范围	℃	0 to +200
Operating Temperature range 工作温度范围	℃	0 to +250
Maximum safe static overload 安全过载(central loading)	%Cn	150
Ultimate static overload 极限过载(central loading)	%Cn	300
Excitation, recommended 推荐激励电压	VDC or VAC rms	10
Excitation, maximum 最大激励电压	VDC or VAC rms	15
Input impedance 输入电阻	Ω	350 ± 10
Output impedance 输出电阻	Ω	350 ± 3
Insulation resistance 绝缘电阻	MΩ	⩾ 5000
Cable length 电缆长度	M	12
Color code 连线方式		+Exc.: GREEN（绿） +Sense: BLUE（蓝） +Sig.: WHITE（白） -Exc.: BLACK（黑） -Sense: BROWN（棕色） -Sig.: RED（红）
Construction 连接电缆		6-wire, 18AWG, high-temp insulated braid shielded, 5.5mm overall diameter 高温绝缘电缆 6线制
Environmental protection 防护等级		IP 68
Load cell material 材料		stainless steel 17-4 PH (1.4548) 不锈钢 /alloy steel 合金钢

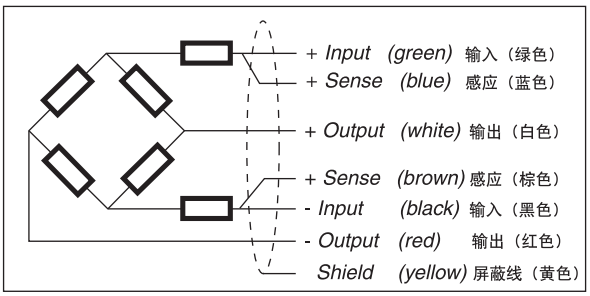
Wiring

- The load cell is provided with a shielded, 6 conductor cable (AWG 20 for 30 to 300 t)..Cable jacket polyurethane.
- Cable length: 18 m for 30 to 300 t.
- Cable diameter: 7.8 mm for 30 to 300 t.
- The shield is floating (On request the shield can be connected to the load cell body).

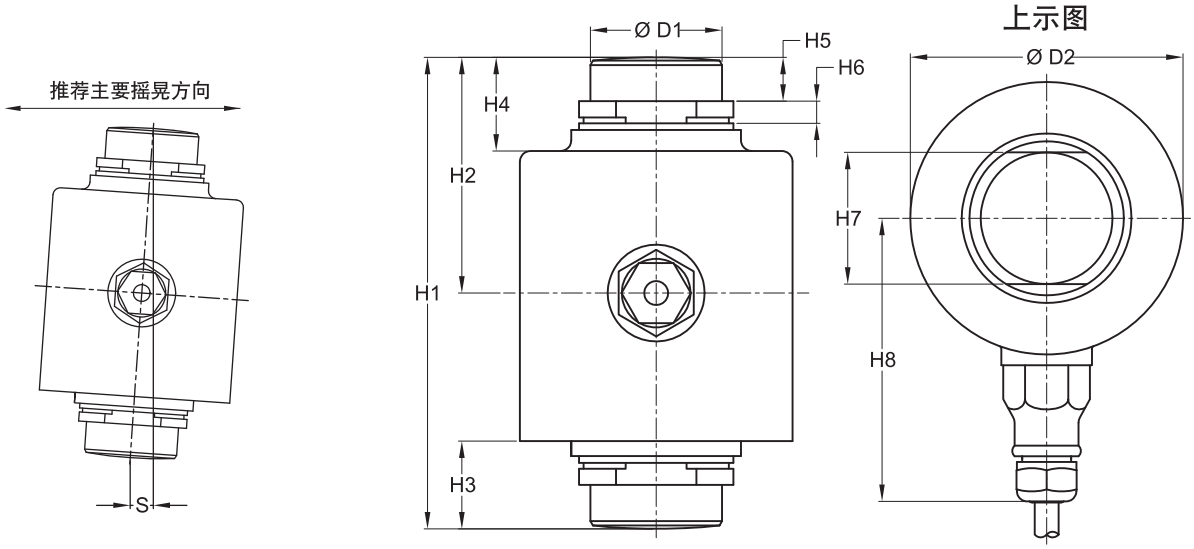
连线

- 称重传感器带屏蔽线，6线制电缆（AWG 20 对于 30 到 300 t）
- 电缆长度：对于 30 到300t为18m
- 电缆直径为：对于30到300 t为7.8mm
- 屏蔽线悬浮(如果要求，屏蔽可与称重传感器本体相连)

接线图



Dimensions 尺寸



Type 型号	H1	H2	H3	H4	H5	H6	H7	H8	D1	D2	Smax*	RF**
RC3-7.5t	89	44	17	23	11	6	28	75	28	65	8	11kN
RC3-15t	89	44	17	23	11	6	28	75	28	65	7	20kN
RC3-22.5t	89	44	17	23	11	6	28	75	28	65	4.5	30kN
RC3-30t	140	70	26	28	13	6.5	39	84	39	81	10.5	34kN
RC3-40t	150	75	31	33	13	11.7	39	84	39	81	10	37kN
RC3-50t	178	89	32	34	17	8.5	44	94	44	99	9	51kN
RC3-100t	178	87	34.2	36	17	12	62	90	62	120	11.5	152kN
RC3-150t	210	101.4	40.4	38.6	20.6	12.8	76.2	109	76.2	160	14.5	240kN
RC3-300t	280	143.4	53.4	51.6	25	21.5	100	119	100	180	15	468kN

*** Smax=maximum lateral displacement of load introduction. Recommended gap 2...3 mm for 7.5...22.5 t, 3...5 mm for 30...300 t.**

*** Smax=最大侧向偏移量。对于75…22.5t推荐为2…3mm,对于30…300t推荐为3...5 mm。**

**** RF =restoring force at Smax and Emax.**

**** RF=在Smax和Emax之间的复位力。**

All dimensions in mm. 所有尺寸单位为mm.