



Sauter GmbH

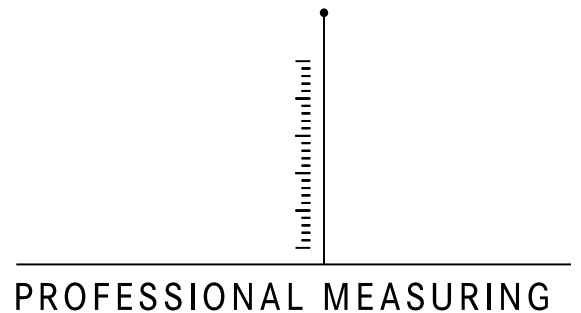
Ziegelei 1
D-72336 Balingen
E-Mail: info@kern-sohn.com

Tel.: +49-[0]7433-9933-0
Fax: +49-[0]7433-9933-149
Internet: www.sauter.eu

Instruction Manual / Data sheet

CR Q1

V. 1.0
12/2018
GB



CR Q1-BA-e-1810



SAUTER CR Q1

V. 1.0 12/2018

Instruction Manual / Data sheet

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1 Short description

- Stainless steel IP68 (acc. To EN 60529) compression load cell with low profile
- Suitable for mass and force Measuring
- RoHS conform
- Suitable for vehicle and hopper scales and vehicle testing facilities, test stands, etc.
- Built in surge arrestors
- Accuracy C1 OIML R60
- OIML certificated (up to 10t)

2 Available models

| Capacity | Model |
|--------------|--------------|
| 2,5t (≈25kN) | CR 2500-1Q1 |
| 5t (≈50kN) | CR 5000-1Q1 |
| 10t (≈100kN) | CR 10000-1Q1 |
| 20t (≈200kN) | CR 20000-1Q1 |
| 30t (≈300kN) | CR 30000-1Q1 |

3 Introduction

Please pay attention to the notes of the operating manual: read these operating manual carefully before commissioning, even if you already have experience with SAUTER measuring cells.

After receiving the measuring cell, it should be checked in advance whether no transport damage has occurred, whether the outer packaging or other parts or even the article itself has been damaged. If any damage is evident, please inform SAUTER GmbH immediately.

4 Warning notes

Observe the national accident prevention regulations.

Not correct executed use of the measuring cell can lead to serious injuries, death, material damage and personal injuries. Use only by trained and experienced people. Never load more than the max. capacity to a measuring cell. Overloaded measuring cells no longer have the required accuracy. Overloaded or deformed measuring cells are no longer allowed to use and must be changed quickly.

Never step under suspended loads.

Always fasten overload- or break security to your construction.

Pay attention to the allowed static and dynamic loads of the used equipment.

Let the measuring cells calibrate at regular intervals.

Only load the measuring cell in its specified load direction. Avoid lateral forces.

Control the measuring cells to deformations and cracks.

Measuring cells with 4-Conductor cable will change their characteristic value when shortened or extended the cable length.

5 Warranty

The warranty expires at:

CR Q1-BA-e-1810

- Disregard of the specifications of the operating manual
- Modification or opening the measuring cell
- Overload
- Mechanical damages
- Damage caused by liquids or media
- Natural loss
- Not correct installation

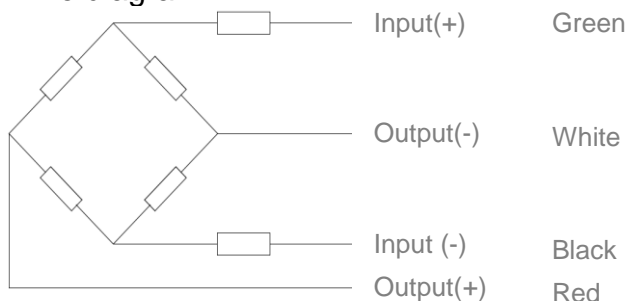
6 Detailed specifications

| | | |
|--|-----------------|--------------------|
| Output sensitivity (FS) | mV/V | 2.0 ± 0.002 |
| Maximum capacity (Emax) | t | 2,5; 5; 10; 20; 30 |
| Max.number of load cell intervals | nLC | 1000 |
| Ratio of min. LC verification interval | Y = Emax / vmin | 10000 |
| Combined Error | %FS | ≤± 0.05 |
| Minimum dead load | Of Emax | 0% |
| Safe overload | of Emax | 150 % |
| Ultimate overload | of Emax | 200 % |
| Zero balance | of FS | < ± 2.0 % |
| Excitation, recommended voltage | V | 10 ~ 15 |
| Input resistance | Ω | 800 ± 30 |
| Output resistance | Ω | 700 ± 5 |
| Insulation resistance | MΩ | ≥5000 (at 50VDC) |
| Compensated temperature | °C | -10 ~+40 |
| Operating temperature | °C | -50 ~ +70 |

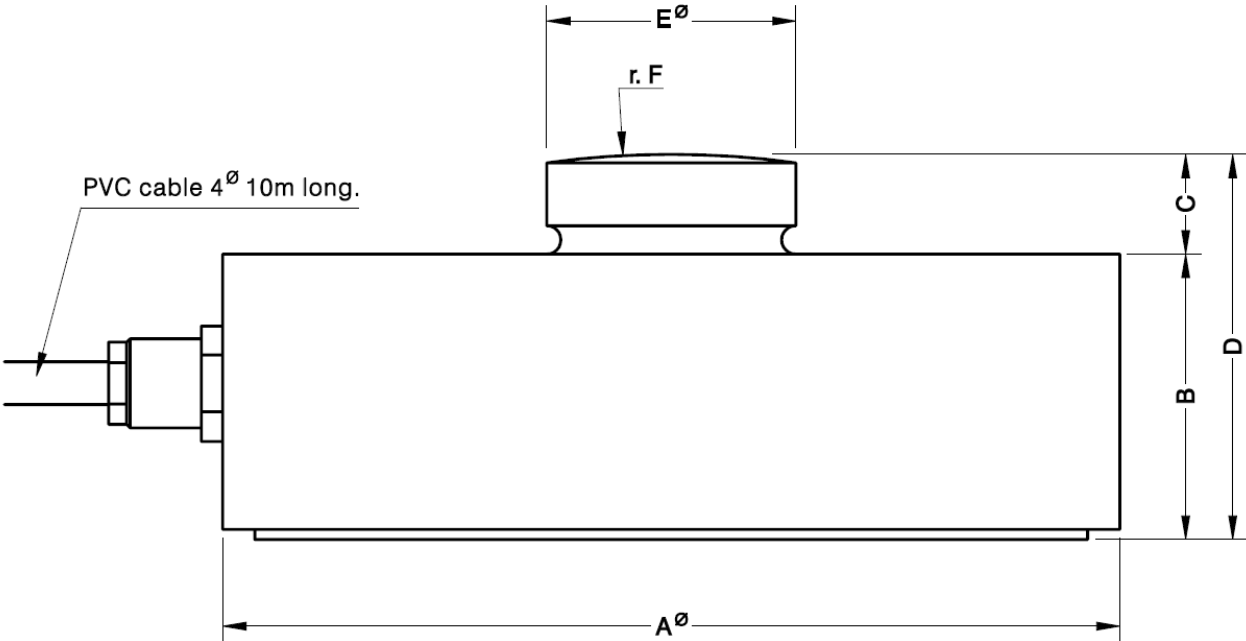
7 Wiring

Shielded, 4 conductor cable. Cable diameter: Ø4mm. Standard cable length: 10m.
Shield not connected to element

4-wire diagram



8 Dimensions in mm



| Dimension Capacity | $A\varnothing$ | B | C | D | $E\varnothing$ | r.F |
|---|----------------|----|----|----|----------------|-----|
| 2,5-10t ($\approx 25 - 100\text{kN}$) | 82 | 32 | 12 | 44 | 22 | 130 |
| 20-30t ($\approx 200 - 300\text{kN}$) | 126 | 40 | 14 | 54 | 35 | 200 |

9 Certificate of Compliance

The Certificate of Compliance can be downloaded from the website www.sauter.eu