



Sauter GmbH

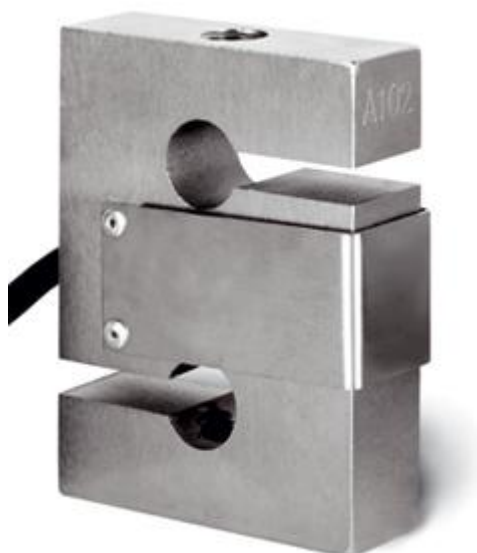
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Instruction Manual / Data sheet

CS Q1

V. 1.0
12/2018
GB



PROFESSIONAL MEASURING

CS Q1-BA-e-1810



SAUTER CS Q1

V. 1.0 12/2018

Instruction Manual / Data sheet

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1 Short description

- 6-wire connection: 2 additional wires to maintain a constant voltage supply at the load cell when used with proper instrumentation. Use specially when long wires and wide temperature range
- Nickel plated alloy steel IP67 (acc. to EN 60529) "S" type load cell
- Force measuring compatible
- Tension and compression applications
- RoHS conform
- Suitable for hanging, hopper and other weighing devices
- Suitable for testing facilities and test stands
- Accuracy OIML R60 C3

2 Available models

Capacity	Model
50kg ($\approx 500\text{N}$)	CS 50-3Q1
100kg ($\approx 1\text{kN}$)	CS 100-3Q1
150kg ($\approx 1,5\text{kN}$)	CS 150-3Q1
200kg ($\approx 2\text{kN}$)	CS 200-3Q1
300kg ($\approx 3\text{kN}$)	CS 300-3Q1
500kg ($\approx 5\text{kN}$)	CS 500-3Q1
750kg ($\approx 7,5\text{kN}$)	CS 750-3Q1
1t ($\approx 10\text{kN}$)	CS 1000-3Q1
1.5t ($\approx 15\text{kN}$)	CS 1500-3Q1
2t ($\approx 20\text{kN}$)	CS 2000-3Q1
3t ($\approx 30\text{kN}$)	CS 3000-3Q1
5t ($\approx 50\text{kN}$)	CS 5000-3Q1
6t ($\approx 60\text{kN}$)	CS 6000-3Q1

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:

- 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

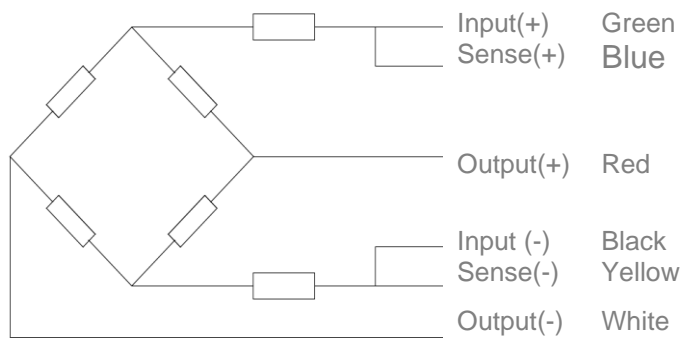
6 Detailed specifications

Output sensitivity (FS)	mV/V	2.0 ± 0.1
Maximum capacity (Emax)	kg	50, 100, 150, 200, 300, 500, 750, 1000, 1500, 2000, 3000, 5000, 6000
Max.number of load cell intervals	nLC	3000
Ratio of min. LC verification interval	$Y = E_{max} / v_{min}$	10000
Combined Error	%FS	$\leq \pm 0.017$
Repeatability Error	%FS	$\leq \pm 0.015$
Creep Error (30 min.)	%FS	$\leq \pm 0.016$
Ultimate overload	of Emax	300 %
Zero balance	of FS	$< \pm 2 \%$
Excitation, recommended voltage	V	10 ~ 15
Input resistance	Ω	400 ± 20
Output resistance	Ω	350 ± 3
Insulation resistance	M Ω	≥ 5000 (at 50VDC)
Compensated temperature	°C	-10 ~ +40
Operating temperature	°C	-30 ~ +70
Element material		Nickel plated alloy steel

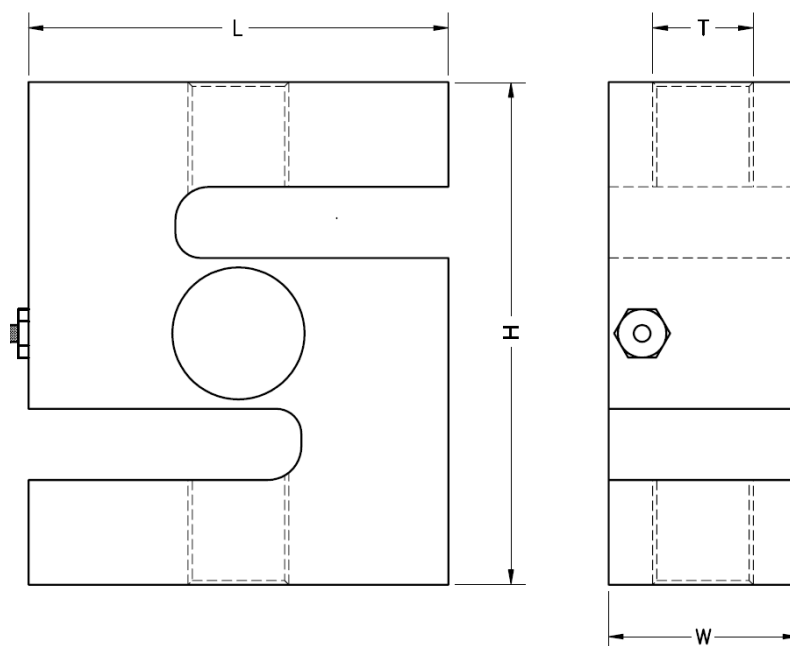
7 Wiring

Shielded, 6 conductor cable. Shield not connected to element.
 Cable diameter: Ø6mm
 Standard cable length: 5m

6-wire diagram



8 Dimensions in mm



Dimension / Capacity	L	H	T	W
50-1000kg	62,1	80	M12x1,75	19
1500-2000kg	70	90	M16x2	32
3000-6000kg	100	120	M24x2	45

9 Certificate of Compliance

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