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Instruction Manual / Data sheet

SAUTER CR P1

V. 1.0
02/2019
GB



PROFESSIONAL MEASURING



SAUTER CR P1

V. 1.0 02/2019

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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 C3 OIML R60

2 Available models

Capacity	Model
60kg (≈600N)	CR 60-3P1
130kg (≈1,3kN)	CR 130-3P1
250kg (≈2,5kN)	CR 250-3P1
500kg (≈5kN)	CR 500-3P1
1000kg (≈10kN)	CR 1000-3P1
2000kg (≈20kN)	CR 2000-3P1

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	1.0 ± 0.01	1.75 ± 0.2	2.0 ± 0.1
Maximum capacity (Emax)	kg	60, 130	250	500, 1000, 2000
Max.number of load cell intervals	nLC	3000		
Ratio of min. LC verification interval	$Y = E_{max} / v_{min}$	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	1260 ±	1100 ± 100	
Output resistance	Ω	1020 ±	1025 ± 25	
Insulation resistance	MΩ	≥5000 (at 50VDC)		
Compensated temperature	°C	-10 ~+40		
Operating temperature	°C	-50 ~ +70		

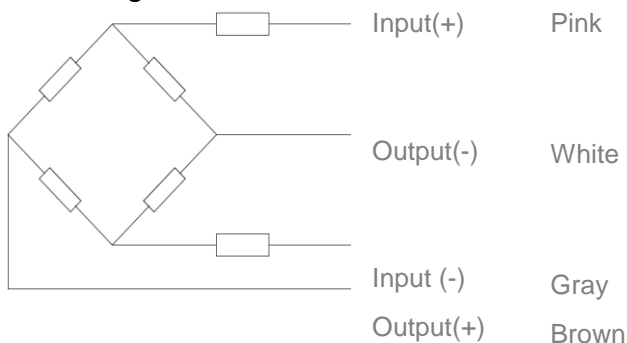
7 Wiring

Shielded, 4 conductor cable. Cable Ø6mm. Shield not connected to element

Standard cable length 60kg...1000kg: 3m.

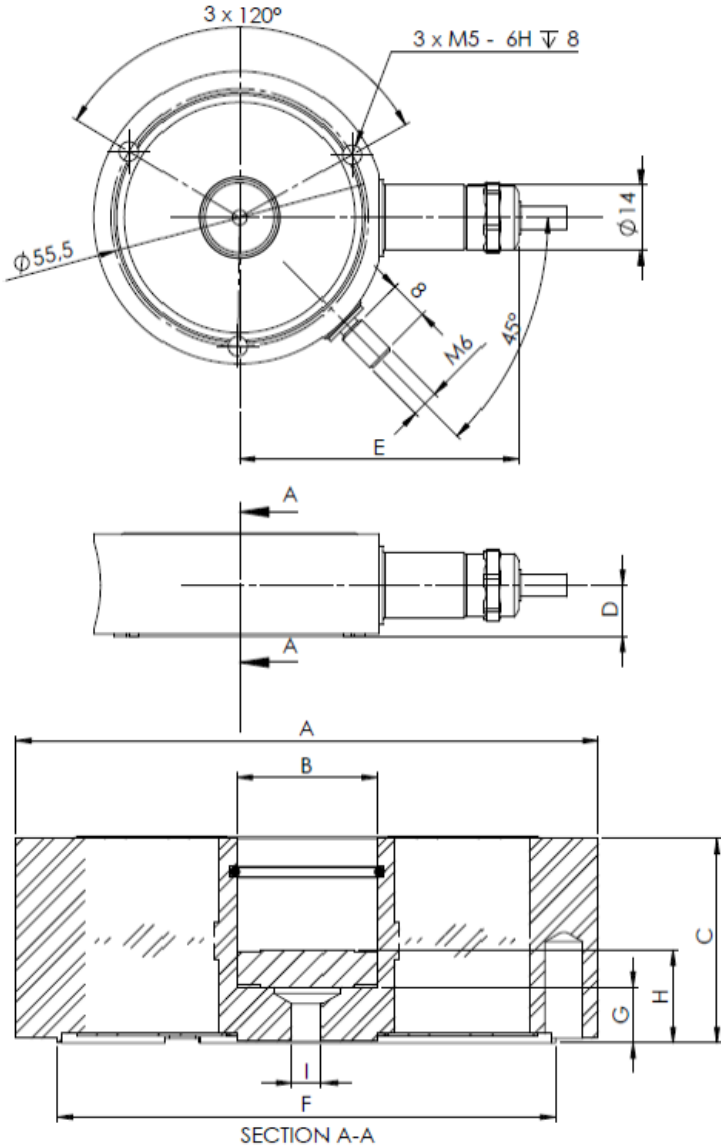
Standard cable length 2000kg: 6m

4-wire diagram



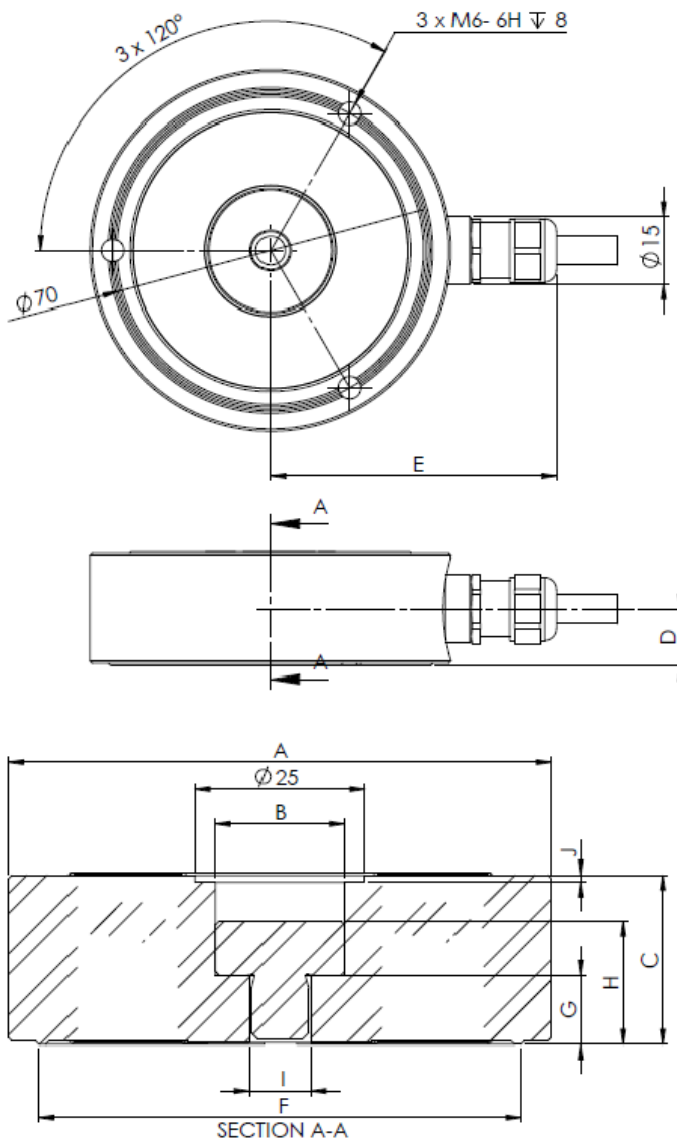
8 Dimesnsions in mm

8.1 60kg, 130kg



ØA	ØB	C	D	E	ØF	G	H	I
63	15.1	22	11	60	54	6	10	Ø3.2

8.2 250kg, 500kg, 1000kg, 2000kg



	ϕ A	ϕ B	C	D	E	ϕ F	G	H	I	J
250kg	80	19	25	12.5	65	71	10	18	M10	1
500kg										
1000kg										
2000kg	80	19	30	12.5	65	71	10	18	ϕ 15	6

9 Certificate of Compliance

To have a look at the CE Declaration of Conformity, please click onto the following link: <https://www.kern-sohn.com/shop/de/Downloads>