MEASURING TECHNOLOGY & TEST SERVICE 2024

Load cells



Load Cells SAUTER CS P1 · CS Q1 · CS P2





mass measurement

Technical data

· RoHS compliant

· Nickel-plated steel

4-wire connection***

4-wire "S" load cells made of

nickel-plated steel for force and

• Accuracy in accordance with OIML R60 C3

· Dust and spray protection to IP67

(in accordance with EN 60529),

welded to create a hermetic seal

• Scope of application: for tensile and

compressive force measurement

· Cable length up to 1500 kg: 3 m Cable length from 2000 kg: 6 m

· Nominal sensitivity: 2 mV/V

· Suitable for handing scales, funnel scales and other weighing devices as well as force

measurement devices and test stands

· Note: EX version and accuracy class C4

CS P1

Fig. shows optional accessories SAUTER CE R20, for further accessories please visit our online shop





Fig. shows optional accessories traction device SAUTER CE Q12, for further accessories please visit our online shop



CS P2 0,5-7,5 t



CS P2 6-wire "S" load cells made of "S" load cells/load cells made nickel-plated steel for force and of stainless steel mass measurement

Technical data

CS Q1

- · Accuracy in accordance with OIML R60 C3
- · RoHS compliant
- · Dust and spray protection to IP67 (in accordance with EN 60529), hermetically encapsulated
- · Nickel-plated steel
- · Scope of application: for tensile and compressive force measurement
- · Suitable for handing scales, funnel scales and other weighing devices as well as force measurement devices and test stands
- 6-wire connection***
- Nominal sensitivity: 2 mV/V
- · Cable length approx. 5 m

Technical data

- Accuracy in accordance with OIML C3
- · RoHS compliant
- · Dust and spray protection to IP68
- · Stainless steel
- Scope of application: Weight measurement as well as force
- · Suitable for handing scales, silo scales, force test stands and other diverse scales
- 4-wire connection***
- · Nominal sensitivity: 2 mV/V
- · Cable length approx. 6 m

STANDARD

Model



on request





| DAY | +3 DAYS | | +4 DAYS | |
|-----|---------|---|---------|--------|
| | * | | ** | |
| | 1 | V | omina | l load |

| STANDARD | | | | |
|----------|-------|--|--|--|
| 444 | | | | |
| IP 67 | 1 DAY | | | |



| IP 67 | 1 DAY | Ė | +3 DATS | +4 DAYS | |
|-------|-------|---|---------|---------|--------|
| Model | | | 1 | Nomina | l load |

| STANDARD | | OPTION | | | | |
|----------|-------|--------|--|---------|--|---------|
| | 444 | | | DAkkS | | ISO |
| | IP 68 | 1 DAY | | +3 DAYS | | +4 DAYS |

SAUTER

| CS 25-3P1 | 25 kg/250 N | |
|--------------|---------------|--|
| CS 50-3P1 | 50 kg/500 N | |
| CS 100-3P1 | 100 kg/1 kN | |
| CS 150-3P1 | 150 kg/1,5 kN | |
| CS 250-3P1 | 250 kg/2,5 kN | |
| CS 500-3P1 | 500 kg/5 kN | |
| CS 600-3P1 | 600 kg/6 kN | |
| CS 750-3P1 | 750 kg/7,5 kN | |
| CS 1000-3P1 | 1 t/10 kN | |
| CS 1500-3P1 | 1.5 t/15 kN | |
| CS 2000-3P1 | 2 t/20 kN | |
| CS 2500-3P1 | 2.5 t/25 kN | |
| CS 5000-3P1 | 5 t/50 kN | |
| CS 7500-3P1 | 7.5 t/75 kN | |
| CS 10000-3P1 | 10 t/100 kN | |
| CS 15000-3P1 | 15 t/150 kN | |
| CS 20000-3P1 | 20 t/200 kN | |
| CS 30000-3P1 | 30 t/300 kN | |
| | | |

^{*} up to max. 500 kg/5 kN, up to max. 25 t/250 kN

SAUTER

| CS 50-3Q1 | 50 kg/500 N | |
|-------------|---------------|--|
| CS 100-3Q1 | 100 kg/1 kN | |
| CS 150-3Q1 | 150 kg/1,5 kN | |
| CS 200-3Q1 | 200 kg/2 kN | |
| CS 300-3Q1 | 300 kg/3 kN | |
| CS 500-3Q1 | 500 kg/5 kN | |
| CS 750-3Q1 | 750 kg/7,5 kN | |
| CS 1000-3Q1 | 1 t/10 kN | |
| CS 1500-3Q1 | 1.5 t/15 kN | |
| CS 2000-3Q1 | 2 t/20 kN | |
| CS 3000-3Q1 | 3 t/30 kN | |
| CS 5000-3Q1 | 5 t/50 kN | |
| CS 6000-3Q1 | 6 t/60 kN | |
| | | |

^{*} up to max. 500 kg/5 kN,

SAUTER

| CS 50-3P2 | 50 kg/500 N | |
|-------------|---------------|--|
| CS 100-3P2 | 100 kg/1 kN | |
| CS 250-3P2 | 250 kg/2,5 kN | |
| CS 500-3P2 | 500 kg/5 kN | |
| CS 1000-3P2 | 1 t / 10 kN | |
| CS 2000-3P2 | 2 t/20 kN | |
| CS 5000-3P2 | 5 t/50 kN | |
| CS 7500-3P2 | 7.5 t/75 kN | |
| | | |

^{*} up to max. 500 kg/5 kN



^{**} up to max. 12 t/120 kN

[■] ONLY WHILE STOCKS LAST!

^{***} With 6-wire measuring circuits, the cable can be shortened without affecting the temperature compensation and the actual characteristic value. For 4-wire measuring circuits the cable length should not be changed

MEASURING TECHNOLOGY & TEST SERVICE 2024

SAUTER Pictograms



Conformity assessment

Models with type approval

DAkkS calibration

The time required for

DAkkS calibration is shown

Factory calibration (ISO)

The time required for factory

calibration is specified in

Package shipment

The time required for

internal shipping prepara-

tions is shown in days in

the pictogram

the pictogram

the pictogram

Pallet shipment

The time required for

internal shipping prepara-

tions is shown in days in

in days in the pictogram

for construction of verifiable

M

DAkkS

+3 DAYS

ISO

1 DAY

systems

possible



Adjusting program (CAL) For quick setting of the

instrument's accuracy. External adjusting weight required



Calibration block

Standard for adjusting or correcting the measuring



Peak hold function

Capturing a peak value within a measuring process



Scan mode

Continuous capture and display of measurements



Push and Pull

The measuring device can capture tension and compression forces



Length measurement

Captures the geometric dimensions of a test object or the movement during a test process



Focus function

Increases the measuring accuracy of a device within a defined measuring range



Internal memory

To save measurements in the device memory



Data interface RS-232

Bidirectional, for connection of printer and PC



Profibus

For transmitting data, e.g. between scales, measuring cells, controllers and peripheral devices over long distances. Suitable for safe, fast, fault-tolerant data transmission. Less susceptible to magnetic interference



Profinet

Enables efficient data exchange between de-centralised peripheral devices (balances, measuring cells, measuring instruments etc.) and a control unit (controller). Especially advantageous when exchanging complex measured values, device, diagnostic and process information. Savings potential through shorter commissioning times and device integration possible



Data interface USB

To connect the measuring instrument to a printer, PC or other peripheral devices



Bluetooth* data interface

To transfer data from the balance/measuring instrument to a printer, PC or other peripherals



WIFI data interface

To transfer data from the balance/measuring instrument to a printer, PC or other peripherals



Data interface infrared

To transfer data from the measuring instrument to a printer, PC or other peripheral devices



Control outputs (optocoupler, digital I/O) To connect relays, signal

lamps, valves, etc.



Analogue interface

To connect a suitable peripheral device for analogue processing of the measurements



Analogue output

For output of an electrical signal depending on the load (e.g. voltage 0 V - 10 V or current 4 mA - 20 mA)



Statistics

Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.



PC Software

To transfer the measurement data from the device to a PC



Printer

A printer can be connected to the device to print out the measurement data



Network interface

For connecting the scale/ measuring instrument to an Ethernet network



KERN Communication Protocol (KCP)

It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems



GLP/ISO record keeping

of measurement data with date, time and serial number. Only with SAUTER printers



Measuring units

Weighing units can be switched to e.g. non-metric. Please refer to website for more details



⊙ 30

Measuring with tolerance range

(limit-setting function) Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model



Protection against dust and water splashes IPxx

The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989 +A1:1999+A2:2013



ZERO

Resets the display to "0"



Battery operation Ready for battery operation. The battery type is specified for each device



Rechargeable battery pack

Rechargeable set



Plug-in power supply 230V/50Hz in standard

version for EU. On request GB, AUS or US version available



Integrated power supply unit

Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or US on request



Motorised drive

The mechanical movement is carried out by a electric motor



Motorised drive

The mechanical movement is carried out by a synchronous motor (stepper)



Fast-Move

The total length of travel can be covered by a single lever movement



